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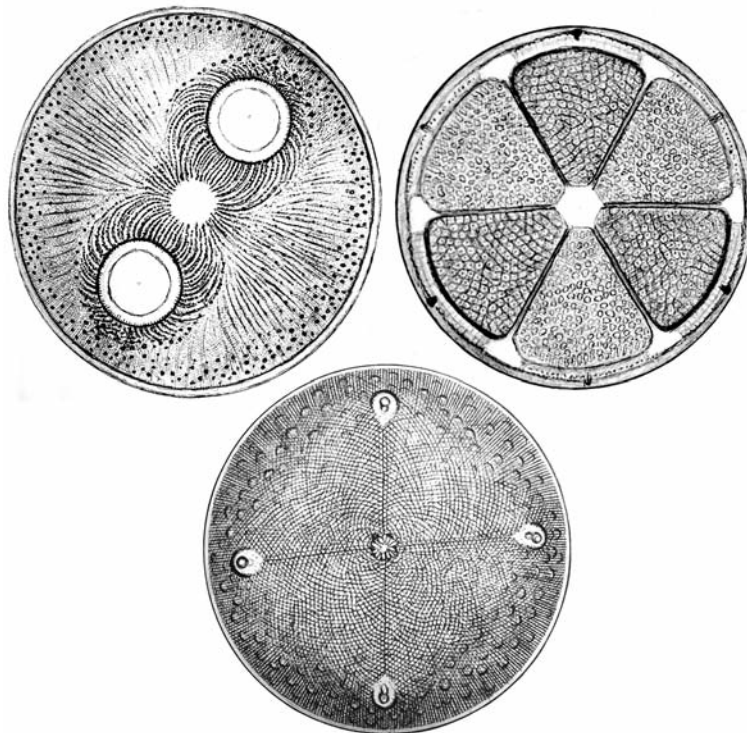
February 12, 2009

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CATALOGUE OF  
DIATOM NAMES

PART II: *ABAS* THROUGH *BRUNIOPSIS*



Elisabeth Fourtanier and J. Patrick Kociolek



CALIFORNIA  
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### Cover images

From Schmidt's *Atlas Diatomaceenkunde* (1890–1891)

- (Upper left) Plate 149, fig. 1: *Auliscus pruinosis* var. *robusta* Grunow
- (Upper right) Plate 155, fig. 2: *Actinoptychus notabilis* Brun
- (Bottom center) Plate 161, fig. 2: *Aulacodiscus squamosus* Brun



# *Catalogue of Diatom Names*

## *Part II: Abas through Bruniopsis*

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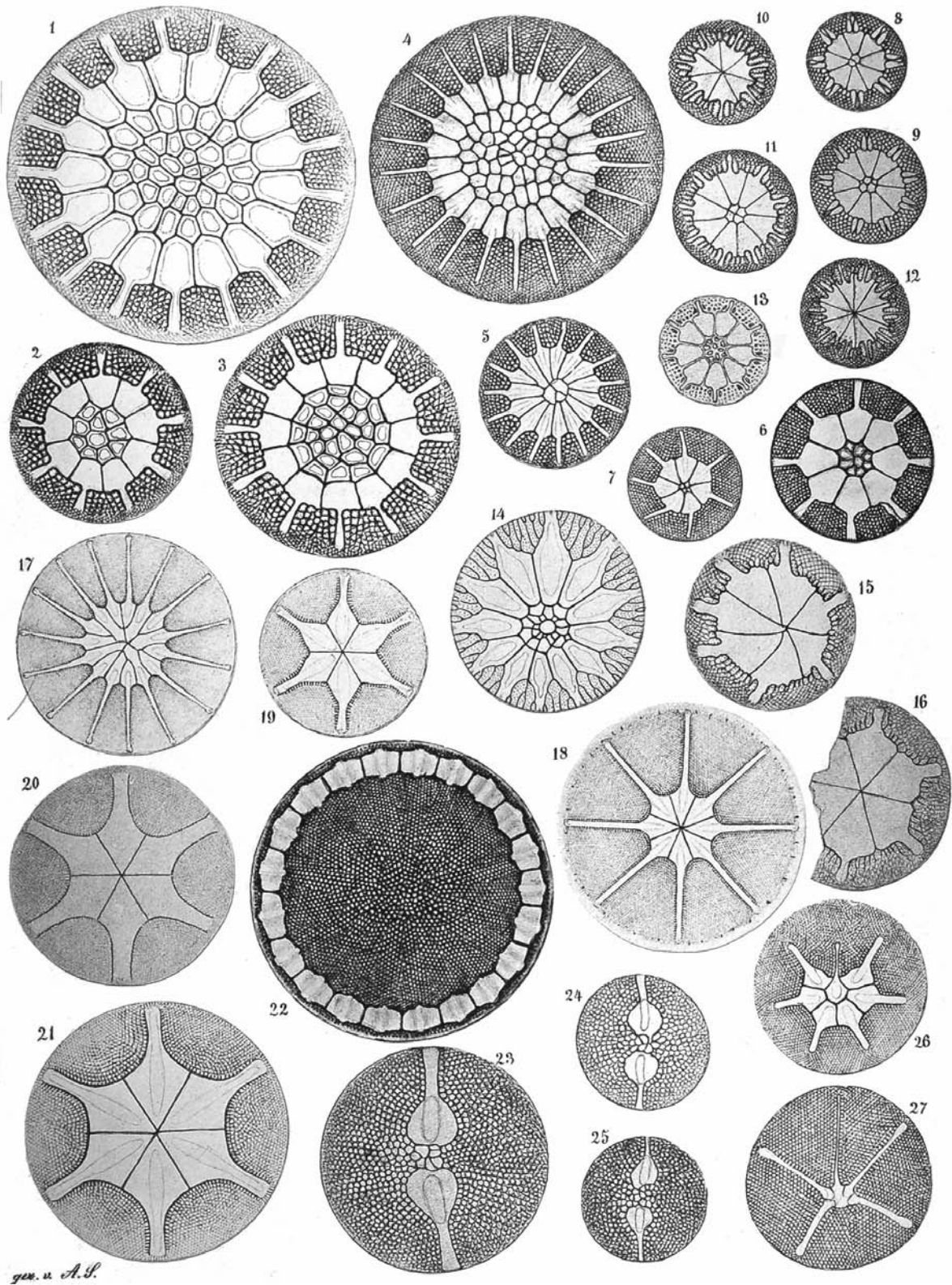
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From Schmidt's *Atlas Diatomaceenkunde* (1889)

Plate 137. Depicting species of *Asterolampa* (*insignis* [1-7], *rylandsiana* [8-9], *vulgaris* [10?, 11-12], *aemulans* [13], *ralfsiana* [14], *brightwelliana* [15], *concinna* [16], *affinis* [17], *dallasiana* [18], *marylandica* [19-21], and *marginata* [22]), *Asteromphalus* (*shadboltianus* [26], and *arachne* [27]), and *Rylandsia biradiata* [23-25].

# Catalogue of Diatom Names

## Part II: *Abas* through *Bruniopsis*

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### INTRODUCTION

Following Part I (Bibliography) of the “Catalogue of Diatom Names”, with this volume we begin with the entries of diatom names, arranged alphabetically by genus. This volume (Part II) includes taxa names published in the genera *Abas* through *Bruniopsis*. Details on the making of this *Catalogue* can be found in the Introduction to Part I. The *International Code of Botanical Nomenclature* (ICBN) cited in this volume is the “Saint Louis Code” (Greuter et al. 2000).

Each taxon entry includes the following information:

#### SCIENTIFIC NAME (BINOMIAL OR TRINOMIAL)

Names of diatoms at genus, species, and infraspecific ranks are included. Basic information for each genus (author, date and place of publication, generitype) is given. This index does not include names above the rank of genus (e.g. family), and of ranks between genus and species (e.g. subgenus, section). Most of those have been recorded in the “*Index Nominum Algarum*” (INA) (see <<http://ucjeps.berkeley.edu/INA.html>>).

Names of taxa below the rank of species are treated as trinomials in accordance to Art. 24.1 of the ICBN, which states “The name of an infraspecific taxon is a combination of the name of a species and an infraspecific epithet. A connecting term is used to denote the rank”.

The ICBN offers the following example (Art. 24.1, Ex. 1): “*Saxifraga aizoon* subf. *surculosa* Engl. & Irmsch. This taxon may also be referred to as *Saxifraga aizoon* var. *aizoon* subvar. *brevifolia* f. *multicaulis* subf. *surculosa* Engl. & Irmsch.; in this way a full classification of the subforma within the species is given.”

[ICBN Art. 22.4, Note 2. “Names of infraspecific taxa within the same species, **even if they differ in rank** are homonyms if they have the same epithet but are based on different types. (see also Art. 53.4)”].

If a name has been originally published as quadrimomial, we present it as trinomial but show between parentheses its original form which describes its classification.

Examples in diatoms:

- *Achnanthes clevei* f. *rostrata* Hustedt 1945 (published as *Achnanthes clevei* var. *balcanica* f. *rostrata*) is a later homonym of *Achnanthes clevei* var. *rostrata* Hustedt 1930 because they do not share the same type.
- *Achnanthes lanceolata* var. *rostrata* (Østrup) Hustedt 1930 based on *Achnanthes rostrata* Østrup 1902 is a later homonym of *Achnanthes lanceolata* var. *rostrata* Hustedt 1911, but *Achnanthes lanceolata* var. *apiculata* Patrick 1945 is not homonymous with *Achnanthes lanceolata* ssp. *apiculata* (Patrick) Lange-Bertalot 1993 because they share the same type.

**Sensu:** About 90 “*sensu*” (as interpreted by) are listed in this volume. These records have as their origin the *Catalogue* of VanLandingham (VLC). Many of them are misapplied names, according to a published opinion, for taxa that may or may not have been later described with a different name. Most of these “*sensu*” are generally misapplication of a name without exclusion of the original type, and therefore should be disregarded. On the other hand, there is a possibility for a “*sensu*” name to be valid, that is when an author adopts an existing name, but definitely excludes its original type. In this case, a later homonym that must be attributed solely to that author is considered to have been published (see ICBN Art. 48). It seems that such names were generally treated correctly by VanLandingham and not labeled as “*sensu*”.

**Emendavit** is a notation that has sometimes been included in the ANSP (Academy of Natural Sciences, Philadelphia) New Species File. This notation applies to names of taxa for which a considerable alteration of the original circumscription or diagnostic characters had occurred, without the exclusion of the type (see ICBN Art. 47). Emendavit are not included in this index because they do not result in the publication of new names.

## AUTHORSHIP

The authorship is cited in accordance with ICBN Art. 46-50. When authorship of a name differs from authorship of the publication in which the name was published, both are cited, connected by “in”. “Ex”, inserted between author A and author B, indicates that the name only is attributed to author A, and the validating description is attributed to author B.

In the case of homonym species with infraspecific taxa, in order to avoid confusion and assure proper sorting, the author of the nominal species name is cited between the species epithet and the term denoting the infraspecific rank. This approach, to avoid confusion, is occasionally found throughout the diatom literature. An example where the authors' name has been applied to both species and infraspecific rank is:

*Achnanthes dispar* Cleve 1891 into which several varieties and forms are described, is to be distinguished from *Achnanthes dispar* Mann 1907: *Achnanthes dispar* Cleve var. *angulata* Hustedt 1930.

## DATE OF PUBLICATION

The date of publication is the date on which the publication became available (see ICBN Art. 29-31). We provide here the year of publication (to the best of our knowledge).

## PAGE AND PLATES NUMBER(S)

For names of new taxa, the page cited corresponds usually to the page where the validating description begins; figure citations include all the figures where the new taxon is illustrated. For some records, the pages given are that of the extent of the protologue, or of the extent of the description.

For new combinations, and replaced names (*nomina nova*), citation of just the page(s) where the name is published would suffice; however, for most of the entries originally contributed by VLC and ANSP New Species File, the pages given correspond to the citation of the taxon concerned, and include also references to illustrations. For those we did not change the format of the page citation and also included citation of the illustrations. Entries contributed by INA and CAS (California Academy of Sciences) only cite the page(s) where the conditions for valid publication are fulfilled.

## NAME AS ORIGINALLY PUBLISHED

Names as originally published appear in parenthesis when they differ significantly from the entry in this catalogue. Examples:

1) Rank not expressed:

*Acanthoceras shuttleworthianum* var. *breviarticulatum* Kützing 1862 (as *Acanthoceras shuttleworthianum breviarticulatum*)

2) Orthographic correction:

*Achnantheiopsis joursacensis* (Héribaud) Lange-Bertalot 1997 (*'joursacense'*)

3) Subgenus cited after genus name:

*Achnanthes americana* Cleve 1894 (as *Achnanthes (Heteroneis) americana*)

4) Complex/ambiguous original name form:

*Achnanthes atomus* var. *congolensis* Hustedt 1949 (as *Achnanthes (atomus var.?) congolensis* nov. var. in text and caption, as *Achnanthes atomus* var. *congolensis* on p. 190 (index))

5) Quadri-nomial:

*Achnanthes brevipes* f. *gaussii* Heiden in Heiden & Kolbe 1928 (as *Achnanthes brevipes* var. *intermedia* f. *gaussii*)

## PUBLICATION NUMBER

A unique 6-digit number attached to each reference in the CAS database. In the context of this index, this number serves also to identify a publication in Part I of this Catalogue in the case of multiple publications in a given year by the same author. For each entry there is a unique reference number that corresponds to the publication in which the name was published. It is given between square parentheses: example [ref. 000895]. Other references may be cited in the “comments” part of one entry, those are given between round parentheses: exam-



ple (ref. 001035). Other authors (e.g. Kellogg & Kellogg 2002) have begun to use these publication numbers to help discriminate multiple publications by an author from a single year.

### BASIONYM AND REPLACED SYNONYM

In the case of a new combination, the basionym is the oldest name with the same epithet that applies to the same type. It is usually the oldest nomenclatural synonym, but not always. The basionym is cited with its author(s) and date of publication.

Example:

*Amphora ovalis* (Kützing) Kützing 1844 has for its basionym *Frustulia ovalis* Kützing 1833, which is a new name for *Navicula amphora* Ehrenberg 1832.

In the case of a nomen novum (new name), the replaced synonym is cited as part of the comments.

Unless the basionym or replaced synonym is also in the *Abas-Bruniopsis* section, its complete entry is not to be found in this volume.

### COMMENTS

Remarks on the nomenclatural status of the name such as validity, and notes on illegitimate names are included.

Names are assumed to be legitimate (i.e., in accordance to the rules of the ICBN, see Art. 6.4, 6.5) unless specified otherwise (*illegitimate*). Reasons for illegitimacy are indicated. Most illegitimate names are later homonyms or superfluous names. Later homonyms are designated by “Non” Example: “*Achnanthes arcuata* Cleve-Euler 1939. Non Kützing 1833”, indicating that Cleve-Euler’s name is a later homonym of *Achnanthes arcuata* Kützing 1833). Superfluous names are indicated as such with an explanation (see, for example, *Achnanthes juriljii* VanLandingham 1967).

Names in this catalogue are to be considered valid unless otherwise indicated (*invalid*). Our assessment may be subject to change as rules governing the status of names are subject to change. The rules applied here are those of the Saint-Louis Code (Greuter et al. 2000). The Vienna Code (McNeill et al., 2006) will be taken into consideration for the subsequent volumes of this work. There are no major fundamental differences between the Saint Louis Code and the Vienna Code. The most significant differences that may affect the interpretations made in this catalogue concern typification, and whether an illustration can be accepted as the type (see below).

**Conditions for valid publication** of a name depend also on its date of publication, and whether it applies to a living or fossil taxon. Summarized roughly below are the conditions for valid publication of the name of a diatom taxon at specific and infraspecific ranks (for complete details see Greuter et al. 2000; McNeill et al. 2006). See also Ross (1993, 1994).

#### For all names:

- Name must be effectively published on or after the starting point of the group concerned (1 May 1753 for living diatoms, 31 Dec. 1820 for fossil diatoms).
- The genus name must be valid (Art. 43.1), and the species name must be valid (for infraspecific names).
- The name must be definitely accepted by its author(s) (Art. 34.1).

#### Names of new taxa:

- A description or a reference to a previously published description or diagnosis must be given, but before 1 Jan. 1908, an illustration or a reference to a previously published illustration could replace a description (Art. 42.3, 44.1, 44.2). On or after 1 Jan. 1953, a reference to a previously published description must be full and direct (Art. 32.4, 33.3).
- Language of description: For living diatoms description could be done in any language prior to 1 Jan. 1958; but, on or after that date, a description or diagnosis in Latin must be included (Art. 36.2). For fossil diatoms, description could be done in any language prior to 1 Jan. 1996; on or after that date a description or diagnosis in English or Latin is required (Art. 36.3). Reference to a previously published description is acceptable in place of a description, but it must be full and direct on or after 1 Jan. 1953 (Art. 32.3).
- Illustration: is required for living diatoms starting 1 Jan. 1958 (Art. 39). An illustration is required for fossil diatoms starting 1 Jan. 1912 (Art. 38.1). For fossil diatoms, one of the validation illustrations must be identified as representing the type specimen on or after 1 Jan. 2001 (Art. 38.2).
- Indication of rank is required on or after 1 Jan. 1953 (Art. 35).
- Indication of the type. Starting 1 Jan. 1958, the type must be indicated. Starting in 1 Jan. 1990, the word type or equivalent must be used and the herbarium into which it is deposited must be indicated (Art. 37).

**Validation of names previously invalidly published:**

When the various conditions for valid publication are not simultaneously fulfilled, prior to 1973, the name is validly published when the last condition is fulfilled. However, “a name published on or after 1. Jan. 1973 for which the various conditions for valid publication are not simultaneously fulfilled is not validly published unless a full and direct reference is given to the places where these requirements were previously fulfilled” (see Art. 45).

**New combinations, new names:**

- The basionym or replaced synonym must be valid.
- The final epithet must be definitely associated with the name of the genus or species, or with its abbreviation (Art. 33.1).
- Starting in 1 Jan. 1953, the basionym or replaced synonym must be *clearly indicated* and a full and direct reference given to its author and place of valid publication with page or plate reference and date (Art. 33.3). In this article from the Saint Louis Code it is not explained what is meant by “clearly indicated”. In the Vienna Code, however, the meaning of “clearly indicated” is explained in an example (Ex. 13): a basionym can be indicated by citing its bibliographic reference. Article 33.3 is modified in the Vienna Code with the addition of this statement:
  - “on or after 1 January 2007, a new combination, a new generic name with a basionym, or an avowed substitute is not validly published unless its basionym or replaced synonym is cited.”

The Codes (Vienna Code and previous codes) also allow for some types or error in the citation of the basionym.

It is our conclusion that the status of some of the names subject to Article 33 may need to be revisited. We recommend our readers not to take our assessments for granted and reinterpret the status of new combinations post 1953 that may have incorrectly been assigned as “invalid”.

**Alternate names:**

When two or more names are simultaneously proposed for the same taxon (same type) by the same author (alternative names), none of them is valid on or after 1 Jan. 1953 (Art. 34.2)

**Tautonyms:**

Tautonyms are invalid (Art. 23.4). Example: *Amphora amphora* (Ehrenberg) Pantocsek 1902 based on *Navicula amphora* Ehrenberg 1832 is invalid.

**Infraspecific names:**

Infraspecific names with final epithets such as *typicus*, *originalis*, *genuinus* are invalid unless they include the type of the correct name of the species to which it is assigned (Art. 24.3).

**Indication of type:**

There have been some rewording and clarification between the Saint Louis Code (2000) and the Vienna Code (2006), regarding the subject of typification. The remarks on typification, below, refer to the Vienna Code.

For names published before 1 Jan. 1958, there is no requirement to indicate a type (implied from Art. 37.1).

For names published on or after 1 Jan. 1990 the type must be indicated using the word “typus” or equivalent, and the institution in which the type is conserved must be specified (Art. 37.6, 37.7).

For names published between 1 Jan. 1958 and 31 Dec. 1989, a type needs to be indicated to insure valid publication of the name of a new taxon, but there is no requirements to use the words “typus” or equivalent, or to name the institution where the holotype is deposited. Furthermore, if an author does not explicitly indicate a type, but uses only one element, that one must be accepted as the holotype (see Art. 9.1, Note 1). It is our conclusion that there is potential to question the typification status of some names published between 1958 and 1989, and thus their validity. In addition, there has been some uncertainty as to whether the type could be an illustration. The Vienna Code clarified some issues regarding the acceptability of an illustration as the type. Most of our interpretations in this volume were made prior to the Vienna Code. We recommend that anyone who is interested in the status of a name published between 1958 to 1989, not to take our assessment as “granted”, but rather reinterpret it in light of the protologue of the taxon and the current ICBN.

**Excerpts from the Vienna Code (McNeill et al. 2006):**

Art. 8.1. “The type (holotype, lectotype, or neotype) of a name of a species or infraspecific taxon is either a *single specimen* preserved in one herbarium or other collection or institution, or an *illustration* (but see also

Art. 37.4 and 37.6 for names published on or after 1 January 1958)”

Art. 8.2 defines what is a specimen. According to our interpretation, for diatoms, a specimen could be a sample (single gathering), a dried residue, a wet residue, a slide, or a single valve.

Art. 8.4. “Type specimens of names of taxa must be preserved permanently and may not be living plants or cultures. However, cultures of fungi and algae, if preserved in a metabolically inactive state (e.g. by lyophilization or deep-freezing), are acceptable as types.”

Art. 8.5. “The type, epitypes (Art. 9.7) excepted, of the name of a taxon of *fossil* plants of the rank of species or below is *always a specimen*...”

Art. 37.3. “...For the name of a new species or infraspecific taxon, mention of a single specimen or gathering (Art. 37.2) or illustration (when permitted by Art. 37.4 or 37.5), even when that element is not explicitly designated as type, is acceptable as indication of the type (but see Art. 37.6)”

(Art. 37.6 requires the use of “*typus*” or equivalent to indicate the type after 1 Jan 1990)

Art. 37.3, Note 2. “Mere citation of a locality does not constitute mention of a single specimen or gathering. Concrete reference to some detail relating to the actual type, such as the collector’s name or collecting number or date, is required.”

Art. 37.4: “For the purpose of this article, the type of a name of a new species or infraspecific taxon (fossils excepted: see Art. 8.5) may be an illustration prior to 1 January 2007, on or after that date, the type must be a specimen (except as provided in Art. 37.5).”

Art. 37.5. “For the purpose of this Article, the type of a name of a new species or infraspecific taxon of microscopic algae or microfungi (*fossil excepted*: see Art. 8.5) may be an effectively published illustration if there are technical difficulties of preservation or if it impossible to preserve a specimen that would show the features attributed to the taxon by the author of the name.”

Based on the Vienna Code, this is now our interpretation that illustrations (except for fossil diatoms) are acceptable as type for names published prior to Jan.1, 2007. Wording was more ambiguous in the previous Code, and significantly differed in Art. 37.4 .

Art. 37.4 (Saint Louis Code). “For the purpose of this article, the type of a name of a new species or infraspecific taxon (Fossil excepted: see Art. 8.5) may be an illustration if, and only if, it is impossible to preserve a specimen.”

Based on this article of the Saint Louis Code, we have interpreted a number of names as invalid, while in some cases an illustration could have been admitted as a holotype under the Vienna Code.

In the light of the Vienna Code, we attempted to reevaluate some of our interpretations, however, the situations are often complex, and we could not devote the necessary time to resolve the issue. Once again, we advise the reader to take our evaluations, only as indications, and to reexamine the status of each name as needed on a case by case basis.

The following examples illustrate some of the difficulties in determining if a type is indicated.

*Frustulia spicula* var? *alpina* Amossé, *Revue Algologique*, n<sup>e</sup>lle série, 10(4): 307, pl. 23, fig. 2-6 (1972). No type is explicitly designated and five specimens are illustrated. There are detailed directions on where to find the locality, and indication that there was only one collection. The five valves illustrated are therefore part of the same gathering, and those illustrations could be interpreted as constituting the “type”. Ross & Sims (in *Bacillaria* 1:156. 1978), on the other hand, interpreted that name as invalidly published for lacking a designated type.

*Bogorovia veniamini* Jousé, *Beihefte zur Nova Hedwigia* 45: 351; pl. 4, fig. 1-3 (1974). The only sample indication is “core 5996/8”. Since all three specimens illustrated seem to be from the same sample, that sample can be considered to be the type, and the name valid. The name was considered invalid by Yanagisawa 1995, in *Trans. Proc. Palaeont. Soc. Japan, n. ser.* 177: p. 29, who “validated” it and designated an illustration, “pl. 4, fig. 1” as the “lectotype”. Incidentally, Yanagisawa’s choice would be unacceptable, because the material is fossil.

The detailed work, various interpretations and reinterpretations of the ICBN, and consultations with many colleagues who offered their advice and expertise throughout the course of this project (now nearly 10 years), have all made it likely that the results may contain inconsistencies and errors. For those situations, responsibility falls to us.

## ABBREVIATIONS AND DEFINITIONS

**NOMEN NUDUM:** The term “nomen nudum” (naked name) is not formerly defined in the ICBN, but used in Art. 46 ex. 16, and Rec. 50B. In this catalogue, “nomen nudum” indicates an effectively published name that is invalid because of the lack of a diagnosis. We did not apply the term to names validly published before 1908, with an illustration, but without a diagnosis. We did not apply the term to names that are invalidly published for a reason other than that of the lack of a diagnosis (e.g. lack of designated type). We do not recall seeing the term “Nomen nudum” used in the INA cards. In the INA cards, however, the term “Nomen” is applied to names of new taxa that are published without a description, whether they are validly published or not.

**NOM. PROV.** = Provisional name. See Art. 34.1 (b). A name merely proposed in anticipation of the acceptance of the group concerned, or of a particular circumscription, position, or rank of the group. Provisional names are invalid.

**ISONYM** = Same names, based on the same type, independently published at different times by different authors. Only the earliest of these isonyms has nomenclatural status, the later ones may be disregarded (see Art. 63, note 1).

**PRO. SYN.** = as synonym of (added in the citation of a name invalidly published as a synonym: see Art. 50, recom. 50A). Names published as synonyms are invalid, see Art. 34(c).

p.p. – pro parte (in part)

**ALTERNATE NAME** – A second name proposed simultaneously (in the same publication) for a given taxon

**NOMENCLATRURAL SYNONYM** = homotypic synonym (objective synonym). Synonym based on the same type

**TAXONOMIC SYNONYM** = heterotypic synonym (subjective synonym). Synonyms based on different types (these are taxonomic opinions)

**BINOMIAL** – In the context of this catalogue, a binomial is the name of a species (a binary combination consisting of the name of a genus followed by a single epithet).

**TRINOMIAL** – In the context of this catalogue, a trinomial is the name of an infraspecific taxon, and is the combination of the name of a species and an infraspecific epithet, connected with a term denoting the rank.

Abbreviations:

Fig. Cap. = figure caption

Cit. Err. or Err. cit. = Citation error

ANSP = Academy of Natural Sciences Philadelphia

CAS = California Academy of Sciences

ICBN = International Code of Botanical Nomenclature

INA = Index Nominum Algarum

LT = Lectotype

T = Type

VLC = VanLandingham’s Catalogue

## A FEW STATISTICS

The following statistics are derived from the *Abas-Bruniopsis* volume, and may be a guide to the entire data set of names we hope to address in our future work on this Catalogue.

Of 7,910 names in the *Abas-Bruniopsis* section: 6,161 have been verified by us at CAS (78%) and 1,743 records were not seen by us at CAS (22%).

Of those 1,743 records not seen (22%) by us:

- 1,413 had corresponding INA cards (18% of the total), including 164 that had been uniquely contributed by INA. For those 164 we have indicated “[according to INA]”

- 330 (4% of the total) had no corresponding INA cards, however only 116 of those did not also have corresponding cards in ANSP (for those we indicated “[according to VLC]” (except for the seven records that could be traced to other sources: e.g. Mills, DeToni, etc.), 45 were common to VLC and ANSP, 170 were uniquely contributed by ANSP (for those we indicated “[according to ANSP]”

Ultimately, for Part 2 (*Abas-Bruniopsis*), 98.5% of the names were entered and/or verified by CAS staff, ANSP staff or INA compilers. Only 116 names (1.5%) have not been seen by staff associated with CAS, ANSP or INA.

## ACKNOWLEDGMENTS

We are very much indebted to the many people who have contributed to this project.

The database structure had been initially set by Al Mahood and Pat Kociolek. We gratefully acknowledge Bill Eschmeyer for many discussions on the design and his inspiring work on the catalog of fishes and nomen-

clature, Liz Bogan for numerous improvements, modifications and fine programming in the tables, Jean De-Mouthe for her help in maintaining the database, as well as Stan Blum, Jon Fong, and the computer staff at CAS.

The laborious task of data entry was competently performed at CAS by Cynthia Strathmann, Lisa David, Alicia Cordero, Kristen Nutile, Elizabeth Ruck. CAS staff Molli McDonald verified many records against original publications and Linda Novitski matched and compared INA cards with our existing records. Each of them brought a wonderful spirit, high intellect, and common sense to a project that required all of these attributes.

Staff at ANSP, including Margaret Henderson, and Su-Ying, under the supervision of Dr. Charles Reimer, very skillfully compared ANSP cards with our records, and entered names missing from our compilation.

We are very grateful to Paul Silva (Jepson Herbarium, UC Berkeley) for his encouragements and guidance during this project, and for his patience in explaining points nomenclatural difficulty. The quality and completeness of this catalogue has been greatly improved thanks to his generosity in sharing with us the INA cards. We also wish to acknowledge Dick Moe (Jepson Herbarium, UC Berkeley) who facilitated exchanges of data between CAS and UCB.

Many of the references consulted in this work were not at CAS. We gratefully recognize the library staff at CAS, in particular Larry Currie and Patti Shea-Dinner, who arranged for numerous interlibrary loans. Other references were found at the Libraries of the UC Berkeley, and we wish to thank the librarians who assisted us.

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We also wish to thank our families for all of their help, support and tolerance during the development of this sometimes all-encompassing project.

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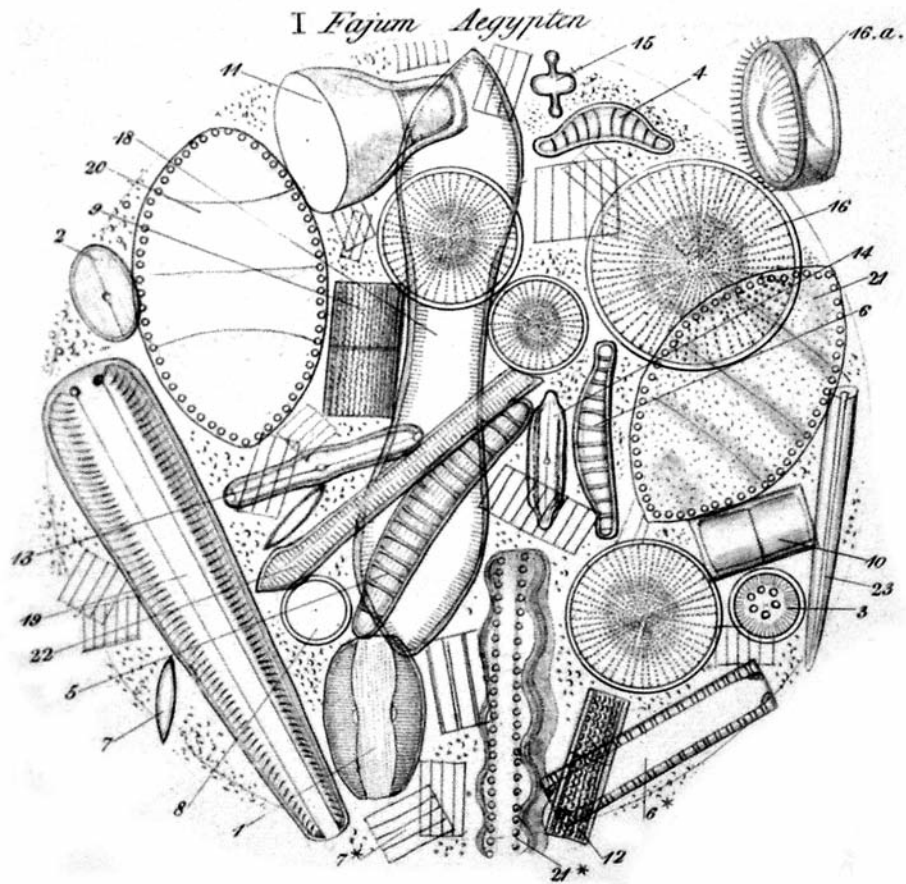
## NOTE

It is not our intention to publish any new combinations or new names in this volume. If any name appears to be “new,” it should not be accepted as validly published here.

## DEDICATION

We dedicate this work to Drs Ruth Patrick (ANSP), Charles Reimer (ANSP), Paul Silva (UCB) and Sam VanLandingham, all of whom provided inspiration to us, and facilitated this work in many ways.





C.G. Ehrenberg (1854): Plate 33, fig. I  
Clear freshwater diatom sample from the Egyptian Fajum

## Catalogue of Diatom Names

### *Abas* through *Bruniopsis*

**ABAS R. Ross & P.A. Sims 1980, pg. 119 [ref. 003145]**

T: *Abas wittii* (A. Grunow) R. Ross & P.A. Sims  
(= *Syringidium wittii* A. Grunow in H. Van Heurck 1883)

*Abas wittii* (Grunow) Ross & Sims 1980, p. 120; fig. 10-15 [ref. 003145]. Basionym: *Syringidium wittii* Grunow in Van Heurck 1883.

**ACANTHOCERAS H. Honigmann 1910, pg. 76 [ref. 000487]**

T: *Acanthoceras magdeburgense* Honigmann 1910  
Name conserved vs. *Acanthoceras* Kützing 1842 (Rhodophyceae).

*Acanthoceras magdeburgense* Honigmann 1910, p. 77; pl. 2, fig. a [ref. 000487].

*Acanthoceras magdeburgense* var. *lata* Honigmann 1910, p. 78, pl. 2, fig. b [ref. 000487]. [according to INA].

*Acanthoceras zachariasii* (Brun) Simonsen 1979, p. 55 [ref. 003160]. Basionym: *Attheya zachariasii* Brun 1894.

**ACANTHODISCUS J. Pantocsek 1892, pl. 11, fig. 180 [ref. 001034]**

T: *Acanthodiscus rugosus* J. Pantocsek 1892

*Acanthodiscus antarcticus* Hajós 1975, p. 934; pl. 13, fig. 1-6 [ref. 003209].

*Acanthodiscus clypeolus* (Brun) Van Heurck 1896, p. 519; fig. 272 [ref. 000897]. Basionym: *Cotyledon clypeolus* Brun 1891.

*Acanthodiscus convexus* Hajós & Stradner in Hajós 1975, p. 934; pl. 13, fig. 8, pl. 28, fig. 6, 16 [ref. 003209].

*Acanthodiscus danicus* Fenner 1994, p. 108; pl. 11, fig. 7-8 [ref. 008197].

*Acanthodiscus immaculatus* (Hanna) V.A. Nikolaev & J.A. Barron in Nikolaev, V.A., Kociolek, J.P., Fourtanier, E., Barron, J.A. & Harwood, D.M. 2001, p. 24 [ref. 009432]. Basionym: *Coscinodiscus immaculatus* Hanna 1927.

*Acanthodiscus ornatus* Hajós & Stradner in Hajós 1975, p. 934; pl. 13, fig. 7, 9, 10, pl. 28, fig. 4 [ref. 003209].

*Acanthodiscus paterus* (J.A. Long, D.P. Fuge & J. Smith) V.A. Nikolaev & E. Fourtanier in Nikolaev, V.A., Kociolek, J.P., Fourtanier, E., Barron, J.A. & Harwood, D.M. 2001, p. 24 [ref. 009432]. Basionym: *Melosira patera* J.A. Long, D.P. Fuge & J. Smith 1946.

*Acanthodiscus rugosus* Pantocsek 1892, pl. 11, fig. 180 [ref. 001034]. Description in Pantocsek 1905, p. 3 (ref. 001445).

*Acanthodiscus schmidtii* Jousé 1951, p. 28; pl. 1; fig. 8a-b [ref. 000548].

*Acanthodiscus schmidtii* Jousé 1951, p. 28; pl. 1; fig. 8a-b [ref. 000548].

*Acanthodiscus vulcaniformis* Jousé 1951, p. 29; pl. 2, fig. 1a-c [ref. 000548].

**ACHNANTELLA B. Gaillon 1833, p. 34 [ref. 000375]**

Superfluous substitute name for *Achnanthes* Bory 1822.

*Achnantella brevipes* (Agardh) Gaillon 1833, p. [10] [ref. 011604]. Basionym: *Achnanthes brevipes* Agardh 1824. Also in Gaillon 1833, p. 34 (ref. 000375).

*Achnantella longipes* Gaillon 1833, p. [10] [ref. 011604]. Also in Gaillon 1833, p. 34 (ref. 000375). Based on the illegitimate name *Achnanthes longipes* Agardh 1824.

**ACHNANTHEIOPSIS H. Lange-Bertalot 1997, p. 200 [ref. 007046]**

T: *Achnantheiopsis lanceolata* (Brébisson) H. Lange-Bertalot 1997  
(= *Achnanthidium lanceolatum* Brébisson ex Kützing 1849)

Illegitimate and superfluous name by inclusion of *A. lanceolata*, the type of *Planothidium*.

*Achnantheiopsis apiculata* (Patrick) Lange-Bertalot 1997, p. 206; fig. 25 [ref. 007046]. Basionym: *Achnanthes lanceolata* var. *apiculata* Patrick 1945.

*Achnantheiopsis aueri* (Krasske) Lange-Bertalot 1997, p. 206 [ref. 007046]. Basionym: *Achnanthes aueri* Krasske 1949.

*Achnantheiopsis biporoma* (Hohn & Hellerman) Lange-Bertalot 1997, p. 206 [ref. 007046]. Basionym: *Achnanthes biporoma* Hohn & Hellerman 1963.

*Achnantheiopsis borneolanceolata* Lange-Bertalot 1997, p. 208 [ref. 007046]. For illustrations, refers to Lange-Bertalot & Krammer 1989 (ref. 006174): fig. 85:11-14; fig. 91:2.

- Achnantheiopsis chilensis* (Hustedt) Lange-Bertalot 1997, p. 206 [ref. 007046]. Basionym: *Achnanthes chilensis* Hustedt 1927.
- Achnantheiopsis dauii* (Foged) Lange-Bertalot 1997, p. 206; fig. 18-20 [ref. 007046]. Basionym: *Achnanthes dauii* Foged 1962.
- Achnantheiopsis delicatula* (Kützing) Lange-Bertalot 1997, p. 206; fig. 10 [ref. 007046]. Basionym: *Achnanthidium delicatulum* Kützing 1844.
- Achnantheiopsis distincta* (Messikommer) Lange-Bertalot 1997, p. 206 [ref. 007046]. Basionym: *Achnanthes distincta* Messikommer 1954.
- Achnantheiopsis dubia* (Grunow) Lange-Bertalot 1997, p. 206 [ref. 007046]. Basionym: *Achnanthes lanceolata* var. *dubia* Grunow in Cleve & Grunow 1880.
- Achnantheiopsis engelbrechtii* (Cholnoky) Lange-Bertalot 1997, p. 206 [ref. 007046]. Basionym: *Achnanthes engelbrechtii* Cholnoky 1955.
- Achnantheiopsis fonticolanceolata* (Lange-Bertalot & Schimanski) Lange-Bertalot 1997, p. 206 [ref. 007046]. Basionym: *Achnanthes fonticolanceolata* Lange-Bertalot & Schimanski in Lange-Bertalot & Krammer 1989.
- Achnantheiopsis fragilarioides* (Petersen) Lange-Bertalot 1997, p. 206 [ref. 007046]. Basionym: *Achnanthes fragilarioides* Petersen 1924.
- Achnantheiopsis frequentissima* (Lange-Bertalot) Lange-Bertalot 1997, p. 207; fig. 13 [ref. 007046]. Basionym: *Achnanthes lanceolata* subsp. *frequentissima* Lange-Bertalot in Krammer & Lange-Bertalot in H. Ettl et al. 1993.
- Achnantheiopsis frequentissima* var. *magna* (Straub) Lange-Bertalot 1997, p. 207 [ref. 007046]. Basionym: *Achnanthes rostrata* var. *magna* Straub 1985.
- Achnantheiopsis frequentissima* var. *minor* (Schulz) Lange-Bertalot 1997, p. 207 [ref. 007046]. Basionym: *Achnanthes lanceolata* f. *minor* Schulz 1926.
- Achnantheiopsis grana* (Hohn & Hellerman) Lange-Bertalot 1997, p. 207; fig. 16-17 [ref. 007046]. Basionym: *Achnanthes grana* Hohn & Hellerman 1963.
- Achnantheiopsis hauckiana* (Grunow) Lange-Bertalot 1997, p. 207 [ref. 007046]. Basionym: *Achnanthes hauckiana* Grunow in Cleve & Grunow 1880.
- Achnantheiopsis haynaldii* (Schaarschmidt) Lange-Bertalot 1997, p. 207; fig. 22 [ref. 007046]. Basionym: *Achnanthes haynaldii* Schaarschmidt 1881.
- Achnantheiopsis heteromorpha* (Grunow) Lange-Bertalot 1997, p. 207 [ref. 007046]. Basionym: *Achnanthes heteromorpha* Grunow in Cleve & Grunow 1880.
- Achnantheiopsis holstii* (Cleve) Lange-Bertalot 1997, p. 207 [ref. 007046]. Basionym: *Achnanthes holstii* Cleve 1881.
- Achnantheiopsis joursacensis* (Héribaud) Lange-Bertalot 1997, p. 207 ('*joursacense*') [ref. 007046]. Basionym: *Achnanthes joursacense* Héribaud 1903. *Invalid?* Right publication, but wrong page and plate are cited for the basionym (page and plate cited are for *Achnanthes ligeriana*).
- Achnantheiopsis lanceolata* (Brébisson ex Kützing) Lange-Bertalot 1997, p. 201, 207; fig. 11-12 [ref. 007046]. Basionym: *Achnanthidium lanceolatum* Brébisson ex Kützing 1846. Valid new combination, although basionym is cited from Kützing 1849, p. 54 (ref. 000596), instead of Kützing 1846, p. 247 (ref. 002752).
- Achnantheiopsis lanceolatoides* (Sovereign) Lange-Bertalot 1997, p. 207 [ref. 007046]. Basionym: *Achnanthes lanceolatoides* Sovereign 1958.
- Achnantheiopsis linkei* (Hustedt) Lange-Bertalot 1997, p. 207 [ref. 007046]. Basionym: *Achnanthes linkei* Hustedt 1939.
- Achnantheiopsis magnifica* (Hustedt) Lange-Bertalot 1997, p. 207 [ref. 007046]. Basionym: *Achnanthes magnifica* Hustedt 1952.
- Achnantheiopsis marina* (Hustedt ex Simonsen) Lange-Bertalot 1997, p. 207 [ref. 007046]. Basionym: *Achnanthes marina* Hustedt ex Simonsen 1987. *Invalid.* Basionym is cited from A. Schmidt's Atlas (1937), pl. 415, fig. 1-2, but it is invalid in that publication.
- Achnantheiopsis minutissima* (Krasske) Lange-Bertalot 1997, p. 207 [ref. 007046]. Basionym: *Achnanthes lanceolata* var. *minutissima* Krasske 1938. *Invalid?* Wrong page is cited for the basionym.
- Achnantheiopsis miota* (Carter & Denny) Lange-Bertalot 1997, p. 207 [ref. 007046]. Basionym: *Achnanthes miota* Carter & Denny 1982.
- Achnantheiopsis oestrupii* (Cleve-Euler) Lange-Bertalot 1997, p. 207 [ref. 007046]. Basionym: *Achnanthes lanceolata* var. *oestrupii* Cleve-Euler 1922.
- Achnantheiopsis peragalli* (Brun & Héribaud) Lange-Bertalot 1997, p. 207; fig. 24 [ref. 007046]. Basionym: *Achnanthes peragalloi* Brun & Héribaud in Héribaud 1893.
- Achnantheiopsis pericava* (Carter) Lange-Bertalot 1997, p. 207 [ref. 007046]. Basionym: *Achnanthes pericava* Carter 1966.
- Achnantheiopsis pseudotanensis* (Cleve-Euler) Lange-Bertalot 1997, p. 207 [ref. 007046]. Basionym: *Achnanthes pseudotanensis* Cleve-Euler 1953.
- Achnantheiopsis pungens* (Cleve-Euler) Lange-Bertalot 1997, p. 207 [ref. 007046]. Basionym: *Achnanthes elliptica* (Cleve) Cleve-Euler var. *pungens* Cleve-Euler 1934.



*Achnantheiopsis robusta* (Hustedt) Lange-Bertalot 1997, p. 208; fig. 21 [ref. 007046]. Basionym: *Achnanthes delicatula* var. *robusta* Hustedt 1934.

*Achnantheiopsis robustior* Lange-Bertalot 1997, p. 208 [ref. 007046]. New name for *Achnanthes lanceolata* var. *robusta* Hustedt 1937.

*Achnantheiopsis rostrata* (Østrup) Lange-Bertalot 1997, p. 208; fig. 23 [ref. 007046]. Basionym: *Achnanthes rostrata* Østrup 1902.

*Achnantheiopsis salvadoriana* (Hustedt) Lange-Bertalot 1997, p. 208 [ref. 007046]. Basionym: *Achnanthes salvadoriana* Hustedt 1953.

*Achnantheiopsis septentrionalis* (Østrup) Lange-Bertalot 1997, p. 208 [ref. 007046]. Basionym: *Achnanthes septentrionalis* Østrup 1910.

**ACHNANTHEPYLA M. Peragallo 1921, p. 10 [ref. 000737]**

LT: *Achnantheptyla mesogongyla* (Grunow ex Cleve & Grunow) M. Peragallo 1921

(= *Achnanthes mesogongyla* Grunow ex Cleve & Grunow 1880)

Type designated by Round, Crawford & Mann (1990), p. 682 (ref. 003245).

*Achnantheptyla arctica* (Cleve) M. Peragallo 1921, p. 11 [ref. 000737]. Basionym: *Achnanthidium arcticum* Cleve 1873.

*Achnantheptyla arctica* var. *incurvata* (Østrup) M. Peragallo 1921, p. 11 [ref. 000737]. Basionym: *Achnanthes subsessilis* var. *incurvata* Østrup 1895.

*Achnantheptyla baccata* M. Peragallo 1921, p. 11 (as *Achnantheptyla baccata* (Cleve) n. sp.) [ref. 000737]. Name for *Achnanthes baccata* Leuduger-Fortmorel *sensu* Cleve 1895, p. 195, pl. III: fig. 3 (ref. 000949). Excludes *Stauroneis baccata* Leuduger 1879.

*Achnantheptyla bongrainii* M. Peragallo 1921, p. 11; pl. 1, fig. 4-6 [ref. 000737].

*Achnantheptyla bongrainii* var. *dilatata* M. Peragallo 1924, p. 20; pl. 1, fig. 1 [ref. 000738].

*Achnantheptyla bongrainii* var. *parallela* M. Peragallo 1921, p. 50; pl. 2, fig. 1 [ref. 000737].

*Achnantheptyla gainii* M. Peragallo 1921, p. 11; pl. 1, fig. 12 [ref. 000737].

*Achnantheptyla gainii* var. *ostrupii* M. Peragallo 1921, p. 12 [ref. 000737].

*Achnantheptyla glabrata* (Grunow) M. Peragallo 1921, p. 12 [ref. 000737]. Basionym: *Achnanthes glabrata* Grunow 1863.

*Achnantheptyla glabrata* var. *aucklandica* (Grunow in Cleve & Grunow) M. Peragallo 1921, p. 13 [ref. 000737]. Basionym: *Achnanthes glabrata* var. *aucklandica* Grunow in Cleve & Grunow 1880.

*Achnantheptyla groenlandica* (Cleve) M. Peragallo 1921, p. 10 [ref. 000737]. Basionym: *Achnanthidium groenlandicum* Cleve 1873.

*Achnantheptyla jamalinensis* (Grunow in Cleve & Grunow) M. Peragallo 1921, p. 12 [ref. 000737]. Basionym: *Achnanthes jamalinensis* Grunow in Cleve & Grunow 1880.

*Achnantheptyla mesogongyla* (Grunow in Cleve & Grunow) M. Peragallo 1921, p. 12 [ref. 000737]. Basionym: *Achnanthes mesogongyla* Grunow in Cleve & Grunow 1880.

*Achnantheptyla minuta* (Grunow) M. Peragallo' VanLandingham 1967, p. 2 [ref. 006293]. *Invalid*. Err. cit. pro *Achnantheptyla minutula* (Grunow) M. Peragallo 1921.

*Achnantheptyla minutula* (Grunow) M. Peragallo 1921, p. 13 [ref. 000737]. Basionym: *Cymbosira minutula* Grunow 1863.

*Achnantheptyla simplex* M. Peragallo 1921, p. 12; pl. 1, fig. 20-22 [ref. 000737].

*Achnantheptyla temperei* (M. Peragallo in Tempère & Peragallo) M. Peragallo 1921, p. 13; pl. 1, fig. 35-37 [ref. 000737]. Basionym: *Achnanthes temperei* M. Peragallo in Tempère & Peragallo 1908.

**ACHNANTHES J.B.M. Bory de Saint-Vincent 1822, pg. 79, 593 (vol. 1) [ref. 000145]**

LT: *Achnanthes adnata* Bory de Saint Vincent 1822

Type designated by C.S. Boyer 1927 [ref. 000946], p. 229.

*Achnanthes aapajarvensis* Cleve-Euler 1934, p. 39; pl. 2, fig. 44 ('*aapajärvensis*') [ref. 000249].

*Achnanthes abundans* Manguin in Bourrelly & Manguin 1954, p. 19; pl. 1, fig. 10a-d [ref. 001957].

*Achnanthes abundans* var. *elliptica* Manguin in Bourrelly & Manguin 1954, p. 19; pl. 1, fig. 11a-b [ref. 001957].

*Achnanthes acares* Hohn & Helleman 1963, p. 273; pl. 1, fig. 27, 28 [ref. 000486].

*Achnanthes acidoclinata* Lange-Bertalot in Lange-Bertalot & Metzeltin 1996, p. 22-23; pl. 21, fig. 22-24c, pl. 113, fig. 1-7 [ref. 007048].

*Achnanthes acus* Simonsen 1960, p. 127; pl. 1, fig. 8-9 [ref. 000824]. *Invalid?* Type not designated. Unclear if 2 illustrations are from the same sample and can be considered as the holotype.

*Achnanthes acuta* Frenguelli 1953, p. 50; fig. 7j [ref. 000366].

*Achnanthes adamantiformis* (Archibald) Archibald 1971, p. 21; fig. 1-5 [ref. 003396]. Basionym: *Navicula adamantiformis* Archibald 1966.

*Achnanthes adamsii* Cholnoky 1964, p. 59; pl. 9(1), fig. 1-2 [ref. 000216].

- Achnanthes adnata* Bory 1822, p. 79; pl. arthrodiées, fig. 1 [ref. 012545]. Syn.: *Echinella stipitata* Lyngbye p.p. Also in vol. 17: p. 28 [= expl. pl. LI: fig. 2]. 1831 (ref. 012705).
- Achnanthes affinis* Grunow in Cleve & Grunow 1880, p. 20 [ref. 000241].
- Achnanthes affinis* Grunow in Van Heurck 1880, pl. 27, figs. 39, 40 [ref. 000895].
- Achnanthes affinis* var. *bistriata* Skvortzow 1938, p. 482; pl. 3, fig. 7 [ref. 000851].
- Achnanthes affinis* var. *jamalinensis* (Grunow in Cleve & Grunow) Cleve 1895, p. 190 [ref. 000949]. Basionym: *Achnanthes jamalinensis* Grunow in Cleve & Grunow 1880.
- Achnanthes affinis* var. *minuta* Skvortzow 1936, p. 25; pl. 10, fig. 27 [ref. 000843].
- Achnanthes africana* Woodhead & Tweed 1958, p. 196; pl. 5, fig. 57 [ref. 000923].
- Achnanthes agardhi* (Kützing) Cleve & Möller 1878, No. 147 [ref. 001976]. Basionym: *Cymbosira agardhii* Kützing 1844. Implied ? As: *A. (Cymbosira) agardhii* Kütz. f. *minuta*.
- Achnanthes agardhi* f. *minuta* Cleve & Möller 1878, No. 147 (as *A. (Cymbosira) Agardhii* Kütz. f. *minuta*) [ref. 001976]. *Invalid*. Nomen nudum. VanLandingham 1979, p. 4242 (ref. 006514) interpreted this name as based on ‘*Cymbosira minuta*’ (sic) Grunow 1863 (i.e. *Cymbosira minutula* Grunow 1863); Cleve & Möller, however, do not cite Grunow.
- Achnanthes agglutinans* Grunow in Cleve & Möller 1879, No. 255 (as *Achnanthes agglutinans* Grun. var.?) [ref. 001978]. *Invalid*. Nomen nudum.
- Achnanthes agglutinata* Grunow in Cleve & Grunow 1880, p. 19 [ref. 000241].
- Achnanthes alaskana* Patrick & Freese 1961, p. 161; pl. 1, fig. 5a-b [ref. 000725].
- Achnanthes alpestris* (Brun) Lange-Bertalot & Metzeltin 1996, p. 24; pl. 20, fig. 4-8, pl. 112, fig. 6 [ref. 007048]. Basionym: *Achnanthes flexella* var. *alpestris* Brun 1880.
- Achnanthes altaica* (Poretzky) Cleve-Euler 1953, p. 48; fig. 592 [ref. 001042]. Basionym: *Amphora altaica* Poretzky 1933.
- Achnanthes altaica* var. *minor* Flower & Jones 1989, p. 233; fig. 10-14, 70-74 [ref. 008204].
- Achnanthes alteragracillima* Lange-Bertalot 1993, p. 2; pl. 35, fig. 1-3 [ref. 008467]. New name for *Microneis gracillima* Meister 1912 (priority for *Achnanthes gracillima* Hustedt 1927).
- Achnanthes ambigua* Zimmermann 1918, p. 93; pl. 3, fig. 17 [ref. 000936].
- Achnanthes americana* Cleve 1894, p. 143; pl. 3, fig. 17, 18 (as *Achnanthes (Heteroneis) americana*) [ref. 000948]. According to INA the illustration was published in 1893, and the description in 1894. The name is therefore valid as of 1893.
- Achnanthes amoena* Hustedt 1952, p. 386; fig. 66, 67 [ref. 000524].
- Achnanthes ampiccephala* Hustedt 1939, p. 555; pl. 25, fig. 3,4 [ref. 000513].
- Achnanthes anastasiae* Kaczmarek 1985, p. 38-39; pl. 1, fig. 47, pl. 2, fig. 3-5 [ref. 008382].
- Achnanthes anceps* Cleve-Euler 1934, p. 39; pl. 2, fig. 45 [ref. 000249].
- Achnanthes andicola* (Cleve) Hustedt 1911, p. 279; pl. 2, fig. 23, 24 [ref. 000492]. Basionym: *Schizostauron andiculum* Cleve 1881.
- Achnanthes andicola* var. *elongata* Gonzalves & Gandhi 1952, p. 142; fig. 48a-b [ref. 000385].
- Achnanthes andicola* var. *producta* Cleve-Euler 1953, p. 24, 241; fig. 522k [ref. 001042]. As *Achnanthes andicola*  $\beta$  *producta* on p. 24, rank specified as “n.v.” on p. 241 (caption).
- Achnanthes angustata* Greville 1859, p. 163; pl. 8, fig. 9 [ref. 000972].
- Achnanthes angustata* sensu Johnston 1860, p. 14; pl. 1, fig. 13 [ref. 000545]. Not *A. angustata* Greville 1859, according to Arnott 1860, p. 20 (ref. 001586) who will name it *Gephyria media* Arnott in Johnston 1860.
- Achnanthes angustata* f. *parva* Cleve & Möller 1878, No. 134 [ref. 001976]. *Invalid*. No description. Listed as synonym (with question) of *Achnanthes subsessilis* Kütz. var. *angusta*.
- Achnanthes angustissima* Jasnitsky 1936, p. 690, 701; pl. 1, fig. 2-3 [ref. 000543].
- Achnanthes annulifera* Cleve-Euler 1953, p. 34; fig. 541 [ref. 001042].
- Achnanthes antarctica* M. Peragallo 1921, p. 13; pl. 13, fig. 25, 26 [ref. 000737].
- Achnanthes antiqua* Lauby 1910, p. 196; pl. 10, fig. 20 [ref. 001335].
- Achnanthes antiqua* ‘M. Peragallo 1913’ according to Hustedt 1933, p. 429 [ref. 000507]. *Invalid*. According to Hustedt: “a nomen nudum in M. Peragallo, Mitt. mikrol. Ver. Linz, H. 1, S. 20 (1913)”. No description provided by Hustedt 1933.
- Achnanthes antiqua* Moiseeva 1959, p. 127; pl. 1, fig. 11 [ref. 008602]. *Illegitimate*. Non Lauby 1910. [according to ANSP].
- Achnanthes aperta* Carter in Carter & Bailey-Watts 1981, p. 529; pl. 2, fig. 8, pl. 24; fig. 5 [ref. 003626].
- Achnanthes araucaniana* Frenguelli 1934, p. 347; pl. 1, fig. 1-3 [ref. 000359].
- Achnanthes archibaldiana* Lange-Bertalot in Lange-Bertalot & Krammer 1989, p. 23; pl. 64, fig. 7-16, pl. 66, fig. 8-11 [ref. 006174].
- Achnanthes arctica* (Cleve) Cleve-Euler 1915, p. 45; pl. 2, fig. 55 [ref. 000246]. Basionym: *Achnanthidium arcticum* Cleve 1873.
- Achnanthes arcuata* (Lyngbye) Kützing 1833, p. 574 [ref. 000594]. Basionym: *Diatoma arcuatum* Lyngbye 1819.
- Achnanthes arcuata* Cleve-Euler 1939, p. 11; fig. 14a-b [ref. 000250]. *Illegitimate*. Non Kützing 1833. Synonym (replacement name): *A. astridii* VanLandingham 1967.

- Achnanthes arcus* Hustedt in Schmidt et al. 1937, pl. 410, fig. 10-14 [ref. 012520]. *Invalid*. No description. Validated by Hustedt 1942, p. 38, fig. 44-48 (ref. 000517).
- Achnanthes arcus* Hustedt 1942, p. 38; fig. 44-48 [ref. 000517]. Previously invalidly published in Schmidt's Atlas, pl. 410, fig. 10-14 (1937) (ref. 012520).
- Achnanthes arenaria* Amossé 1941, p. 145; fig. 5-6 [ref. 000109].
- Achnanthes arenicola* J.W. Bailey 1851, p. 38; pl. 2, fig. 19 [ref. 000119].
- Achnanthes aretasii* Manguin in Bourrelly & Manguin 1954, p. 19; pl. 2, fig. 16a-c [ref. 001957].
- Achnanthes arguta* Hustedt in Schmidt et al. 1937, pl. 410, fig. 21-22 [ref. 012520]. *Invalid*. No description. Validated by Simonsen 1987.
- Achnanthes arguta* Hustedt ex Simonsen 1987, p. 230; pl. 335, fig. 26-34 [ref. 003164].
- Achnanthes astridii* VanLandingham 1967, p. 6 [ref. 006293]. New name for *Achnanthes arcuata* A. Cleve 1939, non Kützing 1833.
- Achnanthes asymbasia* Hohn 1966, p. 467; pl. 1, fig. 11, 12 [ref. 008040].
- Achnanthes asymetrica* Patrick 1936, p. 381; pl. 11, fig. 16-17 [ref. 000722].
- Achnanthes atacamae* Hustedt 1927, p. 237; pl. 7, fig. 1, 2 [ref. 000499].
- Achnanthes atalanta* Carter 1966, p. 444; pl. 60(1), fig. 15, 16, 19, 20 [ref. 008093].
- Achnanthes athenais* Pantocsek 1902, p. 639; pl. 11, fig. 21, 22 [ref. 000718]. (p. 13 of reprint).
- Achnanthes athenais* var. *minor* Pantocsek 1902, p. 639; pl. 13, fig. 61 [ref. 000718]. (p. 13 of reprint).
- Achnanthes atomus* Hustedt 1937, p. 194; pl. 13, fig. 33-36 [ref. 001012].
- Achnanthes atomus* var. *congolensis* Hustedt 1949, p. 74; pl. 2, fig. 35-36 (as *Achnanthes (atomus) var. ? congolensis* nov. var. in text and caption, as *Achnanthes atomus var. ? congolensis* on p. 190 (index)) [ref. 000521]. Valid as a trinomial since Hustedt clearly indicates "n. var."
- Achnanthes aubertii* Hérribaud in Hérribaud et al. 1920, p. 67; pl. 5, fig. 22 [ref. 000482].
- Achnanthes aueri* Krasske 1949, p. 77; fig. 3 [ref. 000590].
- Achnanthes australis* Ehrenberg 1854, Text p. 260, 262; Atlas pl. 35A/2, fig. 1 [ref. 000966].
- Achnanthes austriaca* Hustedt 1922, p. 233; pl. 3, fig. 6,7 [ref. 000494].
- Achnanthes austriaca* var. *capensis* Cholnoky 1959, p. 5; pl. 1, fig. 1-4 [ref. 000206]. *Invalid*. Type not designated.
- Achnanthes austriaca* var. *dracomontana* Cholnoky 1957, p. 38; fig. 3, 4 [ref. 000203].
- Achnanthes austriaca* var. *helvetica* Hustedt 1933, p. 385; fig. 831g-k [ref. 000507].
- Achnanthes austriaca* f. *intermedia* Manguin 1939, p. 12; pl. 2, fig. 39 [ref. 002502].
- Achnanthes austriaca* var. *parallela* Krasske 1932, p. 105; pl. 3, fig. 9 [ref. 000583].
- Achnanthes austriaca* var. *tatrica* Starmach 1973, p. 499; pl. 1, phot. 19-22, fig. 2 [ref. 008840]. [according to ANSP].
- Achnanthes austriaca* var. *typica* Cleve-Euler 1953, p. 37; fig. 551a, b (as [*A. austriaca* Hustedt]  $\alpha$  *typica* mh.) [ref. 001042]. Cleve-Euler refers to the original reference of *Achnanthes austriaca* Hustedt.
- Achnanthes austriaca* var. *ventricosa* Krasske 1932, p. 105; pl. 2, fig. 8 [ref. 000583].
- Achnanthes baccata* (Leuduger-Fortmorel) Cleve 1895, p. 195; pl. 3, fig. 3 [ref. 000949]. Basionym: *Stauroneis baccata* Leuduger-Fortmorel 1879.
- Achnanthes baccata* sensu Cleve 1895, p. 195; pl. 3, fig. 3 [ref. 000949]. Union of *Stauroneis baccata* Leuduger-Fortmorel 1879 and *Achnanthes curvata* Leuduger-Fortmorel 1879 (?). Published as the name of a new species, *Achnanthepeyla baccata* by M. Peragallo 1921, p. 11 (ref. 000737).
- Achnanthes bacescui* Bodeanu 1976, p. 65; pl. 1, fig. 4a, b [ref. 008076]. [according to ANSP].
- Achnanthes bacillaris* Ehrenberg 1844, p. 256 [ref. 000297].
- Achnanthes bacillaroides* Bory 1822, p. 79 [ref. 012545]. Synonym: *Echinella stipitata* Lyngbye pro parte.
- Achnanthes bacillum* M. Peragallo in Hérribaud et al. 1920, p. 113; pl. 2, fig. 12-13 [ref. 000482].
- Achnanthes bahusiensis* (Grunow) Lange-Bertalot in Lange-Bertalot & Krammer 1989, p. 25; pl. 76, fig. 1-10 [ref. 006174]. Basionym: *Navicula minuscula* var. *bahusiensis* Grunow in Van Heurck 1880.
- Achnanthes baicalensis* Skvortzow & Meyer 1928, p. 10; pl. 1, fig. 21 [ref. 000855].
- Achnanthes baicaliana* Frenguelli 1953, p. 68 [ref. 000367]. New name for *Achnanthes lanceolata* var. *elliptica* f. *baicalensis* Skvortzow & Meyer 1928.
- Achnanthes baicaliana* var. *notata* Frenguelli 1953, p. 68; pl. 1, fig. 7-8 [ref. 000367].
- Achnanthes baldjickii* (Brightwell) Grunow in Cleve & Grunow 1880, p. 21 ('*baldjickii*') [ref. 000241]. Basionym: *Odonthidium baldjickii* Brightwell 1859.
- Achnanthes baldjickii* sensu Pantocsek 1892, pl. 13, fig. 204 (as *Achnanthes baldjickii* (Bright.) Grun.) [ref. 001034]. Non *A. baldjickii* (Bright.) Gr. 1880 according to Ross 1963, p. 82 (ref. 000797).
- Achnanthes baldjickii* Ross 1963, p. 82; fig. 27-29 (as *Achnanthes baldjickii* subsp. *baldjickii*) [ref. 000797]. *Invalid? Illegitimate*. Non (Brightwell) Grunow in Cleve & Grunow 1880. In his treatment of *A. baldjickii*, on p. 81, Ross includes the type of *Odonthidium baldjickii* Brightwell 1859; on p. 82, however, for *Achnanthes baldjickii* subsp. *baldjickii*, Ross does not cite Brightwell, but indicates *Achnanthes baldjickii* var. *subquadrata* Pantocsek 1892 as a synonym.

- Achnanthes baldjickii* var. *croatica* Jurilj 1957, p. 63; pl. 14, fig. 4 (as *Achnanthes baltschiki* (Bright.) Grun. var. *croatica* in text, *A. baltschikiana* var. *croatica* in legend) [ref. 000553].
- Achnanthes baldjickii* subsp. *lorenziana* (Grunow) Ross 1963, p. 82; fig. 30-31 [ref. 000797]. Basionym: *Rhaphoneis lorenziana* Grunow 1862.
- Achnanthes baldjickii* var. *podolica* Missuna 1914, p. 140; fig. 27 ('*baldijki*') [ref. 000663].
- Achnanthes baldjickii* var. *subquadrata* Pantocsek 1892, pl. 13, fig. 202 [ref. 001034]. Description in Pantocsek 1905, p. 4 (ref. 001445).
- Achnanthes baltalensis* H.P. Gandhi 1998, p. 284; pl. 1, figs. 1-3; pl. 3, figs. 1-4 [ref. 010491]. *Invalid*. Type implied but not designated. [according to INA].
- Achnanthes baltalensis* var. *ovalis* H.P. Gandhi 1998, p. 286; pl. 1, figs. 4-6; pl. 3, figs. 5-7 [ref. 010491]. *Invalid*. Type implied but not designated. [according to INA].
- Achnanthes bavaria* Ehrenberg 1853, p. 526 [ref. 001189]. Name also appears as nomen nudum in Ehrenberg 1853, in table for article pp. 329-333 (ref. 001190). Description on p. 526.
- Achnanthes bengalensis* Grunow in Cleve & Grunow 1880, p. 18 (as *Achnanthes (javanica* var. ?) *bengalensis*) [ref. 000241].
- Achnanthes bengalensis* var. *subventricosa* Grunow in Cleve & Grunow 1880, p. 18 (as [*Achnanthes (javanica* var. ?) *bengalensis*] var. *subventricosa*) [ref. 000241].
- Achnanthes bergianii* Cleve-Euler 1953, p. 38; fig. 556 ('*bergiani*') [ref. 001042].
- Achnanthes bergii* Cleve-Euler 1953, p. 36; fig. 545 A. [ref. 001042].
- Achnanthes bernieri* Manguin 1961, p. 271; pl. 1 (26), fig. 18, 19 ('*bernierii*') [ref. 000628]. *Invalid*. No type designated and no Latin diagnosis.
- Achnanthes bernieri* Manguin ex Kocielek & Reviere 1996, p. 177 [ref. 008441]. Cites illustration in Manguin 1961 (ref. 000628): pl. 1, fig. 18, 19.
- Achnanthes biasolettiana* Grunow in Cleve & Grunow 1880, p. 22 [ref. 000241]. Grunow cites as possible (question) synonym: *Synedra biasolettiana* Kützing 1844. Treated as a new combination of Kützing's taxon by Mills and VanLandingham.
- Achnanthes biasolettiana* Grunow in Van Heurck 1880, pl. 27, figs. 27, 28. [ref. 000895]. *Synedra biasolettiana* Kützing cited by Grunow with query.
- Achnanthes biasolettiana* var. *aapajarvensis* (Cleve-Euler) Mölder & Tynni 1972, p. 144 [ref. 008606]. Basionym: *Achnanthes aapajarvensis* Cleve-Euler 1934. *Invalid*. Page of publication of basionym not cited.
- Achnanthes biasolettiana* var. *fossilis* Frenguelli 1936, p. 31; pl. 1, fig. 37-38 [ref. 004118].
- Achnanthes biasolettiana* var. *genuina* Cleve-Euler 1953, p. 42 (as [*A. biasolettiana* (Kz.) Grun.]  $\alpha$  *genuina* mh.) [ref. 001042]. Cleve-Euler refers to the original reference of *A. biasolettiana* (Cleve & Grunow 1880, p. 22, ref. 000241).
- Achnanthes biasolettiana* var. *jackii* (Rabenhorst) Cleve-Euler 1932, p. 57 [ref. 000248]. Basionym: *Achnantheidium jackii* Rabenhorst 1861.
- Achnanthes biasolettiana* f. *minuta* Grunow in Cleve & Grunow 1880, p. 22 [ref. 000241]. *Invalid*. There is no such name (forma minuta) in Cl. & Gr., however, under *A. biasolettiana* there is a description of "Eine kleinere Form..." The name was published by Grunow in Cleve 1895.
- Achnanthes biasolettiana* f. *minuta* Grunow in Cleve 1895, p. 189 [ref. 000949]. Cleve cites Grunow 1880, p. 22 (ref. 000241) where Grunow gave a description of a small form but did not provide a formal name.
- Achnanthes biasolettiana* var. *minuta* Woronichin 1927 [ref. 006376]. *Illegitimate*. Non Grunow 1895. According to Hollerbach & Krasavina 1971, p. 11 (ref. 002458). [according to VLC].
- Achnanthes biasolettiana* var. *perminuta* Grunow ex Van Heurck 1882-1885, p. 69; Type No. 237 [ref. 000896]. *Invalid*. Nomen nudum. Description (and validation) in De Toni 1891, p. 482 (ref. 000271).
- Achnanthes biasolettiana* var. *perminuta* Grunow ex De Toni 1891, p. 482 [ref. 000271].
- Achnanthes biasolettiana* var. *subatomus* Lange-Bertalot in Lange-Bertalot & Krammer 1989, p. 28; fig. 59: 1-11', fig. 57: 8 [ref. 006174].
- Achnanthes biasolettiana* var. *sublinearis* Grunow ex Van Heurck 1882-1885, p. 3; Type No. 11 [ref. 000896]. Diagnosis included. Also described in Cleve 1895, p. 189 (ref. 000949).
- Achnanthes biasolettiana* var. *sublinearis* Grunow in Cleve 1895, p. 189 [ref. 000949]. Previously validly published in Types du Synopsis no. 11, p. 3 (Van Heurck 1882-1884; ref. 000896).
- Achnanthes biasolettiana* var. *thienemannii* (Hustedt) Lange-Bertalot in Lange-Bertalot & Krammer 1989, p. 29-30; fig. 60: 2, 10-18,30 [ref. 006174]. Basionym: *Achnanthes thienemannii* Hustedt 1942.
- Achnanthes bicapitata* Hustedt 1952, p. 386; fig. 68-71 [ref. 000524].
- Achnanthes bicapitellata* Cleve-Euler 1953, p. 44; fig. 577 [ref. 001042].
- Achnanthes biceps* Hustedt 1959, p. 41; pl. 1, fig. 22-23 [ref. 000534].
- Achnanthes biconfusa* VanLandingham 1967, p. 10, 67 [ref. 006293]. New name for *Achnanthes tenuissima* Hustedt 1937, non Pantocsek 1905.

- Achnanthes bigibba* Heiden in Heiden & Kolbe 1928, p. 578; pl. 5, fig. 103 [ref. 000473].
- Achnanthes bijuga* Turpin 1828, p. 310; pl. 13, fig. 4 [ref. 006720]. Also in Atl. Dict. Sc. Nat. vég. vésic. f. 3, by comparison of figures, but not cited (fide INA).
- Achnanthes bijugata* Polenov 1918 [ref. 003041]. According to Hollerbakh & Krasavina 1971, p. 11 (ref. 002458). [according to VLC].
- Achnanthes bilunulata* Turpin 1828, p. 313; pl. 13, fig. 11 [ref. 006720]. Also illustrated in Atl. Dict. Sc. Nat. vég. vésic. f. 5 (fide INA).
- Achnanthes binodis* Ehrenberg 1854, pl. 34; 5B, fig. 1, 2 [ref. 000966]. Also in Text, p. 272, 277 (name only).
- Achnanthes bioretii* Germain 1957, p. 85; fig. 21 ('bioreti') [ref. 000382].
- Achnanthes biporoma* Hohn & Hellerman 1963, p. 273; pl. 2, fig. 5, 6 [ref. 000486].
- Achnanthes birugula* 'Hohn' VanLandingham 1967, p. 10 [ref. 006293]. *Invalid*. Err. cit. pro *Amphora birugula* Hohn 1961. Name accepted, but basionym not cited (although its pages of publication are cited).
- Achnanthes bistrata* Skvortzow & Meyer 1928, p. 10; pl. 1, fig. 18 [ref. 000855].
- Achnanthes blancheana* Maillard 1978, p. 149; pl. 1, fig. 11 [ref. 008536]. *Invalid*. Type not designated. Validated by Lange-Bertalot & Steindorf in Moser, Steindorf & Lange-Bertalot 1995 (ref. 008613).
- Achnanthes blancheana* Maillard ex Lange-Bertalot & Steindorf in Moser, Steindorf & Lange-Bertalot 1995, p. 33; pl. 1, fig. 1-6 [ref. 008613]. Cites Latin description in Maillard 1979, p. 149 (ref. 008536).
- Achnanthes bonaeaurae* Zanon 1949, p. 106; pl. 2, fig. 6 [ref. 001577].
- Achnanthes bongrainii* (M. Peragallo) Mann 1937, p. 16 [ref. 000634]. Basionym: *Achnantheptyla bongrainii* M. Peragallo 1921.
- Achnanthes bongrainii* (Peragallo) Frenguelli & Orlando 1958, p. 79; pl. 1, fig. 35, 51 [ref. 001216]. Basionym: *Achnantheptyla bongrainii* M. Peragallo 1921. Isonym: combination previously published by Mann 1937.
- Achnanthes bongrainii* var. *parallela* (Peragallo) Frenguelli & Orlando 1958, p. 79; pl. 1, fig. 52 ('paralela') [ref. 001216]. Basionym: *Achnantheptyla bongrainii* var. *parallela* M. Peragallo 1921.
- Achnanthes borealis* A. Cleve 1895, p. 23; pl. 1, fig. 24, 25 [ref. 000243].
- Achnanthes borneolanceolata* Lange-Bertalot in Lange-Bertalot & Krammer 1989, p. 30; pl. 85, fig. 11-14; pl. 91, fig. 2 [ref. 006174]. *Invalid*. "Manuskriptnamen". [According to INA].
- Achnanthes bottnica* (Cleve) Cleve 1895, p. 186 [ref. 000949]. Basionym: *Achnanthes clevei* var. *bottnica* Cleve 1891.
- Achnanthes boudoui* Metzeltin & Lange-Bertalot 1998, p. 18; pl. 69, fig. 9-14, pl. 70, fig. 1, 4 [ref. 007051].
- Achnanthes bourginii* Manguin in Bourrelly & Manguin 1954, p. 19; pl. 2, fig. 20a-b [ref. 001957].
- Achnanthes boyei* Østrup 1918, p. 41; pl. 4, fig. 60 [ref. 000710].
- Achnanthes boyei* var. *lanceolata* Huang 1979, p. 189-190; pl. 4, fig. 11-14 [ref. 008352]. [according to ANSP].
- Achnanthes boyeri* Mackay in L.W. Bailey 1924, p. 34 [ref. 010600]. Nomen nudum [according to INA].
- Achnanthes brachypus* Montagne 1837, p. 348 [ref. 011206]. Synonym (nomenclatural): *A. pachypus* Montagne 1839 [according to INA].
- Achnanthes brasiliensis* Ehrenberg 1854, p. 310, 311 [ref. 000300]. *Invalid*. Nomen nudum.
- Achnanthes breonii* R.E.M. Archibald 1966, p. 478; pl. 97 (1), fig. 1-3 [ref. 003381].
- Achnanthes bremeyeri* Lange-Bertalot in Lange-Bertalot & Krammer 1989, p. 31-32; fig. 76: 11-12 [ref. 006174]. Treated as a new taxon on p. 31-32 (with indication of type and Latin diagnosis), although *Navicula bremeyeri* Hustedt is listed as synonym (with query) on p. 31; treated as a new combination of *Navicula bremeyeri* Hustedt in expl. pl. 76, figs. 11, 12.
- Achnanthes brevicostata* (Hustedt) Lange-Bertalot & Krammer 1989, p. 33; fig. 30: 4, 5 & fig. 33: 42-45 [ref. 006174]. Basionym: *Cocconeis brevicostata* Hustedt 1937.
- Achnanthes brevipes* Agardh 1824, p. 1 [ref. 000102].
- Achnanthes brevipes* var. *angustata* (Greville) Cleve 1895, p. 194 [ref. 000949]. Basionym: *Achnanthes angustata* Greville 1859.
- Achnanthes brevipes* var. *arctica* (P. T. Cleve) T. Ko-Bayashi 1965, p. 4; pl. 1-5 [ref. 008440]. Basionym: *Achnantheidium arcticum* Cleve 1873.
- Achnanthes brevipes* var. *bacillaris* M. Peragallo 1929, p. 18; pl. 2, fig. 1 [ref. 000739].
- Achnanthes brevipes* var. *biareolata* 'Mereschkowsky' according to Proschkina-Lavrenko 1950, p. 113 [ref. 001823]. Cited by Proschkina-Lavrenko with no reference and no description.
- Achnanthes brevipes* var. *capensis* (Kützing) Grunow 1867, p. 7 [ref. 000432]. Basionym: *Achnanthes capensis* Kützing 1844.
- Achnanthes brevipes* var. *capensis* Cleve 1895, p. 193 [ref. 000949]. *Illegitimate*. Non (Kützing) Grunow 1867.
- Achnanthes brevipes* var. *clavata* Missuna 1914, p. 140; pl. 2, fig. 2 [ref. 000663].
- Achnanthes brevipes* var. *constricta* Cleve & Möller 1878, No. 88 [ref. 001975]. *Invalid*. No description (nomen nudum).
- Achnanthes brevipes* var. *constricta* Grunow in Schneider 1878, p. 103 [ref. 010751]. [according to INA].
- Achnanthes brevipes* var. *contracta* Grunow in Cleve & Grunow 1880, p. 19 [ref. 000241].

- Achnanthes brevipes* f. *curtata* Missuna 1914, pl. 2, fig. 4 [ref. 000663]. *Invalid*. No description.
- Achnanthes brevipes* f. *elliptica* Østrup 1897, p. 329; pl. 2, fig. 13 [ref. 000700]. According to Cleve-Euler 1853, p. 50 (ref. 001042). According to ANSP, it was published as “var. *elliptica*” by Østrup.
- Achnanthes brevipes* var. *elliptica* (Østrup) Cleve-Euler 1953, p. 50; fig. 596b, c, i (as [*A. brevipes* Agardh]  $\gamma$  *elliptica* n. nom.) [ref. 001042]. Basionym: *Achnanthes brevipes* f. *elliptica* Østrup 1897. *Invalid*. Rank implied, but not clearly indicated. Validated by VanLandingham 1967, p. 12 (ref. 006293).
- Achnanthes brevipes* var. *elliptica* (Østrup) Cleve-Euler ex VanLandingham 1967, p. 12 [ref. 006293]. Basionym: *Achnanthes brevipes* f. *elliptica* Østrup 1897.
- Achnanthes brevipes* var. *fragilariiformis* Kützing 1833, p. 575; fig. 58 (as *Achnanthes brevipes*  $\gamma$  *fragilariiformis*) [ref. 000594]. New name for *Fragilaria salina* Kützing 1833.
- Achnanthes brevipes* f. *gausii* Heiden in Heiden & Kolbe 1928, p. 579 (as *Achnanthes brevipes* var. *intermedia* f. *gausii*) [ref. 000473].
- Achnanthes brevipes* var. *incurvata* (Østrup) Østrup 1897, p. 330 [ref. 000700]. Basionym: *Achnanthes subsessilis* var. *incurvata* Østrup 1895. [according to VLC].
- Achnanthes brevipes* var. *indica* (Brun) Cleve 1895, p. 194 [ref. 000949]. Basionym: *Achnanthes indica* Brun 1893.
- Achnanthes brevipes* var. *intermedia* (Kützing) Cleve 1895, p. 193 [ref. 000949]. Basionym: *Achnanthes intermedia* Kützing 1833.
- Achnanthes brevipes* var. *japonica* Skvortzow 1932, p. 155; pl. 2, fig. 9 [ref. 000837]. Non Skvortzow 1932, p. 122, a different taxon (ref. 000835) (published in same issue).
- Achnanthes brevipes* var. *japonica* Skvortzow 1932, p. 122; pl. 2, fig. 12, 13 [ref. 000835]. Non Skvortzow 1932, p. 155, a different taxon (ref. 000837) (published in same issue).
- Achnanthes brevipes* var. *lata* Cleve-Euler 1949, p. 15 [ref. 000254].
- Achnanthes brevipes* var. *leudugeri* (Tempère & Brun in Brun & Tempère) Cleve 1895, p. 193 [ref. 000949]. Basionym: *Achnanthes leudugeri* Tempère & Brun in Brun & Tempère 1889.
- Achnanthes brevipes* var. *linearis* Østrup 1897, p. 330; pl. 2, fig. 9 [ref. 000700].
- Achnanthes brevipes* var. *maculata* M. Peragallo in Tempère & Peragallo 1910, p. 213; No. 398-399 [ref. 001066].
- Achnanthes brevipes* var. *marginata* Cleve 1895, p. 193 [ref. 000949].
- Achnanthes brevipes* var. *marina* Kützing 1833, p. 574 (as *Achnanthes brevipes*  $\alpha$  *marina*) [ref. 000594].
- Achnanthes brevipes* var. *minor* H. Peragallo in H. Peragallo & M. Peragallo 1897, pl. 1, fig. 16-18 [ref. 001052].
- Achnanthes brevipes* var. *neogenica* Milovanova 1955, p. 70; fig. 4-7 [ref. 000662].
- Achnanthes brevipes* var. *parvula* (Kützing) Cleve 1895, p. 193 [ref. 000949]. Basionym: *Achnanthes parvula* Kützing 1844.
- Achnanthes brevipes* var. *pennaeformis* (Greville) Cleve 1895, p. 194 [ref. 000949]. Basionym: *Achnanthes pennaeformis* Greville 1866.
- Achnanthes brevipes* f. *rostrata* Karajeva 1964, p. 30; fig. 1 (as *Achnanthes brevipes* var. *intermedia* f. *rostrata*) [ref. 002282].
- Achnanthes brevipes* var. *salina* Kützing 1833, p. 575, fig. 57 (as *Achnanthes brevipes*  $\beta$  *salina*) [ref. 000594].
- Achnanthes brevipes* var. *salina* Rabenhorst 1871, No. 3 [ref. 000776]. According to Mills 1933, p. 59 (ref. 000660). Non Kützing 1833.
- Achnanthes brevipes* var. *salinarum* Agardh 1832, p. 59 (as *Achnanthes brevipes*  $\beta$  *salinarum*) [ref. 000940]. *Invalid*. Nomen nudum: no illustration or description. Described in Rabenhorst, Fl. Eur. Alg. I: 111.1864 (ref. 000775).
- Achnanthes brevipes* var. *salinarum* Agardh ex Rabenhorst 1864, p. 111 (as *Achnanthes brevipes*  $\beta$  *salinarum*) [ref. 000775]. Name first appeared as nomen nudum in C. Agardh. Consp. Crit. Diat.: 59.1832 (ref. 000140). Description provided by Rabenhorst 1864. *Achnanthes salina* Kützing 1844 cited as synonym.
- Achnanthes brevipes* var. *seriata* (Agardh) Cleve 1895, p. 194 [ref. 000949]. Basionym: *Achnanthes seriata* Agardh 1827.
- Achnanthes brevipes* var. *solcaensis* Tarnovschi 1941, p. 27; fig. 25a-d [ref. 000875].
- Achnanthes brevipes* var. *subcrenulata* (Cleve) Cleve 1895, p. 193 [ref. 000949]. Basionym: *Achnanthes subcrenulata* Cleve 1891.
- Achnanthes brevipes* var. *subsessilis* (Kützing) Frenguelli 1930, p. 266; pl. 1, fig. 24 [ref. 000354]. Basionym: *Achnanthes subsessilis* Kützing 1833.
- Achnanthes brevipes* f. *trigona* Østrup 1910, p. 131; pl. 4, fig. 83 [ref. 000706]. *Invalid*. No description.
- Achnanthes brevipes* var. *tumida* Hustedt 1927, p. 238; pl. 7, fig. 7 [ref. 000499].
- Achnanthes brevipes* var. *tumidula* ‘Grunow’ Mills 1933, p. 73 [ref. 000660]. *Invalid*. Err. cit. for *Achnanthes subsessilis* var. *tumidula* Grunow in Cleve & Grunow 1880, p. 19 (ref. 000241). Cited in syn. of *Achnanthes subsessilis* var. *tumidula* Grunow.
- Achnanthes brevipes* var. *typica* Cleve 1895, p. 193 [ref. 000949]. Although the name appears in Cleve as “*A. brevipes* var. *typica* Cl.”, because Cleve refers to Agardh’s typical form of the species, this is not an attempt to create a new variety of Agardh’s species.
- Achnanthes brevis* Chernov 1949, p. 172 [ref. 002920]. *Invalid*. Nomen nudum. Citation error for *Achnanthes brevipes* Ag.?

- Achnanthes breweri* Foged 1968, p. 3; pl. 1, fig. 6a, b [ref. 004050].
- Achnanthes brockmannii* Hustedt 1959, p. 42 [ref. 000534]. New name for *Achnanthes schulzii* Brockmann 1954, non Cleve-Euler 1932.
- Achnanthes broenlundensis* Foged 1955, p. 39; pl. 4, fig. 10-11 [ref. 000324].
- Achnanthes bruunii* Foged 1957, p. 52; pl. 4, fig. 12-13 [ref. 000325].
- Achnanthes buccula* Chohnoky 1966, p. 6-7; pl. 1, fig. 1-3 [ref. 003668].
- Achnanthes butterfassiana* Lange-Bertalot in Lange-Bertalot & Krammer 1989, p. 34-35; fig. 71: 15-29, fig. 72: 2-5 [ref. 006174].
- Achnanthes calamae* Frenguelli 1930, p. 199, fig. 35, no. 2 [ref. 000353].
- Achnanthes calcar* Cleve 1891, p. 51; pl. 3, fig. 8 [ref. 000229].
- Achnanthes calcar* var. *australis* Playfair 1914, p. 116; pl. 4, fig. 25-26 [ref. 002345].
- Achnanthes calcar* f. *baicalensis* (Skvortzow & Meyer) Scheschukova in Zabelina et al. 1951, p. 225 (as *A. calcar* f. *baicalensis* Skv.) [ref. 000800]. Basionym: *Achnanthes baicalensis* Skvortzow & Meyer 1928. Basionym not clearly stated. Other names could have been interpreted as being the basionym. Valid nevertheless.
- Achnanthes calcar* var. *pulcherrima* Playfair 1914, p. 116; pl. 4, fig. 27 [ref. 002345].
- Achnanthes calcaroides* Foged 1971, p. 927-928; pl. 1, fig. 4a, b [ref. 004052].
- Achnanthes caledonica* Lange-Bertalot in Lange-Bertalot & Moser 1994, p. 95 [ref. 006662]. *Invalid*. Intended new name for *Achnanthes microcephala* f. *scotica* J.R. Carter 1981 (*invalid*).
- Achnanthes campechiana* Hustedt 1952, p. 389; fig. 87-90 [ref. 000524].
- Achnanthes campylopus* Montagne 1857, p. 183 [ref. 011207].
- Achnanthes capensis* Kützing 1844, p. 76; pl. 21, fig. 1 [ref. 000595].
- Achnanthes capensis* var. *multiarticulata* Kützing 1844, p. 76 (as *Achnanthes capensis*  $\beta$  *multiarticulata*) [ref. 000595]. *A. striata* Suhr (a manuscript name?) cited as synonym.
- Achnanthes capitata* Erlandsson 1930, p. 5; fig. 2-3 [ref. 000314].
- Achnanthes capitellata* (A. Cleve) Cleve-Euler 1948, p. 17 [ref. 000253]. Basionym: *Navicula capitellata* Cleve-Euler 1943. [according to INA]. Basionym illegitimate (non *N. capitellata* Skvortzow 1935).
- Achnanthes carissima* Lange-Bertalot in Lange-Bertalot & Krammer 1989, p. 36; fig. 36: 32-34, fig. 38: 1-4 [ref. 006174].
- Achnanthes carmichaeli* Greville in Hooker 1833, p. 404 [ref. 000403].
- Achnanthes cassida* Carter 1970, p. 608; pl. 1, fig. 17, 18 [ref. 003967].
- Achnanthes cataractarum* (Hustedt) Lange-Bertalot & Krammer 1989, p. 37; fig. 33: 38-41 [ref. 006174]. Basionym: *Cocconeis cataractarum* Hustedt 1937.
- Achnanthes catenata* Bily & Marvan 1959, p. 34-35; pl. 8, fig. 1-4 [ref. 000141].
- Achnanthes centrafricana* Fusey 1964, p. 26; pl. 2, fig. 25 [ref. 008218]. [according to ANSP].
- Achnanthes ceramii* Hendey 1977, p. 366, 374; fig. 5-8 [ref. 003195].
- Achnanthes charcotii* M. Peragallo 1921, p. 13; pl. 1, fig. 10, 11 [ref. 000737].
- Achnanthes chilensis* Hustedt 1927, p. 238; pl. 7, fig. 3, 4 [ref. 000499].
- Achnanthes chilensis* var. *subaequalis* Reimer in Patrick & Reimer 1966, p. 276; pl. 19, fig. 8, 9 [ref. 003167].
- Achnanthes chlidanos* Hohn & Hellerman 1963, p. 273-274; pl. 2, fig. 1, 2 [ref. 000486].
- Achnanthes cincta* Andrews 1971, p. E10; pl. 1, fig. 10, 11 [ref. 006295].
- Achnanthes citrina* (Schmidt in Schmidt et al.) M. Peragallo 1897, p. 4 [ref. 012539]. Basionym: *Cocconeis citrina* Schmidt in Schmidt et al. 1895.
- Achnanthes citronella* (Mann) Hustedt in Schmidt et al. 1937, pl. 415, fig. 3-8 [ref. 012521]. Basionym: *Cocconeis citronella* Mann 1925.
- Achnanthes clara* Cleve-Euler 1948, p. 17; pl. 1, fig. 15a [ref. 000253].
- Achnanthes clavata* Pantocsek 1902, p. 639; pl. 11, fig. 20 [ref. 000718]. (p. 13 of reprint).
- Achnanthes clevei* Grunow in Cleve & Grunow 1880, p. 21 [ref. 000241]. Also: *Achnanthes clevei* Grunow in Van Heurck, Syn. Diat. Belgique: pl. XXVII: figs. 5-7. 1880 (ref. 000895).
- Achnanthes clevei* var. *balcanica* Hustedt 1945, p. 908; pl. 39, fig. 34-37 [ref. 000518].
- Achnanthes clevei* var. *bottnica* Cleve 1891, p. 52; pl. 3, fig. 4, 5 [ref. 000229].
- Achnanthes clevei* var. *capitata* Cleve-Euler 1953, p. 19; fig. 512e (as [*A. clevei* Grun.]  $\gamma$  *capitata* n.v.) [ref. 001042].
- Achnanthes clevei* var. *genuina* Cleve-Euler 1953, p. 18; fig. 512a, b (as [*A. clevei* Grun.]  $\alpha$  *genuina* mh.) [ref. 001042]. Cleve-Euler refers to Grunow's original reference of *A. clevei* (in Syn Diat. Belg. 27:5-7). Rank implied, but not clearly indicated.
- Achnanthes clevei* var. *nipponica* Skvortzow 1936, p. 24; pl. 2, fig. 24 [ref. 000843].
- Achnanthes clevei* var. *pavini* Manguin 1954, p. 15; pl. 2, fig. 18 [ref. 002503].
- Achnanthes clevei* var. *rostrata* Hustedt 1930, p. 204; fig. 295 [ref. 000502].
- Achnanthes clevei* f. *rostrata* Hustedt 1945, p. 908; pl. 39, fig. 38-39 (as *Achnanthes clevei* var. *balcanica* f. *rostrata*) [ref. 000518]. *Illegitimate*. Non *A. clevei* var. *rostrata* Hustedt 1930.

- Achnanthes coarctata* (Brébisson ex W. Smith) Grunow in Cleve & Grunow 1880, p. 20 [ref. 000241]. Basionym: *Achnanthidium coarctatum* Brébisson ex W. Smith 1855. Also: *Achnanthes coarctata* (Brébisson ex W. Smith) Grunow in Van Heurck, Syn. Diat. Belgique: expl. pl. XXVI: fig. 17. 1880 (ref. 000895).
- Achnanthes coarctata* f. *antarctica* M. Peragallo 1921, p. 14; pl. 1, fig. 8, 9 (as *Achnanthes coarctata* var. *elineata* f. *antarctica*) [ref. 000737].
- Achnanthes coarctata* var. *constricta* Krasske 1929, p. 351; fig. 20a [ref. 000582].
- Achnanthes coarctata* var. *distorta* M. Peragallo 1921, p. 28; pl. 1, fig. 7 [ref. 000737]. *Invalid*. Expressed as *A. (coarctata* var.?) *distorta* on legend (pl. 1, fig. 7) and as *A. (coarctata* var.?) *distorta* n. sp. on table p. 28; as *Achnanthes distorta* n. sp. in text on p. 14. *Invalid* as a trinomial. Valid as *Achnanthes distorta* M. Peragallo 1921.
- Achnanthes coarctata* var. *elineata* (Lagerstedt) Otto Müller 1909, p. 9 [ref. 001777]. Basionym: *Achnanthidium coarctatum* var. *elineatum* Lagerstedt 1873.
- Achnanthes coarctata* var. *elineata* (Lagerstedt) M. Peragallo 1921, p. 14 [ref. 000737]. Basionym: *Achnanthidium coarctatum* var. *elineatum* Lagerstedt 1873. Isonym. Combination previously published by O. Müller 1909 (ref. 001777).
- Achnanthes coarctata* var. *elliptica* Krasske 1929, p. 351; fig. 20 c [ref. 000582].
- Achnanthes coarctata* f. *falklandica* Carlson 1913, p. 23; pl. 3, fig. 13, 14 [ref. 000188].
- Achnanthes coarctata* var. *otrantina* (Rabenhorst) H. Peragallo in Pelletan 1889, p. 221 [ref. 001001]. Basionym: *Achnanthidium otrantinum* Rabenhorst 1853. Basionym not cited by Peragallo.
- Achnanthes coarctata* var. *parallella* Venkataraman 1939, p. 314; pl. 17, fig. 1, text-fig. 46-48 (p. 312) [ref. 000899].
- Achnanthes coarctata* var. *petripazmanyii* Z. Éber 1930, p. 1000-1001; pl. 20, fig. 36, 37 [ref. 000279].
- Achnanthes coarctata* var. *rhomboidea* Tarnavski & Jitariu 1955, p. 772; fig. 6 [ref. 008883].
- Achnanthes coarctata* var. *sigmoideum* 'Brébisson' H. Peragallo in Pelletan 1889, p. 221 [ref. 001001]. *Invalid*. Name only. Credited to Brébisson. No potential basionym found among Brébisson's names.
- Achnanthes coarctata* var. *sinaensis* Hustedt 1949, p. 43; fig. 6, 7 [ref. 000520].
- Achnanthes cocconeiformis* Mann 1925, p. 10; pl. 1, fig. 1 [ref. 000632].
- Achnanthes cocconeoides* Riznyk 1973, p. 114-115; pl. I, fig. 8-9; pl. 18, fig. 1, 2 [ref. 005282].
- Achnanthes cochinchinensis* M. Peragallo 1897, p. 3; fig. 1-3 [ref. 000736]. *Invalid?* Unpublished manuscript? Cited in M. Peragallo 1897, p. 4 (ref. 012539) as "*A. cochinchinensis* M. Per. - M. Per. Coch. p. 3, f. 1-3". Also cited (but not described) by Forti 1909, p. 121 (ref. 000489).
- Achnanthes cogitata* Archibald 1971, p. 22; fig 6, 7 [ref. 003396].
- Achnanthes cognita* Simonsen 1987, p. 342 [ref. 003164]. New name for *Navicula congolensis* Hustedt 1949 (priority for *Achnanthes congolensis* Hustedt 1949). *Achnanthes congolensis* was however invalid in Hustedt 1949 (validly published as *Achnanthes atomus* var. *congolensis* Hustedt 1949). Simonsen 1987, however, in this same work (ref. 003164) on p. 340, validates the combination: *Achnanthes congolensis* (Hustedt) Simonsen 1987 (based on *Achnanthes atomus* var. *congolensis* Hustedt 1949).
- Achnanthes compacta* Mann 1925, p. 10; pl. 1, fig. 2 [ref. 000632].
- Achnanthes conchinchinensis* 'M. Peragallo' VanLandingham 1967, p. 18 [ref. 006293]. *Invalid*. Err. cit. for *Achnanthes cochinchinensis* Peragallo?
- Achnanthes confusa* Manguin in Bourrelly & Manguin 1954, p. 20; pl. 1, fig. 12a-b [ref. 001957].
- Achnanthes confusa* var. *atomoides* Manguin in Bourrelly & Manguin 1954, p. 20; pl. 1, fig. 13a-b [ref. 001957].
- Achnanthes congolensis* (Hustedt) Simonsen 1987, p. 340 (as *Achnanthes (atomus* var.?) *congolensis* Hustedt on p. 340, and plate caption, and *Achnanthes congolensis* in Index on p. 507) [ref. 003164]. Basionym: *Achnanthes atomus* var. *congolensis* Hustedt 1949. Not indicated as "n. comb.", but nevertheless a valid new combination.
- Achnanthes congolensis* Hustedt 1949, p. 74; pl. 2, fig. 35-36 (as *Achnanthes (atomus* var.?) *congolensis* nov. var. in text and caption, as *Achnanthes atomus* var.?) *congolensis* on p. 190) [ref. 000521]. *Invalid*. Name invalid as the name of a species, but valid as *Achnanthes atomus* var. *congolensis* since Hustedt clearly indicates "n. var."
- Achnanthes congolensis* (Hustedt) Hustedt 1962, p. 282 [ref. 002277]. Basionym: *Navicula congolensis* Hustedt 1949. *Invalid*. Epithet not associated with genus name. Not validated by VanLandingham 1979, p. 4242 (ref. 006514). Simonsen 1987, p. 342 (ref. 003164), created a nomen novum for this taxon: *Achnanthes cognita* Simonsen 1987.
- Achnanthes conspicua* Mayer 1919, p. 198-199, 212; pl. 6, fig. 9, 10 [ref. 000637].
- Achnanthes conspicua* var. *brevicostata* Skabichevskii 1942 [ref. 002364]. According to Hollerbakh & Krasavina 1971, p. 12 (ref. 002458). [according to VLC].
- Achnanthes conspicua* var. *brevistriata* Hustedt 1930, p. 202; fig. 292 [ref. 000502].
- Achnanthes conspicuoides* Foged 1981, p. 44-45; pl. 12, fig. 7, 8 [ref. 006676].
- Achnanthes contracta* (Schumann) De Toni 1891, p. 477 [ref. 000271]. Basionym: *Achnanthidium contractum* Schumann 1867.
- Achnanthes contrarea* Lange-Bertalot & Steindorf in Moser, Steindorf & Lange-Bertalot 1995, p. 34-35; pl. 5, fig. 1-19 [ref. 008613].
- Achnanthes controversa* Hustedt in Schmidt et al. 1937, pl. 410, fig. 1-5 [ref. 012520]. New name for *Navicula marginula-*



- ta* Cleve 1881.
- Achnanthes convergens* Kobayasi 1964, p. 68; pl. 11, fig. 21 [ref. 002985]. *Invalid*. No Latin diagnosis. [according to INA].
- Achnanthes convergens* Kobayasi 1965, p. 348, fig. 5 a-f [ref. 002986]. *Invalid*. No type.
- Achnanthes convergens* H. Kobayasi ex Kobayasi, Nagumo & Mayama 1986, p. 84-85; pl. 1, fig. 1-7, 11-18, pl. 3, fig. 37-43, pl. 5, fig. 51-54 [ref. 009214]. A Latin diagnosis is cited from Kobayasi 1965, p. 348 (ref. 002986). [according to ANSP].
- Achnanthes corrupta* Giffen 1984, p. 184-185; pl. 1, fig. 1-6 [ref. 008264].
- Achnanthes costata* Johnston 1860, p. 15; pl. 1, fig. 14 ('*costatus*') [ref. 000545].
- Achnanthes costata* Greville 1866, p. 438; pl. 6, fig. 8-10 [ref. 000421]. *Illegitimate*. Non Johnson 1860.
- Achnanthes cotteriensis* Foged 1978, p. 24; pl. 15, fig. 6a, b [ref. 004055].
- Achnanthes crassa* Hustedt 1937, p. 194; pl. 13, fig. 37-40 [ref. 001012].
- Achnanthes crassa* var. *elliptica* Suxena & Venkateswarlu 1968, p. 9-10; pl. 1, fig. 9a, b [ref. 008863].
- Achnanthes crenulata* Grunow in Cleve & Grunow 1880, p. 20 [ref. 000241].
- Achnanthes crenulata* var. *arcuata* Tsumura 1956, p. 5; pl. 1, fig. 30-31 [ref. 000890].
- Achnanthes crenulata* var. *confusa* VanLandingham 1967, p. 18, 19 [ref. 006293]. New name for *A. crenulata* var. *linearis* Gandhi 1960, non Meister 1934.
- Achnanthes crenulata* var. *constricta* Hustedt 1937, p. 207; pl. 14, fig. 9 [ref. 001012].
- Achnanthes crenulata* var. *elliptica* Gandhi 1960, p. 86; fig. 15-16 [ref. 000377].
- Achnanthes crenulata* var. *linearis* Meister 1935, p. 96; fig. 42 [ref. 000645].
- Achnanthes crenulata* var. *linearis* Gandhi 1960, p. 85; fig. 12-14 [ref. 000377]. *Illegitimate*. Non Meister 1935. Synonym (substitute name): *Achnanthes crenulata* var. *confusa* VanLandingham 1967.
- Achnanthes cristata* Rabenhorst 1853, p. 26; pl. 8, fig. 7 [ref. 000772].
- Achnanthes crosbyana* Foged 1979, p. 19; pl. 14, fig. 1-7 [ref. 004056].
- Achnanthes crucifera* Østrup 1910, p. 130; pl. 4, fig. 84 [ref. 000706].
- Achnanthes crucifera* var. *capitata* Cleve-Euler 1934, p. 39; pl. 2, fig. 46 [ref. 000249].
- Achnanthes crucifera* var. *genuina* Cleve-Euler 1953, p. 36; fig. 546a, b (as [*A. crucifera* Ostr.]  $\alpha$  *genuina* mh.) [ref. 001042]. Cleve-Euler refers to the original publication of *A. crucifera* Østrup.
- Achnanthes crucifera* var. *pseudoexigua* Cleve-Euler 1953, p. 36; fig. 546e-f (as [*A. crucifera* Ostr.]  $\gamma$  *pseudoexigua* n.v.) [ref. 001042].
- Achnanthes cryophila* See *Achnanthes kryophila*. [according to VLC].
- Achnanthes cryptocephala* (Grunow in Van Heurck) M. Peragallo 1897, p. 4 [ref. 012539]. Basionym: *Achnanthes minutissima* var. *cryptocephala* Grunow in Van Heurck 1880.
- Achnanthes cryptocephala* 'Naegeli' Chase 1907, p. [22] [ref. 002211]. *Invalid*. Err. cit. for *Achnanthidium cryptocephalum* Naegeli ex Kützing 1849 (ref. 000596).
- Achnanthes cucurbita* Skvortzow 1935, p. 8; pl. 1, fig. 24-25 [ref. 000841].
- Achnanthes cuneata* Grunow in Cleve & Grunow as *Achnanthes (seriata* var.?) *cuneata* 1880, p. 19 [ref. 000241].
- Achnanthes curta* (A. Cleve) A. Berg ex Cleve-Euler 1953, p. 47; fig. 587 [ref. 001042]. Basionym: *Pinnularia curta* A. Cleve 1900.
- Achnanthes curta* f. *perminuta* Cleve-Euler 1953, p. 47 [ref. 001042]. No illustration.
- Achnanthes curtissima* Carter 1963, p. 200; pl. 1, fig. 3 [ref. 001117]. Type not indicated, but a single locality is cited, and a single illustration (2 valves) is provided which could be considered the type.
- Achnanthes curvata* Leuduger-Fortmorel 1879, p. 13; pl. 1, fig. 5 [ref. 000606].
- Achnanthes curvirostrum* Brun 1895, pl. 16, fig. 84, 85 [ref. 000181].
- Achnanthes cyclophora* Heiden in Heiden & Kolbe 1928, p. 580; pl. 5, fig. 106, 106a [ref. 000473].
- Achnanthes danica* (Flögel) Grunow in Cleve & Grunow 1880, p. 21 [ref. 000241]. Basionym: *Cocconeis danica* Flögel 1873.
- Achnanthes danica* sensu Pantocsek 1889, p. 57; pl. 4, fig. 66 (as *Achnanthes danica* Grun. in Cleve Grun.) [ref. 001033].
- Achnanthes danica* 'Flögel' sensu Schulz 1926, p. 190; fig. 37 [ref. 000812]. Schulz cites *Cocconeis danica* Flögel. Valid synonyms: *Achnanthes schulzii* Brockmann 1954, *Achnanthes brockmannii* Hustedt 1959.
- Achnanthes danica* var. *asymmetrica* Missuna 1914, p. 141 [ref. 000663]. *Invalid*. No illustration (fossil taxon).
- Achnanthes danica* var. *major* Cleve 1895, p. 186; pl. 3, fig. 8, 9 [ref. 000949].
- Achnanthes danica* var. *maxima* Cleve in Schmidt et al. 1895, pl. 198, fig. 60, 61 [ref. 012476].
- Achnanthes danica* f. *maxima* Tempère & Peragallo 1908, p. 82; No. 152, 153 [ref. 001064]. *Invalid*. Nomen nudum.
- Achnanthes danica* var. *schulzii* Cleve-Euler 1940, p. 303 [ref. 001636]. *Invalid*. No illustration (fossil).
- Achnanthes danicoides* Giffen 1975, p. 72; pl. 1, fig. 3-6 [ref. 004246].
- Achnanthes daonensis* Lange-Bertalot in Lange-Bertalot & Krammer 1989, p. 43; fig. 19: 27-32, fig. 95: 1-13, fig. 25: 1-6 [ref. 006174].
- Achnanthes dauui* Foged 1962, p. 14; pl. 1, fig. 10 [ref. 000329].

- Achnanthes dau* var. *alaskaensis* Foged 1971, p. 928-929; pl. 1, fig. 3a, b [ref. 004052].
- Achnanthes debilissima* Østrup 1910, p. 214; pl. 13, fig. 24 (as *Achnanthes debilissima* sp. nova?) [ref. 000707]. Could also be treated as a valid new combination of *Navicula debilissima* Grunow 1884 (Østrup notes: “may be identical with *Navicula debilissima* Grun.”).
- Achnanthes decipiens* Reimer 1966, p. 2; pl. 1, fig. 2-5 [ref. 002562].
- Achnanthes deflexa* Reimer in Patrick & Reimer 1966, p. 256; pl. 16, fig. 18-20 [ref. 003167].
- Achnanthes deflexa* var. *alpestris* Lowe & Kociolek 1984, p. 468-469; fig. 1-5 [ref. 004856].
- Achnanthes delicatissima* Simonsen 1959, p. 75; pl. 10, fig. 8-13 [ref. 000823]. *Invalid*. Type not designated.
- Achnanthes delicatula* (Kützing) Brun 1880, p. 29; pl. 3, fig. 24 [ref. 000174]. Basionym: *Achnanthidium delicatulum* Kützing 1844.
- Achnanthes delicatula* (Kützing) Grunow in Cleve & Grunow 1880, p. 22 [ref. 000241]. Basionym: *Achnanthidium delicatulum* Kützing 1844. Also : *Achnanthes delicatula* (Kützing) Grunow in Van Heurck, Syn. Diat. Belgique: expl. pl. XXVII: fig. 3. 1880 (ref. 000895); and *Achnanthes delicatula* (Kützing) Brun 1880, p. 29; pl. 3, fig. 24 (ref. 000174).
- Achnanthes delicatula* f. *angusta* Gutwinski 1893 [ref. 002951]. According to VanLandingham 1979, p. 4242 (ref. 006514). Citation error for *A. delicatula* f. *angustata* (Gutw.) Gutw. 1893? [according to VLC].
- Achnanthes delicatula* f. *angustata* (Gutwinski) Gutwinski 1893, p. 151 [ref. 002721]. Basionym: *Achnanthidium delicatulum* f. *angustatum* Gutwinski 1890.
- Achnanthes delicatula* var. *australis* Manguin in Bourrelly & Manguin 1954, p. 20; pl. 2, fig. 18a-b [ref. 001957].
- Achnanthes delicatula* subsp. *engelbrechtii* (Cholnoky) Lange-Bertalot in Krammer & Lange-Bertalot in H. Ettl et al. 1991, p. 72; fig. 39: 24-33 [ref. 006522]. Basionym: *Achnanthes engelbrechtii* Cholnoky 1955. *Invalid*. Place of publication of basionym not cited completely. Validated by Lange-Bertalot 1993, p. 3 (ref. 008467).
- Achnanthes delicatula* subsp. *engelbrechtii* (Cholnoky) Lange-Bertalot 1993, p. 3 [ref. 008467]. Basionym: *Achnanthes engelbrechtii* Cholnoky 1955. *Invalidly* published in Lange-Bertalot in Krammer & Lange-Bertalot 1991 (ref. 006522). Validated by Lange-Bertalot 1993.
- Achnanthes delicatula* var. *genuina* Cleve-Euler 1953, p. 45; fig. 583a-d (as [*A. delicatula* (Kz.) Grun.]  $\alpha$  *genuina* mh.) [ref. 001042]. Cleve-Euler does not refer directly to *Achnanthidium delicatulum* Kützing, but to “*Achnanthes delicatula* (Kz.) Grunow (V.H. Syn. 27/3-4 & A.D. 22)” (i.e. Van Heurck 1880: ref. 000895; Cleve & Grunow 1880: ref. 000241).
- Achnanthes delicatula* subsp. *hauckiana* (Grunow) Lange-Bertalot & Ruppel 1980, p. 6; fig. 1-20, 268 a-c, 330, 331 [ref. 008475]. Basionym: *Achnanthes hauckiana* Grunow in Cleve & Grunow 1880.
- Achnanthes delicatula* var. *heterostriata* Scheschukova in Poretzky, Jousé & Scheschukova 1934, p. 166; pl. 22, fig. 2 [ref. 000757].
- Achnanthes delicatula* var. *magellanica* Frenguelli 1924, p. 109 (7); pl. 9, fig. 22-23 [ref. 000970]. Appeared previously as a nomen nudum in Frenguelli 1924, p. 231 (9) (ref. 000968).
- Achnanthes delicatula* var. *pacis* Frenguelli 1923, p. 72; pl. 6, fig. 28-30 [ref. 000347].
- Achnanthes delicatula* var. *robusta* Hustedt 1934, p. 378; fig. 1, 2 [ref. 000508].
- Achnanthes delicatula* var. *rostrata* (Schulz) Cleve-Euler 1932, p. 57 [ref. 000248]. Basionym: *Achnanthes hauckiana* var. *rostrata* Schulz 1926.
- Achnanthes delicatula* subsp. *septentrionalis* (Østrup) Lange-Bertalot in Lange-Bertalot & Krammer 1989, p. 46; fig. 80: 24-31, fig. 82: 1-24, fig. 90: 3, 4 [ref. 006174]. Basionym: *Achnanthes septentrionalis* Østrup 1910.
- Achnanthes delicatula* var. *subcapitata* (Østrup) Cleve-Euler 1953, p. 46; fig. 583g-k (as [*A. delicatula* (Kz.) Grun.]  $\beta$  *subcapitata* mh.) [ref. 001042]. Basionym: *Achnanthes septentrionalis* var. *subcapitata* Østrup 1910. *Invalid*. Rank implied, but not clearly indicated.
- Achnanthes delicatula* var. *wislouchii* (Poretzky) Zabelina et al. 1951, p. 213; fig. 116, 2 [ref. 000800]. Basionym: *Microneis delicatula* var. *wislouchii* Poretzky 1925. Err. cit. pro *Microneis delicatula* var. *wislouchii* Poretzky 1925. We treat it as a valid new combination (name accepted by Zabelina).
- Achnanthes delpiroui* M. Peragallo in Héribaud et al. 1920, p. 113; pl. 2, fig. 1, 2 [ref. 000482].
- Achnanthes densestriata* Cleve-Euler 1953, p. 24, fig. 523 a [ref. 001042].
- Achnanthes densestriata* Cl.-Euler var. *genuina* Cleve-Euler 1953, p. 24; fig. 523a (as [*Achnanthes densestriata*]  $\alpha$  *genuina* n.v.) [ref. 001042].
- Achnanthes densestriata* Cl.-Euler var. *subalpina* Cleve-Euler 1953, p. 25; fig. 523b (as [*Achnanthes densestriata*]  $\beta$  *subalpina* n.v.) [ref. 001042].
- Achnanthes densestriata* (Hustedt) Hustedt 1962, p. 282 [ref. 002277]. Basionym: *Navicula densestriata* Hustedt 1922. *Invalid*. Epithet not associated with genus name. Not validated by VanLandingham 1979, p. 4243 (ref. 006514).
- Achnanthes depressa* (Cleve) Hustedt 1933, p. 417; fig. 870 [ref. 000507]. Basionym: *Navicula depressa* Cleve 1891.
- Achnanthes depressa* var. *genuina* Cleve-Euler 1953, p. 34; fig. 542a-e (as [*A. depressa* (Cl.) Hust.]  $\alpha$  *genuina* mh.) [ref. 001042]. Cleve-Euler refers to *Navicula depressa* Cleve 1891.
- Achnanthes depressa* var. *lanceolata* Cleve-Euler 1939, p. 12; fig. 56 [ref. 000250].
- Achnanthes desperata* Cholnoky 1959, p. 6; pl. 1, fig. 10-15 [ref. 000206]. *Invalid*. Type not designated.

- Achnanthes detha* Hohn & Hellerman 1963, p. 274; pl. 2, fig. 7-8 [ref. 000486].
- Achnanthes devilenensis* Foged 1981, p. 45-46; pl. 11, fig. 13, 14, pl. 12, fig. 17, 18 [ref. 006676].
- Achnanthes didyma* Hustedt 1933, p. 405; fig. 857 [ref. 000507].
- Achnanthes didyma* f. *gibbosa* Carter in Carter & Bailey-Watts 1981, p. 530; pl. 23, fig. 17-18 [ref. 003626]. *Invalid?* Type not indicated, no locality cited, but illustration (2 valves, presumably from the same frustule) could possibly be considered to be the type.
- Achnanthes diluviana* Hustedt 1954, p. 451; fig. 11-12 [ref. 000528].
- Achnanthes dimorpha* Turpin 1828, p. 313; pl. 13, fig. 12 [ref. 006720]. Also illustrated in Turp. Atl. Dict. Scienc. Nat. Vég. vésiculines, fig. 7.
- Achnanthes dimorphostriata* H. Kobayashi 1968, p. 100; pl. 3, fig. 29-34 [ref. 008425].
- Achnanthes diplopunctata* Simonsen 1959, p. 76; pl. 10, fig. 4-7 [ref. 000823]. *Invalid*. Type not designated.
- Achnanthes dispar* Cleve 1891, p. 52; pl. 3, fig. 2, 3 [ref. 000229].
- Achnanthes dispar* Cleve var. *angulata* Hustedt 1930, p. 204; fig. 296b [ref. 000502].
- Achnanthes dispar* Cleve var. *angustissima* (Jasnitzky) Sheshukova in Proschkina-Lavrenko 1950, p. 105; pl. 37, fig. 17 a, b [ref. 001823]. Basionym: *Achnanthes angustissima* Jasnitsky 1936.
- Achnanthes dispar* Cleve var. *angustissima* (Jasnitsky) Scheschukova in Zabelina et al. 1951, p. 217; fig. 119-4 [ref. 000800]. Basionym: *Achnanthes angustissima* Jasnitsky 1936. Isonym: combination previously validly published by Scheschukova in Proschkina-Lavrenko 1950.
- Achnanthes dispar* Cleve var. *capitata* Jasnitsky 1936, p. 690, 701; pl. 1, fig. 8-9 [ref. 000543].
- Achnanthes dispar* Cleve var. *fontellii* Cleve-Euler 1953, p. 19; fig. 514c-d (as [*A. dispar* Cleve]  $\beta$  *fontellii* n.v.) [ref. 001042].
- Achnanthes dispar* Cleve var. *lanceolata* Schulz 1926, p. 190; fig. 34 [ref. 000812].
- Achnanthes dispar* Cleve var. *rumaniensis* Hustedt in Schmidt et al. 1936, pl. 408, fig. 55-60 [ref. 012519]. *Invalid*. No description. Validated by Simonsen 1987, p. 204 (ref. 003164).
- Achnanthes dispar* Cleve var. *rumaniensis* Hustedt ex Simonsen 1987, p. 204; pl. 315, fig. 1-13 [ref. 003164].
- Achnanthes dispar* Cleve var. *typica* Cleve-Euler 1953, p. 19; fig. 514a-b (as [*A. dispar* Cleve]  $\alpha$  *typica* mh.) [ref. 001042]. Cleve-Euler refers to the original reference of *A. dispar* Cleve.
- Achnanthes dispar* Mann 1907, p. 327; pl. 44, fig. 4, 5 [ref. 000631]. *Illegitimate*. Non Cleve 1891. Synonym (replacement name): *Achnanthes expecta* VanLandingham 1967.
- Achnanthes distincta* Messikommer 1954, p. 32; pl. 1, fig. 2 [ref. 000655].
- Achnanthes distorta* M. Peragallo 1921, p. 14; pl. 1, fig. 7 [ref. 000737]. Expressed as *A. (coarctata* var.?) *distorta* on legend (pl. 1, fig. 7) and as *A. (coarctata* var.?) *distorta* n. sp. on table p. 28; as *Achnanthes distorta* n. sp. in text on p. 14.
- Achnanthes divergens* Cleve-Euler 1953, p. 38; fig. 557 [ref. 001042].
- Achnanthes diversa* Cleve-Euler 1953, p. 47; fig. 588 [ref. 001042].
- Achnanthes dornii* Lange-Bertalot in Lange-Bertalot & Krammer 1989, p. 49, pl. 38, figs. 5-7; pl. 74, figs. 10-12' [ref. 006174]. *Invalid*. "Manuskriptnamen" [according to INA].
- Achnanthes dorogostaiskii* Jasnitsky 1936, p. 690, 701; pl. 1, fig. 12-13 [ref. 000543].
- Achnanthes dubia* Bory 1822, p. 80 [ref. 012545]. Syn.: *Echinella stipitata* Lyngbye p.p.
- Achnanthes duthiei* Sreenivasa 1971, p. 79; fig. 1a-d, fig. 2a-c ('*duthii*') [ref. 008836].
- Achnanthes elata* (Leuduger-Fortmorel) Gandhi 1960, p. 82; fig. 3-7, 10 [ref. 000377]. Basionym: *Navicula elata* Leuduger-Fortmorel 1879.
- Achnanthes elata* var. *curvata* 'Gandhi' VanLandingham 1967, p. 23 [ref. 006293]. *Invalid*. Err. cit. pro *Achnanthes elata* var. *curvula* Gandhi 1960 (ref. 000377).
- Achnanthes elata* var. *curvula* Gandhi 1960, p. 84; fig. 8, 11 [ref. 000377].
- Achnanthes elegans* H. Kobayashi 1964, p. 69; pl. 11, fig. 18 [ref. 002985]. *Invalid*. Description in Japanese. [according to INA].
- Achnanthes elegans* H. Kobayashi 1965, p. 348; fig. 18a-d [ref. 002986]. *Invalid*. No type.
- Achnanthes elliptica* Schumann 1867, p. 63; pl. 2, fig. 27 [ref. 000814].
- Achnanthes elliptica* Kustner 1914, p. 161, 162, 163; pl. 10, fig. 16 c [ref. 002299]. *Invalid*. No description.
- Achnanthes elliptica* Skvortzow & Meyer 1928, p. 10; pl. 1, fig. 20 [ref. 000855]. *Illegitimate*. Non Schumann 1867.
- Achnanthes elliptica* (Cleve) Cleve-Euler 1932, p. 55 [ref. 000248]. Basionym: *Achnanthes lanceolata* var. *elliptica* Cleve 1891. *Illegitimate*. Non Schumann 1867. New combination implied by the publication of *A. elliptica* var. *elongata* and *A. elliptica* var. *minor*?
- Achnanthes elliptica* (Cleve) Cleve-Euler var. *elongata* Cleve-Euler 1932, p. 55; fig. 115 [ref. 000248].
- Achnanthes elliptica* (Cleve) Cleve-Euler var. *exigua* Cleve-Euler 1953, p. 17; fig. 509m-o (as [*A. elliptica*]  $\epsilon$  *exigua* n.v.) [ref. 001042].
- Achnanthes elliptica* (Cleve) Cleve-Euler var. *genuina* Cleve-Euler 1953, p. 16; fig. 509a-d (as [*A. elliptica*]  $\alpha$  *genuina* mh.) [ref. 001042]. Cleve-Euler refers to the original reference of *A. lanceolata* var. *elliptica* Cleve 1891. Rank implied, but

not clearly indicated.

- Achnanthes elliptica* (Cleve) Cleve-Euler f. *ikpikpukensis* Foged 1968, p. 4; pl. 1, fig. 9a, b (as *Achnanthes elliptica* var. *pungens* f. *ikpikpukensis*) [ref. 004050].
- Achnanthes elliptica* (Cleve) Cleve-Euler var. *minor* (Schulz) Cleve-Euler 1932, p. 55 [ref. 000248]. Basionym: *Achnanthes lanceolata* f. *minor* Schulz 1926.
- Achnanthes elliptica* (Cleve) Cleve-Euler var. *pungens* Cleve-Euler 1934, p. 38; pl. 2, fig. 40 [ref. 000249].
- Achnanthes elliptica* (Cleve) Cleve-Euler var. *rostrata* Cleve-Euler 1939, p. 11; fig. 12 [ref. 000250].
- Achnanthes engelbrechtii* Cholnoky 1955, p. 16; fig. 1-8 [ref. 000200].
- Achnanthes engelbrechtii* var. *minuta* Cholnoky 1955, p. 16, fig. 9-10 [ref. 000200].
- Achnanthes entrancensis* Foged 1978, p. 25; pl. 15, fig. 10a, b [ref. 004055].
- Achnanthes erdmannensis* Foged 1964, p. 68; pl. 3, fig. 5a, b [ref. 000331].
- Achnanthes eutrophila* Lange-Bertalot in Lange-Bertalot & Metzeltin 1996, p. 25-26; pl. 78, fig. 29-38 [ref. 007048].
- Achnanthes exigua* Grunow in Cleve & Grunow 1880, p. 21 [ref. 000241]. New name for *Stauroneis exilis* Kützing 1844, priority for *Achnanthes exilis* Kützing 1833. Also: *Achnanthes exigua* Grunow in Van Heurck, Syn. Diat. Belgique: expl. pl. XXVII: fig. 29. 1880 (ref. 000895).
- Achnanthes exigua* Grunow f. *angustirostrata* Krasske 1939, p. 371; pl. 11, fig. 5-6 (as *Achnanthes exigua* var. *heterovalvata* f. *angustirostrata*) [ref. 000587].
- Achnanthes exigua* Grunow var. *angustirostrata* (Krasske) Lange-Bertalot in Lange-Bertalot & Krammer 1989, p. 53; fig. 45: 32-36 [ref. 006174]. Basionym: *Achnanthes exigua* Grunow f. *angustirostrata* Krasske 1939.
- Achnanthes exigua* Grunow f. *aperta* Guerneur 1954, p. 32, pl. 2, fig. 3, b, d, c, h, k [ref. 000449].
- Achnanthes exigua* Grunow var. *baikalensis* Skvortzow 1937, p. 313; pl. 5, fig. 29-30, 42-43 [ref. 000846].
- Achnanthes exigua* Grunow var. *capitata* Amossé 1921, p. 256 [ref. 001077].
- Achnanthes exigua* Grunow var. *capitata* Hustedt 1934, p. 377; fig. 8, 9 [ref. 000508]. *Illegitimate*. Non Amossé 1921.
- Achnanthes exigua* Grunow var. *constricta* Hustedt 1921, p. 145; figs. 7, 8 [ref. 000495]. Simonsen 1987, p. 54 (ref. 003164) indicates that Hustedt's taxon is identical with *Cocconeis exigua* var. *constricta* Torka 1909. Hustedt 1930, p. 202, and Hustedt 1933, p. 386, text. fig. 832-g (ref. 000507) recognize this fact, and his own taxon is not even mentioned in these publications.
- Achnanthes exigua* Grunow var. *constricta* (Torka) Hustedt 1930, p. 202; fig. 287 [ref. 000502]. Basionym: *Cocconeis exigua* var. *constricta* Torka 1909.
- Achnanthes exigua* Grunow var. *constricta* 'Torka' VanLandingham 1967, p. 24 [ref. 006293]. *Invalid*. Err. citation for *Cocconeis exigua* var. *constricta* Torka 1909.
- Achnanthes exigua* Grunow var. *elliptica* Hustedt 1937, p. 197; pl. 9, fig. 8, 9 [ref. 001012].
- Achnanthes exigua* Grunow var. *globulosa* Guerneur 1954, p. 32; pl. 2, fig. 3m [ref. 000449].
- Achnanthes exigua* Grunow var. *heterovalvata* Krasske 1923, p. 193; fig. 9a-b [ref. 000579].
- Achnanthes exigua* Grunow var. *indica* Skvortzow 1935, p. 180; pl. 1, fig. 3 [ref. 000840].
- Achnanthes exigua* Grunow var. *nipponica* Skvortzow 1936, p. 24; pl. 7, fig. 7, 8 [ref. 000843].
- Achnanthes exigua* Grunow f. *profunda* Manguin 1954, p. 16; pl. 2, fig. 19 a-c (as *Achnanthes exigua* var. *heterovalvata* f. *profunda*) [ref. 002503].
- Achnanthes exigua* Grunow f. *semiaperta* Guerneur 1954, p. 32; pl. 2, fig. 3c, i, j [ref. 000449].
- Achnanthes exigua* Grunow var. *siamense* Hirano 1967, p. 18; pl. 6, fig. 7, 8 [ref. 008344].
- Achnanthes exigua* Grunow f. *subcapitata* Suxena & Venkateswarlu 1968, p. 10; pl. 1, fig. 11a, b (as *Achnanthes exigua* Grunow var. *constricta* Torka f. *subcapitata*) [ref. 008863].
- Achnanthes exigua* Grunow f. *subglobosa* Manguin in Bourrelly & Manguin 1952, p. 50; pl. 3, fig. 42a-b (as *Achnanthes exigua* Gr. var. *heterovalvata* Krasske f. *subglobosa*) [ref. 000149].
- Achnanthes exigua* Grunow var. *tenuirostrata* Guerneur 1954, p. 32; pl. 2, fig. 3i-j [ref. 000449].
- Achnanthes exigua* Grunow var. *typica* Cleve-Euler 1953, p. 35; fig. 544a-d (as [*A. exigua*]  $\alpha$  *typica* mh.) [ref. 001042]. Cleve-Euler refers to *A. exigua* Gr. in VH Syn. 27/29-30 (i.e. Van Heurck 1880, ref. 000895).
- Achnanthes exigua* Grunow var. *undulata* Frenguelli 1953, p. 52; fig. 7-g [ref. 000366].
- Achnanthes exigua* Grunow var. *yabeana* Skvortzow & Noda 1971, p. 15; pl. 2, fig. 18 (as *Achnanthes exigua* var. *yabeana* (Skvortzov) Skvortzov & Noda comb. nov.) [ref. 005502]. New name for *Achnanthes yabe* Skvortzow 1937.
- Achnanthes exigua* Pantocsek 1902, p. 640; pl. 13, fig. 76 [ref. 000718]. *Illegitimate*. Non Grunow 1880. (p. 14 of reprint).
- Achnanthes exigua* Pantocsek var. *staurophora* Pantocsek 1902, p. 640; pl. 13, fig. 78 [ref. 000718]. (p. 14 of reprint).
- Achnanthes exiguiformis* Hustedt 1948, p. 203; fig. 4-5 [ref. 000519].
- Achnanthes exiguoides* Compère 1967, p. 165; fig. 55 [ref. 008131].
- Achnanthes exilis* Kützing 1833, p. 577; pl. 16, fig. 53 [ref. 000594]. Also described in Kützing 1833: Alg. Dec. II, p. [3] (no. 12) (ref. 006486).
- Achnanthes exilis* Kütz. var. *minutissima* Brun 1880, p. 28; pl. 3, fig. 30 [ref. 000174].
- Achnanthes exilis* sensu W. Smith 1856, p. 29; pl. 37, fig. 303, 303  $\beta$  (as *Achnanthes exilis*, Kütz.) [ref. 001007].

- Achnanthes exilis* Brébisson Exsicc.: Les Algues des Eaux Douces de France, Cent. X: 922. Cited in: Notarisia, 2: 369 [according to ANSP].
- Achnanthes exiloides* Cholnoky 1963, p. 39; fig. 1-2 [ref. 000214].
- Achnanthes exiloides* Carter in Carter & Bailey-Watts 1981, p. 532; pl. 1, fig. 40-43, pl. 23, fig. 15-16 [ref. 003626]. Non Cholnoky 1963. Synonym (substitute name): *Achnanthes expressa* Carter in Hartley 1986.
- Achnanthes exspecta* VanLandingham 1967, p. 22, 26 [ref. 006293]. New name for *Achnanthes dispar* Mann 1907, non Cleve 1891.
- Achnanthes expressa* J. R. Carter in Hartley 1986, p. 606 [ref. 002355]. New name for *Achnanthes exiloides* J.R. Carter in Carter & Watts 1981, non Cholnoky 1963.
- Achnanthes fasciata* Gandhi 1970, p. 757; pl. 1, fig. 1, 2 [ref. 004207].
- Achnanthes fimbriata* (Grunow) Ross 1963, p. 72; fig. 17-22 [ref. 000797]. Basionym: *Schizostauron fimbriatum* Grunow 1867.
- Achnanthes flahaulti* Héribaud 1903, p. 57; pl. 10, fig. 17, 18 [ref. 000992].
- Achnanthes flathukensis* Foged 1964, p. 68; pl. 3, fig. 3a, b [ref. 000331].
- Achnanthes flexella* (Kützing) Brun 1880, p. 29; pl. 3, fig. 21 [ref. 000174]. Basionym: *Cymbella flexella* Kützing 1844.
- Achnanthes flexella* (Kützing) Mann 1937, p. 16 [ref. 000634]. Basionym: *Cymbella flexella* Kützing 1844. Isonym. Combination previously published by Brun 1880.
- Achnanthes flexella* var. *alpestris* Brun 1880, p. 30; pl. 3, fig. 26 [ref. 000174].
- Achnanthes flexella* f. *alpina* Brun 1901, p. 16 (as *Achnanthes flexella* (forma *alpina*)) [ref. 000184]. *Invalid*. Nomen nudum.
- Achnanthes flexella* var. *arctica* (Lagerstedt) Cleve-Euler 1953, p. 21; fig. 518e, g (as [*A. flexella*]  $\beta$  *arctica*) [ref. 001042]. Basionym: *Cocconeis thwaitesii* var. *arctica* Lagerstedt 1873. *Invalid*. Rank implied, but not clearly indicated.
- Achnanthes flexella* var. *genuina* Cleve-Euler 1953, p. 21; fig. 518a-d (as [*A. flexella*]  $\alpha$  *genuina* mh.) [ref. 001042]. *Invalid*. Cleve-Euler refers to *Achnanthes flexella* (Kützing) Brun, but does not directly refer to *Cymbella flexella* Kützing.
- Achnanthes fluviatilis* Cleve-Euler 1953, p. 45; fig. 581 [ref. 001042].
- Achnanthes fluviatilis* var. *perstriata* Cleve-Euler 1953, p. 45; fig. 581c (as [*A. fluviatilis*]  $\beta$  ? *perstriata* n.v.) [ref. 001042].
- Achnanthes fogedii* Håkansson 1978, p. 407-408; fig. 1. a,b,c,d,e,f,g [ref. 008293].
- Achnanthes follioti* Fusey 1950, p. 153; fig. 9 [ref. 000371].
- Achnanthes fontana* Round 1959, p. 524; fig. 2 [ref. 000799].
- Achnanthes fonticola* Hustedt 1945, p. 907; pl. 40, fig. 3-6 [ref. 000518].
- Achnanthes fonticolanceolata* Lange-Bertalot & Schimanski in Lange-Bertalot & Krammer 1989, p. 57; fig. 88: 1-7 [ref. 006174].
- Achnanthes formosa* Preobrazhebskaya 1960, p. 258 (as *A. formosa* Hass. ) [ref. 003045]. *Invalid*. In a list (non alphabetical), following *Achnanthes minutissima*. No description. Probably not an intended combination of *Asterionella formosa* Hassal. In any case, would be invalid as the basionym and its place of publication are not cited. Listed as “*Achnanthes formosa* Preobrazhebskaya” by Hollerbakh & Krasavina 1971, p. 12 (ref. 002458).
- Achnanthes fossilis* M. Peragallo in Héribaud et al. 1920, p. 89; pl. 2, fig. 6-8 [ref. 000482].
- Achnanthes fragilarioides* Petersen 1924, p. 18; fig. 6 [ref. 000740].
- Achnanthes fragilis* Skvortzow 1938, p. 346; pl. 1, fig. 26 [ref. 000852].
- Achnanthes fraudulenta* Cleve-Euler 1953, p. 16; fig. 508 [ref. 001042].
- Achnanthes fredskildii* Foged 1977, p. 52; pl. 2, fig. 16a, b [ref. 008208]. [according to ANSP].
- Achnanthes frequentissima* Lange-Bertalot 1989, p. 58; pl. 86, figs. 1-15'; pl. 91, figs. 6, 7 [ref. 006174]. *Invalid*. “Manuskriptnamen”. No description. As *Achnanthes lanceolata* var. *frequentissima* in plate caption.
- Achnanthes frigida* Hustedt in Schmidt et al. 1937, pl. 409, fig. 30-33 [ref. 012520]. *Invalid*. No description. Validated by Simonsen 1987, p. 227 (ref. 003164).
- Achnanthes frigida* Cleve-Euler 1939, p. 12; fig. 15 [ref. 000250]. In text misprinted: fig. 16; in legend misprinted: fig. 14. Synonym (replacement name): *Achnanthes jurilijii* VanLandingham 1967.
- Achnanthes frigida* Hustedt ex Simonsen 1987, p. 227; pl. 334, fig. 3-15 [ref. 003164]. *Illegitimate*. Non Cleve-Euler 1939.
- Achnanthes fugeii* Carter 1963, p. 203; pl. 1, fig. 7 [ref. 001117]. *Invalid*. Type not designated.
- Achnanthes fukiensis* Cleve-Euler 1953, p. 38; fig. 558B [ref. 001042].
- Achnanthes fukiensis* Skvortzow 1929, p. 41; pl. 2, fig. 4 [ref. 000831].
- Achnanthes fulla* Carter 1970, p. 608; pl. 1, fig. 19, 20 [ref. 003967].
- Achnanthes gainii* (M. Peragallo) Mann 1937, p. 17 [ref. 000634]. Basionym: *Achnanthepeyla gainii* M. Peragallo 1921.
- Achnanthes gainii* (M. Peragallo) Frenguelli 1939, p. 205 [ref. 000363]. Basionym: *Achnanthepeyla gainii* M. Peragallo 1921. Isonym: see *A. gainii* (M. Peragallo) Mann 1937.
- Achnanthes gainii* (M. Peragallo) Fukushima 1963, p. 57; pl. 1, fig. 12 [ref. 008216]. Basionym: *Achnanthepeyla gainii* M. Peragallo 1921. Isonym: see *A. gainii* (M. Peragallo) Mann 1937. [according to ANSP].

- Achnanthes gamma* (Cleve) Amossé 1970, p. 292 [ref. 008058]. Basionym: *Navicula gamma* Cleve 1893.
- Achnanthes gamma* var. *rectilineata* (Cleve) Amossé 1970, p. 292; pl. 2, fig. 3-5 [ref. 008058]. Basionym: *Navicula gamma* var. *rectilineata* Cleve 1893.
- Achnanthes genuflexa* Kützing 1844, p. 76; pl. 21, fig. 3 [ref. 000595].
- Achnanthes georgica* Reinsch 1890, p. 431 [ref. 001490].
- Achnanthes germainii* Manguin in Bourrelly & Manguin 1954, p. 20; pl. 2, fig. 19a-b [ref. 001957].
- Achnanthes gessneri* Hustedt 1953, p. 148; fig. 14-19 [ref. 000526].
- Achnanthes gibberula* Grunow in Cleve & Grunow 1880, p. 22 [ref. 000241]. Also: *A. gibberula* Grunow in Van Heurck 1880, pl. XXVII: figs. 47-49 (ref. 000895).
- Achnanthes gibberula* var. *angustior* Grunow in Van Heurck 1882-1885, p. 44; Type no. 139 [ref. 000896]. Diagnosis included.
- Achnanthes gibberula* f. *angustior* 'Grunow ex Van Heurck' VanLandingham 1967, p. 29 [ref. 006293]. *Invalid*. Citation error for *Achnanthes gibberula* var. *angustior* Grunow in Van Heurck 1882-1884. Not a valid new combination of Grunow's name.
- Achnanthes gibberula* var. *angustior* Grunow in Cleve 1895, p. 184 [ref. 000949].
- Achnanthes gibberula* var. *elliptica* (Krasske) Cleve-Euler 1953, p. 42; fig. 570A e (as [*A. grimmei* Krasske]  $\beta$  *elliptica* A. Cl.) [ref. 001042]. Basionym: *Achnanthes grimmei* var. *elliptica* Krasske 1927. *Invalid*. Rank implied, but not clearly indicated.
- Achnanthes gibberula* var. *genuina* Cleve-Euler 1953, p. 41; fig. 570A a-d (as [*A. gibberula* Grun.]  $\alpha$  *genuina* mh.) [ref. 001042]. For this taxon ( $\alpha$  *genuina*) Cleve-Euler does not refer to the original reference of *A. gibberula* Grunow, but to *A. grimmei* v. *inflata* Krasske 1927.
- Achnanthes gibberula* var. *interrupta* Poretzky & Anissimova 1933, p. 49-50; pl. 9, fig. 7-12 [ref. 000759].
- Achnanthes gibberula* f. *interrupta* (Anissimova & Poretzky) Cleve-Euler 1953, p. 41 (as [*Achnanthes gibberula* Grun.]  $\alpha$  *genuina* f. *interrupta*) [ref. 001042]. Basionym: *Achnanthes gibberula* var. *interrupta* Poretzky & Anissimova 1933.
- Achnanthes gibbosa* Hustedt 1939, p. 609; fig. 33, 34 [ref. 000514].
- Achnanthes girinensis* Skvortzow 1935, p. 39; pl. 9, fig. 17 [ref. 000841].
- Achnanthes glabrata* Grunow 1863, p. 146; pl. 13, fig. 17 [ref. 000429].
- Achnanthes glabrata* var. *auklandica* Grunow in Cleve & Grunow 1880, p. 22 [ref. 000241].
- Achnanthes gondwana* D. Metzeltin & H. Lange-Bertalot 2002, p. 16; fig. 11:1-5, 12:1-3, 13:1-3, 14:1, 15:1-4, 16:2, 4 [ref. 011529].
- Achnanthes gracillima* Hustedt 1927, p. 161; pl. 5, fig. 10, 11 [ref. 000498].
- Achnanthes gracillima* 'Meister' Mills 1933, p. 64 [ref. 000660]. *Invalid*. Intended new combination of *Microneis gracillima* Meister 1933? Not accepted by Mills (lower case characters).
- Achnanthes gracillima* var. *nipponica* Skvortzow 1936, p. 25; pl. 4, fig. 3-4; pl. 6, fig. 9 [ref. 000843].
- Achnanthes grana* Hohn & Hellerman 1963, p. 274; pl. 2, fig. 9, 10 [ref. 000486].
- Achnanthes gregortiana* Greville 1859, p. 84; pl. 6, fig. 13, 14 [ref. 000405].
- Achnanthes grimmei* Krasske 1925, p. 30; pl. 1, fig. 10 ('*grimmii*') [ref. 000580].
- Achnanthes grimmei* Krasske in Hustedt 1930, p. 205; fig. 302 [ref. 000502]. Although there are some slight differences in the descriptions, this is the same taxon as *Achnanthes grimmei* ('*grimmii*') Krasske 1925.
- Achnanthes grimmei* var. *elliptica* Krasske 1927, p. 272; pl. 10, fig. 14 [ref. 000581].
- Achnanthes grimmei* var. *elliptica* Krasske in Hustedt 1930, p. 205 [ref. 000502]. No fig. Same taxon as *A. grimmei* var. *elliptica* Krasske 1927.
- Achnanthes grimmei* var. *hyalina* Hustedt 1949, p. 43; fig. 10-19 [ref. 000520].
- Achnanthes grimmei* var. *inflata* Krasske 1927, p. 272; pl. 10, fig. 12, 13 [ref. 000581].
- Achnanthes grischuna* Wuthrich 1975, p. 303-304; pl. 7, fig. 7-20 [ref. 008955]. *Invalid*. Type not designated.
- Achnanthes groenlandica* (Cleve) Grunow in Cleve & Grunow 1880, p. 20 [ref. 000241]. Basionym: *Achnanthidium groenlandicum* Cleve 1873.
- Achnanthes groenlandica* var. *clevei* Cleve-Euler 1953, p. 51, fig. 599a-c (as [*A. groenlandica* Cl.]  $\alpha$  *clevei* mh.) [ref. 001042]. *Invalid*. No clear indication of rank. Intended name for *Achnanthes groenlandica* (Cleve) Grunow in Cl. & Gr. sensu Cleve 1883, pl. 35, fig. 3 (ref. 000224).
- Achnanthes groenlandica* f. *jaydei* McIntire & Reimer 1974, p. 173; pl. 2, fig. 5a, b, pl. 4, fig. 4a-d (as *Achnanthes groenlandica* var. *phinneyi* f. *jaydei*) [ref. 004939].
- Achnanthes groenlandica* f. *meridiana* Giffen 1973, p. 33; fig. 1-4 [ref. 004245]. [according to ANSP].
- Achnanthes groenlandica* var. *oestrupii* Cleve-Euler 1953, p. 51; fig. 599d (as [*A. groenlandica* Cl.]  $\beta$  *oestrupii* mh.) [ref. 001042]. *Invalid*. No clear indication of rank. Intended name for *Achnanthes groenlandica* (Cleve) Grun. var. in Östrup 1897, 2/17 (ref. 000700). Perhaps validated by VanLandingham 1967, p. 31.
- Achnanthes groenlandica* var. *oestrupii* Cleve-Euler ex VanLandingham 1967, p. 31 [ref. 006293]. *Invalid?* Description and illustration in Cleve-Euler 1953, p. 51, fig. 599d (ref. 001042) (as [*A. groenlandica* Cl.]  $\beta$  *oestrupii*). Fossil, therefore il-

lustration may not be acceptable as type.

- Achnanthes groenlandica* var. *phinneyi* McIntire & Reimer 1974, p. 172-173; pl. 2, fig. 3a-c, pl. 3, fig. 3a, b [ref. 004939].
- Achnanthes groenlandica* Grunow sensu Cleve 1883, pl. 35, fig. 3 [ref. 000224]. [according to ANSP].
- Achnanthes grubei* Simonsen 1987, p. 71; pl. 95, fig. 3-16 [ref. 003164]. New name for *Navicula densestriata* Hustedt 1922. Priority for *Achnanthes densestriata* Cleve-Euler 1953.
- Achnanthes grunowii* K. Toyoda & D.M. Williams in Toyoda, Nagumo, Tanaka & Williams 2005, p. 7 [ref. 013111]. New name for *Achnanthes javanica* var. *rhombica* Grunow in Cleve & Grunow 1880.
- Achnanthes gysingensis* (Foged) Lange-Bertalot in Lange-Bertalot & Krammer 1989, p. 366; expl. pl. 100, fig. 6 [ref. 006174]. Basionym: *Navicula gysingensis* Foged 1952. *Invalid*. Place of publication of basionym not cited. Label for fig. 100: 6(?) reads “*Achnanthes impexiformis* Lange-Bertalot” (error).
- Achnanthes hallandica* Cleve-Euler 1953, p. 18; fig. 511b [ref. 001042].
- Achnanthes hankensis* Skvortzow 1929, p. 14, 44; pl. 1, fig. 40-41 [ref. 000829].
- Achnanthes hantzschiana* Volkov 1940 [ref. 002865]. According to Hollerbakh & Krasavina 1971, p. 13 (ref. 002458). [according to VLC].
- Achnanthes hardingensis* Foged 1981, p. 48; pl. 12, fig. 5, 6 [ref. 006676].
- Achnanthes harrisonii* Chohnoky 1959, p. 7; pl. 1, fig. 34-39 [ref. 000206].
- Achnanthes harveyi* Reimer 1966, p. 4; pl. 1, fig. 10, 11 [ref. 002562].
- Achnanthes hastata* Skvortzow & Meyer 1928, p. 10; pl. 1, fig. 22 [ref. 000855].
- Achnanthes hauckiana* Grunow in Cleve & Grunow 1880, p. 21 [ref. 000241].
- Achnanthes hauckiana* var. *densistriata* Horikawa & Okuno in Okuno 1940, p. 52; fig. 20 [ref. 002321].
- Achnanthes hauckiana* var. *elliptica* Schulz 1926, p. 191; fig. 39 [ref. 000812]. *Invalid*. No description. Validated by Hustedt 1930, p. 202 (ref. 000502).
- Achnanthes hauckiana* var. *elliptica* Schulz ex Hustedt 1930, p. 202 [ref. 000502]. Illustration in Schulz 1926, fig. 39 (ref. 000812).
- Achnanthes hauckiana* f. *fossilis* Manguin 1952, p. 19; fig. 29 (on p. 23) (as *Achnanthes hauckiana* var. *elliptica* f. *fossilis*) [ref. 000625].
- Achnanthes hauckiana* var. *genuina* Cleve-Euler 1953, p. 45; fig. 582a-b, c-f (as *Achnanthes hauckiana* α *genuina* mh.) [ref. 001042]. Cleve-Euler refers to the original reference of *Achnanthes hauckiana* Grunow.
- Achnanthes hauckiana* var. *jonesii* Petersen 1935, p. 272-273; fig. 1 [ref. 000744].
- Achnanthes hauckiana* f. *lancettula* Hustedt in A. Schmidt et al. 1937, pl. 414, fig. 25, 26 [ref. 012521]. *Invalid*. No description. Validating diagnosis in Simonsen 1987, p. 231 (ref. 003164).
- Achnanthes hauckiana* f. *lancettula* Hustedt ex Simonsen 1987, p. 231; pl. 336, fig. 19 [ref. 003164].
- Achnanthes hauckiana* f. *nipponica* Skvortzow 1936, p. 24; pl. 14, fig. 6 (as *Achnanthes hauckiana* var. *elliptica* f. *nipponica*) [ref. 000843].
- Achnanthes hauckiana* var. *nipponica* Skvortzow 1936, p. 263; pl. 6, fig. 12 [ref. 000842]. *Illegitimate*. Non *A. hauckiana* f. *nipponica* Skvortzow 1936 (ref. 000843).
- Achnanthes hauckiana* var. *rhombica* Zabelina 1939 [ref. 003133]. *Illegitimate*. Non *A. hauckiana* f. *rhombica* Cleve-Euler 1949. According to Proschkina-Lavrenko 1950, p. 102 (ref. 001823). Zabelina 1939 not seen, but Proschkina-Lavrenko 1950, p. 102, pl. 36, fig. 19 could serve as the alternate place of valid publication of the name.
- Achnanthes hauckiana* f. *rhombica* Cleve-Euler 1949, p. 15, fig. 18 [ref. 000254].
- Achnanthes hauckiana* var. *rostrata* Schulz 1926, p. 191; fig. 40 [ref. 000812]. *Invalid*. No description. Validated by Hustedt 1930, p. 202 (ref. 000502).
- Achnanthes hauckiana* var. *rostrata* Schulz ex Hustedt 1930, p. 202 [ref. 000502]. Illustration in Schulz 1926, fig. 40 (ref. 000812).
- Achnanthes hauckiana* var. *subrhombica* Cleve-Euler 1953, p. 45; fig. 582e-f (as [*A. hauckiana* Grun.] γ *subrhombica* n. nom.) [ref. 001042]. *Invalid*. Name for *Achnanthes hauckiana* Grunow sensu Schultz 1926 Kies. Danz. p. 191 (ref. 000812). Rank implied, but not clearly indicated.
- Achnanthes hauckiana* Grunow sensu Schulz 1926, p. 191 [ref. 000812]. Invalidly published by Cleve-Euler 1953 as *Achnanthes hauckiana* β *subrhombica*. [according to ANSP].
- Achnanthes hauckii* Grunow in Van Heurck 1880, pl. 27, fig. 14, 15 [ref. 000895].
- Achnanthes haynaldii* Schaarschmidt 1881, p. 20 [ref. 000803].
- Achnanthes haynaldii* var. *borussica* Cleve-Euler 1953, p. 28 (as [*A. haynaldii*] η *borussica* n. nom.) [ref. 001042]. *Invalid*. No clear indication of rank. Intended new name for *Achnanthes lanceolata* var. *rostrata* sensu Schultz 1926, non Hustedt 1911.
- Achnanthes haynaldii* var. *elliptica-lanceolata* Schaarschmidt 1881, p. 20 [ref. 000803].
- Achnanthes haynaldii* var. *intermedia* Cleve-Euler in Florin 1944, p. 425; fig. 4/2a-b [ref. 000320].
- Achnanthes haynaldii* var. *linkei* (Hustedt) Cleve-Euler 1953, p. 27; fig. 528k, l (as [*A. haynaldii*] ε *linkei*) [ref. 001042]. Basionym: *Achnanthes linkei* Hustedt 1939. *Invalid*. Rank implied, but not clearly indicated.

- Achnanthes haynaldii* var. *oblongo-elliptica* Schaarschmidt 1881, p. 20 [ref. 000803].
- Achnanthes haynaldii* var. *semiaperta* Cleve-Euler in Florin 1944, p. 425; fig. 4/3a-c [ref. 000320].
- Achnanthes haynaldii* var. *vulgaris* Schaarschmidt 1881, p. 20 [ref. 000803].
- Achnanthes hedini* Hustedt 1922, p. 122; pl. 9, fig. 12-14 [ref. 000496].
- Achnanthes heideni* Schulz 1926, p. 190; fig. 36 [ref. 000812].
- Achnanthes heideni* var. *aapaensis* Cleve-Euler 1953, p. 47 (as [*A. heideni* Schulz]  $\gamma$ ? *aapaensis* n. nom.) [ref. 001042]. *Invalid*. Rank implied, but not clearly indicated. Intended name for *Achnanthes heideni* Schulz sensu A. Cleve 1934 (ref. 000249), p. 40, fig. 48.
- Achnanthes heideni* var. *gothica* Cleve-Euler 1953, p. 46; fig. 585 f-g (as [*A. heideni* Schulz]  $\beta$ ? *gothica* n.v.) [ref. 001042].
- Achnanthes heideni* var. *typica* Cleve-Euler 1953, p. 46; fig. 585, a-e (as [*A. heideni* Schulz]  $\alpha$  *typica* mh.) [ref. 001042]. Cleve-Euler cites the original reference of *Achnanthes heideni* Schulz.
- Achnanthes helvetica* (Hustedt) Lange-Bertalot in Lange-Bertalot & Krammer 1989, p. 63; fig. 19: 1-20, 26, fig. 20: 1-6, fig. 96: 6-11 [ref. 006174]. Basionym: *Achnanthes austriaca* var. *helvetica* Hustedt 1933.
- Achnanthes helvetica* var. *alpina* Flower & Jones 1989, p. 235; fig. 26-30, 65-69 [ref. 008204].
- Achnanthes helvetica* var. *minor* Flower & Jones 1989, p. 235; fig. 19-25, 76-79 [ref. 008204].
- Achnanthes herteri* Frenguelli 1933, p. 128; fig. 6-8 [ref. 001206].
- Achnanthes heteromorpha* Grunow in Cleve & Grunow 1880, p. 23 [ref. 000241].
- Achnanthes heteromorpha* var. *binotata* Frenguelli 1953, p. 69; pl. 1, fig. 4-5 [ref. 000367]. Misspelled 'biontata' in legend.
- Achnanthes heteropsis* Grunow ex Cleve & Möller 1878, No. 154, 155 [ref. 001976]. *Illegitimate*. *Navicula fimbriata* Grunow (probable error for *Schizastaureon fimbriatum* Grunow 1867) is listed as syn. No description.
- Achnanthes heterostriata* Hustedt 1952, p. 388; fig. 85, 86 [ref. 000524].
- Achnanthes heterostriatoides* Hohn in Patrick et al. 1966, p. 468; pl. 1, fig. 7, 8 [ref. 008040].
- Achnanthes heterovalvata* (Krasske) Frenguelli 1942, p. 95 (as *Achnanthes heterovalvata* var. *angustirostrata* Krass.) [ref. 001212]. Basionym: *Achnanthes exigua* Grunow var. *heterovalvata* Krasske 1923. *Invalid?* Implied by citation of subordinate taxon.
- Achnanthes heterovalvata* var. *angustirostrata* (Krasske) Frenguelli 1942, p. 95; pl. 1, fig. 9-10 (as *Achnanthes heterovalvata* var. *angustirostrata* Krass.) [ref. 001212]. Basionym: *Achnanthes exigua* Grunow f. *angustirostrata* Krasske 1939. *Invalid?* *Achnanthes heterovalvata* may be invalid.
- Achnanthes hettensis* Cleve-Euler 1953, p. 42; fig. 572 [ref. 001042].
- Achnanthes hexagona* Cleve & Brun in Brun 1891, p. 5; pl. 19, fig. 3 [ref. 000176].
- Achnanthes hilliardii* Manguin 1961, p. 271; pl. 1, fig. 24-26 [ref. 000628]. *Invalid*. No type designated and no Latin diagnosis.
- Achnanthes hilliardii* Manguin ex Kociolek & Reviere 1996, p. 178 [ref. 008441]. *Invalid?* Cite illustrations in Manguin 1961 (ref. 000628): pl. 1, fig. 24-26, and designate them as "holotype", but unclear if the 3 figures are from the same specimen.
- Achnanthes himalayensis* Jao & Zhu in Jao, Zhu & Lee 1974, p. 120; pl. 2, fig. 3, 4 [ref. 011203]. [according to INA].
- Achnanthes hintzii* Lange-Bertalot & Krammer 1989, p. 64; pl. 36, fig. 22-26 [ref. 006174]. New name for *Cocconeis semiaperta* Hustedt 1945 (priority for *Achnanthes semiaperta* Hustedt 1945).
- Achnanthes hirta* Carter 1970, p. 609; pl. 1, fig. 10, 11 [ref. 003967].
- Achnanthes hoermannii* Gutwinski 1899, p. 694; fig. 2 ('*hörmanii*') [ref. 002953].
- Achnanthes holmquistii* Foged 1968, p. 4; pl. 1, fig. 2a, b [ref. 004050].
- Achnanthes holsatica* Hustedt in Schmidt et al. 1936, pl. 407, fig. 67-72 [ref. 012519]. Caption includes description. Also in Hustedt 1950, p. 344, pl. XXXV: figs. 1-6 (ref. 000522).
- Achnanthes holstii* Cleve 1881, p. 13; pl. 16, fig. 6, 7 [ref. 000223].
- Achnanthes holstii* var. *celtica* Fusey 1951, p. 37; pl. 1, fig. 13 [ref. 000372].
- Achnanthes holstii* f. *cuneiformis* Fusey 1951, p. 38; pl. 1, fig. 14 (as *Achnanthes holstii* var. *celtica* f. *cuneiformis*) [ref. 000372].
- Achnanthes holstii* var. *schwabei* Krasske 1939, p. 371; pl. 11, fig. 12-14 ( as *Achnanthes (holstii* var. ?) *schwabei* nov. sp.) [ref. 000587]. *Invalid*. Invalid as a trinomial, valid as *A. schwabei* Krasske.
- Achnanthes hormanii* Gutwinski 1899, p. 694; fig. 2 [ref. 002953]. See *Achnanthes hoermannii* Gutwinski.
- Achnanthes hudsonii* Grunow in Van Heurck 1880, pl. 27, fig. 25, 26 [ref. 000895].
- Achnanthes hungarica* (Grunow) Grunow in Cleve & Grunow 1880, p. 20 [ref. 000241]. Basionym: *Achnanthidium hungaricum* Grunow 1863. Also in Grunow in Van Heurck, Syn. Diat. Belgique: pl. 27, fig. 1, 2. 1880 (ref. 000895). Could be treated as the name of a new taxon, however, it is probably a new combination rather than a new taxon: Cleve 1895, Nav. II, p. 190 (ref. 000949) cites "*Achnanthidium hungaricum* Grun. Verh. 1863, p. 146, pl. 4, fig. 8" as the basionym. Figures in Grunow 1863, and "Synopsis" are similar enough to believe synonymy, but not identical.
- Achnanthes hungarica* var. *andicola* (Cleve) Østrup 1910, p. 128; pl. 3, fig. 78 [ref. 000706]. Basionym: *Schizostaureon andiculum* Cleve 1881.



- Achnanthes hungarica* var. *brevis* Liebetanz 1926, p. 110; pl. 2, fig. 19 [ref. 001348].
- Achnanthes hungarica* f. *constricta* Raabe 1951, p. 610 [ref. 005233]. *Invalid*. Nomen nudum.
- Achnanthes hungarica* var. *jamalinensis* (Grunow in Cleve & Grunow) Cleve 1895, p. 190 [ref. 000949]. Basionym: *Achnanthes jamalinensis* Grunow in Cleve & Grunow 1880. *Invalid*. Err. cit. pro *Achnanthes (hungarica* var.?) *jamalinensis* Gr. in Cleve & Grunow 1880. Cited as syn. of *A. affinis* var. *jamalinensis* (Gr.) Cleve.
- Achnanthes hungarica* var. *linearis* Abdul-Majeed 1935, p. 19; pl. 2, fig. 9-11 [ref. 000101].
- Achnanthes hungarica* var. *miramaris* Frenguelli 1925, p. 163, pl. 1, fig. 23, 24 [ref. 000348].
- Achnanthes hungarica* f. *polygonata* Cleve-Euler 1932, p. 58; fig. 123a-b [ref. 000248].
- Achnanthes hungarica* var. *rivularia* (Frenguelli) Frenguelli 1933, p. 383; pl. 1, fig. 4 [ref. 000356]. Basionym: *Achnanthes rivularia* Frenguelli 1925.
- Achnanthes hungarica* var. *rumelica* Schaarschmidt 1890, p. 73 [ref. 000804].
- Achnanthes hungarica* f. *semicrucata* Cleve-Euler 1932, p. 59; fig. 124 (as *Achnanthes hungarica* var. *andicola* f. *semicrucata*) [ref. 000248].
- Achnanthes hungarica* var. *senegalensis* Guermeur 1954, p. 33; pl. 4, fig. 1 d-g ('*senegalense*') [ref. 000449].
- Achnanthes hungarica* var. *tropica* Frenguelli 1953, p. 69; pl. 1, fig. 2-3 [ref. 000367].
- Achnanthes hustedtii* Bily & Marvan 1959, p. 63 [ref. 000140]. New name for *Achnanthes kryophyla* var. *densestriata* Hustedt 1934 (priority for *Achnanthes densestriata* A. Cleve 1953).
- Achnanthes hustedtii* (Krasske) Reimer in Patrick & Reimer 1966, p. 264; pl. 17, fig. 9, 10 [ref. 003167]. Basionym: *Cocconeis hustedtii* Krasske 1923. *Illegitimate*. Non Bily & Marvan 1959.
- Achnanthes hyperborea* Grunow 1884, p. 50 (102); pl. I (A), fig. 4, 5 (as *Achnanthes (taeniata* var.?) *hyperborea*) [ref. 000444].
- Achnanthes hyperboreoides* Witkowski, Metzeltin & Lange-Bertalot in Metzeltin & Witkowski 1996, p. 12; pl. 50, fig. 13-19, pl. 75, fig. 2, 6, 8 [ref. 008589].
- Achnanthes ignota* Hustedt in Schmidt et al. 1958, pl. 420, fig. 20-23 [ref. 012522]. *Invalid*. German (not Latin) description included in the plate explanation. Simonsen 1987, p. 453 (ref. 003164) notes that it would be superfluous to validate the name as "Hustedt described the same species twice, under two different names using the same specimens. *Achnanthes ignota* is identical with *Achnanthes solea* Hustedt 1953".
- Achnanthes imanishii* Hirano 1963, p. 9-10; pl. 2, fig. 3-4, 10-11 [ref. 008343].
- Achnanthes imperfecta* Schimanski 1978, p. 564-565; pl. I, fig. 1-5 [ref. 008766].
- Achnanthes impexa* Lange-Bertalot in Lange-Bertalot & Krammer 1989, p. 67-68; fig. 74: 1-6 [ref. 006174].
- Achnanthes impexiformis* Lange-Bertalot in Lange-Bertalot & Krammer 1989, p. 68-69; fig. 74: 7-9, fig. 75: 2-4 [ref. 006174].
- Achnanthes inaequalis* Ehrenberg 1838, p. 229 [ref. 000288]. Name first appeared in Ehrenberg 1837, p. 45 (ref. 001178) as nomen nudum.
- Achnanthes inaequalis* Ehrenberg 1838, p. 229 [ref. 000288]. "Inaequalis" in Mills' Index and VanLandingham's Catalogue.
- Achnanthes incognita* Krasske 1939, p. 370; pl. 11, fig. 1-2 [ref. 000587].
- Achnanthes incrassata* Ehrenberg 1854, p. 311 [ref. 000300]. *Invalid*. Nomen nudum.
- Achnanthes indica* Brun var. *sulcata* M. Peragallo in H. Peragallo & M. Peragallo 1911, p. 6; pl. 2, fig. 2 [ref. 000734]. Also in Diat. Monde Entier, ed. 2 (Tempère 1912, p. 318, no. 647-648) (ref. 001068).
- Achnanthes indica* Ehrenberg 1854, p. 128, 130, 131 [ref. 000300]. *Invalid*. Nomen nudum.
- Achnanthes indica* Brun 1893, p. 173; pl. 24, fig. 13, 14 [ref. 000178].
- Achnanthes indicatrix* H. Lange-Bertalot & A. Steindorf in G. Moser, H. Lange-Bertalot & D. Metzeltin 1998, p. 82; pl. 18, figs. 10-14 [ref. 007020].
- Achnanthes indicta* Cleve-Euler 1953, p. 20; fig. 516 a-b [ref. 001042].
- Achnanthes inflata* (Kützing) Grunow 1867, p. 7 [ref. 000432]. Basionym: *Stauroneis inflata* Kützing 1844.
- Achnanthes inflata* var. *elata* (Leuduger-Fortmorel) Hustedt 1937, p. 206 [ref. 001012]. Basionym: *Navicula elata* Leuduger-Fortmorel 1879.
- Achnanthes inflata* f. *elatoides* Cholnoky 1954, p. 271; fig. 1-4 [ref. 000199].
- Achnanthes inflata* var. *gibba* Gandhi 1960, p. 81; fig. 1-2 [ref. 000377].
- Achnanthes inflata* var. *inflatissima* Zanon 1949, p. 106; pl. 2, fig. 12 [ref. 001577].
- Achnanthes inflata* var. *javanica* Gandhi 1966, p. 95; pl. 12(2), fig. 38, 39 [ref. 004205].
- Achnanthes inflata* var. *sigmata* Otto Müller 1909, p. 9; pl. 1, fig. 9 (as *Achnanthes inflata* var. *sigmata* n. var?) [ref. 001777].
- Achnanthes inflata* var. *signata* 'O. Müller' VanLandingham 1967, p. 36 [ref. 006293]. *Invalid*. Err. cit. (typographical error) pro *Achnanthes inflata* var. *sigmata* O. Müller 1909.
- Achnanthes inflata* var. *sinica* Skvortzow 1929, p. 41; pl. 2, fig. 5 [ref. 000831].
- Achnanthes inflata* var. *smithiana* (Greville) Cleve 1895, p. 193 [ref. 000949]. Basionym: *Monogramma smithiana* Greville 1866.

- Achnanthes inflata* f. *subcostata* Lenoble & Manguin 1949, p. 170; fig. 5 a-c (as *Achnanthes inflata* var. *elata* f. *subcostata*) [ref. 001747]. *Achnanthes inflata* var. *elata* on fig. legend.
- Achnanthes inflata* f. *vidarbhensis* Sarode & Kamat 1980, p. 803; pl. 2, fig. 23, 24 [ref. 008755].
- Achnanthes inflatagrandis* D. Metzeltin, H. Lange-Bertalot & F. Garcia-Rodríguez 2005, p. 22; pl. 26, fig. 1-8, pl. 27, fig. 1-2 [ref. 012898].
- Achnanthes ingratiiformis* Lange-Bertalot in Lange-Bertalot & Krammer 1989, p. 70-71; fig. 74: 13-18, fig. 73: 6 [ref. 006174].
- Achnanthes inopinata* Cleve 1893, p. 57; pl. 3, fig. 13-14 (as *Achnanthes (Actinoneis) inopinata*) [ref. 000230].
- Achnanthes inopinata* f. *amaculata* Schljapina 1927 (as *Achnanthes inopinata* var. *lanceolata* f. *amaculata*) [ref. 003072]. Nomen nudum according to Makarova & Kozyrenko 1966, p. 38 (ref. 001358) (see VanLandingham 1979, p. 4243).
- Achnanthes inopinata* var. *elliptica* Tempère & Peragallo 1909, p. 164; No. 301 [ref. 001065].
- Achnanthes inopinata* var. *elliptica* Schljapina 1927 [ref. 003072]. Nomen nudum according to Makarova & Kozyrenko 1966, p. 38 (ref. 001358) (see VanLandingham 1979, p. 4243; ref. 006514). Non Tempère & Peragallo 1909.
- Achnanthes inopinata* var. *lanceolata* Schljapina 1927 [ref. 003072]. Nomen nudum according to Makarova & Kozyrenko 1966, p. 38 (ref. 001358) (see VanLandingham 1979, p. 4243; ref. 006514).
- Achnanthes intermedia* Kützing 1833, p. 576; fig 56 [ref. 000594]. Also described in Kützing 1833: Alg. Dec. III, p. [3] (no. 21) (ref. 006487).
- Achnanthes interrupta* Carter 1961, p. 18, figs. 49, 50 [ref. 003620]. *Invalid?* Type not designated, but single locality cited, and illustration (2 valves, presumably form the same specimen) could possibly be considered to be the type.
- Achnanthes investiens* Carter 1966, p. 445; fig. 60(1), fig. 23-28, pl. 67(8), fig. 13, 14 ('*investians*') [ref. 008093].
- Achnanthes iranensis* Moghadam 1976, p. 288; fig. 2 [ref. 005003]. *Invalid.* Type not indicated (several localities cited).
- Achnanthes islandica* Østrup 1918, p. 365; pl. 1, fig. 12 [ref. 001787].
- Achnanthes iversenii* Foged 1977, p. 53; pl. 2, fig. 13a, b [ref. 008208]. [according to ANSP].
- Achnanthes jackii* 'Rabenhorst' according to Davidson 1887, p. 150 [ref. 000262]. Fide VanLandingham 1967, p. 37 (ref. 006293). Citation error for *Achnanthidium jackii* Rabenhorst? Not seen, perhaps a valid new combination is published by Davidson.
- Achnanthes jackii* (Rabenhorst) Tempère & Peragallo 1909, p. 135; No. 248-249 (as *Achnanthes Jackii* Rab.) [ref. 001065]. Basionym: *Achnanthidium jackii* Rabenhorst 1861. Perhaps not intended as a new combination, but nevertheless valid.
- Achnanthes jacksonii* Woodhead & Tweed 1960, p. 118; pl. 1, fig. 3 [ref. 000926].
- Achnanthes jacobii* Manguin 1949, p. 98; pl. 3, fig. 46a-b [ref. 000624].
- Achnanthes jakovljevici* Hustedt 1945, p. 909; pl. 39, fig. 13-17 [ref. 000518].
- Achnanthes jamaicensis* Podzorski 1985, p. 25-26; pl. 5, fig. 13-14, pl. 35, fig. 6-7. [ref. 008668]. [according to ANSP].
- Achnanthes jamalinensis* Grunow in Cleve & Grunow 1880, p. 20; pl. 1, fig. 4 (as *Achnanthes (hungarica* var. ?) *jamalinensis* in text and *Achnanthes Jamalinensis* in fig. caption) [ref. 000241].
- Achnanthes jan-marcinii* Witkowski, Metzeltin & Lange-Bertalot in Metzeltin & Witkowski 1996, p. 12-13; pl. 50, fig. 5-9, 22-23, pl. 75, fig. 4, 9 [ref. 008589].
- Achnanthes japonica* Kobayasi 1964, p. 68; fig. 19a-f [ref. 002985]. *Invalid.* Descr. in Japanese, no Latin.
- Achnanthes japonica* Kobayasi 1965, p. 347; pl. 12, fig. 4 [ref. 002986]. *Invalid.* No type. [according to INA].
- Achnanthes japonica* Kobayasi ex Kobayasi, Nagumo & Mayama 1986, p. 85-86; pl. 2, fig. 19-21, 27-36, pl. 4, fig. 44-50, pl. 5, fig. 55-58 [ref. 009214]. [according to ANSP].
- Achnanthes javanica* Ehrenberg 1854, p. 158, 171, 176 [ref. 000300]. *Invalid.* Nomen nudum.
- Achnanthes javanica* Grunow in Cleve & Möller 1878, No. 147 (as *Achnanthes (longipes* v.) *javanicum* Grun.) [ref. 001976]. *Invalid.* Nomen nudum.
- Achnanthes javanica* Grunow in Cleve & Grunow 1880, p. 18 [ref. 000241].
- Achnanthes javanica* var. *bengalensis* Grunow in Cleve & Grunow 1880, p. 18 (as *Achnanthes (javanica* var. ?) *bengalensis*) [ref. 000241]. *Invalid.* Name invalid as a trinomial; name validly published by Cleve as *Achnanthes bengalensis*.
- Achnanthes javanica* var. *rhombica* Grunow in Cleve & Grunow 1880, p. 18 [ref. 000241].
- Achnanthes javanica* var. *subconstricta* Meister 1932, p. 40; pl. 14, fig. 113 [ref. 000644].
- Achnanthes javanica* var. *tenuistauros* (Mann) Meister 1932, p. 40; pl. 14, 110-111 [ref. 000644]. Basionym: *Achnanthes tenuistauros* Mann 1925.
- Achnanthes jeniseyensis* Skvortzow 1971, p. 70; pl. 5, fig. 4-7 [ref. 008823]. Spelled "yeniseyensis" on p. 70, "jeniseyensis" p. 108 (expl. pl.).
- Achnanthes jeniseyensis* var. *undulata* Skvortzow 1971, p. 71; pl. 5, fig. 8 [ref. 008823].
- Achnanthes jentschii* (Grunow) Schulz 1926, p. 193; fig. 47d-e [ref. 000812]. Basionym: *Navicula jentschii* Grunow 1882.
- Achnanthes jogensis* Gandhi 1966, p. 96; pl. 11(1), fig. 11, 12 [ref. 004205].
- Achnanthes johncarteri* Lange-Bertalot & Krammer 1989, p. 72; pl. 67, fig. 34-34" [ref. 006174]. New name for *Cocconeis confusa* J.R. Carter (priority for *Achnanthes confusa* Manguin 1955).
- Achnanthes joursacense* Héribaud 1903, p. 5; pl. 11, fig. 26-27 [ref. 000992].

- Achnanthes juriljii* VanLandingham 1967, p. 28, 37 [ref. 006293]. *Illegitimate*. New name for *A. frigida* A. Cleve 1939, non Hustedt in A. Schmidt 1937. Superfluous name (*Achnanthes frigida* Hustedt 1937 is invalid).
- Achnanthes kamczatica* Lupikina 1965, p. 20; pl. 4, fig. 5-8 [ref. 008518].
- Achnanthes kansouensis* Skvortzow 1935, p. 8; pl. 1, fig. 23 [ref. 000841].
- Achnanthes karelica* Mölder 1951, p. 26; pl. 2, fig. 13-14 [ref. 000664].
- Achnanthes karelica* Cleve-Euler 1953, p. 42; fig. 571 [ref. 001042]. *Illegitimate*. Non Mölder 1951.
- Achnanthes kenaiensis* Stone in McLaughlin & Stone 1986, p. 12-13; pl. 1, fig. 7, 8 [ref. 004949].
- Achnanthes kenyae* Cholnoky 1960, p. 351; pl. 1, fig. 1-4 [ref. 000207].
- Achnanthes kerguelenensis* Castracane 1886, p. 41; pl. 20, fig. 15 [ref. 000193].
- Achnanthes kertschiana* Pantocsek 1902, p. 640; pl. 11, fig. 23-24 [ref. 000718]. (p. 14 of reprint).
- Achnanthes kisselevi* Vladimirova 1947, p. 129, 144; pl. 1, fig. 8 [ref. 000901].
- Achnanthes kizaki* Skvortzow 1936, p. 23; pl. 2, fig. 25 [ref. 000843].
- Achnanthes koenigii* Simonsen 1959, p. 76; pl. 10, fig. 18-21 [ref. 000823]. *Invalid*. Type not designated.
- Achnanthes koghisensis* G. Moser, H. Lange-Bertalot & D. Metzeltin 1998, p. 84; pl. 19, figs. 1-6 [ref. 007020].
- Achnanthes koghisensis* f. *angustifasciata* G. Moser, H. Lange-Bertalot & D. Metzeltin 1998, p. 84; pl. 19, figs. 7-11 [ref. 007020].
- Achnanthes kolbei* Hustedt 1930, p. 204; fig. 279 [ref. 000502].
- Achnanthes kolbei* var. *elliptica* Fusey 1951, p. 38; pl. 1, fig. 15 [ref. 000372].
- Achnanthes koreana* Skvortzow 1936, p. 19; pl. 1, fig. 22 [ref. 000844].
- Achnanthes koshovii* Jasinsky 1936, p. 692, 701; pl. 1, fig. 6-7 [ref. 000543].
- Achnanthes krauselii* Cholnoky 1954, p. 271; fig. 5-10 [ref. 000199].
- Achnanthes krauselii* var. *debeonica* Cholnoky 1954, p. 272; fig. 11-12 [ref. 000199].
- Achnanthes kranzii* Lange-Bertalot in Lange-Bertalot & Krammer 1989, p. 74-75; fig. 55: 13-21, fig. 62: 6-8 [ref. 006174].
- Achnanthes krasskei* H. Kobayasi & A. Sawatari 1986, p. 261 [ref. 008438]. *Invalid*. Intended new name for *Achnanthes hustedtii* (Krasske) Reimer (= *Cocconeis hustedtii* Krasske), non *Achnanthes hustedtii* Bily & Marvan. *Invalid*: exact page of description of replaced synonym not cited.
- Achnanthes krejcii* Hustedt in Schmidt et al. 1937, pl. 409, fig. 44-51 [ref. 012520]. *Invalid*. No description. Validated by Hustedt 1950, p. 345 (ref. 000522).
- Achnanthes krejcii* Hustedt 1950, p. 345 [ref. 000522]. Illustration cited from Hustedt in Schmidt 1937, pl. 409, fig. 44-51 (ref. 0012520).
- Achnanthes kriegeri* Krasske 1943, p. 84; fig. 3-7 [ref. 000589].
- Achnanthes kryophila* Petersen 1924, p. 316; fig. 6 [ref. 000741].
- Achnanthes kryophila* var. *africana* Cholnoky 1960, p. 15; pl. 1, fig. 11-16 [ref. 000208].
- Achnanthes kryophila* var. *densestriata* Hustedt 1934, p. 378; fig. 3, 4 [ref. 000508].
- Achnanthes kryophila* var. *protracta* Hustedt in Schmidt et al. 1937, pl. 409, fig. 18-19 [ref. 012520]. *Invalid*. No description. Validated by Simonsen 1987, p. 227 (ref. 0003164).
- Achnanthes kryophila* var. *protracta* Hustedt ex Simonsen 1987, p. 227; pl. 334, fig. 1-4 [ref. 003164].
- Achnanthes kryophila* var. *sublinearis* Suxena & Venkateswarlu 1968, p. 10, 11; pl. 1, fig. 12 a, b [ref. 008863].
- Achnanthes kryophiloides* Foged 1964, p. 70; pl. 3, fig. 2a, b [ref. 000331].
- Achnanthes kryophiloides* Hohn in Patrick et al. 1966, p. 468; pl. 1, fig. 5, 6 [ref. 008040]. *Illegitimate*. Non Foged 1964.
- Achnanthes kuelsii* Lange-Bertalot in Lange-Bertalot & Krammer 1989, p. 79-80; fig. 36: 27-31, fig. 37: 1-4 [ref. 006174].
- Achnanthes kuolensis* Cleve-Euler 1934, p. 38; pl. 2, fig. 41 [ref. 000249].
- Achnanthes kuwaitensis* Hendey 1958, p. 55; pl. 6, fig. 8-10 [ref. 000479].
- Achnanthes lacunarum* Hustedt 1930, p. 205; fig. 297 [ref. 000502].
- Achnanthes lacunarum* var. *fonticola* Hustedt in Schmidt et al. 1937, pl. 409, fig. 64-65 [ref. 012520]. Description included in plate caption. Also in Hustedt 1939, p. 380 (ref. 002053).
- Achnanthes lacunicola* Patrick & Freese 1961, p. 165; pl. 1, fig. 4a-b [ref. 000725].
- Achnanthes lacus-karluki* Manguin 1961, p. 272; pl. 1 (26), fig. 27, 28 ('*lacus karluki*') [ref. 000628]. *Invalid*. No type designated and no Latin diagnosis. Validated by Kociolek & Reiers 1996.
- Achnanthes lacus-karluki* Manguin ex Kociolek & Reiers 1996, p. 178 [ref. 008441]. Cites illustration in Manguin 1961 (ref. 000628): pl.1, fig. 27-28.
- Achnanthes lacus-vulcani* Lange-Bertalot & Krammer 1989, p. 80-81; pl. 26, fig. 39-43 [ref. 006174]. New name for *Cocconeis thienemannii* Hustedt 1954 (priority for *Achnanthes thienemannii* Hustedt 1942).
- Achnanthes laevis* Østrup 1910, p. 130; pl. 3, fig. 80 [ref. 000706].
- Achnanthes laevis* var. *aretasii* (Lange-Bertalot) R. Schmidt, R. Mäusbacher & J. Müller 1990, p. 60; fig. 6c [ref. 008769]. *Invalid*. Basionym not cited. [according to ANSP].
- Achnanthes laevis* var. *austriaca* (Hustedt) Lange-Bertalot in Lange-Bertalot & Krammer 1989, p. 82; fig. 18: 7-12 [ref. 006174]. Basionym: *Achnanthes austriaca* Hustedt 1922.

- Achnanthes laevis* var. *diluviana* (Hustedt) Lange-Bertalot in Lange-Bertalot & Krammer 1989, p. 82; fig. 18: 23-25 [ref. 006174]. Basionym: *Achnanthes diluviana* Hustedt 1954.
- Achnanthes laevis* var. *ninckei* (Guermeur & Manguin) Lange-Bertalot in Lange-Bertalot & Krammer 1989, p. 82; fig. 18: 19-20' [ref. 006174]. Basionym: *Achnanthes ninckei* Guermeur & Manguin 1953.
- Achnanthes laevis* var. *quadratarea* (Østrup) Lange-Bertalot in Lange-Bertalot & Krammer 1989, p. 83 [ref. 006174]. Basionym: *Cocconeis quadratarea* (*quadratarea*) Østrup 1910.
- Achnanthes lakus-baikali* Skvortzow 1937, p. 312; pl. 5, fig. 16, 27 (*'Lacus Baikali'*) [ref. 000846].
- Achnanthes lanceolata* (Brébisson ex Kützing) Grunow in Cleve & Grunow 1880, p. 23 [ref. 000241]. Basionym: *Achnanthidium lanceolatum* Brébisson ex Kützing 1846.
- Achnanthes lanceolata* (Brébisson ex Kützing) Grunow in Van Heurck 1880, expl. pl. 27, fig. 8 [ref. 000895]. Basionym: *Achnanthidium lanceolatum* Brébisson ex Kützing 1846.
- Achnanthes lanceolata* var. *abbreviata* Reimer 1966, p. 3; pl. 1, fig. 6-9 [ref. 002562].
- Achnanthes lanceolata* var. *apiculata* Patrick 1945, p. 167; pl. 1, fig. 4-5 [ref. 000723].
- Achnanthes lanceolata* subsp. *apiculata* (Patrick) Lange-Bertalot in Krammer & Lange-Bertalot in H. Ettl et al. 1991, p. 80; fig. 46: 22-24 [ref. 006522]. Basionym: *Achnanthes lanceolata* var. *apiculata* Patrick 1945. *Invalid.* Place of publication of basionym not cited completely. Validated in Lange-Bertalot, Biblioth. Diatomol. 27: 3. 1993 (ref. 008467).
- Achnanthes lanceolata* subsp. *apiculata* (Patrick) Lange-Bertalot 1993, p. 3 [ref. 008467]. Basionym: *Achnanthes lanceolata* var. *apiculata* Patrick 1945. *Invalidly published by Lange-Bertalot in Krammer & Lange-Bertalot 1991 (ref. 006522).* Validated by Lange-Bertalot 1993.
- Achnanthes lanceolata* f. *baicalensis* Skvortzow & Meyer 1928, p. 9; pl. 1, fig. 16 (as *Achnanthes lanceolata* Bréb. var. *elliptica* Cl. f. *baicalensis*) [ref. 000855].
- Achnanthes lanceolata* var. *baicalensis* (Skvortzow & Meyer) Frenguelli 1941, p. 237; pl. 1, fig. 6-7 [ref. 000364]. Basionym: *Achnanthes lanceolata* f. *baicalensis* Skvortzow & Meyer 1928.
- Achnanthes lanceolata* var. *baicalensis* (Skvortzow & Meyer) Sheshukova in Proshkina-Lavrenko 1950, p. 108; pl. 39, fig. 6 a, b [ref. 001823]. Basionym: *Achnanthes baicalensis* Skvortzow & Meyer 1928. *Invalid.* Place of publication of basionym not cited. Non *Achnanthes lanceolata* f. *baicalensis* Skvortzow & Meyer 1928.
- Achnanthes lanceolata* var. *bimaculata* Hustedt 1950, p. 394; pl. 36, fig. 1, 2 [ref. 000522].
- Achnanthes lanceolata* subsp. *biporoma* (Hohn & Hellerman) Lange-Bertalot in Krammer & Lange-Bertalot in H. Ettl et al. 1991, p. 78, fig. 43: 30-40 [ref. 006522]. Basionym: *Achnanthes biporoma* Hohn & Hellerman 1963. *Invalid.* Place of publication of basionym not cited completely. Validated by Lange-Bertalot 1993 (ref. 008467).
- Achnanthes lanceolata* subsp. *biporoma* (Hohn & Hellerman) Lange-Bertalot 1993, p. 3 [ref. 008467]. Basionym: *Achnanthes biporoma* Hohn & Hellerman 1963. *Invalidly published by Lange-Bertalot in Krammer & Lange-Bertalot 1991 (ref. 006522).* Validated by Lange-Bertalot 1993.
- Achnanthes lanceolata* var. *boyei* (Østrup) Lange-Bertalot in Lange-Bertalot & Krammer 1989, p. 85; fig. 84: 17-19 [ref. 006174]. Basionym: *Achnanthes boyei* Østrup 1918.
- Achnanthes lanceolata* var. *brasiliensis* Zimmermann 1919, p. 99; pl. 3 (5), fig. 8 [ref. 000937].
- Achnanthes lanceolata* var. *capitata* Otto Müller 1909, p. 8; pl. 1, fig. 6-7 [ref. 001777].
- Achnanthes lanceolata* f. *capitata* (O. Müller) Hustedt 1933, p. 410; text-fig. 863h (on p. 409) [ref. 000507]. Basionym: *Achnanthes lanceolata* var. *capitata* Otto Müller 1909.
- Achnanthes lanceolata* var. *crassa* Cleve-Euler 1915, p. 43; pl. 4, fig. 91 [ref. 000246].
- Achnanthes lanceolata* f. *diminuta* Cleve-Euler 1932, p. 56; fig. 118 (as *Achnanthes lanceolata* var. *faeroensis* f. *diminuta*) [ref. 000248].
- Achnanthes lanceolata* f. *diminutae* Cleve-Euler 1953, p. 25; fig. 527x, y (as [*Achnanthes lanceolata* (Bréb.) Grun.]  $\alpha$  *genuina* fae *diminutae*) [ref. 001042]. No description. Not the name of a new taxon, but a change of taxonomic opinion (see *Achnanthes lanceolata* f. *diminuta* Cleve-Euler 1932).
- Achnanthes lanceolata* var. *dubia* Grunow in Van Heurck 1880, pl. 27, fig. 12, 13 [ref. 000895]. Locality not cited. Presumably same taxon as *Achnanthes lanceolata* var. *dubia* Grunow in Cleve & Grunow 1880 (ref. 000241).
- Achnanthes lanceolata* var. *dubia* Grunow in Cleve & Grunow 1880, p. 23 [ref. 000241].
- Achnanthes lanceolata* f. *dubia* (Grunow) T. Ko-Bayashi 1965, p. 9; pl. 6, fig. 1-5 [ref. 008440]. Basionym: *Achnanthes lanceolata* var. *dubia* Grunow in Van Heurck 1880.
- Achnanthes lanceolata* subsp. *dubia* (Grunow) Lange-Bertalot in Krammer & Lange-Bertalot in H. Ettl et al. 1991, p. 76 [ref. 006522]. Basionym: *Achnanthes lanceolata* var. *dubia* Grunow in Van Heurck 1880. *Invalid.* Place of publication of basionym not cited completely. Validated by Lange-Bertalot 1993 (ref. 008467).
- Achnanthes lanceolata* subsp. *dubia* (Grunow) Lange-Bertalot 1993, p. 3-4 [ref. 008467]. Basionym: *Achnanthes lanceolata* var. *dubia* Grunow in Van Heurck 1880. *Invalidly published by Lange-Bertalot in Krammer & Lange-Bertalot 1991 (ref. 006522).* Validated by Lange-Bertalot 1993.
- Achnanthes lanceolata* var. *elegans* Cleve-Euler 1953, p. 26; fig. 527c (as [*A. lanceolata*]  $\varepsilon$  *elegans* n.v.) [ref. 001042].
- Achnanthes lanceolata* var. *elliptica* Cleve 1891, p. 51; pl. 3, fig. 10-11 [ref. 000229].

- Achnanthes lanceolata* var. *elliptica* sensu Schulz 1926, p. 191; fig. 41a-c [ref. 000812]. Non Cleve 1891, according to Cleve-Euler 1953, p. 26, fig. 527f-i (ref. 001042).
- Achnanthes lanceolata* f. *elliptica* Jousé 1939 [ref. 002466]. According to Hollerbakh & Krasavina 1971, p. 13 (ref. 002458). Non Cleve 1891.
- Achnanthes lanceolata* var. *elliptica* Schulz ex Cleve-Euler 1953, p. 26, fig. 527f-i (ref. 001042) (as *Achnanthes lanceolata*  $\beta$  *elliptica* Schulz 1926) [ref. 001042]. *Invalid*. Non Cleve 1891. Rank implied, not indicated.
- Achnanthes lanceolata* var. *elliptico-lanceolata* (Schaarschmidt) R. Ross in Hartley 1986, p. 606 [ref. 002355]. Basionym: *Achnanthes haynaldii* var. *elliptico-lanceolata* Schaarschmidt 1881.
- Achnanthes lanceolata* f. *elongata* Lauby 1910, p. 225; pl. 10, fig. 19 [ref. 001335].
- Achnanthes lanceolata* var. *faeroensis* Østrup 1901, p. 277; fig. 44 [ref. 000701].
- Achnanthes lanceolata* f. *faeroensis* (Østrup) Cleve-Euler 1953, p. 25; fig. 527 d, e (as [*Achnanthes lanceolata* (Bréb.) Grun.]  $\alpha$  *genuina* f. *faeroensis* on plate caption) [ref. 001042]. Basionym: *Achnanthes lanceolata* var. *faeroensis* Østrup 1901.
- Achnanthes lanceolata* var. *fennica* Cleve-Euler 1934, p. 38; pl. 2, fig. 42 [ref. 000249].
- Achnanthes lanceolata* f. *fossilis* Manguin 1949, p. 98; pl. 2, fig. 41a-b (as *Achnanthes lanceolata* var. *elliptica* f. *fossilis*) [ref. 000624].
- Achnanthes lanceolata* var. *frequentissima* H. Lange-Bertalot in Lange-Bertalot & Krammer 1989, expl. pl. 86, figs. 1-15' & pl. 91, figs. 6,7 [ref. 006174]. *Invalid*. No description. As *Achnanthes frequentissima* in text, p. 58 (“Manuscriptnamen”). *A. lanceolata* var. *frequentissima* validated by Lange-Bertalot (1993) (ref. 008467)?
- Achnanthes lanceolata* subsp. *frequentissima* Lange-Bertalot in Krammer & Lange-Bertalot in H. Ettl et al. 1991, p. 78; pl. 44: figs. 1-38; pl. 45: fig. 18 [ref. 006522]. *Invalid*. No Latin diagnosis. Validated by Lange-Bertalot 1993, p. 4 (ref. 008467).
- Achnanthes lanceolata* var. *frequentissima* Lange-Bertalot in Krammer & Lange-Bertalot in H. Ettl et al. 1991, p. 78; pl. 44: figs. 1-3, 15-23 & pl. 45: fig. 18 [ref. 006522]. *Invalid*. No Latin diagnosis. Cite in synonymy: “*Achnanthes lanceolata* var. *dubia* f. *minuta* Grunow in Van Heurck 1880-1887; *Achnanthes lanceolata* var. *dubia* Grunow sensu Van Heurck 1885 et auct. nonnull”. Name validated by Lange-Bertalot 1993 (ref. 008467)?
- Achnanthes lanceolata* subsp. *frequentissima* Lange-Bertalot in Krammer & Lange-Bertalot in H. Ettl et al. 1993, p. 4 [ref. 008467]. Illustration in Krammer & Lange-Bertalot 1991, pl. 44, figs. 1-3, 15-23 & pl. 45, fig. 18 (ref. 006522). Previously invalidly published by Lange-Bertalot 1991, p. 78 (ref. 006522). Validated by Lange-Bertalot in Krammer & Lange-Bertalot 1993.
- Achnanthes lanceolata* var. *frequentissima* Lange-Bertalot 1993, p. 4 [ref. 008467]. Illustration pl. 44: figs. 1-3, 15-23 & pl. 45: fig. 18 in Krammer & Lange-Bertalot 1991 (ref. 006522). Invalidly published by Lange-Bertalot in Krammer & Lange-Bertalot 1991 (ref. 006522). Unclear if validated by Lange-Bertalot 1993.
- Achnanthes lanceolata* var. *genuina* ‘Mayer’ Mills 1933, p. 67 [ref. 000660]. *Invalid*. Err. cit. pro *Achnantheidium lanceolatum* var. *genuinum* Mayer 1919, p. 199; pl. 6, fig. 14-16 (ref. 000637). Combination not accepted by Mills (lower case print).
- Achnanthes lanceolata* var. *haynaldii* (Schaarschmidt) Cleve 1894, p. 99; pl. 7, fig. 14 [ref. 000231]. Basionym: *Achnanthes haynaldii* Schaarschmidt 1881.
- Achnanthes lanceolata* var. *inflata* ‘Mayer’ Mills 1933, p. 67 [ref. 000660]. *Invalid*. Err. cit. pro *Achnantheidium lanceolatum* Mayer 1913, p. 81 (ref. 000551). Combination not accepted by Mills (lower case print).
- Achnanthes lanceolata* var. *intermedia* (A. Cleve in Florin) VanLandingham 1967, p. 32, 42 [ref. 006293]. Basionym: *Achnanthes haynaldii* var. *intermedia* Cleve-Euler in Florin 1944. Deliberate new combination.
- Achnanthes lanceolata* var. *laevistriata* Cleve-Euler 1953, p. 26 (as [*A. lanceolata*]  $\beta$  *laevistriata* n.v.) [ref. 001042].
- Achnanthes lanceolata* var. *lanceolatooides* (Sovereign) Reimer in Patrick & Reimer 1966, p. 272 [ref. 003167]. Basionym: *Achnanthes lanceolatooides* Sovereign 1958. [according to INA].
- Achnanthes lanceolata* subsp. *lanceolatooides* (Sovereign) Lange-Bertalot in Krammer & Lange-Bertalot in H. Ettl et al. 1991, p. 80 [ref. 006522]. Basionym: *Achnanthes lanceolatooides* Sovereign 1958. *Invalid*. Place of publication of basionym not cited completely. Validated by Lange-Bertalot 1993 (ref. 008467).
- Achnanthes lanceolata* subsp. *lanceolatooides* (Sovereign) Lange-Bertalot 1993, p. 6 [ref. 008467]. Basionym: *Achnanthes lanceolatooides* Sovereign 1958. Previously invalidly published by Lange-Bertalot in Krammer & Lange-Bertalot 1991 p. 80 (ref. 6522). Validated by Lange-Bertalot 1993.
- Achnanthes lanceolata* var. *laterostrata* Gandhi 1966, p. 99; pl. 11(1), fig. 22, 23 [ref. 004205].
- Achnanthes lanceolata* var. *magna* (Straub) Lange-Bertalot in Krammer & Lange-Bertalot in H. Ettl et al. 1991, p. 79 (as *Achnanthes lanceolata* subsp. *frequentissima* var. *magna*) [ref. 006522]. Basionym: *Achnanthes rostrata* var. *magna* Straub 1985. *Invalid*. Place of publication of basionym not cited completely. Validated by Lange-Bertalot 1993(ref. 008467).
- Achnanthes lanceolata* var. *magna* (Straub) Lange-Bertalot 1993, p. 5 (as *Achnanthes lanceolata* subsp. *frequentissima* var. *magna*) [ref. 008467]. Basionym: *Achnanthes rostrata* var. *magna* Straub 1985. Previously invalidly published by

- Lange-Bertalot in Krammer & Lange-Bertalot 1991, p. 79 (ref. 006522). Validated by Lange-Bertalot 1993.
- Achnanthes lanceolata* var. *maxima* M. Peragallo in Héribaud et al. 1920, p. 30; pl. 2, fig. 9 [ref. 000482].
- Achnanthes lanceolata* var. *minima* Szemes 1931, p. 329; pl. 3, fig. 88-89 [ref. 000872]. [according to VLC].
- Achnanthes lanceolata* f. *minor* Schulz 1926, p. 191; fig. 42 (as *Achnanthes lanceolata* var. *elliptica* f. *minor*) [ref. 000812].
- Achnanthes lanceolata* var. *minor* Geitler 1980, p. 7; fig. 2 b-f [ref. 008231]. *Illegitimate*. Non Schulz 1926. [according to ANSP].
- Achnanthes lanceolata* var. *minor* (Schulz) Lange-Bertalot in Krammer & Lange-Bertalot in H. Ettl et al. 1991, p. 79 [ref. 006522]. *Invalid*. Place of publication of basionym not cited completely. Name validated by Lange-Bertalot 1993 (ref. 008467).
- Achnanthes lanceolata* var. *minor* (Schulz) Lange-Bertalot 1993, p. 4-5 (as *Achnanthes lanceolata* subsp. *frequentissima* var. *minor*) [ref. 008467]. Basionym: *Achnanthes lanceolata* f. *minor* Schulz 1926. Previously invalidly published in Krammer & Lange-Bertalot 1991 (ref. 006522) fig. 44: 4-6. Validated by Lange-Bertalot 1993.
- Achnanthes lanceolata* f. *minores* Krasske 1929, p. 367 (as *Achnanthes lanceolata* var. *elliptica* f. *minores* n.f.) [ref. 000582]. Non Schulz 1926.
- Achnanthes lanceolata* f. *minuta* Grunow in Van Heurck 1882-1885, p. 69; Type no. 236 (as *Achnanthes lanceolata* var. *dubia* Grun. forma *minuta*) [ref. 000896]. *Invalid*. Nomen nudum.
- Achnanthes lanceolata* var. *minuta* (Skvortzow) Sheshukova in Zabelina et al. 1951, p. 222; fig. 124, 5 [ref. 000800]. Basionym: *Achnanthes oestrupii* var. *minuta* Skvortzow 1937.
- Achnanthes lanceolata* var. *minutissima* Krasske 1938, p. 513 [ref. 000586].
- Achnanthes lanceolata* var. *nipponica* Skvortzow 1936, p. 26; pl. 12, fig. 13 [ref. 000843].
- Achnanthes lanceolata* var. *oestrupii* Cleve-Euler 1922, p. 53; pl. 1, fig. 1 ('*oestrupii*') [ref. 000247].
- Achnanthes lanceolata* var. *omissa* Reimer in Patrick & Reimer 1966, p. 272; pl. 18, fig. 16, 17 [ref. 003167].
- Achnanthes lanceolata* var. *ovalis* M. Peragallo in Héribaud 1893, p. 233 [ref. 000481]. *Invalid*. Nomen nudum.
- Achnanthes lanceolata* var. *ovalis* Héribaud 1903, p. 116 [ref. 000992].
- Achnanthes lanceolata* f. *parallela* Fusey 1950, p. 153, fig. 10 [ref. 000371].
- Achnanthes lanceolata* var. *perpusilla* Grunow 1882, p. 155 [ref. 000442]. [according to INA].
- Achnanthes lanceolata* subsp. *polymorpha* Skabichevskii 1987, p. 72, fig. 1, 1-7 [ref. 008816].
- Achnanthes lanceolata* f. *pura* Mayer 1917, p. 26; pl. 2, fig. 23 (as *Achnanthes lanceolata* var. *dubia* f. *pura*) [ref. 000636].
- Achnanthes lanceolata* f. *rhombica* Carter 1966, p. 446; pl. 60(1), fig. 17, 18 [ref. 008093].
- Achnanthes lanceolata* var. *rhomboidea* Gandhi 1966, p. 100; fig. 49-51 [ref. 004205].
- Achnanthes lanceolata* var. *rhomboides* 'A. Mayer' Mills 1933, p. 67 [ref. 000660]. *Invalid*. Err. cit. pro *Achnantheidium lanceolatum* var. *romboidale* Mayer 1919, p. 199; pl. 6, fig. 17-18 (ref. 000637). Combination not accepted by Mills (lower case print).
- Achnanthes lanceolata* var. *robusta* Hustedt 1937, p. 202; pl. 13, fig. 47-49 [ref. 001012].
- Achnanthes lanceolata* subsp. *robusta* (Hustedt) Lange-Bertalot in Krammer & Lange-Bertalot in H. Ettl et al. 1991, p. 79 [ref. 006522]. Basionym: *Achnanthes lanceolata* var. *robusta* Hustedt 1937. *Invalid*. Place of publication of basionym not cited completely. Validated by Lange-Bertalot 1993 (ref. 008467).
- Achnanthes lanceolata* subsp. *robusta* (Hustedt) Lange-Bertalot 1993, p. 6 [ref. 008467]. Basionym: *Achnanthes lanceolata* var. *robusta* Hustedt 1937. Previously invalidly published by Lange-Bertalot in Krammer & Lange-Bertalot 1991, p. 79 (ref. 006522). Validated by Lange-Bertalot 1993.
- Achnanthes lanceolata* var. *rostellatum* 'Hust. Mayer' Mills 1933, p. 67 [ref. 000660]. *Invalid*. Err. cit. pro *Achnantheidium lanceolatum* var. *rostellatum* Mayer 1919, p. 199; pl. 6, fig. 23 (ref. 000637). Mayer's name is invalid, and itself an citation error for *Achnanthes lanceolata* var. *rostrata* Hustedt 1911.
- Achnanthes lanceolata* var. *rostrata* Hustedt 1911, p. 279; pl. 3, fig. 34 [ref. 000492].
- Achnanthes lanceolata* var. *rostrata* Schulz 1926, p. 192; fig. 43 a, b (as *Achnanthes lanceolata* var. *rostrata* Hust. ?) [ref. 000812]. *Illegitimate*. Non Hustedt 1911.
- Achnanthes lanceolata* var. *rostrata* (Østrup) Hustedt 1930, p. 208 [ref. 000502]. Basionym: *Achnanthes rostrata* Østrup 1902. *Illegitimate*. Non Hustedt 1911. [according to INA].
- Achnanthes lanceolata* f. *rostrata* Esyreva 1945 [ref. 002939]. According to Hollerbakh & Krasavina 1971, p. 13 (ref. 002458). [according to VLC]. Non Hustedt 1911.
- Achnanthes lanceolata* f. *rostrata* (Østrup) Hustedt 1957, p. 251 [ref. 000532]. Basionym: *Achnanthes rostrata* Østrup 1902. Non Hustedt 1911. [according to ANSP].
- Achnanthes lanceolata* subsp. *rostrata* (Østrup) Lange-Bertalot in Krammer & Lange-Bertalot in H. Ettl et al. 1991, expl. pl. 43, fig. 1-14 (in text on p. 79 as var. *rostrata*) [ref. 006522]. Basionym: *Achnanthes rostrata* Østrup 1902. *Invalid*. Place of publication of basionym not cited completely. Validated by Lange-Bertalot 1993 (ref. 008467).
- Achnanthes lanceolata* subsp. *rostrata* (Østrup) Lange-Bertalot 1993, p. 6 [ref. 008467]. Basionym: *Achnanthes rostrata* Østrup 1902. *Illegitimate*. Non Hustedt 1911. Invalidly published by Lange-Bertalot in Krammer & Lange-Bertalot 1991, p. 79 (ref. 006522). Validated by Lange-Bertalot 1993.

- Achnanthes lanceolata* var. *rostratiformis* Lange-Bertalot 1993, p. 5 (as *Achnanthes lanceolata* subsp. *frequentissima* var. *rostratiformis*) [ref. 008467]. *Illegitimate*. New name for *Achnanthes lanceolata* var. *rostrata* Hustedt 1911. Superfluous name (new name created for the older, legitimate name). Non *Achnanthes lanceolata* var. *rostrata* (Østrup) Hustedt 1957.
- Achnanthes lanceolata* var. *rusticum* Steinecke 1916 [ref. 000869]. Mentioned in Budde1928, p. 509 (ref. 010838). [according to INA].
- Achnanthes lanceolata* f. *semipura* Mayer 1917, p. 26; pl. 2, fig. 24 (as *Achnanthes lanceolata* var. *dubia* f. *semipura*) [ref. 000636].
- Achnanthes lanceolata* var. *subinflata* Østrup 1918, p. 42; pl. 4, fig. 62 [ref. 000710].
- Achnanthes lanceolata* var. *tenuis* Gonzalves & Gandhi 1952, p. 145; fig. 53a-b [ref. 000385].
- Achnanthes lanceolata* f. *typica* Mayer 1917, p. 26 (as *Achnanthes lanceolata* var. *dubia* f. *typica*) [ref. 000636].
- Achnanthes lanceolata* f. *typica* Manguin 1943, p. 35; pl. 1, fig. 11 (as *Achnanthes lanceolata* var. *rostrata* f. *typica*) [ref. 008563]. [according to ANSP].
- Achnanthes lanceolata* f. *typica* ‘Meister’ VanLandingham 1967, p. 40 [ref. 006293]. *Invalid*. Err. cit. pro *Achnantheidium lanceolatum* “typische Form” Meister 1912, p. 99; pl. 13, fig. 12, 13 (ref. 000642). Clerical error rather than intended new combination.
- Achnanthes lanceolata* var. *ventricosa* Hustedt 1914, p. 64; pl. 2, fig. 32 [ref. 000493].
- Achnanthes lanceolata* f. *ventricosa* (Hustedt) VanLandingham 1967, p. 40 [ref. 006293]. Basionym: *Achnanthes lanceolata* var. *ventricosa* Hustedt 1914. Err. cit. pro *Achnanthes lanceolata* var. *ventricosa* Hustedt 1914? Although this name is not listed by VanLandingham as a “new comb.”, it is accepted (upper case print), the basionym is properly cited as well as its place of publication, and we treat it as a valid new combination.
- Achnanthes lanceolatoides* Sovereign 1958, p. 115; pl. 2, fig. 18-19 [ref. 000022]. *Invalid*. Type not designated (2 samples cited).
- Achnanthes lancettula* Østrup in Héribaud et al. 1920, p. 120; pl. 7, fig. 33, 34 [ref. 000482].
- Achnanthes lancettula* Cleve-Euler 1953, p. 45; fig. 580A [ref. 001042]. *Illegitimate*. Non Østrup in Héribaud 1920.
- Achnanthes lapeyrerei* Tempère & M. Peragallo in Tempère & Peragallo 1908, p. 82; No. 152-153 [ref. 001064]. *Invalid*. Reference to an illustration in Schmidt’s Atlas (198/40). *Invalid* for lacking a description.
- Achnanthes lapidosa* Krasske 1929, p. 350; fig. 9 a-b [ref. 000582].
- Achnanthes lapidosa* var. *appalachiana* (Camburn & Lowe) Lange-Bertalot in Lange-Bertalot & Krammer 1989, p. 93 [ref. 006174]. Basionym: *Achnanthes subrostrata* var. *appalachiana* Camburn & Lowe 1978.
- Achnanthes lapidosa* f. *chilensis* Krasske 1939, p. 372 (as *Achnanthes lapidosa* var. *lanceolata* f. *chilensis*) [ref. 000587].
- Achnanthes lapidosa* var. *chilensis* (Krasske) Lange-Bertalot in Lange-Bertalot & Krammer 1989, p. 92; fig. 71: 12-14 [ref. 006174]. Basionym: *Achnanthes lapidosa* f. *chilensis* Krasske 1939.
- Achnanthes lapidosa* var. *elliptica* Kaczmarek 1985, p. 41; pl. 1, fig. 36, 37, 46 [ref. 008382].
- Achnanthes lapidosa* var. *lanceolata* Hustedt 1933, p. 401; fig. 852d-f [ref. 000507].
- Achnanthes lapidosa* f. *producta* Halász 1941, p. 185; fig. 4 [ref. 010772]. [according to INA].
- Achnanthes lapidosa* f. *robusta* Moiseeva 1959, p. 127; pl. 2, fig. 10 a,b [ref. 008602].
- Achnanthes lapidosa* var. *rostrata* Fusey 1951, p. 38; pl. 1, fig. 16 [ref. 000372].
- Achnanthes lapidosa* var. *subrostrata* (Hustedt) Lange-Bertalot in Lange-Bertalot & Krammer 1989, p. 93; fig. 71: 1, 2 [ref. 006174]. Basionym: *Achnanthes subrostrata* Hustedt 1942.
- Achnanthes laportei* Manguin 1954, p. 16; pl. 2, fig. 20 a-b [ref. 002503].
- Achnanthes lapponica* (Hustedt) Hustedt 1933, p. 414; fig. 868 [ref. 000507]. Basionym: *Eucoconeis lapponica* Hustedt 1924.
- Achnanthes lapponica* var. *fennica* (Cleve-Euler) Cleve-Euler 1953, p. 23; fig. 520c-h (as [*Achnanthes lapponica*] β *fennica*) [ref. 001042]. Basionym: *Cocconeis lapponica* var. *fennica* Cleve-Euler 1934. *Invalid*. Rank implied, but not clearly indicated. Basionym not indicated. Validated in VanLandingham 1967, p. 44.
- Achnanthes lapponica* var. *fennica* (Cleve-Euler) Cleve-Euler ex VanLandingham 1967, p. 44 [ref. 006293]. Basionym: *Cocconeis lapponica* var. *fennica* Cleve-Euler 1934. A citation error for *Achnanthes lapponica* β *fennica* (Cleve-Euler) Cleve-Euler 1951, rather than a deliberate new combination. New combination nevertheless valid in VanLandingham 1967.
- Achnanthes lapponica* var. *genuina* Cleve-Euler 1953, p. 23; fig. 520a, b (as [*Achnanthes lapponica*] α *genuina* mh.) [ref. 001042]. Cleve-Euler refers to *Eucoconeis lapponica* Hustedt 1924.
- Achnanthes lapponica* f. *major* Cleve-Euler 1953, p. 23 (as [*Achnanthes lapponica*] β *fennica* f. *major*) [ref. 001042]. Possibly illustrated in fig. 520i?, k? (unclear).
- Achnanthes lapponica* var. *ninckei* (Guermeur & Manguin) Reimer in Patrick & Reimer 1966, p. 259; pl. 16, fig. 29, 30 [ref. 003167]. Basionym: *Achnanthes ninckei* Guermeur & Manguin 1953.
- Achnanthes lapponica* f. *rostrata* (Gonzalves & Gandhi) Sarode & Kamat 1984, p. 57; fig. 99 a, b [ref. 008758]. Basionym: *Eucoconeis lapponica* f. *rostrata* Gonzalves & Gandhi 1952.

- Achnanthes larsenii* Foged 1968, p. 5; pl. 1, fig. 1 a, b [ref. 004050].
- Achnanthes lata* Hustedt in A. Schmidt 1937, pl. 410, fig. 15-20 [ref. 012520]. *Invalid*. No description. Validly published by Hustedt 1942.
- Achnanthes lata* Hustedt 1942, p. 36; fig. 38-43 [ref. 000517]. Previously invalidly published in Schmidt's Atlas, pl. 410, fig. 15-20 (1937) (ref. 012520).
- Achnanthes laterostrata* Hustedt 1933, p. 392; fig. 840 [ref. 000507].
- Achnanthes laterostrata* var. *capitata* Stone in McLaughlin & Stone 1986, p. 14; pl. 1, fig. 11, 12 [ref. 004949].
- Achnanthes laterostrata* f. *krasske* Foged 1952, p. 164; fig. I, 11a-b [ref. 000321].
- Achnanthes laterostrata* var. *lanceolata* Krasske 1943, p. 85 [ref. 000589]. Nomen, not accepted (proposed, not justified). [according to INA].
- Achnanthes latestriata* Riznyk 1973, p. 115; pl. I, fig. 2, 3; pl. 18, fig. 3, 4 [ref. 005282].
- Achnanthes latissima* Cleve-Euler 1915, p. 43; pl. 4, fig. 89 [ref. 000246].
- Achnanthes lauenburgiana* Hustedt 1950, p. 394; pl. 36, fig. 3-9 [ref. 000522].
- Achnanthes lecohui* Coste & Ricard 1982, p. 283; pl. 3, fig. 1, 2, pl. 4, fig. 1, 2 [ref. 008143].
- Achnanthes leibleinii* Agardh 1832, p. 59 [ref. 000940]. Agardh cites "Leibl. Bot. Zeit. 1830, p. 328, fig. 10".
- Achnanthes lemmermannii* Hustedt 1933, p. 390; fig. 837 ('*lemmermannii*') [ref. 000507].
- Achnanthes lemmermannii* var. *lineata* Salah 1953, p. 158; pl. 1, fig. 5 [ref. 000801].
- Achnanthes lemmermannii* var. *obtusata* Hustedt 1939, p. 609; fig. 37, 38 [ref. 000514].
- Achnanthes lemmermannii* var. *subcapitata* Fusey 1951, p. 38; pl. 1, fig. 18 [ref. 000372].
- Achnanthes leonardii* A. Witkowski & H. Lange-Bertalot in A. Witkowski, H. Lange-Bertalot & D. Metzeltin 2000, p. 92, 420; pl. 50, fig. 1-12 [ref. 009017].
- Achnanthes leontopitheculus-rosalia* J.C.F. da Costa 1995, p. 81; fig. 109-111 [ref. 006645].
- Achnanthes lesothensis* Schoeman 1973, p. 32-33; pl. 1, fig. 5, 6 [ref. 006187].
- Achnanthes leudugeri* Tempère & Brun in Brun & Tempère 1889, p. 9; pl. 9, fig. 11 [ref. 000185].
- Achnanthes levanderi* Hustedt 1933, p. 404; fig. 856 [ref. 000507].
- Achnanthes levanderi* var. *genuina* Cleve-Euler 1953, p. 34; fig. 538a-c (as [*A. levanderi* Hustedt]  $\alpha$  *genuina* mh.) [ref. 001042]. Cleve-Euler refers to the original reference of *Achnanthes levanderi* Hustedt 1933.
- Achnanthes levanderi* var. *helvetica* Hustedt 1933, p. 404; fig. 856B [ref. 000507].
- Achnanthes leveillei* Héribaude in Héribaude et al. 1920, p. 11; pl. 2, fig. 10, 11 [ref. 000482].
- Achnanthes lewisiana* Patrick 1945, p. 168; pl. 1, fig. 2-3 [ref. 000723].
- Achnanthes ligeriana* Héribaude 1903, p. 89; pl. 12, fig. 20 [ref. 000992].
- Achnanthes lilljeborgii* Grunow 1881, p. 68 [ref. 000441]. [according to VLC].
- Achnanthes lineariformis* H. Kobayashi 1964, p. 67; pl. 11, fig. 24 [ref. 002985]. *Invalid*. No Latin diagnosis. [according to INA].
- Achnanthes lineariformis* H. Kobayashi 1965, p. 347; fig. 2 a-e [ref. 002986]. *Invalid*. No type.
- Achnanthes lineariformis* Lange-Bertalot 1993, p. 7 [ref. 008467]. Illustrated in Krammer & Lange-Bertalot 1991, pl. 37, figs. 19-23 (ref. 006522). Synonym (illegitimate substitute name): *Achnanthes linearioides* Lange-Bertalot in Lange-Bertalot & Moser 1994.
- Achnanthes linearioides* Lange-Bertalot in Lange-Bertalot & Moser 1994, p. 95-96 [ref. 006662]. *Illegitimate*. Intended as a new name for *Achnanthes lineariformis* Lange-Bertalot 1993 (non Kobayashi 1965). Since *Achnanthes lineariformis* Kob. is invalid, *A. linearioides* Lange-B. is superfluous.
- Achnanthes linearis* (W. Smith) Grunow in Cleve & Grunow 1880, p. 23 [ref. 000241]. Basionym: *Achnanthidium lineare* W. Smith 1855. Also: *Achnanthes linearis* (W. Smith) Grunow in Van Heurck, Syn. Diat. Belgique: expl. pl. XXVII: fig. 31. 1880 (ref. 000895).
- Achnanthes linearis* var. *cryptocephala* Sheshukova in Zabelina et al. 1951, p. 208 [ref. 000800].
- Achnanthes linearis* var. *cryptocephala* Sheshukova in Poretzky & Sheshukova 1953, p. 148; fig. 6a,b [ref. 002552]. Was validly published (without a figure) in Zabelina et al. 1951, p. 208 (ref. 000800).
- Achnanthes linearis* f. *curta* H.L. Smith ex Boyer 1916, p. 59; pl. 16, fig. 16, 17 [ref. 000152].
- Achnanthes linearis* f. *exilis* Cleve-Euler 1932, p. 59; fig. 126 c (as *Achnanthes linearis* var. *pusilla* f. *exilis*) [ref. 000248].
- Achnanthes linearis* var. *genuina* Cleve-Euler 1953, p. 41; fig. 569a-d (as [*A. linearis* (W. Sm.) Grun.]  $\alpha$  *genuina* mh.) [ref. 001042]. For this taxon, Cleve-Euler does not directly refer to the original reference of *Achnanthidium lineare* W. Smith, but to Van Heurck Syn. 27/31-32 and a subsequent citation by Hustedt.
- Achnanthes linearis* var. *jackii* (Rabenhorst) Grunow in Van Heurck 1880, pl. 27, fig. 24 [ref. 000895]. Basionym: *Achnanthidium jackii* Rabenhorst 1861.
- Achnanthes linearis* var. *kankouensis* Skvortzow 1935, p. 8; pl. 1, fig. 22 [ref. 000841].
- Achnanthes linearis* f. *minuta* Skvortzow 1935, p. 19; pl. 4, fig. 12 [ref. 000841]. Also in Skvortzow 1936 (ref. 000842), p. 264.
- Achnanthes linearis* var. *nipponica* Skvortzow 1937, p. 195; pl. 1, fig. 14, 20 [ref. 000848].



- Achnanthes linearis* var. *pusilla* Grunow in Cleve & Grunow 1880, p. 23 (as *A. (linearis) var. (?) pusilla*) [ref. 000241]. *Invalid*. Name valid as *A. pusilla* in Cl. & Gr. 1880, invalid as a trinomial. Trinomial validly published by Cleve 1895. See also *A. pusilla* Grunow in Van Heurck 1880.
- Achnanthes linearis* var. *pusilla* (Grunow) Cleve 1895, p. 189 [ref. 000949]. Basionym: *Achnanthes pusilla* Grunow in Cleve & Grunow 1880.
- Achnanthes linearis* var. *subcapitata* Kolbe & Krieger 1942, p. 343; pl. 3, fig. 13, 14 [ref. 001313]. [according to INA].
- Achnanthes linkei* Hustedt 1939, p. 607-608; fig. 28-32 [ref. 000514].
- Achnanthes linkei* f. *minor* Salah 1955, p. 93; pl. 2, fig. 1 [ref. 000802].
- Achnanthes lintonensis* Carter 1961, p. 325, pl. 1, fig. 15-16 (p. 324) [ref. 003619]. *Invalid*. Type not designated.
- Achnanthes lobata* (Schwartz ex Rabenhorst) Hustedt 1952, p. 387; fig. 76-77 [ref. 000524]. Basionym: *Navicula lobata* Schwartz in Rabenhorst 1874.
- Achnanthes loczyi* Pantocsek 1889, p. 57; pl. 12, fig. 217 (as *Achnanthes (subsessilis) var. (?) Lóczyi* n.s. in text and plate caption) [ref. 001033].
- Achnanthes longipes* Agardh 1824, p. 1 [ref. 000102]. *Illegitimate*. Superfluous name. Synonyms cited: *Conferva armillaris* Müller, *Conferva stipitata* Smith, *Diatoma vexillum* Jurg.
- Achnanthes longipes* var.  $\beta$  W. Smith 1856, p. 27; pl. 36, fig. 300  $\beta$  (as [*Achnanthes longipes* Ag.]  $\beta$ ) [ref. 001007]. *Invalid*. Improper epithet form.
- Achnanthes longipes* var. *carmichaelii* (Greville) Brébisson 1838, p. 13 [ref. 000161]. Basionym: *Achnanthes carmichaelii* Greville in Hooker 1833.
- Achnanthes longipes* var. *carmichaelii* Smejev 1872 [ref. 002843]. According to Hollerbakh & Krasavina 1971, p. 13 (ref. 002458). [according to VLC]. Non (Greville) Brébisson 1838.
- Achnanthes longipes* var. *constricta* Grunow in Juhlin-Dannfelt 1882, p. 17 [ref. 000550]. *Invalid*. Nomen nudum.
- Achnanthes longipes* f. *elliptica* Foged 1984, p. 14; pl. 32, fig. 2, 3 [ref. 006677].
- Achnanthes longipes* f. *elongata* Agardh 1832 (as *Achnanthes longipes* var. *major elongata*) [ref. 000940]. According to Mills 1933, p. 69 (ref. 000660) and VanLandingham 1967, p. 48 (ref. 006293). Agardh may be the author of this name, but name not found in Agardh 1832.
- Achnanthes longipes* var. *fossilis* Pantocsek 1902, p. 640; pl. 11, fig. 18-19 [ref. 000718]. (p. 14 of reprint).
- Achnanthes longipes* var.  $\gamma$  W. Smith 1856, p. 27; pl. 36, fig. 300  $\gamma$  (as [*Achnanthes longipes* Ag.]  $\gamma$ ) [ref. 001007]. *Invalid*. Improper epithet form.
- Achnanthes longipes* var. *javanica* Grunow in Cleve & Möller 1878, No. 147 (as *Achnanthes (longipes) javanicum* Grun.) [ref. 001976]. *Invalid*. Nomen nudum.
- Achnanthes longipes* var. *lata* Agardh 1832 [ref. 000940]. According to Mills 1933, p. 69 (ref. 000660), and VanLandingham 1967, p. 48 (ref. 006293). Agardh may be the author of such name, but name not found in Agardh 1832.
- Achnanthes longipes* f. *lata* Zimmermann 1910, p. 99 [ref. 010980]. Nomen nudum; or possible new comb. of *A. longipes* var. *lata* Ag.? [according to INA].
- Achnanthes longipes* f. *major elongata* Zimmermann 1909, p. 118 [ref. 000934]. *Invalid*. Nomen nudum. [according to INA].
- Achnanthes longipes* var. *minor* Agardh 1832 [ref. 000940]. According to Mills 1933, p. 69 (ref. 000660) and VanLandingham 1967, p. 48 (ref. 006293). Agardh may be the author of this name, but name not found in Agardh 1832.
- Achnanthes longipes* f. *minor* Cleve 1878, p. 10, no. 74 [ref. 000221]. *Invalid*. Nomen nudum.
- Achnanthes longipes* f. *minor decussata* Zimmermann 1909, p. 119 [ref. 000934]. *Invalid*. Nomen nudum. [according to INA].
- Achnanthes longipes* var. *minutissima* Tempère 1908, p. 107; No. 198 [ref. 001064].
- Achnanthes longipes* var. *sefordiana* F.W. Mills 1933, p. 69 [ref. 000660]. Name for *Achnanthes longipes* var.  $\beta$  W. Smith 1856, p. 27 (ref. 001007). Description in W. Smith, p. 27; illustration in W. Smith, pl. 36, fig. 300  $\beta$ .
- Achnanthes looseri* Frenguelli 1930, p. 198; fig. 35, no. 1 [ref. 000353].
- Achnanthes looseri* var. *lanceolata* Frenguelli 1935, p. 151; fig. 23, 1 [ref. 000360].
- Achnanthes lorenziana* (Grunow) Cleve 1895, p. 186 [ref. 000949]. Basionym: *Rhaphoneis lorenziana* Grunow 1862.
- Achnanthes lorenziana* var. *capitata* Østrup 1904, p. 28, 29, 30, 33, 35 [ref. 011208]. Nomen nudum. [according to INA].
- Achnanthes lorenziana* var. *parva* (Mereschkowsky) F.W. Mills 1933, p. 69 [ref. 000660]. Citation error for *Actinoneis lorenziana* var. *parva* Mereschkowsky 1902 (ref. 000652). Combination accepted by Mills (upper case).
- Achnanthes lucana* Carter 1970, p. 609; pl. 1, fig. 8, 9 [ref. 003967].
- Achnanthes lutheri* Hustedt 1933, p. 405; fig. 858 [ref. 000507].
- Achnanthes lyrata* Proschkina-Lavrenko 1961, p. 38; pl.1, fig.12, 13, pl.2, fig.18, 19 [ref. 000762].
- Achnanthes lyroides* König 1959, p. 47, 59; pl. 1, fig. 8 a-b, pl. 3, fig. 1 [ref. 004687].
- Achnanthes maceneryae* Reimer & Lee 1988, p. 344; fig. 8-18 [ref. 005253].
- Achnanthes macquariensis* Foged 1978, p. 27, 28; pl. 15, fig. 3a, b [ref. 004055].
- Achnanthes macropus* Kützing in lit. in Kützing 1844, p. 77 [ref. 000595]. *Invalid*. Cited as synonym of *Achnanthes*

- carmichaelii* Greville in Hooker.
- Achnanthes maculata* Hustedt 1937, p. 199-200; pl. 13, fig. 17-19 [ref. 001012].
- Achnanthes maewensis* Foged 1971, p. 272; pl. 1, fig. 5a, b [ref. 006787].
- Achnanthes magnifica* Hustedt 1952, p. 385; fig. 62-65 [ref. 000524].
- Achnanthes mamchyi* Skvortzow 1975, p. 410; pl. 1, fig. 15, 16 [ref. 008825]. [according to ANSP].
- Achnanthes mammalis* (Castracane) Cleve 1895, p. 187 [ref. 000949]. Basionym: *Rhaphoneis mammalis* Castracane 1886.
- Achnanthes mammalis* var. *reticulata* Cleve 1895, p. 187; pl. 3, fig. 16 [ref. 000949].
- Achnanthes manguinii* Hustedt 1952, p. 383; fig. 52-56 [ref. 000524].
- Achnanthes manguinii* var. *elliptica* Manguin in Bourrelly & Manguin 1954, p. 22; pl. 1, fig. 15a-b [ref. 001957].
- Achnanthes manifera* Brun 1895, pl. 16, fig. 86, 87 [ref. 000181].
- Achnanthes mannii* 'Pantocsek' VanLandingham 1979, p. 4244 [ref. 006514]. *Invalid*. Err. cit. pro *Actinocyclus mannii* Pantocsek 1909 (ref. 001447).
- Achnanthes mansiensis* Foged 1966, p. 61, 129; pl. 4, fig. 3 [ref. 006033].
- Achnanthes maranda* Woodhead & Tweed 1958, p. 197 [ref. 000923].
- Achnanthes margaritaceum* Cleve 1893, legend to pl. 3, fig. 9, 10 (as *Achnanthes* (*Achnanthidium*) *margaritaceum*) [ref. 000230]. *A. margaritarum* in text p. 57.
- Achnanthes margaritarum* Cleve 1893, p. 57; pl. 3, fig. 9, 10 (as *Achnanthes* (*Achnanthidium* Cl.) *Margaritarum*) [ref. 000230]. *Margaritaceum* in plate caption.
- Achnanthes marginalis* Hendey 1958, p. 56; pl. 1, fig. 2-3 [ref. 000479].
- Achnanthes marginestriata* Simonsen 1959, p. 76; pl. 12, fig. 10-13 [ref. 000823]. *Invalid*. Type not designated.
- Achnanthes marginulata* Grunow in Cleve & Grunow 1880, p. 21 [ref. 000241]. Also: *Achnanthes marginulata* Grunow in Van Heurck 1880 (Synopsis) pl. XXVII: figs. 45, 46 (ref. 000895).
- Achnanthes marginulata* f. *major* Flower & Jones 1989, p. 233; fig. 31-38, 54-59 [ref. 008204].
- Achnanthes marginulata* var. *rotundata* Cleve-Euler 1953, p. 33; fig. 537e-f (as [*A. marginulata*]  $\beta$  *rotundata* n.v.) [ref. 001042].
- Achnanthes marginulata* var. *sublaevis* (Hustedt) Cleve-Euler 1953, p. 34; fig. 537g-h (as [*A. marginulata*]  $\gamma$  *sublaevis*) [ref. 001042]. Basionym: *Achnanthes sublaevis* Hustedt 1937. *Invalid*. Rank implied, but not clearly indicated.
- Achnanthes marginulata* var. *typica* Cleve-Euler 1953, p. 33; fig. 537 a-d (as [*A. marginulata* Grun.]  $\alpha$  *typica* mh.) [ref. 001042]. Cleve-Euler refers to the original reference of *A. marginulata* Grunow in Van Heurck 1880, with error in fig. numbers (she cites pl. 27, fig. 25, 26 instead of pl. 27, fig. 45, 46).
- Achnanthes marina* Hustedt in Schmidt et al. 1937, pl. 415, fig. 1-2 [ref. 012521]. *Invalid*. No description, validated by Simonsen 1987, p. 231 (ref. 003164).
- Achnanthes marina* Hustedt ex Simonsen 1987, p. 231; pl. 337, fig. 1-6 [ref. 003164]. Previously invalid in Hustedt in Schmidt et al. 1937 (ref. 012521).
- Achnanthes marraicensis* Foged 1958, p. 82; pl. 3, fig. 12a-b [ref. 000326].
- Achnanthes martyi* Hériveau in Hériveau et al. 1920, p. 89; pl. 2, fig. 14-16 [ref. 000482].
- Achnanthes maxima* (A. Cleve) A. Cleve 1939, p. 12 [ref. 000250]. Basionym: *Achnanthidium maximum* A. Cleve 1895.
- Achnanthes maxima* var. *genuina* Cleve-Euler 1953, p. 22; fig. 518A a-d (as [*A. maxima* A. Cl.]  $\alpha$  *genuina* mh.) [ref. 001042]. Cleve-Euler refers to the original citation of *Achnanthidium maximum* A. Cleve.
- Achnanthes maxima* var. *intermedia* (Østrup) Cleve-Euler 1953, p. 22; fig. 518A f (as [*A. maxima* A. Cl.]  $\gamma$  *intermedia*) [ref. 001042]. Basionym: *Cocconeis flexella* var. *intermedia* Østrup 1910. *Invalid*. Rank implied, but not clearly indicated.
- Achnanthes maxima* var. *lanceolata* (Østrup) Cleve-Euler 1939, p. 12 [ref. 000250]. Basionym: *Cocconeis maxima* var. *lanceolata* Østrup 1910.
- Achnanthes maxima* var. *lanceolata* (Østrup) Cleve-Euler 1953, p. 22; fig. 518A, e (as [*A. maxima* A. Cl.]  $\beta$  *lanceolata*) [ref. 001042]. Basionym: *Cocconeis maxima* var. *lanceolata* Østrup 1910. *Invalid*. Rank implied, but not clearly indicated.
- Achnanthes medioconvexa* H.Z. Zhu & J.Y. Chen 1996, p. 102; fig. 1: 3 [ref. 010553]. [according to INA].
- Achnanthes meisteri* Hustedt in Schmidt et al. 1937, pl. 415, fig. 19-20 [ref. 012521]. *Invalid*. No description. Validated by Simonsen 1987.
- Achnanthes meisteri* Hustedt ex Simonsen 1987, p. 231; pl. 338, fig. 1-9 [ref. 003164]. Previously invalid in Hustedt in Schmidt et al. 1937 (ref. 012521).
- Achnanthes mercuryi* Witkowski, Metzeltin & Lange-Bertalot in Metzeltin & Witkowski 1996, p. 13; pl. 50, fig. 30-32, pl. 75, fig. 1, 5, 7, pl. 92, fig. 1-2 ('mercurii') [ref. 008589].
- Achnanthes mesoconstricta* H.Z. Zhu & J.Y. Chen 1996, p. 103; fig. 1: 4 [ref. 010553]. [according to INA].
- Achnanthes mesogongyla* Grunow in Cleve & Grunow 1880, p. 19 [ref. 000241].
- Achnanthes metaffinis* Lange-Bertalot & Steindorf in Moser, Steindorf & Lange-Bertalot 1995, p. 36-37; pl. 1, fig. 14-18 [ref. 008613]. Cites Latin description in Maillard 1979, p. 159 (ref. 008536). Syn: *Achnanthes pseudoaffinis* var. *capit-*

- tata* Maillard 1979 (invalid name).
- Achnanthes metakryophila* Lange-Bertalot & R. Schmidt in Schmidt, Mäusbacher & Müller 1990, p. 64; fig. 6 d-i [ref. 008769]. [according to ANSP].
- Achnanthes meyeri* Skvortzow 1937, p. 312; pl. 5, fig. 1, 2, 22, 23 [ref. 000846].
- Achnanthes mica* Hohn in Patrick et al. 1966, p. 469; pl. 1, fig. 14, 15 [ref. 008040].
- Achnanthes microcephala* (Kützing) Grunow 1880, p. 22 [ref. 009613]. Basionym: *Achnanthidium microcephalum* Kützing 1844. [according to INA].
- Achnanthes microcephala* (Kützing) Grunow in Van Heurck 1880, expl. pl. XXVII, fig. 20 [ref. 000895]. Basionym: *Achnanthidium microcephalum* Kützing 1844.
- Achnanthes microcephala* (Kützing) Cleve 1895, p. 188 [ref. 000949]. Basionym: *Achnanthidium microcephalum* Kützing 1844. Isonym. Combination previously published by Grunow 1880.
- Achnanthes microcephala* var. *cryptocephala* Gutwinski 1913, p. 1431 [ref. 012541]. Nomen nudum [according to INA].
- Achnanthes microcephala* var. *gracillima* (Meister) Cleve-Euler 1953, p. 41; fig. 568 f (as [*A. microcephala* Kz.]  $\beta$  *gracillima* (Meist.) mh.) [ref. 001042]. Basionym: *Microneis gracillima* Meister 1912. *Invalid*. Rank implied, but not clearly indicated.
- Achnanthes microcephala* f. *magna* Cleve-Euler 1932, p. 59; fig. 128 [ref. 000248].
- Achnanthes microcephala* f. *minuta* Cleve-Euler 1953, p. 40; fig. 568e (as *Achnanthes microcephala*  $\alpha$  *typica* f. *minuta*) [ref. 001042].
- Achnanthes microcephala* f. *scotica* Carter in Carter & Bailey-Watts 1981, p. 534; pl. 1, fig. 31 [ref. 003626]. *Invalid*. Type not designated.
- Achnanthes microcephala* var. *typica* Cleve-Euler 1953, p. 40; fig. 568a-d (as [*A. microcephala* Kz.]  $\alpha$  *typica* mh.) [ref. 001042]. Cleve-Euler does not directly refer to the original reference of *Achnanthidium microcephalum* Kützing, but to subsequent citations by Van Heurck, Cleve and Hustedt.
- Achnanthes microscopica* (Cholnoky) Lange-Bertalot & Krammer 1989, p. 99; fig. 67: 7-9' [ref. 006174]. Basionym: *Cocconeis microscopica* Cholnoky 1959.
- Achnanthes minima* Carter 1961, p. 21; fig. 65, 66 [ref. 003620]. *Invalid*. Type not designated.
- Achnanthes minuscula* Hustedt 1945, p. 907; pl. 39, fig. 8-12 [ref. 000518].
- Achnanthes minuta* (Cleve) F.W. Mills 1933, p. 70 ('*minutum*') [ref. 000660]. Basionym: *Achnanthidium minutum* Cleve 1891. Err. cit. pro *Cocconeis minuta* (Cl.) Cl.
- Achnanthes minuta* (Cleve) Cleve-Euler 1953, p. 22; fig. 519a-e [ref. 001042]. Basionym: *Achnanthidium minutum* Cleve 1891. Isonym: see *Achnanthes minuta* (Cleve) Mills 1933.
- Achnanthes minuta* (Cleve) Patrick & Freese 1961, p. 166 [ref. 000725]. Basionym: *Achnanthidium minutum* Cleve 1891. [according to INA]. Isonym: see *Achnanthes minuta* (Cleve) Mills 1933.
- Achnanthes minuta* var. *alpestris* 'Brun' VanLandingham 1967, p. 51 [ref. 006293]. *Invalid*. Err. cit. pro *Cocconeis minuta* var. *alpestris* (Brun) Cleve 1895, p. 180 (ref. 000949).
- Achnanthes minuta* var. *genuina* Cleve-Euler 1953, p. 22; fig. 519a-e (as [*A. minuta* (Cl.) A. Cl.]  $\alpha$  *genuina* mh.) [ref. 001042]. Cleve-Euler refers to *A. lapponica* Hustedt and *Achnanthidium flexellum* f. *minuta* A. Cleve 1895.
- Achnanthes minuta* var. *hyalina* Cleve-Euler 1953, p. 23; fig. 519g (as [*A. minuta*]  $\gamma$  *hyalina* n.v.) [ref. 001042].
- Achnanthes minutissima* Kützing 1833, p. 578, fig. 54 [ref. 000594]. Also described in Kützing 1834: Alg. Dec. VIII, p. [4] (no. 75) (ref. 006492).
- Achnanthes minutissima* var. *affinis* (Grunow) Lange-Bertalot in Lange-Bertalot & Krammer 1989, p. 104; fig. 53: 22-37 [ref. 006174]. Basionym: *Achnanthes affinis* Grunow in Van Heurck 1880.
- Achnanthes minutissima* var. *ambigua* Palamar 1956 [ref. 003026]. According to Hollerbakh & Krasavina 1971, p. 14 (ref. 002458). [according to VLC].
- Achnanthes minutissima* var. *amphicephala* Korshikov 1941 [ref. 002994]. According to Hollerbakh & Krassavina 1971, p. 14. [according to VLC].
- Achnanthes minutissima* var. *capitata* Skvortzow & Noda 1971, p. 15; pl. 2, fig. 17 [ref. 005502]. *Illegitimate*. *A. affinis* var. *minuta* Skv. 1936: 25, 10/27 given as synonym.
- Achnanthes minutissima* var. *constricta* Skvortzow 1935, p. 8; pl. 1, fig. 21 [ref. 000841].
- Achnanthes minutissima* var. *cryptocephala* Grunow in Van Heurck 1880, pl. 27, fig. 41-44 [ref. 000895]. Perhaps a new combination of *Achnanthidium cryptocephalum* Nägeli.
- Achnanthes minutissima* f. *curta* Grunow in Van Heurck 1880, pl. 27, fig. 35, 36 [ref. 000895].
- Achnanthes minutissima* f. *curta* Gutwinski 1895, p. 130 (403) (as *Achnanthes minutissima* var. *cryptocephala* f. *curta* V.H.) [ref. 001691]. Not a new combination, nor the name of a new taxon, but a taxonomic opinion. See: *Achnanthes minutissima* f. *curta* Grunow in Van Heurck 1880.
- Achnanthes minutissima* var. *exilissima* Cleve-Euler 1953, p. 40, fig. 567 i (as [*A. minutissima* (Kz.) Grun.]  $\delta$  *exilissima* n. nom.) [ref. 001042]. *Invalid*. Intended new name for *Achnanthes minutissima* var. *inconspicua* Østrup 1910. Rank implied, but not clearly indicated.

- Achnanthes minutissima* var. *genuina* Cleve-Euler 1953, p. 40; fig. 567a-f (as [*A. minutissima* (Kz.) Grun.]  $\alpha$  *genuina* mh.) [ref. 001042]. Cleve-Euler refers to the original reference of *Achnanthes minutissima* Kützing.
- Achnanthes minutissima* f. *gracillima* (Meister) Cleve-Euler 1932, p. 60 (as *Achnanthes minutissima* var. *cryptocephala* f. *gracillima*) [ref. 000248]. Basionym: *Microneis gracillima* Meister 1912.
- Achnanthes minutissima* var. *gracillima* (Meister) Lange-Bertalot in Lange-Bertalot & Krammer 1989, p.104; fig. 54: 21-32, fig. 55: 1-3 [ref. 006174]. Basionym: *Microneis gracillima* Meister 1912.
- Achnanthes minutissima* var. *inconspicua* Østrup 1910, p. 129; pl. 3, fig. 79 [ref. 000706].
- Achnanthes minutissima* f. *inconspicua* (Østrup) Cleve-Euler 1932, p. 60 (as *Achnanthes minutissima* var. *cryptocephala* f. *inconspicua*) [ref. 000248]. Basionym: *Achnanthes minutissima* var. *inconspicua* Østrup 1910.
- Achnanthes minutissima* var. *jackii* (Rabenhorst) Lange-Bertalot & Ruppel 1980, p. 18, 20; fig. 113-125, 133-202, 305-310, 332-338 [ref. 008475]. Basionym: *Achnanthidium jackii* Rabenhorst 1861.
- Achnanthes minutissima* var. *macrocephala* Hustedt 1937, p. 193; pl.13, fig. 50-53 [ref. 001012].
- Achnanthes minutissima* var. *microcephala* Mukhamediev 1957 [ref. 003012]. According to Hollerbakh & Krasavina 1971, p. 14 (ref. 002458). [according to VLC].
- Achnanthes minutissima* var. *pyrenaica* (Hustedt) Cleve-Euler 1953, p. 40; fig. 567 l-o (as [*A. minutissima* (Kz.) Grun.]  $\epsilon$  *pyrenaica* (Hust.) mh.) [ref. 001042]. Basionym: *Achnanthes pyrenaica* Hustedt 1939. *Invalid*. Rank implied, but not clearly indicated.
- Achnanthes minutissima* var. *robusta* Hustedt 1937, p. 192-193; pl. 13, fig. 41-46 [ref. 001012].
- Achnanthes minutissima* var. *saprophila* H. Kobayasi & S. Mayama 1982, p. 195; fig. 2 a-h [ref. 008434].
- Achnanthes minutissima* var. *scotica* (Carter) Lange-Bertalot in Lange-Bertalot & Krammer 1989, p. 106; fig. 55: 4-12, fig. 67: 35-36, fig. 57: 11 [ref. 006174]. Basionym: *Achnanthes microcephala* f. *scotica* Carter in Carter & Bailey-Watts 1981. *Invalid*. Intended combination of *Achnanthes microcephala* f. *scotica* J.R. Carter 1981 (invalid).
- Achnanthes minutissima* var. *subrobusta* Maillard 1978, p. 149; pl. 1, fig. 9 [ref. 008536]. *Invalid*. Type not designated.
- Achnanthes miocaenica* Moiseeva 1959, p. 128; pl. 1, fig. 12a, b [ref. 008602].
- Achnanthes miota* Carter & Denny 1982, p. 286; pl. 1, fig. 9 [ref. 006596].
- Achnanthes mirabilis* Proschkina-Lavrenko 1955, p. 55; fig. 1a-e [ref. 002813].
- Achnanthes misionera* Frenguelli 1953, p. 70; pl. 1, fig. 6 [ref. 000367].
- Achnanthes modesta* Manguin 1952, p. 19; fig. 30 (on p. 23) [ref. 000625].
- Achnanthes modesta* Manguin in Bourrelly & Manguin 1954, p. 22; pl. 3, fig. 22 a-d [ref. 001957]. *Illegitimate*. Non *A. modesta* Manguin 1952. Substitute name: *Achnanthes modestiformis* Lange-Bertalot in Lange-Bertalot & Krammer 1989.
- Achnanthes modestiformis* Lange-Bertalot in Lange-Bertalot & Krammer 1989, p. 107; fig. 55: 33-42' [ref. 006174]. New name for *Achnanthes modesta* Manguin in Bourrelly & Manguin 1954 (non *Achnanthes modesta* Manguin 1952).
- Achnanthes modica* Hustedt 1952, p. 388; fig. 72-75 [ref. 000524].
- Achnanthes mollis* Krasske 1939, p. 370; pl. 11, fig. 3, 4 [ref. 000587].
- Achnanthes monela* Hohn & Hellerman 1963, p. 275; pl. 1, fig. 31, 32 [ref. 000486].
- Achnanthes montana* Krasske 1929, p. 350; fig. 8 a-b [ref. 000582].
- Achnanthes montana* var. *conspicua* Cleve-Euler 1953, p. 33; fig. 533c (as [*Achnanthes montana*]  $\beta$ ? *conspicua* n.v.) [ref. 001042].
- Achnanthes montana* var. *norvegica* Hustedt 1931, p. 542; fig. 1, 2 (as *Achnanthes (montana* var. ?) *norvegica* nov. var.") [ref. 000504]. Hustedt clearly says 'nov. var.' in table, and notes that further study is needed to determine whether his material should be considered a distinct species.
- Achnanthes montana* var. *tropica* Hustedt 1939, p. 380 [ref. 002053]. Illustrated by Hustedt in Schmidt, Atlas, pl. 409, fig. 58-63 (1937) (ref. 012520).
- Achnanthes montdorensis* Manguin 1954, p. 16; pl. 2, fig. 23 a-b [ref. 002503].
- Achnanthes muelleri* Carlson 1913, p. 23; pl. 3, fig. 5-7 [ref. 000188].
- Achnanthes muelleri* 'Pantocsek' VanLandingham 1979, p. 4244 [ref. 006514]. *Invalid*. Err. cit. pro *Actinoptychus muelleri* Pantocsek 1909 (ref. 001447).
- Achnanthes multiarticulata* Agardh 1832, p. 59 [ref. 000940].
- Achnanthes muscorum* M. Peragallo 1921, p. 14; pl. 1, fig. 1, 2 [ref. 000737].
- Achnanthes muscorum* var. *elliptica* Frenguelli & Orlando 1958, p. 79; pl. 1, fig. 37-38 [ref. 001216].
- Achnanthes muscorum* var. *minor* M. Peragallo 1921, p. 14; pl. 1, fig. 3 [ref. 000737].
- Achnanthes nagpurensis* Sarode & Kamat 1984, p. 51 (key), 58, 237; pl. 6, fig. 126 a, b [ref. 008758].
- Achnanthes namae* Giffen 1984, p. 185-186; pl. 1, fig. 11, 12 [ref. 008264].
- Achnanthes nana* Meister 1935, p. 88; fig. 2 [ref. 000645].
- Achnanthes nathorsti* Brun 1901, p. 6; pl. 2, fig. 20-22 [ref. 000184].
- Achnanthes natrata* Carter 1966, p. 446; pl. 60(1), fig. 1, 2 [ref. 008093].
- Achnanthes navalis* Giffen 1976, p. 381, pl. 1, fig. 1,2 [ref. 004247].
- Achnanthes naviformis* B. Van de Vijver & L. Beyens in Van de Vijver, Frenot & Beyens 2002, p. 16; pl. 21, fig. 1-10 [ref.

- 012899].
- Achnanthes neglecta* Chi Ruowen 1990, p. 162 [ref. 013107]. [according to L. Ector, pers. com.].
- Achnanthes neocaledonica* Manguin 1962, p. 16; pl. 1, fig. 14a-b [ref. 000629]. *Invalid*. No Latin diagnosis; type not indicated. Validated by Kociolek & Reviere 1996.
- Achnanthes neocaledonica* Manguin ex Lange-Bertalot & Steindorf in Moser, Steindorf & Lange-Bertalot 1995, p. 38-39; pl. 1, fig. 19-27 [ref. 008613]. *Invalid*. No Latin diagnosis.
- Achnanthes neocaledonica* Manguin ex Kociolek & Reviere 1996, p. 198-199; pl. 1, fig. 14 a, b [ref. 008442].
- Achnanthes neohustedtii* VanLandingham 1979, p. 4244 [ref. 006514]. New name for *Microneis hustedtii* Meister 1932 (priority for *Achnanthes hustedtii* Bily & Marvan 1959).
- Achnanthes neokisselevii* VanLandingham 1969, p. 1482 [ref. 006304]. New name for *Eucoconeis Schmidtii* Kisselev 1931 (priority for *Achnanthes schmidtii* Heiden in Heiden & Kolbe 1928).
- Achnanthes neoskortzowii* Simonsen 1987, p. 453 [ref. 003164]. Validation of *Achnanthes skortzowii* Hustedt in Schmidt 1958 (non *Achnanthes skortzowii* Jasnitzky 1936), with a new name.
- Achnanthes nikiskii* Stone in McLaughlin & Stone 1986, p. 14; pl. 1, fig. 13, 14 [ref. 004949].
- Achnanthes ninckei* Guermeur & Manguin 1953, p. 541; pl. 1, fig. 10-11 [ref. 000450].
- Achnanthes nitida* Cleve-Euler 1939, p. 12; fig. 17 [ref. 000250]. Legend number (fig. 16) is wrong.
- Achnanthes nitidiformis* Lange-Bertalot in Lange-Bertalot & Krammer 1989, p. 109-110; fig. 74: 19-24 [ref. 006174].
- Achnanthes nivellis* Fusey 1953, p. 487; fig. 7 [ref. 000373].
- Achnanthes nobile* Schulz 1926, p. 192; fig. 45 [ref. 000812].
- Achnanthes nodeana* Skvortzow in Skvortzow & Noda 1971, p. 15; pl. 2, fig. 19, 20 [ref. 005502]. Type not designated?
- Achnanthes nodosa* A. Cleve 1900, p. 13; fig. 8 [ref. 000244]. Introduced by A. Cleve as a new species. *Fragilaria nodosa* Cleve is cited as a synonym (with question).
- Achnanthes nollii* O. Bock & W. Bock 1953, p. 54; pl. 2, fig. 1-2, pl. 5, fig. 7-9 [ref. 001601].
- Achnanthes normanii* var. *undulata* ‘Kraske’ VanLandingham 1929, p. 4244 [ref. 000582]. *Invalid*. Citation error for *Amphora normanii* var. *undulata* Kraske 1929, p. 355, fig. 21 (ref. 000582).
- Achnanthes norvegica* (Hustedt) VanLandingham 1967, p. 54 [ref. 006293]. Basionym: *Achnanthes montana* var. *norvegica* Hustedt 1931. Err. cit. pro *Achnanthes (montana* var.?) *norvegica* nov. var. Hustedt 1931 (ref. 000504). Although this name is not listed by VanLandingham as a “new comb.,” it is accepted (upper case print), and the basionym is cited (on p. 53) as well as its place of publication. Therefore we treat it as a valid new combination.
- Achnanthes obliqua* Turpin 1828, p. 312; pl. 13, fig. 9 [ref. 006720]. Also illustrated in Turp. Dict. Sci. Nat., Pl. Bot. Vesiculines, fig. 9.
- Achnanthes obliqua* (Gregory) Hustedt 1924, p. 613 [ref. 000497]. Basionym: *Stauroneis obliqua* Gregory 1856.
- Achnanthes obliqua* f. *maior* Foged 1981, p. 51; pl. 11, fig. 1, 2 [ref. 006676]. f. *maior* on p. 177.
- Achnanthes oblonga* Manguin 1961, p. 272; pl. 1 (26), fig. 35, 36 [ref. 000628]. *Invalid*. Type not designated and no Latin diagnosis. Validated by Kociolek & Reviere 1996.
- Achnanthes oblonga* Manguin ex Kociolek & Reviere 1996, p. 178 [ref. 008441]. Cites illustration in Manguin 1961 (ref. 000628): pl. 1, fig. 35, 36.
- Achnanthes oblongella* Østrup 1902, p. 252 (34); pl. 1, fig. 9 [ref. 005151].
- Achnanthes obscura* (Kraske) Lange-Bertalot & Willmann in Lange-Bertalot, Külbs, Lauser, Norpel-Schempp & Willmann 1996, p. 54 [ref. 008470]. Basionym: *Cocconeis brevicostata* var. *obscura* Kraske 1938.
- Achnanthes obtusa* Ehrenberg in Ralfs in Pritchard 1861, p. 875 [ref. 001063]. Nomen nudum.
- Achnanthes obtusa* (Schumann) De Toni 1891, p. 479 [ref. 000271]. Basionym: *Achnanthidium obtusum* Schumann 1867.
- Achnanthes occulta* Kalbe 1963, p. 496; fig. 2a-b [ref. 000555].
- Achnanthes ocellata* Manguin 1952, p. 19; fig. 31 [ref. 000625].
- Achnanthes octalterna* Turpin 1828, p. 312; pl. 13, fig. 8 [ref. 006720]. Also in Turp. Atl. Dict. Scienc. Nat. Vég. vésiculines, fig. 12.
- Achnanthes oculata* Hustedt 1952, p. 390; fig. 91-94 [ref. 000524].
- Achnanthes oculata* f. *rostrata* Hustedt 1952, p. 390; fig. 95-98 [ref. 000524].
- Achnanthes oerensis* Cleve-Euler 1953, p. 47; fig. 588a (‘*örensensis*’) [ref. 001042].
- Achnanthes oestrupii* (Cleve-Euler) Hustedt 1930, p. 207; fig. 301 [ref. 000502]. Basionym: *Achnanthes lanceolata* var. *oestrupii* Cleve-Euler 1922.
- Achnanthes oestrupii* (A. Cleve) A. Cleve-Euler 1953, p. 17 (as *A. östrupii* A. Cl., nec Hust.!) [ref. 001042]. Basionym: *Achnanthes lanceolata* var. *oestrupii* Cleve-Euler 1922. Isonym: see *Achnanthes oestrupii* (A. Cleve) Hustedt 1930.
- Achnanthes oestrupii* var. *aperta* (Carter) Lange-Bertalot in Lange-Bertalot & Krammer 1989, p. 113; fig. 89: 13, 13’ [ref. 006174]. Basionym: *Achnanthes aperta* Carter in Carter & Bailey-Watts 1981.
- Achnanthes oestrupii* var. *bicapitata* Cleve-Euler 1939, p. 11; fig. 13 [ref. 000250].
- Achnanthes oestrupii* var. *lanceolata* Hustedt in Schmidt et al. 1937, pl. 413, fig. 1-2 (‘*Achnanthes östrupii* var. *lanceolata*’) [ref. 012521]. *Invalid*. No description. Validated by Simonsen 1987.

- Achnanthes oestrupii* var. *lanceolata* Hustedt ex Simonsen 1987, p. 231; pl. 336, fig. 29-31 [ref. 003164].
- Achnanthes oestrupii* var. *minor* Cleve-Euler 1953, p. 17; fig. 509A b-e (as [*A. östrupii*]  $\beta$  *minor* n.v.) [ref. 001042].
- Achnanthes oestrupii* var. *minuta* Skvortzow 1937, p. 314; pl. 5, fig. 40 [ref. 000846].
- Achnanthes oestrupii* var. *nipponica* Skvortzow & Noda 1971, p. 14; pl. 2, fig. 13 [ref. 005502].
- Achnanthes oestrupii* var. *parvula* Patrick 1945, p. 169; pl. 1, fig. 6-7 [ref. 000723].
- Achnanthes oestrupii* var. *pungens* (A. Cleve) Lange-Bertalot in Lange-Bertalot & Krammer 1989, p. 113; fig. 89: 12, 12' [ref. 006174]. Basionym: *Achnanthes elliptica* (Cleve) Cleve-Euler var. *pungens* Cleve-Euler 1934.
- Achnanthes oestrupii* var. *rostrata* (Hustedt) Cleve-Euler 1953, p. 17; fig. 509A f (as [*A. östrupii*]  $\gamma$  *rostrata*) [ref. 001042]. Basionym: *Achnanthes lanceolata* var. *rostrata* Hustedt 1911. *Invalid*. No clear indication of rank. Error in the citation of place of publication of basionym.
- Achnanthes oestrupii* var. *typica* Cleve-Euler 1953, p. 17; 509A a (as [*A. östrupii*]  $\alpha$  *typica* mh.) [ref. 001042]. Cleve-Euler cites *Achnanthes lanceolata* var. *oestrupii* A. Cleve 1922. Rank implied, but not clearly indicated.
- Achnanthes okamuræ* Skvortzow 1937, p. 195; pl. 1, fig. 25 [ref. 000848].
- Achnanthes okunoi* (Hustedt) Simonsen 1988, p. 307-308; fig. 1-14 [ref. 008798]. Basionym: *Navicula okunoi* Hustedt 1964.
- Achnanthes onegensis* (Wislouch & Kolbe) Jousé 1939 [ref. 002968]. Basionym: *Eucoconeis onegensis* Wislouch & Kolbe 1916. Or in Jousé 1939? (ref. 002466). According to Hollerbakh & Krasavina 1971. [according to VLC].
- Achnanthes onegensis* (Wislouch & Kolbe) VanLandingham 1975, p. 2698 [ref. 006306]. *Invalid*. Basionym not cited. Intended combination of *Eucoconeis onegensis* Wislouch & Kolbe 1916. Still invalid in VanLandingham 1979, p. 4385, (and p. 4245) (ref. 006514).
- Achnanthes oregonensis* Riznyk 1973, p. 115-116; pl. I, fig. 6, 7; pl. 18, fig. 5, 6 [ref. 005282].
- Achnanthes orellana* Hohn in Patrick et al. 1966, p. 470; pl. 1, fig. 9, 10 [ref. 008040].
- Achnanthes orientalis* Petit 1904, p. 164; pl. 1, fig. 4 [ref. 000752].
- Achnanthes orientalis* Hustedt 1933, p. 390; fig. 838 [ref. 000507]. Non Petit 1904. Synonym (substitute name): *Achnanthes triconfusa* VanLandingham 1967.
- Achnanthes orientalis* Meister 1937, p. 264; pl. 7, fig. 5 [ref. 000646]. *Illegitimate*. Non Petit 1904, nec Hustedt 1933. Synonym (substitute name): *Achnanthes perturba* VanLandingham 1967.
- Achnanthes ostenii* Frenguelli 1933, p. 127; fig. 9-13 ('*osteni*') [ref. 001206].
- Achnanthes ostenii* var. *mesogongyla* Frenguelli 1933, p. 128; fig. 14-15 [ref. 001206].
- Achnanthes ostenii* var. *parva* Frenguelli 1933, p. 128; fig. 16 [ref. 001206].
- Achnanthes pachypus* Montagne 1838, p. 348 [ref. 000668]. Nomen nudum? Latin diagnosis in Montagne 1856, p. 470 (ref. 001395).
- Achnanthes pachypus* Montagne 1839, p. 1 [ref. 000669]. New name for *Achnanthes brachypus* Montagne 1837. [according to INA].
- Achnanthes pachypus* f. *bacillaris* (Ehrenberg) De Toni 1891, p. 473 [ref. 000271]. Basionym: *Achnanthes bacillaris* Ehrenberg 1844.
- Achnanthes pachypus* var. *genuflexa* (Kützing) Rabenhorst 1864, p. 110 [ref. 000775]. Basionym: *Achnanthes genuflexa* Kützing 1844.
- Achnanthes pagesi* M. Peragallo in Héribaud et al. 1920, p. 114; pl. 2, fig. 3 [ref. 000482].
- Achnanthes palustris* Fusey 1948, p. 342; fig. 17-18 [ref. 000370].
- Achnanthes palustris* var. *ovalis* Fusey 1948, p. 343; fig. 16 [ref. 000370].
- Achnanthes pamirensis* Hustedt 1922, p. 122; pl. 9, fig. 10, 11 [ref. 000496].
- Achnanthes pantocseki* Hajós 1968, p. 164; pl. 47, fig. 4; pl. 63, fig. 8-9, 11 [ref. 002445].
- Achnanthes papillosa* Cleve-Euler 1953, p. 44; fig. 577A [ref. 001042].
- Achnanthes paradoxa* Ehrenberg 1845, p. 73 [ref. 000955].
- Achnanthes parallela* Castracane 1886, p. 41; pl. 19, fig. 11 [ref. 000193].
- Achnanthes parallela* Carter 1963, p. 200; pl. 1, fig. 4 [ref. 001117]. *Invalid*. Type not designated. Non Castracane 1886. Synonym (substitute name): *Achnanthes sonyda* Carter in Hartley 1986.
- Achnanthes parexigua* Metzeltin & Lange-Bertalot 1998, p. 19; pl. 67, fig. 1-11, pl. 68, fig. 1-3 [ref. 007051].
- Achnanthes parvula* Kützing 1836, p. 13 [ref. 011205]. *Invalid*. Nomen nudum. [according to INA].
- Achnanthes parvula* Kützing ms. in Biasoletto 1841, p. 230 [ref. 011204]. *Invalid*. Nomen nudum [according to INA]. Validly published by Kützing 1844, p. 76, fig. 21/5 (ref. 000595).
- Achnanthes parvula* Kützing 1844, p. 76; pl. 21, fig. 5 [ref. 000595].
- Achnanthes parvula* var. *major* Proschkina-Lavrenko in Proschkina-Lavrenko & Roll 1927, p. 127 [ref. 003051]. [according to ANSP].
- Achnanthes pelta* Hohn & Hellerman 1966, p. 115; pl. I, fig. 9-10 [ref. 008350].
- Achnanthes pennaeformis* Greville 1866, p. 438; pl. 6, fig. 11-13 [ref. 000421].
- Achnanthes pennata* Greville in Cleve 1883, p. 504; pl. 35, fig. 2 [ref. 000224].

- Achnanthes peragalloi* Brun & Héribaud in Héribaud 1893, p. 50; pl. 1, fig. 4 ('peragalli') [ref. 000481].
- Achnanthes peragalloi* f. *borealis* Foged 1971, p. 931; pl. 1, fig. 1 a, b ('peragallii') [ref. 004052].
- Achnanthes peragalloi* var. *fossilis* Tempère & Peragallo 1909, p. 113; No. 211- 212 ('peragalli') [ref. 001065].
- Achnanthes peragalloi* var. *lanceolata* Skvortzow & Meyer 1928, p. 9; pl. 1, fig. 17 ('peragalli') [ref. 000855].
- Achnanthes peragalloi* var. *nipponica* Skvortzow 1936, p. 25; pl. 2, fig. 14, 10 ('peragallii') [ref. 000843].
- Achnanthes peragalloi* var. *parvula* (Patrick) Reimer in Patrick & Reimer 1966, p. 276; pl. 19, fig. 6, 7 ('peragalli') [ref. 003167]. Basionym: *Achnanthes oestrupii* var. *parvula* Patrick 1945.
- Achnanthes perfida* Carter 1963, p. 200; pl. 1, fig. 2 [ref. 001117]. *Invalid*. Type not designated.
- Achnanthes pericava* Carter 1966, p. 447; pl. 60(1), fig. 5-8 [ref. 008093].
- Achnanthes peridotitica* G. Moser, H. Lange-Bertalot & D. Metzeltin 1998, p. 85; pl. 18, figs. 1-9 [ref. 007020].
- Achnanthes perminuta* Østrup 1913, p. 14; pl. 1, fig. 15 [ref. 000708].
- Achnanthes perpusilla* (Østrup) Lange-Bertalot in Lange-Bertalot & Moser 1994, p. 96; fig. 24: 1-7 [ref. 006662]. Basionym: *Pinnularia perpusilla* Østrup 1910.
- Achnanthes perpusilla* (Østrup) Lange-Bertalot in Lange-Bertalot & Metzeltin 1996, p. 26; pl. 22, fig. 18-19 [ref. 007048]. Basionym: *Pinnularia perpusilla* Østrup 1910. Isonym: see *Achnanthes perpusilla* (Østrup) Lange-Bertalot in Lange-Bertalot & Moser 1994.
- Achnanthes perturba* VanLandingham 1967, p. 54, 57 [ref. 006293]. New name for *Achnanthes orientalis* Meister 1937, non Hustedt 1933, nec Petit 1904.
- Achnanthes petersenii* Hustedt 1937, p. 179-180; fig. 10-14 ('peterseni') [ref. 000510].
- Achnanthes petersenii* var. *genuina* Cleve-Euler 1953, p. 37; fig. 549a, b (as [*A. Peterseni* Hustedt]  $\alpha$  *genuina* mh.) [ref. 001042]. Cleve-Euler refers to the original reference of *A. petersenii* Hustedt 1937.
- Achnanthes petersenii* var. *subhyalina* Cleve-Euler 1953, p. 37; fig. 549c (as [*A. Peterseni* Hustedt]  $\beta$  *subhyalina* n.v.) [ref. 001042].
- Achnanthes petiti* Aleem 1954, p. 745, fig. 1 [ref. 010599]. [according to INA].
- Achnanthes philippinica* Skvortzow 1937, p. 289-290; pl. 1, fig. 28 [ref. 000849].
- Achnanthes piafica* Carter & Denny 1982, p. 286; pl. 1, fig. 10 [ref. 006596].
- Achnanthes pictii* Carter 1963, p. 203; pl. 1, fig. 8 [ref. 001117]. *Invalid*. Type not designated.
- Achnanthes pinnata* Hustedt 1922, p. 123; pl. 9, fig. 15-18 [ref. 000496].
- Achnanthes pinnata* var. *capensis* Chohnoky 1959, p. 9; pl. 1, fig. 54-57 [ref. 000206]. *Invalid*. Type not designated.
- Achnanthes pinnata* var. *japonica* Hustedt 1927, p. 161; pl. 5, fig. 12-15 [ref. 000498].
- Achnanthes pinnata* var. *nipponica* Skvortzow 1936, Expl. pl. 2, fig. 19 [ref. 000843]. Described on p. 26 as *Achnanthes pinnata* Hustedt var. *japonica* Hustedt, with reference to pl. 2, fig. 19, and pl. 4, fig. 26. Illustrated as *A. pinnata* var. *japonica* Hustedt on pl. 4, fig. 26. Illustrated as *Achnanthes pinnata* var. *nipponica* var. nov. on pl. 2, fig. 19.
- Achnanthes pinnata* f. *robusta* Moiseeva 1959, p. 128; pl. 1, fig. 13a,b [ref. 008602].
- Achnanthes pinnularia* (Tempère & Brun) Kanaya 1963, p. 25 [ref. 004592]. Basionym: *Rhaphoneis pinnularia* Tempère & Brun in Brun & Tempère 1889. [according to ANSP].
- Achnanthes pirogueana* Maillard 1978, p. 149; pl. 1, fig. 8 [ref. 008536].
- Achnanthes pirogueana* Maillard ex Lange-Bertalot & Steindorf in Moser, Steindorf & Lange-Bertalot 1995, p. 39-40; pl. 2, fig. 1-17 [ref. 008613]. This name was previously validly published by Maillard 1978. Lange-Bertalot & Steindorf in Moser et al. 1995 are merely designating a lectotype although they present this as the validation of Maillard's name.
- Achnanthes pirogueana* f. *capitata* Lange-Bertalot & Steindorf in Moser, Steindorf & Lange-Bertalot 1995, p. 40; pl. 2, fig. 18-26 [ref. 008613].
- Achnanthes pitoti* Guermeur 1954, p. 34; pl. 2, fig. 2a-d [ref. 000449].
- Achnanthes pitoti* f. *capitata* Guermeur 1954, p. 35; pl. 2, fig. 2e [ref. 000449]. Misprinted fig. 2c in text and caption.
- Achnanthes pitoti* f. *mesolepta* Guermeur 1954, p. 35; pl. 2, fig. 2f [ref. 000449].
- Achnanthes pitoti* f. *undulata* Guermeur 1954, p. 35; pl. 2, fig. 2g-i [ref. 000449].
- Achnanthes placentuloides* (Guslakov in Guslakov et al.) A. Witkowski & H. Lange-Bertalot in Witkowski, Lange-Bertalot & Metzeltin 2000, p. 93 [ref. 009017]. Basionym: *Cocconeis placentuloides* N.A. Guslakov in Guslakov, Zacordoniec & Gerasimuk 1992.
- Achnanthes plana* Carter 1963, p. 201; pl. 1, fig. 6 [ref. 001117]. *Invalid*. Type not designated.
- Achnanthes plitvicensis* Hustedt 1945, p. 909; pl. 39, fig. 22-25 [ref. 000518].
- Achnanthes ploenensis* Hustedt 1930, p. 199; fig. 280 ('plönensis') [ref. 000502].
- Achnanthes ploenensis* sensu Poretzky 1933, p. 112; fig. 2 (as *Achnanthes plönensis* Hust.) [ref. 000756]. Illustrated as *Achnanthes plönensis* Hust. Non *Achnanthes ploenensis* Hustedt 1930 according to Cleve-Euler 1953, p. 53 (ref. 001042) who cites Poretzky's illustration as belonging (with question) to *Achnanthes laterostata* Hustedt 1933.
- Achnanthes ploenensis* var. *gessneri* (Hustedt) Lange-Bertalot in Lange-Bertalot & Krammer 1989, p. 122; fig. 41: 8-17, fig. 44: 4, 5 [ref. 006174]. Basionym: *Achnanthes gessneri* Hustedt 1953.
- Achnanthes ploenensis* var. *woldstedtii* (Hustedt) Lange-Bertalot in Lange-Bertalot & Krammer 1989, p. 121-122; fig. 41:

- 18, 18' [ref. 006174]. Basionym: *Achnanthes woldstedtii* Hustedt 1954.
- Achnanthes polaris* Østrup 1895, p. 408; pl. 7, fig. 86 [ref. 000698].
- Achnanthes polynesica* H. Lange-Bertalot & M. Werum in Werum & Lange-Bertalot 2004, p. 124; pl. 13, fig. 1-7, pl. 14, fig. 1-4 [ref. 012889].
- Achnanthes poretzkii* Jasnitsky 1936, p. 692, 701; pl. 1, fig. 10-11 [ref. 000543].
- Achnanthes poretzkii* var. *gracilis* Jasnitsky 1936, p. 692, 701 [ref. 000543].
- Achnanthes portae* Cholnoky 1959, p. 9; pl. 1, fig. 58-65 [ref. 000206]. *Invalid*. Type not designated.
- Achnanthes praecipua* Reichardt 1988, p. 391; fig. 1-24 [ref. 008699].
- Achnanthes prava* Sovereign 1963, p. 351; fig. 3, 4 [ref. 000021].
- Achnanthes profera* Hustedt 1945, p. 908; pl. 39, fig. 26-31 [ref. 000518].
- Achnanthes profunda* Skvortzow 1937, p. 312; pl. 5, fig. 3, 26, 31, 37 [ref. 000846].
- Achnanthes promunturii* Giffen 1970, p. 88; pl. 1, fig. 1-4 [ref. 003156].
- Achnanthes pseudincognita* Cleve-Euler 1953, p. 42; fig. 571a [ref. 001042]. Cleve-Euler cites *A. incognita* Krasske 1939.
- Achnanthes pseudo-antiqua* M. Peragallo in Héribaud et al. 1920, p. 13; pl. 2, fig. 4, 5 [ref. 000482].
- Achnanthes pseudo-obliqua* Kobayasi in Ando, Haraguchi & Kobayasi 1971, p. 59; fig. 11 a, b (*'pseudobliquus'*) [ref. 008062]. *Invalid*. Non Simonsen 1960. No Latin diagnosis.
- Achnanthes pseudoaffinis* Maillard 1978, p. 149; pl. 1, fig. 12 [ref. 008536]. *Invalid*. Type not designated. Synonym: *Naviculadicta paraffinis* H. Lange-Bertalot & A. Steindorf 1995.
- Achnanthes pseudoaffinis* var. *capitata* Maillard 1978, p. 150; pl. 1, fig. 13 [ref. 008536]. *Invalid*. Specific name invalid and type not designated. Validly published as *Achnanthes metaaffinis* Lange-Bertalot & Steindorf in Moser, Steindorf & Lange-Bertalot 1995 (ref. 008613).
- Achnanthes pseudobiasolletiana* Gandhi 1961, p. 221; fig. 1-5 [ref. 000378].
- Achnanthes pseudobiceps* Håkansson 1974, p. 373; fig. 1, 2 [ref. 001078].
- Achnanthes pseudobliqua* Simonsen 1960, p. 127; pl. 1, fig. 5-7 [ref. 000824]. *Invalid*. Type not designated.
- Achnanthes pseudobrevipes* Aleem 1950, p. 315; fig. IE-IK [ref. 000106].
- Achnanthes pseudoconspicua* Foged 1971, p. 273; pl. 1, fig. 4 a, b [ref. 006787].
- Achnanthes pseudoexigua* Loseva 1982, p. 88; pl. 42, fig. 35, 36 [ref. 006904].
- Achnanthes pseudogrimmei* Cholnoky 1970, p. 11; pl. 1, fig. 1-3 [ref. 003672].
- Achnanthes pseudogroenlandica* Hendey 1964, p. 177; pl. 28, fig. 9-12 [ref. 000480].
- Achnanthes pseudohexagona* Hustedt 1952, p. 391; fig. 82-84 [ref. 000524].
- Achnanthes pseudohungarica* Cholnoky-Pfannkuche 1966, p. 414; pl. 54(1): figs. 1-8; pl. 55(2): figs. 9-16 [ref. 003678].
- Achnanthes pseudohustedtii* Kobayasi in Ando, Haraguchi & Kobayasi 1971, p. 59; fig. 12a, b, 13a, b [ref. 008062].
- Achnanthes pseudolanceolata* Hustedt 1952, p. 384; fig. 78-81 [ref. 000524].
- Achnanthes pseudolanceolata* Manguin 1962, p. 16; pl. 1, fig. 15a-b [ref. 000629]. *Invalid*. No Latin diagnosis; type not indicated but only one locality cited for this species (no. 11).
- Achnanthes pseudolinearis* Hustedt 1942, p. 39; text fig. 49-53 [ref. 000517].
- Achnanthes pseudopinnata* Foged 1971, p. 274; pl. 1, fig. 3 a, b [ref. 006787].
- Achnanthes pseudopunctulata* Simonsen 1959, p. 75; pl. 10, fig. 25-26 [ref. 000823]. *Invalid*. Type not designated.
- Achnanthes pseudoscutiformis* Loseva 1982, p. 88; pl. 42, fig. 47-49 [ref. 006904].
- Achnanthes pseudoseminulum* Cleve-Euler 1934, p. 40; pl. 2, fig. 49 [ref. 000249].
- Achnanthes pseudosolea* Simonsen 1959, p. 75; pl. 10, fig. 22-24 [ref. 000823]. *Invalid*. Type not designated.
- Achnanthes pseudosuchlandtii* Manguin 1961, p. 272; pl. 1(26), fig. 37, 38 (*'pseudosuchlandtii'*) [ref. 000628]. *Invalid*. No type designated and no Latin diagnosis. Validated by Kociolek & Reviere 1996.
- Achnanthes pseudosuchlandtii* Manguin ex Kociolek & Reviere 1996, p. 179 [ref. 008441]. Cites illustration in Manguin 1961 (ref. 000628): pl.1, fig. 37, 38.
- Achnanthes pseudoswazi* Carter 1963, p. 201; pl. 1, fig. 5 [ref. 001117]. *Invalid*. Type not designated.
- Achnanthes pseudotanensis* Cleve-Euler 1953, p. 25; fig. 524 [ref. 001042].
- Achnanthes pulchella* Heiden in Heiden & Kolbe 1928, p. 579; pl. 5, fig. 104, 104 a [ref. 000473].
- Achnanthes pulcherrima* (Hustedt) Metzeltin & Lange-Bertalot 1998, p. 366; pl. 66, fig. 1-9 [ref. 007051]. *Invalid*. Basionym not cited.
- Achnanthes pulviscula* Cholnoky 1960, p. 17; pl. 1, fig. 21-24 [ref. 000208].
- Achnanthes punctata* Round 1959, p. 524; fig. 1 [ref. 000799].
- Achnanthes punctifera* Hustedt 1955, p. 18; pl. 5, fig. 26-28 [ref. 000530].
- Achnanthes punctulata* Simonsen 1959, p. 75; pl. 10, fig. 14-17 [ref. 000823]. *Invalid*. Type not designated. Validated by Patrick & Freese 1961.
- Achnanthes punctulata* Simonsen ex Patrick & Freese 1961, p. 167; pl. 1, fig. 7a-b [ref. 000725].
- Achnanthes pusilla* Grunow in Cleve & Möller 1879, No. 186 [ref. 001977]. *Invalid*. Nomen nudum.
- Achnanthes pusilla* Grunow in Van Heurck 1880, pl. 27, fig. 33, 34 (as *A. (linearis* var.?) *pusilla*) [ref. 000895].



- Achnanthes pusilla* Grunow in Cleve & Grunow 1880, p. 23 (as *Achnanthes (linearis* var.?) *pusilla*) [ref. 000241].
- Achnanthes pusilla* Grun. var. *crassa* (Hustedt) Lange-Bertalot & Ruppel 1980, p. 22; fig. 252-256 [ref. 008475]. Basionym: *Achnanthes crassa* Hustedt 1937.
- Achnanthes pusilla* Grun. var. *petersenii* (Hustedt) Lange-Bertalot & Ruppel 1980, p. 22; fig. 257-263 [ref. 008475]. Basionym: *Achnanthes petersenii* Hustedt 1937.
- Achnanthes pusilla* Grun. var. *procera* (Hustedt) Lange-Bertalot & Ruppel 1980, p. 24; fig. 239-251, 324-329 [ref. 008475]. Basionym: *Achnanthes procera* Hustedt 1945.
- Achnanthes pusilla* Woodhead & Tweed 1960, p. 119; pl. 2, fig. 22 [ref. 000926]. *Illegitimate*. Non Grunow 1880.
- Achnanthes pyrenaica* Hustedt 1939, p. 554-555; pl. 25, fig. 5-10 [ref. 000513].
- Achnanthes pyropa* Carter 1970, p. 610; pl. 1, fig. 1, 2 [ref. 003967].
- Achnanthes quadralterna* Turpin 1828, p. 311; pl. 13, fig. 7 [ref. 006720]. Turpin also refers to “Turp. Dic. Scienc. Nat. Vég. vésiculines, fig. 8”.
- Achnanthes quadratarea* (Østrup) R. Ross in Hartley 1986, p. 606 [ref. 002355]. Basionym: *Cocconeis quadratarea* (quadratarea) Østrup 1910.
- Achnanthes quadratarea* var. *fennica* (A. Cleve-Euler) R. Ross in Hartley 1986, p. 606 [ref. 002355]. Basionym: *Cocconeis lapponica* var. *fennica* Cleve-Euler 1934.
- Achnanthes quadricauda* Turpin 1828, p. 311; pl. 13, fig. 6 [ref. 006720]. Turpin also refers to “Turp. Dict. Sci. Nat., Vég. Vésiculines, fig. 13”.
- Achnanthes quadrijuga* Turpin 1828, p. 310; pl. 13, fig. 5 [ref. 006720]. Turpin also refers to “Turp. Atl. Dict. Scienc. Nat. Vég. Vésiculines, fig. 6” and indicates a possible synonymy with *Echinella stipitata*.
- Achnanthes quadripunctata* D.R. Oppenheim 1995, p. 1742; figs. 26-29, 63-66 [ref. 010554]. [according to INA].
- Achnanthes qualternus* Turpin in Mém. Mus. according to Mills 1933, p. 72 [ref. 000660]. Citation error for *A. quadralterna* Turpin 1828?
- Achnanthes radiata* Du & Cheng in Cheng & Du 1984, p. 201; fig. 1, 2 [ref. 008110]. [according to ANSP].
- Achnanthes radiatus* Hohn & Hellerman 1966, p. 115; pl. I, fig. 11-12 [ref. 008350].
- Achnanthes radiosia* Hustedt in Schmidt et al. 1936, pl. 408, fig. 47-48 [ref. 012519]. *Invalid*. No description. Validated by Simonsen 1987, p. 204 (ref. 003164).
- Achnanthes radiosia* Hustedt ex Simonsen 1987, p. 204; pl. 316, fig. 14 [ref. 003164].
- Achnanthes ramosa* Crouan 1861, p. 838 [ref. 010984]. Nomen nudum. [according to INA].
- Achnanthes ramafanensis* Manguin 1952, p. 20; fig. 32 [ref. 000625].
- Achnanthes rara* Jurilj 1957, p. 63-64; pl. 14, fig. 5 [ref. 000553].
- Achnanthes rautenbachiae* Cholnoky 1957, p. 41; fig. 7-8 [ref. 000203].
- Achnanthes recava* Hohn & Hellerman 1966, p. 117; pl. I, fig. 7-8 [ref. 008350].
- Achnanthes rechtensis* Leclercq 1983, p. 501; fig. 5 (1-17) [ref. 008478].
- Achnanthes recurva* Ehrenberg 1858, p. 593 [ref. 000304]. *Invalid*. Nomen nudum.
- Achnanthes recurvata* Hustedt in Schmidt et al. 1937, pl. 409, fig. 34-37 [ref. 012520]. Description included in plate explanation, also in Hustedt 1950, p. 434; pl. 36, fig. 28-30 (ref. 000522).
- Achnanthes reichardtiana* (Grunow) Cleve 1902, p. 29 [ref. 010981]. Basionym: *Schizostauron reichardtianum* Grunow 1867. *Invalid*. Invalid combination. According to Ross 1963, p. 67-68 (ref. 000797), Cleve 1902, p. 29 (ref. 010981) mentions that species but his remark does not “constitute valid publication of the combination *Achnanthes reichardtiana* which was published by Hustedt 1933 who wrongly attributed it to Cleve”.
- Achnanthes reichardtiana* (Grunow) Hustedt 1933, p. 429 [ref. 000507]. Basionym: *Schizostauron reichardtianum* Grunow 1867.
- Achnanthes reidensis* Foged 1978, p. 29; pl. 14, fig. 20 a, b [ref. 004055].
- Achnanthes reimeri* Camburn in Camburn, Lowe & Stoneburner 1978, p. 173; pl. 4, fig. 53-55 [ref. 006010].
- Achnanthes renei* Lange-Bertalot & R. Schmidt in Schmidt, Mäusbacher & Müller 1990, p. 64-65; fig. 6 o-t [ref. 008769]. [according to ANSP].
- Achnanthes repanda* Tsumura & Iwahashi 1955 [ref. 000891]. [according to VLC].
- Achnanthes repestoides* ‘Hohn’ VanLandingham 1967, p. 60 [ref. 006293]. *Invalid*. Err. cit. (typographical error) for *Achnanthes rupestoides* Hohn 1961.
- Achnanthes restricta* Cleve-Euler 1953, p. 34; fig. 539 [ref. 001042].
- Achnanthes reversa* Lange-Bertalot & Krammer 1989, p. 130; pl. 22, fig. 4-7, pl. 70, fig. 2-2’’, 4-9 [ref. 006174]. New name for *Cocconeis diversa* J.R. Carter 1981 (priority for *Achnanthes diversa* Cleve-Euler 1953).
- Achnanthes rhombica* Østrup 1910, p. 215; pl. 13, fig. 18 [ref. 000707].
- Achnanthes rhombica* Voigt in Meister 1935, p. 97, figs. 45, 46 [ref. 000645]. *Illegitimate*. Non Østrup 1910. [according to INA].
- Achnanthes rhombica* Skabichevskii 1987, p. 74; pl. 1, fig. 8, 9 [ref. 008816]. *Illegitimate*. Non Østrup 1910, nec Voigt in Meister 1935.

- Achnanthes rhomboides* Ehrenberg 1843, p. 409 (121) [ref. 000294]. Synonym: *Achnanthes ventricosa* Kützing 1844.
- Achnanthes rhynchocephala* Cleve-Euler 1915, p. 43; pl. 4, fig. 92 [ref. 000246]. Misprinted “*rhincocephala*” in legend.
- Achnanthes rricula* Hohn & Hellerman 1963, p. 276; pl. 1, fig. 41, 42 [ref. 000486].
- Achnanthes rivularia* Frenguelli 1925, p. 163; pl. 1, fig. 25 [ref. 000348].
- Achnanthes robusta* Rivera 1973, p. 44; pl. 7, fig. 68-69 [ref. 008716]. [according to ANSP].
- Achnanthes rollae* Suxena & Venkateswarlu 1968, p. 11, 12; pl. 1, fig. 13 a, b [ref. 008863].
- Achnanthes rosenstockii* Lange-Bertalot in Lange-Bertalot & Krammer 1989, p. 131-132; fig. 61: 1-17, pl. 15, fig. 1 [ref. 006174].
- Achnanthes rosenstockii* var. *sinepuncta* Lange-Bertalot in Krammer & Lange-Bertalot in H. Ett. et al. 1991, p. 65 [ref. 006522]. *Invalid*. No Latin diagnosis, figure or designated type.
- Achnanthes rossi* Hustedt 1954, p. 467; fig. 12-20 [ref. 000529].
- Achnanthes rostellata* Cleve-Euler 1934, p. 41; pl. 2, fig. 50 [ref. 000249].
- Achnanthes rostrata* Østrup 1902, p. 253 (35); pl. 1, fig. 11 [ref. 005151].
- Achnanthes rostrata* var. *magna* Straub 1985, p. 139; fig. 35-36, 53-56, 63, 105, 121, 140-144, 55b, 142b [ref. 008854].
- Achnanthes rostrata* var. *minor* (Schultz) Straub 1985, p. 139; fig. 136-139, 154, 100b, 139b, 58, 77-82, 99-100 [ref. 008854]. Basionym: *Achnanthes lanceolata* f. *minor* Schulz 1926.
- Achnanthes rupestris* Hohn 1961, p. 154; pl. 1, fig. 3-4 [ref. 000485].
- Achnanthes rupestris* Krasske 1932, p. 105; pl. 2, fig. 10 [ref. 000583].
- Achnanthes rupestris* f. *continua* Cleve-Euler 1953, p. 33; fig. 534b-c [ref. 001042].
- Achnanthes rupestris* f. *interrupta* Cleve-Euler 1953, p. 33; fig. 534a [ref. 001042].
- Achnanthes sacculus* Carter in Carter & Bailey-Watts 1981, p. 535; pl. 24, fig. 6 (*'saccula'*) [ref. 003626].
- Achnanthes saeptata* var. *doljensis* Jurilj 1957, p. 62; pl. 14, fig. 2 [ref. 000553]. Probably a variety of *Achnanthes septata* Cleve-Euler 1915 (from comparison of figures); although Jurilj does not mention Cleve-Euler's taxon.
- Achnanthes saeptata* var. *sussedana* Jurilj 1957, p. 62; pl. 14, fig. 3 [ref. 000553]. Probably a variety of *Achnanthes septata* Cleve-Euler 1915 (from comparison of figures); although Jurilj does not mention Cleve-Euler's taxon.
- Achnanthes salina* (Kützing) Kützing 1844, p. 77; pl. 20, fig. 5 [ref. 000595]. Basionym: *Fragilaria salina* Kützing 1833.
- Achnanthes salvadoriana* Hustedt 1953, p. 132; fig. 1 [ref. 002273].
- Achnanthes sancti-paulii* (Heiden in Heiden & Kolbe) Kobayasi & Sawatari 1986, p. 262 (*'st-paulii'*) [ref. 008438]. Basionym: *Cocconeis sancti-pauli* Heiden in Heiden & Kolbe 1928. *Invalid*. Exact page of description of replaced synonym not cited.
- Achnanthes sapinii-jaloustrei* Manguin 1957, p. 124; pl. 5, fig. 25 a-e [ref. 000626]. Also described as new in Manguin 1960, p. 307; pl. 14, fig. 160 a-c, 161 a-b (ref. 000627).
- Achnanthes saxatilis* Bock 1970, p. 413; pl. 1, fig. 18, 19 [ref. 006540].
- Achnanthes saxonica* Krasske in Hustedt 1933, p. 403; fig. 854B [ref. 000507].
- Achnanthes saxophila* 'Bock' Lange-Bertalot & Krammer 1989, p. 135 [ref. 006174]. *Invalid*. Err. cit. for *Achnanthes saxatilis* W. Bock 1970.
- Achnanthes schmidtiana* Krenner 1926, p. 97; pl. 5, fig. 24 [ref. 000591].
- Achnanthes schmidtiana* var. *tibetica* Jao & Zhu in Jao, Zhu & Lee 1974, p. 120; pl. 1, fig. 16,17 [ref. 011203]. [according to INA].
- Achnanthes schmidtii* Heiden in Heiden & Kolbe 1928, p. 581 [ref. 000473]. Illustration cited from Schmidt's Atlas 198/37, 38 (A. Schmidt 1895, ref. 012476).
- Achnanthes schoemaniana* Giffen 1984, p. 186-187; pl. 1, fig. 9, 10 [ref. 008264].
- Achnanthes schultzei* Cholnoky 1933, p. 239; fig. 29-30 [ref. 000196]. *Illegitimate*. Non Cleve-Euler 1932, nec Brockmann 1954.
- Achnanthes schulzi* Brockmann 1954, p. 60; pl. 6, fig. 11, 12 [ref. 000170]. *Illegitimate*. Non Cleve-Euler 1932, nec Cholnoky 1933. Synonym (replacement name): *Achnanthes brockmanii* Hustedt.
- Achnanthes schulzii* Cleve-Euler 1932, p. 133; fig. 377a, b [ref. 000248]. In text misprinted fig. 374 a, b.
- Achnanthes schwabei* Krasske 1939, p. 371; pl. 11, fig. 12-14 (as *Achnanthes (holsti* var. ?) *schwabei* nov. sp.) [ref. 000587].
- Achnanthes scotica* Flower & Jones 1989, p. 228; fig. 1-7, 42-53 [ref. 008204].
- Achnanthes scotica* Lange-Bertalot 1993, p. 8 [ref. 008467]. *Invalid*. Intended combination of *Achnanthes microcephala* f. *scotica* J.R. Carter 1981 (invalid). Not validly published as the name of a new taxon: reference to an illustration is given in Krammer & Lange-Bertalot 1991, pl. 34, figs. 1-6 (ref. 006522), but no Latin diagnosis. Synonym (substitute name): *Achnanthes caledonica* Lange-Bertalot in Lange-Bertalot & Moser 1994 (invalid). Non Flower & Jones 1989.
- Achnanthes scutiformis* Moiseeva 1959, p. 128; pl. 2, fig. 12a, b [ref. 008602].
- Achnanthes scutiformis* var. *delicatula* Kaczmarek 1985, p. 45; pl. 1, fig. 49-54 [ref. 008382].
- Achnanthes semen* Ehrenberg 1854, p. 288 [ref. 000300]. *Invalid*. Nomem nudum.
- Achnanthes semiaperta* Hustedt 1945, p. 910; pl. 39, fig. 4-7 [ref. 000518].
- Achnanthes semifasciata* (Østrup) M. Møller in Foged 1974, p. 28-29; pl. 36, fig. 12a-b, pl. 7, fig. 1a-b [ref. 006034]. Ba-

- sionym: *Navicula semifasciata* Østrup 1918.
- Achnanthes separata* Hustedt in Schmidt et al. 1958, pl. 418, fig. 4-5 [ref. 012522]. *Invalid*. German but not Latin diagnosis included in plate explanation. Name validated by Simonsen 1987.
- Achnanthes separata* Hustedt ex Simonsen 1987, p. 452; pl. 674, fig. 1-4 [ref. 003164].
- Achnanthes septata* Cleve-Euler 1915, p. 46; pl. 2, fig. 57a-b [ref. 000246]. Based on *Achnanthidium arcticum* Cleve 1873 p.p.
- Achnanthes septata* var. *doljensis* Jurilj 1957, p. 62; pl. 14, fig. 2 ('*saeptata*') [ref. 000553]. Probably a variety of *Achnanthes septata* Cleve-Euler 1915 (by comparison of figures); although Jurilj does not mention Cleve-Euler's taxon.
- Achnanthes septata* var. *incurvata* (Østrup) Cleve-Euler 1953, p. 51; fig. 598d (as [*A. septata* C. Cleve]  $\beta$  *incurvata* (Östr.) mh.) [ref. 001042]. Basionym: *Achnanthes subsessilis* var. *incurvata* Østrup 1895. *Invalid*. Rank implied, but not clearly indicated.
- Achnanthes septata* var. *linearis* Cleve-Euler 1953, p. 51; fig. 598a-c (as [*A. septata* C. Cleve]  $\alpha$  *linearis* mh.) [ref. 001042]. *Invalid*. Rank implied, but not clearly indicated.
- Achnanthes septata* var. *sussedana* Jurilj 1957, p. 62; pl. 14, fig. 3 ('*saeptata*') [ref. 000553]. Probably a variety of *Achnanthes septata* Cleve-Euler 1915 (by comparison of figures); although Jurilj does not mention Cleve-Euler's taxon.
- Achnanthes septentrionalis* Østrup 1910, p. 215; pl. 13, fig. 21 [ref. 000707].
- Achnanthes septentrionalis* var. *genuina* Cleve-Euler 1953, p. 46; fig. 583a-d, i, k (as [*A. septentrionalis* Østrup]  $\alpha$  *genuina* mh.) [ref. 001042]. Cleve-Euler refers to the original reference of *A. septentrionalis* Østrup 1910.
- Achnanthes septentrionalis* var. *rhombica* (Østrup) Cleve-Euler 1953, p. 46; fig. 584 e-h (as [*A. septentrionalis* Östr.]  $\beta$  *rhombica* mh.) [ref. 001042]. Basionym: *Achnanthes rhombica* Østrup 1910. *Invalid*. Rank implied, but not clearly indicated.
- Achnanthes septentrionalis* var. *subcapitata* Østrup 1910, p. 215; pl. 13, fig. 22 [ref. 000707].
- Achnanthes seriata* Agardh 1827, p. 626 [ref. 000103].
- Achnanthes seriata* var. *cuneata* Grunow in Cleve & Grunow 1880, p. 19 (as *A. (seriata* Ag. var.?) *cuneata*) [ref. 000241]. *Invalid*. *Invalid* in Cleve & Grunow as a trinomial, valid as *Achnanthes cuneata*.
- Achnanthes siamexilis* Lange-Bertalot in Lange-Bertalot & Krammer 1989, p. 138; pl. 53, fig. 39-42 [ref. 006174]. *Invalid*. "Manuskriptnamen".
- Achnanthes siamlinearis* Lange-Bertalot in Lange-Bertalot & Krammer 1989, p. 138; pl. 68, fig. 39-46 [ref. 006174]. *Invalid*. "Manuskriptnamen".
- Achnanthes sibayiensis* Archibald 1966, p. 479; pl. 97 (1), fig. 4-7 [ref. 003381].
- Achnanthes siberica* Cleve-Euler 1953, p. 43; fig. 575A [ref. 001042]. Cleve-Euler refers to *A. delicatula* v. *rostrata* (Schulz) A. Cl. 1932.
- Achnanthes sigmoides* Ehrenberg 1873, p. 209 [ref. 000311]. *Invalid*. Nomen nudum.
- Achnanthes silvahercynia* Lange-Bertalot in Lange-Bertalot & Krammer 1989, p. 139; fig. 71: 30-37, fig. 73: 2-4 [ref. 006174].
- Achnanthes similis* McCall 1933, p. 234, 304; text fig. 2 [ref. 000640].
- Achnanthes similis* Hustedt 1935, p. 151; pl. 3, fig. 20 [ref. 000509]. *Illegitimate*. Non McCall 1933. Synonym (substitute name): *A. simplex* Hustedt 1939.
- Achnanthes similivalvata* Manguin 1952, p. 20; fig. 33 [ref. 000625].
- Achnanthes simplex* Hustedt 1939, p. 380 [ref. 002053]. New name for *A. similis* Hustedt 1935, non *A. similis* McCall 1933.
- Achnanthes simplex* (Peragallo) Frenguelli & Orlando 1958, p. 79; pl. 1, fig. 36 [ref. 001216]. Basionym: *Achnantheptyla simplex* M. Peragallo 1921. *Illegitimate*. Non Hustedt 1939.
- Achnanthes sinuata* Kützing according to M. Peragallo 1897, p. 10 [ref. 012539]. M. Peragallo cites Van Heurck Types no. 259, but that species is not listed in "Types du Synopsis" no. 259 (ref. 000896).
- Achnanthes skvortzowii* Jasnitsky 1936, p. 693, 701; pl. 1, fig. 4-5 [ref. 000543]. As *A. skvortzovii* on p. 693 and expl. pl. on p. 691.
- Achnanthes skvortzowii* Hustedt in Schmidt et al. 1958, pl. 419, fig. 14-17 [ref. 012522]. *Invalid*. No Latin description. A valid name, *Achnanthes neoskvortzowii* Simonsen, was proposed for this taxon by Simonsen 1987, p. 453 (ref. 003164). Non *Achnanthes skvortzowii* Jasnitzky 1936.
- Achnanthes smithiana* (Greville) K. Toyoda & D.M. Williams 2005, p. 131 [ref. 012830]. Basionym: *Monogramma smithiana* Greville 1866.
- Achnanthes solea* Zimmermann 1917, p. 5; pl. 1, fig. 3 [ref. 000935].
- Achnanthes solea* Hustedt 1952, p. 389; fig. 60-61 [ref. 000524]. *Illegitimate*. Non Zimmermann 1917. Synonym (substitute name): *Achnanthes wellsiae* Reimer 1966.
- Achnanthes sonyda* J.R. Carter in Hartley 1986, p. 606 [ref. 002355]. New name for *Achnanthes parallela* J.R. Carter 1964, non Castracane 1886. May be invalid if *A. parallela* is invalid.
- Achnanthes soodensis* (Krasske) Cleve-Euler 1953, p. 39; fig. 564A [ref. 001042]. Basionym: *Navicula soodensis* Krasske 1927.

- Achnanthes speciosa* Hustedt 1927, p. 238; pl. 7, fig. 5, 6 [ref. 000499].
- Achnanthes sperata* Cholnoky 1962, p. 8; pl. 1, fig. 9-14 [ref. 000211].
- Achnanthes sphacelata* Carter 1970, p. 611; pl. 1, fig. 41-44 [ref. 003967].
- Achnanthes standeri* Cholnoky 1957, p. 343; fig. 3-6 [ref. 000204].
- Achnanthes stauroneiformis* Skabichevskii 1936, p. 707, 719; pl. 1, fig. 1 [ref. 000826].
- Achnanthes stauroneiformis* Prowse 1962, p. 26; pl. 4, fig. 9 [ref. 001827]. *Illegitimate*. Non Skabichevskii 1936.
- Achnanthes stauroneioides* Manguin in Bourrelly & Manguin 1954, p. 23; pl. 2, fig. 17 a-c [ref. 001957].
- Achnanthes stauroneioides* f. *striata* Maillard in LeCohu & Maillard 1983, p. 153; fig. 28 [ref. 008481]. [according to ANSP].
- Achnanthes stewartii* Patrick 1945, p. 169-170; pl. 2, fig. 1-3 [ref. 000723].
- Achnanthes stipitata* (Lyngbye) Ehrenberg 1834, p. 1182. Basionym: *Echinella stipitata* Lyngbye 1819. "Isis von Oken, 1834: 1182" [according to ANSP].
- Achnanthes stolidia* (Krasske) Krasske 1949, p. 78 [ref. 000590]. Basionym: *Navicula stolidia* Krasske 1939.
- Achnanthes stomatimorpha* Turpin 1828, p. 312; pl. 13, fig. 10 [ref. 006720]. For: A. sp. Turp., Dict. Sci. Nat., Pl. Bot. Vésiculines, fig. 11.
- Achnanthes stomatophora* 'Turpin' VanLandingham 1979, p. 4245 [ref. 006514]. *Invalid*. Typographical error for *A. stomatimorpha* Turpin 1828.
- Achnanthes straubiana* Lange-Bertalot in Lange-Bertalot & Metzeltin 1996, p. 26-27; pl. 78, fig. 20-21 [ref. 007048].
- Achnanthes strenzkei* (Hustedt) Simonsen 1987, p. 476 [ref. 003164]. Basionym: *Navicula strenzkei* Hustedt 1962.
- Achnanthes striata* [Suhr], Drège 1843, p. 111 [ref. 010598]. *Invalid*. Nomen nudum. [according to INA].
- Achnanthes striata* Suhr ms., Kützing 1844, p. 76 [ref. 000595]. *Invalid*. Cited in synonymy of *Achnanthes capensis* β *multiarticulata* Kz.
- Achnanthes striata* 'Habirshaw' Chase 1885, p. 20 [ref. 001049]. *Invalid*. Cited in Chase 1885 with no author's name, and no reference. In a later edition: Chase 1907, p. 26 (ref. 002211), the entry is revised: "*Achnanthes striata* Suhr mss vide Kützing sub *A. capensis*".
- Achnanthes striata* Skvortzow & Meyer 1928, p. 10; pl. 1, fig. 23 [ref. 000855].
- Achnanthes striata* var. *rostrata* Skabichevskii 1936, p. 707, 719; pl. 1, fig. 2-3 [ref. 000826].
- Achnanthes stroemii* Hustedt 'strömi' 1933, p. 393; fig. 841B [ref. 000507].
- Achnanthes stroemii* f. *robusta* Schljapina 1927 [ref. 003072]. Nomen nudum according to Makarova & Kozyrenko 1966, p. 38 (ref. 001358) (see VanLandingham 1979, p. 4243, ref. 006514).
- Achnanthes subaffinis* Cholnoky 1959, p. 11; pl. 1, fig. 70-71 [ref. 000206].
- Achnanthes subaffinis* var. *dudpokharii* Suxena & Venkateswarlu 1968, p. 12; pl. 1, fig. 14 a, b [ref. 008863].
- Achnanthes subatomoides* (Hustedt in A. Schmidt et al.) Lange-Bertalot & Archibald in Krammer & Lange-Bertalot 1985, p. 9, 97 [ref. 006263]. Basionym: *Navicula subatomoides* Hustedt in Schmidt et al. 1936.
- Achnanthes subatomus* Hustedt 1939, p. 554; pl. 25, fig. 1, 2 [ref. 000514].
- Achnanthes subconstricta* (Meister) Toyoda in Toyoda, Nagumo, Osada & Tanaka 2003, p. 369 [ref. 011801]. Basionym: *Achnanthes javanica* var. *subconstricta* Meister 1932.
- Achnanthes subcrassa* Maillard 1978, p. 150; pl. 1, fig. 14 [ref. 008536].
- Achnanthes subcrassa* Maillard ex Lange-Bertalot & Steindorf in Moser, Steindorf & Lange-Bertalot 1995, p. 41; pl. 1, fig. 7-13 [ref. 008613]. This name was previously validly published by Maillard 1978. Lange-Bertalot & Steindorf in Moser et al. 1995 are merely designating a lectotype although they present this as the validation of Maillard's name.
- Achnanthes subcrenulata* Cleve 1891, p. 50; pl. 9, fig. 5, 6 (as *Achnanthes (subsessilis) subcrenulata* Cleve in text and *Achnanthes subsessilis* var. *subcrenulata* in legend) [ref. 000227].
- Achnanthes subelata* D. Metzeltin, H. Lange-Bertalot & F. García-Rodríguez 2005, p. 23-24; pl. 30, fig. 7-12 [ref. 012898].
- Achnanthes subexigua* Hustedt 1934, p. 377; fig. 5-7 [ref. 000508].
- Achnanthes subhudsonis* Hustedt 1921, p. 144; fig. 9-12 [ref. 000495].
- Achnanthes subhudsonis* var. *densestriata* Maillard 1978, p. 150; pl. 1, fig. 10 [ref. 008536]. *Invalid*. Type not designated. Validated by Lange-Bertalot & Steindorf in Moser, Steindorf & Lange-Bertalot 1995 (ref. 008613).
- Achnanthes subhudsonis* var. *densestriata* Maillard ex Lange-Bertalot & Steindorf in Moser, Steindorf & Lange-Bertalot 1995, p. 42; pl. 3, fig. 1-9 [ref. 008613]. Cites Latin description in Maillard 1979, p. 150 (ref. 008536).
- Achnanthes subhudsonis* var. *kraeuselii* (Cholnoky) Cholnoky 1956, p. 56 [ref. 000202]. Basionym: *Achnanthes kraeuselii* Cholnoky 1954.
- Achnanthes subhungarica* (Gutwinski) De Toni 1890, p. 71 [ref. 000270]. Basionym: *Achnanthidium subhungaricum* Gutwinski 1890.
- Achnanthes subhyalina* Conger 1964, p. 2; pl. 1, fig. 1-10 [ref. 000257]. *Invalid*. No type permanently preserved, culture considered by Conger to serve as type. See also *Achnanthes subhyalina* Conger in Johannes, Limnol. & Oceanogr. 9: 225. 1964 (invalid: nomen nudum). *Achnanthes subhyalina* Johannes, Diss. Abstr. 24: 3812. 1964 (invalid: nomen nudum).

- Achnanthes subinflata* (Østrup) Cleve-Euler 1953, p. 25; fig. 525 [ref. 001042]. Basionym: *Achnanthes lanceolata* var. *subinflata* Østrup 1918.
- Achnanthes sublaevis* Hustedt 1937, p. 180-181; fig. 15-16 [ref. 000510].
- Achnanthes sublaevis* var. *crassa* Reimer in Patrick & Reimer 1966, p. 262; pl. 17, fig. 5, 6 [ref. 003167].
- Achnanthes sublevanderi* Manguin 1949, p. 98; pl. 3, fig. 47a-b [ref. 000624].
- Achnanthes sublinearis* Skvortzow 1938, p. 483; pl. 3, fig. 11-14, 28 [ref. 000851].
- Achnanthes sublinearis* var. *complexa* Skvortzow 1938, p. 483; pl. 3, fig. 5-6, 22 [ref. 000851].
- Achnanthes sublinearis* var. *elliptica* Skvortzow 1938, p. 483; pl. 3, fig. 23 [ref. 000851].
- Achnanthes sublitoralis* Skabichevskii 1976, p. 269; pl. 1, fig. 5, 6 [ref. 008809]. Misprinted ‘*sablitoralis*’ in main heading, correct elsewhere.
- Achnanthes submarina* Hustedt 1956, p. 110; fig. 26-28 [ref. 000531].
- Achnanthes submontana* Gandhi 1970, p. 758; pl. 1, fig. 9, 10 [ref. 004207].
- Achnanthes subquadrata* (Pantocsek) Tempère & Peragallo 1909, p. 171, no. 318-319 [ref. 001065]. Basionym: *Achnanthes baldjickii* var. *subquadrata* Pantocsek 1892. Err. cit. pro *Achnanthes baldjickii* var. *subquadrata* Pantocsek 1892? Can probably be treated as a valid new combination of *Achnanthes baldjickii* var. *subquadrata* Pantocsek 1892.
- Achnanthes subrostrata* Hustedt 1942, p. 98; fig. 6-9 [ref. 000517].
- Achnanthes subrostrata* var. *appalachiana* Camburn & Lowe 1978, p. 251; fig. 1-11 [ref. 005984].
- Achnanthes subsalsa* Petersen 1928, p. 379; fig. 4 [ref. 000742].
- Achnanthes subsalsoides* Hustedt 1933, p. 402; fig. 853B [ref. 000507].
- Achnanthes subsalsoides* var. *sterwennensis* Chaumont & Germain 1976, p. 588; fig. 4-5 [ref. 008105]. [according to ANSP].
- Achnanthes subsaxonica* Cholnoky 1960, p. 18; pl. 1, fig. 33-36 [ref. 000208].
- Achnanthes subsenilis* var. *incurvata* ‘Østrup’ M. Peragallo 1921, p. 11 [ref. 000737]. *Invalid*. Err. cit. pro *A. subsessilis* var. *incurvata* Østrup; cited in syn. of *Achnanthepeyla arctica* var. *incurvata* (Østrup) M. Peragallo.
- Achnanthes subsessilis* Kützing 1833, p. 576, fig. 55 [ref. 000594]. Also described in Kützing 1833 (ref. 006489): Alg. Dec. V, p. [3] (no. 42).
- Achnanthes subsessilis* var. *angusta* Cleve & Möller 1878, No. 134 [ref. 001976]. *Invalid*. Nomen nudum.
- Achnanthes subsessilis* var. *constricta* Grunow in Cleve & Grunow 1880, p. 19 [ref. 000241]. Probably a new combination of *A. brevipipes* var. *constricta* Grunow 1878, but can also be treated as the valid name of a new taxon.
- Achnanthes subsessilis* var. *cuneata* Østrup in Tempère & Peragallo 1912, p. 318; No. 647-648 [ref. 001068]. *Invalid*. Nomen nudum.
- Achnanthes subsessilis* var. *enervis* Petit 1881, p. 207; pl. 3, fig. 2 [ref. 000750].
- Achnanthes subsessilis* var. *incurvata* Østrup 1895, p. 408; pl. 3, fig. 1 [ref. 000698].
- Achnanthes subsessilis* var. *inflata* Proschkina-Lavrenko in Proschkina-Lavrenko & Roll 1927, p. 127 [ref. 003051]. According to Hollerbakh & Krasavina 1971, p. 15 (ref. 002458).
- Achnanthes subsessilis* var. *loczyi* Pantocsek 1889, p. 57; pl. 12, fig. 217 (as *Achnanthes (subsessilis) Ehr. var. ?) Lóczyi* n.s. in text and plate caption) [ref. 001033]. *Invalid*. Invalidly published as a trinomial, validly published as *Achnanthes loczyi* Pantocsek 1889.
- Achnanthes subsessilis* var. *multiarticulata* Kützing 1844, p. 76 (As *Achnanthes subsessilis* β *multiarticulata*) [ref. 000595]. *Invalid*. Nomen nudum.
- Achnanthes subsessilis* var. *multiarticulata* Crouan 1861, p. 838 (as *Achnanthes subsessilis* var. β *multiarticulata*) [ref. 010984]. Nomen nudum. [according to INA].
- Achnanthes subsessilis* var. *ovalis* Dippel 1905, p. 22; fig. 37 [ref. 000276].
- Achnanthes subsessilis* var. *subcrenulata* Cleve 1891, pl. 9, fig. 5, 6; (p. 50) (as “*Achnanthes (subsessilis) var. subcrenulata* Cleve” in text and *Achnanthes subsessilis* var. *subcrenulata* in legend) [ref. 000227].
- Achnanthes subsessilis* var. *subventricosa* Grunow in Cleve & Möller 1877, No. 46 [ref. 000242]. *Invalid*. Nomen nudum. Validly published by Grunow in Schneider 1878, p. 103 (ref. 010751).
- Achnanthes subsessilis* var. *subventricosa* Grunow in Schneider 1878, p. 103 [ref. 010751]. [according to INA].
- Achnanthes subsessilis* var. *tumidula* Grunow in Schneider 1878, p. 103 [ref. 010751]. [according to INA].
- Achnanthes subsessilis* var. *tumidula* Grunow in Cleve & Grunow 1880, p. 19 [ref. 000241]. Also: *Achnanthes subsessilis* var. *tumidula* Grunow in Schneider 1878, p. 103 (ref. 010751).
- Achnanthes subtropica* Cholnoky 1960, p. 18; pl. 1, fig. 37-40 [ref. 000208].
- Achnanthes subventricosa* Grunow ex Cleve & Möller 1877, No. 46 [ref. 000242]. *Invalid*. Nomen nudum.
- Achnanthes suchlandtii* Hustedt 1933, p. 406; fig. 859B (‘*suchlandtii*’) [ref. 000507].
- Achnanthes suchlandtii* var. *montdorensis* Manguin 1954, p. 16; pl. 1, fig. 16 a-b [ref. 002503].
- Achnanthes suchlandtii* var. *robusta* Hustedt 1959, p. 40; pl. 1, fig. 24-25 [ref. 000534].
- Achnanthes sumara* Carter 1966, p. 447; pl. 60(1), fig. 21, 22 [ref. 008093].
- Achnanthes suspecta* Cleve-Euler 1934, p. 41; pl. 2, fig. 51a-b [ref. 000249].

- Achnanthes sutura* Carter 1970, p. 611; pl. 1, fig. 39, 40 [ref. 003967].
- Achnanthes swazi* Cholnoky 1960, p. 19; pl. 1, fig. 41-48 [ref. 000208].
- Achnanthes taeniata* Grunow in Cleve & Grunow 1880, p. 22; pl. 1, fig. 5 [ref. 000241].
- Achnanthes taeniata* Grunow var. *hyperborea* Grunow ex Cleve & Möller 1882, No. 314 (as *Achnanthes (taeniata) hyperborea* Grun.) [ref. 001979]. *Invalid*. Nomen nudum. See *Achnanthes hyperborea* Grunow 1884.
- Achnanthes taeniata* Grunow var. *hyperborea* (Grunow) M. Peragallo 1897, p. 10 [ref. 012539]. Basionym: *Achnanthes hyperborea* Grunow 1884.
- Achnanthes taeniata* Grunow var. *rennellensis* Foged 1957, p. 55; pl. 4, fig. 20-24 [ref. 000325].
- Achnanthes taeniata* Gran 1897, pl. 1, fig. 10 [ref. 000388]. *Illegitimate*. Non Grunow 1880. [according to VLC].
- Achnanthes taiaensis* Carter & Denny 1982, p. 288; pl. 1, fig. 11-15 [ref. 006596].
- Achnanthes tanensis* Cleve-Euler 1934, p. 42; pl. 2, fig. 52 [ref. 000249].
- Achnanthes tatrensis* Starmach 1973, p. 501; pl. 2, photo. 29, 30, fig. 26 [ref. 008840]. [according to ANSP].
- Achnanthes taylorensis* D.E. Kellogg, M. Stuver, T.B. Kellogg & G.H. Denton 1980, p. 174-175; pl. I, fig. 3-4, pl. II, fig. 1-2 [ref. 008396]. [according to ANSP].
- Achnanthes temperei* M. Peragallo in Tempère & Peragallo 1908, p. 100; No. 187 [ref. 001064].
- Achnanthes tenera* Hustedt 1955, p. 17; pl. 5, fig. 22-25 [ref. 000530].
- Achnanthes tenuis* Hustedt 1955, p. 17; pl. 5, fig. 29-31 [ref. 000530].
- Achnanthes tenuissima* Pantocsek 1902, p. 641; pl. 13, fig. 77 [ref. 000718]. (p. 15 of reprint).
- Achnanthes tenuissima* Hustedt 1937, p. 196; pl. 13, fig. 26, 27 [ref. 001012]. *Illegitimate*. Non Pantocsek 1902. Synonym (substitute name): *A. biconfusa* VanLandingham 1967.
- Achnanthes tenuistauros* Mann 1925, p. 11; pl. 1, fig. 3-6 [ref. 000632].
- Achnanthes tenuistriata* Hustedt 1952, p. 384; fig. 57-59 [ref. 000524]. Previously invalidly published (no description) in A. Schmidt's Atlas pl. 410: figs. 8-9. 1937 (ref. 012520).
- Achnanthes terrae-novae* Woodhead & Tweed 1960, p. 335; pl. 5, fig. 32 [ref. 000924].
- Achnanthes teshekpukensis* Foged 1968, p. 6; pl. 1, fig. 4 a, b [ref. 004050].
- Achnanthes therezienii* Lange-Bertalot & Krammer 1989, p. 150-151 [ref. 006174]. *Invalid*. Intended combination of *Cocconeis therezienii* Le Cohu & Maillard 1984 (invalid, no type).
- Achnanthes thermalis* (Rabenhorst) Schönfeldt 1907, p. 122 [ref. 000808]. Basionym: *Achnanthidium thermale* Rabenhorst 1864.
- Achnanthes thermalis* var. *rumrichorum* Lange-Bertalot in Lange-Bertalot & Krammer 1989, p. 152; fig. 77: 30-38, fig. 78: 2-4 [ref. 006174].
- Achnanthes thienemannii* Hustedt 1942, p. 98; fig. 2-5 ('*thienemanni*') [ref. 000516].
- Achnanthes tibetica* Jao 1964, p. 180-181; pl. 1, fig. 5-6 [ref. 008361].
- Achnanthes triconfusa* VanLandingham 1967, p. 54, 67 [ref. 006293]. New name for *Achnanthes orientalis* Hustedt 1933, non Petit 1904.
- Achnanthes trigibba* Hustedt in Schmidt et al. 1937, pl. 410, fig. 23-24 [ref. 012520]. *Invalid*. No description. Name validated by Gandhi 1970 (ref. 004207), and Simonsen 1987 (ref. 003164).
- Achnanthes trigibba* Hustedt ex Gandhi 1970, p. 759; pl. 1, fig. 11, 12 [ref. 004207].
- Achnanthes trigibba* Hustedt ex Simonsen 1987, p. 230; pl. 336, fig. 10-18 [ref. 003164]. *Achnanthes trigibba* Hustedt ex Gandhi 1970 has a different type.
- Achnanthes trijuga* 'Turpin' according to VanLandingham 1967, p. 68 [ref. 006293]. Not found in Turpin 1828 (ref. 006720).
- Achnanthes trinodis* Ehrenberg 1869, table for p. 60 [ref. 000309]. *Invalid*. Nomen nudum.
- Achnanthes trinodis* (Ralfs in Pritchard) Grunow in Van Heurck 1880, expl. pl. 27, fig. 50 [ref. 000895]. Basionym: *Achnanthidium trinode* Ralfs in Pritchard 1861.
- Achnanthes trinodis* (Ralfs in Pritchard) Cleve 1895, p. 190 [ref. 000949]. Basionym: *Achnanthidium trinode* Ralfs in Pritchard 1861. Isonym. Combination previously published by Grunow in Van Heurck 1880.
- Achnanthes trinodis* var. *inflata* 'E.A. Schultze' according to Mills 1933, p. 74 [ref. 000660]. *Invalid*. Citation error for *Navicula trinodis* Sm. var. *inflata* E.A. Schultze 1889. Not a valid new combination of Schultze's name (not accepted by Mills). Cited but not accepted by VanLandingham.
- Achnanthes tropica* Hustedt 1937, p. 200; pl. 13, fig. 28-32 [ref. 001012].
- Achnanthes tuma* Carter 1970, p. 612; pl. 1, fig. 35, 36 [ref. 003967].
- Achnanthes turgens* Ehrenberg 1843, p. 409 (121); pl. 3/7, fig. 28 [ref. 000294].
- Achnanthes turgida* Ehrenberg 1853, table for art. pp.180-182 [ref. 010853]. *Invalid*. Nomen nudum. Also nomen nudum in Ehrenberg 1854, p. 12 (ref. 000300).
- Achnanthes tylophora* (Reichelt) Heiden in A. Schmidt 1903, pl. 242, figs. 17, 18 [ref. 012485]. Basionym: *Stauroneis tylophora* Reichelt 1903. *Invalid*. In syn. *Achnanthes exigua* Grun.
- Achnanthes ubiqua* Maidana 1986, p. 72; fig. 1 a-c [ref. 008529]. [according to ANSP].
- Achnanthes umara* Carter 1970, p. 612; pl. 2, fig. 1, 2 [ref. 003967].

- Achnanthes undata* Meister 1935, p. 97; fig. 47 [ref. 000645].
- Achnanthes undulata* (Schumann) De Toni 1891, p. 471 [ref. 000271]. Basionym: *Achnanthidium undulatum* Schumann 1867.
- Achnanthes undulatus* Sreenivasa 1971, p. 81; fig. 1E, 2D [ref. 008836]. *Illegitimate*. Non (Schumann) De Toni 1891.
- Achnanthes unipunctata* (Lyngbye) Carmichael ex Greville 1827, pl. 287, fig. 1-2 [ref. 002033]. Basionym: *Fragilaria unipunctata* Lyngbye 1819.
- Achnanthes unipunctatus* Missuna 1914, p. 141; pl. 2, fig. 1 [ref. 000663]. *Illegitimate*. Non (Lyngbye) Greville 1827.
- Achnanthes utukakensis* Patrick & Freese 1961, p. 167; pl. 1, fig. 6a-b [ref. 000725].
- Achnanthes valida* Hustedt in Schmidt et al. 1937, pl. 416, fig. 39-44 [ref. 012521]. *Invalid*. No description. Validated by Simonsen 1987.
- Achnanthes valida* Hustedt ex Simonsen 1987, p. 232; pl. 337, fig. 7-14 [ref. 003164].
- Achnanthes vanhoeffenii* Heiden in Heiden & Kolbe 1928, p. 580; pl. 5, fig. 105, 105 a [ref. 000473].
- Achnanthes vasta* Pantocsek 1902, p. 641; pl. 13, fig. 75 [ref. 000718]. (p. 15 of reprint).
- Achnanthes vaszaryi* (Pantocsek) Cleve 1893, p. 57 [ref. 000230]. Basionym: *Navicula vaszaryi* Pantocsek 1892.
- Achnanthes vaszaryi* var. *oregonica* Cleve 1893, p. 57; pl. 3, fig. 15, 16 (As *Achnanthes* (*Heteroneis* Cl.) *vaszaryi* var. *oregonica*) [ref. 000230].
- Achnanthes veccillum* Bory 1832, p. 336 [ref. 010601]. *A. veccillum* on p. 336, corrected to *vexillum* in errata. Synonyms cited: *Achnanthes longipes* Ag., *Conferva stipitata* E.B. Basionym (illegitimate): *Diatoma vexillum* Jürgens 1818. [according to INA].
- Achnanthes ventralis* (Krasske) Lange-Bertalot in Lange-Bertalot & Krammer 1989, p. 155; fig. 79: 22-33, fig. 46: 7, fig. 47: 1-4 [ref. 006174]. Basionym: *Navicula ventralis* Krasske 1923.
- Achnanthes ventralis* var. *crassa* (Reimer) Lange-Bertalot in Lange-Bertalot & Krammer 1989, p. 155; fig. 79: 34-35 [ref. 006174]. Basionym: *Achnanthes sublaevis* var. *crassa* Reimer in Patrick & Reimer 1966.
- Achnanthes ventricosa* Kützing 1844, p. 76; pl. 20, fig. 7 [ref. 000595]. *Illegitimate*. New name for *Achnanthes rhomboides* Ehrenberg 1843. Superfluous (unwarranted change of epithet).
- Achnanthes ventricosa* Ehrenberg 1854, Atlas: p. 7, pl. I: II: figs. 9, 10; pl. I: III: f. 18, 19; pl. XXXIX: III: fig. 1 [ref. 000966]. Nomen nudum in Ehrenberg 1848, p. 479 (ref. 000958). Nomen nudum in Ehrenberg 1853, table for art. p. 180-182 (ref. 10853). Validating illustration in Mikrogeologie, Atlas, no description. Non Kützing 1844.
- Achnanthes vernalis* Pantocsek 1902, p. 641; pl. 13, fig. 92 [ref. 000718]. (p. 15 of reprint).
- Achnanthes vexillum* Bory 1832, p. 336 [ref. 010601]. *A. veccillum* on p. 336, corrected to *vexillum* in errata. Synonyms cited: *Achnanthes longipes* Ag., *Conferva stipitata* E.B. Basionym (illegitimate): *Diatoma vexillum* Jürgens 1818. [according to INA].
- Achnanthes vicentii* Manguin 1957, p. 124; pl. 5, fig. 26 a-e [ref. 000626]. Also described as new in Manguin 1960, p. 308; pl. 14, fig. 162 a-b, 163 a-b (ref. 000627).
- Achnanthes vistulana* A. Witkowski 1994, p. 90; pl. 17, fig. 1-14 [ref. 012530].
- Achnanthes volhyniensis* Oksiyuk 1957 [ref. 002525]. According to Hollerbakh & Krasavina 1971, p. 15 (ref. 002458). [according to VLC].
- Achnanthes wellsiae* Reimer in Patrick & Reimer 1966, p. 255; pl. 16, fig. 15-17 [ref. 003167]. New name for *Achnanthes solea* Hustedt 1952 (non Zimmermann 1917).
- Achnanthes wickenensis* Carter 1963, p. 199; pl. 1, fig. 1 [ref. 001117]. *Invalid*. Type not designated.
- Achnanthes woldstedtii* Hustedt 1954, p. 453; fig. 7-10 ('woldstedti') [ref. 000529].
- Achnanthes wolffii* Foged 1957, p. 55; pl. 4, fig. 16-17 [ref. 000325].
- Achnanthes woltereckii* Hustedt 1942, p. 36; fig. 34-37 ('wolterecki') [ref. 000517]. Previously invalidly published in Schmidt's Atlas, pl. 410, fig. 25-28 (1937).
- Achnanthes woltereckii* var. *africana* Cholnoky 1959, p. 12; pl. 1, fig. 74-75 [ref. 000206].
- Achnanthes woltereckii* var. *swazilandica* Cholnoky 1962, p. 315; fig. 9-12 [ref. 000212].
- Achnanthes woodlawnensis* Playfair 1915, p. 347; pl. 45, fig. 24 [ref. 011209]. [according to INA].
- Achnanthes wrightiana* Woodhead & Tweed 1960, p. 336; pl. 7, fig. 72 [ref. 000924].
- Achnanthes yabe* Skvortzow 1937, p. 161; pl. 9, fig. 18 [ref. 000847].
- Achnanthes yaquinensis* McIntire & Reimer 1974, p. 174; pl. 2, fig. 1a-b, pl. 3, fig. 1a-b [ref. 004939].
- Achnanthes yeniseyensis* Skvortzow 1971, p. 70; pl. 5, fig. 4-7 [ref. 008823]. Spelled "yeniseyensis" on p. 70, "jeniseyensis" p. 108 (expl. pl.). [according to INA].
- Achnanthes yeniseyensis* var. *undulata* Skvortzow 1971, p. 71; pl. 5, fig. 8 (as *Achnanthes jeniseyensis* var. *undulata* (under *Achnanthes yeniseyensis*)) [ref. 008823]. See *Achnanthes jeniseyensis* var. *undulata* Skvortzow 1971.
- Achnanthes zieglerei* Lange-Bertalot in Krammer & Lange-Bertalot in H. Ettl et al. 1991, p. 39, pl. 23: figs. 33-38 [ref. 006522]. *Invalid*. No Latin diagnosis or designated type. Validated by Lange Bertalot 1993 (ref. 008467).
- Achnanthes zieglerei* Lange-Bertalot 1993, p. 8; pl. 35, fig. 4-7 [ref. 008467]. Invalidly published by Lange-Bertalot in Krammer & Lange-Bertalot 1991 (ref. 006522). Validated by Lange-Bertalot 1993.

**ACHNANTHIDIUM F.T. Kützing 1844, pg. 75 [ref. 000595]**LT: *Achnanthidium microcephalum* Kützing 1844

Type designated by Ross in Farr et al. 1979, p. 12 (ref. 006663).

- Achnanthidium affine* (Grunow) Czarnecki 1994, p. 156 [ref. 008152]. Basionym: *Achnanthes affinis* Grunow in Cleve & Grunow 1880.
- Achnanthidium agardhii* (Kützing) Mereschkowsky 1903, p. 78 (as *Achnanthidium (Cymbosira) Agardhii*) [ref. 001383]. Basionym: *Cymbosira agardhii* Kützing 1844.
- Achnanthidium agglutinans* 'Grunow in Cleve & Grunow' VanLandingham 1967, p. 70 [ref. 006293]. *Invalid*. Error cit. for *Achnanthes agglutinata* Grunow in Cleve & Grunow 1880.
- Achnanthidium agglutinata* 'Grunow in Cleve & Grunow' Mills 1933, p. 74a [ref. 000997]. *Invalid*. Error cit. for *Achnanthes agglutinata* Grunow in Cleve & Grunow 1880. Combination not accepted by Mills (lower case print).
- Achnanthidium alpestre* (R. Lowe & J.P. Kociolek) R. Lowe & J.P. Kociolek in J.R. Johansen et al. 2004, p. 23 [ref. 012667]. Basionym: *Achnanthes deflexa* var. *alpestris* Lowe & Kociolek 1984. [according to INA].
- Achnanthidium alteragracillimum* Round & Bukhtiyarova 1996, p. 349 ('*altergracillima*') [ref. 006778]. *Illegitimate*. New name for *Microneis gracillima* Meister 1912. Superfluous: unwarranted change of epithet.
- Achnanthidium altergracillima* (Lange-Bertalot) Round & Bukhtiyarova 1996, p. 349 ('*altergracillima*') [ref. 006778]. Basionym: *Achnanthes alteragracillima* Lange-Bertalot 1993. *Invalid*. Place of publication of basionym not cited. Oldest nomenclatural synonym: *Microneis gracillima* Meister 1912.
- Achnanthidium archibaldianum* (H. Lange-Bertalot in Lange-Bertalot & Krammer) H. Lange-Bertalot 1999, p. 276 [ref. 012674]. Basionym: *Achnanthes archibaldiana* Lange-Bertalot in Lange-Bertalot & Krammer 1989.
- Achnanthidium arcticum* Cleve 1873, p. 25; pl. 4, fig. 22a-b [ref. 000220].
- Achnanthidium arcus* (Hustedt) H. Lange-Bertalot 1999, p. 276 [ref. 012674]. Basionym: *Achnanthes arcus* Hustedt 1942.
- Achnanthidium atomoides* Monnier, Lange-Bertalot & Ector in Monnier et al. 2004, p. 128; fig. 1-41, 117-123 [ref. 012696].
- Achnanthidium atomus* (Hustedt) Monnier, Lange-Bertalot & Ector in Monnier et al. 2004, p. 133 [ref. 012696]. Basionym: *Achnanthes atomus* Hustedt 1937.
- Achnanthidium baccata* 'Leuduger-Fortmorel' Mills 1933, p. 74a [ref. 000997]. *Invalid*. Err. cit. pro *Achnanthes baccata* (Leuduger-Fortmorel) Cleve 1895. Combination not accepted by Mills.
- Achnanthidium baldjickii* (Brightwell) Grunow in Schmidt 1895, pl. 198, fig. 44-48 (as *Achnanthidium baldjickii* Grunow) [ref. 012476]. Basionym: *Odontidium baldjickii* Brightwell 1859. There is no indication in A. Schmidt that this is a new combination. By comparison of illustrations, however, it appears that it is probably a new combination of *Odontidium baldjickii* Brightwell 1859. It is treated as a new combination in Mills 1933 (ref. 000997) and VanLandingham 1967 (ref. 006293).
- Achnanthidium baldjickii* Grunow in Schmidt et al. 1895, pl. 198, fig. 44-48 [ref. 012476]. Can be treated as the valid name of a new taxon, but it is probably a new combination of *Odontidium baldjickii* Brightwell 1859.
- Achnanthidium biasolettianum* (Kützing) Bukhtiyarova 1995, p. 420 ('*biasolettiana*') [ref. 008000]. Basionym: *Synedra biasolettiana* Kützing 1844. [according to ANSP].
- Achnanthidium biasolettianum* (Grunow in Cleve & Grunow) Round & Bukhtiyarova 1996, p. 350 [ref. 006778]. Basionym: *Achnanthes biasolettiana* Grunow in Cleve & Grunow 1880. *Invalid*. Round & Bukhtiyarova cite *Achnanthidium lineare* Smith 1855 for basionym (error). The intended basionym is probably *Achnanthes biasolettiana* Grunow in Cleve & Grunow 1880, but its place of publication is not cited.
- Achnanthidium biasolettianum* (Grunow in Cleve & Grunow) H. Lange-Bertalot 1999, p. 276 [ref. 012674]. Basionym: *Achnanthes biasolettiana* Grunow in Cleve & Grunow 1880.
- Achnanthidium bioretii* (Germain) Edlund 1994, p. 12; fig. 34 [ref. 008184]. Basionym: *Achnanthes bioretii* Germain 1957. [according to ANSP].
- Achnanthidium bioretii* (Germain) O. Monnier, H. Lange-Bertalot & L. Ector in Monnier et al. 2007, p. 155 [ref. 012949]. Basionym: *Achnanthes bioretii* Germain 1957.
- Achnanthidium biporomum* (Hohn & Helleman) Czarnecki in Czarnecki & Edlund 1995, p. 208 [ref. 008156]. Basionym: *Achnanthes biporoma* Hohn & Helleman 1963.
- Achnanthidium blancheanum* (Maillard ex Moser, Steindorf & Lange-Bertalot) H. Lange-Bertalot 1999, p. 277 [ref. 012674]. Basionym: *Achnanthes blancheana* Maillard ex Lange-Bertalot & Steindorf in Moser, Steindorf & Lange-Bertalot 1995.
- Achnanthidium boreale* Poretzky 1927 [ref. 002809]. According to Hollerbakh & Krasavina 1971, p. 15 (ref. 002458). [according to VLC].
- Achnanthidium brevipes* (Agardh) Heiberg 1863, p. 118 [ref. 000471]. Basionym: *Achnanthes brevipes* Agardh 1824.
- Achnanthidium brevipes* (Agardh) Cleve 1895, p. 193 [ref. 000949]. Basionym: *Achnanthes brevipes* Agardh 1824. Isonym: see *Achnanthidium brevipes* (Agardh) Heiberg 1863.
- Achnanthidium brevipes* var. *angustata* '(Greville) Cleve' VanLandingham 1967, p. 70 [ref. 006293]. *Invalid*. Err. cit. pro



- Achnanthes brevipes* var. *angustata* (Grev.) Cleve 1895. Combination not accepted by VanLandingham (lower case characters).
- Achnantheidium brevipes* var. *biareolatum* Mereschkowsky 1902, p. 53(3), 82(32) (*'biareolata'*) [ref. 001381].
- Achnantheidium brevipes* var. *capensis* 'Cleve' VanLandingham 1967, p. 70 [ref. 006293]. *Invalid*. Err. cit. pro *Achnanthes brevipes* var. *capensis* Cl. 1895. Combination not accepted by VanLandingham (lower case print).
- Achnantheidium brevipes* var. *indica* '(Brun) Cleve' VanLandingham 1967, p. 70 [ref. 006293]. *Invalid*. Err. cit. pro *Achnanthes brevipes* var. *indica* (Brun) Cleve 1895. Combination not accepted by VanLandingham (lower case print).
- Achnantheidium brevipes* var. *intermedia* '(Kützing) Cleve' VanLandingham 1967, p. 70 [ref. 006293]. *Invalid*. Err. cit. pro *Achnanthes brevipes* var. *intermedia* (Ktz.) Cleve 1895. Combination not accepted by VanLandingham (lower case print).
- Achnantheidium brevipes* var. *leudugeri* '(Tempère & Brun in Brun & Tempère) Cleve' VanLandingham 1967, p. 70 [ref. 006293]. *Invalid*. Err. cit. pro *Achnanthes brevipes* var. *leudugeri* (Tempère & Brun) Cleve 1895. Combination not accepted by VanLandingham (lower case print).
- Achnantheidium brevipes* var. *marginata* 'Cleve' VanLandingham 1967, p. 70 [ref. 006293]. *Invalid*. Err. cit. pro *Achnanthes brevipes* var. *marginata* Cleve 1895. Combination not accepted by VanLandingham (lower case print).
- Achnantheidium brevipes* var. *minor* (H. Peragallo in H. Peragallo & M. Peragallo) Mereschkowsky 1902, p. 45 (13) (as "*A. brevipes* var. *minor* Per.") [ref. 000652]. Basionym: *Achnanthes brevipes* var. *minor* H. Peragallo in H. Peragallo & M. Peragallo 1897. Listed between *Achnantheidium brevipes* and *Achnanthes longipes*, so probably assigned to *Achnantheidium*.
- Achnantheidium brevipes* var. *minus* 'Mereschkowsky' VanLandingham 1979, p. 4246 [ref. 006514]. *Invalid*. Err. cit. pro *Achnantheidium brevipes* var. *minor* (Peragallo) Mereschkowsky (ref. 000652). Combination not accepted by VanLandingham 1979 (lower case print).
- Achnantheidium brevipes* var. *parvulum* (Kützing) Mereschkowsky 1901, p. 31 [ref. 000650]. Basionym: *Achnanthes parvula* Kützing 1844.
- Achnantheidium brevipes* var. *parvulum* '(Kützing) Cleve' VanLandingham 1967, p. 71 (*'parvula'*) [ref. 006293]. *Invalid*. Err. cit. pro *Achnanthes brevipes* var. *parvula* (Kützing) Cleve 1895. Combination under *Achnantheidium* previously published: see *Achnantheidium brevipes* var. *parvulum* (Kützing) Mereschkowsky 1901.
- Achnantheidium brevipes* var. *pennaeformis* '(Greville) Cleve' VanLandingham 1967, p. 71 [ref. 006293]. *Invalid*. Err. cit. pro *Achnanthes brevipes* var. *pennaeformis* (Grev.) Cleve 1895. Combination not accepted by VanLandingham (lower case print).
- Achnantheidium brevipes* var. *seriatum* (Agardh) Mereschkowsky 1902, p. 66 (16) [ref. 001381]. Basionym: *Achnanthes seriata* Agardh 1827.
- Achnantheidium brevipes* var. *seriatum* '(Agardh) Cleve' VanLandingham 1967, p. 71 (*'seriata'*) [ref. 006293]. *Invalid*. Err. cit. pro *Achnanthes brevipes* var. *seriata* (Ag.) Cleve 1895. Combination under *Achnantheidium* previously published: see *Achnantheidium brevipes* var. *seriata* (Ag.) Mereschkowsky 1902.
- Achnantheidium brevipes* var. *subcrenulatum* 'Cleve' VanLandingham 1967, p. 71 (*'subcrenulata'*) [ref. 006293]. *Invalid*. Err. cit. pro *Achnanthes brevipes* var. *subcrenulata* (Cleve) Cleve. Combination not accepted by VanLandingham (lower case characters).
- Achnantheidium brevipes* var. *tumidulum* (Grunow) Meister in Huber-Pestalozzi 1929, p. 363; fig. 5 [ref. 000490]. Basionym: *Achnanthes subsessilis* var. *tumidula* Grunow in Cleve & Grunow 1880.
- Achnantheidium brevipes* var. *typica* 'Cleve' VanLandingham 1967, p. 71 [ref. 006293]. *Invalid*. Err. cit. pro *Achnanthes brevipes* var. *typica* Cleve 1895. Combination not accepted by VanLandingham (lower case print).
- Achnantheidium caledonicum* (Lange-Bertalot in Lange-Bertalot & Moser) H. Lange-Bertalot 1999, p. 277 [ref. 012674]. Basionym: *Achnanthes caledonica* Lange-Bertalot in Lange-Bertalot & Moser 1994. *Invalid*. Intended new combination of *Achnanthes caledonica* Lange-Bertalot in Lange-Bertalot & Moser 1994 (*Invalid*) (*Achnanthes caledonica* is an intended new name for the invalid name *Achnanthes microcephala* f. *scotica* Carter in Carter & Bailey Watts 1981).
- Achnantheidium caledonicum* (Lange-Bertalot) J.E. Slate & R.J. Stevenson 2007, p. 358 [ref. 012975]. Basionym: *Achnanthes caledonica* Lange-Bertalot in Lange-Bertalot & Moser 1994. *Invalid*. Basionym is invalid.
- Achnantheidium catenatum* (Bily & Marvan) H. Lange-Bertalot 1999, p. 277 [ref. 012674]. Basionym: *Achnanthes catenata* Bily & Marvan 1959.
- Achnantheidium clevei* (Grunow in Cleve & Grunow) Czarnecki in Czarnecki & Edlund 1995, p. 207 [ref. 008156]. Basionym: *Achnanthes clevei* Grunow in Cleve & Grunow 1880.
- Achnantheidium clevei* var. *rostratum* (Hustedt) Edlund 1994, p. 12; fig. 35 [ref. 008184]. Basionym: *Achnanthes clevei* var. *rostrata* Hustedt 1930. *Invalid*. Predates the transfer of *Achnanthes clevei* to *Achnantheidium* (1995).
- Achnantheidium clevei* var. *rostratum* (Hustedt) Edlund in Czarnecki & Edlund 1995, p. 207 [ref. 008156]. Basionym: *Achnanthes clevei* var. *rostrata* Hustedt 1930.
- Achnantheidium coarctatum* Brébisson ex W. Smith 1855, p. 8; pl. 1, fig. 10 [ref. 000864].
- Achnantheidium coarctatum* var. *elineatum* Lagerstedt 1873, p. 49; pl. 1, fig. 16 (as: var.  $\beta$  *elineatum*) [ref. 000597].

- Achnanthidium coarctatum* var. *otrantinum* (Rabenhorst) Rabenhorst 1864, p. 108 [ref. 000775]. Basionym: *Achnanthidium otrantinum* Rabenhorst 1853.
- Achnanthidium cocconeiforme* Mereschkowsky 1901, p. 32; pl. 6, fig. 23 ('*cocconeiformis*') [ref. 000650].
- Achnanthidium cocconeiforme* Mereschkowsky 1902, p. 53 (3), 82 (32) [ref. 001381]. Previously validly published in Mereschkowsky 1901, p. 32, pl. 6, fig. 23 (ref. 000650).
- Achnanthidium contractum* Schumann 1867, p. 62; pl. 2, fig. 25 [ref. 000814].
- Achnanthidium contrarea* (Lange-Bertalot & Steindorf in Moser, Steindorf & Lange-Bertalot) H. Lange-Bertalot 1999, p. 277 [ref. 012674]. Basionym: *Achnanthes contrarea* Lange-Bertalot & Steindorf in Moser, Steindorf & Lange-Bertalot 1995.
- Achnanthidium convergens* (Kobayasi) Kobayasi 1997, p. 159, 162; fig. 58-75 [ref. 006962]. Basionym: *Achnanthes convergens* H. Kobayasi ex Kobayasi, Nagumo & Mayama 1986.
- Achnanthidium costatum* Plutenko 1873, p. 81; fig. 2a,b [ref. 000755].
- Achnanthidium crassum* (Hustedt) Potapova & Ponader 2004, p. 38 [ref. 012595]. Basionym: *Achnanthes crassa* Hustedt 1937.
- Achnanthidium crenulatum* 'Grunow' Mills 1933, p. 75 ('*crenulata*') [ref. 000997]. *Invalid*. Err. cit. pro *Achnanthes crenulata* Grun. in Cleve & Grunow 1880. Combination not accepted by Mills (lower case print).
- Achnanthidium cryptocephalum* Naegeli ex Kützing 1849, p. 890 [ref. 000596].
- Achnanthidium cryptocephalum* 'Grunow' Mills 1933, p. 75 [ref. 000997]. *Invalid*. Combination not accepted by Mills (lower case print). Accepted synonym cited by Mills: *Achnanthes minutissima* var. *cryptocephala* Grunow in Van Heurck 1880.
- Achnanthidium cubanense* D. Metzeltin & H. Lange-Bertalot 2007, p. 23; pl. 109, fig. 1-10 [ref. 012938].
- Achnanthidium cuneata* 'Grunow' Mills 1933, p. 75 [ref. 000997]. *Invalid*. Combination not accepted by Mills (lower case characters). Accepted synonym cited by Mills: *Achnanthes cuneata* Grunow in Cleve & Grunow 1880.
- Achnanthidium danicum* Flogel in Schmidt et al. 1895, pl. 198, fig. 50 [ref. 012476].
- Achnanthidium daonense* (H. Lange-Bertalot) H. Lange-Bertalot, O. Monnier & L. Ector in Monnier et al. 2007, p. 155 [ref. 012949]. Basionym: *Achnanthes daonensis* Lange-Bertalot in Lange-Bertalot & Krammer 1989.
- Achnanthidium deflexum* (C.W. Reimer) J.C. Kingston 2000, p. 410 [ref. 009393]. Basionym: *Achnanthes deflexa* Reimer in Patrick & Reimer 1966. [according to INA].
- Achnanthidium delicatulum* Kützing 1844, p. 75; pl. 3, fig. 21 [ref. 000595].
- Achnanthidium delicatulum* f. *angustatum* Gutwinski 1890, p. 29; pl. 1, fig. 25 [ref. 000451].
- Achnanthidium delicatulum* var. *angustatum* Gutwinski 1890 [ref. 001689]. According to Hollerbakh & Krasavina 1971, p. 15 (ref. 002458) [according to VLC]; probable error for *Achnanthidium delicatulum* f. *angustatum* Gutwinski 1890.
- Achnanthidium delicatulum* var. *wislouchii* Shirshov 1935, [ref. 001520]. According to Hollerbakh & Krasavina 1971, p. 15 (ref. 002458). [according to VLC].
- Achnanthidium delicatulum* sensu Schumann 1867, p. 61; pl. 2, fig. 22 (as *Achnanthidium delicatulum* Kützing) [ref. 000814]. Not intended by Schumann as a new taxon. Listed by VanLandingham 1967 (ref. 006293), as a possible homonym of *A. delicatulum* Kützing 1844.
- Achnanthidium dolomiticum* M. Cantonati & H. Lange-Bertalot 2006, p. 1185; Figs. 1-3 [ref. 012941].
- Achnanthidium duthiei* (Sreenivasa) Edlund 1994, p. 12; fig. 40 ('*duthii*') [ref. 008184]. Basionym: *Achnanthes duthiei* Sreenivasa 1971. [according to ANSP].
- Achnanthidium elineatum* 'Lagerstedt' in Otto Müller 1909, p. 9 [ref. 001777]. *Invalid*. Err. cit. pro *Achnanthidium coarctatum* var. *elineatum* Lagerstedt; in syn. *Achnanthes coarctata* var. *elineata* (Lagerstedt) O. Müller.
- Achnanthidium eutrophilum* (Lange-Bertalot in Lange-Bertalot & Metzeltin) H. Lange-Bertalot 1999, p. 277 [ref. 012674]. Basionym: *Achnanthes eutrophila* Lange-Bertalot in Lange-Bertalot & Metzeltin 1996.
- Achnanthidium exiguum* (Grunow) Czarnecki 1994, p. 157 [ref. 008152]. Basionym: *Achnanthes exigua* Grunow in Cleve & Grunow 1880. Although error is made in citation of basionym (basionym is cited under synonym, and *Stauroneis exilis* Kützing is cited as basionym), this combination is valid. The basionym, *Achnanthes exigua* Grunow 1880 is a new name (replacement name) for *Stauroneis exilis* Kützing 1844.
- Achnanthidium exiguum* var. *constrictum* (Grunow) N.A. Andresen, E.F. Stoermer & R.G. Kreis, Jr. 2000, p. 413 [ref. 009394]. Basionym: *Stauroneis exilis* var. *constricta* Grunow 1867. Basionym miscited as *Stauroneis exigua* var. *constricta*, but with correct place of publication. [according to INA].
- Achnanthidium exiguum* var. *heterovalvum* (Krasske) Czarnecki 1994, p. 157 [ref. 008152]. Basionym: *Achnanthes exigua* Grunow var. *heterovalvata* Krasske 1923.
- Achnanthidium exile* (Kützing) Heiberg 1863, p. 119 [ref. 000471]. Basionym: *Achnanthes exilis* Kützing 1833.
- Achnanthidium exile* (Kützing) Bukhtiyarova 1995, p. 420 ('*exilis*') [ref. 008000]. Basionym: *Achnanthes exilis* Kützing 1833. Isonym: see *Achnanthidium exile* (Kützing) Heiberg 1863. [according to ANSP].
- Achnanthidium exile* (Kützing) Round & Bukhtiyarova 1996, p. 350 ('*exilis*') [ref. 006778]. Basionym: *Achnanthes exilis* Kützing 1833. Isonym: see *Achnanthidium exile* (Kützing) Heiberg 1863.

- Achnantheidium flexellum* (Kützing) Brébisson ex Kützing 1849, p. 54 [ref. 000596]. Basionym: *Cymbella flexella* Kützing 1844.
- Achnantheidium flexellum* var. *alpestris* (Brun) De Toni 1891, p. 489 [ref. 000271]. Basionym: *Achnanthes flexella* var. *alpestris* Brun 1880.
- Achnantheidium flexellum* var. *arabicum* (Lagerstedt) ‘Grunow’ De Toni 1891, p. 489 [ref. 000271]. *Invalid*. Probable err. cit. pro *Achnantheidium flexellum* var. *arcticum* (Lag.) Grunow 1880.
- Achnantheidium flexellum* var. *arcticum* (Lagerstedt) Grunow in Cleve & Grunow 1880, p. 17 (‘*arctica*’) [ref. 000241]. Basionym: *Cocconeis thwaitesii* var. *arctica* Lagerstedt 1873.
- Achnantheidium flexellum* var. *dissimile* (W. Smith) Grunow in Cleve & Grunow 1880, p. 17 (as var. ‘*dissimilis*’ Sm.) [ref. 000241]. Basionym: *Navicula dissimilis* W. Smith 1857. It is suggested by Grunow that this is a new combination (see also De Toni 1891, p. 489) (ref. 000271), but neither Grunow, nor De Toni nor VanLandingham cite a basionym. No description, or illustration provided by Grunow. Could possibly be treated as a new combination of *Navicula dissimilis* Smith 1957.
- Achnantheidium flexellum* f. *minuta* A. Cleve 1895, p. 24 [ref. 000243].
- Achnantheidium flexellum* var. *minuta* Lacsny 1917, p. 16 [ref. 000601]. *Illegitimate*. Non Cleve 1895.
- Achnantheidium flexellum* var. *naviculoides* (Reinsch) Grunow in Cleve & Grunow 1880, p. 17 [ref. 000241]. Basionym: *Achnantheidium naviculoides* Reinsch 1866.
- Achnantheidium fulla* (J.R. Carter) M. Aboal in Aboal et al. 2003, p. 143 [ref. 012666]. Basionym: *Achnanthes fulla* Carter 1970. [according to INA].
- Achnantheidium gracillimum* (Meister) Lange-Bertalot in Krammer & Lange-Bertalot 2004, p. 430 [ref. 013110]. Basionym: *Microneis gracillima* Meister 1912.
- Achnantheidium gracillimum* (Meister) Mayama in Kobayasi et al. 2006, p. 13, 123 [ref. 012998]. Basionym: *Microneis gracillima* Meister 1912. [according to Luc Ector]. Isonym, combination previously published by Lange-Bertalot in Krammer & Lange-Bertalot 2004, p. 430 (ref. 013110).
- Achnantheidium groenlandicum* Cleve 1873, p. 25; pl. 4, fig. 23 [ref. 000220].
- Achnantheidium hauckianum* (Grunow) Czarnecki 1994, p. 96 [ref. 008153]. Basionym: *Achnanthes hauckiana* Grunow in Cleve & Grunow 1880.
- Achnantheidium hauckii* (Grunow) Comber 1901, p. 389 [ref. 001158]. Basionym: *Achnanthes hauckii* Grunow in Van Heurck 1880. [according to INA].
- Achnantheidium haynaldii* (Schaarschmidt) Morosow 1929, p. 68 (as “[*Achnantheidium*] *haynaldii* Cl.” with no reference) [ref. 003011]. Basionym: *Achnanthes haynaldii* Schaarschmidt 1881. Probable citation error for *Achnanthes lanceolata* var. *haynaldii* (Schaarschmidt) Cleve 1894. Can probably be considered a valid new combination of *Achnanthes haynaldii* Schaarschmidt 1881.
- Achnantheidium helveticum* (Hustedt) O. Monnier, H. Lange-Bertalot & L. Ector in Monnier et al. 2007, p. 155 [ref. 012949]. Basionym: *Achnanthes austriaca* var. *helvetica* Hustedt 1933.
- Achnantheidium hungaricum* Grunow 1863, p. 146; pl. 13 (IV), fig. 8 [ref. 000429].
- Achnantheidium hungaricum* f. *medioconstricta* Ryndovski 1872, p. 25 (?) [ref. 002832]. According to Hollerbakh & Krasavina 1971, p. 15 (ref. 002458). [according to VLC].
- Achnantheidium indicatrix* (Lange-Bertalot & Steindorf in Moser, Lange-Bertalot & Metzeltin) H. Lange-Bertalot 1999, p. 278 [ref. 012674]. Basionym: *Achnanthes indicatrix* H. Lange-Bertalot & A. Steindorf in G. Moser, H. Lange-Bertalot & D. Metzeltin 1998.
- Achnantheidium inflatum* (Kützing) Hutton in Inglis 1883, p. 346 (‘*inflata*’) [ref. 011538]. Basionym: *Stauroneis inflata* Kützing 1844. [according to INA].
- Achnantheidium inflatum* (Kützing) ‘Cleve’ Mills 1933, p. 75 [ref. 000997]. Basionym: *Stauroneis inflata* Kützing 1844. *Invalid*. Err. cit. pro *Achnanthes inflata* (Kützing) Cleve 1895. Combination under *Achnantheidium* already published by Hutton 1883.
- Achnantheidium intermedium* ‘Gutwinski 1892’ according to Hollerbakh & Krasavina 1971, p. 15 [ref. 002458]. [according to VLC].
- Achnantheidium jackii* Rabenhorst 1861, no. 1003 [ref. 011621]. The name is also proposed in Rabenhorst 1864, p. 106 (ref. 000775), but the description differs significantly from the exsiccatae that two separate species might be described under the same name from the same material (jpk).
- Achnantheidium jackii* Rabenhorst 1864, p. 106 [ref. 000775]. The name is also proposed in Rabenhorst 1861, no. 1003 (ref. 0011621), but the description differs significantly from that of 1864 that two separate species might be described under the same name from the same material (jpk).
- Achnantheidium japonicum* (Kobayasi) Kobayasi 1997, p. 156, 159; fig. 41-57 [ref. 006962]. Basionym: *Achnanthes japonica* Kobayasi ex Kobayasi, Nagumo & Mayama 1986.
- Achnantheidium kenya* (Cholnoky) C. Cocquyt 2007, p. 258 [ref. 012970]. Basionym: *Achnanthes kenya* Cholnoky 1960. *Invalid*. Intended new combination. Page where basionym is described is not cited.

- Achnanthidium koghisense* (Moser, Lange-Bertalot & Metzeltin) H. Lange-Bertalot 1999, p. 279 [ref. 012674]. Basionym: *Achnanthes koghisensis* G. Moser, H. Lange-Bertalot & D. Metzeltin 1998.
- Achnanthidium koghisense* f. *angustifasciatum* (Moser, Lange-Bertalot & Metzeltin) H. Lange-Bertalot 1999, p. 279 [ref. 012674]. Basionym: *Achnanthes koghisensis* f. *angustifasciata* G. Moser, H. Lange-Bertalot & D. Metzeltin 1998.
- Achnanthidium kranzii* (Lange-Bertalot) Round & Bukhtiyarova 1996, p. 350 [ref. 006778]. Basionym: *Achnanthes kranzii* Lange-Bertalot in Lange-Bertalot & Krammer 1989. Basionym cited as *A. kranzii*.
- Achnanthidium kryophila* (Boye-Petersen) Bukhtiyarova 1995, p. 420 [ref. 008000]. Basionym: *Achnanthes kryophila* Petersen 1924. [according to ANSP].
- Achnanthidium kuwaitensis* 'Hendey' VanLandingham 1967, p. 73 [ref. 006293]. *Invalid*. Error cit. pro *Achnanthes kuwaitensis* Hendey. Combination not accepted by VanLandingham (lower case print).
- Achnanthidium lanceolatum* Brébisson ex Kützing 1846, p. 247 [ref. 002752]. Also in Kützing 1849, p. 54 (ref. 000596).
- Achnanthidium lanceolatum* var. *capitata* 'O. Müller' Mills 1933, p. 75 [ref. 000997]. Basionym: *Achnanthes lanceolata* var. *capitata* Otto Müller 1909. *Invalid*. Err. cit. pro *Achnanthes lanceolata* var. *capitata* O. Müller 1909. Combination not accepted by Mills (lower case characters).
- Achnanthidium lanceolatum* var. *conspicuum* Mayer 1912, p. 293 ('*conspicua*') [ref. 002078].
- Achnanthidium lanceolatum* var. *crassum* Kisselev 1931 [ref. 002740]. According to Hollerbakh and Krasavina 1971, p. 16 (ref. 002458). [according to VLC].
- Achnanthidium lanceolatum* var. *dubium* (Grunow in Cleve & Grunow) Meister 1912, p. 99; pl. 13, fig. 14 [ref. 000642]. Basionym: *Achnanthes lanceolata* var. *dubia* Grunow in Cleve & Grunow 1880.
- Achnanthidium lanceolatum* var. *ellipticum* (Cleve) Meister 1912, p. 99 [ref. 000642]. Basionym: *Achnanthes lanceolata* var. *elliptica* Cleve 1891.
- Achnanthidium lanceolatum* var. *ellipticum* 'Cleve' Mills 1933, p. 75 ('*elliptica*') [ref. 000997]. *Invalid*. Err. cit. pro *Achnanthes lanceolata* var. *elliptica*. Combination under *Achnanthidium* previously published by Meister 1912.
- Achnanthidium lanceolatum* var. *genuinum* Mayer 1913, p. 81; pl. 3, fig. 42-44, 46-47 (as '*genuina* mh.')
- Achnanthidium lanceolatum* var. *haynaldii* (Schaarschmidt) Comber 1901, p. 389 [ref. 001158]. Basionym: *Achnanthes haynaldii* Schaarschmidt 1881. [according to VLC].
- Achnanthidium lanceolatum* var. *haynaldii* (Schaarschmidt) Meister 1912, p. 99 [ref. 000642]. Basionym: *Achnanthes haynaldii* Schaarschmidt 1881. Isonym: combination previously published by Comber 1901.
- Achnanthidium lanceolatum* var. *inflata* Mayer 1913, p. 81; pl. 14, fig. 35 [ref. 000551].
- Achnanthidium lanceolatum* var. *major* Rabenhorst 1848-1860, Dec. 221-222, no. 2213 [ref. 000771]. *Invalid*. No description.
- Achnanthidium lanceolatum* var. *minimum* Mayer 1913, p. 81; pl. 3, fig. 45, pl. 26, fig. 12 ('*minima*') [ref. 000551].
- Achnanthidium lanceolatum* f. *minutissima* (Kützing) Tömösváry 1879, p. 148 [ref. 005657]. Basionym: *Achnanthes minutissima* Kützing 1833.
- Achnanthidium lanceolatum* var. *rhomboidale* Mayer 1919, p. 199; pl. 6, fig. 17, 18 [ref. 000637].
- Achnanthidium lanceolatum* var. *rostellatum* 'Hustedt' according to Mayer 1919, p. 199; pl. 6, fig. 23 [ref. 000637]. *Invalid*. Mayer provides an illustration, but no description. Perhaps err. cit. pro *Achnanthes lanceolata* var. *rostrata* Hustedt 1911.
- Achnanthidium lanceolatum* var. *rostratum* 'Hustedt' according to Mills 1933, p. 75 [ref. 000997]. *Invalid*. Mills refers with question to Hustedt 1922 (ref. 000496) "Tibet" but name not found in that publication. Perhaps err. cit. pro *Achnanthes lanceolata* var. *rostrata* Hustedt 1911. Mills' entry cannot be treated as a valid new combination of Hustedt's name, as the name is not accepted by Mills.
- Achnanthidium lanceolatum* var. *rusticum* Steinecke 1916, p. 43; fig. 14 [ref. 000869].
- Achnanthidium lanceolatum* f. *typica* Meister 1912, p. 99; pl. 13, fig. 12, 13 [ref. 000642]. *Invalid*. Meister on page 99 names these figures "*Achnanthidium lanceolatum* Brébisson, Typische Form". Epithet "*typica*" introduced by Mills 1933, p. 75 (ref. 000997).
- Achnanthidium lanceolatum* var. *ventricosum* (Hustedt) Poretzky 1924, p. 121 [ref. 002122]. Basionym: *Achnanthes lanceolata* var. *ventricosa* Hustedt 1914. Err. cit. pro *Achnanthes lanceolata* var. *ventricosa* Hustedt 1914? Valid new combination.
- Achnanthidium lapidosum* (Krasske) H. Kobayasi in Mayama, S., Idei, M., Osada, K. & Nagumo, T. 2002, p. 89 [ref. 012558]. Basionym: *Achnanthes lapidosa* Krasske 1929.
- Achnanthidium latecephalum* Kobayasi 1997, p. 151-153; fig. 19-40 [ref. 006962].
- Achnanthidium lauenburgianum* (Hustedt) O. Monnier, H. Lange-Bertalot & L. Ector in Monnier et al. 2007, p. 155 [ref. 012949]. Basionym: *Achnanthes lauenburgiana* Hustedt 1950.
- Achnanthidium levanderi* (Hustedt) Czarnecki in Czarnecki & Edlund 1995, p. 208 [ref. 008156]. Basionym: *Achnanthes levanderi* Hustedt 1933.
- Achnanthidium lineare* W. Smith 1855, p. 8; pl. 1, fig. 9 [ref. 000864].
- Achnanthidium linearioide* H. Lange-Bertalot in Krammer & Lange-Bertalot 2004, p. 431 [ref. 013110]. *Illegitimate*. In-

- tended new combination of *Achnanthes linearoides* Lange-Bertalot in Lange-Bertalot & Moser 1994 (name superfluous, intended new name for *Achnanthes lineariformis* Lange-Bertalot 1993). Epithet “*lineariformis*” should have been used in *Achnanthidium* (see ICBN Art. 11.4). We treat it as a nomen novum in accordance with ICBN Art. 58.
- Achnanthidium longipes* Kisselev 1931 [ref. 002740]. According to Hollerbakh & Krasavina 1971, p. 16 (ref. 002458). [according to VLC].
- Achnanthidium lorenziana* (Grunow) Grunow in Schmidt et al. 1895, pl. 198, fig. 59 (as *A. lorenziana* Grunow) [ref. 012476]. Basionym: *Rhaphoneis lorenziana* Grunow 1862. Ambiguous: *Achnanthes* or *Achnanthidium*? More likely *Achnanthidium* from context. In any case it is interpreted (by comparison of illustrations) as a new combination of *Rhaphoneis lorenziana* Grunow 1862. Combination *Achnanthes lorenziana* (Grunow) Cleve published by Cleve 1895, p. 186 (ref. 000949).
- Achnanthidium lyra* Schumann 1867, p. 62; pl. 2, fig. 24 [ref. 000814].
- Achnanthidium macrocephalum* (Hustedt) Round & Bukhtiyarova 1996, p. 349 [ref. 006778]. Basionym: *Achnanthes minutissima* var. *macrocephala* Hustedt 1937.
- Achnanthidium mangelsdorffii* D. Metzeltin & H. Lange-Bertalot 2007, p. 24; pl. 109, fig. 11-23 [ref. 012938].
- Achnanthidium margaritarum* Cleve 1893, p. 57; pl. 3, fig. 9-10 (as *Achnanthes* (*Achnanthidium* Cl.) *Margaritarum*) [ref. 000230]. *Invalid*. Name invalid under *Achnanthidium* but validly published by Cleve 1893 under *Achnanthes*.
- Achnanthidium margaritarum* (Cleve) Cleve 1895, p. 191 [ref. 000949]. Basionym: *Achnanthes margaritarum* Cleve 1893. Valid combination under *Achnanthidium*? Listed under *Achnanthidium* on p. 191, but listed under *Achnanthes* in index p. 198.
- Achnanthidium maximum* A. Cleve 1895, p. 24; pl. 1, fig. 22, 23 [ref. 000243].
- Achnanthidium maximum* var. *lanceolata* ‘Østrup’ according to Cleve-Euler 1939, p. 12 [ref. 000250]. *Invalid*. Citation error for *Cocconeis maxima* var. *lanceolata* Østrup 1910, p. 245 (ref. 000707). *Invalid* as a new combination because cited pro syn. *Achnanthes maxima* var. *lanceolata* (Ostr.) Cleve-Euler 1939.
- Achnanthidium metaffine* (Lange-Bertalot & Steindorf in Moser, Steindorf & Lange-Bertalot) H. Lange-Bertalot 1999, p. 278 [ref. 012674]. Basionym: *Achnanthes metaffinis* Lange-Bertalot & Steindorf in Moser, Steindorf & Lange-Bertalot 1995.
- Achnanthidium microcephalum* Kützing 1844, p. 75; pl. 3, fig. 13, 19 [ref. 000595].
- Achnanthidium microcephalum* sensu W. Smith 1856, p. 31; pl. 61, fig. 380 (as *Achnanthidium microcephalum*, Kütz.) [ref. 001007]. Cleve 1895, p. 8 (ref. 000949) will include it in *Anomoeoneis exilis* (Kützing) Cleve.
- Achnanthidium microcephalum* sensu Neupauer 1867, p. 192; pl. 2, fig. 34 (as “*Achnanthidium microcephalum* Kützing”) [ref. 000683].
- Achnanthidium microcephalum* Mereschkowsky 1901 1901, p. 16 According to Hollerbakh & Krasavina 1971, p. 16 (ref. 002458). [according to VLC]. Non Kützing 1844.
- Achnanthidium minutissimum* (Kützing) Czarnecki 1994, p. 157 [ref. 008152]. Basionym: *Achnanthes minutissima* Kützing 1833.
- Achnanthidium minutissimum* var. *affinis* (Grunow) Bukhtiyarova 1995, p. 420 [ref. 008000]. Basionym: *Achnanthes affinis* Grunow in Cleve & Grunow 1880. [according to ANSP].
- Achnanthidium minutissimum* var. *gracillima* (Meister) Bukhtiyarova 1995, p. 420 [ref. 008000]. Basionym: *Microneis gracillima* Meister 1912. [according to ANSP].
- Achnanthidium minutissimum* var. *scoticum* (Carter) H. Cremer 2003, p. 108 [ref. 012946]. Basionym: *Achnanthes microcephala* f. *scotica* Carter in Carter & Bailey-Watts 1981. *Invalid*. Basionym is invalid (no type).
- Achnanthidium minutum* Cleve 1891, p. 53; pl. 3, fig. 6, 7 [ref. 000229].
- Achnanthidium modestiforme* (Lange-Bertalot) B. Van de Vijver in Van de Vijver, Frenot & Beyens 2002, p. 17 [ref. 012899]. Basionym: *Achnanthes modestiformis* Lange-Bertalot in Lange-Bertalot & Krammer 1989.
- Achnanthidium naviculoides* Reinsch 1866, p. 15; pl. 1, fig. 7 [ref. 000791].
- Achnanthidium neglectum* Schumann 1867, p. 54; pl. 1, fig. 17 [ref. 001004].
- Achnanthidium neomicrocephalum* H. Lange-Bertalot & F. Staab in K. Krammer & H. Lange-Bertalot 2004, p. 431; pl. 89, fig. 1-3 [ref. 013110].
- Achnanthidium obliquum* Mereschkowsky 1902, p. 54 (4), 83 (33) [ref. 001381].
- Achnanthidium obtusum* Schumann 1867, p. 62; pl. 2, fig. 23 [ref. 000814].
- Achnanthidium otrantinum* Rabenhorst 1853, p. 25; pl. 8, fig. 1 [ref. 000772].
- Achnanthidium peragalloi* Brun & Héribaude in Héribaude 1893, p. 50; pl. 1, fig. 4 (‘*peragalli*’) [ref. 000481].
- Achnanthidium peragalloi* Tempère in Tempère & Peragallo 1914, p. 457; No. 938 [ref. 001070]. *Invalid*. No illustration (fossil). Non Brun & Héribaude 1893.
- Achnanthidium peridotiticum* (Moser, Lange-Bertalot & Metzeltin) H. Lange-Bertalot 1999, p. 279 [ref. 012674]. Basionym: *Achnanthes peridotitica* G. Moser, H. Lange-Bertalot & D. Metzeltin 1998.
- Achnanthidium perpusilla* ‘(Pantocsek) Cleve’ VanLandingham 1979, p. 4247 [ref. 006514]. *Invalid*. Err. cit. pro *Cocconeis perpusilla* Pantocsek. Combination not accepted by VanLandingham (lower case print).

- Achnantheidium pfisteri* H. Lange-Bertalot in Werum & Lange-Bertalot 2004, p. 126; pl. 20, fig. 1-18 [ref. 012889].
- Achnantheidium pirogueanum* (Maillard) H. Lange-Bertalot 1999, p. 279 [ref. 012674]. Basionym: *Achnanthes pirogueana* Maillard 1978.
- Achnantheidium pulchellum* 'Brébisson ?' according to VanLandingham 1979, p. 4247 [ref. 006514]. VanLandingham notes: "[*Achnantheidium*] *pulchellum* Brébisson? ex Wm. Smith collection, Van Heurck herb., p. 271, no. 2, Anwerp, Belgium". VanLandingham, also cites as synonym: "*Nitzschia sigma* Brébisson # 156? ex Wm. Smith collection, Van Heurck herb., Anwerp, Belgium".
- Achnantheidium pusillum* (Grunow in Cleve & Grunow) Czarnecki in Czarnecki & Edlund 1995, p. 208 [ref. 008156]. Basionym: *Achnanthes pusilla* Grunow in Van Heurck 1880.
- Achnantheidium pyrenaicum* (Hustedt) Kobayasi 1997, p. 148-149; fig. 1-18 [ref. 006962]. Basionym: *Achnanthes pyrenaica* Hustedt 1939.
- Achnantheidium reimeri* (Camburn) K.C. Ponader & M. Potapova 2007, p. 235 [ref. 012942]. Basionym: *Achnanthes reimeri* Camburn in Camburn, Lowe & Stoneburner 1978.
- Achnantheidium rivulare* Potapova & Ponader 2004, p. 36; fig. 1-18, 28-43 [ref. 012595].
- Achnantheidium rosenstockii* (Lange-Bertalot) H. Lange-Bertalot in Krammer & Lange-Bertalot 2004, p. 433 [ref. 013110]. Basionym: *Achnanthes rosenstockii* Lange-Bertalot in Lange-Bertalot & Krammer 1989.
- Achnantheidium rosenstockii* var. *inareolatum* Lange-Bertalot in Krammer & Lange-Bertalot 2004, p. 433; pl. 90, fig. 1, 2 [ref. 013110].
- Achnantheidium rostrata* 'Østrup' Mills 1933, p. 76 [ref. 000997]. *Invalid*. Err. cit. pro *Achnanthes rostrata* Østrup 1903 (p. 35, fig. 11, in *Achnantheidium* as subgenus). Combination not accepted by Mills (lower case print).
- Achnantheidium saphophilum* (Kobayasi & Mayama) Round & Bukhtiyarova 1996, p. 349 ('*saprophila*') [ref. 006778]. Basionym: *Achnanthes minutissima* var. *saprophila* H. Kobayasi & S. Mayama 1982.
- Achnantheidium semiapertum* (P. Guermeur) N.A. Andresen, E.F. Stoermer, & R.G. Kreis, Jr. 2000, p. 413 ('*semiaperta*') [ref. 009394]. Basionym: *Achnanthes exigua* Grunow f. *semiaperta* Guermeur 1954. [according to INA].
- Achnantheidium straubianum* (Lange-Bertalot) H. Lange-Bertalot 1999, p. 279 [ref. 012674]. Basionym: *Achnanthes straubiana* Lange-Bertalot in Lange-Bertalot & Metzeltin 1996.
- Achnantheidium strictum* E. Reichardt 2004, p. 426; pl. 3, fig. 1-16 [ref. 012890].
- Achnantheidium subatomoides* (Hustedt) O. Monnier, H. Lange-Bertalot & L. Ector in Monnier et al. 2007, p. 155 [ref. 012949]. Basionym: *Navicula subatomoides* Hustedt in Schmidt et al. 1936. *Invalid*. Basionym is invalid.
- Achnantheidium subatomus* (Hustedt) H. Lange-Bertalot 1999, p. 279 [ref. 012674]. Basionym: *Achnanthes subatomus* Hustedt 1939.
- Achnantheidium subhudsonis* (Hustedt) H. Kobayasi in Kobayasi et al. 2006, p. 13, 129 [ref. 012998]. Basionym: *Achnanthes subhudsonis* Hustedt 1921. [according to L. Ector, pers. com.].
- Achnantheidium subhungaricum* Gutwinski 1890, p. 29; pl.1, fig. 26 [ref. 000451].
- Achnantheidium subsalsum* (J.B. Petersen) M. Aboal in Aboal et al. 2003, p. 147 [ref. 012666]. Basionym: *Achnanthes subsalsa* Petersen 1928. [according to INA].
- Achnantheidium subsessile* (Kützing) Heiberg 1863, p. 119 [ref. 000471]. Basionym: *Achnanthes subsessilis* Kützing 1833.
- Achnantheidium subsessile* var. *tumidulum* 'Grunow' Meister in Huber-Pestalozzi 1929, p. 363 [ref. 000490]. *Invalid*. Err. cit. pro *Achnanthes subsessile* var. *tumidulum* Grunow. Cited pro syn. *Achnantheidium brevipes* var. *tumidulum*.
- Achnantheidium temniskovae* P. Ivanov & L. Ector 2006, p. 148-149; fig. 1-26, 27-43 [ref. 012855].
- Achnantheidium tetrasterias* Krishtofovich 1941 [ref. 002491]. According to Hollerbakh & Krasavina 1971, p. 17 (ref. 002458). [according to VLC].
- Achnantheidium thermale* Rabenhorst 1864, p. 107 [ref. 000775].
- Achnantheidium thienemannii* (Hustedt) H. Lange-Bertalot in Krammer & Lange-Bertalot 2004, p. 431 [ref. 013110]. Basionym: *Achnanthes thienemannii* Hustedt 1942.
- Achnantheidium trinode* Ralfs in Pritchard 1861, p. 872 [ref. 001063]. New name for *Navicula trinodis* W. Smith 1856, non *Navicula trinodis* Ehrenberg 1838.
- Achnantheidium undulatum* Schumann 1867, p. 62; pl. 2, fig. 26 [ref. 000814].
- Achnantheidium woltereckii* (Hustedt) H. Lange-Bertalot 1999, p. 280 [ref. 012674]. Basionym: *Achnanthes woltereckii* Hustedt 1942.
- Achnantheidium zelleri* Kirchner 1888, p. 158 [ref. 000562].
- Achnantheidium zhakovschikovii* M. Potapova 2006, p. 400-401; fig. 1-9, 28-33 [ref. 012951].

***ACHNANTHOSIGMA* L. Reinhard 1882, pg. 298, fig. 1, 2 [ref. 002563]**

T: *Achnanthosigma mereschowskii* L. Reinhardt 1882

- Achnanthosigma mereschowskii* Reinhardt 1882, p. 298; fig. 1, 2 [ref. 002563]. Also in Reinhardt 1883, p. 206; fig. 46-47 (ref. 000789).

**ACIGONIUM S. Komura 1999, p. 70 [ref. 009341]**T: *Acigonium gladarmatum* S. Komura 1999*Acigonium gladarmatum* S. Komura 1999, p. 71, fig. 13, 14, 18, 143-158 [ref. 009341].*Acigonium gladiatorum* (A. Mann) S. Komura 1999, p. 73 [ref. 009341]. Basionym: *Biddulphia gladiatorum* Mann 1907.**ACTINELLA F.W. Lewis 1864, pg. 343 [ref. 000610]**T: *Actinella punctata* F.W. Lewis 1863Name conserved vs. *Actinella* Pers. 1807 (nom. rej.) and *Actinella* Jussieu (nom. rej.).*Tibiella* Bessey 1899, new name for Lewis's genus, became nomenclaturally superfluous in 1956 when *Actinella* Lewis was conserved.*Actinella africana* Woodhead & Tweed 1957, p. 212; fig. 18, 21 [ref. 000922].*Actinella amazoniana* J.P. Kociolek in J.P. Kociolek, D. Lyon & S. Spaulding 2001, p. 156; fig. 31, 32, 94-98 [ref. 009466].*Actinella aotearoia* R.L. Lowe, B.J.F. Biggs & S. Francoeur in Sabbe, Vanhoutte, Lowe, Bergey & Biggs 2001, p. 324; figs. 2-20 [ref. 010514]. [according to INA].*Actinella astriata* D. Metzeltin & H. Lange-Bertalot 2007, p. 25-26; pl. 46, fig. 11-17 [ref. 012938].*Actinella australis* (Manguin in Bourrelly & Manguin) Kociolek, Rhode & Williams 1997, p. 184, 186; fig. 19-22, 27-30 [ref. 006813]. Basionym: *Actinella punctata* var. *australis* Manguin in Bourrelly & Manguin 1949.*Actinella bourrellyi* J.P. Kociolek & K. Rhode 1998, p. 61; fig. 17-20, 27-30 [ref. 008043]. New name for *Asterionella madagascarensis* var. *minor* Manguin 1950.*Actinella brasiliensis* Grunow in Van Heurck 1881, pl. 35, fig. 19 [ref. 001035].*Actinella brasiliensis* var. *cuneata* Moiseeva 1971, p. 54; pl. 6, fig. 7 [ref. 006159].*Actinella brasiliensis* var. *curta* Skvortzow 1929, p. 14, 43; pl. 2, fig. 4, 5 [ref. 000829].*Actinella brasiliensis* var. *sierra-leonensis* Woodhead & Tweed 1957, p. 213; fig. 27 [ref. 000922].*Actinella candelabrum* (Manguin) Kociolek & Rhode 1998, p. 61; fig. 1-14 [ref. 008043]. Basionym: *Asterionella candelabrum* Manguin in Bourrelly & Manguin 1949.*Actinella cholnokii* Woodhead & Tweed 1957, p. 214; fig. 6 [ref. 000922]. New name for *Eunotia actinelloides* Cholnoky 1954.*Actinella comperei* K. Sabbe, K. Vanhoutte & W. Vyverman 2000, p. 238; fig. 1-16 [ref. 011603].*Actinella crawfordii* J.P. Kociolek in J.P. Kociolek, D. Lyon & S. Spaulding 2001, p. 154; fig. 117-120, 125-128 [ref. 009466].*Actinella cuneiformis* (Manguin ex G. Moser, H. Lange-Bertalot & D. Metzeltin) D. Metzeltin & H. Lange-Bertalot 2007, p. 27 [ref. 012938]. Basionym: *Eunotia cuneiformis* Manguin ex G. Moser, H. Lange-Bertalot & D. Metzeltin 1998.*Actinella curvatula* J.P. Kociolek in J.P. Kociolek, D. Lyon & S. Spaulding 2001, p. 151; fig. 78-82, 104-108 [ref. 009466].*Actinella digitus* D. Metzeltin & H. Lange-Bertalot 2007, p. 27-28; pl. 27, fig. 8-11 [ref. 012938].*Actinella disjuncta* D. Metzeltin & H. Lange-Bertalot 2007, p. 28; pl. 41, fig. 1-24, pl. 42, fig. 1-7 [ref. 012938].*Actinella eunotioides* Hustedt 1952, p. 135; pl. 5, fig. 3 [ref. 000523].*Actinella eunotioides* var. *minor* Fusey 1964, p. 25; pl. 2, fig. 24 [ref. 008218]. [according to ANSP].*Actinella falcifera* (Metzeltin & Lange-Bertalot) D. Metzeltin & H. Lange-Bertalot 2007, p. 29 [ref. 012938]. Basionym: *Eunotia falcifera* Metzeltin et Lange-Bertalot 1998.*Actinella fontellii* Woodhead & Tweed 1957, p. 214; fig. 45 [ref. 000922]. New name for *Eunotia veneris* var. *obtusata* f. *asymetrica* Fontell 1917.*Actinella fourtanierae* D. Metzeltin & H. Lange-Bertalot 2007, p. 30; pl. 36, fig. 1-7 [ref. 012938].*Actinella fuseyi* Schoeman in Schoeman & Meaton 1982, p. 4 [ref. 006185]. New name for *Actinella robusta* Fusey 1964, non Hustedt 1952.*Actinella gessneri* Hustedt 1965, p. 392; fig. 1-6 [ref. 004495].*Actinella giluwensis* K. Sabbe & W. Vyverman in Sabbe, Vanhoutte, Lowe, Bergey & Biggs 2001, p. 326; figs. 21-30 [ref. 010514]. [according to INA].*Actinella gracilis* J.P. Kociolek in J.P. Kociolek, D. Lyon & S. Spaulding 2001, p. 152; fig. 113-116 ('*gracile*') [ref. 009466].*Actinella guianensis* Grunow in Van Heurck 1881, pl. 35, fig. 17 [ref. 001035]. Also : *Actinella guianensis* Grun. in Cleve 1881, p. 20, pl. 5, fig. 58 (ref. 000222).*Actinella guianensis* f. *minor* Hustedt 1965, p. 394; fig. 16 [ref. 004495]. *Invalid*. Description without name, p. 394; name in figure legend. *Invalid* (no Latin description). Not validated by Simonsen 1987 (ref. 003164).*Actinella guianenoides* D. Metzeltin & H. Lange-Bertalot 2002, p. 18; fig. 5:8-11 [ref. 011529].*Actinella hustedtii* J.P. Kociolek in J.P. Kociolek, D. Lyon & S. Spaulding 2001, p. 157; fig. 121-124 [ref. 009466].*Actinella indistincta* W. Vyverman & E. A. Bergey in Sabbe, Vanhoutte, Lowe, Bergey & Biggs 2001, p. 328; figs. 31-44 [ref. 010514]. [according to INA].*Actinella karelica* Mölder 1951, p. 25; pl. 1, fig. 20 [ref. 000664].

- Actinella kociolekii* D. Metzeltin & H. Lange-Bertalot 2007, p. 31; pl. 29, fig. 1-6, pl. 30, fig. 1-6 [ref. 012938].
- Actinella lange-bertalotii* J.P. Kociolek in J.P. Kociolek, D. Lyon & S. Spaulding 2001, p. 148; fig. 46-50, 99-103 [ref. 009466].
- Actinella leontopithecus-rosalia* Costa 1995, p. 64; fig. 18 [ref. 006645]. [according to ANSP].
- Actinella lima* J.P. Kociolek in J.P. Kociolek, D. Lyon & S. Spaulding 2001, p. 154; fig. 109-112 [ref. 009466].
- Actinella lyonae* D. Metzeltin & H. Lange-Bertalot 2007, p. 33; pl. 47, fig. 28-32 [ref. 012938].
- Actinella madagascariensis* (Manguin) Kociolek & Rhode 1998, p. 61; fig. 15-16, 21-26 [ref. 008043]. Basionym: *Asterionella madagascariensis* Manguin in Bourrelly & Manguin 1949. [according to ANSP].
- Actinella manguinii* Kociolek, Rhode & Williams 1997, p. 186; fig. 23-26, 31-34 [ref. 006813].
- Actinella medlinae* D. Metzeltin & H. Lange-Bertalot 2007, p. 33-34; pl. 31, fig. 1-6, pl. 32, fig. 1-7 [ref. 012938].
- Actinella miocenica* Li, J.-Y. 1988, p. 129; pl. 1, fig. 1, 2 [ref. 012692]. According to Williams & Reid 2006, p. 89 (ref. 012689).
- Actinella mirabilis* Grunow in Van Heurck 1881, pl. 35, fig. 16 [ref. 001035]. Based on *Desmogonium mirabile* Eulenstein's Type no. 151 (nomen nudum). Grunow notes: non *Amphicampa mirabilis* Ehrenberg.
- Actinella modesta* G. Moser, H. Lange-Bertalot & D. Metzeltin 1998, p. 86; pl. 10, figs. 5-7 [ref. 007020].
- Actinella muylaertii* K. Sabbe & W. Vyverman in Sabbe, Vanhoutte, Lowe, Bergey & Biggs 2001, p. 329; figs. 45-61 [ref. 010514]. [according to INA].
- Actinella pararobusta* Metzeltin & Lange-Bertalot 1998, p. 41; pl. 8, fig. 3-4, pl. 9, fig. 8-10 [ref. 007051].
- Actinella parva* K. Vanhoutte & K. Sabbe in Sabbe, Vanhoutte, Lowe, Bergey & Biggs 2001, p. 331; figs. 62-78 [ref. 010514]. [according to INA].
- Actinella penzhica* Lupikina & Dolmatova 1984, p. 1406-1407; ris 1, fig. 1-4 [ref. 008521]. [according to ANSP].
- Actinella pereunotoides* D. Metzeltin & H. Lange-Bertalot 2007, p. 34-35; pl. 41, fig. 25-26 [ref. 012938].
- Actinella peronioides* Hustedt 1952, p. 134; pl. 5, fig. 4 [ref. 000523].
- Actinella pliocenica* Héribaude & M. Peragallo in Héribaude 1902, p. 15; pl. 8, fig. 7 [ref. 000991].
- Actinella pliocenica* var. *serpentina* Héribaude 1903, p. 46 [ref. 000992]. [according to INA].
- Actinella pliocenica* var. *tenuistriata* Héribaude 1903, p. 44; pl. 12, fig. 15 [ref. 000992].
- Actinella pseudohantzschia* Metzeltin & Lange-Bertalot 1998, p. 42; pl. 57, fig. 7-10 [ref. 007051].
- Actinella pulchella* K. Sabbe & D. Hodgson in Sabbe, Vanhoutte, Lowe, Bergey & Biggs 2001, p. 332; figs. 1, 79-100 [ref. 010514]. [according to INA].
- Actinella punctata* F.W. Lewis 1864, p. 343; fig. 5 [ref. 000610].
- Actinella punctata* f. *abberantes* Manguin in Bourrelly & Manguin 1949, p. 167; pl. 6; fig. 68 (as *Actinella punctata* var. *australis* f. *abberantes*) [ref. 000148].
- Actinella punctata* f. *affinis* Manguin in Bourrelly & Manguin 1949, p. 167; pl. 6, fig. 67 (as *Actinella punctata* var. *australis* f. *affinis*) [ref. 000148].
- Actinella punctata* var. *alakaiensis* S.P. Main 2004, p. 212; fig. 28-53 [ref. 012673].
- Actinella punctata* var. *australis* Manguin in Bourrelly & Manguin 1949, p. 167; pl. 6, fig. 66 [ref. 000148].
- Actinella punctata* var. *curta* Woodhead & Tweed 1957, p. 219; fig. 35-36, 40, 44 [ref. 000922].
- Actinella punctata* var. *curta* Tynni 1994, p. 18; pl. 14, fig. 10 (65) [ref. 008910]. [according to ANSP].
- Actinella raytonensis* (Cholnoky) Woodhead & Tweed 1957, p. 219 [ref. 000922]. Basionym: *Eunotia raytonensis* Cholnoky 1955.
- Actinella reviersii* Kociolek & Rhode 1998, p. 61; fig. 31-41 [ref. 008043]. New name for *Asterionella madagascariensis* var. *tibiaeformis* Manguin 1949.
- Actinella rionegrensis* D. Metzeltin & H. Lange-Bertalot 2007, p. 36; pl. 25, fig. 1-4', pl. 26, fig. 1-4' [ref. 012938].
- Actinella robusta* Hustedt 1952, p. 135; pl. 5, fig. 6 [ref. 000523].
- Actinella robusta* Fusey 1964, p. 26; pl. 2, fig. 28 [ref. 008218]. *Illegitimate*. Non *Actinella robusta* Hustedt 1952. Synonym (substitute name): *Actinella fuseyi* Schoeman in Schoeman & Meaton 1982. [according to ANSP].
- Actinella sabbei* D. Metzeltin & H. Lange-Bertalot 2007, p. 37-38; pl. 47, fig. 14-27 [ref. 012938].
- Actinella scala* Brun 1896, p. 229; pl. 19, fig. 16 [ref. 000183].
- Actinella siolii* Hustedt 1965, p. 392; fig. 7-10 [ref. 004495].
- Actinella spathulifera* Woodhead & Tweed 1957, p. 220; fig. 5, 31-33 [ref. 000922].
- Actinella spauldingae* D. Metzeltin & H. Lange-Bertalot 2007, p. 38; pl. 34, fig. 1-15 [ref. 012938].
- Actinella superperonioides* D. Metzeltin & H. Lange-Bertalot 2007, p. 39; pl. 45, fig. 1-22, pl. 46, fig. 1-10 [ref. 012938].
- Actinella superperonioides* D. Metzeltin & H. Lange-Bertalot 2007, p. 40; pl. 44, fig. 12-19 [ref. 012938].
- Actinella tasmaniensis* Hustedt 1952, p. 136; pl. 5, fig. 5 [ref. 000523].
- Actinella thelma* D. Metzeltin & H. Lange-Bertalot 2007, p. 41; pl. 48, fig. 5-7c [ref. 012938].
- Actinella theronii* (Cholnoky) Woodhead & Tweed 1957, p. 221; fig. 4 [ref. 000922]. Basionym: *Eunotia theronii* Cholnoky 1954.
- Actinella undulata* Fusey 1964, p. 26; pl. 2, fig. 27 [ref. 008218]. [according to ANSP].



**ACTINISCUS C.G. Ehrenberg 1843, p. 103 [ref. 002932]**

A genus of Dinophyceae. A few diatom species were described under this name by early authors.

- Actiniscus biseptenarius* Ehrenberg 1854, p. 237 [ref. 000301].  
*Actiniscus bisoetonarius* Ehrenberg 1854, p. 237 [ref. 000301].  
*Actiniscus curvatus* (Shadbolt) Ehrenberg 1873, p. 213 [ref. 000311]. Basionym: *Bacteriastrium curvatum* Shadbolt 1854.  
*Actiniscus discus* Ehrenberg 1844, p. 75 [ref. 002694].  
*Actiniscus duodenarius* Ehrenberg 1873, p. 213 ('*Actiniscus duodenarius simplex*') [ref. 000311]. *Invalid*. Nomen nudum.  
*Actiniscus lancearius* Ehrenberg 1844, p. 199 [ref. 001184].  
*Actiniscus novemdenarius* Ehrenberg 1873, p. 213 [ref. 000311].  
*Actiniscus pennatus* Grunow in Van Heurck 1883, pl. 82 bis, fig. 11, 12 [ref. 001037].  
*Actiniscus pentasterias* Ehrenberg 1840, p. 69 (149) (as '*Dictyocha (Actiniscus) pentasterias*') [ref. 000290]. *Invalid*. Invalidly published under *Actiniscus*, validly published as *Dictyocha pentasterias*.  
*Actiniscus pentasterias* (Ehrenberg) Ehrenberg 1854, p. 7; pl. XXXV-A:XXIII: fig. 1; pl. XXXVI: fig. 36; PL. XVIII: fig. 61; pl. XIX: fig. 45; pl. XX: I: fig. 48 [ref. 000966]. Basionym: *Dictyocha pentasterias* Ehrenberg 1840.  
*Actiniscus pentasterias* (Ehrenberg) Ehrenberg 1844, p. 68 [ref. 002694]. Basionym: *Dictyocha pentasterias* Ehrenberg 1840. Also in Ehrenberg 1845, p. 82 (ref. 000955).  
*Actiniscus quinarius* Ehrenberg 1844, p. 76 [ref. 002694].  
*Actiniscus rota* Ehrenberg 1844, p. 76 [ref. 002694].  
*Actiniscus septenarius* Ehrenberg 1843, p. 103 [ref. 002932]. *Invalid*. Nomen nudum.  
*Actiniscus sexfurcatus* Ehrenberg 1854, pl. 35B/4, fig. 15 [ref. 000966].  
*Actiniscus sexfurcatus* Ehrenberg 1854, p. 237 [ref. 000301]. Also in Ehrenberg 1854, pl. 35B/4, fig. 15 (ref. 000966). Also in Also in Ber. K. Akad. Wiss. Berlin 1854, p. 70 (ref. 012550). Ehrenberg 1854 (ref. 12550) refers to illustration in "Müller 1841, Abh. Akad. Berl., pl. IV, fig. 5".  
*Actiniscus sirius* Ehrenberg 1840, p. 70 (150) (as '*Dictyocha (Actiniscus) sirius*') [ref. 000290]. *Invalid*. Invalid under *Actiniscus*, name validly published under *Dictyocha*.  
*Actiniscus sirius* (Ehrenberg) Ehrenberg 1844, p. 68 [ref. 002694]. Basionym: *Dictyocha sirius* Ehrenberg 1840. [according to INA].  
*Actiniscus sol* Ehrenberg 1843, p. 103 [ref. 002932]. *Invalid*. Nomen nudum.  
*Actiniscus stella* (Ehrenberg) Ehrenberg 1840, p. 208 (as '*Dictyocha (Actiniscus) stella*') [ref. 000293]. Basionym: *Dictyocha stella* Ehrenberg 1839. *Invalid*. Combination invalid under *Actiniscus*, name validly published under *Dictyocha*.  
*Actiniscus stella* (Ehrenberg) Ehrenberg 1844, p. 62 [ref. 002694]. Basionym: *Dictyocha stella* Ehrenberg 1839.  
*Actiniscus tetrasterias* Ehrenberg 1844, p. 76 [ref. 002694].  
*Actiniscus varians* (Lauder) Grunow in Van Heurck 1883, expl. pl. 82 bis, fig. 10 [ref. 001037]. Basionym: *Bacteriastrium varians* Lauder 1864.  
*Actiniscus vicenarius* Ehrenberg 1873, p. 213; pl. 6/2, fig. 11 [ref. 000311].

**ACTINOCLAVA O. Müller 1912, pg. 661 [ref. 000676]**

T: *Actinoclava frankei* O. Müller 1912

*Actinoclava frankei* Otto Müller 1912, p. 661; pl. 26, fig. 1 [ref. 000676].

**ACTINOCYCLUS C.G. Ehrenberg 1837, pg. 61 [ref. 006909]**

LT: *Actinocyclus octonarius* C.G. Ehrenberg 1837

Type designated by C.S. Boyer 1927 (ref. 000155), p. 80.

- Actinocyclus abundans* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid*. Nom. prov.  
*Actinocyclus acanthus* Bradbury & Krebs 1995, p. 4-5; pl. 1, fig. 1-9 [ref. 003415].  
*Actinocyclus acharnar* Ehrenberg 1840, p. 203 adn. ('*acharnâr*') [ref. 000293]. *Invalid*. Nom. prov.  
*Actinocyclus acharnar* Ehrenberg 1843, p. 165 ('*acharnar*') [ref. 002003].  
*Actinocyclus acharneus* Ralfs in Pritchard 1861, p. 834 [ref. 001063]. *Invalid*. Nomen in syn. *A. ehrenbergii* Ralfs. Err. cit. pro *A. acharnâr* Ehrenberg.  
*Actinocyclus achates* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid*. Nom. prov.  
*Actinocyclus actinochilus* (Ehrenberg) Simonsen 1982, p. 105-106; 9 figs. [ref. 006854]. Basionym: *Coscinodiscus actinochilus* Ehrenberg 1844.  
*Actinocyclus adamas* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid*. Nom. prov.  
*Actinocyclus adeliae* Manguin 1957, p. 116; pl. 2, fig. 13 a-b [ref. 000626]. Also described as new in Manguin 1960, p. 258;

- pl. 3, fig. 45-46, pl. 26, fig. 308-310 (ref. 000627).
- Actinocyclus aeschylus* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid*. Nom. prov.
- Actinocyclus africanus* Leuduger-Fortmorel 1898, p. 23; pl. 4, fig. 11 [ref. 000608].
- Actinocyclus aldebaran* Ehrenberg 1840, p. 203 [ref. 000293]. *Invalid*. Nom. prov. See *Actinocyclus aldebaran* Ehrenberg 1843, p. 165 (ref. 002003).
- Actinocyclus aldebaran* Ehrenberg 1843, p. 165 ('aldebarân') [ref. 002003].
- Actinocyclus alexander* Ehrenberg 1845, p. 358, 360 adn. [ref. 000957].
- Actinocyclus alienus* Grunow in Van Heurck 1883, pl. 125, fig. 10, 12 (as *A. ? alienus* var. *californica* and var. *arctica*, resp.) [ref. 001037]. Fig. 10 is designated as var. *californica*, and fig. 12 as var. *arctica*.
- Actinocyclus alienus* Grunow in Cleve 1883, p. 488 [ref. 000224]. *Invalid*. Nomen nudum. Also nomen nudum in Cleve & Möller 1882 no. 319 (ref. 001979). Name validly published by Van Heurck 1883 (ref. 001037).
- Actinocyclus alienus* var. *arctica* Grunow in Van Heurck 1883, pl. 125, fig. 12 [ref. 001037].
- Actinocyclus alienus* var. *californicus* Grunow in Van Heurck 1883, pl. 125, fig. 10 ('californica') [ref. 001037].
- Actinocyclus alienus* var. *undatus* Cleve 1885, p. 174; pl. 13, fig. 14 (as *A. (alienus, var.? Grun) undulatus* in text, *Actinocyclus (alienus ?) undatus* in plate caption) [ref. 000225]. *Invalid*. Invalid as a trinomial, validly published by Cleve 1885 as *Actinocyclus undatus*. Combination as a trinomial listed but not validated by VanLandingham 1967, p. 79 (ref. 006293).
- Actinocyclus allinearius* Hanna & Grant 1926, p. 117; pl. 11, fig. 1 [ref. 000012].
- Actinocyclus americanus* M. Peragallo in Tempère & Peragallo 1908, p. 65; No. 120 [ref. 001064].
- Actinocyclus amethystus* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid*. Nom. prov.
- Actinocyclus anacreon* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid*. Nom. prov.
- Actinocyclus anceps* Leuduger-Fortmorel 1879, p. 68; pl. 8, fig. 78 (as *Actinoptychus anceps* on plate caption) [ref. 000606].
- Actinocyclus anceps* Castracane 1886, p. 146; pl. 4, fig. 1 [ref. 000193]. *Illegitimate*. Non Leuduger-Fortmorel 1879. Synonym (replacement name): *Actinocyclus oceanicus* Rattray 1890.
- Actinocyclus ancorifer* Schumann 1867, p. 67; pl. 3, fig. 79 [ref. 001004].
- Actinocyclus antarcticus* Castracane 1886, p. 145 [ref. 000193]. *Invalid*. Provisional name. Unpublished manuscript name cited under *Actinocyclus oliveranus* O'Meara. "The name which I have suggested [*A. antarcticus*] can accordingly only be applied in the event of some important distinctions being ultimately determined between the two types referred to [*A. oliveranus* and *A. antarcticus*]"
- Actinocyclus antarcticus* Karsten 1905, p. 91; pl. 9, fig. 2 [ref. 000559].
- Actinocyclus antares* Ehrenberg 1840, p. 204 [ref. 000293].
- Actinocyclus apelles* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid*. Nom. prov.
- Actinocyclus apollo* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid*. Nom. prov.
- Actinocyclus appendiculatus* Rattray 1890, p. 161 [ref. 000784]. *Illegitimate*. Superfluous new name. Allegedly a new combination of *Stictodiscus appendiculatus* Grunow, a manuscript name published as *Actinocyclus stictodiscus* Grunow in Van Heurck 1883.
- Actinocyclus aquila* Ehrenberg 1840, p. 204 [ref. 000293].
- Actinocyclus arcturus* Ehrenberg 1840, p. 203 adn. [ref. 000293]. *Invalid*. Nom. prov. See *Actinocyclus arcturus* Ehrenberg 1843 (ref. 002003).
- Actinocyclus arcturus* Ehrenberg 1843, p. 165 [ref. 002003]. [according to INA].
- Actinocyclus arcuatus* Schumann 1867, p. 67; pl. 3, fig. 83 [ref. 001004].
- Actinocyclus areolatus* (Ehrenberg) Brightwell 1860, p. 93 [ref. 000947]. Basionym: *Omphalopelta areolata* Ehrenberg 1844. [according to INA].
- Actinocyclus armatus* Cleve-Euler 1941, p. 181, 188; pl. (5) 20, fig. 69-70 [ref. 000251].
- Actinocyclus asiaticus* Meister 1932, p. 27; pl. 9, fig. 61 [ref. 000644].
- Actinocyclus astroites* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid*. Nom. prov.
- Actinocyclus astrolites* Ralfs in Pritchard 1861, p. 835 [ref. 001063]. *Invalid*. Nomen in syn. *A. ehrenbergii* Ralfs. Err. cit. pro *A. astroites* Ehrenberg 1845.
- Actinocyclus atlanticus* Müller-Melchers 1959, p. 6; pl. 1, fig. 1 [ref. 005047]. *Invalid*. Type not indicated (several localities cited). No Latin diagnosis.
- Actinocyclus australis* Grunow in Van Heurck 1883, pl. 125, fig. 7, 8 [ref. 001037].
- Actinocyclus barkleyi* Coates 1861, p. 162 [ref. 011544]. [according to ANSP]. See *Coscinodiscus barkleyi* Coates 1861.
- Actinocyclus barkleyi* (Coates) Kitton 1878, p. 32; pl. 29 ('barklyi') [ref. 000571]. Basionym: *Coscinodiscus barkleyi* Coates 1861. Or in Coates 1861, p. 162 (ref. 011544) (fide ANSP)? Since *Coscinodiscus barkleyi* Coates 1861 may be a nomen nudum (fide INA), the taxon may be described (and validly named) by Kitton 1878 (ref. 000571) for the first time. A specimen from the same locality (Yarra-Yarra, Australia) is illustrated as "*A. barkleyi* (Ehr.) Grun. (*Coscinodiscus* Ehr.)" by Grunow in Van Heurck 1883, 124/12 (ref. 001037).
- Actinocyclus barkleyi* var. *aggregata* Rattray 1890, p. 159 ('barklyi') [ref. 000784].

- Actinocyclus barkleyi* f. *minor* Frenguelli 1928, p. 524; pl. 14, fig. 3-5 [ref. 000352].
- Actinocyclus beaufortianus* (Hustedt) Sullivan 1983, p. 283; 9 figs. [ref. 008858]. Basionym: *Cosmiodiscus beaufortianus* Hustedt 1955.
- Actinocyclus beryllus* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid.* Nom. prov.
- Actinocyclus bet-el-gose* Ralfs in Pritchard 1861, p. 834 [ref. 001063]. *Invalid.* Nomen in syn. *A. ehrenbergii* Ralfs. Err. cit. pro *A. betegose* Ehrenberg 1845.
- Actinocyclus betegose* Ehrenberg 1840, p. 204 [ref. 000293].
- Actinocyclus bias* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid.* Nom. prov.
- Actinocyclus bifrons* Karsten 1905, p. 92; pl. 9, fig. 8a-b [ref. 000559].
- Actinocyclus bifrons* (Castracane) Mann 1937, p. 17; pl. 1, fig. 2-4 [ref. 000634]. Basionym: *Coscinodiscus bifrons* Castracane 1886. *Illegitimate.* Non Karsten 1905.
- Actinocyclus binonarius* Ehrenberg 1845, p. 55 [ref. 000955]. *Invalid.* Nomen nudum. Also nomen nudum in Ehrenberg 1845, p. 314 (ref. 010842), and Ehrenberg 1842, p. 265 (ref. 000295). [according to INA].
- Actinocyclus binonarius* Ehrenberg 1854, pl. XX/I, fig. 39; pl. XIX, fig. 10 [ref. 000966].
- Actinocyclus bioctonarius* Ehrenberg 1840, p. 203 [ref. 000293].
- Actinocyclus bipartitus* Mann 1925, p. 12; pl. 1, fig. 7 [ref. 000632].
- Actinocyclus bisenarius* Ehrenberg 1840, p. 59 (139) [ref. 000290]. Also in Ehrenberg 1841, p. 139 (ref. 000953).
- Actinocyclus biseptenarius* Ehrenberg 1840, p. 203 [ref. 000293].
- Actinocyclus biternarius* Ehrenberg 1840, p. 57 (137) [ref. 000290]. Also in Ehrenberg 1841, p. 137 (ref. 000953).
- Actinocyclus boryanus* Pantocsek 1889, p. 113 [ref. 001033]. Illustrated in Pantocsek 1892 (ref. 001034), pl. 30, fig. 441.
- Actinocyclus brasiliensis* Müller-Melchers 1957, p. 113; pl. 1, fig. 1a-b [ref. 000682].
- Actinocyclus bremanus* Pantocsek 1889, p. 113; pl. 3, fig. 39 [ref. 001033].
- Actinocyclus calix* Tempère & Brun in Brun & Tempère 1889, p. 10; pl. 9, fig. 3 [ref. 000185].
- Actinocyclus callimachus* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid.* Nom. prov.
- Actinocyclus canestrus* Hanna & Grant 1926, p. 117; pl. 11, fig. 2 [ref. 000012].
- Actinocyclus canopus* Ehrenberg 1840, p. 203 adn. [ref. 000293]. *Invalid.* Nom. prov.
- Actinocyclus canopus* Ehrenberg 1844, p. 265 [ref. 001185].
- Actinocyclus capella* Ehrenberg 1840, p. 204 [ref. 000293].
- Actinocyclus carbunculus* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid.* Nom. prov.
- Actinocyclus caspicus* (Makarova) Makarova 1985, p. 97; pl. 1, fig. 1-8 [ref. 008547]. Basionym: *Thalassiosira caspica* Makarova 1959.
- Actinocyclus cedrus* Bradbury & Krebs 1995, p. 5; pl. 2, fig. 1-7, pl. 3, fig. 1-8, pl. 4, fig. 1-6 [ref. 003415].
- Actinocyclus ceres* Ehrenberg 1840, p. 203 [ref. 000293].
- Actinocyclus challengerii* O'Meara 1876, p. 58; pl. 1, fig. 8 [ref. 000695].
- Actinocyclus chilo* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid.* Nom. prov.
- Actinocyclus cholnokyi* VanLandingham 1967, p. 83, 86 [ref. 006293]. New name for *Actinocyclus divisus* (Grunow) Hustedt 1958 non Kisselev 1931. Oldest nomenclatural synonym: *Coscinodiscus divisus* Grunow 1884.
- Actinocyclus chrysolithus* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid.* Nom. prov.
- Actinocyclus circellus* Watkins in Watkins & Fryxell 1986, p. 294, 308; fig. 1-8 [ref. 005735].
- Actinocyclus circumdatus* Pantocsek 1886, p. 66; pl. 3, fig. 28 [ref. 000714].
- Actinocyclus clavifer* Schumann 1867, p. 66; pl. 3, fig. 85 [ref. 001004].
- Actinocyclus claviolus* Bradbury & Krebs 1995, p. 5-6; pl. 4, fig. 7, pl. 5, fig. 1-5 [ref. 003415].
- Actinocyclus cleobulus* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid.* Nom. prov.
- Actinocyclus clevei* Castracane 1886, p. 143; pl. 4, fig. 6 [ref. 000193].
- Actinocyclus complanatus* Castracane 1886, p. 145; pl. 4, fig. 9 [ref. 000193].
- Actinocyclus complanatus* var. *anguste-fasciata* Rattray 1890, p. 166 [ref. 000784].
- Actinocyclus complanatus* var. *late-fasciata* Rattray 1890, p. 166 [ref. 000784].
- Actinocyclus concentricus* Rattray 1890, p. 185 [ref. 000784].
- Actinocyclus confluens* Grunow in Rattray 1890, p. 163; pl. 11, fig. 13 [ref. 000784].
- Actinocyclus confluens* var. *appiculata* Rattray 1890, p. 164 [ref. 000784].
- Actinocyclus corona* Karsten 1905, p. 92; pl. 9, fig. 6 [ref. 000559].
- Actinocyclus coscinodiscoides* Mann 1937, p. 19; pl. 1, fig. 5 [ref. 000634].
- Actinocyclus crassus* (W. Smith) Ralfs in Pritchard 1861, p. 835 [ref. 001063]. Basionym: *Eupodiscus crassus* W. Smith 1853.
- Actinocyclus crassus* (W. Smith) Van Heurck 1883, pl. 124, fig. 6, 8 [ref. 001037]. Basionym: *Eupodiscus crassus* W. Smith 1853. Isonym. Combination previously published (Ralfs in Pritchard 1861).
- Actinocyclus crassus* f. *dissoluta* A. Berg 1952, p. 20, 35; pl. I, fig. 2a-b [ref. 000136].
- Actinocyclus croesus* Ehrenberg 1843, p. 165 [ref. 002003].

- Actinocyclus cruciatus* Schumann 1867, p. 67; pl. 3, fig. 84 [ref. 001004].
- Actinocyclus cubitus* Hanna & Grant 1926, p. 118; pl. 11, fig. 3 [ref. 000012].
- Actinocyclus cupreus* Bradbury & Krebs 1995, p. 6-7; pl. 5, fig. 6-9 [ref. 003415].
- Actinocyclus curvatulus* Janisch in Schmidt et al. 1878, pl. 57, fig. 31 [ref. 012453].
- Actinocyclus curvatulus* (Grunow in A. Schmidt) Cleve 1901, p. 32 [ref. 001146]. Basionym: *Coscinodiscus curvatulus* Grunow in Schmidt et al. 1878. *Illegitimate*. Non Janisch 1878. [according to INA].
- Actinocyclus cyclotellodies* Jousé 1968, p. 25 [ref. 013117] [according to ANSP].
- Actinocyclus daedalus* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid*. Nom. prov.
- Actinocyclus davides* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid*. Nom. prov.
- Actinocyclus decipiens* ‘Castracane’ Rattray 1890, p. 146 [ref. 000784]. *Invalid*. In syn. *Actinocyclus subocellatus* (Grun.) Rattray (“A type specimen of *Actinocyclus decipiens* Cstr... is identical with types of *A. subocellatus*”).
- Actinocyclus decussatus* ‘Grove ms.’ Rattray 1890, p. 164 [ref. 000784]. *Invalid*. Manuscript name, published as *Actinocyclus confluens* Grunow in Rattray 1890, p. 163.
- Actinocyclus decussatus* Mann 1925, p. 12; pl. 2, fig. 1, 2 [ref. 000632].
- Actinocyclus delicatus* E.G. Lupikina & G.K. Khursevich [Chursevich] in G.K. Khursevich & E.G. Lupikina 1992, p. 72; pl. 2, fig. 4-6 [ref. 009573]. [according to INA].
- Actinocyclus denarius* Ehrenberg 1839, p. 129 [ref. 000289]. More detailed description in Ehrenberg 1840, p. 59 (ref. 000290), and Ehrenberg 1841, p. 139 (ref. 000953).
- Actinocyclus denticulatus* Castracane 1886, p. 146; pl. 4, fig. 5 [ref. 000193].
- Actinocyclus dimorphus* (Castracane) Harwood & Maruyama 1992, p. 700; pl. 12, fig. 16?, pl. 13, fig. 3-5, pl. 17, fig. 19-20 [ref. 008316]. Basionym: *Coscinodiscus dimorphus* Castracane 1886.
- Actinocyclus disseminatus* Pantocsek 1889, p. 113; pl. 3, fig. 35 [ref. 001033].
- Actinocyclus distinguendus* Hustedt 1956, p. 103; pl. 2, fig. 3-8 [ref. 000531].
- Actinocyclus dives* Ehrenberg 1840, p. 204 [ref. 000293].
- Actinocyclus divisus* Kisselev 1931, p. 95, 113; pl. 1, fig. 1 [ref. 000563].
- Actinocyclus divisus* (Grunow) Hustedt 1958, p. 129; fig. 81 [ref. 000533]. Basionym: *Coscinodiscus divisus* Grunow 1878. *Illegitimate*. Non Kisselev 1931. Synonym (replacement name): *A. cholnokyi* VanLandingham 1967.
- Actinocyclus dubiosus* Karsten 1906, p. 157; pl. 27, fig. 1, 2 [ref. 001023].
- Actinocyclus dubius* Grunow according to H.L. Smith 1877, p. 100 [ref. 000859]. VanLandingham’s entry reads: “[*Actinocyclus*] *dubius* Grunow fide Möller, vide H.L. Smith 1877, p. 100- Möller Type Plate Nr. 4-3-5” [according to VLC].
- Actinocyclus duodenarius* Ehrenberg 1840, p. 60 (140) (as *Actinocyclus* (*Actinoptychus*) *duodenarius*) [ref. 000290]. Also in Ehrenberg 1841, p. 140 (ref. 000953). Validly published in Ehrenberg 1840 (ref. 000290) as *Actinocyclus duodenarius* Ehr.
- Actinocyclus duodenarius* (Ehrenberg) W. Smith 1856, p. 86 (as *Actinocyclus duodenarius*, W. Sm.) [ref. 001007]. Basionym cited as: “*Actinoptychus duodenarius* Ehrenberg in Kützing 1849, Sp. Alg. p. 131; Microg. xviii, 24”.
- Actinocyclus dux* Ehrenberg 1845, p. 358, 360 adn. [ref. 000957].
- Actinocyclus ehrenbergii* Ralfs in Pritchard 1861, p. 834 [ref. 001063]. *Illegitimate*. Ralfs states: “Under this name we include all Ehrenberg’s species with rays composed of double lines.” *Actinocyclus octonarius* Ehr. 1837 should have been retained by Ralfs.
- Actinocyclus ehrenbergii* var. *asteriscus* Barron 1975, p. 117-118; pl. 1, fig. 9 [ref. 005996]. [according to ANSP].
- Actinocyclus ehrenbergii* f. *bisenarius* Tempère & Peragallo 1908, p. 81; No. 151 [ref. 001064]. *Invalid*. Nomen nudum.
- Actinocyclus ehrenbergii* var. *crassa* (W. Smith) Hustedt 1929, p. 529; fig. 301 [ref. 000501]. Basionym: *Eupodiscus crassus* W. Smith 1853.
- Actinocyclus ehrenbergii* var. *depressa* Jurilj 1957, p. 36; pl. 7, fig. 2 [ref. 000553].
- Actinocyclus ehrenbergii* var. *genuinus* Cleve-Euler 1951, p. 81; fig. 144a (as *Actinocyclus ehrenbergii*  $\alpha$  *genuinus*) [ref. 000255]. Cleve-Euler may not have included the type of *A. ehrenbergii* Ralfs. She cites: “*A. ehrenbergii* Ralfs V.H. Syn. 123, 7. Hust. Kies. I Fig. 298”.
- Actinocyclus ehrenbergii* var. *intermedia* Grunow in Van Heurck 1883, pl. 124, fig. 5 [ref. 001037].
- Actinocyclus ehrenbergii* var. *minutulus* Veselkova 1935 [ref. 003113]. According to Hollerbakh & Krasavina 1971, p. 18 (ref. 002458). [according to VLC].
- Actinocyclus ehrenbergii* f. *minutus* Pantocsek 1886, p. 66; pl. 30, fig. 310 (‘*minuta*’) [ref. 000714].
- Actinocyclus ehrenbergii* var. *minutus* Gaponov 1915 [ref. 001219]. *Illegitimate*. According to Hollerbakh & Krasavina 1971, p. 18 (ref. 002458). [according to VLC]. Non Pantocsek 1886.
- Actinocyclus ehrenbergii* var. *partita* Tempère & Peragallo 1910, p. 225; No. 426-428 [ref. 001066]. *Invalid*. Nomen nudum.
- Actinocyclus ehrenbergii* var. *parva* Hajós & Palfalvy 1963, p. 96; pl. 1, fig. 14, pl. 2, fig. 27 [ref. 008292]. [according to ANSP].
- Actinocyclus ehrenbergii* var. *quinarius* ‘Ehrenberg’ Mills 1933, p. 85 [ref. 000997]. Basionym: *Actinocyclus quinarius* Ehrenberg 1839. *Invalid*. Combination first introduced by Azpeitia y Moros 1911, p. 165 (ref. 000114) as “*A. ehren-*

- bergii* Ralfs., var de 5 radios. (*A. quinarius* Ehr.)”, but invalid in Azpeitia for its improper epithet form. Combination listed in Mills 1933 as *Actinocyclus ehrenbergii* var. *quinarius* with reference to Azpeitia 1911, but invalid because not accepted by Mills (lower case print).
- Actinocyclus ehrenbergii* f. *quindenarius* Tempère & Peragallo 1908, p. 81; No. 151 [ref. 001064]. *Invalid*. Nomen nudum.
- Actinocyclus ehrenbergii* var. *ralfsii* (W. Smith) Hustedt 1929, p. 528; fig. 299 [ref. 000501]. Basionym: *Eupodiscus ralfsii* W. Smith 1856.
- Actinocyclus ehrenbergii* var. *sparsa* (Gregory) Hustedt 1929, p. 528; fig. 300 [ref. 000501]. Basionym: *Eupodiscus sparsus* Gregory 1857.
- Actinocyclus ehrenbergii* var. *spinosa* Jurilj 1957, p. 36; pl. 6, fig. 6 [ref. 000553].
- Actinocyclus ehrenbergii* var. *tamanicus* Jousé in Proschkina-Lavrenko 1949, p. 118; pl. 39, fig. 4 (*‘tamanica’*) [ref. 002554].
- Actinocyclus ehrenbergii* var. *tenella* (Brébisson) Hustedt 1929, p. 530; fig. 302 [ref. 000501]. Basionym: *Eupodiscus tenellus* Brébisson 1854.
- Actinocyclus ehrenbergii* f. *tenellus* Baranov 1942 [ref. 002645]. *Illegitimate*. According to Hollerbakh & Krasavina 1971, p. 18 (ref. 002458). [according to VLC]. Non Brébisson (Hustedt) 1929.
- Actinocyclus ehrenbergii* Schumann 1867, p. 66; pl. 3, fig. 82 [ref. 001004]. *Illegitimate*. Non Ralfs in Pritchard 1861.
- Actinocyclus elegans* Leuduger-Fortmorel 1879, p. 68; pl. 8, fig. 77 [ref. 000606]. Illustrated as “*Actinoptychus elegans*”. It is an *Actinocyclus* taxonomically.
- Actinocyclus elegans* Karsten 1905, p. 93; pl. 9, fig. 9 [ref. 000559]. *Illegitimate*. Non Leuduger-Fortmorel 1879.
- Actinocyclus ellipticus* Grunow in Van Heurck 1883, pl. 124, fig. 10 [ref. 001037].
- Actinocyclus ellipticus* var. *delawarensis* Boyer 1916, p. 27; pl. 3, fig. 6 [ref. 000152].
- Actinocyclus ellipticus* f. *elongatus* (Grunow) Kolbe 1954, p. 20; pl. 3, fig. 28, 31 [ref. 000575]. Basionym: *Actinocyclus elongatus* Grunow in Van Heurck 1883.
- Actinocyclus ellipticus* f. *fossilis* Jurilj 1957, p. 37 [ref. 000553]. *Invalid*. No illustration.
- Actinocyclus ellipticus* var. *javanica* Reinhold 1937, p. 75; pl. 1, fig. 7, 8 [ref. 000039].
- Actinocyclus ellipticus* f. *lanceolata* Kolbe 1954, p. 20; pl. 3, fig. 27 [ref. 000575]. *Invalid*. No description.
- Actinocyclus ellipticus* var. *moronensis* (Deby ex Rattray) Kolbe 1954, p. 21; pl. 3, fig. 29, 30 [ref. 000575]. Basionym: *Actinocyclus moronensis* Deby in litt., Rattray 1890.
- Actinocyclus ellipticus* var. *sendaiana* Brun 1891, p. 5; pl. 14, fig. 3 (*‘sendaiana’*) [ref. 000176].
- Actinocyclus ellipticus* var. *spiralis* Barron 1985, p. 442-443; pl. 7, fig. 9-10, pl. 9, fig. 5 [ref. 003455].
- Actinocyclus ellipticus* f. *typica* Kolbe 1954, p. 21; pl. 3, fig. 26 [ref. 000575].
- Actinocyclus elongatus* Grunow in Van Heurck 1883, pl. 125, fig. 15 [ref. 001037].
- Actinocyclus elongatus* var. *dubia* Grunow in Van Heurck 1883, pl. 125, fig. 16, 17 [ref. 001037].
- Actinocyclus eos* Kitton 1880, p. 91 (*‘Eös’*) [ref. 000572]. *Invalid?* See Rattray 1890, p. 204 (ref. 000784) for history of this anonymous note in Science Gossip, with reply from Kitton that he “certainly is not responsible for the sp. n.”. Rattray 1890 considered this species a “nomen nudum” and did not provide a description. [Kitton 1880 not seen by us].
- Actinocyclus euripides* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid*. Nom. prov.
- Actinocyclus excentricus* M. Peragallo 1921, p. 75; pl. 6, fig. 6 [ref. 000737].
- Actinocyclus exiguus* Fryxell & Semina 1981, p. 442, 444; fig. 1-10 [ref. 004166].
- Actinocyclus falsus* ‘W. Smith’ according to Grunow 1867, p. 31 (as *A. subtilis* Ralfs (= *A. falsus* W. Sm.?) [ref. 000431]. *Invalid*. Cited pro syn. *Actinocyclus subtilis* (Greg.) Ralfs in Pritchard 1861.
- Actinocyclus fasciculatus* Castracane 1886, p. 144; pl. 4, fig. 8 [ref. 000193].
- Actinocyclus fasciculatus* Harwood & Maruyama 1992, p. 700; pl. 13, fig. 14-15 [ref. 008316]. *Illegitimate*. Non Castracane 1886.
- Actinocyclus fistulis* Olshtynskaja 1993, p. 58; fig. 1-5 [ref. 008650].
- Actinocyclus flos* Brun in Brun & Tempère 1889, p. 10; pl. 9, fig. 2 [ref. 000185].
- Actinocyclus fomahot* Ehrenberg 1840, p. 203 adn. [ref. 000293]. *Invalid*. Nom. prov.
- Actinocyclus fomelhot* Ehrenberg 1843, p. 165 (*‘fom-el-hot’*) [ref. 002003].
- Actinocyclus fortunatus* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid*. Nom. prov.
- Actinocyclus fryxelliae* Barron in Baldauf & Barron 1991, p. 585; pl. 1, fig. 1, 2, 4 (*‘fryxellae’*) [ref. 003867].
- Actinocyclus fulvus* (W. Smith) Ralfs in Pritchard 1861, p. 835 [ref. 001063]. Basionym: *Eupodiscus fulvus* W. Smith 1853.
- Actinocyclus fungiformis* Temniskova-Topalova, Khursevich & Valeva 1993, p. 138; pl. 1, fig. 1-8, pl. 2, fig. 1-6 [ref. 008886]. [according to ANSP].
- Actinocyclus fuscus* (Norman) H.L. Smith 1876-1888, no. 11 (1876) [ref. 000858]. Basionym: *Coscinodiscus fuscus* Norman 1861. Also in H.L. Smith 1877, p. 100 (ref. 000859).
- Actinocyclus gallicus* Meister 1937, p. 262; pl. 6, fig. 3, 4 [ref. 000646].
- Actinocyclus giennensis* Azpeitia y Moros 1911, p. 182; pl. 7, fig. 1, 2 [ref. 000114].
- Actinocyclus gorbunovii* (Sheshukova) Moiseeva & Sheshukova in Khursevich, Moiseeva, Kozyrenko & Rubina 1990, p.

- 1439; pl. 1, fig. 1-5 [ref. 008410]. Basionym: *Coscinodiscus gorbunovii* Scheschukova-Poretzkaya in Scheschukova-Poretzkaya & Mossejeva 1964. [according to ANSP].
- Actinocyclus gorbunovii* var. *fossa* Bradbury & Krebs 1995, p. 7-8; pl. 7, fig. 3-8 [ref. 003415].
- Actinocyclus graecorum* Ehrenberg 1854, p. 7; pl. 20/1, fig. 40 [ref. 000966].
- Actinocyclus guinensis* Grove in Rattray 1890, p. 186; pl. 11, fig. 3 (as *Actinocyclus guinensis* Grove in litt.) [ref. 000784].
- Actinocyclus hajosiae* Barron 1983, p. 504; pl. 1, fig. 3, 4, pl. 5, fig. 13, pl. 6, fig. 3 [ref. 003850].
- Actinocyclus helveticus* “Grunow” Rattray 1890, p. 204 [ref. 000784]. *Invalid*. Rattray does not provide a description for this taxon. He comments on an original preparation of *A. ellipticus* that was distributed by Brun and express his opinion that it is “more Cyclotelloid than Actinocycloid”.
- Actinocyclus helveticus* Brun 1895, pl. 14, fig. 13-15 [ref. 000181].
- Actinocyclus hesiodus* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid*. Nom. prov.
- Actinocyclus heteractis* Ehrenberg 1873, pl. XII:I, fig. 12-13 [ref. 000311].
- Actinocyclus hexapterus* Ehrenberg 1841, p. 144 [ref. 001180]. *Invalid*. Nomen nudum.
- Actinocyclus hispanicus* Azpeitia y Moros 1911, p. 182; pl. 2, fig. 2 [ref. 000114].
- Actinocyclus homerus* Ehrenberg 1845, p. 359 [ref. 000957].
- Actinocyclus horatius* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid*. Nom. prov.
- Actinocyclus hustedtii* Meister 1932, p. 18; pl. 3, fig. 28, 29 [ref. 000644].
- Actinocyclus hyacinthus* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid*. Nom. prov.
- Actinocyclus imperator* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid*. Nom. prov.
- Actinocyclus incertus* Grunow in Van Heurck 1883, pl. 125, fig. 4 [ref. 001037].
- Actinocyclus ingens* Rattray 1890, p. 149; pl. 11, fig. 7 [ref. 000784].
- Actinocyclus ingens* Rattray emend. M.C. Whiting & H.J. Schrader 1985, p. 74; pl. 1, fig. 1-2, pl. 2, fig. 4-10, pl. 3, fig. 13 [ref. 008939]. Whiting & Schrader’s concept includes the original concept of *A. ingens* Rattray, they, however, designated a new “holotype” (ANSP no. 63425).
- Actinocyclus ingens* var. *indica* Desikachary & Prema 1987, p. 5; pl. 269, fig. 3 [ref. 006019].
- Actinocyclus ingens* var. *irregularis* (Van Heurck) Harwood & Maruyama 1992, p. 700 [ref. 008316]. Basionym: *Actinocyclus irregularis* Van Heurck 1909.
- Actinocyclus ingens* var. *nodus* Baldauf in Baldauf & Barron 1980, p. 104-105; pl. 1, fig. 5-9 [ref. 003428].
- Actinocyclus ingens* f. *nodus* (Baldauf) Whiting & Schrader 1985, p. 74; pl. 1, fig. 3, pl. 2, fig. 11, pl. 3, fig. 14 [ref. 008939]. Basionym: *Actinocyclus ingens* var. *nodus* Baldauf in Baldauf & Barron 1980.
- Actinocyclus ingens* var. *ovalis* Gersonde 1990, p. 792; pl. 1, fig. 7, pl. 3, fig. 1-3, pl. 5, fig. 4, 7, pl. 6, fig. 1, 4, 5 [ref. 008259]. Also pl. 5: fig. 4 on p. 789 of preceding article (fide INA).
- Actinocyclus ingens* f. *planus* Whiting & Schrader 1985, p. 74; pl. 3, fig. 12 [ref. 008939].
- Actinocyclus intermedius* ‘Grunow’ Rattray 1890, p. 205 [ref. 000784]. *Invalid*. Rattray lists this name as a nomen nudum and notes: “a name quoted with a query by Habirshaw Catal. Diat., ed. IV 1888”.
- Actinocyclus intermittens* Karsten 1905, p. 92; pl. 9, fig. 5 [ref. 000559].
- Actinocyclus interpunctatus* (Brightwell) Ralfs in Pritchard 1861, p. 835 [ref. 001063]. Basionym: *Actinoptychus interpunctatus* Brightwell 1860.
- Actinocyclus interpunctatus* sensu H.L. Smith 1876-1888, no. 12 (1876) [ref. 000858]. *Invalid*. Clearly not intended by H.L. Smith as the name of a new taxon. In H.L. Smith as “*Actinocyclus interpunctatus* Bri[ghtwell]”. H.L. Smith also cites in the printed schedule of notes “M.T. viii, vi, 17” referring to the original illustration of *Actinoptychus interpunctatus* Brightwell. Non (Brightwell) Ralfs in Pritchard 1861 according to Mann 1907, p. 262 (ref. 000631): “...better considered a variety of *A. ralfsii*..” The fact that Mann disagreed with the specimens on “Diat. Species Typicae” no. 12 being determined as *Actinocyclus interpunctatus* (Brightwell) Ralfs has no bearing on whether H.L. Smith was proposing a new name.
- Actinocyclus irregularis* Van Heurck 1909, p. 44; pl. 12, fig. 159 [ref. 000898].
- Actinocyclus janischii* Schumann 1867, p. 66; pl. 3, fig. 80 [ref. 001004].
- Actinocyclus janus* (Castracane) M. Peragallo 1897, p. 22 [ref. 012539]. Basionym: *Coscinodiscus janus* Castracane 1886. Rattray 1890, p. 152 (600) (ref. 001485) listed this taxon as “*C. ? janus* Cstr.” with the mention that it probably belongs to *Actinocyclus*. Rattray’s comments did not constitute valid publication of a new combination under *Actinocyclus*. The new combination *Actinocyclus janus* is validly published by Peragallo 1897.
- Actinocyclus janus* Karsten 1905, p. 92; pl. 9, fig. 7a-b [ref. 000559]. *Illegitimate*. Non (Castracane) Peragallo 1897.
- Actinocyclus japonicus* Castracane 1886, p. 143; pl. 4, fig. 3 [ref. 000193].
- Actinocyclus jaspis* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid*. Nom. prov.
- Actinocyclus jasponyx* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid*. Nom. prov.
- Actinocyclus jouseae* J.A. Barron 2005, p. 640; pl. 1, fig. 1, 4, 5, pl. 2, fig. 1, 2 [ref. 012686].
- Actinocyclus junio* Ehrenberg 1840, p. 203 adn. [ref. 000293]. *Invalid*. Nom. prov.
- Actinocyclus junio* Ehrenberg 1844, p. 271 [ref. 001182].

- Actinocyclus jupiter* Ehrenberg 1840, p. 203 [ref. 000293].
- Actinocyclus kanitzii* (Pantocsek & Grunow) Schauderna 1983, p. 99; pl. 2, fig. 18-19, pl. 17, fig. 5-8 [ref. 010159]. Basionym: *Stephanodiscus kanitzii* Pantocsek & Grunow in Pantocsek 1886. [according to ANSP].
- Actinocyclus karstenii* Van Heurck 1909, p. 44; pl. 12, fig. 158 [ref. 000898].
- Actinocyclus kisselevii* Makarova 1961, p. 53-54; pl. 2, fig. 1-7 [ref. 001355].
- Actinocyclus knemeides* Pantocsek 1886, p. 66; pl. 11, fig. 98 (as *Actinocyclus (moniliformis var.?) knemeides*) [ref. 000714].
- Actinocyclus kozyrenkoae* Olshtynskaja 1993, p. 58-59; fig. 6-8 [ref. 008650].
- Actinocyclus krasskei* Bradbury & Krebs 1995, p. 9-10; pl. 8, fig. 2-6, 8-11, pl. 9, fig. 1-3 [ref. 003415]. New name for *Coscinodiscus miocaenicus* Krasske 1934; priority for *Actinocyclus miocenicus* Jousé 1973.
- Actinocyclus kuetzingii* (A. Schmidt) Simonsen 1975, p. 92 ('*kützingii*') [ref. 006915]. Basionym: *Coscinodiscus kuetzingii* Schmidt in Schmidt et al. 1878.
- Actinocyclus labyrinthicus* Pantocsek 1886, p. 66; pl. 3, fig. 27 [ref. 000714].
- Actinocyclus leucochrysus* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid*. Nom. prov.
- Actinocyclus levis* Jousé 1974, p. 353; pl. 5, fig. 2 [ref. 003194].
- Actinocyclus ligularis* G.K. Khursevich & E.G. Lupikina 1992, p. 71; pl. 1; pl. 2, fig. 1-3 [ref. 009573]. [according to INA].
- Actinocyclus limbatus* Meister 1937, p. 264; pl. 6, fig. 5, 6 [ref. 000646].
- Actinocyclus lobatus* (Rubina) Rubina & Khursevich in Khursevich & Rubina 1991, p. 1151; fig. 1-8 [ref. 008415]. Basionym: *Coscinodiscus lobatus* Rubina 1967. [according to ANSP]. Basionym is illegitimate.
- Actinocyclus locuples* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid*. Nom. prov.
- Actinocyclus lóczyi* Pantocsek 1892, pl. 30, fig. 442 [ref. 001034]. Description in Pantocsek 1905, p. 4 (ref. 001445).
- Actinocyclus luna* Ehrenberg 1840, p. 203 [ref. 000293].
- Actinocyclus luxuriosus* Ehrenberg 1845, p. 359 [ref. 000957].
- Actinocyclus lyra* Ehrenberg 1840, p. 203 adn. [ref. 000293]. *Invalid*. Nom. prov.
- Actinocyclus lyra* Ehrenberg 1843, p. 165 [ref. 002003].
- Actinocyclus maccollumii* Harwood & Maruyama 1992, p. 700; pl. 17, fig. 29 [ref. 008316].
- Actinocyclus magnificus* Ehrenberg 1845, p. 360 [ref. 000957]. *Invalid*. Nom. prov.
- Actinocyclus magnificus* Cleve-Euler 1941, p. 181, 188; pl. (5) 20, fig. 65-68 [ref. 000251].
- Actinocyclus magnificus* var. *armatus* (Cleve-Euler) Cleve-Euler 1951, p. 83; fig. 147d, e (as *Actinocyclus magnificus*  $\beta$  *armatus*) [ref. 000255]. Basionym: *Actinocyclus armatus* Cleve-Euler 1941. Rank implied, not clearly indicated.
- Actinocyclus magnificus* var. *genuinus* Cleve-Euler 1951, p. 83; fig. 147a-b (as *Actinocyclus magnificus*  $\alpha$  *genuinus*) [ref. 000255]. Cleve-Euler cites *A. magnificus* Cl. 1941. Rank implied, not clearly indicated.
- Actinocyclus makarovae* (Temniskova & Ognyanova-Rumenova) Temniskova-Topalova & Ognyanova-Rumenova 1992, p. 136 [ref. 008888]. Basionym: *Pontodiscus makarovae* Temniskova-Topalova & Ognyanova-Rumenova 1990.
- Actinocyclus mangishlakensis* Jousé 1978, p. 52; pl. 11, fig. 12-19 [ref. 006708]. [according to ANSP].
- Actinocyclus mannii* Pantocsek 1909, p. 19; pl. 2, fig. 20 [ref. 001447].
- Actinocyclus mars* Ehrenberg 1840, p. 203 adn. [ref. 000293]. *Invalid*. Nom. prov.
- Actinocyclus marylandicus* Rattray 1890, p. 150; pl. 11, fig. 12 [ref. 000784].
- Actinocyclus mejillonis* Rattray 1890, p. 184 [ref. 000784]. *Invalid*. Manuscript name used and later discontinued by Rattray for some specimens of *A. moniliformis* Ralfs.
- Actinocyclus mercurius* Ehrenberg 1840, p. 204 [ref. 000293].
- Actinocyclus minutus* Greville in litt., Rattray 1890, p. 170; pl. 11, fig. 4 [ref. 000784].
- Actinocyclus miocenicus* Jousé 1974, p. 353; pl. 4, fig. 25, 26 [ref. 003194].
- Actinocyclus mirabilis* Rattray 1890, p. 159; pl. 11, fig. 16 [ref. 000784].
- Actinocyclus moniliformis* Ralfs in Pritchard 1861, p. 834 [ref. 001063]. Cited synonym: *A. ternarius* Ehr. 1854, pl. 22, fig. 9 (ref. 000966).
- Actinocyclus moniliformis* var. *baltica* Rattray 1890, p. 185 [ref. 000784].
- Actinocyclus moniliformis* var. *knemeides* Pantocsek 1886, p. 66; pl. 11, fig. 98 (as *Actinocyclus (moniliformis var.?) knemeides* nov. spec.) [ref. 000714]. *Invalid*. Validly published by Pantocsek 1886 as *A. knemeides*.
- Actinocyclus moronensis* Deby in litt., Rattray 1890, p. 195 [ref. 000784].
- Actinocyclus moroniensis* Brun 1891, p. 6; pl. 19, fig. 4 [ref. 000176].
- Actinocyclus motilis* Bradbury & Krebs 1995, p. 10-11; pl. 9, fig. 4-6, pl. 10, fig. 1-12, pl. 11, fig. 1 [ref. 003415].
- Actinocyclus murrayensis* Grove in litt. in Rattray 1890, p. 146 [ref. 000784].
- Actinocyclus muticus* Khursevich & Rehakova 1994, p. 133-134; pl. 1, fig. 1-6, pl. 2, fig. 1-6 [ref. 009147]. [according to ANSP].
- Actinocyclus nebulosus* M. Peragallo in H. Peragallo & M. Peragallo 1902, p. 416; pl. 113, fig. 10, 11 [ref. 001057]. As *A. (ralfsii var.?) nebulosus* M.P. on plate caption.
- Actinocyclus nebulosus* M. Perag. var. *spiralis* M. Peragallo in Tempère & Peragallo 1908, p. 52; no. 96-100 (as *Actinocyclus (nebulosus var.?) spiralis*) [ref. 001064]. *Invalid*. Invalidly published by T&P as a trinomial, validly published as

*A. spiralis.*

- Actinocyclus nebulosus* Bradbury & Krebs 1995, p. 11; pl. 11, fig. 2-8, pl. 12, fig. 1 [ref. 003415]. *Illegitimate*. Non Peragallo & Peragallo 1902.
- Actinocyclus neogenicus* Reinhold 1937, p. 75; pl. 1, fig. 5, 6 [ref. 000039].
- Actinocyclus neogradensis* Pantocsek 1892, pl. 42, fig. 573 [ref. 001034]. Description in Pantocsek 1905, p. 5 (ref. 001445).
- Actinocyclus niagarae* H.L. Smith 1878, p. 17; pl. 3, fig. 10 [ref. 000860].
- Actinocyclus nigrinae* J.A. Barron 2005, p. 640; pl. 1, fig. 2, 3, 3, 7, pl. 2, fig. 3, 4 [ref. 012686].
- Actinocyclus ninus* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid*. Nom. prov.
- Actinocyclus nonarius* Ehrenberg 1840, p. 58 (138) [ref. 000290]. Also in Ehrenberg 1841, p. 138 (ref. 000953).
- Actinocyclus nordlingensis* Schauderna 1983, p. 99; pl. 3, fig. 5-6, pl. 16, fig. 1-6 [ref. 010159]. [according to ANSP].
- Actinocyclus normanii* (Gregory ex Greville) Hustedt 1957, p. 218; pl. 1, fig. 5-6 [ref. 000532]. Basionym: *Coscinodiscus normanii* ('normanii') Gregory ex Greville 1859.
- Actinocyclus normanii* f. *subsalsa* (Juhlin-Dannfelt) Hustedt 1957, p. 219 [ref. 000532]. Basionym: *Coscinodiscus subsalsus* Juhlin-Dannfelt 1882.
- Actinocyclus novemdenarius* Ehrenberg 1844, p. 258 [ref. 001185]. *Invalid*. Nomen nudum.
- Actinocyclus novemdenarius* Ehrenberg 1845, p. 55 [ref. 000955]. *Invalid*. Nomen nudum. INA refers to a description in German in: "Sitz. Ber. Ges. Naturf. Freude Berlin 1839-1859: 32.191?".
- Actinocyclus numa* Ehrenberg 1845, p. 358 [ref. 000957].
- Actinocyclus obscurus* Rattray 1890, p. 187, pl. 11, fig. 5 [ref. 000784].
- Actinocyclus oceanicus* Rattray 1890, p. 147 [ref. 000784]. New name for *Actinocyclus ? anceps* Castracane 1886, non Leuduger-Fortmorel 1879.
- Actinocyclus ochotensis* Jousé 1968, p. 17; pl. 2, fig. 2-5 [ref. 006127].
- Actinocyclus octodenarius* Ehrenberg 1839, p. 178 [ref. 006083].
- Actinocyclus octodenarius* Ehrenberg 1840, p. 61 (141); pl. 4, fig. 3 (as *Actinocyclus (Actinoptychus) octodenarius*) [ref. 000290]. Also in Ehrenberg 1841, p. 141 (ref. 000953), and Ehrenberg 1839, p. 178 (ref. 006083).
- Actinocyclus octonarius* Ehrenberg 1837, p. 61 [ref. 006909]. Illustrated in Ehrenberg 1838, p. 172; pl. 21, fig. 7 (ref. 000288).
- Actinocyclus octonarius* f. *australiensis* (Grunow in Van Heurck) Desikachary 1988, p. 1; pl. 408, fig. 3 (as *Actinocyclus octonarius* var. *ralfsii* f. *australiensis*) [ref. 006021]. Basionym: *Actinocyclus ralfsii* var. *australiensis* Grunow in Van Heurck 1883. [according to ANSP].
- Actinocyclus octonarius* var. *crassus* (W. Smith) Hendey 1954, p. 557 [ref. 000478]. Basionym: *Eupodiscus crassus* W. Smith 1853.
- Actinocyclus octonarius* var. *crassus* (W. Smith) Hajós 1968, p. 126; pl. 32, fig. 5 ('*crassa*') [ref. 002445]. Basionym: *Eupodiscus crassus* W. Smith 1853. Isonym: combination previously published by Hendey 1959.
- Actinocyclus octonarius* var. *minutus* (Pantocsek) Hajós 1968, p. 127; pl. 33, fig. 4-5 ('*minuta*') [ref. 002445]. Basionym: *Actinocyclus ehrenbergii* f. *minutus* Pantocsek 1886.
- Actinocyclus octonarius* var. *parva* Hajós 1973, p. 369; pl. 1, fig. 15 [ref. 003202]. *Invalid*. No description. Valid publication perhaps in another article.
- Actinocyclus octonarius* var. *ralfsii* (W. Smith) Hendey 1954, p. 557 [ref. 000478]. Basionym: *Eupodiscus ralfsii* W. Smith 1856.
- Actinocyclus octonarius* var. *sparsus* (Gregory) Hendey 1954, p. 557 [ref. 000478]. Basionym: *Eupodiscus sparsus* Gregory 1857.
- Actinocyclus octonarius* var. *tenellus* (Brébisson) Hendey 1954, p. 557 [ref. 000478]. Basionym: *Eupodiscus tenellus* Brébisson 1854.
- Actinocyclus octonarius* var. *tenellus* (Brébisson) Hajós 1968, p. 127; pl. 32, fig. 6, pl. 33, fig. 2-3, 6-7 ('*tenella*') [ref. 002445]. Basionym: *Eupodiscus tenellus* Brébisson 1854. Isonym: Combination previously published by Hendey 1954. [according to ANSP].
- Actinocyclus oculatus* Jousé 1968, p. 18; pl. 2, fig. 6, 7 [ref. 006127].
- Actinocyclus oliveranus* O'Meara 1876, p. 58; pl. 1, fig. 7 [ref. 000695].
- Actinocyclus omphax* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid*. Nom. prov. See *A. omphus* Ralfs err. cit.
- Actinocyclus omphus* Ralfs in Pritchard 1861, p. 835 [ref. 001063]. *Invalid*. Nomen in syn. *A. ehrenbergii* Ralfs. Err. cit. pro *A. omphax* Ehrenberg 1845.
- Actinocyclus onyx* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid*. Nom. prov.
- Actinocyclus opalus* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid*. Nom. prov.
- Actinocyclus opiparus* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid*. Nom. prov.
- Actinocyclus opulentus* Ehrenberg 1844, p. 271 [ref. 001182]. Description modified in Ehrenberg 1845, p. 359 (ref. 000957).
- Actinocyclus ornatus* Rattray 1890, p. 152; pl. 11, fig. 9 [ref. 000784].
- Actinocyclus orpheus* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid*. Nom. prov.



- Actinocyclus ovalis* (Norman) Grunow 1867, p. 25 [ref. 000432]. Basionym: *Eupodiscus ovalis* Norman 1861.
- Actinocyclus ovalis* (Roper) Grunow ex Cleve & Möller 1879, No. 222 [ref. 001978]. Basionym: *Coscinodiscus ovalis* Roper 1858. *Illegitimate*. Non *A. ovalis* (Norman) Grunow 1868.
- Actinocyclus ovalis* ‘Wood’ VanLandingham 1979, p. 4248 [ref. 006514]. *Invalid*. Err. cit. for *Actinocyclus ovatus* Wood 1963.
- Actinocyclus ovatus* E.J.F. Wood 1963, p. 192; pl. 1, fig. 20 [ref. 001569]. Type is illustration.
- Actinocyclus pallas* Ehrenberg 1840, p. 203 adn. [ref. 000293]. *Invalid*. Nom. prov.
- Actinocyclus pallas* Ehrenberg 1844, p. 265 [ref. 001185].
- Actinocyclus panhelios* Ehrenberg 1840, p. 204 [ref. 000293].
- Actinocyclus paradoxus* Ehrenberg 1854, p. 7; pl. 20/1, fig. 41 [ref. 000966].
- Actinocyclus paradoxus* Makarova 1959, p. 83-84, fig. 1-7 [ref. 000621]. *Illegitimate*. Non Ehrenberg 1854.
- Actinocyclus partitus* Grunow in Van Heurck 1883, pl. 132, fig. 10 (as *A. (ralfsii* var.) *partitus*) [ref. 001037].
- Actinocyclus partitus* (Grunow in Van Heurck) Rattray 1890, p. 153 [ref. 000784]. Basionym: *Actinocyclus partitus* Grunow in Van Heurck 1883. Isonym: the binomial was validly published by Van Heurck 1883.
- Actinocyclus parvus* Hasle 1960, p. 12; pl. 1, fig. 9-10 [ref. 001256].
- Actinocyclus pellucidus* Castracane 1886, p. 147; pl. 29, fig. 13 [ref. 000193].
- Actinocyclus peplum* Brun 1891, p. 6; pl. 19, fig. 5 [ref. 000176]. As *Actinocyclus* (*Cestodiscus*) *peplum* in text p. 6, illustrated as *Cestodiscus peplum* (*Actinocyclus*). Misprinted Fig. 4 in text (corrected in Errata).
- Actinocyclus periander* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid*. Nom. prov.
- Actinocyclus phidias* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid*. Nom. prov.
- Actinocyclus pindarus* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid*. Nom. prov.
- Actinocyclus pinnulus* Bradbury & Krebs 1995, p. 11-12; pl. 12, fig. 6-7, pl. 13, fig. 1-5 [ref. 003415].
- Actinocyclus pittacus* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid*. Nom. prov.
- Actinocyclus platensis* Müller-Melchers 1953, p. 4; pl. 3, fig. 1-3 [ref. 001405].
- Actinocyclus plutus* Ehrenberg 1845, p. 358 [ref. 000957].
- Actinocyclus podolicus* (Missuna) Kozyrenko 1959, p. 54; pl. 1, fig. 4 (as *Actinocyclus* (?) *podolicus* (Missuna) comb. nov.) [ref. 000578]. *Invalid*. Basionym not cited. Probably an intended combination of *Aulacodiscus beringensis* var. *podolicus* Missuna 1913 (by comparison of illustrations).
- Actinocyclus polyactis* Ehrenberg 1845, p. 359 [ref. 000957].
- Actinocyclus polygonus* (Castracane) Van Heurck 1909, p. 45 [ref. 000898]. Basionym: *Coscinodiscus polygonus* Castracane 1886.
- Actinocyclus polygonus* (Castrac.) V.H. var. *ornatus* Van Heurck 1909, p. 45; pl. 12, fig. 161 (‘*ornata*’) [ref. 000898].
- Actinocyclus polygonus* M. Peragallo 1921, p. 79 [ref. 000737]. *Invalid*. Pro syn. *Charcotia* spp.
- Actinocyclus polyradiatus* ‘Castracane’ Tempère & Peragallo 1912, p. 313; No. 634 [ref. 001068]. No description. Possible citation error for *Coscinodiscus polyradiatus* Castracane 1886. Can possibly be treated as a valid new combination of *Coscinodiscus polyradiatus* Castracane 1886.
- Actinocyclus polysculptus* Mann 1937, p. 20; pl. 1, fig. 6-8 [ref. 000634].
- Actinocyclus portaregiensis* A. Berg 1952, p. 20, 35; pl. I, fig. 3 [ref. 000136].
- Actinocyclus praxiteles* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid*. Nom. prov.
- Actinocyclus pretiosus* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid*. Nom. prov.
- Actinocyclus procyon* Ehrenberg 1840, p. 203 adn. [ref. 000293]. *Invalid*. Nom. prov.
- Actinocyclus prodigus* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid*. Nom. prov.
- Actinocyclus propinquus* Jousé 1974, p. 353; pl. 5, fig. 1 [ref. 003194]. As ‘*propingquus*’ in text and ‘*propinquus*’ in fig. caption.
- Actinocyclus proserpina* Ehrenberg 1845, p. 359 [ref. 000957].
- Actinocyclus pruinosis* Castracane 1886, p. 144; pl. 4, fig. 2 [ref. 000193].
- Actinocyclus pruinosis* var. *minor* Rattray 1890, p. 168 [ref. 000784].
- Actinocyclus ptolemaeus* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid*. Nom. prov.
- Actinocyclus pumilus* Castracane 1886, p. 147; pl. 12, fig. 2 [ref. 000193].
- Actinocyclus punctulatus* Castracane 1886, p. 146; pl. 16, fig. 3 [ref. 000193].
- Actinocyclus pusillus* (Grove in Rattray) Rattray 1890, p. 166 [ref. 000784]. Basionym: *Coscinodiscus pusillus* Grove ms. in Rattray 1890.
- Actinocyclus pyrgoteles* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid*. Nom. prov.
- Actinocyclus pyrotechnicus* Deby ms. in Rattray 1890, p. 144; pl. 11, fig. 15 [ref. 000784].
- Actinocyclus pyxidicula* Ehrenberg 1854, p. 7; pl. 18, fig. 19 [ref. 000966]. New name for *Pyxidicula actinocyclus* Ehrenberg 1844, p. 85.
- Actinocyclus quaternarius* Ehrenberg 1839, p. 129 [ref. 000289].
- Actinocyclus quatuordenarius* Ehrenberg 1840, p. 203 [ref. 000293].

- Actinocyclus quatuordenarius* Ehrenberg 1854, p. 7; pl. 33/16, fig. 2 [ref. 000966]. Non Ehrenberg 1840.
- Actinocyclus quinarius* Ehrenberg 1839, p. 129; pl. 4, fig. 10f [ref. 000289].
- Actinocyclus quindenarius* Ehrenberg 1840, p. 60 (140) [ref. 000290]. Also in Ehrenberg 1841, p. 140 (ref. 000953).
- Actinocyclus radians* Rattray 1890, p. 151; pl. 11, fig. 11 [ref. 000784].
- Actinocyclus radians* var. *minor* Rattray 1890, p. 152 [ref. 000784].
- Actinocyclus radiatus* Rattray 1890, p. 161; pl. 11, fig. 8 [ref. 000784].
- Actinocyclus radionovae* Barron 1983, p. 504; pl. 3, fig. 1-3, pl. 6, fig. 4-6 [ref. 003850]. [according to ANSP].
- Actinocyclus ralfsii* (W. Smith) Ralfs in Pritchard 1861, p. 835; pl. 5, fig. 84 [ref. 001063]. Basionym: *Eupodiscus ralfsii* W. Smith 1856.
- Actinocyclus ralfsii* var. *arizonae* Blake 1902, p. 3, pl. 4, fig. 1 [ref. 000142]. [according to VLC].
- Actinocyclus ralfsii* var. *australiensis* Grunow in Van Heurck 1883, pl. 124, fig. 2, 4 (as *A. ralfsii* var. *australiensis* f. *minor* and *major*, resp.) [ref. 001037]. See description in Rattray 1890, p. 157 (ref. 000784).
- Actinocyclus ralfsii* var. *baltica* (Rattray) M. Peragallo 1897, p. 23 [ref. 012539]. Basionym: *Actinocyclus moniliformis* var. *baltica* Rattray 1890. Possibly a citation error for *Actinocyclus moniliformis* var. *baltica* Rattray 1890, rather than an intended new combination. It is however accepted by Peragallo (straight characters) and we accept this name as a valid new combination.
- Actinocyclus ralfsii* var. *challengerensis* Castracane 1886, p. 143; pl. 30, fig. 1 [ref. 000193].
- Actinocyclus ralfsii* var. *indivisa* Grunow in Weissflog Collection 1890 [ref. 000908]. *Invalid?* Cited by De Toni 1894, p. 1180 (ref. 000951) in synonymy of *Actinocyclus moniliformis* Ralfs in Pritchard. *Invalid* in De Toni (in syn.), Weissflog's *exsiccata* not seen.
- Actinocyclus ralfsii* f. *inermis* M. Peragallo in Peragallo & Peragallo 1911, p. 6 (as *Actinocyclus ralfsii* var. *samoensis* f. *inermis*) [ref. 000734].
- Actinocyclus ralfsii* var. *knemeides* (Pantocsek) M. Peragallo 1897, p. 24 [ref. 012539]. Basionym: *Actinocyclus knemeides* Pantocsek 1886.
- Actinocyclus ralfsii* f. *major* Grunow in Van Heurck 1883, pl. 124, fig. 4 (as [*Actinocyclus ralfsii* var. *australiensis*] f. *major*) [ref. 001037]. As "idem forma major" below *A. ralfsii* var. *australiensis* Grun. forma *minor*. Probably intended to be *A. ralfsii* var. *australiensis* f. *major*.
- Actinocyclus ralfsii* f. *minor* Grunow in Van Heurck 1883, pl. 124, fig. 2 (as *Actinocyclus ralfsii* var. *australiensis* f. *minor*) [ref. 001037].
- Actinocyclus ralfsii* f. *minor* Palibin 1936, p. 37 [ref. 003034]. *Invalid*. As *Actinocyclus ralfsii* f. *minor* Pant. Citation error? No description.
- Actinocyclus ralfsii* f. *minutae* Peragallo & Peragallo 1902, (p. 416); pl. 113, fig. 3-4 (as *A. Ralfsii formae minutae*) [ref. 001057]. *Invalid*. Not meant as the name of a new taxon. See on p. 416 some comments about "des petites formes de 3 à 4 rayons".
- Actinocyclus ralfsii* var. *monicae* Grunow in Van Heurck 1883, pl. 124, fig. 3 [ref. 001037].
- Actinocyclus ralfsii* var. *moniliformis* Kitton ms. in Rattray 1890, p. 169 [ref. 000784]. *Invalid*. In syn. *A. splendens* Rattray, p. 168.
- Actinocyclus ralfsii* var. *partitus* Grunow in Van Heurck 1883, pl. 132, fig. 10 (as *A. (ralfsii* var.) *partitus*) [ref. 001037]. *Invalid*. Validly published as *A. partitus*. Combination *A. ralfsii* var. *partitus* listed but not validated (not accepted) by Mills 1933, p. 95 (ref. 000997).
- Actinocyclus ralfsii* var. *samoensis* Grunow in Van Heurck 1883, pl. 124, fig. 1 [ref. 001037].
- Actinocyclus ralfsii* var. *sparsus* (Gregory) Ralfs in Pritchard 1861, p. 835 [ref. 001063]. Basionym: *Eupodiscus sparsus* Gregory 1857.
- Actinocyclus ralfsii* var. *yarrensis* Grunow in Cleve & Möller 1878, No. 115 [ref. 001976]. *Invalid*. Nomen nudum.
- Actinocyclus ralfsii* var. *yarrensis* Mills 1933, p. 95 [ref. 000997]. *Invalid*. According to Mills 1933, a name often used in old collections for *Actinocyclus moniliformis* Ralfs. Not accepted by Mills (lower case print).
- Actinocyclus regulus* Ehrenberg 1840, p. 203 adn. [ref. 000293]. *Invalid*. Nom. prov.
- Actinocyclus regulus* Ehrenberg 1843, p. 165 [ref. 002003].
- Actinocyclus rex* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid*. Nom. prov.
- Actinocyclus rex* Bale 1913, p. 30 [ref. 000126].
- Actinocyclus rigl* Ehrenberg 1840, p. 203 adn. [ref. 000293]. *Invalid*. Nom. prov.
- Actinocyclus robustus* Andrews in Abbott & Andrews 1979, p. 231; pl. 1, fig. 5-8, pl. 7, fig. 2 [ref. 003268]. [according to ANSP].
- Actinocyclus roperi* (Brébisson) Grunow in Van Heurck 1883, pl. 125, fig. 5, 6 ('*roperii*') [ref. 001037]. Basionym: *Eupodiscus roperi* Brébisson 1870.
- Actinocyclus rosoleo* Hanna & Grant 1926, p. 119; pl. 11, fig. 5 [ref. 000012].
- Actinocyclus rotula* Brun 1891, p. 6; pl. 17, fig. 5 [ref. 000176].
- Actinocyclus rotula* var. *minor* Tempère & Peragallo 1915, p. 10 (Table des espèces) [ref. 001071]. *Invalid*. Nomen nudum.

- Actinocyclus sagittulus* Villareal in Villareal & Fryxell 1983, p. 458-460; fig. 15-20 [ref. 005713].
- Actinocyclus salomon* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid.* Nom. prov.
- Actinocyclus samoensis* (Grunow in Van Heurck) De Toni & Forti 1923, p. 105 ('*samoënsis*') [ref. 000273]. Basionym: *Actinocyclus ralfsii* var. *samoensis* Grunow in Van Heurck 1883.
- Actinocyclus samoensis* f. *inermis* M. Peragallo 1911, p. 6 [ref. 000734].
- Actinocyclus saphirus* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid.* Nom. prov.
- Actinocyclus sappho* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid.* Nom. prov.
- Actinocyclus sarda* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid.* Nom. prov.
- Actinocyclus sardonyx* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid.* Nom. prov.
- Actinocyclus saturnus* Ehrenberg 1840, p. 204 [ref. 000293].
- Actinocyclus sedenarius* Ehrenberg 1839, p. 178 [ref. 006083]. Limited description. See Ehrenberg 1840 (ref. 000290) for additional description and illustration.
- Actinocyclus sedenarius* Ehrenberg 1840, p. 61 (141); pl. 4, fig. 2 (as *Actinocyclus (Actinoptychus) sedenarius*) [ref. 000290]. Also in Ehrenberg 1841, p. 141 (ref. 000953).
- Actinocyclus sedenarius* Roper 1854, p. 74; pl. 6, fig. 2 [ref. 000793]. *Invalid.* Provisional name.
- Actinocyclus semiocellatus* Schumann 1867, p. 66; pl. 3, fig. 81 [ref. 001004].
- Actinocyclus senarius* Ehrenberg 1837, p. 61 [ref. 006909].
- Actinocyclus senarius* Ehrenberg 1838, p. 172; pl. 21, fig. 6 [ref. 000288]. Cites Ehrenberg 1837, p. 61 (ref. 006909).
- Actinocyclus senarius* Harting 1852, p. 120; pl. 3, fig. 3 (as *Actinocyclus senarius* in text) [ref. 000465]. [according to INA].
- Actinocyclus sendaianus* Brun 1891, pl. 14, fig. 3 [ref. 000176].
- Actinocyclus septendenarius* Ehrenberg 1844, p. 265 [ref. 001185].
- Actinocyclus septenarius* Ehrenberg 1839, p. 129 [ref. 000289].
- Actinocyclus signatus* Rattray 1890, p. 163; pl. 11, fig. 2 [ref. 000784].
- Actinocyclus similis* Karsten 1905, p. 92; pl. 9, fig. 4 [ref. 000559].
- Actinocyclus sirius* Ehrenberg 1840, p. 203 adn. [ref. 000293]. *Invalid.* Nom. prov.
- Actinocyclus smaragdus* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid.* Nom. prov.
- Actinocyclus socrates* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid.* Nom. prov.
- Actinocyclus sol* Ehrenberg 1840, p. 203 adn. [ref. 000293]. *Invalid.* Nom. prov.
- Actinocyclus solon* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid.* Nom. prov.
- Actinocyclus sophocles* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid.* Nom. prov.
- Actinocyclus sparsus* (Gregory) Rattray 1890, p. 170 [ref. 000784]. Basionym: *Eupodiscus sparsus* Gregory 1857.
- Actinocyclus spica* Ehrenberg 1840, p. 203 adn. [ref. 000293]. *Invalid.* Nom. prov.
- Actinocyclus spinosus* Brightwell 1860, p. 93; pl. 6, fig. 15 [ref. 000947].
- Actinocyclus spiralis* M. Peragallo in Tempère & Peragallo 1908, p. 52; No. 99-100 (as *Actinocyclus (nebulosus* var.?) *spiralis*) [ref. 001064].
- Actinocyclus spiritus* Watkins in Watkins & Fryxell 1986, p. 302, 310; fig. 17-23 [ref. 005735].
- Actinocyclus splendens* Rattray 1890, p. 168; pl. 11, fig. 14 [ref. 000784].
- Actinocyclus srinivasanii* Desikachary & Devi 1986, p. 3; pl. 3, fig. 3 [ref. 006017].
- Actinocyclus stella-polaris* Ehrenberg 1840 ('*stella polaris*') [ref. 000293]. *Invalid.* Nom. prov.
- Actinocyclus stellatus* Forti in Tempère & Peragallo 1914, p. 477; No. 993-995 [ref. 001070]. *Invalid.* Nomen nudum.
- Actinocyclus stictodiscus* Grunow in Van Heurck 1883, pl. 118, fig. 4 [ref. 001037]. Valid publication of the manuscript name *Stictodiscus appendiculatus* Grun.
- Actinocyclus subcrassus* Rattray 1890, p. 154 [ref. 000784]. *Illegitimate.* Name based on *A. crassus* (W. Smith) Ralfs sensu Van Heurck 1883 (Synopsis 124/6, 8) non W. Smith. Superfluous name: taxonomic synonym of *A. circumdatus* Pantocsek 1886.
- Actinocyclus subdivisus* '(Truan y Luard & Witt) Schmidt' according to Rattray 1890, p. 587 [ref. 001485]. Basionym: *Coscinodiscus subdivisus* Truan y Luard & Witt 1888. *Invalid.* Rattray 1890 notes under the entry for *Coscinodiscus subdivisus*: "Schmidt has assigned this species to *Actinocyclus*". Not found in Schmidt's work. Combination not validly published by Rattray 1890 (nor by Mills or VanLandingham).
- Actinocyclus subocellatus* (Grunow) Rattray 1890, p. 145 [ref. 000784]. Basionym: *Coscinodiscus curvatulus* var. *subocellata* Grunow 1884.
- Actinocyclus subtilis* (Gregory) Ralfs in Pritchard 1861, p. 835 [ref. 001063]. Basionym: *Eupodiscus subtilis* Gregory 1857.
- Actinocyclus subtilis* var. *aperta* Rattray 1890, p. 191 [ref. 000784].
- Actinocyclus subtilis* var. *arcticus* (Grunow in Van Heurck) Cleve-Euler 1951, p. 82; fig. 145b-c (as *Actinocyclus subtilis* *β arcticus* (Grun.) mh.) [ref. 000255]. Basionym: *Actinocyclus alienus* var. *arctica* Grunow in Van Heurck 1883. Rank implied, not clearly indicated.
- Actinocyclus subtilis* var. *disjuncta* Rattray 1890, p. 190 [ref. 000784].
- Actinocyclus subtilis* f. *major* [Grunow] in Van Heurck 1883, pl. 125, fig. 11 [ref. 001037].

- Actinocyclus subtilis* f. *minor* [Grunow] in Van Heurck 1883, pl. 125, fig. 9 [ref. 001037].
- Actinocyclus subtilis* f. *parva* Cleve & Möller 1878, No. 121 [ref. 001976]. *Invalid*. Nomen nudum.
- Actinocyclus subtilis* var. *subdivisa* Grunow in Van Heurck 1882-1885, p. 116; Type No. 520 [ref. 000896]. Diagnosis included.
- Actinocyclus subtilis* f. *subtilissima* Van Heurck in Østrup 1904, p. 119 [ref. 000704]. No fig. but cites illustration of *A. subtilis* by Van Heurck 1883 (ref. 001037) (Synopsis pl. 124, fig. 7).
- Actinocyclus subtilis* var. *tenuissimus* Cleve in Cleve & Möller 1878, No. 149 [ref. 001976]. *Invalid*. Nomen nudum.
- Actinocyclus subtilis* var. *typicus* Cleve-Euler 1951, p. 82; fig. 145a (as *Actinocyclus subtilis*  $\alpha$  *typicus* mh.) [ref. 000255].
- Actinocyclus tenellus* (Brébisson) Grunow 1867, p. 31 [ref. 000431]. Basionym: *Eupodiscus tenellus* Brébisson 1854.
- Actinocyclus tenellus* (Brébisson) Andrews 1976, p. 14; pl. 3, fig. 8, 9 [ref. 003359]. Basionym: *Eupodiscus tenellus* Brébisson 1854. Isonym: combination previously published by Grunow 1867. [according to ANSP].
- Actinocyclus tenuissimus* Cleve 1878, p. 21; fig. 5, pl. 34 [ref. 000221].
- Actinocyclus tenuissimus* var. *australiensis* Grunow in Van Heurck 1883, pl. 125, fig. 3 [ref. 001037].
- Actinocyclus ternarius* Ehrenberg 1839, p. 73; pl. 4, fig. XIg [ref. 000289]. Also in Ehrenberg 1839 (ref. 000289), p. 129, pl. IV fig. XI g.
- Actinocyclus terra* Ehrenberg 1840, p. 203 adn. [ref. 000293]. *Invalid*. Nom. prov.
- Actinocyclus terra* Ehrenberg 1844, p. 271 [ref. 001182].
- Actinocyclus tessellatus* (Roper) Ralfs in Pritchard 1861, p. 835 [ref. 001063]. Basionym: *Eupodiscus tessellatus* Roper 1858.
- Actinocyclus thales* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid*. Nom. prov.
- Actinocyclus theles* Bradbury & Krebs 1995, p. 12-13; pl. 13, fig. 7, pl. 14, fig. 1-4 [ref. 003415].
- Actinocyclus thomei* Leuduger-Fortmorel 1898, p. 35; pl. 7, fig. 11 [ref. 000608].
- Actinocyclus thumii* (Cleve) Pantocsek 1886, p. 67 [ref. 000714]. Basionym: *Coscinodiscus thumii* Cleve 1885.
- Actinocyclus thumii* var. *bicentralis* Pantocsek 1886, p. 67; pl. 29, fig. 300 (as *Actinocyclus thumii* abnormitas: *bicentralis*) [ref. 000714]. *Invalid*. Not intended as a new variety but as an abnormal form. Expressed in Mills as “*A. thumii* var. *bicentralis*” but not accepted by Mills (lower case print).
- Actinocyclus topazius* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid*. Nom. prov.
- Actinocyclus tortuosus* Mann 1937, p. 21; pl. 1, fig. 9, pl. 2, fig. 1 [ref. 000634].
- Actinocyclus trapeziformis* (Rubina) Rubina & Khursevich 1990, p. 1565; pl. 1, fig. 1, 6 [ref. 008741]. Basionym: *Coscinodiscus trapeziformis* Rubina 1967. [according to ANSP].
- Actinocyclus trapeziformis* var. *flabellatus* (Rubina) Rubina & Khursevich 1990, p. 1566; pl. 2, fig. 1, 2, 6 [ref. 008741]. Basionym: *Coscinodiscus flabellatus* Rubina 1976. [according to ANSP].
- Actinocyclus trapeziformis* var. *grandis* (Rubina) Rubina & Khursevich 1990, p. 1566; pl. 1, fig. 2-5, pl. 2, fig. 3-5, 7 [ref. 008741]. Basionym: *Coscinodiscus trapeziformis* var. *grandis* Rubina 1976. [according to ANSP].
- Actinocyclus tredenarius* Ehrenberg 1840, p. 203 [ref. 000293].
- Actinocyclus trilingulatus* Brightwell 1860, p. 93; pl. 5, fig. 2 [ref. 000947].
- Actinocyclus triradiatus* Roper 1858, p. 23; pl. 3, fig. 5 [ref. 000794].
- Actinocyclus tropicus* Hustedt 1956, p. 104; pl. 1, fig. 9-13 [ref. 000531].
- Actinocyclus tsugaruensis* Kanaya 1959, p. 99; pl. 8, fig. 5-8 [ref. 000556].
- Actinocyclus tubalcain* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid*. Nom. prov.
- Actinocyclus tubulosus* Khursevich in Khursevich, Moiseeva, Kozyrenko & Rubina 1990, p. 1440; pl. 1, fig. 7-8, pl. 2, fig. 1-3 [ref. 008410]. [according to ANSP].
- Actinocyclus tunkaensis* Khursevich 1994, p. 272; pl. 1, fig. 10; pl. 4, fig. 23-28 [ref. 008404].
- Actinocyclus tyrtaeus* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid*. Nom. prov.
- Actinocyclus umbonatus* Castracane 1886, p. 145; pl. 4, fig. 4 [ref. 000193].
- Actinocyclus undatus* Harting 1852, p. 119; pl. 3, fig. 18 (as *Actinocyclus undatus*) [ref. 000465].
- Actinocyclus undatus* Cleve 1885, p. 174; pl. 13, fig. 14 (as *A. (alienus)*, var.? Grun) *undatus* in text, *Actinocyclus (alienus?) undatus* in plate caption) [ref. 000225]. *Illegitimate*. Non Harting 1852. Validly published by Cleve 1885 as *A. undatus*, but invalidly published as *A. alienus* var. *undatus*.
- Actinocyclus undatus* (Cleve) Rattray 1890, p. 162 [ref. 000784]. Basionym: *Actinocyclus undatus* Cleve 1885. Isonym. The name was previously validly published by Cleve 1885 as *Actinocyclus undatus*.
- Actinocyclus undenarius* Ehrenberg 1840, p. 59 (139) [ref. 000290]. Also in Ehrenberg 1841, p. 139 (ref. 000953).
- Actinocyclus undulatus* Kützing 1844, p. 132; pl. 1, fig. 24 [ref. 000595]. Valid name for the unnamed *Actinocyclus* illustrated by Bailey 1842, pl. 2, fig. 11 (ref. 000116).
- Actinocyclus undulatus* ‘J.W. Bailey’ according to Mills 1933, p. 100 [ref. 000997]. *Invalid*. Error of Mills: the name is not used by Bailey 1842 (ref. 000116). Bailey illustrates an unnamed “*Actinocyclus*” specimen on pl. 2, fig. 11, that was later named *Actinocyclus undulatus* by Kützing 1844, p. 132 (ref. 000595).
- Actinocyclus undulatus* var. *tamanica* Jousé in Proschkina-Lavrenko 1949, p. 97; pl. 34, fig. 2a-b [ref. 002554].
- Actinocyclus uranus* Ehrenberg 1840, p. 204 [ref. 000293].

- Actinocyclus valdiviae* Karsten 1905, p. 92; pl. 9, fig. 3 [ref. 000559].
- Actinocyclus variabilis* Corda 1840, p. 198; pl. 2, fig. 11-14 [ref. 012529]. (p. 13 of reprint).
- Actinocyclus variabilis* (Makarova) Makarova 1985, p. 98; pl. 2, fig. 1-10 [ref. 008547]. Basionym: *Thalassiosira variabilis* Makarova 1959.
- Actinocyclus varians* Mann in Karsten 1928, legend to fig. 252 on p. 226 [ref. 000560]. *Invalid?* Error for intended new combination [*Actinocyclus varicus* (Mann) Karsten] (= *Stictocyclus varicus* Mann).
- Actinocyclus venenosus* Bradbury & Krebs 1995, p. 13-14; pl. 14, fig. 7-8, pl. 15, fig. 1-6 [ref. 003415].
- Actinocyclus venus* Ehrenberg 1840, p. 203 adn. [ref. 000293]. *Invalid.* Nom. prov.
- Actinocyclus venus* Ehrenberg 1844, p. 265 [ref. 001185].
- Actinocyclus verrucosus* Hemprich & Ehrenberg 1831, in text [ref. 000990]. [according to VLC].
- Actinocyclus vesta* Ehrenberg 1840, p. 203 adn. [ref. 000293]. *Invalid.* Nom. prov.
- Actinocyclus vesta* Ehrenberg 1844, p. 265 [ref. 001185].
- Actinocyclus vestigulus* Watkins in Watkins & Fryxell 1986, p. 296, 308, 310; fig. 9-16 [ref. 005735].
- Actinocyclus vetustissimus* Rattray ms. Rattray 1890, p. 159 adn. [ref. 000784]. *Invalid.* Cited pro syn. *A. mirabilis* Rattray. Name used in manuscript and discontinued by Rattray (“originally labeled by me in MS. *A. vetustissimus*(!), an inappropriate name for a recent form”). Validly published as *Actinocyclus mirabilis* Rattray 1890, p. 159, 11/16 (ref. 000784).
- Actinocyclus vicenarius* Ehrenberg 1840, p. 203 [ref. 000293].
- Actinocyclus virgilius* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid.* Nom. prov.
- Actinocyclus vitreus* M. Peragallo in Peragallo & Peragallo 1908, p. 418; pl. 114, fig. 7 [ref. 001061].
- Actinocyclus yarrensensis* according to VanLandingham 1967, p. 113 [ref. 006293]. VanLandingham notes: “name sometimes erroneously used for *Actinocyclus moniliformis* Ralfs in Pritchard 1861, p. 834 (ref. 001063), according to Mills 1933, p. (95)” . Origin of this name not found. See *Actinocyclus ralfsii* var. *yarrensensis*.
- Actinocyclus zeuxis* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid.* Nom. prov.
- Actinocyclus zoraster* Ehrenberg 1845, p. 360 adn. [ref. 000957]. *Invalid.* Nom. prov.

**ACTINODICTYON J. Pantocsek 1889, pg. 110 [ref. 001033]**

T: *Actinodictyon antiquorum* Pantocsek 1889

- Actinodictyon antiquorum* Pantocsek 1889, p. 110; pl. 10, fig. 176 [ref. 001033].
- Actinodictyon atlanticum* (Kain & Schultze) Ross & Sims 1997, p. 334-335; fig. 25-38 [ref. 007025]. Basionym: *Actinodiscus atlanticus* Kain & Schultze 1889.
- Actinodictyon elegans* (Barker & Meakin) Ross & Sims 1997, p. 333; fig. 22-24 [ref. 007025]. Basionym: *Anthemodiscus elegans* Barker & Meakin 1944.
- Actinodictyon elegantulus* (Grove & Sturt) Desikachary & Sreelatha in Desikachary & Devi 1986, p. 8 [ref. 006017]. Basionym: *Actinoptychus elegantulus* Grove & Sturt 1887.
- Actinodictyon fergusonii* Ross & Sims 1997, p. 329; fig. 14-17 [ref. 007025].
- Actinodictyon quadrisulcatus* Meakin & Brigger 1949, p. 41-42; pl. 6, fig. 4 [ref. 000641].
- Actinodictyon unca* (Long, Fuge & Smith) Wise 1951, p. 289 [ref. 002873]. Basionym: *Actinodictyon weissflogii* var. *unca* Long, Fuge & Smith 1946.
- Actinodictyon uncum* (Long, Fuge & Smith) Ross & Sims 1997, p. 324; fig. 1-9 [ref. 007025]. Basionym: *Actinodictyon weissflogii* var. *unca* Long, Fuge & Smith 1946. Isonym. The combination had been previously validly published by Wise 1951 (ref. 002873).
- Actinodictyon weissflogii* Pantocsek 1892, pl. 5, fig. 84 (*‘weissflogii’* in text) [ref. 001034]. Description in Pantocsek 1905, p. 5 (ref. 001445).
- Actinodictyon weissflogii* var. *unca* Long, Fuge & Smith 1946, p. 94; pl. 13, fig. 8 [ref. 000616].

**ACTINODISCUS R.K. Greville 1863, pg. 69 [ref. 000978]**

T: *Actinodiscus barbadensis* Greville 1863

- Actinodiscus atlanticus* Kain & Schultze 1889, p. 72; pl. 92, fig. 7 [ref. 000554]. Description published in Bull. Torr. Bot. Club 16(3), p. 72. 1889. Illustration published in issue 16(8).
- Actinodiscus barbadensis* Greville 1863, p. 69; pl. 4, fig. 11 [ref. 000978].
- Actinodiscus barbadensis* var. *asiatica* Brun in Schmidt et al. 1892, pl. 173, fig. 7 [ref. 012470].
- Actinodiscus barkleyi* according to Chase 1885, p. 29 [ref. 001049]. No author or reference cited, but *Actinocyclus barkleyi* [no author] is listed as synonym.
- Actinodiscus californicus* Hanna 1927, p. 108; pl. 17, fig. 1 [ref. 000007].
- Actinodiscus contabulatus* (A. Schmidt) R. Ross & P.A. Sims 2000, p. 292 [ref. 009345]. Basionym: *Gyroptychus contabu-*

*latus* Schmidt in Schmidt et al. 1890.

*Actinodiscus corolla* (J. Brun) R. Ross & P.A. Sims 2000, p. 298 [ref. 009345]. Basionym: *Craspedoporus corolla* Brun in Brun & Tempère 1889.

*Actinodiscus gloria* Brun 1896, p. 229-230; pl. 23, fig. 14 [ref. 000183].

*Actinodiscus grayii* Grove in Schmidt et al. 1893, pl. 184, fig. 1 [ref. 012472].

*Actinodiscus horologium* Brun 1896, p. 230; pl. 23, fig. 13 [ref. 000183].

*Actinodiscus italicus* R. Ross & P.A. Sims 2000, p. 304; figs. 36-39 [ref. 009345].

*Actinodiscus javanicus* R. Ross & P.A. Sims 2000, p. 306; figs. 40-42 [ref. 009345].

*Actinodiscus kamischeviensis* Meakin & Brigger 1949, p. 42; pl. 6, fig. 5 [ref. 000641].

*Actinodiscus mascarenensis* R. Ross & P.A. Sims 2000, p. 302; figs. 30-35 [ref. 009345].

*Actinodiscus mutabilis* (Hanna & Brigger) R. Ross & P.A. Sims 2000, p. 296 [ref. 009345]. Basionym: *Stephanogonia mutabila* Hanna & Brigger 1964.

*Actinodiscus philippinarum* R. Ross & P.A. Sims 2000, p. 308; figs. 43-45 [ref. 009345].

*Actinodiscus schleinitzii* 'Janisch' Mann 1925, p. 13 [ref. 000632]. *Illegitimate*. New name for *Gyroptychus contabulatus* Schmidt. Mann indicates that this name is synonymous with *Gyroptychus contabulatus* A. Schmidt 1890 and *Polymyxus schleinitzii* Janisch (Gazelle exp. unpubl. ms. ca 1888). Janisch manuscript (ref. 000541) however was never published and Mann should have used the epithet *contabulatus* when transferring this species to genus *Actinodiscus*.

#### **ACTINOGONIUM C.G. Ehrenberg 1847, pg. 54 [ref. 000959]**

T: *Actinogonium septenarium* C. G. Ehrenberg

*Actinogonium multiradiatum* Ratray 1890, p. 628 (180); pl. 3, fig. 15 [ref. 001485].

*Actinogonium quinarium* Chase 1885, p. 29 [ref. 001049]. Listed with a query and no reference. Cited by Ratray 1890, p. 629 (ref. 001485) in syn. *A. septenarium*.

*Actinogonium septenarium* Ehrenberg 1847, p. 54 [ref. 000959].

#### **ACTINOGRAMMA C.G. Ehrenberg 1872, pg. 276-277 [ref. 001196]**

T: not designated

*Actinogramma brookei* (J.W. Bailey) Ehrenberg 1873, p. 255, 257 [ref. 000311]. Basionym: *Asteromphalus brookei* J.W. Bailey 1856.

*Actinogramma jupiter* Ehrenberg 1872, p. 295 [ref. 001196].

*Actinogramma jupiter* Ehrenberg 1873, p. 148; pl. 9, fig. 3 [ref. 000311]. Description in Ehrenberg 1872, p. 295 (ref. 001196).

*Actinogramma saturnus* Ehrenberg 1872, p. 295 [ref. 001196].

*Actinogramma saturnus* Ehrenberg 1873, p. 148; pl. 9, fig. 5 [ref. 000311]. Description in Ehrenberg 1872, p. 295 (ref. 001196).

*Actinogramma septenaria* 'Ehrenberg' according to Chase 1885, p. 392; pl. 1, fig. 4 [ref. 001049]. Err. in Chase who cites Ehrenberg 1873, p. 392; pl. 1, fig. 4 (ref. 000311) (there is no such name in Ehrenberg 1873).

*Actinogramma sol* Ehrenberg 1872, p. 295 [ref. 001196].

*Actinogramma sol* Ehrenberg 1873, p. 148; pl. 9, fig. 6 [ref. 000311]. Description in Ehrenberg 1872, p. 295 (ref. 001196).

*Actinogramma stella* Ehrenberg 1873, p. 392; pl. 6, fig. 7 [ref. 000311].

*Actinogramma venus* Ehrenberg 1872, p. 295 [ref. 001196].

*Actinogramma venus* Ehrenberg 1873, p. 392; pl. 9, fig. 4 [ref. 000311]. Description in Ehrenberg 1872, p. 295 (ref. 001196).

#### **ACTINONEIS Cleve ex Mereschkowsky 1902, pg. 43, 65 [ref. 000652]**

T: *Actinoneis lorenziana* (Grunow) Mereshkowsky 1902

Name invalid in Cleve (1893), infrapaginal note p. 57 (ref. 000230) because he did not provide a description while including more than one species (see ICBN, 2006, Art. 41, 42). A description is provided by Cleve 1895 (ref. 000949), p. 185, however, it is still invalid as a generic name because clearly treated as a subgenus (see p. 164), although introduced as a "genus" p. 185. Name validated by Mereschkowsky 1902 (ref. 000652). All combinations under *Actinoneis* published before Mereschkowsky 1902 are invalid.

*Actinoneis affinis* (Grunow in Cleve & Grunow) Hollerbakh & Krasavina 1971, p. 18 [ref. 002458]. Basionym: *Achnanthes affinis* Grunow in Cleve & Grunow 1880. *Invalid*. (Implied). Not a valid new combination.

*Actinoneis affinis* var. *jamaicensis* (Grunow in Cleve & Grunow) Hollerbakh & Krasavina 1971, p. 18 [ref. 002458]. Basionym: *Achnanthes jamaicensis* Grunow in Cleve & Grunow 1880. Citation error for *Achnanthes jamaicensis* Grunow in Cleve & Grunow 1880? Not a valid new combination.

- Actinoneis baldjickii* (Brightwell) Cleve 1895, p. 187; pl. 3, fig. 4, 5 [ref. 000949]. Basionym: *Odontidium baldjickii* Brightwell 1859. *Invalid*. Predates the date of valid publication of the genus name *Actinoneis* (1902).
- Actinoneis bottnica* (Cleve) Cleve 1895, p. 186 [ref. 000949]. Basionym: *Achnanthes clevei* var. *bottnica* Cleve 1891. *Invalid*. Predates the date of valid publication of the genus name *Actinoneis* (1902).
- Actinoneis clevei* (Grunow in Cleve & Grunow) Cleve 1895, p. 186 [ref. 000949]. Basionym: *Achnanthes clevei* Grunow in Cleve & Grunow 1880. *Invalid*. Predates the date of valid publication of the genus name *Actinoneis* (1902).
- Actinoneis clevei* var. *rostrata* Mayer 1931, p. 150; pl. 4, fig. 24 [ref. 000638]. [according to VLC].
- Actinoneis danica* (Flogel) Cleve 1895, p. 186 [ref. 000949]. Basionym: *Cocconeis danica* Flögel 1873. *Invalid*. Predates the date of valid publication of the genus name *Actinoneis* (1902).
- Actinoneis danica* var. *major* Cleve 1895, p. 186; pl. 3, fig. 8, 9 [ref. 000949]. *Invalid*. Predates the date of valid publication of the genus name *Actinoneis* (1902). The name of this taxon is validly published in Cleve 1895 as *Achnanthes danica* var. *major*.
- Actinoneis dispar* (Cleve) Cleve 1895, p. 186 [ref. 000949]. Basionym: *Achnanthes dispar* Cleve 1891. *Invalid*. Predates the date of valid publication of the genus name *Actinoneis* (1902).
- Actinoneis heteromorpha* (Grunow in Cleve & Grunow) Cleve 1895, p. 186 [ref. 000949]. Basionym: *Achnanthes heteromorpha* Grunow in Cleve & Grunow 1880. *Invalid*. Predates the date of valid publication of the genus name *Actinoneis* (1902).
- Actinoneis inopinata* (Cleve) Cleve 1895, p. 186 [ref. 000949]. Basionym: *Achnanthes inopinata* Cleve 1893. *Invalid*. Predates the date of valid publication of the genus name *Actinoneis* (1902).
- Actinoneis lorenziana* (Grunow) Mereschkowsky 1902, p. 43, 65 [ref. 000652]. Basionym: *Rhaphoneis lorenziana* Grunow 1862. Also (but invalid) in Cleve 1895, p. 186 (ref. 000949).
- Actinoneis lorenziana* var. *parva* Mereschkowsky 1902, p. 43, 65; fig. 12-13 [ref. 000652].
- Actinoneis mammalis* (Castracane) Cleve 1895, p. 187 [ref. 000949]. Basionym: *Rhaphoneis mammalis* Castracane 1886. *Invalid*. Predates the date of valid publication of the genus name *Actinoneis* (1902). The name of this taxon is validly published in Cleve 1895 as *Achnanthes mammalis* (Castracane) Cleve.
- Actinoneis mammalis* var. *reticulata* Cleve 1895, p. 187; pl. 3, fig. 16 [ref. 000949]. *Invalid*. Predates the date of valid publication of the genus name *Actinoneis* (1902). The name of this taxon is validly published in Cleve 1895 as *Achnanthes mammalis* var. *reticulata* Cleve.
- Actinoneis taeniata* (Grunow in Cleve & Grunow) Hollerbakh & Krasavina 1971, p. 18 [ref. 002458]. Basionym: *Achnanthes taeniata* Grunow in Cleve & Grunow 1880. *Invalid*. Citation error for *Achnanthes taeniata* Grunow in Cleve & Grunow 1880? Not a valid new combination.

**ACTINOPHAENIA G. Shadbolt 1854, pg. 16 [ref. 000822]**

T: *Actinophenia splendens* Shadbolt 1854

- Actinophaenia splendens* Shadbolt 1854, p. 16 [ref. 000821]. Following the generic description Shadbolt states: "I propose for this form the generic name *Actinophaenia*...with the specific designation *splendens*." See comments by Roper 1854 (ref. 000793), p. 74 (*Actinocyclus sedenarius* Ehrenberg). Also described by Shadbolt in Quart. J. Micr. Sc. 2: 201. 1854 (fide INA).

**ACTINOPTYCHUS C.G. Ehrenberg 1843, pg. 400 [ref. 000294]**

LT: *Actinoptychus senarius* (C.G. Ehrenberg) C.G. Ehrenberg 1843

Type designated by Boyer 1927, p. 64 (ref. 000155)

*Actinoptychus* was first introduced (but not validly published) in Ehrenberg 1840, p. 60 (ref. 000290) as a subgenus of *Actinocyclus*.

- Actinoptychus adamans* Tempère & Brun in Brun & Tempère 1889, p. 10; pl. 3, fig. 8 [ref. 000185].
- Actinoptychus adriaticus* Grunow 1863, p. 160; pl. 13, fig. 20 [ref. 000429].
- Actinoptychus adriaticus* var. *balearica* Grunow in Van Heurck 1883, pl. 121, fig. 2 [ref. 001037].
- Actinoptychus adriaticus* var. *pumila* Grunow in Van Heurck 1883, pl. 121, fig. 3 [ref. 001037]. Diagnosis included in plate caption.
- Actinoptychus aequalis* Andrews in Andrews & Abbott 1985, p. 69; pl. 6, fig. 4-7, 10-13, pl. 10, fig. 17-18, pl. 11, fig. 1-6 [ref. 003375]. [according to ANSP].
- Actinoptychus affinis* Grunow in Schmidt et al. 1890, pl. 153, fig. 20 [ref. 012468].
- Actinoptychus affinis* Barker & Meakin 1945, p. 18; pl. 3, fig. 1 [ref. 000128]. *Illegitimate*. Non Grunow 1890. Synonym (substitute name): *A. meakinii* VanLandingham 1967.
- Actinoptychus africanus* Leuduger-Fortmorel 1898, p. 17; pl. 3, fig. 11 [ref. 000608].
- Actinoptychus alternans* Mann 1907, p. 270; pl. 45, fig. 1 [ref. 000631].

- Actinoptychus amblyoceros* A. Schmidt in Schmidt et al. 1874, pl. 1, fig. 25 [ref. 012441]. A. Schmidt indicates: “ob= *Triceratium amblyoceros* E.?”.
- Actinoptychus amoenus* Leuduger-Fortmorel 1898, p. 35; pl. 7, fig. 8 [ref. 000608].
- Actinoptychus ananinensis* Pantocsek 1889, p. 106; pl. 12, fig. 209 [ref. 001033]. The orthographic variant/error “*ananien-sis*” can be traced back as far as Peragallo 1897 (ref. 012539), and appears in Mills (ref. 000997) and VanLandingham (ref. 006293).
- Actinoptychus anceps* Leuduger-Fortmorel 1879, pl. 8, fig. 78 [ref. 000606]. Described as *Actinocyclus anceps* on p. 68.
- Actinoptychus ancorifer* Schumann 1867, p. 139 [ref. 012535]. [according to ANSP].
- Actinoptychus anemone* Brun in Brun & Tempère 1889, p. 11; pl. 3, fig. 4 [ref. 000185].
- Actinoptychus angulatus* [Mellor]? 1920, p. C56 [ref. 002771]. *Invalid*. Illustrated by Mellor 1920, without citation [according to ANSP].
- Actinoptychus annulatus* (Wallich) Grunow in Van Heurck 1883, pl. 124, fig. 14 [ref. 001037]. Basionym: *Triceratium annulatum* Wallich 1858.
- Actinoptychus annulatus* var. *minor* Grunow in Van Heurck 1883, pl. 124, fig. 13 [ref. 001037].
- Actinoptychus antarcticus* (Castracane) M. Peragallo 1897, p. 28 [ref. 012539]. Basionym: *Omphalopelta antarctica* Castracane 1886.
- Actinoptychus antistrophus* Brun in Schmidt et al. 1890, pl. 156, fig. 11 [ref. 012468].
- Actinoptychus apicatus* Ehrenberg 1855, p. 301 [ref. 001191]. *Invalid*. Nomen nudum. Also invalid in Ehrenberg 1856, p. 16, 68 (ref. 000965).
- Actinoptychus aquila* Ehrenberg 1843, p. 32 [ref. 012531].
- Actinoptychus arcuatus* Schumann 1867, p. 139 [ref. 012535]. [according to ANSP].
- Actinoptychus arculifer* Schmidt in Schmidt et al. 1886, pl. 100, fig. 7, 8 [ref. 012460].
- Actinoptychus areolatus* (Ehrenberg) Schmidt in Schmidt et al. 1874, pl. 1, fig. 9 [ref. 012441]. Basionym: *Omphalopelta areolata* Ehrenberg 1844. Also in Schmidt 1875, pl. 29, fig. 4-8 (ref. 012448).
- Actinoptychus areolatus* f. *minor* Tschermassinova 1960 [ref. 002858]. According to Hollerbakh & Krasavina 1971, p. 19 (ref. 002458). [according to VLC].
- Actinoptychus asiaticus* Tempère & Brun in Brun & Tempère 1889, p. 11; pl. 3, fig. 9 [ref. 000185].
- Actinoptychus aster* Brun in Schmidt et al. 1892, pl. 173, fig. 2 [ref. 012470].
- Actinoptychus atlanticus* (Kain & E.A. Schultze) Schmidt in Schmidt et al. 1892, pl. 173, fig. 5 [ref. 012470]. Basionym: *Actinodiscus atlanticus* Kain & Schultze 1889.
- Actinoptychus australis* (Grunow) Andrews 1979, p. 382; pl. 1, fig. 5 [ref. 003366]. Basionym: *Actinoptychus vulgaris* var. *australis* Grunow in Van Heurck 1883.
- Actinoptychus baccatus* Brun 1895, pl. 17, fig. 88 [ref. 000181].
- Actinoptychus barboi* Brun 1894, p. 72; pl. 5, fig. 10 [ref. 000180].
- Actinoptychus barklyi* fide Habirshaw 1877, p. [12] [ref. 000453]. No reference cited but *Coscinodiscus fuscus* given as synonym. Listed in Mills’ Index, p. 105 (ref. 000997) with *Actinocyclus barklyi* as synonym.
- Actinoptychus baxterii* Pantocsek 1903, pl. 18, fig. 261 [ref. 002332]. New name for *Actinoptychus notabilis* Pantocsek 1892 (non Brun 1890). Description in Pantocsek 1905, p. 5 (ref. 001445).
- Actinoptychus besselli* F.W. Payne 1922, p. 27; pl. 4, fig. 81 [ref. 000727].
- Actinoptychus biformis* Brun in Schmidt et al. 1890, pl. 156, fig. 6-8 [ref. 012468].
- Actinoptychus biformis* var. *perisetorus* Brun 1894, p. 73; pl. 5, fig. 9 (as *Actinoptychus perisetosus* Brun (*biformis* var.)) [ref. 000180]. *Invalid*. Validly published as: *Actinoptychus perisetosus* Brun.
- Actinoptychus bifrons* Schmidt in Schmidt et al. 1886, pl. 90, fig. 6 [ref. 012458].
- Actinoptychus bilingulatus* ‘Grove Collection’ according to Mills 1933, p. 105 [ref. 000997]. Cited in Mellor, 1920, pl. 1, fig. 51 (ref. 002771), without a reference.
- Actinoptychus bipunctatus* K.E. Lohman 1941, p. 79; pl. 16, fig. 7, 10-12 [ref. 000615].
- Actinoptychus biseptenarius* Ehrenberg 1854, p. 7; pl. 33/16, fig. 5 [ref. 000966].
- Actinoptychus bismarckii* A. Schmidt 1886, pl. 91, fig. 4 [ref. 012458].
- Actinoptychus biternarius* Ehrenberg 1843, p. 166 [ref. 002003]. [according to INA].
- Actinoptychus biternarius* Ehrenberg 1854, p. 7; pl. 35A/16, fig. 1 [ref. 000966].
- Actinoptychus boliviensis* Janisch in Schmidt et al. 1874, pl. 1, fig. 23 [ref. 012441]. Also in Schmidt 1875, pl. 29, fig. 9 (ref. 012448) and Schmidt 1886, pl. 109, fig. 13 (ref. 012462).
- Actinoptychus boliviensis* var. *gruendleri* (A. Schmidt in Schmidt et al.) Cleve 1885, p. 172 (‘gründleri’) [ref. 000225]. Basionym: *Actinoptychus gruendleri* A. Schmidt in Schmidt et al. 1874. *Invalid*. Combination implied (“I regard as varieties of this species [*A. boliviensis*] - *A. gruendleri* A. Schmidt”).
- Actinoptychus boliviensis* var. *pfitzeri* (Gründler in Schmidt et al.) Cleve 1885, p. 172, 177 (legend to pl. 13); pl. 13, fig. 12 [ref. 000225]. Basionym: *Actinoptychus pfitzeri* Gründler in Schmidt et al. 1875. Combination implied on p. 172 (“I regard as varieties of this species [*A. boliviensis*] - *A. pfitzeri*”; combination explicit on p. 177.



- Actinoptychus boryanus* Pantocsek 1889, p. 106; pl. 22, fig. 329 [ref. 001033].
- Actinoptychus brunii* Schmidt in Schmidt et al. 1890, pl. 156, fig. 1-3 [ref. 012468].
- Actinoptychus calicinus* Schmidt in Schmidt et al. 1888, pl. 132, fig. 22 [ref. 012465].
- Actinoptychus californicus* Pantocsek 1903, pl. 41, fig. 561 [ref. 002332]. New name for *Actinoptychus spinifer* Pantocsek 1892, non *A. spinifer* Grunow in Schmidt 1890 nec *A. spiniferus* Grunow in Van Heurck 1883. Described in Pantocsek 1905, p. 8 (ref. 001445).
- Actinoptychus campanulifer* Schmidt in Schmidt et al. 1875, pl. 29, fig. 13-15 [ref. 012448].
- Actinoptychus capensis* Grunow in Van Heurck 1883, pl. 121, fig. 1 [ref. 001037].
- Actinoptychus cathedralis* Brun in Schmidt et al. 1890, pl. 154, fig. 6 [ref. 012468].
- Actinoptychus cellulusus* (Ehrenberg) M. Peragallo 1897, p. 29 [ref. 012539]. Basionym: *Omphalopelta cellulosa* Ehrenberg 1844.
- Actinoptychus ceres* Ehrenberg 1844, p. 76 [ref. 002694].
- Actinoptychus ceylanensis* Leuduger-Fortmorel 1879, p. 70; pl. 8, fig. 79 [ref. 000606].
- Actinoptychus chenevieri* Long, Fuge & Smith 1946, p. 94; pl. 13, fig. 10 [ref. 000616].
- Actinoptychus clavatus* Brun in Schmidt et al. 1890, pl. 154, fig. 9-11 [ref. 012468].
- Actinoptychus clavifer* Schumann 1867, p. 139 [ref. 012535]. [according to ANSP].
- Actinoptychus clevei* Schmidt in Schmidt et al. 1886, pl. 91, fig. 1 [ref. 012458].
- Actinoptychus coloradoi* H. Peragallo in Tempère & H. Peragallo 1909, p. 116; No. 213-214 [ref. 001065]. *Invalid*. Nomen nudum.
- Actinoptychus concentricus* Schmidt in Schmidt et al. 1890, pl. 153, fig. 13 [ref. 012468].
- Actinoptychus constellatus* Brun 1895, pl. 17, fig. 89 [ref. 000181].
- Actinoptychus constrictus* Grove & Sturt 1887, p. 143; pl. 14, fig. 63 (as *Actinoptychus (undulatus* var.?) *constrictus*) [ref. 000989].
- Actinoptychus crepido* Schmidt in Schmidt et al. 1890, pl. 153, fig. 5 [ref. 012468].
- Actinoptychus cruciatus* Schumann 1867, p. 139 [ref. 012535]. [according to ANSP].
- Actinoptychus crucitinus* H. Peragallo in Tempère & H. Peragallo 1909, p. 116; No. 213-214 [ref. 001065]. *Invalid*. Nomen nudum.
- Actinoptychus crucitinus* f. *senaria* H. Peragallo in Tempère & H. Peragallo 1909, p. 116; No. 213-214 [ref. 001065]. *Invalid*. Nomen nudum.
- Actinoptychus decorans* Schmidt in Schmidt et al. 1890, pl. 155, fig. 14 [ref. 012468].
- Actinoptychus decorans* var. *japonica* Schmidt in Schmidt et al. 1890, pl. 155, fig. 15 [ref. 012468].
- Actinoptychus decumanus* ‘Schmidt’ Forti in Tempère & Peragallo 1910, p. 224; no. 422-425 [ref. 001066]. Citation error for *Actinoptychus hexagonus* var. *decumana* A. Schmidt in Schmidt et al. 1874? Can probably be treated as a valid new combination of *Actinoptychus hexagonus* var. *decumana* A. Schmidt in Schmidt et al. 1874.
- Actinoptychus degenii* Pantocsek 1909, p. 49; pl. 1, fig. 8 [ref. 001446]. Also described as new in Pantocsek 1909, p. 5, pl. 1, fig. 8 (ref. 002333).
- Actinoptychus delectus* Schmidt in Schmidt et al. 1874, pl. 1, fig. 8 [ref. 012441].
- Actinoptychus delicatissimus* Witt 1885, p. 151 (15); pl. 9, fig. 1 [ref. 000915].
- Actinoptychus denarius* Ehrenberg 1843, p. 409 (121) [ref. 000294].
- Actinoptychus dilatatus* Pantocsek 1886, p. 61; pl. 13, fig. 112 [ref. 000714].
- Actinoptychus dives* Ehrenberg 1842, p. 265 [ref. 000295]. *Invalid*. Nomen nudum. Validated in Ehrenberg 1854, pl. XIX: fig. 12 (ref. 000966).
- Actinoptychus dives* Ehrenberg 1844, p. 202 [ref. 001184]. Collected during Hooker’s South Pole Journey. Syn. *Discoplea dives* Ehr. May be not the same species as *Actinoptychus dives* Ehr. 1854 (from Greece).
- Actinoptychus dives* Ehrenberg 1854, p. 7; pl. XIX: fig. 12 (as *Actinoptychus dives* 1844) [ref. 000966]. Not *Actinoptychus dives* Ehrenberg 1844?
- Actinoptychus divisus* ‘Kisselev’ VanLandingham 1967, p. 122 [ref. 006293]. *Invalid*. Citation error for *Actinocyclus divisus* Kisselev 1931.
- Actinoptychus doljensis* Jurilj 1957, p. 28 [ref. 000553]. *Invalid*. No illustration.
- Actinoptychus duodenarius* (Ehrenberg) Kützing 1844, p. 134 [ref. 000595]. Basionym: *Actinocyclus duodenarius* Ehrenberg 1840.
- Actinoptychus duodenarius* (Ehrenberg) Ehrenberg 1854, p. 7; pl. 18, fig. 24 [ref. 000966]. Basionym: *Actinocyclus duodenarius* Ehrenberg 1840. Isonym. Ehrenberg cites *Actinoptychus duodenarius* Ehrenberg 1841, 1844, probably referring to *Actinocyclus duodenarius* Ehrenberg 1840. The combination was already published by Kützing 1844.
- Actinoptychus ehrenbergii* Grunow 1867, p. 25 [ref. 000432].
- Actinoptychus elegans* Ralfs in Pritchard 1861, p. 840 [ref. 001063]. Described by Ralfs as a new species. Ralfs indicates that it is synonymous in part with *Actinoptychus octodenarius* Ehrenberg 1854 (“= *A. octodenarius* EM, pl. 21, fig. 21”).
- Actinoptychus elegans* Leuduger-Fortmorel 1879, legend to pl. 8, fig. 77 [ref. 000606]. *Illegitimate*. Non Ralfs in Pritchard

1861. Described in text p. 68 as “*Actinocyclus elegans* L.-F.” It is taxonomically an *Actinocyclus*.
- Actinoptychus elegantulus* Grove & Sturt 1887, p. 142; pl. 13, fig. 40 (as *Actinoptychus (glabratus* var.?) *elegantulus*) [ref. 000989].
- Actinoptychus erinaceus* Tempère & Brun in Brun & Tempère 1889, p. 12; pl. 7, fig. 1 (as *Actinoptychus erinaceus (hispidus* var.?) ) [ref. 000185].
- Actinoptychus erosus* Castracane 1886, p. 128; pl. 7, fig. 8 [ref. 000193].
- Actinoptychus excellens* Schumann 1867, p. 64 [ref. 001004]. Schumann cites “*A. senarius* Ehr. (Mik. XVIII/ 21)” (i.e. Ehrenberg 1854, ref. 000966).
- Actinoptychus excellens* Schumann in Schmidt et al. 1874, pl. 1, fig. 14 [ref. 012441]. Published earlier (Schumann 1867).
- Actinoptychus flos-marina* Brun 1891, p. 7; pl. 11, fig. 8 [ref. 000176]. *A. flosmarina* in expl. pl.
- Actinoptychus frenguelli* Müller-Melchers 1951, p. 321; fig. 1-5 [ref. 005048].
- Actinoptychus fuscus* Grove & Sturt in Schmidt et al. 1888, pl. 132, fig. 21 [ref. 012465].
- Actinoptychus gallegosi* Hanna & Grant 1926, p. 120; pl. 11, fig. 6 [ref. 000012].
- Actinoptychus geminus* Schmidt in Schmidt et al. 1886, pl. 91, fig. 6, 7 [ref. 012458].
- Actinoptychus glabratus* Grunow in Van Heurck 1883, pl. 120, fig. 6 (as *Actinoptychus (splendens* var.?) *glabratus*) [ref. 001037].
- Actinoptychus glabratus* var. *andesitica* Pantocsek 1889, p. 106 [ref. 001033]. Illustrated in Pantocsek 1892 (ref. 001034), pl. 5, fig. 76. Redescribed in Pantocsek 1905, p. 5 (ref. 001445).
- Actinoptychus glabratus* var. *angelorum* Grunow in Van Heurck 1883, pl. 120, fig. 9 [ref. 001037].
- Actinoptychus glabratus* var. *elegantulus* Grove & Sturt 1887, p. 142; pl. 13, fig. 40 (as *Actinoptychus (glabratus* var.?) *elegantulus*) [ref. 000989]. *Invalid*. Validly published in this work as *Actinoptychus elegantulus*.
- Actinoptychus glabratus* var. *incisa* Grunow in Van Heurck 1883, pl. 120, fig. 8 [ref. 001037].
- Actinoptychus glabratus* var. *interpositus* Brun 1893, p. 173; pl. 24, fig. 5 (as *Actinoptychus interpositus* J. Brun (*glabratus* Grun. var.?) ) [ref. 000178]. *Invalid*. Invalidly published in this work as a trinomial, valid as *A. interpositus*.
- Actinoptychus glabratus* var. *maculata* H. Peragallo in Tempère & H. Peragallo 1909, p. 116; No. 213-214 [ref. 001065]. *Invalid*. Nomen nudum.
- Actinoptychus glabratus* var. *montereyi* Grunow in Van Heurck 1883, pl. 120, fig. 7 [ref. 001037].
- Actinoptychus glabratus* var. *subangulatus* (A. Schmidt in Schmidt et al.) Brun & Tempère 1889, p. 68 [ref. 000185]. Basionym: *Actinoptychus subangulatus* Schmidt in Schmidt et al. 1888. No description or illustration but reference to the illustration of *A. subangulatus* in Schmidt 1888 (ref. 012466) (Atlas, pl. 132, fig. 11).
- Actinoptychus gracilis* Schumann 1867, p. 64; pl. 3, fig. 78 [ref. 001004].
- Actinoptychus grovei* Thomas in Brun, J., Cleve, P.T., Grove, E., Rattray J., Tempère, J. & Thomas 1890, p. 21; pl. 3, fig. 5 [ref. 000883]. In text ref. to illustration misspelled pl. III fig. 8.
- Actinoptychus gruendleri* A. Schmidt in Schmidt et al. 1874, pl. 1, fig. 22 (‘*Gründleri*’) [ref. 012441].
- Actinoptychus gruendleri* f. *minor* A. Schmidt in Schmidt et al. 1886, pl. 100, fig. 3, 4 (‘*Gründleri*’) [ref. 012460].
- Actinoptychus grunowii* A. Schmidt in Schmidt et al. 1874, pl. 1, fig. 18 (‘*grunovii*’) [ref. 012441].
- Actinoptychus guttatus* (Østrup) M. Peragallo in H. Peragallo & M. Peragallo 1911, p. 6 [ref. 000734]. Basionym: *Actinoptychus moronensis* var. *guttata* Østrup 1904.
- Actinoptychus halionyx* Grunow 1867, p. 25 [ref. 000432].
- Actinoptychus halionyx* var. *dilatata* Tempère & H. Peragallo 1910, p. 244; No. 468-469 [ref. 001066].
- Actinoptychus halionyx* var. *radiata* Grunow 1867, p. 25 (as *A. halionyx* Grun. var.: 5-, 6-, 7-, 8-9 *radiata*) [ref. 000432]. Grunow cites as synonyms: *Halionyx senarius*, *undenarius*, *duodenarius* Ehr., *Halionyx bisenarius* and *undenarius* Janisch.
- Actinoptychus harrensis* Fenner 1994, p. 108; pl. 1, fig. 6a, b [ref. 008197]. [according to ANSP].
- Actinoptychus heliopelta* Grunow in Van Heurck 1883, pl. 123, fig. 3 [ref. 001037]. Grunow notes in synonymy: “*Heliopelta species omnes* Ehr.”.
- Actinoptychus heliopelta* f. *minor* Brun 1891, legend to pl. XI, fig. 11 [ref. 000176].
- Actinoptychus heliopelta* var. *minor* (Brun) Tempère & H. Peragallo 1914, p. 478; No. 996-998 [ref. 001070]. Basionym: *Actinoptychus heliopelta* f. *minor* Brun 1891.
- Actinoptychus heliopelta* var. *versicolor* Brun 1891, p. 7; pl. 11, fig. 10 [ref. 000176].
- Actinoptychus heterostrophus* A. Schmidt in Schmidt et al. 1875, pl. 29, fig. 2 [ref. 012448]. Also in A. Schmidt 1886, pl. 109, figs. 9-11 (ref. 012462).
- Actinoptychus hexagonus* Grunow in Schmidt et al. 1874, pl. 1, fig. 15 [ref. 012441].
- Actinoptychus hexagonus* var. *decumana* A. Schmidt in Schmidt et al. 1874, pl. 1, fig. 17 [ref. 012441].
- Actinoptychus hexagonus* var. *indicus* Brun 1894, p. 73; pl. 5, fig. 8 (as *Actinoptychus indicus* J. Brun (*hexagonus* Grun. var.)) [ref. 000180]. *Invalid*. Validly published as *Actinoptychus indicus* Brun.
- Actinoptychus hexagonus* var. *subhexagona* H. Peragallo in H. Peragallo & M. Peragallo 1911, p. 5 [ref. 000734].
- Actinoptychus hexagonus* var. *tenella* A. Schmidt in Schmidt et al. 1874, pl. 1, fig. 16 [ref. 012441].

- Actinoptychus hexapterus* Ehrenberg 1843, p. 409; pl. 3/7, fig. 2 [ref. 000294].
- Actinoptychus hillabyanus* Brun 1896, p. 230; pl. 23, fig. 1 [ref. 000183].
- Actinoptychus hillabyanus* var. *corallina* Brun 1896, p. 230; pl. 23, fig. 2 [ref. 000183].
- Actinoptychus hispidus* Grunow in Van Heurck 1883, pl. 123, fig. 2 [ref. 001037].
- Actinoptychus hispidus* var. *erinaceus* Tempère & Brun in Brun & Tempère 1889, p. 12; pl. 7, fig. 1 (as *Actinoptychus erinaceus* (*hispidus* var.?) ) [ref. 000185]. *Invalid*. Validly published as *Actinoptychus erinaceus* Tempère & Brun.
- Actinoptychus hispidus* var. *mosaïca* Brun 1891, p. 7 (as *Actinopt. mosaïca* J. Brun (*hispidus* Grun. var.)) [ref. 000176]. Alternate name for *Actinoptychus mosaïca* Brun (see p. 48).
- Actinoptychus hungaricus* Pantocsek 1886, p. 61; pl. 21, fig. 187 [ref. 000714].
- Actinoptychus hüttlingerianus* Truan y Luard & Witt 1888, p. 11; pl. 2, fig. 1 [ref. 000889].
- Actinoptychus imperator* Pantocsek 1892, pl. 37, fig. 522 [ref. 001034]. Description in Pantocsek 1905, p. 6 (ref. 001445).
- Actinoptychus incertus* (Grunow) Wolle 1890, pl. 85, fig. 8 [ref. 000916]. Basionym: *Actinocyclus incertus* Grunow in Van Heurck 1883.
- Actinoptychus incisa* (Grunow in Schmidt et al.) F.W. Mills 1933, p. 109 [ref. 000997]. Basionym: *Actinoptychus glabratus* var. *incisa* Grunow in Van Heurck 1883. Although Mills references Gaylord and Hanna 1925, pl. 4, fig. 2 (ref. 000004), these authors did not published the new combination, they illustrate the taxon as *Actinoptychus undulatus incisa* Grunow. Mills who accepts this combination must be credited for it.
- Actinoptychus indeterminatus* Long, Fuge & Smith 1946, p. 94; pl. 13, fig. 2 [ref. 000616].
- Actinoptychus indicus* Brun 1894, p. 73; pl. 5, fig. 8 (as *Actinoptychus indicus* J. Brun (*hexagonus* Grun. var.)) [ref. 000180].
- Actinoptychus inopinatus* A. Schmidt in Schmidt et al. 1874, pl. 1, fig. 19 [ref. 012441].
- Actinoptychus intermedius* A. Schmidt in Schmidt et al. 1886, pl. 91, fig. 2,3 [ref. 012458].
- Actinoptychus interpositus* Brun 1893, p. 173; pl. 24, fig. 5 (as *Actinoptychus interpositus* J. Brun (*glabratus* Grun. var.?) ) [ref. 000178].
- Actinoptychus interpunctatus* Brightwell 1860, p. 94; pl. 6, fig. 17 [ref. 000947].
- Actinoptychus irregularis* Grunow in Van Heurck 1883, pl. 132, fig. 11 [ref. 001037].
- Actinoptychus janischii* Grunow in Van Heurck 1883, pl. 122, fig. 6 [ref. 001037]. New name for *Halionyx vicenarius* Janisch 1862.
- Actinoptychus janischii* var. *notata* H. Peragallo in Tempère & Peragallo 1909, p. 116; No. 213-214 [ref. 001065]. *Invalid*. Nomen nudum.
- Actinoptychus janischii* var. *partita* Tempère & Peragallo 1911, p. 275; No. 548-550 [ref. 001067].
- Actinoptychus japonicus* Grunow in A. Schmidt et al. 1874, pl. 1, fig. 21 [ref. 012441].
- Actinoptychus japonicus* (Castracane) M. Peragallo 1897, p. 31 [ref. 012539]. Basionym: *Omphalopelta japonica* Castracane 1886. *Illegitimate*. Non Grunow in A. Schmidt 1874. De Toni 1894, p. 1392 (ref. 000951) indicated that this taxon belongs in *Actinoptychus* sensu ampl., but did not validly publish the combination (taxon listed as *Omphalopelta japonica* Cast.). The combination may have been published by De Toni in Notarisia 1889, p. 760 (not seen by us). The combination is definitely valid in Peragallo 1897.
- Actinoptychus jupiter* Ehrenberg 1843, p. 410 (122) [ref. 000294].
- Actinoptychus kernensis* Hanna 1932, p. 170; pl. 3, fig. 2, 3 [ref. 000014].
- Actinoptychus klavsenii* Schmidt in Schmidt et al. 1893, pl. 184, fig. 2 [ref. 012472].
- Actinoptychus kraussii* Schmidt in Schmidt et al. 1892, pl. 173, fig. 4 [ref. 012470].
- Actinoptychus kusnetzianus* Pantocsek 1892, pl. 26; fig. 383 [ref. 001034]. Description in Pantocsek 1905, p. 6 (ref. 001445).
- Actinoptychus kymatodes* Pantocsek 1886, p. 62; pl. 23, fig. 213 [ref. 000714].
- Actinoptychus kymatodes* var. *radiolata* Forti in Tempère & H. Peragallo 1912, p. 337; No. 696-697 [ref. 001068]. *Invalid*. Nomen nudum. Validated by Forti 1913, p. 1584 (ref. 000342).
- Actinoptychus kymatodes* var. *radiolata* Forti 1913, p. 1584; pl. 5, fig. 2 [ref. 000342].
- Actinoptychus kymatodes* var. *tetramera* Forti in Tempère & Peragallo 1912, p. 330; No. 696-697 [ref. 001068]. *Invalid*. Nomen nudum. Also invalid in Forti 1912, p. 81 (ref. 000341). Validated by Forti 1913, p. 1590, pl. 5, fig. 9, 11, 12 (ref. 000342).
- Actinoptychus kymatodes* var. *tetramera* Forti 1913, p. 1590; pl. 5, fig. 9, 11, 12 [ref. 000342].
- Actinoptychus laevigatus* Grunow in Van Heurck 1883, pl. 122, fig. 7 [ref. 001037].
- Actinoptychus laevigatus* f. *parva* Schmidt in Schmidt et al. 1888, pl. 132, fig. 15 [ref. 012465].
- Actinoptychus leptomitos* Pantocsek 1886, p. 62; pl. 21, fig. 189 [ref. 000714].
- Actinoptychus leptomitos* f. *spinulosus* Gleser & Sheshukova-Poretskaya 1967, p. 28; pl. 1, fig. 3 [ref. 004254].
- Actinoptychus lobatus* Brun 1896, p. 230; pl. 23, fig. 5 [ref. 000183].
- Actinoptychus lucidus* Brun 1894, p. 73; pl. 5, fig. 7 [ref. 000180].
- Actinoptychus luna* Janisch 1862, p. 22, pl. 1B, fig. 2 [ref. 000540].
- Actinoptychus macraei* Deby in Brun, Bergon, Deby & Tempère 1891, p. 68; pl. 11, fig. 7 [ref. 001938].

- Actinoptychus maculatus* (Grove & Sturt) Schmidt in Schmidt et al. 1888, pl. 132, fig. 18-20 [ref. 012465]. New combination of *Actinoptychus vulgaris* var. *maculatus* Grove & Sturt 1887 (ref. 000988) (possible by comparison of figures)? or new taxon? A. Schmidt notes: "Grunow möchte diese Form zu *A. splendens* oder *vulgaris* ziehen. Die Art-gültigkeit derselben wird durch die ganz eigen thümliche Gestalt der Processe verbürgt".
- Actinoptychus maculosus* Pantocsek 1892, pl. 39, fig. 545 [ref. 001034]. Description in Pantocsek 1905, p. 6 (ref. 001445).
- Actinoptychus madreporus* Brun 1896, p. 231; pl. 23, fig. 6 [ref. 000183].
- Actinoptychus mambolensis* Woodhead & Tweed 1958, p. 304 [ref. 012536]. [according to ANSP].
- Actinoptychus marmoreus* Brun in Schmidt et al. 1890, pl. 154, fig. 7 [ref. 012468].
- Actinoptychus marmoreus* f. *bisenarius* Tynni 1986, p. 15; pl. 8, fig. 37 [ref. 008909]. [according to ANSP].
- Actinoptychus marmoreus* f. *octonarius* Tynni 1986, p. 15; pl. 8, fig. 35 [ref. 008909]. [according to ANSP].
- Actinoptychus marylandicus* (Brightwell) Schmidt in Schmidt et al. 1875, Berichtigung der Erläuterungen zu Heft 1, pl. 1, fig. 26 [ref. 012442]. Basionym: *Triceratium marylandicum* Brightwell 1856. Also on pl.1, fig. 26 of the 1885 edition of the Atlas (ref. 012637). This figure was originally (Schmidt 1874, pl. 1, fig. 26, ref. 012441) labeled *Actinoptychus triangulatus*.
- Actinoptychus marylandicus* Andrews 1976, p. 14-15; pl. 4, fig. 3-6 [ref. 003359]. *Illegitimate*. Non (Brightwell) Schmidt 1875. [according to ANSP].
- Actinoptychus marylandicus* var. *suborbicularis* Grunow in Cleve & Möller 1879, No. 276, p. 9 (as *A. (marylandicus* var. ?) *suborbicularis* Grun.) [ref. 001978]. *Invalid*. Nomen nudum.
- Actinoptychus meakinii* VanLandingham 1967, p. 129 [ref. 006293]. New name for *Actinoptychus affinis* Barker & Meakin 1944, non Grunow in A. Schmidt 1890.
- Actinoptychus microsticta* (Grunow) Mertz 1966, p. 20; pl. 3, fig. 5, 6 [ref. 008579]. Basionym: *Actinoptychus undulatus* var. *microsticta* Grunow in Van Heurck 1883.
- Actinoptychus millsii* Chenevière 1934, p. 105-106; pl. 7, fig. 5 [ref. 000055].
- Actinoptychus minor* 'Grunow in Van Heurck' VanLandingham 1979, p. 4249 [ref. 006514]. *Invalid*. Citation error for *Actinoptychus annulatus* var. *minor* Grunow in Van Heurck 1883.
- Actinoptychus minutus* Greville 1866, p. 5; pl. 1, fig. 12 [ref. 000423].
- Actinoptychus minutus* f. *major* Forti 1912, p. 81 [ref. 000341]. Refers to specimen illustrated (as *A. undulatus* abn.) in Schmidt et al. 1888, pl. 132, fig. 16 (ref. 012465). Nomen nudum in Tempère and Peragallo 1912, p. 330, no. 673-675 (ref. 001068). Description and illustration in Forti 1913, p. 1587, pl. 5, fig. 3 (ref. 000342).
- Actinoptychus minutus* f. *major* Forti 1913, p. 1587, pl. 5, fig. 3 [ref. 000342].
- Actinoptychus mirabilis* Leuduger-Fortmorel 1879, p. 70; pl. 8, fig. 80 [ref. 000606].
- Actinoptychus mirans* Leuduger-Fortmorel 1898, p. 17; pl. 4, fig. 1 [ref. 000608].
- Actinoptychus moelleri* Grunow in Schmidt et al. 1888, pl. 132, fig. 9 (as *Actinoptychus mölleri* Grunow var.) [ref. 012465]. Illustrated in A. Schmidt 1890, pl. 154, fig. 5 (ref. 021468) as *Actinoptychus mölleri* Gr.
- Actinoptychus moronensis* (Greville) Cleve 1885, p. 172 [ref. 000225]. Basionym: *Omphalopelta moronensis* Greville 1866.
- Actinoptychus moronensis* var. *guttata* Østrup 1904, p. 118; pl. 1, fig. 1 [ref. 000704]. (p. 270 of reprint).
- Actinoptychus mosaïca* Brun 1891, p. 7; pl. 11, fig. 12 (as *Actinopt. mosaïca* J. Brun (*hispidus* Grun. var.)) [ref. 000176].  
Synonym (alternate name): *Actinoptychus hispidus* var. *mosaïca* Brun (see p. 48).
- Actinoptychus muelleri* Pantocsek 1909, p. 19; pl. 1, fig. 4 ("Mülleri") [ref. 001447].
- Actinoptychus neogradensis* Pantocsek 1886, p. 62; pl. 7, fig. 55 [ref. 000714].
- Actinoptychus nicobaricus* (Grunow) Andrews 1979, p. 383; pl. 2, fig. 3 [ref. 003366]. Basionym: *Actinoptychus splendens* var. *nicobarica* Grunow in Van Heurck 1883.
- Actinoptychus nitidus* (Greville) A. Schmidt in Schmidt et al. 1874, pl. 1, fig. 7 [ref. 012441]. Basionym: *Heliopelta nitida* Greville 1866.
- Actinoptychus nitidus* var. *turgida* Tempère in Brun & Tempère 1889, p. 68 [ref. 000185].
- Actinoptychus nonarius* Ehrenberg 1843, p. 409; pl. 1/3, fig. 22 [ref. 000294].
- Actinoptychus notabilis* Brun in Schmidt et al. 1890, pl. 155, fig. 2 [ref. 012468].
- Actinoptychus notabilis* Pantocsek 1892, pl. 18, fig. 261 [ref. 001034]. *Illegitimate*. Non Brun 1890. Described as *Actinoptychus baxterii* Pantocsek in Pantocsek 1905, p. 5 (ref. 001445). Synonym (substitute name): *Actinoptychus baxterii* Pantocsek 1903.
- Actinoptychus numa* '(Ehrenberg) Chase in Habirshaw et al. 1888' Mills 1933, p. 90 [ref. 000997]. *Invalid*. Citation error for *Actinocyclus numa* Ehrenberg 1845. Not accepted by Mills (lower case print).
- Actinoptychus octodenarius* (Ehrenberg) Kützing 1844, p. 134 [ref. 000595]. Basionym: *Actinocyclus octodenarius* Ehrenberg 1840.
- Actinoptychus octodenarius* Ehrenberg 1854, p. 7; pl. 33/16, fig. 4, pl. 21, fig. 21 [ref. 000966]. Ehrenberg indicates a possible earlier date for this name (1844 cited in plate caption). This is the name of new taxon (an *Actinoptychus* taxonomically), not a new combination of *Actinocyclus octodenarius* Ehr. 1840 (an *Actinocyclus* taxonomically).
- Actinoptychus octonarius* (Ehrenberg) Kützing 1844, p. 134; pl. 21, fig. 25 [ref. 000595]. Basionym: *Actinocyclus octonar-*

- ius* Ehrenberg 1837. Kützing cites “Ehrenb. Inf. 1838, pl. 21, fig. 7” (ref. 000288). Localities cited: “Im Polirschiefer von Oran; auch bei Richmond Virg.”.
- Actinoptychus octonarius* Ehrenberg 1854, p. 7; pl. 18, fig. 22 [ref. 000966]. Non (Ehrenberg) Kützing 1844? This is taxonomically an *Actinoptychus*, and it is illustrated from Richmond, Virginia. This is probably the name of a new taxon, not a new combination (of *Actinocyclus octonarius* Ehr.). Ehrenberg cites in the plate caption possible earlier dates of publication (1841, 1844). Name appeared as a nomen nudum in Ehrenberg 1843, p. 162 (ref. 002003), Ehrenberg 1843, p. 328 (ref. 000294), Ehrenberg 1845, p. 83 (ref. 000955).
- Actinoptychus oliveranus* ‘O’Meara’ Mills 1933, p. 104 [ref. 000997]. *Invalid*. Err. cit. for *Actinocyclus oliveranus* O’Meara 1877. Not accepted by Mills.
- Actinoptychus omaruensis* Grunow in Schmidt et al. 1888, pl. 132, fig. 10 [ref. 012465]. Original spelling “*omaruensis*” could be corrected to “*oamaruensis*”.
- Actinoptychus omphalopelta* Grunow 1867, p. 25 [ref. 000432]. New name for *Omphalopelta areolata* Ehrenberg 1844.
- Actinoptychus oppenoorthi* Reinhold 1937, p. 78; pl. 2, fig. 5-7 [ref. 000039].
- Actinoptychus orientalis* Kisselev 1931, p. 95 (Russian), p. 114 (German); pl. 1, fig. 2 [ref. 000563].
- Actinoptychus packi* Hanna 1927, p. 12; pl. 1, fig. 1-3 [ref. 000010].
- Actinoptychus packi* var. *immaculatus* Long, Fuge & Smith 1946, p. 94; pl. 13, fig. 5 [ref. 000616].
- Actinoptychus pantocsekii* Truan in Pantocsek 1886, p. 62; pl. 7, fig. 54 [ref. 000714].
- Actinoptychus papillo* Brun in Brun & Tempère 1889, p. 12; pl. 7, fig. 4 [ref. 000185].
- Actinoptychus paradoxus* Greville 1863, p. 72 [ref. 000978]. *Invalid*. Although Greville noted the resemblance of this diatom with *Actinoptychus*, no valid combination is made by Greville under *Actinoptychus*. The name of this taxon is validly published by Greville 1863 (ref. 000978) as *Aulacodiscus paradoxus*. Greville 1863 (ref. 000416) revised his position on this taxon and stated that it should be placed in the genus *Omphalopelta* (see corrigendum series IX), but he failed to validly publish the combination under *Omphalopelta*.
- Actinoptychus pardus* (Castracane) M. Peragallo 1897, p. 33 [ref. 012539]. Basionym: *Omphalopelta parda* Castracane 1886.
- Actinoptychus pardus* var. *tsuboneensis* Ichikawa in Ichikawa, Fuji & Bachmann 1964, p. 44; pl. 4, fig. 24a, b (‘*parda*’) [ref. 000538].
- Actinoptychus parvus* Mann 1925, p. 15; pl. 1, fig. 8 [ref. 000632].
- Actinoptychus paynei* Taylor 1929, p. 59 [ref. 000877].
- Actinoptychus paynei* var. *moonii* Taylor 1929, p. 59 [ref. 000877].
- Actinoptychus pellucidus* Grunow in Van Heurck 1883, pl. 123, fig. 1 [ref. 001037].
- Actinoptychus perennis* Brun in Schmidt et al. 1890, pl. 156, fig. 4, 5 [ref. 012468].
- Actinoptychus pericavatus* Brun in Brun & Tempère 1889, p. 12; pl. 3, fig. 7 [ref. 000185].
- Actinoptychus pericavatus* var. *jullanaicus* ‘Tempère’ according to Mills 1933, p. 112 (as [*Actinoptychus pericavatus*] var. *jullanaicus*, Temp?) [ref. 000997].
- Actinoptychus pericavatus* var. *oamaruensis* Schmidt in Schmidt et al. 1892, pl. 173, fig. 3 [ref. 012470].
- Actinoptychus pericavatus* var. *tropicalis* Brun 1896, p. 231; pl. 23, fig. 3 [ref. 000183].
- Actinoptychus perisetosus* Brun 1894, p. 73; pl. 5, fig. 9 (as *Actinoptychus perisetosus* Brun (*biformis* var.)) [ref. 000180].
- Actinoptychus perisetosus* var. *inermis* Tempère & Peragallo 1910, p. 244; No. 468-469 [ref. 001066].
- Actinoptychus periplexus* Hanna & Grant 1926, p. 122; pl. 11, fig. 10, 11 [ref. 000012].
- Actinoptychus pethoei* Pantocsek 1889, p. 107 (‘*pethöi*’) [ref. 001033]. Illustrated in Pantocsek 1892, pl. 12, fig. 192 (ref. 001034). Redescribed in Pantocsek 1905, p. 6 (ref. 001445).
- Actinoptychus petiti* Pantocsek 1889, p. 107 [ref. 001033]. Illustrated in Pantocsek 1892, pl. 7, fig. 112 (ref. 001034). Redescribed in Pantocsek 1905, p. 7 (ref. 001445).
- Actinoptychus pfitzeri* Gründler in Schmidt et al. 1875, pl. 29, fig. 1 [ref. 012448].
- Actinoptychus planus* Mann 1907, p. 271; pl. 45, fig. 2 [ref. 000631].
- Actinoptychus praetor* Schmidt in Schmidt et al. 1886, pl. 100; fig. 5 [ref. 012460].
- Actinoptychus pseudoantistrophus* M. Peragallo in Tempère & H. Peragallo 1908, p. 103; No. 189 [ref. 001064].
- Actinoptychus pulchellus* (Grunow in Van Heurck) Wolle 1890, pl. 103, fig. 7 [ref. 000916]. Basionym: *Polymyxus pulchellus* Grunow in Van Heurck 1883.
- Actinoptychus pulchellus* var. *tenera* Grove & Sturt 1887, p. 142; pl. 13, fig. 41 [ref. 000989].
- Actinoptychus punctatus* (Ehrenberg) Tempère & H. Peragallo 1889, p. 8; No. 7 [ref. 000881]. Basionym: *Omphalopelta punctata* Ehrenberg 1844.
- Actinoptychus punctulatus* Pantocsek 1886, p. 62; pl. 8, fig. 60 [ref. 000714].
- Actinoptychus pyxidicula* Krishtofovich 1941 [ref. 002491]. According to Hollerbakh & Krasavina 1971, p. 19. [according to VLC].
- Actinoptychus quaternarius* Ehrenberg 1844, p. 76 [ref. 002694].
- Actinoptychus quaternatus* ‘Ehrenberg’ Janisch 1861, p. 157; pl. IA, fig. 8 [ref. 000539]. Citation error for *Actinoptychus*

- quaternarius* Ehrenberg?
- Actinoptychus quatuordenarius* Ehrenberg 1844, p. 271 [ref. 001182].
- Actinoptychus quinarius* 'Ehrenberg' Janisch 1861, p. 157; pl. IB, fig. 3, pl. IIB, fig. 5 [ref. 000539]. Possibly was published earlier in Ehrenberg's work. References for *Actinoptychus quinarius* given by Peragallo 1897 (ref. 012539) and VanLandingham 1967 (ref. 006293) are citation errors for *Actinocyclus quinarius* Ehr.
- Actinoptychus racemosus* Schmidt in Schmidt et al. 1890, pl. 153, fig. 2 [ref. 012468].
- Actinoptychus radiolatus* Grunow in Van Heurck 1883, pl. 122, fig. 5 [ref. 001037].
- Actinoptychus radulus* Mann 1907, p. 271; pl. 45, fig. 3 [ref. 000631].
- Actinoptychus raeanus* Castracane 1886, p. 127; pl. 7, fig. 4 [ref. 000193].
- Actinoptychus ranunculus* Brun in Schmidt et al. 1890, pl. 155, fig. 1 [ref. 012468].
- Actinoptychus rehingeri* M. Peragallo in H. Peragallo & M. Peragallo 1911, p. 9; pl. 2, fig. 5 [ref. 000734].
- Actinoptychus reinholdi* M. Hajós 1968, p. 123; pl. 31, fig. 5 [ref. 002445]. Based on *A. maculatus* "Grove & Sturt" sensu Reinhold 1937, p. 78, pl. 3 figs. 7, 9 (ref. 000039).
- Actinoptychus reticulatus* Pantocsek 1886, p. 63; pl. 7, fig. 58 [ref. 000714].
- Actinoptychus reticulatus* Leuduger-Fortmorel 1898, p. 17; pl. 3, fig. 9 [ref. 000608]. *Illegitimate*. Non Pantocsek 1886.
- Actinoptychus reticulatus* Jurilj 1957, p. 28; pl. 4, fig. 7 [ref. 000553]. *Illegitimate*. Non Pantocsek 1886, nec Leuduger-Fortmorel 1898.
- Actinoptychus rotifer* Leuduger-Fortmorel 1898, p. 17; pl. 3, fig. 10 [ref. 000608].
- Actinoptychus rotula* Long, Fuge & Smith 1946, p. 95; pl. 13, fig. 3, 4 [ref. 000616].
- Actinoptychus schmidti* Pantocsek 1889, p. 107 [ref. 001033]. Illustrated in Pantocsek 1892, pl. 4, fig. 65 (ref. 001034). Re-described in Pantocsek 1905, p. 7 (ref. 001445).
- Actinoptychus sculptilis* Schmidt in Schmidt et al. 1886, pl. 100, fig. 1, 2 [ref. 012460].
- Actinoptychus sculptilis* f. *tetramera* Forti 1913, p. 1589; pl. 5, fig. 10 [ref. 000342]. Illustrated as *Actinoptychus sculptilis* var. *tetramera*.
- Actinoptychus sculptilis* var. *tetramera* Forti 1913, p. 1672 (fig. caption); (p. 1589); pl. 5, fig. 10 [ref. 000342]. Described on p. 1589 as *Actinoptychus sculptilis* forma *tetramera*.
- Actinoptychus sculptilis* var. *tetramera* (Forti) Tempère & H. Peragallo 1914, p. 478; No. 996-998 [ref. 001070]. Basionym: *Actinoptychus sculptilis* f. *tetramera* Forti 1913. Isonym: See *Actinoptychus sculptilis* var. *tetramera* Forti 1913.
- Actinoptychus sedenarius* (Ehrenberg) Kützing 1844, p. 134 [ref. 000595]. Basionym: *Actinocyclus sedenarius* Ehrenberg 1840.
- Actinoptychus seductilis* Schmidt in Schmidt et al. 1875, pl. 29, fig. 12 [ref. 012448].
- Actinoptychus segmentatus* Brun in Schmidt et al. 1890, pl. 155, fig. 6, 7 [ref. 012468].
- Actinoptychus semilaevis* Grunow in Pantocsek 1886, p. 65; pl. 26, fig. 245 [ref. 000714].
- Actinoptychus semilevis* Grunow in Pantocsek 1886 [ref. 000714]. See *Actinoptychus semilaevis* Grunow Pantocsek 1886. The orthographic change from the original 'semilaevis' can be traced back as far back as De Toni 1894, p. 1376 (ref. 000951), and was followed by Peragallo 1897 (ref. 0012539), Mills 1933 (ref. 000997), and VanLandingham 1967 (ref. 006293).
- Actinoptychus semiocellatus* Schumann 1867, p. 139 [ref. 012535]. [according to ANSP].
- Actinoptychus semseyi* Pantocsek 1889, p. 108 [ref. 001033]. Illustrated in Pantocsek 1892, pl. 4, fig. 68 (ref. 001034). Re-described in Pantocsek 1905, p. 7 (ref. 001445).
- Actinoptychus senarius* (Ehrenberg) Ehrenberg 1843, p. 298, 301, 322, 328, 437, 438, 443; pl. I/I, fig. 27, pl. I/III, fig. 21, pl. III/VII, fig. 1 [ref. 000294]. Basionym: *Actinocyclus senarius* Ehrenberg 1837. Also in Ehrenberg 1843, p. 162 (ref. 002003).
- Actinoptychus senarius* var. *barbadensis* (A. Schmidt) Desikachary & Sreelatha 1989, p. 33; pl. 9, fig. 7-8 [ref. 006023]. Basionym: *Actinoptychus undulatus* var. *barbadensis* Schmidt in Schmidt et al. 1874.
- Actinoptychus senarius* var. *denarius* (Ehrenberg) O'Meara 1875, p. 267 [ref. 000694]. Basionym: *Actinoptychus denarius* Ehrenberg 1843.
- Actinoptychus senarius* var. *duodenarius* (Ehrenberg) O'Meara 1875, p. 267 [ref. 000694]. Basionym: *Actinocyclus duodenarius* Ehrenberg 1840.
- Actinoptychus senarius* var. *incommoda* Mertz 1966, p. 21; pl. 4, fig. 2, 3 [ref. 008579]. New name for the invalid name: *Actinoptychus ternarius* Janisch in A. Schmidt 1874.
- Actinoptychus senarius* var. *matraensis* Hajós 1968, p. 122; pl. 31, fig. 1-3 [ref. 002445].
- Actinoptychus senarius* var. *minor* (A. Cleve) Hajós 1968, p. 121; pl. 30, fig. 6-8 [ref. 002445]. Basionym: *Actinoptychus undulatus* var. *minor* Cleve-Euler 1941.
- Actinoptychus senarius* var. *minutus* (Greville) Wornardt 1967, p. 46 [ref. 000006]. Basionym: *Actinoptychus minutus* Greville 1866.
- Actinoptychus senarius* var. *sedenarius* (Ehrenberg) O'Meara 1875, p. 267 [ref. 000694]. Basionym: *Actinocyclus sedenarius* Ehrenberg 1840.

- Actinoptychus senarius* var. *tamanica* (Jousé) Hajós 1968, p. 121; pl. 30, fig. 10-15 [ref. 002445]. Basionym: *Actinoptychus undulatus* var. *tamanicus* Jousé in Proschkina-Lavrenko 1949. *Invalid*. Place of publication of basionym not cited.
- Actinoptychus senarius* var. *turgida* (Tempère & Brun) Desikachary, Gowthaman & Latha 1987, p. 3 (expl. pl. 83, fig. 2) [ref. 006018]. Basionym: *Actinoptychus undulatus* var. *turgida* Tempère & Brun in Schmidt et al. 1890.
- Actinoptychus senarius* var. *vicenarius* (Ehrenberg) O'Meara 1875, p. 267 [ref. 000694]. Basionym: *Actinoptychus vicenarius* Ehrenberg 1843.
- Actinoptychus separatus* Leuduger-Fortmorel 1898, p. 23; pl. 4, fig. 10 [ref. 000608].
- Actinoptychus septenarius* Ehrenberg 1853, p. 265 [ref. 002423]. *Invalid*. Nomen nudum in Ehrenberg 1853. M. Peragallo (1897), p. 34 (ref. 012539) indicates that the name may be found in Ehrenberg 1872 (ref. 000312). (ref. 000312 not seen).
- Actinoptychus shrubsolianus* (Castracane) M. Peragallo 1897, p. 34 [ref. 012539]. Basionym: *Omphalopelta shrubsoliana* Castracane 1886. De Toni 1894, p. 1392 (ref. 000951) indicated that this taxon belongs in *Actinoptychus*, but failed to validly publish the combination. The combination may have been published by De Toni in Notarisia 1889, p. 760 (not seen by us). The combination is definitely valid in Peragallo 1897.
- Actinoptychus sibiricus* Paramonova 1964, p. 68; fig. 3, 4 [ref. 002114].
- Actinoptychus signatus* Long, Fuge & Smith 1946, p. 95; pl. 13, fig. 1 [ref. 000616].
- Actinoptychus simbirskianus* Schmidt in Schmidt et al. 1875, pl. 29, fig. 11 [ref. 012448]. Also in A. Schmidt 1886, pl. 109, figs. 3-8 (ref. 012462).
- Actinoptychus similaris* Sheshukova-Poretskaya & Gleser 1964, p. 84; pl. 1, fig. 9 [ref. 001498].
- Actinoptychus socius* A. Schmidt in Schmidt et al. 1874, pl. 1, fig. 11 [ref. 012441].
- Actinoptychus solisi* Hanna & Grant 1926, p. 123; pl. 12, fig. 1-3 [ref. 000012].
- Actinoptychus speciosus* Meister 1935, p. 91; fig. 11-12 [ref. 000645].
- Actinoptychus spinifer* Grunow in Schmidt et al. 1890, pl. 153, fig. 23 [ref. 012468].
- Actinoptychus spinifer* Pantocsek 1892, pl. 41, fig. 561 [ref. 001034]. *Illegitimate*. Non Grunow 1890. Synonym (substitute name): *Actinoptychus californicus* Pantocsek 1903 (ref. 002332). Described as *Actinoptychus californicus* in Pantocsek 1905, p. 8 (ref. 01445).
- Actinoptychus spiniferus* Grunow in Van Heurck 1883, pl. 121, fig. 5, 6 (as *Actinoptychus (vulgaris var.?) spiniferus*) [ref. 001037].
- Actinoptychus spinosus* (Brightwell) Ralfs in Pritchard 1861, p. 840 [ref. 001063]. Basionym: *Actinocyclus spinosus* Brightwell 1860.
- Actinoptychus spinulosus* Schmidt in Schmidt et al. 1890, pl. 153, fig. 24 [ref. 012468].
- Actinoptychus splendens* (Shadbolt) Ralfs in Pritchard 1861, p. 840 [ref. 001063]. Basionym: *Actinophaenia splendens* Shadbolt 1854.
- Actinoptychus splendens* var. *angelorum* (Grunow) Wornardt 1967, p. 48; fig. 72 [ref. 000006]. Basionym: *Actinoptychus glabratus* var. *angelorum* Grunow in Van Heurck 1883.
- Actinoptychus splendens* var. *bicentralis* Pantocsek 1886, p. 63 (as *Actinoptychus splendens* Shadb. - Abnormitas: *bicentralis* Pant.) [ref. 000714]. *Invalid*. Meant by Pantocsek as an abnormality, not a new variety. First reported as "*A. splendens* var. *bicentralis* Pantocsek (abnormal)" by Mills 1933, p. 115 (ref. 000997). See also *Actinoptychus splendens* f. *bicentralis* (abnormalis) Pant. in Chase 1907, p. 45 (ref. 002211).
- Actinoptychus splendens* var. *californica* Grunow in Van Heurck 1883, pl. 120, fig. 1 [ref. 001037].
- Actinoptychus splendens* var. *crucifera* Grunow in Van Heurck 1883, pl. 120, fig. 2 [ref. 001037].
- Actinoptychus splendens* var. *fusca* (Grove & Sturt in Schmidt et al.) Grove & Sturt in Schmidt et al. 1888, Expl. pl. 132, fig. 21 [ref. 012465]. Basionym: *Actinoptychus fuscus* Grove & Sturt in Schmidt et al. 1888. *Invalid*. In syn. *Actinoptychus fuscus* Grove & Sturt.
- Actinoptychus splendens* var. *glabrata* (Grunow in Van Heurck) Pantocsek 1886, p. 63; pl. 16, fig. 138 [ref. 000714]. Basionym: *Actinoptychus glabratus* Grunow in Van Heurck 1883.
- Actinoptychus splendens* var. *glabratus* Grunow in Van Heurck 1883, pl. 120, fig. 6 (as *Actinoptychus (splendens var.?) glabratus*) [ref. 001037]. *Invalid*. Validly published as *Actinoptychus glabratus* Grunow in Van Heurck 1883, and *Actinoptychus splendens* var. *glabrata* (Grunow) Pantocsek 1886.
- Actinoptychus splendens* var. *halionyx* (Grunow) Grunow in Van Heurck 1883, pl. 119, fig. 3; pl. 120, fig. 3, 5 [ref. 001037]. Basionym: *Actinoptychus halionyx* Grunow 1867.
- Actinoptychus splendens* var. *incisa* (Grunow) Wornardt 1967, p. 48; fig. 68-71, 73 [ref. 000006]. Basionym: *Actinoptychus glabratus* var. *incisa* Grunow in Van Heurck 1883.
- Actinoptychus splendens* var. *montereyi* Tempère & Peragallo 1911, p. 275; No. 548-549 [ref. 001067]. *Invalid*. Nomen nudum.
- Actinoptychus splendens* var. *nicobarica* Grunow in Van Heurck 1883, pl. 120, fig. 4 [ref. 001037].
- Actinoptychus splendens* var. *nobilis* Pantocsek 1886, p. 63; pl. 16, fig. 147 [ref. 000714].
- Actinoptychus splendens* f. *partita* Pantocsek 1886, p. 63; pl. 16, fig. 144 [ref. 000714].

- Actinoptychus splendens* f. *partita* Pantocsek 1886, p. 63; pl. 16, fig. 145 (as *Actinoptychus splendens* var. *glabrata* f. *partita*) [ref. 000714]. Non *Actinocyclus splendens* forma *partita* Pantocsek 1886 illustrated on fig. 144 in the same work.
- Actinoptychus splendens* var. *partita* (Pantocsek) Tempère & Peragallo 1915, p. 12 [ref. 001071]. Basionym: *Actinoptychus splendens* f. *partita* Pantocsek 1886. Cit. err. for *Actinoptychus splendens* f. *partita* Pantocsek 1886. Can probably be treated as a valid new combination of Pantocsek's name.
- Actinoptychus splendens* var. *solisi* (Hanna & Grant) Wornardt 1967, p. 48; fig. 74-77 [ref. 000006]. Basionym: *Actinoptychus solisi* Hanna & Grant 1926.
- Actinoptychus splendens* var. *subglabrata* Grunow in Pantocsek 1886, p. 63 [ref. 000714].
- Actinoptychus splendens* var. *vulgaris* (Schumann) Proschkina-Lavrenko 1949, p. 100 [ref. 002554]. Basionym: *Actinoptychus vulgaris* Schumann 1867. Proschkina-Lavrenko 1949 credits Hustedt for the combination (probably referring to Hustedt 1929, p. 482, ref. 000501). Hustedt, however, did not publish the combination which should be ascribed to Proschkina-Lavrenko.
- Actinoptychus splendens* var. *zagrebiensis* Jurilj 1957, p. 27; pl. 5, fig. 1 [ref. 000553].
- Actinoptychus staubii* Pantocsek 1889, p. 108 [ref. 001033]. Illustrated in Pantocsek 1892, pl. 6, fig. 88 (ref. 001034). Re-described in Pantocsek 1905, p. 8 (ref. 001445).
- Actinoptychus stella* Schmidt in Schmidt et al. 1886, pl. 90, fig. 1, 2 [ref. 012458]. Also illustrated in Schmidt 1888 (ref. 012465), pl. 132, fig. 23.
- Actinoptychus stella* var. *clevei* (Schmidt) Wornardt 1967, p. 48; fig. 78 [ref. 000006]. Basionym: *Actinoptychus clevei* Schmidt in Schmidt et al. 1886.
- Actinoptychus stella* f. *fenestrata* Forti in Tempère & Peragallo 1909, p. 195; No. 367-369 (as *Actinoptychus stella* var. *thumii* f. *fenestrata*) [ref. 001065]. *Invalid*. Nomen nudum. Validated by Forti 1913, p. 1585 (ref. 000342).
- Actinoptychus stella* f. *fenestrata* Forti 1913, p. 1585; pl. 5, figs 6,7 (as *Actinoptychus stella* var. *thumii* f. *fenestrata*) [ref. 000342]. Name previously appeared as nomen nudum in Forti 1910, p. 1307 (ref. 000337) and Tempère & Peragallo 1909, p. 195 (ref. 001065).
- Actinoptychus stella* f. *moronensis* (Greville) Forti in Tempère & Peragallo 1909, p. 195; No. 367-369 (as *Actinoptychus stella* var. *thumii* f. *moronensis*) [ref. 001065]. Basionym: *Omphalopelta moronensis* Greville 1866. Basionym given in Forti 1913, p. 1586-1587 (ref. 000342).
- Actinoptychus stella* var. *thumii* Schmidt in Schmidt et al. 1886, pl. 90, fig. 3-5 [ref. 012458]. Also illustrated in A. Schmidt 1886, pl. 100, fig. 6 (ref. 012460).
- Actinoptychus sturii* Pantocsek 1886, p. 64; pl. 8, fig. 61 [ref. 000714].
- Actinoptychus suavis* Brun 1896, pl. 23, fig. 4 [ref. 000183].
- Actinoptychus subangulatus* Schmidt in Schmidt et al. 1888, pl. 132, fig. 11 [ref. 012465].
- Actinoptychus suborbicularis* Grunow in Cleve & Möller 1879, No. 276, p. 9 (as *A. (marylandicus* var. ?) *suborbicularis* Grun.) [ref. 001978]. *Invalid*. Nomen nudum.
- Actinoptychus subtilis* Ehrenberg 1873, p. 148 [ref. 000311]. *Invalid*. Nomen nudum.
- Actinoptychus subtilis* f. *major* (Grunow in Van Heurk) Wolle 1890, pl. 85, fig. 7 [ref. 000916]. Basionym: *Actinocyclus subtilis* f. *major* [Grunow] in Van Heurck 1883.
- Actinoptychus sumatrensis* Leuduger-Fortmorel 1892, p. 43; pl. 5, fig. 5 [ref. 000607].
- Actinoptychus summissus* Schmidt in Schmidt et al. 1874, pl. 1, fig. 13 [ref. 012441]. A. Schmidt notes: "nach Grunow viell. = *Omphalopelta punctata* E."
- Actinoptychus superbus* 'J.W. Bailey' according to Chase 1885, p. 32 [ref. 001049].
- Actinoptychus szabói* Pantocsek 1886, p. 64; pl. 8, fig. 64 [ref. 000714].
- Actinoptychus szontághii* Pantocsek 1889, p. 109; pl. 21, fig. 321 [ref. 001033].
- Actinoptychus szontághii* var. *minor* Pantocsek 1889, p. 109 [ref. 001033].
- Actinoptychus taeniatus* Hustedt 1955, p. 7; pl. 1, fig. 1-2 [ref. 000530].
- Actinoptychus taffi* Hanna 1927, p. 13; pl. 1, fig. 4 [ref. 000010].
- Actinoptychus temperei* Brun in Schmidt et al. 1890, pl. 154, fig. 1 [ref. 012468].
- Actinoptychus tener* (*tenera*) (Grove & Sturt) Grove & Sturt ex Grunow 1888 (as *Actinoptychus tener*) [ref. 000446]. Basionym: *Actinoptychus pulchellus* var. *tenera* Grove & Sturt 1887.
- Actinoptychus tenuis* Strelnikova 1974, p. 67; pl. 14, fig. 1-4 [ref. 000058].
- Actinoptychus ternarius* Janisch in Schmidt et al. 1874, pl. 1, fig. 2 [ref. 012441]. *Invalid*. Cited in synonymy of *Actinoptychus undulatus* Ehrenberg.
- Actinoptychus ternarius* (Ehrenberg) Kützing 1844, p. 134; pl. 1, fig. 19 [ref. 000595]. Basionym: *Actinocyclus ternarius* Ehrenberg 1839.
- Actinoptychus ternatus* 'Ehrenberg' Janisch 1861, p. 157; pl. IA, fig. 11 [ref. 000539]. Citation error for *Actinoptychus ternarius* Ehrenberg ?
- Actinoptychus thumii* (Schmidt in Schmidt et al.) Hanna 1932, p. 171; pl. 4, fig. 3, 4 [ref. 000014]. Basionym: *Actinoptychus stella* var. *thumii* Schmidt in Schmidt et al. 1886.



- Actinoptychus triacriformis* Chin in Chin et al. 1980, p. 107; pl. 1, fig. 1, 2 [ref. 008116]. [according to ANSP].
- Actinoptychus triangulatus* A. Schmidt in Schmidt et al. 1874, pl. 1, fig. 26 [ref. 012441]. Identified as *A. marylandicus* in the 1885 edition of the Atlas (ref. 012637) and in “Berichtigung der Erläuterungen zu Heft 1, pl. 1, fig. 26” (A. Schmidt 1875, ref. 012442).
- Actinoptychus triangulatus* var. *major* Tempère & Peragallo 1915, p. 12 [ref. 001071]. *Invalid*. Cit. err. for *Actinoptychus trilingulatus* var. *major* Tempère & Peragallo (also invalid).
- Actinoptychus trifolium* Tempère & Brun in Brun & Tempère 1889, p. 13; pl. 7, fig. 3 [ref. 000185].
- Actinoptychus trifolium* var. *constellata* Tempère & Brun in Brun & Tempère 1889, p. 13 [ref. 000185].
- Actinoptychus trifurcatus* Tempère & Brun in Brun & Tempère 1889, p. 13; pl. 7, fig. 2 [ref. 000185].
- Actinoptychus trigonus* Schmidt in Schmidt et al. 1874, pl. 1, fig. 24 [ref. 012441].
- Actinoptychus trilineatus* Boyer 1922, p. 1; pl. 1, fig. 1 [ref. 000154].
- Actinoptychus trilingulatus* (Brightwell) Ralfs in Pritchard 1861, p. 840 [ref. 001063]. Basionym: *Actinocyclus trilingulatus* Brightwell 1860.
- Actinoptychus trilingulatus* var. *major* Tempère & H. Peragallo 1889, p. 32; No. 58 [ref. 000881]. *Invalid*. Nomen nudum.
- Actinoptychus trilobatus* Hajós 1971, p. 78; pl. 4, fig. 3-4, pl. 5, fig. 10-11, pl. 6, fig. 1: 3, 2: 4-6 [ref. 008285].
- Actinoptychus trilunatus* Brun 1893, p. 174; pl. 24, fig. 6 [ref. 000178].
- Actinoptychus triradiatus* ‘(Roper) Ralfs in Pritchard’ according to VanLandingham 1967, p. 140 [ref. 006293]. Basionym: *Actinocyclus triradiatus* Roper 1858. *Invalid*. VanLandingham suggests that this combination was published by Ralfs in Pritchard 1861, p. 839 (ref. 001063). Ralfs, however, only cited *Actinocyclus triradiatus* Roper as a synonym of *Actinoptychus velatus* Ehr. and did not publish a new combination. Combination not accepted by VanLandingham.
- Actinoptychus trivolvva* Brun 1891, p. 8; pl. 11, fig. 9 [ref. 000176].
- Actinoptychus truunii* Schmidt in Schmidt et al. 1886, pl. 109, fig. 14, 15 [ref. 012462].
- Actinoptychus truunii* var. *trivittata* Pantocsek 1886, p. 64; pl. 7, fig. 57 [ref. 000714].
- Actinoptychus tschestnovii* Pantocsek 1889, p. 109; pl. 17, fig. 283 [ref. 001033]. “*Tschestnowii*” in second edition (1903), p. 110 (ref. 002331).
- Actinoptychus tuberculatus* Strelnikova 1974, p. 68; pl. 14, fig. 5, 6 [ref. 000058].
- Actinoptychus tuberosus* Leuduger-Fortmorel 1879, p. 71; pl. 8, fig. 81 [ref. 000606].
- Actinoptychus turgidus* (Tempère & Brun) Tempère & Brun in Schmidt et al. 1892, pl. 173, fig. 1 [ref. 012470]. Basionym: *Actinoptychus nitidus* var. *turgida* Tempère in Brun & Tempère 1889. Could be treated as the valid name of a new taxon, however, it is more likely a new combination.
- Actinoptychus undulatus* (Kützing) Ralfs in Pritchard 1861, p. 839; pl. 5, fig. 88 [ref. 001063]. Basionym: *Actinocyclus undulatus* Kützing 1844.
- Actinoptychus undulatus* ‘Ehrenberg’ A. Schmidt 1888, p. 132, fig. 16 [ref. 012465]. *Invalid*. Abnormal form (4 sectors) of *Actinoptychus undulatus* (Kützing) Ralfs. No new name is published by Schmidt 1888.
- Actinoptychus undulatus* var. *barbadensis* Schmidt in Schmidt et al. 1874, pl. 1, fig. 5 [ref. 012441].
- Actinoptychus undulatus* f. *catenata* Smayda 1963, p. 240 [ref. 002154]. [according to VLC].
- Actinoptychus undulatus* var. *catenata* Smayda 1966, p. 610 [ref. 003088]. [according to ANSP].
- Actinoptychus undulatus* var. *compressa* Tempère & H. Peragallo 1908, p. 24; No. 45-47 [ref. 001064].
- Actinoptychus undulatus* var. *confusus* VanLandingham 1967, p. 141, 142 [ref. 006293]. New name for *A. undulatus* var. *minor* Cleve-Euler 1941, non Zanon 1933 (a valid name), nec Tempère & Peragallo 1909 (an invalid name).
- Actinoptychus undulatus* var. *constrictus* Grove & Sturt 1887, p. 143; pl. 14, fig. 63 (as *Actinoptychus (undulatus* var.?) *constrictus*) [ref. 000989]. *Invalid*. Validly published as *Actinoptychus constrictus* Grove & Sturt.
- Actinoptychus undulatus* var. *crenulatus* Wolle 1890, pl. 74, fig. 12 [ref. 000916].
- Actinoptychus undulatus* f. *debya* Meunier 1915, p. 60; pl. 16, fig. 6 [ref. 000659]. [according to INA].
- Actinoptychus undulatus* var. *denarius* (Ehrenberg) Grunow 1867, p. 25 [ref. 000432]. Basionym: *Actinoptychus denarius* Ehrenberg 1843.
- Actinoptychus undulatus* var. *duodenarius* (Ehrenberg) Grunow 1867, p. 25 [ref. 000432]. Basionym: *Actinocyclus duodenarius* Ehrenberg 1840.
- Actinoptychus undulatus* var. *erosa* Tempère & Peragallo 1911, p. 281; No. 561-562 [ref. 001067].
- Actinoptychus undulatus* var. *inaequisculpta* Forti 1913, p. 1583 (49); pl. 5, fig. 8 [ref. 000342].
- Actinoptychus undulatus* var. *labyrinthiformis* Forti in Tempère & Peragallo 1912, p. 337; No. 696-698 [ref. 001068]. *Invalid*. Nomen nudum. Validated by Forti 1913, p. 1582; pl. 5, fig. 4 (ref. 000342).
- Actinoptychus undulatus* var. *labyrinthiformis* Forti 1913, p. 1582; pl. 5, fig. 4 [ref. 000342].
- Actinoptychus undulatus* f. *maxima* Schmidt in Schmidt et al. 1886, pl. 91, fig. 5 [ref. 012458].
- Actinoptychus undulatus* var. *microsticta* Grunow in Van Heurck 1883, pl. 122, fig. 4 [ref. 001037].
- Actinoptychus undulatus* var. *minor* Tempère & H. Peragallo 1909, p. 198; No. 370 [ref. 001065]. *Invalid*. Nomen nudum. Also listed (and not described) in Tempère & Peragallo 1910, p. 226, no. 426 and p. 244, no. 469 (ref. 001066).
- Actinoptychus undulatus* f. *minor* Frenguelli 1930, legend to pl. 9, fig. 2 [ref. 000354]. *Invalid*. No description (see p. 301).

- Actinoptychus undulatus* f. *minor* Zanon 1933, p. 16 (as *Actinoptychus undulatus* var. *parallelo-striata* Forti f. *minor*) [ref. 001574]. Refers to illustration in Forti 1913 (ref. 000342), p. 1582, pl. 5, fig. 1 (i.e. *Actinoptychus undulatus* var. *parallelo-striata* Forti).
- Actinoptychus undulatus* var. *minor* Cleve-Euler 1941, p. 179, 188; pl. 6, fig. 92-94 [ref. 000251]. *Illegitimate*. Non Tempère & Peragallo 1909 (invalid name) nec Zanon 1933 (valid name). Synonym (substitute name): *Actinoptychus undulatus* var. *confusus* VanLandingham 1967.
- Actinoptychus undulatus* f. *minor* Jousé 1959 [ref. 001295]. According to Hollerbakh & Krasavina 1971, p. 17. [according to VLC].
- Actinoptychus undulatus* f. *miocenicus* Jousé 1959, p. 48; pl. 2, fig. 2 [ref. 001295]. [according to VLC].
- Actinoptychus undulatus* var. *montereyi* 'A. Schmidt' M. Peragallo 1897, p. 37 [ref. 012539]. Illustrated in A. Schmidt's Atlas, pl. 1, fig. 6, 1874 (ref. 012441), as "*A. undulatus* var., Monterey" (Monterey meant as a locality, not a varietal name). Combination *A. undulatus* var. *montereyi* validly published by M. Peragallo 1897.
- Actinoptychus undulatus* f. *oceanicus* Jousé 1952 [ref. 002469]. According to Hollerbakh & Krasavina 1971, p. 19. [according to VLC].
- Actinoptychus undulatus* var. *oconarius* (Ehrenberg) Grunow 1867, p. 25 [ref. 000432]. Basionym: *Actinoptychus oconarius* Ehrenberg 1854.
- Actinoptychus undulatus* f. *octoplicata* Cleve-Euler in Cleve-Euler & Hessland 1947, p. 175; pl. 10, fig. 46 [ref. 001983]. As *Actinoptychus undulatus* (Bail.) Ralfs *octoplicata* mh. in text, and *Actinoptychus undulatus* E.? f. *octoplicata* mh. in plate caption. Also as "forma" in Cleve-Euler 1951, p. 78; pl. IV, fig. h (ref. 000255).
- Actinoptychus undulatus* var. *parallelistriata* Forti 1913, p. 1582 (48); pl. 5, fig. 1 [ref. 000342].
- Actinoptychus undulatus* f. *parva* Tempère & Peragallo 1908, p. 75; No. 141 [ref. 001064]. *Invalid*. Nomen nudum.
- Actinoptychus undulatus* f. *quaternata* Frenguelli 1924, p. 55 (p. 157 of reprint) [ref. 000970].
- Actinoptychus undulatus* var. *senarius* (Ehrenberg) Grunow 1867, p. 25 [ref. 000432]. Basionym: *Actinoptychus senarius* Ehrenberg 1843.
- Actinoptychus undulatus* f. *sexappendiculata* Grunow in Van Heurck 1883, pl. 122, fig. 2 (as *Actinoptychus undulatus* var. *microsticta* f. *sexappendiculata*) [ref. 001037]. New name for *Omphalopelta areolata* Ehrenberg 1844.
- Actinoptychus undulatus* f. *sexappendiculata* (Grunow in Van Heurck) Cleve-Euler 1951, p. 78 (as *Actinoptychus undulatus*  $\alpha$  *typicus* f. *sexappendiculata*) [ref. 000255]. Basionym: *Actinoptychus undulatus* f. *sexappendiculata* Grunow in Van Heurck 1883. This entry corresponds to a change of taxonomic opinion, not a new combination although listed as such by VanLandingham 1967, p. 142 (ref. 006293). Cleve-Euler refers to Van Heurck 1883, pl. 122, fig. 1-2 (ref. 001037).
- Actinoptychus undulatus* var. *spinus* Jousé 1960. According to Hollerbakh & Krasavina 1971, p. 19. [according to VLC].
- Actinoptychus undulatus* var. *subtilis* Pantocsek 1889, p. 109 [ref. 001033].
- Actinoptychus undulatus* var. *tamanicus* Jousé in Proshkina-Lavrenko 1949, pl. 7 (p. 147), fig. 9 [ref. 012324]. *Invalid*. No description.
- Actinoptychus undulatus* var. *tamanicus* Jousé in Proshkina-Lavrenko 1949, p. 97; pl. 34, fig. 2 a, b ('*tamanica*') [ref. 002554].
- Actinoptychus undulatus* f. *ternata* Frenguelli 1924, p. 55 (p. 157 of reprint) [ref. 000970].
- Actinoptychus undulatus* var. *turgida* Tempère & Brun in Schmidt et al. 1890, pl. 155, fig. 3 [ref. 012468].
- Actinoptychus undulatus* var. *typicus* Cleve-Euler 1951, p. 78; fig. 134a-c (as *Actinoptychus undulatus*  $\alpha$  *typicus* mh.) [ref. 000255]. Cleve-Euler cites Schmidt 1874, pl. 1, fig. 1-4, 6 (ref. 012441). Rank implied, not clearly indicated.
- Actinoptychus undulatus* var. *verrucosa* Chase in Walker & Chase 1886, p. 6; pl. 2, fig. 8 [ref. 000904].
- Actinoptychus vancouveri* Mackay in L.W. Bailey 1924, p. 34, 35 [ref. 010600]. Nomen nudum. [according to INA].
- Actinoptychus vanheurckii* Pantocsek 1886, p. 64; pl. 25, fig. 228 [ref. 000714].
- Actinoptychus velatinum* Schmidt in Schmidt et al. 1890, pl. 155, fig. 11 (as *Actinoptychus V latinum* A.S.) [ref. 012468].
- Actinoptychus velatus* Ehrenberg 1844, p. 76 [ref. 002694].
- Actinoptychus vicenarius* Ehrenberg 1843, p. 410 (122) [ref. 000294].
- Actinoptychus virginicus* (Grunow) Andrews 1976, p. 15; pl. 4, fig. 9-12 [ref. 003359]. Basionym: *Actinoptychus vulgaris* var. *virginica* Grunow in Van Heurck 1883. [according to ANSP].
- Actinoptychus vlatinum* Schmidt in Schmidt et al. 1890, pl. 155, fig. 11 (as *Actinoptychus V latinum* A.S.) [ref. 012468]. Missprint for "velatinum"?
- Actinoptychus vulgaris* Schumann 1867, p. 64 [ref. 001004]. Also in Schumann 1867, p. 138 (ref. 012535), according to ANSP.
- Actinoptychus vulgaris* var. *australis* Grunow in Van Heurck 1883, pl. 121, fig. 8 [ref. 001037].
- Actinoptychus vulgaris* var. *doljensis* Pantocsek 1886, p. 65; pl. 23, fig. 204 [ref. 000714]. The orth. variant "*doljensis*" can be found in Peragallo 1897 (ref. 012539), Mills 1933 (ref. 000997) and VanLandingham 1967 (ref. 006293).
- Actinoptychus vulgaris* var. *interrupta* Boyer 1916, p. 24; pl. 4, fig. 5 [ref. 000152].
- Actinoptychus vulgaris* var. *maculatus* Grove & Sturt 1887, p. 64; pl. 5, fig. 5 (*maculata*) [ref. 000988].

- Actinoptychus vulgaris* var. *molis* “Grove Collection?” according to Mills 1933, p. 119 [ref. 000997].
- Actinoptychus vulgaris* var. *monicae* Grunow in Van Heurck 1883, pl. 121, fig. 9 [ref. 001037].
- Actinoptychus vulgaris* var. *neogradensis* Pantocsek 1886, p. 65; pl. 22, fig. 199 [ref. 000714].
- Actinoptychus vulgaris* f. *octonaria* (Ehrenberg) Frenguelli 1928, p. 522; pl. 13, fig. 4 [ref. 000352]. Basionym: *Actinoptychus octonarius* Ehrenberg 1854. Both *Actinocyclus octonarius* Ehrenberg 1837 and *Actinoptychus octonarius* Ehrenberg 1854 (perhaps 2 different taxa) are cited by Frenguelli as basionym. The specimen illustrated by Frenguelli is taxonomically an *Actinoptychus*.
- Actinoptychus vulgaris* f. *orientalis* Sheshukova-Poretskaya 1961, p. 54; pl. 3, fig. 6 a, b [ref. 008791]. [according to ANSP].
- Actinoptychus vulgaris* f. *polymera* Frenguelli 1928, p. 521; pl. 13, fig. 1-3 [ref. 000352]. New name for *Actinocyclus duodenarius* Ehrenberg 1840.
- Actinoptychus vulgaris* f. *senaria* Frenguelli 1928, p. 523; pl. 13, fig. 5 [ref. 000352]. Perhaps a new combination of *Actinoptychus senarius* Ehrenberg.
- Actinoptychus vulgaris* var. *spiniferus* Grunow in Van Heurck 1883, pl. 121, fig. 5-6 (as *Actinoptychus (vulgaris var.?) spiniferus*) [ref. 001037]. *Invalid*. Validly published by Grunow in Van Heurck 1883 as *Actinoptychus spiniferus*. Trinomial (*A. vulgaris* var. *spiniferus*) listed but not validated (not accepted) by VanLandingham 1967, p. 144 (ref. 006293).
- Actinoptychus vulgaris* var. *tropica* Brun 1893, p. 174; pl. 24, fig. 4 [ref. 000178].
- Actinoptychus vulgaris* var. *virginica* Grunow in Van Heurck 1883, pl. 121, fig. 7 [ref. 001037].
- Actinoptychus weissflogii* Schmidt in Schmidt et al. 1874, pl. 1, fig. 12 [ref. 012441].
- Actinoptychus wilmottii* Chenevière 1934, p. 106; pl. 8, fig. 5 [ref. 000055].
- Actinoptychus wittianus* Truan y Luard & Witt 1888, p. 10; pl. 2, fig. 18-19 (as *Actinoptychus wittianus* C. Jan. forma *typica*) [ref. 000889]. New name for *Actinoptychus wittii* Janisch in A. Schmidt 1886.
- Actinoptychus wittianus* var. *hexagona* Truan y Luard & Witt 1888, p. 10; pl. 2, fig. 17 [ref. 000889]. Text refers to figs. 17, 20, 21, but in “Nachtrag” p. 24, and on plate caption, it is said that only fig. 17 is to be considered.
- Actinoptychus wittianus* f. *typica* Truan y Luard & Witt 1888, p. 10; pl. 2, fig. 18-19 (as *Actinoptychus wittianus* C. Jan. forma *typica*) [ref. 000889]. New name for *Actinoptychus wittii* Janisch in A. Schmidt 1886.
- Actinoptychus wittii* Janisch in Schmidt et al. 1886, pl. 100, fig. 12 [ref. 012460].
- Actinoptychus wittii* var. *scutiformis* Walker & Chase in Chase & Walker 1887, p. 4; pl. 5, fig. 1, 2 [ref. 002868].
- Actinoptychus wollei* M. Peragallo in Tempère & Peragallo 1909, p. 198; No. 370 [ref. 001065].

**ACTINOSTEPHANOS G.K. Khursevich 1989, p. 487 [ref. 006791]**

T: *Actinostephanos matrensis* (Pantocsek) Khursevich 1989  
(= *Stephanodiscus matrensis* Pantocsek 1889)

- Actinostephanos matrensis* (Pantocsek) Khursevich 1989, p. 488; pl. 1, fig. 1-8, pl. 2, fig. 1-6 [ref. 006791]. Basionym: *Stephanodiscus matrensis* Pantocsek 1889.
- Actinostephanos rudis* G.K. Khursevich & I.B. Tsoj 1992, p. 106, figs. 1-6 [ref. 009149].

**ADLAFIA G. Moser, H. Lange-Bertalot & D. Metzeltin 1998, p. 87 [ref. 007020]**

T: *Adlafia muscora* (Kociolek & Reviere) Moser, Lange-Bertalot & Metzeltin 1998  
(= *Navicula muscora* Kociolek & Reviere 1996; = *Navicula bryophiloides* Manguin 1962, nom. inval.)

- Adlafia aqueductae* (Krasske) G. Moser, H. Lange-Bertalot & D. Metzeltin 1998, p. 89 [ref. 007020]. Basionym: *Navicula pseudopupula* var. *aqueductae* Krasske 1923.
- Adlafia bryophila* (J.B. Petersen) G. Moser, H. Lange-Bertalot & D. Metzeltin 1998, p. 89 [ref. 007020]. Basionym: *Navicula bryophila* Boye Petersen 1928. *Invalid?* [cites correct page and date for basionym, but incorrect reference].
- Adlafia bryophiloides* (Manguin) B. Van de Vijver in Van de Vijver, Frenot & Beyens 2002, p. 18 [ref. 012899]. Basionym: *Navicula bryophiloides* Manguin in Bourrelly & Manguin 1954.
- Adlafia coringii* Metzeltin & Lange-Bertalot 1998, p. 20; pl. 86, fig. 12-13 [ref. 007051].
- Adlafia drouetiana* (R. Patrick) D. Metzeltin & H. Lange-Bertalot 1998, p. 21; pl. 86, fig. 14-19, pl. 186, fig. 6 [ref. 007051]. Basionym: *Navicula drouetiana* Patrick 1944.
- Adlafia frenotii* B. Van de Vijver, P. Ledeganck & L. Beyens in Van de Vijver, Frenot & Beyens 2002, p. 19; pl. 43, fig. 15-20, pl. 44, fig. 4-5 [ref. 012899].
- Adlafia linearis* (Maillard) B. Van de Vijver in Van de Vijver, Frenot & Beyens 2002, p. 20 [ref. 012899]. Basionym: *Navicula bryophiloides* var. *linearis* Maillard in Le Cohu & Maillard 1986.
- Adlafia minuscula* (Grunow) H. Lange-Bertalot in H. Lange-Bertalot & S.I. Genkal 1999, p. 32 [ref. 009014]. Basionym: *Navicula minuscula* Grunow in Van Heurck 1880.
- Adlafia minuscula* var. *muralis* (Grunow) H. Lange-Bertalot in H. Lange-Bertalot & S.I. Genkal 1999, p. 32 [ref. 009014].

Basionym: *Navicula muralis* Grunow in Van Heurck 1880.

*Adlafia multnomahii* E.A. Morales & M. Le 2005, p. 151; Fig. 1-38 [ref. 012947].

*Adlafia muscora* (J.P. Kociolek & B. Reviere) G. Moser, H. Lange-Bertalot & D. Metzeltin 1998, p. 89 [ref. 007020]. Basionym: *Navicula muscora* Kociolek & Reviere 1996. *Invalid.* Place of publication of basionym not fully cited (lacks page).

*Adlafia parabryophila* (H. Lange-Bertalot) G. Moser, H. Lange-Bertalot & D. Metzeltin 1998, p. 89 [ref. 007020]. Basionym: *Naviculadicta parabryophila* Lange-Bertalot in Lange-Bertalot & Metzeltin 1996.

*Adlafia suchlandtii* (Hustedt) G. Moser, H. Lange-Bertalot & D. Metzeltin 1998, p. 89 [ref. 007020]. Basionym: *Navicula suchlandtii* Hustedt 1943. *Invalid?* [cites Hustedt 1934 (Schmidt's Atlas) where name is invalid].

**ADONEIS G.W. Andrews & P. Rivera 1987, pg. 2 [ref. 003146]**

T: *Adoneis pacifica* G.W. Andrews & P. Rivera 1987

*Adoneis miocenica* J.P. Kociolek, E. Fourtanier, J. Rubenstein & A. Encinas 2007, p. 311, fig. 1-15 [ref. 012950].

*Adoneis pacifica* Andrews & Rivera 1987, p. 2; fig. 1-26 [ref. 003146].

**AFROCYMBELLA K. Krammer 2003, p. 129, 167 [ref. 011692]**

T: *Afrocymbella reichardtii* K. Krammer 2003

*Afrocymbella aschersonii* (Otto Müller) K. Krammer 2003, p. 133 [ref. 011692]. Basionym: *Gomphocymbella aschersonii* Otto Müller 1905.

*Afrocymbella beccarii* (Grunow) K. Krammer 2003, p. 131 [ref. 011692]. Basionym: *Caloneis vandermerwei* Cholnoky 1957.

*Afrocymbella gracilis* (Hustedt in A. Schmidt et al.) K. Krammer 2003, p. 134 [ref. 011692]. Basionym: *Gomphocymbella gracilis* Hustedt ex Simonsen 1987.

*Afrocymbella kociolekii* K. Krammer 2003, p. 132, 168; pl. 149, fig. 4-13 [ref. 011692].

*Afrocymbella muelleri* (Kociolek & Stoermer) K. Krammer 2003, p. 135 [ref. 011692]. Basionym: *Gomphocymbella muelleri* Kociolek & Stoermer 1993. Cites basionym but excludes Fig. 23 of Kociolek & Stoermer 1993 (ref. 006043).

*Afrocymbella muelleri* var. *acuminata* K. Krammer 2003, p. 136; pl. 148, fig. 9a-9c [ref. 011692]. *Invalid.* No Latin diagnosis.

*Afrocymbella pergracilis* K. Krammer 2003, p. 135, 168; pl. 150, fig. 1-5 [ref. 011692].

*Afrocymbella reichardtii* K. Krammer 2003, p. 132, 168; (pl. 149, fig. 2, pl. 151, fig. 1-8), pl. 152, fig. 1-7, pl. 153, fig. 1-8 [ref. 011692]. The new variety "*procera*" is illustrated on pl. 149, fig. 2, and pl. 151, fig. 1-8.

*Afrocymbella reichardtii* var. *procera* K. Krammer 2003, p. 133, 168; p. 149, fig. 2, pl. 151, fig. 1-8 [ref. 011692].

*Afrocymbella tanganyikae* (Kociolek & Stoermer) K. Krammer 2003, p. 136 [ref. 011692]. Basionym: *Gomphocymbella tanganyikae* Kociolek & Stoermer 1993.

**AGARDHIA 'Greville' according to VanLandingham 1979, p. 4249 [ref. 006514]**

Non *Agardhia* Gray 1821, nec *Meneghini* 1838?

*Agardhia apiculata* 'Greville' according to Cleve & Grunow 1880, p. 43 [ref. 000241]. *Invalid.* Cited pro syn. *Schizonema harveyanum* Meneg. More information may (?) be found in Greville 1821 (ref. 002252) with the protologue of *Gloionema apiculatum* Greville 1821 (not seen).

**AGGERICORONA S. Komura 2006, p. 2 [ref. 012833]**

T: *Aggericorona ponderosa* S. Komura 2006

*Aggericorona ponderosa* S. Komura 2006, p. 2-3; fig. 4-11, 18-47 [ref. 012833].

**AILURETTA P.A. Sims 1986, pg. 252 [ref. 003147]**

T: *Ailuretta cerataulinoidea* P.A. Sims 1986

*Ailuretta cerataulinoidea* Sims 1986, p. 254; fig. 35-41, 74-75 [ref. 003147].

*Ailuretta rotunda* Sims 1986, p. 256; fig. 42-48, 72-73 [ref. 003147].

**ALLOIONEIS J. Schumann ex P.T. Cleve 1878, [ref. 000221]**

T: *Navicula alternans* Schumann 1867

Previously invalidly published as *Alloioneis* J. Schumann 1867, pg. 73 (ref. 000814).

*Alloioneis amphora* Brun 1891, p. 32; pl. 15, fig. 3 (as *Navicula (Alloioneis) amphora*) [ref. 000176]. *Invalid.* Validly pub-

- lished in Brun 1891 as *Navicula amphora*.
- Alloioneis antillarum* Cleve & Grunow in Cleve 1878, p. 8; pl. 2, fig. 11 (as *Alloioneis* (*Navicula*?) *antillarum* on p. 8, and *Alloioneis* (?) *antillarum* on plate caption) [ref. 000221].
- Alloioneis antillarum* var. *castracanei* (Pantocsek) Tempère & Peragallo 1908, p. 52; no. 96-100 (as *Alloioneis antillarum* v. *castracanei*) [ref. 001064]. Basionym: *Alloioneis castracanei* Pantocsek 1889. Perhaps was meant to refer to *A. antillarum* var. nov. *Castracane* 1886: 35, 15/5, 20/14, 28/14? (ref. 000193).
- Alloioneis antillarum* f. *minor* Leuduger-Fortmorel 1898, p. 20 [ref. 000608]. *Invalid*. Nomen nudum.
- Alloioneis castracanei* Pantocsek 1889, p. 55; pl. 23, fig. 344 (as *Alloioneis castracanei* n.s.) [ref. 001033].
- Alloioneis cocconeiformis* Grunow in Cleve & Möller 1879, no. 258 [ref. 001978]. *Invalid*. Nomen nudum.
- Alloioneis curvinervia* (Grunow in Cleve) Cleve 1878, p. 22; pl. 2, fig. 13 (as *Navicula* (*Alloioneis*?) *curvinervia* in text (p. 8), and *Alloioneis* (?) *curvinervia* on plate caption (p. 22)) [ref. 000221]. Basionym: *Navicula curvinervia* Grunow in Cleve 1878.
- Alloioneis debyi* Leuduger-Fortmorel 1892, p. 18; pl. 2, fig. 5 [ref. 000607].
- Alloioneis debyi* var. *clevei* De Wildeman 1899, p. 39 [ref. 012538]. [according to ANSP].
- Alloioneis gruendleri* Cleve & Grunow in Cleve 1878, p. 7; pl. 2, fig. 10 [ref. 000221].
- Alloioneis grundleri* var. *symmetrica* 'Cleve' Mills 1933, p. 120 [ref. 000997]. *Invalid*. Cit. Err. for *Navicula gruendleri* var. *symmetrica* Cleve 1895, p. 51 (ref. 000949). Not accepted by Mills.
- Alloioneis grunowii* Pantocsek 1889, p. 55 (as *Alloioneis grunowii* n.s.) [ref. 001033].
- Alloioneis japonica* Castracane 1886, p. 36; pl. 20, fig. 12 bis [ref. 000193].
- Alloioneis kurzii* Grunow in Cleve 1878, p. 22; pl. 2, fig. 10 (As *Navicula* (*Alloioneis*?) *kurzii* in text (p. 8), and *Alloioneis* (?) *kurzii* on plate caption (p. 22)) [ref. 000221].
- Alloioneis mediterranea* Cleve & Brun in Brun 1891, p. 35; pl. 15, fig. 11 (as *Navicula* (*Alloioneis*) *mediterranea*) [ref. 000176]. *Invalid*. Validly published in Brun 1891 as *Navicula mediterranea*. Combination listed but not validated by Mills 1933 (ref. 000997) or VanLandingham 1967 (ref. 006293).
- Alloioneis monodon* Brun 1891, p. 36; pl. 16, fig. 8 (as *Navicula* (*Alloioneis*) *monodon*) [ref. 000176]. *Invalid*. Validly published in Brun 1891 as *Navicula monodon*. Combination listed but not validated by Mills 1933 (ref. 000997) or VanLandingham 1967 (ref. 006293).
- Alloioneis scabriuscula* (Cleve & Grove) Mereschowsky 1902, p. 358; pl. 2, fig. 5, 6 (as *Navicula* (*Alloioneis*) *scabriuscula* on p. 358 and *Navicula scabriuscula* on plate caption) [ref. 000653]. Basionym: *Amphora scabriuscula* Cleve & Grove in Cleve 1893. *Invalid*. Name invalid under *Alloioneis*. Validly published in Brun 1891 as *Navicula scabriuscula*. Combination listed but not validated by Mills 1933 (ref. 000997) or VanLandingham 1967 (ref. 006293).
- Alloioneis scalarifer* Brun 1891, p. 38; pl. 15, fig. 4 (as *Navicula* (*Alloioneis*) *scalarifer*) [ref. 000176]. *Invalid*. Validly published in Brun 1891 as *Navicula scalarifer*. Combination listed but not validated by Mills 1933 (ref. 000997) or VanLandingham 1967 (ref. 006293).
- Alloioneis simiaeveltus* Brun 1891, p. 39; pl. 16, fig. 13 (as *Navicula* (*Alloioneis*) *simiaeveltus*) [ref. 000176]. *Invalid*. Validly published in Brun 1891 as *Navicula simiaeveltus*. Combination listed but not validated by Mills 1933 (ref. 000997) or VanLandingham 1967 (ref. 006293).
- Alloioneis stauntonii* Grunow in Cleve & Möller 1882, No. 292, 304 [ref. 001979]. *Invalid*. Nomen nudum.
- Alloioneis stauntonii* Grunow 1882, p. 142; pl. 30, fig. 36 (as *Navicula* (*Alloioneis*) *stauntonii* in plate caption) [ref. 000442].
- Alloioneis vitriscala* Brun 1891, p. 41; pl. 15, fig. 5 (as *Navicula* (*Alloioneis*) *vitriscala*) [ref. 000176]. *Invalid*. Validly published in Brun 1891 as *Navicula vitriscala*. Combination listed but not validated by Mills 1933 (ref. 000997) or VanLandingham 1967 (ref. 006293).

**ALLONITZSCHIA A. Mann 1925, pg. 16 [ref. 000632]**T: *Allonitzschia munifica* A. Mann 1925*Allonitzschia munifica* Mann 1925, p. 16; pl. 2, fig. 3 [ref. 000632].**ALVEOFLEXUS N.I. Hendey & P.A. Sims 1984, pg. 65 [ref. 003188]**T: *Alveoflexus firthii* N.I. Hendey & P.A. Sims 1984*Alveoflexus firthii* Hendey & Sims 1984, p. 65-67; pl. 2C, fig. 9-15 [ref. 003188].**ALVEOLOPHORA A.I. Moiseeva & T.L. Nevretdinova 1990, p. 541 [ref. 006388]**T: *Alveolophora areolata* (A.I. Moiseeva 1971) A.I. Moiseeva in  
A.I. Moiseeva & T.L. Nevretdinova 1990 (= *Melosira areolata* Moiseeva 1971)*Alveolophora antiqua* (Moiseeva) Moiseeva in Moiseeva & Nevretdinova 1990, p. 542; pl. 1, fig. 11-16 [ref. 006388]. Basionym: *Melosira antiqua* Moiseeva 1960.

- Alveolophora areolata* (Moisseeva) Moiseeva in Moiseeva & Nevretdinova 1990, p. 542-543; pl. 2, fig. 1-6 [ref. 006388].  
Basionym: *Melosira areolata* Moiseeva 1971.
- Alveolophora areolata* (Moisseeva) Moiseeva in Gleser, Makarova, Moiseeva & Nikolaev 1992, p. 86; pl. 67, fig. 3-8 [ref. 006385]. Isonym: published in 1990.
- Alveolophora bifaria* Nevretdinova & Moiseeva in Moiseeva & Nevretdinova 1990, p. 543; pl. 2, fig. 7-15 [ref. 006388].
- Alveolophora jouseana* (Moisseeva) Moiseeva in Moiseeva & Nevretdinova 1990, p. 542; pl. 1, fig. 1-10 [ref. 006388].  
Basionym: *Melosira jouseana* Moiseeva 1971.
- Alveolophora tscheremissinovae* Khursevich 1994, p. 270; pl. 1, fig. 1, 2, 5-9 [ref. 008404].

**ALVEOALLUM H. Lange-Bertalot & K. Krammer in K. Krammer 2000, p. 207, 240 [ref. 009351]**

T: *Alveoallum beyensii* H. Lange-Bertalot & K. Krammer in K. Krammer 2000

- Alveoallum beyensii* H. Lange-Bertalot & K. Krammer in K. Krammer 2000, p. 208, 241; figs. 217:1-15 [ref. 009351].

**ALVEUS I. Kaczmarska & G.A. Fryxell 1996, p. 3 [ref. 006381]**

T: *Alveus marinus* (A. Grunow) I. Kaczmarska & G.A. Fryxell 1996  
(= *Nitzschia marina* Grunow in Cleve & Grunow 1880)

- Alveus marinus* (Grunow) Kaczmarska & Fryxell 1996, p. 3 [ref. 006381]. Basionym: *Nitzschia marina* Grunow in Cleve & Grunow 1880.

**AMBISTRIA K.E. Lohman & G.W. Andrews 1968, p. 15 [ref. 003189]**

T: *Ambistria hyalina* K.E. Lohman & G.W. Andrews 1968

- Ambistria hyalina* K.E. Lohman & G. Andrews 1968, p. E16; pl. 1, fig. 21, 29, 30 [ref. 003189].
- Ambistria punctata* K.E. Lohman & G. Andrews 1968, p. E16; pl. 1, fig. 26, 28, 31 [ref. 003189].

**AMBLYPYRGUS R. Gersonde & D.M. Harwood 1990, p. 369 [ref. 006383]**

T: *Amblypyrgus campanellus* R. Gersonde & D.M. Harwood 1990

- Amblypyrgus campanellus* Gersonde & Harwood 1990, p. 369-370; pl. 12, fig. 1-9, pl. 15, fig. 4, 5, 9, 10, 12, 13, pl. 19, fig. 3, 4 [ref. 008259].

**AMICULA A. Witkowski, H. Lange-Bertalot & D. Metzeltin 2000, p. 127, 420 [ref. 009017]**

T: *Amicula specululum* (Witkowski) A. Witkowski in A. Witkowski et al. 2000  
(= *Navicula specululum* Witkowski 1994)

- Amicula specululum* (A. Witkowski) A. Witkowski in A. Witkowski, H. Lange-Bertalot & D. Metzeltin 2000, p. 127 [ref. 009017]. Basionym: *Navicula specululum* A. Witkowski 1994.

**AMPHICAMPA (C.G. Ehrenberg) J. Ralfs in A. Pritchard 1861, p. 765 [ref. 001063]**

T: *Amphicampa mirabilis* Ehrenberg ex Ralfs in Pritchard 1861  
Basionym: *Eunotia* "subdivision" *Amphicampa* Ehrenberg 1854

- Name first introduced in Ehrenberg 1854 (Mikrogeologie, Text, ref. 000300) p. 373, as a subdivision of *Eunotia*. Two species are illustrated on pl. 33,VII/1, 2 (ref. 000966) (*Amphicampa eruca*, and *Amphicampa mirabilis*). Ralfs in Pritchard 1861 (ref. 001063) p. 765 elevated it to genus rank, provided a description of the genus, described *A. mirabilis* and cited *A. eruca* as a synonym of *A. mirabilis*.

- Amphicampa aequatorialis* Cleve 1873, p. 12; pl. 3, fig. 17 [ref. 001797].
- Amphicampa alta* Ehrenberg 1869, p. 45; pl. 2/1, fig. 17 [ref. 000309].
- Amphicampa amphioxys* Ehrenberg 1869, p. 45; pl. 2/1, fig. 24 [ref. 000309].
- Amphicampa burkartii* Ehrenberg 1869, p. 44; pl. 2/1, fig. 14 [ref. 000309].
- Amphicampa difformis* Ehrenberg 1869, p. 45; pl. 2/1, fig. 18 [ref. 000309].
- Amphicampa eruca* Ehrenberg 1854, p. 7; pl. 33/7, fig. 1 [ref. 000966]. *Invalid*. Predates the valid publication of *Amphicampa* Ehrenberg ex Ralfs in Pritchard 1861. As *Eunotia eruca* on p. 373. Illustration only. The name is not validated by Ralfs in Pritchard 1861 p. 765, where it is listed as a synonym of *Amphicampa mirabilis*.
- Amphicampa geroltii* Ehrenberg 1869, p. 45; pl. 1, fig. 15 [ref. 000309].
- Amphicampa hemicyclus* (Ehrenberg) Karsten 1928, p. 268; fig. 353 [ref. 000560]. Basionym: *Synedra hemicyclus* Ehrenberg 1840.

- Amphicampa lermana* Ehrenberg 1869, p. 45; pl. 2/1, fig. 22 [ref. 000309].  
*Amphicampa matrix* (A. Berg) Cleve-Euler 1953, p. 78; fig. 405 [ref. 001041]. Basionym: *Eunotia matrix* A. Berg 1939.  
*Amphicampa mexicana* Ehrenberg 1869, p. 45; pl. 2/1, fig. 16 [ref. 000309].  
*Amphicampa mirabilis* Ehrenberg 1854, pl. 33/7, fig. 2 [ref. 000966]. *Invalid*. Predates the valid publication of *Amphicampa* Ehrenberg ex Ralfs in Pritchard 1861. Illustration only. As *Eunotia mirifica* on p. 373. Name validated by Ralfs in Pritchard 1861.  
*Amphicampa mirabilis* Ehrenberg ex Ralfs in Pritchard 1861, p. 765; pl. 4, fig. 5 [ref. 001063]. Synonym: *Eunotia mirifica* Ehrenberg 1854.  
*Amphicampa mirifica* Ehrenberg 1869, p. 46; pl. I-B, fig. 14 (As *A. mirabilis (mirifica)* in text, *A. mirabilis* in fig. caption) [ref. 000309]. *Invalid*. Ehrenberg refers to *Amphicampa mirabilis* illustrated in *Mikrogeologie* 33/7, 2 (i.e. Ehrenberg 1854, ref. 000966).  
*Amphicampa montezumae* Ehrenberg 1869, p. 45; pl. 2/1, fig. 19-20 [ref. 000309].  
*Amphicampa octonaria* Rabenhorst 1864, p. 75 [ref. 000775].  
*Amphicampa paupera* Ehrenberg 1869, p. 45; pl. 2/1, fig. 21 [ref. 000309].  
*Amphicampa piscis* Ehrenberg 1869, p. 46; pl. 1-2, fig. 23 [ref. 000309]. [according to INA].  
*Amphicampa pumilio* Ehrenberg 1869, p. 46; pl. 2/1, fig. 25, 26 [ref. 000309].  
*Amphicampa reglana* Ehrenberg 1869, p. 45; pl. 1/H, fig. 6 [ref. 000309].  
*Amphicampa sibirica (siberica)* (Cleve in Cleve & Grunow) De Toni 1892, p. 812 ('*sibirica*') [ref. 000950]. Basionym: *Eunotia siberica* Cleve in Cleve & Grunow 1880.

**AMPHICAMPA L. Rabenhorst 1864, p. 257 [ref. 000775]**

T: *Amphicampa alata* (C.G. Ehrenberg) Rabenhorst 1864  
 (= *Navicula alata* Ehrenberg 1840)

Non *Amphicampa* (Ehrenberg) Ralfs in Pritchard 1861.

Initially superfluous since the genus to which it was applied included *Navicula alata* Ehrenberg 1840, the type of *Entomoneis* Ehrenberg 1845. In accordance with Art. 7.5, it is automatically typified with *Navicula alata* Ehrenberg. *Amphitropis* Rabenhorst 1868 is a superfluous substitute name for *Amphicampa* Rabenhorst 1864.

- Amphicampa alata* (Ehrenberg) Rabenhorst 1864, p. 257 [ref. 000775]. Basionym: *Navicula alata* Ehrenberg 1840.  
*Amphicampa duplex* (Donkin) Rabenhorst 1864, p. 257 [ref. 000775]. Basionym: *Amphiprora duplex* Donkin 1858.  
*Amphicampa gigantea* (Grunow) Rabenhorst 1864, p. 258 [ref. 000775]. Basionym: *Amphiprora gigantea* Grunow 1860.  
*Amphicampa paludosa* (W. Smith) Rabenhorst 1864, p. 257 [ref. 000775]. Basionym: *Amphiprora paludosa* W. Smith 1853.

**AMPHICOCCONEIS M. De Stephano & D. Marino 2002, p. 362 [ref. 012665]**

T: *Amphicocconeis disculoides* (Hustedt) M. De Stephano & D. Marino 2002  
 (= *Cocconeis disculoides* Hustedt 1955)

- Amphicocconeis debesii* (Hustedt) M. De Stefano in De Stefano et al. 2006, p. 442 [ref. 012882]. Basionym: *Cocconeis debesii* Hustedt 1933.  
*Amphicocconeis disculoides* (Hustedt) M. De Stefano & D. Marino 2002, p. 262 [ref. 012665]. Basionym: *Cocconeis disculoides* Hustedt 1955. [according to INA].

**AMPHIDISCUS C.G. Ehrenberg 1839, p. 127 [ref. 002422]**

T: *Amphidiscus martii* Ehrenberg 1839

A genus of sponge spicules.

In Ehrenberg 1840, p. 204 (ref. 000293) 3 species are listed within the "Polygastrica Bacillaria" (diatoms): *A. armatus*, *A. martii*, *A. rotula*. In Ehrenberg 1854 (ref. 000966), *Amphidiscus* species are classified under "phytolitharien".

- Amphidiscus aculeatus* Ehrenberg 1845, p. 314 [ref. 010842]. *Invalid*. Nomen nudum.  
*Amphidiscus anceps* Ehrenberg 1845, p. 366 [ref. 000957].  
*Amphidiscus anchora* Ehrenberg 1843, p. 340, 391 [ref. 000294]. *Invalid*. Nomen nudum.  
*Amphidiscus anchora* Ehrenberg 1854, p. 26; pl. II/II, fig. 56; pl. IV/I, fig. 30; pl. XXXIV/IV.A, fig. 6; pl. XXXVI, fig. 46 [ref. 000966]. [according to INA].  
*Amphidiscus annulatus* Ehrenberg 1847, p. 50 [ref. 000959]. *Invalid*. Nomen nudum.  
*Amphidiscus antediluvianus* Ehrenberg 1854, p. 26; pl. 11, fig. 35a-c [ref. 000966]. [according to INA].  
*Amphidiscus anthocephalus* Ehrenberg 1854, p. 277, 279 [ref. 000300]. *Invalid*. Nomen nudum. [according to INA].  
*Amphidiscus arborescens* Ehrenberg 1854, p. 249 [ref. 000301]. [according to INA].  
*Amphidiscus armatus* Ehrenberg 1840, p. 204 [ref. 000293].

- Amphidiscus asterocephalus* Ehrenberg 1853, p. 258, 269 [ref. 002423]. *Invalid*. Nomen nudum. [according to INA].
- Amphidiscus asterophorus* Ehrenberg 1853, p. 265 [ref. 002423]. *Invalid*. Nomen nudum. [according to INA].
- Amphidiscus asterophorus* Ehrenberg 1854, p. 26; pl. XXXIV/VI.A, fig. 11 [ref. 000966]. [according to INA].
- Amphidiscus brachiatus* Ehrenberg 1854, p. 26; pl. 35a/ 21, fig. 19; pl. 36, fig. 44 [ref. 000966]. [according to INA].
- Amphidiscus brevis* Ehrenberg 1871, p. 59; pl. 3, 4, figs. 21, 22 [ref. 000310].
- Amphidiscus chinensis* Ehrenberg 1853, p. 530 [ref. 001189]. [according to INA].
- Amphidiscus cirrhosus* Ehrenberg 1854, p. 249 [ref. 000301]. [according to INA].
- Amphidiscus clavatus* Ehrenberg 1843, p. 304, 391; pl. 1, 4, fig. 15b; pl. 2, 2, fig. 23 [ref. 000294]. [according to INA].
- Amphidiscus fistulosus* Ehrenberg 1849, p. 452; pl. 1a, fig. 56 [ref. 001187]. [according to INA].
- Amphidiscus inaequalis* Ehrenberg 1853, p. 269 [ref. 002423]. *Invalid*. Nomen nudum. Also nomen nudum in Ehrenberg 1854 (ref. 000966), p. 314, 315. [according to INA].
- Amphidiscus martensii* Ehrenberg 1869, p. 54; pl. II-III, fig. 29 [ref. 000309]. [according to INA].
- Amphidiscus martii* Ehrenberg 1839, p. 127 [ref. 002422]. Also in Ehrenberg 1840, p. 204 (ref. 000293).
- Amphidiscus naucrates* Ehrenberg 1854, p. 26; 21, fig. 73 [ref. 000966]. [according to INA].
- Amphidiscus obtusus* Ehrenberg 1845, p. 65 [ref. 000955]. *Invalid*. Nomen nudum. [according to INA].
- Amphidiscus obtusus* Ehrenberg 1849, p. 445; pl. II/I, fig. 32; pl. II/II, fig. 36; pl. II/III, fig. 42; pl. III/II, fig. 34; pl. IV/A, fig. 57; pl. IV/B, fig. 24; pl. V/I, fig. 42; pl. V/II, fig. 68; pl. VI/I, fig. 36; pl. VI/II, fig. 30 [ref. 001187]. Illustration only.
- Amphidiscus pygmaeus* Ehrenberg 1854, p. 107, 109 [ref. 000300]. *Invalid*. Nomen nudum. [according to INA].
- Amphidiscus rotella* Ehrenberg 1849, p. 317, 442; pl. I/I, fig. 53; pl. II/III, fig. 40 [ref. 001187]. Appeared previously as nomen nudum in Ehrenberg 1847, p. 325 (ref. 002008).
- Amphidiscus rotula* Ehrenberg 1840, p. 204 [ref. 000293]. First appeared in Ehrenberg 1839, p. 127 (ref. 002422) as a nomen nudum.
- Amphidiscus tribulus* Ehrenberg 1854, p. 206, 207 [ref. 000300]. Nomen nudum. [according to INA].
- Amphidiscus truncatus* Ehrenberg 1847, p. 291, 295, and table to pp. 285-304 [ref. 010843]. *Invalid*. Nomen nudum. [according to INA].
- Amphidiscus umbraculum* Ehrenberg 1853, p. 265, 269 [ref. 002423]. *Invalid*. Nomen nudum. [according to INA].
- Amphidiscus umbraculum* Ehrenberg 1854, p. 26; pl. XXXIV/VI.A, fig. 9 [ref. 000966]. [according to INA].
- Amphidiscus verticillatus* Ehrenberg 1848, p. 15, 16 [ref. 002230]. *Invalid*. Nomen nudum. [according to INA].
- Amphidiscus verticillatus* Ehrenberg 1854, p. 26, pl. XXXVI, fig. 45; pl. XII, fig. 50 [ref. 000966]. [according to INA].

**AMPHIPENTAS C.G. Ehrenberg 1840, p. 205 [ref. 000293]**

T: *Amphipentas pentacrinus* C.G. Ehrenberg 1840

- Amphipentas alternans* Ehrenberg 1843, p. 410; pl. 2/6, fig. 9 [ref. 000294]. (p. 122 of reprint).
- Amphipentas antillarum* (Cleve) De Toni 1894, p. 911 [ref. 000951]. Basionym: *Triceratium antillarum* Cleve 1878.
- Amphipentas boryana* (Pantocsek) De Toni 1894, p. 912 [ref. 000951]. Basionym: *Triceratium boryanum* Pantocsek 1889.
- Amphipentas campechiana* (Grunow) De Toni 1894, p. 913 [ref. 000951]. Basionym: *Triceratium campechianum* Grunow in O'Meara 1874.
- Amphipentas flexuosa* J.W. Bailey in Ralfs in Pritchard 1861, p. 858; pl. 6, fig. 22 [ref. 001063].
- Amphipentas godeffroyi* (Grunow in Schmidt et al.) De Toni 1894, p. 913 [ref. 000951]. Basionym: *Triceratium godeffroyi* Grunow in Schmidt et al. 1882.
- Amphipentas grovei* (Pantocsek) De Toni 1894, p. 912 [ref. 000951]. Basionym: *Triceratium grovei* Pantocsek 1886.
- Amphipentas hungarica* (Pantocsek) De Toni 1894, p. 913 [ref. 000951]. Basionym: *Triceratium hungaricum* Pantocsek 1892.
- Amphipentas jimboi* (Pantocsek) De Toni 1894, p. 913 [ref. 000951]. Basionym: *Triceratium jimboi* Pantocsek 1892.
- Amphipentas juncta* (Schmidt in Schmidt et al.) De Toni 1894, p. 912 [ref. 000951]. Basionym: *Triceratium junctum* Schmidt in Schmidt et al. 1886.
- Amphipentas juncta* var. *fossilis* (Pantocsek) De Toni 1894, p. 912 ('fossile') [ref. 000951]. Basionym: *Triceratium junctum* var. *fossile* (*fossilis*) Pantocsek 1889.
- Amphipentas laeta* (Pantocsek) De Toni 1894, p. 911 [ref. 000951]. Basionym: *Triceratium laetum* Pantocsek 1886.
- Amphipentas loczyi* (Pantocsek) De Toni 1894, p. 912 [ref. 000951]. Basionym: *Triceratium loczyi* Pantocsek 1889.
- Amphipentas loczyi* var. *confluens* (Pantocsek) De Toni 1894, p. 912 [ref. 000951]. Basionym: *Triceratium loczyi* var. *confluens* Pantocsek 1889.
- Amphipentas nobilis* (Greville) De Toni 1894, p. 911 [ref. 000951]. Basionym: *Amphitetras nobilis* Greville 1865.
- Amphipentas obtusa* L.W. Bailey 1861, p. 168 [ref. 007053]. Also in Bailey 1862, p. 348, fig. C (ref. 000125).
- Amphipentas pentacrinus* Ehrenberg 1840, p. 205 [ref. 000293].
- Amphipentas punctata* (Brightwell) Van Heurck 1896, p. 553 [ref. 000897]. Basionym: *Triceratium punctatum* Brightwell



1856. Combination validly published on p. 553 (index), although the name appears as *Biddulphia* (*Amphipentas*) *punctata* Brightwell on p. 469, and text-fig. 206. Both combinations (under *Biddulphia* and under *Amphipentas*) are validly published in Van Heurck 1896.

*Amphipentas quinquelobata* (Greville) De Toni 1894, p. 911 [ref. 000951]. Basionym: *Triceratium quinquelobatum* Greville 1866.

**AMPHIPLEURA F.T. Kützing 1844, p. 103 [ref. 000595]**

LT: *Amphipleura pellucida* (F.T. Kützing) F.T. Kützing 1844

(= *Frustulia pellucida* Kützing 1833)

Type designated by Cleve 1894, p. 125 (ref. 000232) who stated “the genus *Amphipleura* was founded in 1844 by Kützing for *Frustulia pellucida*.”

*Amphipleura antarctica* (Grunow) Hustedt 1937, p. 723 [ref. 000511]. Basionym: *Berkeleya antarctica* Harvey ex Grunow 1880.

*Amphipleura arctica* Patrick & Freese 1961, p. 170; pl. 1, fig. 14 [ref. 000725].

*Amphipleura brunii* Prudent 1906, p. 37; pl. 2, fig. 12 (as *Amphipleura* (*Berkeleya*) *brunii*) [ref. 001018].

*Amphipleura campechiana* Hustedt in Schmidt et al. 1936, pl. 406, fig. 4 [ref. 012519]. *Invalid*. No description. Validated by Simonsen 1987, p. 202 (ref. 003164).

*Amphipleura campechiana* Hustedt ex Simonsen 1987, p. 202; pl. 311, fig. 1-3 [ref. 003164].

*Amphipleura chiapasensis* Metzeltin & Lange-Bertalot 1998, p. 21-22; pl. 109, fig. 1-5 [ref. 007051].

*Amphipleura conferta* (W. Smith) VanLandingham 1979, p. 4250 [ref. 006514]. *Invalid*. Intended new combination of *Schizonema confertum* W. Smith 1856. Place of publication of basionym not cited.

*Amphipleura cretae* (Ehrenberg) Grunow 1862, p. 154 (468) [ref. 000428]. Basionym: *Cocconema cretae* Ehrenberg 1839.

*Amphipleura danica* Kützing 1844, p. 103; pl. 30, fig. 38 [ref. 000595].

*Amphipleura danica* var. *ostrearia* Grunow 1877, p. 88 (as *Amphipleura danica*  $\beta$  *ostrearia*) [ref. 000437]. Basionym: *Navicula ostrearia* Bory 1827.

*Amphipleura debyi* Leuduger-Fortmorel 1892, p. 22; pl. 2, fig. 10 [ref. 000607].

*Amphipleura delicatissima* Stoermer & Kreis 1978, p. 150 [ref. 005986]. *Invalid*. Nomen nudum. No description, no authors cited. Name listed with the note “nom. illegit.”.

*Amphipleura dillwynii* (Agardh) Schütt 1896, p. 36; fig. 49 h-k (as *Amphipleura* (*Berkeleya*) *dillwynii* Ag.) [ref. 001512]. Basionym: *Schizonema dillwynii* Agardh 1824.

*Amphipleura frauenfeldii* Grunow 1863, p. 144; pl. 14, fig. 3 (pl. 5, fig. 3) [ref. 000429].

*Amphipleura guillauminii* Manguin 1962, p. 17; pl. 2, fig. 3a, b [ref. 000629]. *Invalid*. No Latin diagnosis; type not indicated.

*Amphipleura guillauminii* Manguin ex Moser, Steindorf & Lange-Bertalot 1995, p. 43; pl. 44, fig. 1-6 [ref. 008613]. *Invalid*. No Latin diagnosis.

*Amphipleura guillauminii* Manguin ex Kociolek & Reviers 1996, p. 200; pl. 2, fig. 3 a, b [ref. 008442].

*Amphipleura holsatica* f. *pyriformis* A. Berg 1952, p. 21; pl. 1, fig. 7 [ref. 000136]. As *Amphora holsatica* var. *ventrestriata* n. var. on p. 35, *Amphora holsatica* Hustedt var. *ventrestriata* n. var. (f. *pyriforme*) in figure legend, *Amphora holsatica* var. *ventrestriata* n. var. f. *pyriformis* n.f. on p. 21.

*Amphipleura holsatica* var. *ventrestriata* A. Berg 1952, p. 21, 35; pl. 1, fig. 7 [ref. 000136]. As *Amphora holsatica* var. *ventrestriata* n. var. on p. 35, *Amphora holsatica* Hustedt var. *ventrestriata* n. var. (f. *pyriforme*) in figure legend, *Amphora holsatica* var. *ventrestriata* n. var. f. *pyriformis* n.f. on p. 21.

*Amphipleura hungarica* (Pantocsek) Cleve 1894, p. 127 [ref. 000232]. Basionym: *Berkeleya hungarica* Pantocsek 1889.

*Amphipleura hyalina* Round & Brooks 1973, p. 77-79; figs. 1-4, 6-16 [ref. 008737].

*Amphipleura inflexa* Brébisson ex Kützing 1849, p. 88 [ref. 000596].

*Amphipleura intermedia* Grunow 1877, p. 179 (as *Amphipleura* (*pellucida* var.?) *intermedia*) [ref. 000437].

*Amphipleura japonica* Suringar 1867, p. 257 [ref. 011552]. Illustrated in Suringar 1870, pl. 2, fig. 26 (ref. 000871).

*Amphipleura kriegeriana* (Krasske) Hustedt 1954, p. 272; fig. 25-27 [ref. 000528]. Basionym: *Fragilaria kriegeriana* Krasske 1943.

*Amphipleura lindheimeri* Grunow 1862, p. 155 (469); pl. 11, fig. 11 [ref. 000428]. See Cleve 1894, p. 126 (ref. 000232) who seemed to make a distinction between *Amphipleura lindheimeri* Grunow in Cleve & Möller 1882, No. 298 (ref. 001979), that he placed in syn. with *A. pellucida* var. *brasiliensis*, and *Amphipleura lindheimeri* Grunow 1862.

*Amphipleura lindheimeri* var. *intermedia* Tempère & Peragallo 1911, p. 288; No. 579 (as *Amphipleura lindheimeri* Grun. var. *intermedia*) [ref. 001067]. No description. Citation error for *Amphipleura intermedia* Grunow 1877? Can possibly be also treated as a valid new combination of *Amphipleura intermedia* Grunow 1877? Also listed in Tempère & Peragallo 1914, p. 452, No. 931 (ref. 001070).

*Amphipleura lindheimeri* var. *neotropica* Frenguelli 1933, p. 418; pl. 4, fig. 12; text fig. 3, p. 419 [ref. 000356].

*Amphipleura lindheimeri* f. *recta* (Kitton) Kobayasi in Kobayasi & Ando 1975, p. 180; pl. 2, fig. 16, 17 [ref. 008427]. Ba-

- sionym: *Amphipleura pellucida* var. *recta* Kitton 1884.
- Amphipleura lindheimeri* var. *truanii* Van Heurck 1882-1885, p. 51; Type No. 166 [ref. 000896]. Diagnosis included. Also described and illustrated by Truan y Luard 1884, p. 354 (48); pl. 8, fig. 34-35 (ref. 002374).
- Amphipleura lineolata* f. *sparsestriata* A. Berg 1952, p. 21, 35 [ref. 000136].
- Amphipleura maxima* H.L. Smith in Walker & Chase 1886, p. 2; pl. 2, fig. 5 [ref. 000904].
- Amphipleura micans* (Lyngbye) Cleve 1894, p. 126 [ref. 000232]. Basionym: *Bangia micans* Lyngbye 1819.
- Amphipleura micans* var. *fragilis* (Greville) Grunow in Cleve 1894, p. 126 [ref. 000232]. Basionym: *Berkeleya fragilis* Greville 1827.
- Amphipleura nobilis* (Reichelt ex Tempère) Schütt 1896, p. 131; fig. 238 (as *Amphipleura (Reicheltia) nobilis*) [ref. 001512]. Basionym: *Gomphopleura nobilis* Reichelt ex Tempère 1894.
- Amphipleura oregonica* Grunow 1877, p. 179 (as *Amphipleura (pellucida* var.?) *oregonica*) [ref. 000437]. First illustrated in Wolle 1890, pl. 31, fig. 1 (ref. 000916). Misspelled “*oregona*” in VanLandingham 1967, p. 155 (ref. 006293).
- Amphipleura pellucida* (Kützing) Kützing 1844, p. 103; pl. 3, fig. 52, pl. 30, fig. 84 [ref. 000595]. Basionym: *Frustulia pellucida* Kützing 1833.
- Amphipleura pellucida* var. *brasiliensis* Cleve 1894, p. 99; pl. 7, fig. 15 (var. *brasiliensis* in plate caption) [ref. 000231].
- Amphipleura pellucida* var. *brasiliensis* Cleve 1894, p. 126 [ref. 000232].
- Amphipleura pellucida* var. *articula* O’Hara 1889, p. 45 [ref. 010535]. [according to INA].
- Amphipleura pellucida* var. *intermedia* Grunow 1877, p. 179 (as *Amphipleura (pellucida* var.?) *intermedia*) [ref. 000437]. Invalid.
- Amphipleura pellucida* var. *lindheimeri* (Grunow) O’Hara 1889, p. 44 [ref. 010535]. Basionym: *Amphipleura lindheimeri* Grunow 1862. [according to INA].
- Amphipleura pellucida* var. *lindheimeri* (Grunow) Cleve 1894, p. 126 [ref. 000232]. Basionym: *Amphipleura lindheimeri* Grunow 1862. Isonym: Combination previously published by O’Hara 1889.
- Amphipleura pellucida* var. *maxima* (H.L. Smith in Walker & Chase) Cleve 1894, p. 127 [ref. 000232]. Basionym: *Amphipleura maxima* H.L. Smith in Walker & Chase 1886.
- Amphipleura pellucida* f. *minor* Dippel 1905, p. 78; fig. 169 [ref. 000276].
- Amphipleura pellucida* var. *minor* (Dippel) F.W. Mills 1933, p. 126 [ref. 000997]. Basionym: *Amphipleura pellucida* f. *minor* Dippel 1905. Citation error for *A. pellucida* f. *minor* Dippel. Name accepted by Mills (upper case print).
- Amphipleura pellucida* var. *oregonica* (Grunow) Cleve 1894, p. 126 [ref. 000232]. Basionym: *Amphipleura oregonica* Grunow 1877.
- Amphipleura pellucida* var. *recta* Kitton 1884, p. 18 (3); pl. 4, fig. 4a (‘*rectus*’) [ref. 000574]. As *Amphipleura pellucida* in figure caption.
- Amphipleura pellucida* var. *schumannii* (Grunow) Cleve 1894, p. 127 [ref. 000232]. Basionym: *Amphipleura schumannii* Grunow 1877.
- Amphipleura pellucida* var. *truanii* (Van Heurck) Cleve 1894, p. 127; pl. 6, fig. 1 [ref. 000232]. Basionym: *Amphipleura lindheimeri* var. *truanii* Van Heurck 1882-1885.
- Amphipleura pellucida* sensu Schumann 1867, p. 53; pl. 1, fig. 9 [ref. 001004]. Illustrated as *Amphipleura pellucida* (Kützing) Kützing. Placed in synonym of *Amphipleura schumannii* Grunow 1877 by Cleve 1894, p. 127 (ref. 000232).
- Amphipleura peragalli* (Brun & Héribaud in Héribaud) Schütt 1896, p. 131; fig. 239 (as *Amphipleura (Rouxia) peragalli*) [ref. 001512]. Basionym: *Rouxia peragalli* Brun 1893.
- Amphipleura pumila* Schumann 1869, p. 85; pl. 2, fig. 7 [ref. 001005].
- Amphipleura rigida* Kützing 1844, p. 104; pl. 4, fig. 30 [ref. 000595]. *Illegitimate*. New name for *Sigmatella subrecta* Brébisson 1838. Unwarrented change of epithet.
- Amphipleura rutilans* (Trentepohl ex Roth) Cleve 1894, p. 126 [ref. 000232]. Basionym: *Conferva rutilans* Trentepohl ex Roth 1806.
- Amphipleura rutilans* var. *antarctica* (Grunow) Cleve 1894, p. 126 [ref. 000232]. Basionym: *Berkeleya antarctica* Harvey ex Grunow 1880.
- Amphipleura rutilans* f. *baltica* A. Berg 1952, p. 21, 35; pl. 1, fig. 4 [ref. 000136].
- Amphipleura rutilans* var. *dillwynii* (Agardh) Cleve-Euler 1952, p. 5; fig. 1321g (as *Amphipleura rutilans*  $\alpha$  *dillwynii*) [ref. 001044]. Basionym: *Schizonema dillwynii* Agardh 1824. Rank implied, but not clearly indicated. Place of publication of basionym incorrectly cited.
- Amphipleura rutilans* var. *obtusata* (Greville) Hustedt 1937, p. 721 [ref. 000511]. Basionym: *Monema obtusum* Greville 1827.
- Amphipleura rutilans* var. *parasitica* (Griffith in W.H. Harvey) Cleve-Euler 1949, p. 24 [ref. 000254]. Basionym: *Schizonema parasiticum* Griffith in Harvey 1841.
- Amphipleura schumannii* Grunow 1877, p. 180 [ref. 000437]. Refers to *Amphipleura pellucida* sensu Schumann 1867, p. 53, pl. 1, fig. 9.
- Amphipleura sicula* (Ehrenberg) Grunow 1862, p. 154 (468) [ref. 000428]. Basionym: *Navicula sicula* Ehrenberg 1839.
- Amphipleura sigmoidea* W. Smith 1853, p. 45; pl. 15, fig. 128 [ref. 000863]. *Illegitimate*. W. Smith cites *Amphipleura rigi-*

*da* Kützing as synonym.

*Amphipleura silvestrinia* Zanon 1949, p. 109; pl. 2, fig. 15 [ref. 001577].

*Amphipleura sullivantii* ‘Habirshaw’ according to M. Peragallo 1897, p. 42 [ref. 012539]. *Invalid*. Not found in the editions of Harbirshaw’s catalogue at CAS: Habirshaw 1877 (ref. 000453), Habirshaw 1881 (ref. 001048), Chase 1885 (ref. 001049), Chase 1907 (ref. 002211). Listed but not accepted by Peragallo 1897 who gives as accepted synonym: *A. lindheimeri*.

*Amphipleura trubiana* according to Truan y Luard 1884, p. 354 (48) [ref. 002374]. *Invalid?* Cited in synonym of *Amphipleura lindheimeri* var. *truanii* Van Heurck ex Truan. Cited as *Amphipleura trubiana* Truan 1883 (without further reference). We are not able to establish if *A. trubiana* is a valid name.

*Amphipleura weissflogii* Janisch ex Grunow 1877, p. 180; pl. 195, fig. 14 [ref. 000437].

**AMPHIPRORA C.G. Ehrenberg 1843, p. 401 [ref. 000294]**

LT: *Amphiprora constricta* C.G. Ehrenberg 1843

Type designated by Ross in Farr et al. 1979, p. 72 (ref. 006663).

*Amphiprora aboensis* Cleve-Euler 1915, p. 7; pl. 1, fig. 1 [ref. 000246].

*Amphiprora aculeata* Krasske 1941, p. 275; pl. 4, fig. 12 [ref. 000588].

*Amphiprora acuta* M. Peragallo 1924, p. 20 [ref. 000738]. Refers to illustration (*Amphiprora* sp.?) in Van Heurck 1909, pl. I, fig. 24 (ref. 000898).

*Amphiprora acuta* var. *minor* M. Peragallo 1924, p. 20 [ref. 000738].

*Amphiprora aequatorialis* (Cleve) De Toni 1891, p. 335 [ref. 000271]. Basionym: *Amphicampa aequatorialis* Cleve 1873.

*Amphiprora alata* (Ehrenberg) Kützing 1844, p. 107; pl. 3, fig. 63 [ref. 000595]. Basionym: *Navicula alata* Ehrenberg 1840.

*Amphiprora alata* var. *angustior* ‘McCall’ according to Mills 1933, p. 128 [ref. 000997]. *Invalid*. Typographical error for *Amphiprora lata* var. *angustior* McCall 1933.

*Amphiprora alata* var. *genuina* Cleve-Euler 1952, p. 32; fig. 1402 a-d (as *Amphiprora alata*  $\alpha$  *genuina* mh) [ref. 001044]. Cleve-Euler cites ‘*A. alata* W. Sm; Ehrenb.; Kuetz.

*Amphiprora alata* var. *holdereri* (Gutwinski) Playfair 1914, p. 115; pl. 4, fig. 18 [ref. 002345]. Basionym: *Amphiprora paludosa* var. *holdereri* Gutwinski 1903.

*Amphiprora alata* var. *intermedia* Cleve 1894, p. 16 [ref. 000232].

*Amphiprora alata* var. *japonica* Cleve 1894, p. 16; pl. 1, fig. 2 [ref. 000232].

*Amphiprora alata* var. *maeotica* Proschkina-Lavrenko 1960, p. 60; pl. III, figs. 9, 10 [ref. 002816].

*Amphiprora alata* f. *minor* Tempère & Peragallo 1910, p. 212; No. 397 [ref. 001066]. *Invalid*. Nomen nudum.

*Amphiprora alata* var. *pontica* Mereschkowsky 1902, p. 57 (7), 85 (35) [ref. 001381].

*Amphiprora alata* var. *pulchra* (J.W. Bailey) Cleve 1894, p. 16 [ref. 000232]. Basionym: *Amphiprora pulchra* J.W. Bailey 1851.

*Amphiprora amphoroides* Østrup 1895, p. 442; pl. 6, fig. 70, pl. 7, fig. 87 [ref. 000698]. Østrup 1897 (ref. 000699), p. 280 indicates that only fig. 6/70 (not 7/87) belongs to this taxon.

*Amphiprora angustata* Hendey 1964, p. 254; pl. 43, fig. 1-6 [ref. 000480].

*Amphiprora antarctica* Grunow in Cleve & Möller 1878, No. 125 [ref. 001976]. *Invalid*. Nomen nudum. The taxon was later described under the valid name *Tropidoneis antarctica* Cleve 1894.

*Amphiprora approximata* (Cleve) De Wildeman 1899, p. 43 [ref. 012538]. Basionym: *Tropidoneis approximata* Cleve 1894. [according to ANSP].

*Amphiprora arenaria* Brébisson in Rabenhorst 1870, no. 2150 [ref. 011645].

*Amphiprora australis* Petit 1908, p. 3; pl. 1, fig. 5 [ref. 000753].

*Amphiprora balearica* Cleve & Grunow in Cleve & Möller 1878, No. 154-155 (as *Amphiprora (sulcata* var.?) *balearica*) [ref. 001976]. *Invalid*. Nomen nudum. Taxon was later described as *Amphiprora sulcata* var. *balearica* Grunow in Cleve & Grunow 1880 (ref. 000241). See also *Amphiprora balearica* (Grunow) M. Peragallo 1897.

*Amphiprora balearica* (Grunow in Cleve & Grunow) M. Peragallo 1897, p. 43 [ref. 012539]. Basionym: *Amphiprora sulcata* var. *balearica* Grunow in Cleve & Grunow 1880.

*Amphiprora baltica* (Pfitzer) Petit 1877, p. 77 (figure caption); pl. 187, fig. 10 [ref. 000749]. Basionym: *Plagiotropis baltica* Pfitzer 1871.

*Amphiprora belgicae* Van Heurck 1909, p. 14; pl. 1, fig. 15 (as *Amphiprora (Orthotropis) belgicae*) [ref. 000898].

*Amphiprora belgicae* var. *major* Van Heurck 1909, p. 15; pl. 1, fig. 11 (as *Amphiprora (Orthotropis) belgicae* var. *major*) [ref. 000898].

*Amphiprora biharensis* Pantocsek 1892, pl. 42, fig. 577 [ref. 001034]. Description in Pantocsek 1905, p. 8 (ref. 001445).

*Amphiprora biseriata* O’Meara 1871, p. 23; pl. 3, fig. 4 [ref. 000691].

*Amphiprora brebissoniana* Greville 1863, p. 578, pl. 15, fig. 8 [ref. 001029]. Also in Greville 1863, p. 185; pl. 4, fig. 8 (ref. 012540).

- Amphiprora calumetica* B.W. Thomas in Thomas & Chase 1886, p. [1] [ref. 000884]. *Invalid*. Nomen nudum.
- Amphiprora campechiana* Grunow 1880, p. 66 [ref. 009613].
- Amphiprora challengeri* Grunow in Cleve & Grunow 1880, p. 64 (as *N. challengeri* in the treatment of *Amphiprora*) [ref. 000241]. *Invalid*. Validly published in Cleve & Grunow 1889 as *Navicula challengeri*.
- Amphiprora challengeri* (Grunow in Cleve & Grunow) De Toni 1891, p. 331 [ref. 000271]. Basionym: *Navicula challengeri* Grunow in Cleve & Grunow 1880.
- Amphiprora chinensis* Greville 1865, p. 7; pl. 5, fig. 13 [ref. 000419]. Orthographical variant (or correction) “*sinensis*” introduced by De Toni 1891, p. 342 (ref. 000271).
- Amphiprora cholnokyi* VanLandingham 1967, p. 162 [ref. 006293]. New name for *Amphiprora costata* Hustedt 1930, non O’Meara 1871. Several illegitimate replacement names had been previously published: *Amphiprora incerta* Bíly 1934 (illegitimate: non Mereschkowsky 1903), *Amphiprora hustedtii* Cholnoky 1960 (illegitimate: non Meister 1937). *Amphiprora cholnokyi* VanLandingham 1967 is a legitimate name.
- Amphiprora cholnokyi* var. *africana* (Cholnoky) VanLandingham 1967, p. 162 [ref. 006293]. Basionym: *Amphiprora hustedtii* Cholnoky var. *africana* Cholnoky 1960. Although labeled a “nomen novum” by VanLandingham, it is a valid new combination.
- Amphiprora clepsydra* Greville 1863, p. 41; pl. 1, fig. 20 [ref. 000414]. Also in Greville 1863, p. 541; pl. 13, fig. 20 (ref. 000417).
- Amphiprora clepsydra* Manguin in Bourrelly & Manguin 1952, p. 88, pl. 6, fig. 144 [ref. 000149]. *Illegitimate*. Non Greville 1863.
- Amphiprora clevei* De Wildeman 1899, p. 43 [ref. 012538]. New name for *Tropidoneis lata* Cleve (priority for *Amphiprora lata* Greville 1863). [according to ANSP].
- Amphiprora coarctata* Brun in Brun & Tempère 1889, p. 14; pl. 3, fig. 12 [ref. 000185].
- Amphiprora complexa* Gregory 1857, p. 508; pl. 12, fig. 62 [ref. 000399]. In reprint: p. 36; pl. 4, fig. 62.
- Amphiprora concilians* Cleve 1896, p. 18; pl. 2, fig. 12, 13 [ref. 000233].
- Amphiprora conserta* Lewis 1861, p. 63; pl. 1, fig. 5 [ref. 000609]. Also in Lewis 1862, p. 159 (ref. 000995). Listed with the typographical error ‘*concerta*’ in VanLandingham 1967, p. 162 (ref. 006293).
- Amphiprora conspicua* Greville 1861, p. 86; pl. 10, fig. 16 [ref. 000976].
- Amphiprora constricta* Ehrenberg 1843, p. 410; pl. 2/6, fig. 28 [ref. 000294]. Nomenclatural synonym: *Navicula simulans* Donkin 1873 (non *Navicula constricta* Grunow 1860).
- Amphiprora constricta* sensu W. Smith 1853, p. 44; pl. 15, fig. 126 (as *Amphiprora constricta*, Ehr.) [ref. 000863]. Cited by Cleve 1894, p. 145 (ref. 000232) under *Stauroneis constricta*. Cleve notes: “it is not very probable that *St. constricta* of Ehrenberg represents this species, whatever it may be”.
- Amphiprora contortissima* Mereschkowsky 1903, p. 169 (21) [ref. 009929].
- Amphiprora contracta* H. Peragallo in Pelletan 1889, p. 223 [ref. 001001]. *Invalid*. Nomen nudum? Listed without description, author or reference.
- Amphiprora cornuta* Chase in Walker & Chase 1886, p. 2; pl. 1, fig. 6 [ref. 000904].
- Amphiprora corrugata* Giffen 1963, p. 213; pl. 1, fig. 6, 7 [ref. 000383].
- Amphiprora costata* O’Meara 1869, p. 151; pl. 12, fig. 6 [ref. 012885].
- Amphiprora costata* Hustedt 1930, p. 338; fig. 623 [ref. 000502]. *Illegitimate*. Non O’Meara 1869. Synonyms (replacement names): *Amphiprora incerta* Bíly 1934 (illegitimate: non Mereschkowsky 1903), *Amphiprora hustedtii* Cholnoky 1960 (illegitimate: non Meister 1937), *Amphiprora cholnokyi* VanLandingham 1967.
- Amphiprora crassopunctata* ‘Missuna’ VanLandingham 1979, p. 4250 [ref. 006514]. *Invalid*. Cit. err. for *Amphora crassopunctata* Missuna 1914. Not a valid new combination. Combination “*Amphiprora crassopunctata* Missuna” also listed (but invalid) in Makarova & Kozyrenko 1966, p. 45 (ref. 001358).
- Amphiprora crenulata* Tempère in Cleve 1891, p. 50; pl. 9, fig. 9, 10 [ref. 000227].
- Amphiprora cruenta* Arnoldi 1922 [ref. 002389]. According to Hollerbakh & Krasavina 1971, p. 23 (ref. 002458). [according to VLC].
- Amphiprora cryophila* Cleve 1883, p. 477; pl. 35, fig. 11 (as ‘*A. (Amphitropis) kryophila*’) [ref. 000224]. see *Amphiprora kryophila* Cleve.
- Amphiprora cymbiformis* Eichwald 1852, p. 500; pl. 6, fig. 6 [ref. 010684]. Also in Eichwald 1860, p. 213; fig. 9-10, 12-17 (ref. 002696).
- Amphiprora decussata* Grunow in Cleve & Grunow 1880, p. 63 [ref. 000241]. Illustrated in Van Heurck 1880, pl. 22, fig. 12 (ref. 000895).
- Amphiprora decussata* Grunow in Van Heurck 1880, pl. 22, fig. 13 (as *Amphiprora (Amphitropis) decussata* Grun.) [ref. 000895]. Description in Cleve & Grunow 1880, p. 63 (ref. 000241).
- Amphiprora decussata* var. *gigantea* (Grunow) H. Peragallo in H. Peragallo & M. Peragallo 1897-1908, p. 187 [ref. 000733]. Basionym: *Amphiprora gigantea* Grunow 1860. New combination validly published in text on p. 187. As *A. gigantea* Gr. on plate 38, fig. 6 (ref. 001053). Plate was issued in 1898 (ref. 001053), text was published between 1897-1899.

- Amphiprora decussata* var. *septentrionalis* Grunow in Cleve & Grunow 1880, p. 63; pl. 5, fig. 87 [ref. 000241].
- Amphiprora delicatula* Greville 1863, p. 39; pl. 1, fig. 15, 16 [ref. 000414]. Also in Greville 1863, p. 539, pl. 13, fig. 15-16 (ref. 000417).
- Amphiprora dhulensis* Sarode & Kamat 1984, p. 159, 243; pl. 19, fig. 428 [ref. 008758].
- Amphiprora diadema* O'Meara 1871, p. 22; pl. 3, fig. 5 [ref. 000691].
- Amphiprora didyma* W. Smith 1853, p. 44; pl. 15, fig. 125 [ref. 000863].
- Amphiprora dilatata* Pantocsek 1889, p. 55; pl. 10, fig. 179 [ref. 001033].
- Amphiprora duplex* Donkin 1858, p. 28; pl. 3, fig. 13 [ref. 000277].
- Amphiprora duplex* var. *hyalina* 'Eulenstein manuscript ex Grunow in Van Heurck' Mills 1933, p. 131 [ref. 000997]. *Invalid*. Citation error for *Amphiprora hyalina* Eulenstein ex Grunow in Van Heurck 1880. Combination not accepted by Mills (lower case print).
- Amphiprora duseunii* Cleve 1894, p. 15 [ref. 000232]. Also in Cleve 1894, p. 146; pl. 9, figs. 10, 11 (ref. 000948).
- Amphiprora elegans* W. Smith 1856, p. 90 [ref. 001007].
- Amphiprora elegans* W. Sm. var. *adriatica* Grunow in Cleve & Grunow 1880, p. 64 [ref. 000241].
- Amphiprora elegans* W. Sm. var. *gracilis* Grunow in Cleve & Grunow 1880, p. 64 [ref. 000241].
- Amphiprora elegans* W. Sm. var. *posewizii* Pantocsek 1889, p. 56; pl. 10, fig. 181 (as *Amphiprora (elegans* W. Sm. var.?) *posewizii* Pant. n. s. in text and fig. caption) [ref. 001033]. *Invalid*. Validly published in Pantocsek 1889 as *Amphiprora posewizii*. Combination as a variety of *A. elegans* not validated by Mills 1933 (ref. 000997), or VanLandingham 1967 (ref. 006293).
- Amphiprora elegans* Bleakley in Gregory 1855, p. 43 [ref. 000396]. *Invalid*. Nomen nudum.
- Amphiprora elongata* 'Brébisson' Chase 1907, p. 51 [ref. 002211]. Cited in Chase with the reference "Brébisson, Verm. p. 10". Citation error? Not found in Brébisson 1872 (ref. 001108).
- Amphiprora eximia* Greville 1863, p. 38, pl. 1, fig. 13 [ref. 000414]. Also in Greville 1863, p. 538; pl. 13, fig. 13 (ref. 000417).
- Amphiprora fimbriata* Castracane 1886, p. 40; pl. 17, fig. 15 [ref. 000193].
- Amphiprora formosa* Meunier 1910, p. 290; pl. 32, fig. 2, 3 [ref. 000658].
- Amphiprora fragilis* Tempère & Brun in Brun & Tempère 1889, p. 14; pl. 9, fig. 14 [ref. 000185]. (in text misprinted pl. 8, fig. 14).
- Amphiprora frigida* Petit 1908, p. 3; pl. 1, fig. 4 (as *Amphiprora (Tropidoneis) frigida*) [ref. 000753].
- Amphiprora fulva* Donkin 1861, p. 14; pl. III, fig. 48 [ref. 000278]. (Illustration not seen). Illustrated on pl. III, fig. 48 (according to text), or on pl. I, fig. 15 (according to INA). This taxon was illustrated as *Pleurosigma lanceolatum* in Donkin 1858, pl. III, fig. 4 (ref. 000277).
- Amphiprora galerita* Giffen 1966, p. 249; fig. 1-3 [ref. 004242].
- Amphiprora gibberula* 'Grunow in Van Heurck' according to Mills 1933, p. 132 [ref. 000997]. *Invalid*. Citation error for *Plagiotropis gibberula* Grunow in Van Heurck 1883 (ref. 001037). Mills cites "Van Heurck Type no. 8" (ref. 000896) and lists *Tropidoneis gibberula* as accepted synonym.
- Amphiprora gibberula* 'Missuna' VanLandingham 1979, p. 4250 [ref. 006514]. *Invalid*. Citation error for *Amphora gibberula* Missuna 1914. Not a valid new combination. Combination "*Amphiprora gibberula* Missuna" also listed (but invalid) in Makarova & Kozyrenko 1966, p. 45 (ref. 001358).
- Amphiprora gigantea* Grunow 1860, p. 568; pl. 4, fig. 12 (pl. VI, fig. 12) [ref. 000427].
- Amphiprora gigantea* var. *aequatorialis* (Cleve) Cleve 1894, p. 18 [ref. 000232]. Basionym: *Amphicampa aequatorialis* Cleve 1873.
- Amphiprora gigantea* var. *decussata* (Grunow in Cleve & Grunow) Cleve 1894, p. 18 [ref. 000232]. Basionym: *Amphiprora decussata* Grunow in Cleve & Grunow 1880.
- Amphiprora gigantea* var. *kerquelensis* Grunow in Cleve & Grunow 1880, p. 63 [ref. 000241].
- Amphiprora gigantea* f. *minor* Miller 1964, p. 50; pl. 6, fig. 1 [ref. 008598].
- Amphiprora gigantea* var. *septentrionalis* (Grunow in Cleve & Grunow) Cleve 1894, p. 18 [ref. 000232]. Basionym: *Amphiprora decussata* var. *septentrionalis* Grunow in Cleve & Grunow 1880.
- Amphiprora gigantea* var. *sulcata* (O'Meara) Cleve 1894, p. 18 [ref. 000232]. Basionym: *Amphiprora sulcata* O'Meara 1871.
- Amphiprora gigantea* var. *tahitensis* (Grunow in Cleve & Grunow) Cleve 1894, p. 18 [ref. 000232]. Basionym: *Amphiprora tahitensis* Grunow in Cleve & Grunow 1880.
- Amphiprora glacialis* Cleve 1883, p. 477; pl. 35, fig. 12 (as *Amphiprora (Amphitropis?) glacialis*) [ref. 000224].
- Amphiprora gregoriana* Leuduger-Fortmorel 1879, p. 18 (34) [ref. 004789]. Previously described and illustrated as a new species of *Amphiprora* but not named, by Gregory 1857, p. 84, pl. 1, fig. 51 (ref. 002719). Leuduger-Fortmorel does not provide an additional illustration or description, but refers to Gregory's.
- Amphiprora gregoriana* 'Greville' according to Mills 1933, p. 132 [ref. 000997]. *Invalid*. Citation error for *Amphiprora gregoriana* Leuduger-Fortmorel 1879.

- Amphiprora hustedtii* Meister 1937, p. 264; pl. 8, fig. 2-4 [ref. 000646]. Synonym (replacement name): *Amphiprora triconfusa* VanLandingham 1967. VanLandingham's name is illegitimate as he renamed the earlier homonym.
- Amphiprora hustedtii* Chohnoky 1960, p. 20 [ref. 000208]. *Illegitimate*. Non *Amphiprora hustedtii* Meister 1937. Created by Chohnoky as a new name for *Amphiprora costata* Hustedt 1930, non O'Meara 1871. A replacement name (*Amphiprora incerta* Bily 1934) already exists but is illegitimate. Legitimate synonym: *Amphiprora chohnokyi* VanLandingham 1967.
- Amphiprora hustedtii* Chohnoky var. *africana* Chohnoky 1960, p. 20; pl. 1, fig. 49-50 [ref. 000208]. Synonym (replacement name): *Amphiprora chohnokyi* var. *africana* (Chohnoky) VanLandingham 1967.
- Amphiprora hyalina* Greville 1865, p. 6; pl. 5, fig. 11 [ref. 000419].
- Amphiprora hyalina* Eulenstein ex Grunow in Van Heurck 1880, pl. 22; fig. 17 (as *Amphiprora (Amphitropis) hyalina*) [ref. 000895]. *Illegitimate*. Non *Amphiprora hyalina* Greville 1865.
- Amphiprora hyalina* Pantocsek 1902, p. 638; pl. 13, fig. 58 [ref. 000718]. *Illegitimate*. Non Greville 1865. (p. 12 of reprint).
- Amphiprora hyperborea* (Grunow in Cleve & Grunow) Grunow 1884, p. 106 (as *A. (paludosa* var.?) *hyperborea* Grunow) [ref. 000444]. Basionym: *Amphiprora paludosa* var. *hyperborea* Grunow in Cleve & Grunow 1880.
- Amphiprora hyperborea* var. *genuina* Cleve-Euler 1952, p. 32; fig. 1401a-b (as *Amphiprora hyperborea*  $\alpha$  *genuina* mh.) [ref. 001044]. Cleve-Euler cites *Amphiprora paludosa* var. *hyperborea* Grunow.
- Amphiprora hyperborea* f. *minuta* Grunow 1884, legend to pl. 1 (A), fig. 51 [ref. 000444]. Described in text, p. 106, as an unnamed small form of '*Amphiprora (paludosa* var.?) *hyperborea*'. Illustrated on pl. 1(A), fig. 51, as *Amphiprora hyperborea* Grun. f. *minuta*.
- Amphiprora hyperborea* var. *minuta* (Grunow) Cleve-Euler 1952, p. 32 (as *Amphiprora hyperborea*  $\beta$  *minuta*) [ref. 001044]. Basionym: *Amphiprora hyperborea* f. *minuta* Grunow 1884. Rank implied, but not clearly indicated.
- Amphiprora incerta* Mereschkowsky 1903, p. 168-169 (20-21); fig. 36-41 [ref. 009929].
- Amphiprora incerta* Bily 1934, p. 16 [ref. 003493]. *Illegitimate*. Non Mereschkowsky 1903. New name for for *Amphiprora costata* Hustedt 1930, non O'Meara 1871.
- Amphiprora incisa* Karsten 1899, p. 90; fig. 110 [ref. 000558].
- Amphiprora incompta* Hohn & Hellerman 1966, p. 119; pl. 2, fig. 21 [ref. 008350].
- Amphiprora indica* Grunow 1860, p. 570; pl. 4, fig. 13, pl. 5, fig. 2 (pl. VI, fig. 13, pl. VII, fig. 2) [ref. 000427].
- Amphiprora inflexa* (Brébisson) Habirshaw 1877, p. [17] [ref. 000453]. Citation error for *Amphipleura inflexa* Brébisson.
- Amphiprora jolisiana* Greville 1863, p. 579; pl. 15, fig. 11 [ref. 001029].
- Amphiprora kariana* Grunow in Cleve & Grunow 1880, p. 61; pl. 4, fig. 82 (as *A. (Amphitropis) kariana*) [ref. 000241].
- Amphiprora kariana* var. *subtilis* Grunow 1884, p. 105 (53); pl. I (A), fig. 52, 53 [ref. 000444].
- Amphiprora karpinskii* 'Missuna' VanLandingham 1979, p. 4250 [ref. 006514]. *Invalid*. Citation error for *Amphora karpinskii* Missuna 1914. Not a valid new combination. Combination "*Amphiprora karpinskii* Missuna" also listed (but invalid) in Makarova & Kozyrenko 1966, p. 45 (ref. 001358).
- Amphiprora karstenii* Mereschkowsky 1902, p. 58; 153 [ref. 001382]. *Invalid*. Nomen nudum.
- Amphiprora kerguelensis* Janisch 1888, pl. 20, fig. 25-27 [ref. 000541]. *Invalid*. Unpublished manuscript.
- Amphiprora kerguelensis* var. *australis* 'Petit' M. Peragallo 1924, p. 20 [ref. 000738]. *Invalid*. Not a valid new combination of *Amphiprora australis* Petit 1908. M. Peragallo notes "*Amphiprora australis* P. Pet." and states: "Faut-il voir dans cette espèce une variété ou même une simple forme de l'*Amphiprora Kerguelensis* Janisch". Combination under *Amphiprora* not listed in Mills's index or in VanLandingham's Catalogue.
- Amphiprora kerguelensis* var. *robusta* M. Peragallo 1924, p. 20 [ref. 000738]. *Invalid*. Variety of *A. kerguelensis* Janisch which was never published. The description of var. *robusta* consists in a comparison with *A. kerguelensis*. No illustration provided.
- Amphiprora kinkeriana* (Cleve) De Wildeman 1899, p. 45 [ref. 012538]. Basionym: *Tropidoneis kinkeriana* Cleve 1894. [according to ANSP].
- Amphiprora kjellmanii* Cleve in Cleve & Grunow 1880, p. 15; pl. 4, fig. 83 [ref. 000241].
- Amphiprora kjellmanii* var. *australis* Cleve-Euler 1949, p. 25; fig. 35 [ref. 000254].
- Amphiprora kjellmanii* var. *genuina* Gran in Nansen 1900, p. 26 [ref. 001230]. [according to INA].
- Amphiprora kjellmanii* var. *glacialis* (Cleve) Cleve 1894, p. 16 [ref. 000232]. Basionym: *Amphiprora glacialis* Cleve 1883.
- Amphiprora kjellmanii* var. *kariana* (Grunow in Cleve & Grunow) Cleve 1894, p. 16 [ref. 000232]. Basionym: *Amphiprora kariana* Grunow in Cleve & Grunow 1880.
- Amphiprora kjellmanii* var. *kryophila* (Cleve) Gran 1900, p. 26 [ref. 001230]. Basionym: *Amphiprora kryophila* Cleve 1883.
- Amphiprora kjellmanii* var. *latestriata* Schulz 1926, p. 197; fig. 58 [ref. 000812].
- Amphiprora kjellmanii* var. *striolata* (Grunow in Cleve & Grunow) Cleve 1894, p. 17 [ref. 000232]. Basionym: *Amphiprora striolata* Grunow in Cleve & Grunow 1880.
- Amphiprora kjellmanii* var. *subtilis* (Grunow) Cleve 1894, p. 17 [ref. 000232]. Basionym: *Amphiprora kariana* var. *subtilis* Grunow 1884.
- Amphiprora kjellmanii* var. *subtilissima* Van Heurck 1909, p. 15; pl. 1, fig. 25 [ref. 000898].
- Amphiprora kjellmanii* var. *typica* Cleve-Euler 1952, p. 31 (as *Amphiprora kjellmanii*  $\alpha$  *typica* mh) [ref. 001044]. Cleve-

- Euler cites *A. kjellmanii* Cleve.
- Amphiprora kossuthii* ‘Missuna’ VanLandingham 1979, p. 4251 [ref. 006514]. *Invalid*. Citation err. for *Amphora Kossuthii* Pantocsek. Not a valid new combination. Combination “*Amphiprora kossuthii* var. *ventricosa* Missuna” listed (but invalid) in Makarova & Kozyrenko 1966, p. 45 (ref. 001358).
- Amphiprora kossuthii* var. *ventricosa* ‘Missuna’ VanLandingham 1979, p. 4251 [ref. 006514]. *Invalid*. Cit. Err. for *Amphora kossuthii* var. *ventricosa* Missuna 1914. Not a valid new combination. Combination “*Amphiprora kossuthii* var. *ventricosa* Missuna” listed (but invalid) in Makarova & Kozyrenko 1966, p. 45 (ref. 001358).
- Amphiprora kryophila* Cleve 1883, p. 477; pl. 35, fig. 11 a-b [ref. 000224].
- Amphiprora kuetsingiana* Greville 1863, p. 577; pl. 15, fig. 6 (*‘kützingiana’*) [ref. 001029]. Also in Greville 1863, p. 184, pl. 4, fig. 6 (ref. 012540).
- Amphiprora kuetsingii* Brébisson ex Kützing 1849, p. 93 (*‘kützingii’*) [ref. 000596].
- Amphiprora kufferathii* Manguin 1960, p. 320; pl. 16, fig. 188 [ref. 000627]. *Invalid*. No Latin diagnosis, type not designated.
- Amphiprora lata* Greville 1863, p. 38; pl. 1, fig. 14 [ref. 000414]. Also in Greville 1863, p. 539, pl. 13, fig. 14 (ref. 000417).
- Amphiprora lata* var. *angustior* McCall 1933, p. 268, 306; tex-fig. 26 [ref. 000640].
- Amphiprora lata* var. *sinuosa* Frenguelli 1938, p. 299; pl. 2, fig. 11-12 [ref. 000362].
- Amphiprora latestriata* Brébisson in Kützing 1849, p. 93 [ref. 000596]. Nomenclatural synonym: *Nitzschia bilobata* W. Smith 1853.
- Amphiprora lauriensis* Frenguelli & Orlando 1958, p. 95; pl. 11, fig. 6 [ref. 001216].
- Amphiprora lepida* Greville 1865, p. 5; pl. 5, fig. 10 [ref. 000419].
- Amphiprora lepidoptera* Gregory 1857, p. 76; pl. 1, fig. 39 [ref. 002719]. Previously “*Amphiprora vitrea* β” in Gregory 1855, p. 40; pl. IV, fig. 14 (ref. 000396).
- Amphiprora lepidoptera* Gregory 1857, p. 505; pl. 12, fig. 59 [ref. 000399]. In reprint: p. 33; pl. 4, fig. 59.
- Amphiprora lepidoptera* var. *delicatula* ‘Greville’ Desikachary 1989, p. 7 (expl. pl. 700, fig. 7) [ref. 006022]. *Invalid*. Citation error for *Amphiprora delicatula* Greville 1863, pro syn.
- Amphiprora lepidoptera* f. *minor* ‘Gregory’ according to Tempère & Peragallo 1908, p. 32, no. 58 [ref. 001064]. Perhaps citation error or new combination for *Amphiprora minor* Gregory.
- Amphiprora lepidoptera* var. *proboscidea* Tempère & Peragallo 1912, p. 309; No. 622, 623 [ref. 001068]. *Invalid*. Nomen nudum. Also listed in Tempère & Peragallo 1913, p. 385; no. 798 (ref. 001069).
- Amphiprora lepidoptera* var. *pusilla* (Gregory) Van Heurck 1885, p. 120 [ref. 001040]. Basionym: *Amphiprora pusilla* Gregory 1857.
- Amphiprora lepidoptera* var. *quarnerensis* (Grunow) Grunow in Cleve & Grunow 1880, p. 65 [ref. 000241]. Basionym: *Amphiprora quarnerensis* Grunow 1860.
- Amphiprora lepidoptera* var. *samoensis* (Grunow in Cleve & Grunow) Cleve 1894, p. 25 [ref. 000232]. Basionym: *Amphiprora pusilla* var. *samoensis* Grunow in Cleve & Grunow 1880.
- Amphiprora lepidoptera* var. *producta* Grunow in Cleve & Möller 1879, No. 197 [ref. 001977]. *Invalid*. Nomen nudum.
- Amphiprora limpida* Mann 1925, p. 16; pl. 3, fig. 1 [ref. 000632].
- Amphiprora lindheimeri* (Grunow) Wolle 1890, pl. 2, fig. 1 (as *Amphiprora (Amphipleura) lindheimeri*, var. Grun) [ref. 000916]. Basionym: *Amphipleura lindheimeri* Grunow 1862.
- Amphiprora lineata* Greville 1863, p. 40; pl. 1, fig. 19 [ref. 000414]. Also in Greville 1863, p. 540, pl. 13, fig. 19 (ref. 000417).
- Amphiprora longa* Cleve 1873, p. 20; pl. 3, fig. 15 [ref. 000220].
- Amphiprora marginepunctata (margine-punctata)* Cleve 1894, p. 17; pl. 1, fig. 3 (*‘margine-punctata’*) [ref. 000232].
- Amphiprora marina* (W. Smith) Chase 1907, p. 53 [ref. 002211]. Basionym: *Amphora marina* W. Smith 1857. Chase’s entry reads: “AMPHIPRORA MARINA W. Sm.-Eiben 1870:- (*Amphora marina*)”. Unable to trace the Eiben 1870 publication. Combination *Amphiprora valida* is validly published by Chase.
- Amphiprora maxima* Gregory 1857, p. 507; pl. 12, fig. 61, 61b [ref. 000399]. In reprint: p. 35; pl. 4, fig. 61, 61b.
- Amphiprora maxima* Gregory sensu Janisch & Rabenhorst 1863, p. 3; pl. 2, fig. 4 [ref. 000542]. See Cleve 1895, p. 131 (ref. 000949) who proposed the synonymy between *Amphiprora maxima* Greg. sensu Janisch & Rabenhorst and *Amphora obtusa* Gregory 1857.
- Amphiprora maxima* var. *dubia* Cleve & Grunow 1880, p. 65; pl. 5, fig. 89 [ref. 000241].
- Amphiprora maxima* var. *subulata* (Cleve) De Wildeman 1899, p. 43 [ref. 012538]. Basionym: *Tropidoneis maxima* var. *subalata* Cleve 1894. [according to ANSP].
- Amphiprora mediterranea* Grunow 1860, p. 569; pl. 5, fig. 3 (pl. VII, fig. 3) [ref. 000427].
- Amphiprora mediterranea* Grunow in Van Heurck 1880, pl. 22, fig. 12 (as *Amphiprora (Plagiotropis) mediterranea*) [ref. 000895]. Perhaps not the same taxon as *Amphiprora mediterranea* Grunow 1860 (ref. 000427: illustrations do not match perfectly).
- Amphiprora medulica* H. Peragallo in H. Peragallo & M. Peragallo 1898, p. 185; pl. 38, fig. 21 [ref. 001053].

- Amphiprora medulica* var. *sinensis* Skvortzow 1927, p. 106; fig. 16 [ref. 000828].
- Amphiprora membranacea* Cleve 1873, p. 12; pl. 2, fig. 18 [ref. 001797].
- Amphiprora meneghiniana* Greville 1863, p. 577; pl. 15, fig. 7 [ref. 001029]. Also in Greville 1863, p. 184; pl. 4, fig. 7 (ref. 012540).
- Amphiprora minor* Gregory 1857, p. 75; pl. 1, fig. 38 [ref. 002719].
- Amphiprora nana* ‘Greville’ Mills 1933, p. 135 [ref. 000997]. *Invalid*. Err. citation for *Amphora nana* Gregory 1857. Not accepted by Mills (lower case print).
- Amphiprora navicularis* Ehrenberg 1843, p. 410 [ref. 000294]. First listed as nomen nudum in Ehrenberg 1841, p. 143 (ref. 001180).
- Amphiprora nereis* Lewis 1861, p. 64; pl. 1, fig. 6 [ref. 000609]. Also in Lewis 1862, p. 160 (ref. 000995).
- Amphiprora nitida* Greville 1863, p. 40; pl. 1, fig. 18 [ref. 000414]. Also in Greville 1863, p. 540, pl. 13, fig. 18 (ref. 000417).
- Amphiprora nitzschia* O’Meara 1871, p. 22; pl. 3, fig. 2 [ref. 000691].
- Amphiprora nitzschoides* Cleve 1873, p. 20; pl. 4, fig. 18 [ref. 000220].
- Amphiprora o’swaldii* Janisch ex A. Mann 1925, p. 17; pl. 3, fig. 2 [ref. 000632]. First figured by Janisch 1888, pl. 20, fig. 22-24, in his unpublished “Diat. Gazelle” manuscript (ref. 000541).
- Amphiprora oblonga* H.J. Carter 1856, p. 241; pl. 7, fig. 90 (as *Amphiphora oblonga*) [ref. 011723]. Named only with plate description. [according to INA].
- Amphiprora oblonga* Greville 1863, p. 20; pl. 1, fig. 15 [ref. 000415]. *Illegitimate*. Non Carter 1856.
- Amphiprora obtusa* Gregory 1857, p. 506; pl. 12, fig. 60 [ref. 000399]. In reprint: p. 34; pl. 4, fig. 60.
- Amphiprora obtusata* Grunow in Cleve & Grunow 1880, p. 66 [ref. 000241].
- Amphiprora oestrupii* Van Heurck 1909, p. 15; pl. 1, fig. 22 [ref. 000898].
- Amphiprora oestrupii* var. *minor* Van Heurck 1909, p. 16; pl. 1, fig. 23 [ref. 000898].
- Amphiprora ornata* J.W. Bailey 1851, p. 38; pl. 2, fig. 15, 23 [ref. 000119].
- Amphiprora ornata* var. *genuina* Cleve-Euler 1952, p. 32; fig. 1403a (as *Amphiprora ornata*  $\alpha$  *genuina* mh) [ref. 001044]. *Invalid*. The type of *Amphiprora ornata* Bailey seems to be excluded.
- Amphiprora ornata* var. *rectangulata* (Cleve-Euler) Cleve-Euler 1952, p. 32; fig. 1403b (as *Amphiprora ornata*  $\beta$  *rectangulata*) [ref. 001044]. Basionym: *Amphiprora rectangulata* Cleve-Euler 1934. Rank implied, but not clearly indicated.
- Amphiprora ovalis* Perfiljev & Rylov 1923 [ref. 003036]. According to Hollerbakh & Krasavina 1971, p. 24 (ref. 002458). [according to VLC].
- Amphiprora ovalis* var. *gracilis* Perfiljev & Rylov 1923 [ref. 003036]. According to Hollerbakh & Krasavina 1971, p. 24 (ref. 002458). [according to VLC].
- Amphiprora paludosa* W. Smith 1853, p. 44; pl. 31, fig. 269 [ref. 000863].
- Amphiprora paludosa* var. *africana* Grunow in Cleve 1880, p. 14 [ref. 000241].
- Amphiprora paludosa* var. *bahusiensis* Cleve 1894, p. 14 [ref. 000232].
- Amphiprora paludosa* var. *bergmannii* M. Peragallo 1924, p. 252 [ref. 002803].
- Amphiprora paludosa* var. *borealis* Grunow in Cleve & Grunow 1880, p. 62; pl. 4, fig. 85 [ref. 000241].
- Amphiprora paludosa* var. *densestriata* Krasske in Legler & Krasske 1940, p. 342; pl. 13, fig. 1a-c [ref. 006296].
- Amphiprora paludosa* var. *dilatata* (Pantocsek) Cleve 1894, p. 15 [ref. 000232]. Basionym: *Amphiprora dilatata* Pantocsek 1889.
- Amphiprora paludosa* var. *duplex* (Donkin) Van Heurck 1885, p. 121 [ref. 001040]. Basionym: *Amphiprora duplex* Donkin 1858. Illustrated in Van Heurck 1880, pl. 22, fig. 15, 16 (ref. 000895) as “*Amphiprora (Amphitropis) duplex* Donkin (*A. paludosa* var?)”. Combination validly published in Van Heurck 1885 (ref. 001040).
- Amphiprora paludosa* var. *genuina* Cleve-Euler 1952, p. 31; fig. 1400 a-c (as *Amphiprora paludosa*  $\alpha$  *genuina* mh) [ref. 001044]. Cleve-Euler cites *Amphiprora paludosa* Wm. Smith.
- Amphiprora paludosa* var. *holdereri* Gutwinski 1903, p. 212; pl. 9, fig. 7 [ref. 011709].
- Amphiprora paludosa* var. *hyalina* Cleve 1894, p. 15 [ref. 000232]. Name based on the illegitimate name *Amphiprora hyalina* Eulenstein ex Grunow 1880 (non Greville 1865).
- Amphiprora paludosa* var. *hyperborea* Grunow in Cleve & Grunow 1880, p. 62; pl. 5, fig. 86 (as *Amphiprora paludosa* var. ? *hyperborea* Grun.) [ref. 000241].
- Amphiprora paludosa* var. *issykkulensis* Kisselev 1932, p. 88 (Russian), p. 94 (German), fig. 20 [ref. 000564].
- Amphiprora paludosa* var. *maxima* according to Mills 1933, p. 136 [ref. 000997]. *Invalid*. Listed in Mills with no author, reference, or synonym.
- Amphiprora paludosa* f. *minuta* Grunow 1884 [ref. 000444]. *Invalid*. Described in Grunow 1884, on p. 106 as an unnamed small form of ‘*Amphiprora (paludosa* var.?) *hyperborea*’. Illustrated on pl. 1(A), fig. 51, as *Amphiprora hyperborea* f. *minuta* Grun. f. *minuta*. The only valid name for this taxon in Grunow 1884 is *Amphiprora hyperborea* f. *minuta*. Cleve 1894 (ref. 000232) validly published the combination *Amphiprora paludosa* f. *minuta* (Grunow) Cleve.
- Amphiprora paludosa* f. *minuta* (Grunow) Cleve 1894, p. 14 (as *Amphiprora paludosa* var. *hyperborea* f. *minuta*: see index,



- p. 198: Grunow 1895, ref. 000949 [ref. 000232]. Basionym: *Amphiprora hyperborea* f. *minuta* Grunow 1884.
- Amphiprora paludosa* var. *nereis* (Lewis) Cleve 1894, p. 15 [ref. 000232]. Basionym: *Amphiprora nereis* Lewis 1861.
- Amphiprora paludosa* var. *obliqua* Mereschkowsky 1901, p. 29 [ref. 000650]. Nomen nudum. Validly published in Mereschkowsky 1902 (ref. 001381), p. 57 (7), 85 (35).
- Amphiprora paludosa* var. *pokornyana* (Grunow) Grunow in Cleve & Grunow 1880, p. 63 [ref. 000241]. Basionym: *Amphiprora pokornyana* Grunow 1860.
- Amphiprora paludosa* var. *polaris* Grunow ms. in Cleve 1883, p. 477 [ref. 000224]. *Invalid*. Nomen nudum.
- Amphiprora paludosa* var. *punctulata* Grunow in Cleve & Grunow 1880, p. 62; pl. 4, fig. 84 [ref. 000241].
- Amphiprora paludosa* var. *recta* Tynni 1978, p. 14; pl. 7, fig. 42 [ref. 008906].
- Amphiprora paludosa* var. *subsalsina* Cleve 1894, p. 14; pl. 1, fig. 1 [ref. 000232].
- Amphiprora paludosa* var. *subsalsa* Proschkina-Lavrenko 1928, p. 161 [ref. 003047]. *Invalid*. Nomen nudum.
- Amphiprora paradoxa* Greville 1863, p. 41; pl. 1, fig. 21 [ref. 000414]. Also in Greville 1863, p. 541, pl. 13, fig. 21 (ref. 000417).
- Amphiprora paralia* Giffen 1963, p. 215; pl. 1, fig. 11 [ref. 000383].
- Amphiprora parallela* Jørgensen 1905, p. 80, 84 (as *Amphiprora (Tropidoneis) parallela*) [ref. 006606]. Described on p. 146, and illustrated on pl. 7, fig. 16, as *Tropidoneis parallela*.
- Amphiprora pelagica* Brun 1891, p. 8; pl. 22, fig. 3, 4 [ref. 000176].
- Amphiprora pelagica* var. *rostrata* Brun 1891, p. 8; pl. 22, fig. 3 [ref. 000176].
- Amphiprora perplexa* Giffen 1963, p. 215; pl. 1, fig. 12 [ref. 000383].
- Amphiprora pethöi* (pethoei) Pantocsek 1892, pl. 41, fig. 565 ('pethöi') [ref. 001034]. Described in Pantocsek 1905, p. 20 (ref. 001445) as *Auricula pethöi*.
- Amphiprora plicata* Gregory 1857, p. 505; pl. 12, fig. 57 [ref. 000399]. In reprint: p. 33; pl. 12[4], fig. 57.
- Amphiprora plicata* var. *japonica* Castracane 1886, p. 40; pl. 30, fig. 8 [ref. 000193].
- Amphiprora plicata* var. *subplicata* Grunow in Cleve & Grunow 1880, p. 65; pl. 5, fig. 88 [ref. 000241].
- Amphiprora plicata* sensu Juhlin-Dannfelt 1882, p. 34; pl. 2, fig. 18 (nec al.) (as *Amphiprora plicata* Gregory) [ref. 000550]. See Cleve-Euler 1952, p. 28 (ref. 001044) who names this specimen "*Tropidoneis ? dannfeltii* n. sp.?".
- Amphiprora pokornyana* Grunow 1860, p. 569; pl. 4, fig. 9 (pl. VI, fig. 9) [ref. 000427].
- Amphiprora pontica* Missuna 1914, p. 142; pl. 2, fig. 6, 16 [ref. 000663].
- Amphiprora posewitzii* Pantocsek 1889, p. 56; pl. 10, fig. 181 (as *Amphiprora (elegans* W. Sm. var.?) *posewitzii* Pant. n. s. in text and fig. caption) [ref. 001033].
- Amphiprora prefragilissima* Lemoine 1918, p. 275; fig. 23 [ref. 011700]. [according to INA].
- Amphiprora pulchra* J.W. Bailey 1851, p. 38; pl. 2, fig. 16, 18 [ref. 000119].
- Amphiprora pulchra* var. *pulchella* H. Peragallo in H. Peragallo & M. Peragallo 1898, p. 183; pl. 37, fig. 4, 5 [ref. 001053].
- Amphiprora punctata* Pantocsek 1892, pl. 39, fig. 547 [ref. 001034]. Described in Pantocsek 1905 (ref. 001445) as *Auricula punctata*.
- Amphiprora pusilla* Gregory 1857, p. 504; pl. 12, fig. 56 [ref. 000399]. In reprint: p. 32; pl. 4, fig. 56.
- Amphiprora pusilla* var. *samoensis* Grunow in Cleve & Grunow 1880, p. 65 [ref. 000241].
- Amphiprora quadrifasciata* J.W. Bailey 1851, p. 38; pl. 2, fig. 2-4 [ref. 000119].
- Amphiprora quarnerensis* Grunow 1860, p. 569; pl. 5, fig. 1 (pl. VII, fig. 1) [ref. 000427].
- Amphiprora quinquegibba* Ricard 1975, p. 202; pl. 2, fig. 15 [ref. 008711].
- Amphiprora rabenhorstiana* Greville 1863, p. 578; pl. 15, fig. 12 [ref. 001029]. Also described in Greville 1863, p. 185, pl. 4, fig. 12 (ref. 012540).
- Amphiprora ralfsii* Walker-Arnott 1858, adn. p. 91 [ref. 000110]. New name for *Pleurosigma compactum* Greville 1857.
- Amphiprora recta* Gregory 1857, p. 76; pl. 1, fig. 40 [ref. 002719].
- Amphiprora rectangularis* Greville 1863, p. 578; pl. 15, fig. 10 [ref. 001029]. Also in Greville 1863, p. 185, pl. 4, fig. 10 (ref. 012540).
- Amphiprora rectangularata* Cleve-Euler 1934, p. 96; pl. 6, fig. 163 [ref. 000249].
- Amphiprora reediana* Stidolph 1986, p. 30, 32-33; fig. 1-26 [ref. 005557].
- Amphiprora rieuftii* Héribaud in Héribaud et al. 1920, p. 106; pl. 2, fig. 18, 19 [ref. 000482].
- Amphiprora rigida* M. Peragallo 1924, p. 21 [ref. 000738]. Refers to illustration of *Amphiprora* sp. in Van Heurck 1909 (ref. 000898), pl. I, fig. 19.
- Amphiprora rimosa* O'Meara 1871, p. 22; pl. 3, fig. 1 [ref. 000691].
- Amphiprora rivularis* Brébisson in Rabenhorst 1864, p. 256 [ref. 000775].
- Amphiprora robusta* McCall 1933, p. 269, 307, text fig. 27 [ref. 000640].
- Amphiprora rugosa* Petit 1878, p. 242; pl. 5, fig. 17 [ref. 002117]. Also in Petit 1877 "Fond de La Mer", p. 37, pl. 5, fig. 35 (ref. 000747)?
- Amphiprora rugosa* sensu Grove & Sturt 1887, p. 73 (as *Amphiprora rugosa* Pet.) [ref. 000988]. Described as *Nitzschia grovei* by Grunow 1888.

- Amphiprora samoensis* 'Grunow in Möller Catalogue 1883' according to M. Peragallo 1897, p. 50 [ref. 012539]. Name not accepted by M. Peragallo: not a valid combination of *Plagiotropis samoensis* Grunow 1880.
- Amphiprora semistriata* Grunow in Cleve & Möller 1879, No. 196 [ref. 001977]. *Invalid*. Nomen nudum. The taxon was later described by Cleve 1894 under the valid name *Tropidoneis semistriata*.
- Amphiprora septentrionalis* 'Grunow' Mills 1933, p. 138 [ref. 000997]. *Invalid*. Citation error for *Amphiprora decussata* var. *septentrionalis* Grunow in Cleve & Grunow 1880. Not accepted by Mills (lower case print).
- Amphiprora similis* Hustedt 1955, p. 37; pl. 13, fig. 2 [ref. 000530].
- Amphiprora sinensis* Greville 1865, p. 7; pl. 5, fig. 13 (as *Amphiprora chinensis*) [ref. 000419]. Orthographic variant (standardisation) for *Amphiprora chinensis* Greville 1865 introduced by De Toni 1891, p. 342 (ref. 000271).
- Amphiprora splendida* Hustedt 1959, p. 78; pl. 2, fig. 29-30 [ref. 000534].
- Amphiprora striata* Pantocsek 1892, pl. 39, fig. 543 [ref. 001034]. Described in Pantocsek 1905 (ref. 001445) as *Auricula striata*.
- Amphiprora striolata* 'Brébisson' according to Mills 1933, p. 138 [ref. 000997]. *Invalid*. Listed in Mills with no reference. Mills gives *Amphiprora alata* (Ehr.) Kützing as the accepted synonym.
- Amphiprora striolata* Grunow in Cleve & Grunow 1880, p. 62; pl. 4, fig. 81 (as *A. (Amphitropis?) striolata* Grun.) [ref. 000241].
- Amphiprora subcostata* Hustedt 1959, p. 77; pl. 1, fig. 13 [ref. 000534].
- Amphiprora sulcata* O'Meara 1871, p. 22; pl. 3, fig. 3 [ref. 000691].
- Amphiprora sulcata* var. *aequatorialis* (Cleve) H. Peragallo in H. Peragallo & M. Peragallo 1898, p. 186; pl. 38, fig. 4-5 [ref. 001053]. Basionym: *Amphicampa aequatorialis* Cleve 1873.
- Amphiprora sulcata* var. *balearica* Grunow in Cleve & Grunow 1880, p. 63 [ref. 000241]. Name first appeared (and was invalidly published) in Cleve & Möller 1878, no. 154-155 (ref. 001976) as *Amphiprora (sulcata* var.?) *balearica*.
- Amphiprora sumbavensis* (Cleve) De Wildeman 1899, p. 44 ('*sumbawensis*') [ref. 012538]. Basionym: *Tropidoneis sumbavensis* Cleve 1894. [according to ANSP].
- Amphiprora superba* Greville 1863, p. 39; pl. 1, fig. 17 [ref. 000414]. Also in Greville 1863, p. 539; pl. 13, fig. 17 (ref. 000417).
- Amphiprora surirelloides* Hendey 1951, p. 67; pl. 17, fig. 9-11, 15 [ref. 000477].
- Amphiprora surirelloides* var. *minor* Tynni 1978, p. 15; pl. 7, fig. 41 a, b [ref. 008906].
- Amphiprora tahitensis* Grunow in Cleve & Grunow 1880, p. 63 [ref. 000241].
- Amphiprora temperei* Cleve in Bergon et al. 1890, p. 2; pl. 2, fig. 3 (as *Amphiprora (Amphitropis) temperei*) [ref. 002590].
- Amphiprora tenella* 'Brébisson in litt.' according to De Toni 1891, p. 343 [ref. 000271]. Listed in De Toni, with reference to "H.L. Sm. Decemb. 1867 sec. Habirsh.-Chase Catal. of Diatom (exempl. Debyanum) p. 28". No more information was found.
- Amphiprora thwaitesiana* Greville 1863, p. 576; pl. 15, fig. 9 [ref. 001029]. Also in Greville 1863, p. 183, pl. 4, fig. 9 (ref. 012540).
- Amphiprora triconfusa* VanLandingham 1967, p. 178 [ref. 006293]. *Illegitimate*. Superfluous name (VanLandingham renamed the earlier homonym). New name for *Amphiprora hustedtii* Meister 1937, non Cholnoky 1960.
- Amphiprora tumidula* Grunow 1860, legend to pl. 4, fig. 10 (pl. VI, fig. 10) [ref. 000427]. Error in plate caption. Described as *Stauroneis tumidula* n. sp. on p. 566.
- Amphiprora undulata* Greville 1863, p. 42; pl. 1, fig. 22 [ref. 000414]. Also in Greville 1863, p. 542, pl. 13, fig. 22 (ref. 000417).
- Amphiprora undulata* Missuna 1914, p. 142; pl. 2, fig. 18 [ref. 000663].
- Amphiprora vanheurckii* (Grunow in Van Heurck) Pelletan 1889, p. 6 [ref. 001001]. Basionym: *Plagiotropis vanheurckii* Grunow in Van Heurck 1883.
- Amphiprora venusta* Greville 1865, p. 6; pl. 5, fig. 12 [ref. 000419].
- Amphiprora vitrea* W. Smith 1853, p. 44; pl. 31, fig. 270 [ref. 000863].
- Amphiprora vitrea* var. *regalis* Onderdonk 1892, p. 79 [ref. 005149].
- Amphiprora vitrea* var. *trinitatis* Tempère & Peragallo 1908, p. 108; No. 200 [ref. 001064].
- Amphiprora wendtii* Witt 1873, p. 69; pl. 8, fig. 3 [ref. 000914].
- Amphiprora wilkinsoniorum* Stidolph 1985, p. 396-397; pl. 2, fig. 18-20, pl. 4, fig. 32-37 ('*wilkinsonia*') [ref. 005559].

**AMPHIRAPHIA J.-Y. Chen & H.-Z. Zhu 1983, p. 449 [ref. 003190]**

T: *Amphiraphia xizangensis* Chen & Zhu 1983

- Amphiraphia xizangensis* Chen & Zhu 1983, p. 450; text fig. I, 1-3, pl. 1, fig. 1-7 [ref. 003190].
- Amphiraphia xizangensis* var. *major* Chen & Zhu 1983, p. 451; text fig. I, 4-5 [ref. 003190].

**AMPHITETRAS C.G. Ehrenberg 1840, p. 42 [ref. 000290]**LT: *Amphitetras antediluviana* C.G. Ehrenberg 1840

Type designated by Ross in Farr et al. 1979 (ref. 006663).

- Amphitetras acutangula* (Greville) De Toni 1894, p. 904 [ref. 000951]. Basionym: *Triceratium acutangulum* Greville 1864.
- Amphitetras adriatica* Kützing 1845, p. 115 [ref. 001323]. Also described in Kützing 1849, p. 134 (ref. 000596).
- Amphitetras alternans* ('*altemans*') H.L. Smith in Christian 1887, p. 67, text-fig. [1] on p. 65 [ref. 000217]. Figure [1] on p. 65 is mislabeled "*Cosc. excavatus*, var. Greville". According to INA, that figure was reprinted on p. 123 and labeled "*Amphitetras* (*Biddulphia*) *altemans* N.S." Correction to "*alternans*" first introduced by Mills 1933, p. 140 (ref. 000997).
- Amphitetras anderssonii* (Cleve) De Toni 1894, p. 906 ('*andersonii*') [ref. 000951]. Basionym: *Triceratium anderssonii* Cleve 1881.
- Amphitetras antediluviana* Ehrenberg 1840, p. 62 (142) [ref. 000290].
- Amphitetras antediluviana* var.  $\beta$  W. Smith 1855, p. 8; pl. 1, fig. 11 [ref. 000864]. *Invalid*. Improper epithet. Also in W. Smith 1856, p. 47, pl. 44, fig. 318 a" (ref. 001007). Name possibly validated by Peragallo in Pelletan 1889, p. 223 (ref. 001001) as *Amphitetras antediluviana* var.  $\beta$  *cruciformis*.
- Amphitetras antediluviana* var. *cruciformis* 'Smith' H. Peragallo in Pelletan 1889, p. 223 (as *Amphitetras antediluviana* var.  $\beta$  *cruciformis* Sm.) [ref. 001001]. *Invalid?* Nomen nudum. Possibly refers to *Amphitetras antediluviana* var.  $\beta$  W. Smith 1855, p. 8, pl. 1, fig. 11 (ref. 000864).
- Amphitetras antediluviana* var. *cruciformis* Tempère & Peragallo 1911, p. 271; No. 535 [ref. 001067]. *Invalid*. Nomen nudum.
- Amphitetras antediluviana* var. *minor* Peragallo & Peragallo 1902, pl. 102, fig. 6, 7 [ref. 001057]. As "*Tric. (Amphitetras) antediluviana* Ehr. var. *minor*" in text, p. 384, and "*Amphit. antediluviana* var. *minor*" on pl. 102, fig. 6, 7.
- Amphitetras antediluviana* var. *pentagonalis* H. Peragallo in Pelletan 1889, p. 224 (as *Amphitetras antediluviana* var.  $\gamma$  *pentagonalis*) [ref. 001001]. *Invalid*. No description. *Amphipentas alternans* cited as synonym.
- Amphitetras antediluviana* sensu? Brightwell 1859, p. 181; pl. 9, fig. 14 [ref. 000167]. Brightwell meant to describe a "sporangial frustule" of Ehrenberg species, not a new taxon.
- Amphitetras antediluviana* sensu Peragallo & Peragallo 1902, p. 384; pl. 102, fig. 3-4 [ref. 001057]. As *Amphitetras antediluviana* Ehr. in plates (pl. 102, figs. 1-4), as *Triceratium (Amphitetras) antediluviana* Ehr. in text.
- Amphitetras arisata* Shadbolt 1854, legend to pl. 1, fig. 10 [ref. 000821]. Typographical error for *Amphitetras ornata* rather than alternate name? Described on p. 16 as *Amphitetras ornata*. As "*Amphitetras arisata* Shadb." in De Toni 1894, p. 900 (ref. 000951).
- Amphitetras atlantica* (Castracane) De Toni 1894, p. 906 [ref. 000951]. Basionym: *Triceratium atlanticum* Castracane 1886.
- Amphitetras balearica* (Cleve & Grunow in Cleve) De Toni 1894, p. 902 [ref. 000951]. Basionym: *Triceratium balearicum* Cleve & Grunow in Cleve 1881.
- Amphitetras balearica* var. *leudugeri* De Wildeman 1897, p. 128 [ref. 012537]. [according to ANSP].
- Amphitetras bicornis* (Cleve) De Toni 1894, p. 902 [ref. 000951]. Basionym: *Triceratium bicorne* Cleve 1878.
- Amphitetras blandita* (Greville) De Toni 1894, p. 905 [ref. 000951]. Basionym: *Triceratium blanditum* Greville 1861.
- Amphitetras campechiana* (Grunow) De Toni 1894, p. 913 [ref. 000951]. Basionym: *Triceratium campechianum* Grunow in O'Meara 1874.
- Amphitetras canalifera* (Brun) De Toni 1894, p. 901 [ref. 000951]. Basionym: *Triceratium canalifer* Brun 1891.
- Amphitetras coeruleascens* (Pantocsek) De Toni 1894, p. 909 [ref. 000951]. Basionym: *Triceratium coeruleascens* Pantocsek 1892.
- Amphitetras conciliata* (Pantocsek) De Toni 1894, p. 903 [ref. 000951]. Basionym: *Triceratium conciliatum* Pantocsek 1889.
- Amphitetras conciliata* var. *validior* (Pantocsek) De Toni 1894, p. 904 [ref. 000951]. Basionym: *Triceratium conciliatum* var. *validior* Pantocsek 1889. [according to INA].
- Amphitetras cornuta* (Greville) De Toni 1894, p. 907 [ref. 000951]. Basionym: *Triceratium cornutum* Greville 1861.
- Amphitetras cruciata* Janisch & Rabenhorst 1863, p. 4; pl. 1, fig. 5 [ref. 000542].
- Amphitetras crucifera* Kitton in Ralfs in Pritchard 1861, p. 858 [ref. 001063]. Also in Kitton 1867, p. 271, fig. 205 (ref. 000566).
- Amphitetras crux* Brightwell 1859, p. 181; pl. 9, fig. 13 [ref. 000167].
- Amphitetras cuspidata* L.W. Bailey 1861, p. 163 [ref. 007053]. Also in L.W. Bailey 1862, p. 331; pl. 1, fig. 2-3 (ref. 000125).
- Amphitetras dutertrei* (Pantocsek & Tempère) De Toni 1894, p. 907 [ref. 000951]. Basionym: *Triceratium dutertrei* Pantocsek & Tempère in Pantocsek 1889.
- Amphitetras elegans* Greville 1866, p. 9; pl. 2, fig. 24 [ref. 000423].
- Amphitetras excavata* W. Smith 1855, p. 8 [ref. 000864]. *Invalid*. Cited pro syn. *Amphitetras antediluviana* var.  $\beta$ . Also invalid (for the same reason) in W. Smith 1856, p. 47, pl. 44, fig. 318 (ref. 001007).
- Amphitetras favosa* Harvey & J.W. Bailey 1854, p. 430 [ref. 000468].

- Amphitetras gemmata* Ehrenberg 1856, p. 428 [ref. 001658]. *Invalid*. Nomen nudum.
- Amphitetras godeffroyi* 'Grunow' Mills 1935, p. 1634 [ref. 006153]. *Invalid*. Cited pro syn. *Triceratium godeffroyi* Grun. Probable citation error for *Amphipentas godeffroyi*.
- Amphitetras graeffeiana* Witt 1873, p. 69; pl. 8, fig. 2 ('*gräffeiana*') [ref. 000914].
- Amphitetras grevillei* De Toni 1894, p. 906 [ref. 000951]. *Illegitimate*. New name for *Amphitetras parvula* Greville 1863 non Janisch & Rabenhorst 1863 (but Greville has priority fide INA).
- Amphitetras grevillei* var. *parvula* 'Greville' Mills 1935, p. 1647 [ref. 006153]. *Invalid*. Combination not accepted by Mills, and cited pro. syn. *Triceratium parvulum* Greville.
- Amphitetras inconspicua* (Greville) De Toni 1894, p. 905 [ref. 000951]. Basionym: *Triceratium inconspicuum* Greville 1861.
- Amphitetras ingloria* (Greville) De Toni 1894, p. 902 [ref. 000951]. Basionym: *Triceratium inglorium* Greville 1865.
- Amphitetras intermedia* (Grove & Sturt) De Toni 1894, p. 908 [ref. 000951]. Basionym: *Triceratium intermedium* Grove & Sturt 1887.
- Amphitetras kusnetziana* (Pantocsek) De Toni 1894, p. 906 [ref. 000951]. Basionym: *Triceratium kusnetzianum* Pantocsek 1889.
- Amphitetras lamprodictya* Ehrenberg 1861, p. 822 [ref. 000306]. *Invalid*. Nomen nudum.
- Amphitetras lanceolata* (Pantocsek) De Toni 1894, p. 903 [ref. 000951]. Basionym: *Triceratium lanceolatum* Pantocsek 1889.
- Amphitetras lata* (Greville) De Toni 1894, p. 901 [ref. 000951]. Basionym: *Triceratium latum* Greville 1865.
- Amphitetras leptotis* Ehrenberg 1861, p. 293-294 [ref. 000307]. First appeared as nomen nudum in Ehrenberg 1861, p. 240 (table) (ref. 001193).
- Amphitetras mamillaris* Ehrenberg 1872, p. 295 [ref. 001196]. Also in Ehrenberg 1873, p. 148, pl. 9, fig. 9 (ref. 000311).
- Amphitetras margaritifera* (Cleve) De Toni 1894, p. 901 [ref. 000951]. Basionym: *Triceratium margaritifera* Cleve 1881.
- Amphitetras minuta* Greville 1861, p. 77; pl. 9, fig. 11 [ref. 000975].
- Amphitetras mortimerii* 'Habirshaw' 1877, p. 19 [ref. 000453]. *Invalid*. Name listed with no author's name and no reference.
- Amphitetras nobilis* Greville 1865, p. 105; pl. 9, fig. 27 [ref. 000983].
- Amphitetras oculata* (Greville) De Toni 1894, p. 907 [ref. 000951]. Basionym: *Triceratium oculatum* Greville 1864.
- Amphitetras ornata* Shadbolt 1854, p. 16; pl. 1, fig. 10 [ref. 000821]. Illustrated as *Amphitetras arisata*.
- Amphitetras ornata* var. *hirsuta* Castracane 1886, p. 105, pl. 23, fig. 9 (as *Biddulphia (Amphitetras) ornata*, Shadb., var. *hirsuta*, nov) [ref. 000193]. *Invalid*. Validly published in this work as *Biddulphia ornata* var. *hirsuta* Castracane. Combination under *Amphitetras* listed but not validated (not accepted) by M. Peragallo 1897 (ref. 012539), Mills 1933 (ref. 000097) or VanLandingham 1967 (ref. 006293).
- Amphitetras parallela* Ehrenberg 1840, p. 63 (143) [ref. 000290].
- Amphitetras parvula* Janisch & Rabenhorst 1863, p. 4; pl. 1, fig. 4 [ref. 000542]. Non Greville 1863. Greville has priority fide INA (see card for *Amphitetras grevillei* De Toni 1894).
- Amphitetras parvula* Greville 1863, p. 37, pl. 1, fig. 12 [ref. 000414]. Also in Greville 1863, p. 537; pl. 13, fig. 12 (ref. 000417). Non Janisch & Rabenhorst 1863. Synonym (replacement name): *Amphitetras grevillei* De Toni 1894 (but Greville has priority fide INA).
- Amphitetras perryana* (Truan & Luard & Witt) De Toni 1894, p. 907 [ref. 000951]. Basionym: *Triceratium perryanum* Truan & Luard & Witt 1888.
- Amphitetras pethoei* (Pantocsek) De Toni 1894, p. 903 [ref. 000951]. Basionym: *Triceratium pethoei* Pantocsek 1889.
- Amphitetras producta* Greville 1862, p. 94; pl. 9, fig. 11 [ref. 000977].
- Amphitetras pulvillus* (Castracane) De Toni 1894, p. 902 [ref. 000951]. Basionym: *Triceratium pulvillus* Castracane 1886.
- Amphitetras punctata* Greville 1862, p. 29; pl. 3, fig. 8 [ref. 000410].
- Amphitetras quadrangularis* (Greville) De Toni 1894, p. 904 [ref. 000951]. Basionym: *Triceratium quadrangulare* Greville 1865.
- Amphitetras quadricornis* (Greville) De Toni 1894, p. 901 [ref. 000951]. Basionym: *Triceratium quadricorne* Greville 1865.
- Amphitetras radiata* Greville 1862, p. 28; pl. 3, fig. 7 [ref. 000410].
- Amphitetras radiatopunctata* Missuna 1914, p. 143; pl. 3, fig. 75 (as '*radiatopunctata*' on p. 143, '*radiato-punctata*' on plate caption) [ref. 000663].
- Amphitetras rectangularis* (Grove & Sturt) De Toni 1894, p. 908 [ref. 000951]. Basionym: *Triceratium rectangularare* Grove & Sturt 1887.
- Amphitetras sarniensis* 'Greville' Chase 1885, p. 39 [ref. 001049]. *Invalid*. Cit. err. for *Amphora sarniensis* Greville 1862.
- Amphitetras sturtii* (Pantocsek) De Toni 1894, p. 903 [ref. 000951]. Basionym: *Triceratium sturtii* Pantocsek 1886.
- Amphitetras subrotundata* Janisch in Schmidt et al. 1886, pl. 99, fig. 24 [ref. 012459].
- Amphitetras tessellata* Shadbolt 1854, p. 16; pl. 1, fig. 11 [ref. 000821].
- Amphitetras tetragona* (Pantocsek) De Toni 1894, p. 903 [ref. 000951]. Basionym: *Triceratium tetragonum* Pantocsek 1889.

*Amphitetras unguiculata* (Greville) De Toni 1894, p. 904 [ref. 000951]. Basionym: *Triceratium unguiculatum* Greville 1864.

*Amphitetras wilkesii* Harvey & J.W. Bailey 1854, p. 430 [ref. 000468]. Also in Harvey & J.W. Bailey 1862, p. 174, pl. 9, fig. 1, 2 (ref. 002045).

*Amphitetras zonatulata* (Greville) De Toni 1894, p. 900 [ref. 000951]. Basionym: *Triceratium zonatulatum* Greville 1865.

*Amphitetras zonatulata* f. *trigonum* (Schmidt) De Wildeman 1899, p. 59 ('*zonulata*') [ref. 012538]. Basionym: *Triceratium zonatulatum* f. *trigona* Schmidt in Schmidt et al. 1886. [according to ANSP].

**AMPHITRITE P.T. Cleve ex O. Kunze 1891, p. 882 [ref. 001330]**

T: *Auricula amphitritis* Castracane 1873  
(= *Amphitrite castracanei* O. Kunze 1891)

The name *Amphitrite* was first introduced by Cleve 1878, p. 19 (ref. 000221), but invalidly published. Kuntze 1891 proposed *Amphitrite* as a substitute name for *Auricula* Castracane 1873, non *Auricula* Battarra 1755. The name *Amphitrite* became superfluous in 1956 (see ICBN 1956) when *Auricula* Castracane 1873 was conserved vs. *Auricula* Hill 1756 and *Auricula* Battarra ex O. Kuntze 1891.

Synonym: *Auricula* Castracane 1873.

*Amphitrite amphiprora* 'Gregory' Mills 1933, p. 143 [ref. 000997]. *Invalid*. Citation error for *Amphiprora complexa* Gregory? Not accepted by Mills (lower case print).

*Amphitrite amphoropsis* 'Grunow in Van Heurck' Mills 1933, p. 143 [ref. 000997]. *Invalid*. Citation error (for *Amphora* (*Amphoropsis*) *recta*? or *Amphora* (*Amphoropsis*) *decepiens*?). Not accepted by Mills (lower case print).

*Amphitrite castracanei* Kuntze 1891, p. 882 [ref. 001330]. New name for *Auricula amphitritis* Castracane 1873. [according to INA].

*Amphitrite complexa* (Gregory) Cleve 1878, p. 19 [ref. 000221]. Basionym: *Amphiprora complexa* Gregory 1857. *Invalid*. Predates the valid publication of the genus name.

*Amphitrite complexa* (Gregory) Kuntze 1891, p. 882 [ref. 001330]. Basionym: *Amphiprora complexa* Gregory 1857. [according to INA].

*Amphitrite japonica* (Brun) Kuntze 1891, p. 882 [ref. 001330]. Basionym: *Auricula japonica* Brun in Brun & Tempère 1889. [according to INA].

*Amphitrite mucronata* (H.L. Smith) Kuntze 1891, p. 882 [ref. 001330]. Basionym: *Amphora mucronata* H.L. Smith 1878. [according to INA].

*Amphitrite ostrea* (Tempère & Brun) Kuntze 1891, p. 882 [ref. 001330]. Basionym: *Auricula ostrea* Tempère & Brun in Brun & Tempère 1889. [according to INA].

**AMPHITROPIS L. Rabenhorst 1868, p. 416 [ref. 006507]**

T: *Amphitropis alata* (Ehrenberg) Rabenhorst 1868  
(= *Navicula alata* Ehrenberg 1840)

Superfluous substitute name for *Amphicampa* Rabenhorst 1864, non (C.G. Ehrenberg) Ralfs 1861.

Synonym (nomenclatural synonym): *Entomoneis* Ehrenberg 1845.

*Amphicampa* Rabenhorst as well as *Amphitropis* Rabenhorst are superfluous for including *Navicula alata* Ehrenberg 1840, the type of *Entomoneis* Ehrenberg 1845.

*Amphitropis alata* (Ehrenberg) Rabenhorst 1868, p. 416 [ref. 006507]. Basionym: *Navicula alata* Ehrenberg 1840. Rabenhorst 1868 (ref. 006507) in "corrigenda" p. 416, refers to *Amphicampa alata* (Ehr.) Rabenhorst 1864, p. 257 (ref. 000775) and requests the replacement of *Amphicampa* by *Amphitropis*.

*Amphitropis asperula* Marsson 1900, p. 123 [ref. 002306]. [according to VLC].

*Amphitropis conspicua* (Greville) Grunow in Van Heurck 1883, pl. 22B, fig. 3 (as *Amphiprora* (*Amphitropis*) *conspicua*) [ref. 001037]. Basionym: *Amphiprora conspicua* Greville 1861. *Invalid*. Combination listed, but invalid (not accepted) in Peragallo 1897, p. 53 (ref. 012539), Mills 1933, p. 143 (ref. 000997), VanLandingham 1967, p. 185 (ref. 006293). Validly published by Grunow 1883 as *Amphiprora conspicua*.

*Amphitropis decussata* Grunow in Van Heurck 1880, pl. 22, fig. 13 (as *Amphiprora* (*Amphitropis*) *decussata*) [ref. 000895]. *Invalid*. Invalidly published in Van Heurck 1880 as *Amphitropis decussata*, but validly published as *Amphiprora decussata*. Combination under *Amphitropis* listed, but invalid (not accepted) in Peragallo 1897, p. 54 (ref. 012539), Mills 1933, p. 143 (ref. 000997), and VanLandingham 1967, p. 185 (ref. 006293).

*Amphitropis decussata* var. *septentrionalis* Grunow in Cleve & Möller 1882, No. 315-318 [ref. 001979]. *Invalid*. No description.

*Amphitropis duplex* (Donkin) Rabenhorst 1868, p. 416 [ref. 006507]. Basionym: *Amphiprora duplex* Donkin 1858. Raben-

- horst 1868 (ref. 006507) in “corrigenda” p. 416, refers to *Amphicampa duplex* (Donkin) Rabenhorst 1864, p. 257 (ref. 000775) and requests the replacement of *Amphicampa* by *Amphitropis*.
- Amphitropis gigantea*** (Grunow) Rabenhorst 1868, p. 416 [ref. 006507]. Basionym: *Amphiprora gigantea* Grunow 1860. Rabenhorst 1868 (ref. 006507) in “corrigenda” p. 416, refers to *Amphicampa gigantea* (Gr.) Rabenhorst 1864, p. 258 (ref. 000775) and requests the replacement of *Amphicampa* by *Amphitropis*.
- Amphitropis glacialis*** Cleve 1883, p. 477; pl. 35, fig. 12 (as *Amphiprora (Amphitropis?) glacialis*) [ref. 000224]. *Invalid*. Validly published in this work as *Amphiprora glacialis*. Combination under *Amphitropis* listed, but invalid (not accepted) in Peragallo 1897, p. 54 (ref. 012539), Mills 1933, p. 143 (ref. 000997), and VanLandingham 1967, p. 185 (ref. 006293).
- Amphitropis hyalina*** ‘Eulenstein manuscript’ Grunow in Van Heurck 1880, pl. 22, fig. 17 (as *Amphiprora (Amphitropis) hyalina* Eulenstein mss. (*A. paludosa* var.?) [ref. 000895]. *Invalid*. Validly published in Van Heurck 1880 as *Amphiprora hyalina* (Non *Amphiprora hyalina* Greville 1865). Listed (but invalid) in Peragallo 1897, p. 54 (ref. 012539), De Toni 1894, p. 1478 (ref. 000951), Mills 1933, p. 143 (ref. 000997) and VanLandingham 1967, p. 185 (ref. 006293).
- Amphitropis kariana*** Grunow in Cleve & Grunow 1880, p. 61; pl. 4, fig. 82 (as *Amphiprora (Amphitropis?) kariana*) [ref. 000241]. *Invalid*. Validly published in Cleve & Grunow 1880 as *Amphiprora kariana*. Combination under *Amphitropis* listed, but invalid (not accepted) in Peragallo 1897, p. 54 (ref. 012539), Mills 1933, p. 143 (ref. 000997), and VanLandingham 1967, p. 185 (ref. 006293).
- Amphitropis kariana* var. *subtilis*** Grunow 1884, p. 53 (105); pl. 1, fig. 52-53 (as *Amphiprora (A. Amphitropis) kariana* var. *subtilis*) [ref. 000444]. *Invalid*. Validly published in Grunow 1884 as *Amphiprora kariana* var. *subtilis*. Combination under *Amphitropis* listed, but invalid (not accepted) in VanLandingham 1967, p. 186 (ref. 006293).
- Amphitropis kjellmannii*** Cleve in Cleve & Möller 1882, No. 315-318 [ref. 001979]. *Invalid*. Nomen nudum.
- Amphitropis kryophila*** Cleve in Cleve & Möller 1882, No. 315-318 [ref. 001979]. *Invalid*. Nomen nudum.
- Amphitropis ornata*** (J.W. Bailey) Grunow in Van Heurck 1883, pl. 22B, fig. 5 (as *Amphiprora (Amphitropis) ornata*) [ref. 001037]. Basionym: *Amphiprora ornata* J.W. Bailey 1851. *Invalid*. Combination listed, but invalid (not accepted) in Peragallo 1897, p. 54 (ref. 012539), Mills 1933, p. 143 (ref. 000997), and VanLandingham 1967, p. 186 (ref. 006293).
- Amphitropis paludosa*** (W. Smith) Rabenhorst 1868, p. 416 [ref. 006507]. Basionym: *Amphiprora paludosa* W. Smith 1853. Rabenhorst 1868 (ref. 006507) in “corrigenda” p. 416, refers to *Amphicampa paludosa* (W. Sm.) Rabenhorst 1864, p. 257 (ref. 000775) and requests the replacement of *Amphicampa* by *Amphitropis*.
- Amphitropis paludosa* var. *duplex*** (Donkin) Cleve & Möller 1879, No. 256 [ref. 001978]. Basionym: *Amphiprora duplex* Donkin 1858.
- Amphitropis paludosa* var. *pokornyana*** (Grunow) Cleve & Möller 1879, No. 256 [ref. 001978]. Basionym: *Amphiprora pokornyana* Grunow 1860.
- Amphitropis paludosa* var. *punctulata*** Grunow in Cleve & Grunow 1880, p. 62; pl. 4, fig. 84 (as *Amphiprora (Amphitropis) paludosa* var. *punctulata*) [ref. 000241]. *Invalid*. Combination listed, but invalid (not accepted) in VanLandingham 1967, p. 186 (ref. 006293).
- Amphitropis pleurosigma*** Reinhard 1885, p. 432; pl. 7, fig. 13 [ref. 010546]. [according to INA].
- Amphitropis pokornyana*** (Grunow) Marsson 1900, p. 123 [ref. 002306]. Basionym: *Amphiprora pokornyana* Grunow 1860. [according to VLC].
- Amphitropis pulchra*** (J.W. Bailey) Grunow in Van Heurck 1883, pl. 22B, fig. 1, 2, 4 (as *Amphiprora (Amphitropis) pulchra*) [ref. 001037]. Basionym: *Amphiprora pulchra* J.W. Bailey 1851. *Invalid*. Combination listed, but invalid (not accepted) in Peragallo 1897, p. 54 (ref. 012539), Mills 1933, p. 143 (ref. 000997) and VanLandingham 1967, p. 186 (ref. 006293).
- Amphitropis striolata*** Grunow in Cleve & Grunow 1880, p. 62; pl. 4, fig. 81 (as *Amphiprora (Amphitropis?) striolata*) [ref. 000241]. *Invalid*. Combination listed, but invalid (not accepted) in Peragallo 1897, p. 54 (ref. 012539), Mills 1933, p. 144 (ref. 000997), VanLandingham 1967, p. 186 (ref. 006293).
- Amphitropis undulata*** Marsson 1900, p. 123 [ref. 002306]. [according to VLC].

***AMPHORA* C.G. Ehrenberg ex F.T. Kützing 1844, p. 107 [ref. 000595]**

LT: *Amphora ovalis* (Ehrenberg) Kützing 1844

(= *Navicula amphora* C.G. Ehrenberg)

Type designated by Boyer 1927, p. 253 (ref. 000946)

The name first appeared in Ehrenberg 1840 (ref. 000293), p. 205, with description of 4 species, but was invalidly published for lacking a generic description. Also appeared in Ehrenberg 1841 (ref. 002001) in lists of diatoms p. 203, 204, 205, 207, but was not validly published for lacking description or illustration. Valid publication is in Kützing 1844, p. 107 (ref. 000595).

***Amphora abbreviata*** Bleisch in Rabenhorst 1863, no. 1489 [ref. 011634]. *Invalid*. No description. Validly published as *Amphora ovalis* var. *minor* Rabenhorst 1864, p. 92 (ref. 000775).

- Amphora abludens* Simonsen 1960, p. 129; pl. 2, fig. 10-12 [ref. 000824]. *Invalid?* Type not designated?
- Amphora abuensis* Foged 1966, p. 102, 144; pl. 19, fig. 6 [ref. 006033].
- Amphora acuta* Gregory 1857, p. 524; pl. 14, fig. 93, 93b [ref. 000399]. In reprint: p. 52; pl. 6, fig. 93, 93b.
- Amphora acuta* var. *arcuata* (Schmidt in Schmidt et al.) Cleve 1895, p. 128 [ref. 000949]. Basionym: *Amphora arcuata* A. Schmidt in Schmidt et al. 1875.
- Amphora acuta* var. *armata* A. Schmidt in Tempère & Peragallo 1908, p. 27; No. 50 [ref. 001064]. *Invalid*. Nomen nudum.
- Amphora acuta* var. *genuina* Cleve-Euler 1953, p. 101; fig. 696a (as *Amphora acuta* α *genuina* A. Cl. in text and fig. caption) [ref. 001042]. Cleve-Euler cites *Amphora acuta* Gregory 1857. Rank implied, but not clearly indicated.
- Amphora acuta* var. *japonica* Skvortzow 1932, p. 145; pl. 6, fig. 25 [ref. 000836].
- Amphora acuta* var. *labyrinthica* (Grunow in Cleve & Grunow) Cleve 1895, p. 128; pl. 4, fig. 23 [ref. 000949]. Basionym: *Amphora labyrinthica* Grunow in Cleve & Grunow 1880.
- Amphora acuta* var. *media* Heiden 1900, p. 3; fig. 3 [ref. 000472].
- Amphora acuta* var. *minor* Foged 1984, p. 16; pl. 54, fig. 6 [ref. 006677].
- Amphora acuta* var. *neogena* Pantocsek 1889, p. 35 [ref. 001033]. Illustrated in Pantocsek 1892, pl. 12, fig. 187 (ref. 001034). Description also in Pantocsek 1905, p. 9 (ref. 001445).
- Amphora acuta* var. *parva* A.H. Wachnicka & E.E. Gaiser 2007, p. 410, 447; fig. 77-79 [ref. 012976].
- Amphora acutissima* Giffen 1980, p. 141; pl. 1, fig. 3, 4 [ref. 008263].
- Amphora acutiuscula* Kützing 1844, p. 108; pl. 5, fig. 32 [ref. 000595].
- Amphora acutiuscula* f. *branderi* Tynni 1978, p. 17; pl. 8, fig. 49 (as “n. comb.”) [ref. 008906]. *Invalid*. New name for *Amphora capitata* Brander 1933. Replaced name not properly cited (page of publication not given).
- Amphora acutiuscula* var. *constricta* (Grunow) Cleve 1895, p. 121 [ref. 000949]. Basionym: *Amphora lineata* Greg. var. *constricta* Grunow 1878. Cleve refers to Grunow 1878 (ref. 000439), p. 8 (= p. 105).
- Amphora acutiuscula* var. *fossilis* Pantocsek 1889, p. 35; pl. 2, fig. 29 [ref. 001033]. Non Pantocsek 1889 (ref. 000718). Synonym: *A. coffeaeformis* var. *hungarica* Cleve 1895.
- Amphora acutiuscula* var. *fossilis* Pantocsek 1902, p. 629; pl. 11, fig. 16 [ref. 000718]. *Illegitimate*. (p. 3 of reprint). Non Pantocsek 1889 (ref. 001033).
- Amphora acutiuscula* var. *neglecta* Rochoux d’Aubert in Héribaud 1920, p. 68; pl. 4, fig. 2 [ref. 000482].
- Amphora acutiuscula* var. *parvula* Mereschkowsky 1902, p. 147(41) [ref. 001382]. *Invalid*. Nomen nudum.
- Amphora acutiuscula* var. *subconstricta* (Grunow) Cleve 1895, p. 121 [ref. 000949]. Basionym: *Amphora lineata* Greg. var. *subconstricta* Grunow 1878. Cleve refers to Grunow 1878 (ref. 000439), p. 8 (= p. 105).
- Amphora adnata* Gaud 1974, PB-242: p. 844 [ref. 008227]. [according to ANSP].
- Amphora adumbrata* Hohn & Hellerman 1966, p. 119; pl. 1, fig. 20 [ref. 008350].
- Amphora advena* VanLandingham 1967, p. 188, 200 [ref. 006293]. New name for *Amphora capitata* Meister 1937 (non Brander 1933).
- Amphora aegaea* Ehrenberg 1859, p. 13 [ref. 000303]. Name previously appeared as nomen nudum in Ehrenberg 1854, p. 315, 316 (ref. 012551) (fide INA) and in Ehrenberg 1857, p. 553 (ref. 002424).
- Amphora aequalis* Krammer 1980, p. 212-213; pl. 4, fig. 25-29; pl. 5, fig. 30-35 [ref. 008971].
- Amphora aequatorialis* Heiden in Heiden & Kolbe 1928, p. 639 [ref. 000473].
- Amphora aestuarii* Cleve 1894, p. 146; pl. 9, fig. 12, 13 [ref. 000948]. Missprinted “*Astuarii*” in text p. 146; as “*aestuarii*” in plate caption and in “Table des espèces” p. 253. Also as “*aestuarii*” in Cleve 1895 (ref. 000949), p. 118, fig. 9.
- Amphora affinis* Kützing 1844, p. 107; pl. 30, fig. 66 [ref. 000595].
- Amphora affinis* Kütz. var. *ergadensis* (Gregory) Tempère & Peragallo 1908, p. 62; No. 113 [ref. 001064]. Basionym: *Amphora ergadensis* Gregory 1857.
- Amphora affinis* Kütz. f. *minor* Grunow in Van Heurck 1880, pl. 1, fig. 4-5 [ref. 000895]. Alternate name for *A. pediculus* forma *major*. Caption reads: “*A. pediculus* Kg. forma *major* (peut également porter le nom de *A. affinis* forma *minor*)”. Van Heurck 1885, p. 59 (ref. 001040) changes the name to *Amphora ovalis* forma *minor* (Grunow in Van Heurck) Van Heurck 1885.
- Amphora affinis* Kütz. var. *proteus* (Gregory) Tempère & Peragallo 1908, p. 41; No. 76, 77 [ref. 001064]. Basionym: *Amphora proteus* Gregory 1857.
- Amphora affinis* sensu W. Smith 1853, p. 19; pl. 2, fig. 27 [ref. 000863]. As “*Amphora affinis* Kütz.”. Treated by Wolle 1890, pl. 9, fig. 13 (ref. 000916) as a separate species (*A. affinis* W. Smith, non *A. affinis* Kützing).
- Amphora affinis* W. Smith ex Wolle 1890, caption to pl. 9, fig. 13 [ref. 000916]. *Illegitimate*. Non Kützing 1844. Refers to *Amphora affinis* [sensu] W. Smith 1853, p. 19, pl. 2, fig. 27 (ref. 000863), and states that it is not Kützing’s species.
- Amphora africana* Heiden in Heiden & Kolbe 1928, p. 637; pl. 1 (31), 4a-b [ref. 000473].
- Amphora africana* var. *undulata* Heiden in Heiden & Kolbe 1928, p. 637; pl. 1 (31), fig. 5 [ref. 000473].
- Amphora agapica* Skabitschevskaja 1976, p. 61; fig. 1-4 [ref. 008817].
- Amphora ajajensis* Skabitschevskii 1936, p. 715, 721; pl. 3, fig. 26 [ref. 000826].
- Amphora alaskana* Patrick & Freese 1961, p. 253; pl. 3, fig. 20 [ref. 000725].

- Amphora alata* H. Peragallo 1888, p. 41; pl. 2, fig. 11 [ref. 000729].
- Amphora alata* var. *aptera* Cleve 1895, p. 115 [ref. 000949].
- Amphora alata* var. *major* Cleve 1895, p. 115 [ref. 000949].
- Amphora alata* var. *portus-herculis* M. Peragallo 1904, p. 10 ('*Portus Hercules*') [ref. 000732].
- Amphora allanta* Hohn & Helleman 1966, p. 119; pl. 1, fig. 24 [ref. 008350].
- Amphora alpha* Karsten 1899, p. 106; fig. 139 [ref. 000558].
- Amphora altaica* Poretzky 1933, p. 115, 120; text-fig. 4 (p. 115) [ref. 000756].
- Amphora alternata* Mann 1925, p. 18; pl. 3, fig. 3 [ref. 000632].
- Amphora alveolata* Leuduger-Fortmorel 1879, p. 19; pl. 1, fig. 8 [ref. 000606].
- Amphora ambigua* Meister 1935, p. 91; fig. 13, 13a [ref. 000645].
- Amphora americana* A.H. Wachnicka & E.E. Gaiser 2007, p. 398, 446; fig. 29-34 [ref. 012976].
- Amphora amoena* Hustedt 1955, p. 39; pl. 14, fig. 11, 12 [ref. 000530].
- Amphora amphioxys* J.W. Bailey 1851, p. 39; pl. 2, fig. 20, 21, 22 [ref. 000119].
- Amphora amphora* (Ehrenberg) Pantocsek 1902, p. 14; pl. 1, fig. 1 [ref. 000716]. Basionym: *Navicula amphora* Ehrenberg 1832. *Invalid*. Tautonym. Also in Pantocsek 1902, p. 17 (ref. 000715), another version of this work.
- Amphora ampla* Ehrenberg 1860, p. 772 (as *Amphora ampla?* n. sp.) [ref. 010868]. First appeared as nomen nudum in Ehrenberg 1860, p. 772 (ref. 010868).
- Amphora anceps* Mann 1925, p. 18; pl. 3, fig. 4 [ref. 000632].
- Amphora andesitica* Pantocsek 1892, pl. 13, fig. 205 [ref. 001034]. Description in Pantocsek 1905, p. 9 (ref. 001445).
- Amphora angularis* Gregory 1855, p. 39; pl. 4, fig. 6 [ref. 000394].
- Amphora angularis* Greg. var. *delicatula* Proshkina-Lavrenko 1963, p. 174, 212; pl. 8, fig. 21, 22 [ref. 000765].
- Amphora angularis* Greg.? var. *caspica* Karajeva in Karajeva & Gadzhieva 1975, p. 128; pl. 2, fig. 1, 5 [ref. 008392]. Not seen.
- Amphora angularis* sensu Van Heurck 1885, p. 57; (pl. 1, fig. 21) (as *A. angularis* Greg.) [ref. 001040]. Non Gregory 1855 according to Cleve 1895, p. 121, 124 (ref. 000949). Van Heurck cites Gregory, but also refers to "Type [du Synopsis] no. 12", and pl. 1, fig. 21 (i.e. Van Heurck 1880, ref. 000895), a specimen illustrated as *Amphora angulosa* var. *hybrida* Grunow. Accepted and treated by Cleve 1895, p. 121 (124) as a different taxon than Gregory's (*Amphora coffeaeformis* var. *angularis* V.H. ex Cleve). Renamed *Amphora angulosa* by H. Peragallo & M. Peragallo 1899, p. 229 (ref. 001054).
- Amphora angularis* V.H. var. *hybrida* Grunow in Van Heurck 1885, p. 57 [ref. 001040].
- Amphora angularis* V.H. var. *lyrata* (Gregory) Van Heurck 1885, p. 57 [ref. 001040]. Basionym: *Amphora lyrata* Gregory 1857.
- Amphora angulata* 'Cleve' according to Tempère & H. Peragallo 1908, p. 100; no. 87 [ref. 001064]. No description. Citation error? Also in Tempère & Peragallo 1909, p. 178, no. 330-331 (ref. 001065) and Tempère & Peragallo 1913, p. 410, no. 846 (ref. 001069); "Table des Espèces", p. 12 (i.e. Tempère & Peragallo 1915) (ref. 001071) also refers this name to p. 469, no. 984 (i.e. Tempère & Peragallo 1914; ref. 001070), but on that page it is listed as *Amphora angustata* Cl.
- Amphora angulosa* H. Peragallo & M. Peragallo 1899, p. 229; pl. 50, fig. 13 [ref. 001054]. Based on *Amphora angularis* sensu Van Heurck 1885, p. 57 (ref. 001040) & Van Heurck 1880, pl. 1, fig. 22 (or 21?) (ref. 000895) ('*angulosa* var. *hybrida*').
- Amphora angulosa* var. *ceylanica* Skvortzow 1932, expl. pl. 50, fig. 2 [ref. 000839]. Described on p. 337 as *Amphora angusta* (Greg.) Cleve var. *ceylanica*.
- Amphora angulosa* var. *hybrida* Grunow in Van Heurck 1880, pl. 1, fig. 21 (as *Amphora angulosa* Greg. var. *hybrida* [Grunow]) [ref. 000895]. In Van Heurck 1885, p. 57 (ref. 001040), the name is corrected to *Amphora angularis* Greg. var. *hybrida* Grunow.
- Amphora angulosa* var. *lyrata* 'Van Heurck' according to Cleve 1895, p. 121 [ref. 000949]. *Invalid*. Citation error for *Amphora angularis* var. *lyrata* (Greg.) Van Heurck 1885.
- Amphora angusta* Ehrenberg 1845, p. 306 [ref. 010842]. *Invalid*. Nomen nudum. Also nomen nudum in Ehrenberg 1856, p. 37 (ref. 000965). As *Amphora gracilis*  $\beta$  *angusta* (and nomen nudum) in Ehrenberg 1845, p. 360 (ref. 000957).
- Amphora angusta* Ehr. var. *gracilentata* Grunow in Schmidt et al. 1875, pl. 25, fig. 15 (as *A. angusta* E. var. *gracilentata*) [ref. 012447].
- Amphora angusta* Ehr. f. *minor* M. Peragallo 1904, p. 10 (as *Amphora angusta* var. *gracilentata* fa *minor*) [ref. 000732].
- Amphora angusta* Gregory 1857, p. 510; pl. 12, fig. 66 [ref. 000399]. In reprint: p. 38; pl. 4, fig. 66.
- Amphora angusta* Greg. var. *adeliae* E. Manguin 1960, p. 326; pl. 18, fig. 208 [ref. 000627].
- Amphora angusta* Greg. var. *angustissima* Van Heurck 1909, p. 6; pl. 1, fig. 5 [ref. 000898].
- Amphora angusta* Greg. var. *arctica* Grunow in Cleve & Grunow 1880, p. 24; pl. 1, fig. 9 [ref. 000241].
- Amphora angusta* Greg. var. *ceylanica* Skvortzow 1932, p. 337; pl. 50, fig. 5 [ref. 000839]. as *Amphora angulosa* var. *ceylanica* in expl. plate.
- Amphora angusta* Greg. var. *chinensis* Skvortzow 1932, p. 158; pl. 2, fig. 10 [ref. 000837]. *Illegitimate*. Non *Amphora angusta* var. *sinensis* Skvortzow 1927.



- Amphora angusta* Greg. f. *depressa* Skvortzow 1932, p. 145 (as *Amphora angusta* var. *typica* f. *depressa*) [ref. 000836].
- Amphora angusta* Greg. var. *diducta* (Schmidt in Schmidt et al.) Cleve 1895, p. 135 [ref. 000949]. Basionym: *Amphora diducta* Schmidt in Schmidt et al. 1875.
- Amphora angusta* Greg. var. *eulensteinii* (Grunow in Schmidt et al.) Cleve 1895, p. 135 [ref. 000949]. Basionym: *Amphora eulensteinii* Grunow in Schmidt et al. 1875.
- Amphora angusta* Greg. var. *glaberrima* Grunow in Schmidt et al. 1875, pl. 26, fig. 61, 62 [ref. 012447].
- Amphora angusta* Greg. var. *incurvata* (Brun) Cleve 1895, p. 136 [ref. 000949]. Basionym: *Amphora lanceolata* var. *incurvata* Brun 1891.
- Amphora angusta* Greg. f. *japonica* Skvortzow 1932, p. 125 (as *Amphora angusta* var. *ventricosa* f. *japonica*) [ref. 000835].
- Amphora angusta* Greg. var. *latior* (Grunow in Schmidt) F.W. Mills 1933, p. 156 [ref. 000998]. Basionym: *Amphora cymbelloides* var. *latior* A. Schmidt in Schmidt et al. 1875. Accepted by Mills (under his entry for *Amphora cymbelloides* var. *latior* Schmidt 1875).
- Amphora angusta* Greg. var. *minor* '(Grunow in Schmidt et al.) Cleve' according to VanLandingham 1979, p. 4252 [ref. 006514]. *Invalid*. Citation error for *Amphora angusta* var. *minuta* (Grunow in Schmidt et al.) Cleve 1895 (invalid).
- Amphora angusta* Greg. f. *minuta* Grunow in Schmidt et al. 1875, pl. 26, fig. 65, 66 [ref. 012447]. Author of name not expressed (could be Grunow or A. Schmidt).
- Amphora angusta* Greg. var. *minuta* (Grunow in Schmidt et al.) Cleve 1895, p. 136 [ref. 000949]. Basionym: *Amphora angusta* Greg. f. *minuta* Grunow in Schmidt et al. 1875. *Invalid*. Not accepted. In syn. *A. cymbelloides* Grunow.
- Amphora angusta* Greg. var. *oblongella* Grunow 1878, p. 104; pl. 4, fig. 20 (as *Amphora (angusta var.?) oblongella*) [ref. 000439]. *Invalid*. Valid names for this taxon: *Amphora oblongella* Grunow 1878 and *Amphora angusta* var. *oblongella* (Grunow) Cleve 1895.
- Amphora angusta* Greg. var. *oblongella* (Grunow) Cleve 1895, p. 135 [ref. 000949]. Basionym: *Amphora oblongella* Grunow 1878.
- Amphora angusta* Greg. var. *okamurae* Skvortzow 1932, p. 275; pl. 4, fig. 5, 6 [ref. 000838].
- Amphora angusta* Greg. var. *orientalis* Aleem 1950, p. 322-323; fig. 2E [ref. 000106].
- Amphora angusta* Greg. var. *robusta* (Peragallo) Manguin 1960, p. 326; pl. 30, fig. 374 [ref. 000627]. Basionym: *Amphora lanceolata* var. *robusta* M. Peragallo 1921.
- Amphora angusta* Greg. var. *sinensis* Skvortzow 1927, p. 106; fig. 18 [ref. 000828].
- Amphora angusta* Greg. var. *typica* Cleve 1895, p. 135 [ref. 000949]. Cleve refers to *Amphora angusta* Gregory 1857 and its original publication, but also says that "the figure of *A. angusta* in Diat. of the Clyde [Gregory 1857] is not sufficient for identification without original specimens".
- Amphora angusta* Greg. var. *ventricosa* (Gregory) Cleve 1895, p. 135 [ref. 000949]. Basionym: *Amphora ventricosa* Gregory 1857.
- Amphora angusta* Greg. var. *zebrina* (Schmidt in Schmidt et al.) Cleve 1895, p. 136 [ref. 000949]. Basionym: *Amphora zebrina* Schmidt in Schmidt et al. 1875.
- Amphora angusta* (Greg.?) var. *quarnerensis* Zanon 1931, p. 515; fig. 50 [ref. 000930]. Zanon does not indicate if his variety belongs to Gregory's species.
- Amphora angusta* A. Schmidt in Schmidt et al. 1875, pl. 25, fig. 9 [ref. 012447]. *Invalid?* Non Gregory 1857? A. Schmidt notes: "Raised Marsh, ob zu *A. angusta* gehörend?".
- Amphora angusta* Jurilj 1957, p. 118; pl. 30, fig. 9 [ref. 000553]. *Illegitimate*. Non Gregory 1857.
- Amphora angustata* 'Cleve' according to Tempère & Peragallo 1914, p. 469; no. 984 [ref. 001070]. Citation error?
- Amphora angustissima* (Van Heurck) Mann 1925, p. 8F [ref. 000633]. Basionym: *Amphora angusta* Greg. var. *angustissima* Van Heurck 1909.
- Amphora angustissima* Heiden in Heiden & Kolbe 1928, p. 639; pl. 1 (31), fig. 8 [ref. 000473]. *Illegitimate*. Non Mann 1925.
- Amphora antarctica* Hustedt 1958, p. 151; fig. 104, 105 [ref. 000533].
- Amphora antiqua* Cleve & Grove in Cleve 1895, p. 139 [ref. 000949].
- Amphora aponina* Kützing 1844, p. 108; pl. 4, fig. 1, pl. 5, fig. 33 [ref. 000595].
- Amphora aponina* Kütz. f. *major* Rabenhorst 1864, p. 89 [ref. 000775].
- Amphora aponina* sensu Neupauer 1867, p. 190; pl. 1, fig. 29 (as "*A. aponina* Kützing") [ref. 000683]. Synonym: *Amphora neupaueri* Pantocsek 1889.
- Amphora araucaniana* Frenguelli 1934, p. 361; pl. 2, fig. 21; text. fig. 3 (p. 361) (as *Amphora (Diplamphora) araucaniana*) [ref. 000359].
- Amphora araulensis* Héribaud 1908, p. 60; pl. 13, fig. 2 [ref. 000993].
- Amphora arcana* Giffen 1984, p. 187; pl. 1, fig. 13 [ref. 008264].
- Amphora archibaldii* A.H. Wachnicka & E.E. Gaiser 2007, p. 405, 447; fig. 52-59 [ref. 012976].
- Amphora arctica* Schmidt in Schmidt et al. 1875, pl. 26, fig. 63 [ref. 012447].
- Amphora arctica* Grunow in Cleve & Möller 1879, No. 172 (as *Amphora (baltica var.?) arctica* Grunow) [ref. 001977]. *In-*

*valid*. Nomen nudum.

- Amphora arctica* var. *baltica* ‘Grunow’ Mills 1933, p. 148 [ref. 000997]. *Invalid*. Accepted (and intended?) combination of *Amphora baltica* Gr. in Cleve & Möller 1979 (invalid).
- Amphora arcuata* A. Schmidt in Schmidt et al. 1875, pl. 26, fig. 27-29 [ref. 012447].
- Amphora arcuata* Pantocsek 1889, p. 35; pl. 4, fig. 70 [ref. 001033]. *Illegitimate*. Non A. Schmidt 1875. Synonym (replacement name): *Amphora pantocsekii* Hajós 1968.
- Amphora arcus* Gregory 1855, p. 39; pl. 4, fig. 4 [ref. 000396].
- Amphora arcus* Gregory 1857, p. 75; pl. 1, fig. 37 [ref. 002719]. Although Gregory indicates “n. sp.” this is the same species as *A. arcus* Gregory 1855, with additional figure and description. Also in Gregory 1857, p. 522 (50), pl. 5, fig. 88 (ref. 000399).
- Amphora arcus* var. *major* M. Peragallo 1929, p. 19; pl. 2, fig. 2, 3 [ref. 000739].
- Amphora arcus* var. *sulcata* Cleve 1895, p. 127 [ref. 000949]. Based on *Amphora sulcata* sensu A. Schmidt 1875 (ref. 012447), pl. 26, fig. 46-47 (“*Amphora sulcata* Gregory?”), non *A. sulcata* Gregory 1857, non *A. sulcata* Brébisson 1854. Cleve states “the variety *sulcata*...cannot be *A. sulcata* Gregory).
- Amphora arcus* f. *typica* Cleve 1895, p. 127; pl. 4, fig. 4 [ref. 000949]. Cleve refers to the original publication of *Amphora arcus* Gregory 1857.
- Amphora arcus* var. *typica* Cleve-Euler 1953, p. 101; fig. 695 a (as *Amphora arcus*  $\alpha$  *typica* Cl.) [ref. 001042]. Cleve-Euler cites “*Amphora arcus* Gregory, D. Clyde 12, 88” (i.e. Gregory 1857, ref. 000399). Rank implied, but not clearly indicated.
- Amphora arenaria* Donkin 1858, p. 31; pl. 3, fig. 16 [ref. 000277].
- Amphora arenaria* var. *donkinii* (Rabenhorst) Cleve 1895, p. 133 [ref. 000949]. Basionym: *Amphora donkinii* Rabenhorst 1864.
- Amphora arenaria* var. *permagna* (Pantocsek) H. Peragallo & M. Peragallo 1898, p. 217; pl. 48, fig. 14 [ref. 001053]. Basionym: *Amphora permagna* Pantocsek 1889.
- Amphora arenaria* var. *rattrayi* Cleve 1895, p. 133 [ref. 000949]. Cleve refers to the invalid name *Amphora rattrayi* Cleve in Cleve and Möller 1882, no. 310 (ref. 001979).
- Amphora arenaria* var. *typica* Cleve 1895, p. 133 [ref. 000949]. Cleve refers to *Amphora arenaria* Donkin 1858 and its original publication.
- Amphora arenaria* var. *typica* (Cleve) Cleve-Euler 1953, p. 103; fig. 702 (as *Amphora arenaria*  $\alpha$  *typica* Cl.) [ref. 001042]. Basionym: *Amphora arenaria* var. *typica* Cleve 1895. Cleve-Euler cites *Amphora arenaria* Donkin (see figure caption). Rank implied, not clearly indicated.
- Amphora arenicola* Grunow in Cleve 1895, p. 104; pl. 4, fig. 19, 20 [ref. 000949]. Name first appeared as a nomen nudum: *Amphora marina* var. *arenicola* Grunow in Cleve & Möller 1882, no. 310 (ref. 001979).
- Amphora arenicola* var. *major* Cleve 1895, p. 104 [ref. 000949].
- Amphora arenicola* var. *minor* McCall 1933, p. 273, 307 [ref. 000640].
- Amphora arenicola* var. *oculata* Cleve 1895, p. 104; pl. 4, fig. 21 [ref. 000949].
- Amphora arenicola* var. *subaequalis* Cleve 1895, p. 104; pl. 4, fig. 22 [ref. 000949].
- Amphora areolata* Grunow in Schmidt et al. 1876, pl. 39, fig. 28 [ref. 012449].
- Amphora areolata* var. *curta* Cleve in Cleve & Grove 1892, p. 157 [ref. 000239]. Cleve cites as synonyms: *Amphora areolata* Grunow 1876 and *Amphora megapora* Pantocsek 1889.
- Amphora areolata* var. *curta* Cleve 1895, p. 115 [ref. 000949]. Cleve cites as synonyms: *Amphora areolata* Grunow 1876 (typical form) and *A. megapora* Pantocsek 1889 (typical form). Isonym: the name *Amphora areolata* var. *curta* had been previously published: see *Amphora areolata* var. *curta* Cleve in Cleve & Grove 1892, p. 157 (ref. 000239).
- Amphora areolata* var. *elegans* M. Peragallo in Tempère & Peragallo 1908, p. 52; No. 96-100 [ref. 001064].
- Amphora areolata* var. *maxima* Cleve & Grove 1892, p. 156; pl. 22, fig. 1-4 [ref. 000239].
- Amphora areolata* var. *minor* Cleve & Grove 1892, p. 157 [ref. 000239].
- Amphora argus* Pantocsek 1892, pl. 22, fig. 329 [ref. 001034]. Description in Pantocsek 1905, p. 9 (ref. 001445).
- Amphora ascensionis* Leuduger-Fortmorel 1898, p. 36; pl. 7, fig. 14 [ref. 000608].
- Amphora asiatica* Skvortzow 1935, p. 10; pl. 2, fig. 7 [ref. 000841].
- Amphora aspera* Petit 1878, p. 240; pl. 14, fig. 9 [ref. 002117]. Previously published in Petit 1877 “Fond de la Mer”, p. 19; pl. 4, fig. 9 (ref. 000747)?
- Amphora astuarii* Cleve 1894, p. 146 [ref. 000948]. Misprint for “*Amphora aestuarii*”.
- Amphora atacamae* G. Frenguelli 1929, p. 219; pl. 10, fig. 5 [ref. 000345].
- Amphora atacamana* Patrick 1961, p. 50; pl. 1, fig. 8 [ref. 000724].
- Amphora athanasii* M. Peragallo in Héribaud 1920, p. 134; pl. 1, fig. 1 [ref. 000482].
- Amphora atlantica* Leuduger-Fortmorel 1898, p. 37; pl. 7, fig. 17 [ref. 000608].
- Amphora atomus* Kützing 1844, p. 108; pl. 30, fig. 70 [ref. 000595].
- Amphora atomus* ‘Ehrenberg’ according to Peragallo 1897, p. 58 [ref. 012539]. This name is not found as suggested (with

- query) by Peragallo in “Ehrenberg 1840 Abh. p. 10”. No additional information on the place of publication of this name was found.
- Amphora australiensis* John 1981, p. 41, 48; fig. 1-18 [ref. 008366].
- Amphora australis* Petit 1908, p. 2; pl. 1, fig. 2 [ref. 000753].
- Amphora ayensuensis* Foged 1966, p. 103, 144; pl. 19, fig. 7 [ref. 006033].
- Amphora baccata* Mann 1907, p. 373; pl. 44, fig. 2 [ref. 000631].
- Amphora bacillaris* Gregory 1857, p. 529; pl. 14, fig. 100 [ref. 000399]. In reprint: p. 55; pl. 6, fig. 100.
- Amphora bacillaris* var. *scotia* Cleve & Möller 1882, No. 310 (as *Amphora (bacillaris var.?) scotia*) [ref. 001979]. *Invalid*. Nomen nudum.
- Amphora baicalensis* Skvortzow & Meyer 1928, p. 37; pl. 3, fig. 162 [ref. 000855].
- Amphora balatoneis* Pantocsek 1902, p. 13; pl. 1, fig. 2 [ref. 000716]. Also in Pantocsek 1902, p. 16 (ref. 000715), another version of this work.
- Amphora balearica* ‘Cleve in Cleve & Möller’ VanLandingham 1967, p. 197 [ref. 006293]. *Invalid*. Citation error for *Amphiprora balearica* Cleve in Cleve & Möller 1878, no. 154 (ref. 001976).
- Amphora baltica* Grunow in Cleve & Möller 1879, No. 172 [ref. 001977]. *Invalid*. Nomen nudum.
- Amphora baltica* var. *arctica* Grunow in Cleve & Möller 1879, No. 172 (as *Amphora (baltica var.?) arctica* Grunow) [ref. 001977]. *Invalid*. Nomen nudum.
- Amphora baltica* Brander 1933, p. 25; fig. 4a [ref. 000156].
- Amphora banyaiana* Greguss & Weber 1938, p. 287-288; pl. 3, fig. 5 [ref. 000401].
- Amphora barreii* Manguin 1957, p. 131; pl. 6, fig. 41 [ref. 000626]. Also described as new in Manguin 1960, p. 327; pl. 18, fig. 209 (ref. 000627).
- Amphora barrowiana* (Patrick & Freese) T. Nagumo 2003, p. 15 [ref. 012900]. Basionym: *Amphora ovalis* var. *barrowiana* Patrick & Freese 1961. Wrong page cited for the basionym, but correct place of publication, and correct plates. Should probably be considered valid.
- Amphora beaufortiana* Hustedt 1955, p. 38; pl. 14, fig. 1-6 [ref. 000530].
- Amphora beccarii* De Notaris & Baglietto 1872, No. 633 [ref. 002220]. *Invalid?* Cited but not described in De Toni 1891, p. 418 (ref. 000271). De Toni 1891 notes that the species is undescribed.
- Amphora behringensis* Cleve 1895, p. 102; pl. 3, fig. 34-35 [ref. 000949].
- Amphora belgica* Grunow 1882-1885, p. 21; Type No. 74 (as *Amphora (ostrearia var.?) Belgica* Grun.) [ref. 000896]. Diagnosis included. Described in Van Heurck 1885, p. 56 (ref. 001040) as *Amphora ostrearia* sous-var. *Belgica* Grun.
- Amphora bella* Hustedt 1955, p. 42; pl. 13, fig. 8 [ref. 000530].
- Amphora berggrenii* Cleve in Cleve & Möller 1878, No. 90 [ref. 001975]. *Invalid*. Nomen nudum.
- Amphora berggrenii* Cleve 1881, p. 4, pl. 4, fig. 3 [ref. 000222]. Name (with no description) in Cleve & Möller 1878, no. 90 (ref. 001975), and in Rabenhorst 1878, no. 2560 (ref. 000773).
- Amphora berriati* Héribaud 1920, p. 68; pl. 4, fig. 7 [ref. 000482].
- Amphora berriati* var. *minor* Rochoux d’Aubert in Héribaud 1920, p. 69; pl. 4, fig. 8 [ref. 000482].
- Amphora beta* Karsten 1899, p. 107; fig. 140 [ref. 000558].
- Amphora biarcuata* Heiden in Heiden & Kolbe 1928, p. 642; pl. 1 (31), fig. 12 [ref. 000473].
- Amphora bicapitata* Hohn & Hellerman 1966, p. 120; pl. 1, fig. 14 [ref. 008350].
- Amphora biconvexa* Janisch in Schmidt et al. 1875, pl. 25, fig. 68 [ref. 012447].
- Amphora biggibosa* Cleve 1895, p. 133 [ref. 000949].
- Amphora bigibba* Grunow in Schmidt et al. 1875, pl. 25, fig. 69-75 [ref. 012447]. Figs. 74-75 are marked as “*A. biggibba* Grunow, typ.”, the other figures correspond to unnamed varieties.
- Amphora bigibba* var. *capitata* Hagelstein 1939, p. 325; pl. 3, fig. 7 [ref. 000454].
- Amphora bigibba* var. *interrupta* (Grunow in Schmidt et al.) Cleve 1895, p. 120 [ref. 000949]. Basionym: *Amphora binodis* var. *interrupta* Grunow in Schmidt et al. 1875.
- Amphora bilobata* Loseva 1982, p. 129; pl. 85, fig. 1-3 [ref. 006904].
- Amphora binodis* Gregory 1857, p. 510; pl. 12, fig. 67 [ref. 000399]. In reprint: p. 38; pl. 4, fig. 67.
- Amphora binodis* var. *bigibba* (Grunow in Schmidt et al.) Peragallo & Peragallo 1899, p. 227; pl. 50, fig. 36 [ref. 001054]. Basionym: *Amphora bigibba* Grunow in Schmidt et al. 1875.
- Amphora binodis* var. *interrupta* Grunow in Schmidt et al. 1875, pl. 25, fig. 65 [ref. 012447].
- Amphora binodis* f. *minutissima* Grunow 1867, p. 17 [ref. 000432].
- Amphora bioculata* Cleve 1895, p. 114; pl. 3, fig. 36-38 [ref. 000949].
- Amphora birnirkiana* Patrick & Freese 1961, p. 254; pl. 3, fig. 19 [ref. 000725].
- Amphora birugula* Hohn 1961, p. 155; pl. 1, fig. 17, 18 [ref. 000485].
- Amphora biseriata* Gregory 1857, p. 71; pl. 1, fig. 32 [ref. 002719].
- Amphora bistriata* Leuduger-Fortmorel 1879, p. 20; pl. 1, fig. 12 [ref. 000606].
- Amphora bistriata* Peragallo & Peragallo 1899, (p. 218); pl. 49, fig. 3 [ref. 001054]. *Illegitimate*. Non Leuduger-Fortmorel

1879. Described on p. 218 as *Amphora ocellata* var.(?) *bistriata* Per. Illustrated as *Amphora (ocellata* var.?) *bistriata* Per.
- Amphora bitumida* Prowse 1962, p. 55; pl. 17, fig. a-c [ref. 001827].
- Amphora bituminosa* Pantocsek 1889, p. 35; pl. 1, fig. 1, pl. 2, fig. 23 [ref. 001033].
- Amphora biundulata* Bérard-Therriault et al. 1986, p. 414, 417; fig. 57, 60-62 [ref. 008075]. [according to ANSP].
- Amphora blaingraysia* Selva 1981, p. 86; pl. 1, fig. 1, 2 [ref. 008778]. [according to ANSP].
- Amphora blanda* Leuduger-Fortmorel 1898, p. 37; pl. 7, fig. 19 [ref. 000608].
- Amphora bohémica* Reichelt in Herrmann & Reichelt 1892, p. 75 [ref. 000483]. *Invalid*. Nomen nudum.
- Amphora boliviana* Patrick 1961, p. 51; pl. 1, fig. 9 [ref. 000724].
- Amphora bongrainii* M. Peragallo 1921, p. 60; pl. 2, fig. 22 [ref. 000737].
- Amphora borealis* Kützing 1844, p. 108; pl. 3, fig. 18 [ref. 000595].
- Amphora borealis* Kütz. var. *globusa* (Schumann) Schumann 1869, p. 87 (as *Amphora borealis* Kütz.  $\beta$  *globulosa* Schum.) [ref. 001005]. Basionym: *Amphora globulosa* Schumann 1867.
- Amphora borealis* sensu Schumann 1864, p. 23; pl. 2, fig. 31 [ref. 001003]. *Invalid*. No author's name cited next to the description (p. 23), but cited as "*Amphora borealis* Ktz." on p. 16. Considered by Cleve 1895, p.105 (ref. 000949) to belong to *Amphora ovalis* var. *pediculus* (Kützing) Van Heurck.
- Amphora bornetii* Héribaud 1903, p. 68-70; pl. 9, fig. 1, pl. 11, fig. 1-3, text-fig. p. 68 ('*borneti*') [ref. 000992].
- Amphora boryana* (Pantocsek) Pantocsek 1892, pl. 38, fig. 531 [ref. 001034]. Basionym: *Amphora mexicana* var. *boryana* Pantocsek 1889.
- Amphora brasiliensis* Zimmermann 1918, p. 87; pl. 2, fig. 7 [ref. 000936].
- Amphora brebissonii* M. Peragallo 1929, p. 19; pl. 2, fig. 4 [ref. 000739].
- Amphora brebissonii* var. *minor* M. Peragallo 1929, p. 19 [ref. 000739]. *Invalid*. No description. Refers to an unnamed and undescribed specimen in H. Peragallo & M. Peragallo 1898, pl. 47, fig. 12 (ref. 001053).
- Amphora briocensis* "Petit 1876" according to De Toni 1891, p. 415 [ref. 000271]. De Toni notes "*Amphora briocensis* Petit in Bull. Soc. Belge de Microsc. 1876, p. XXXIV c. icone", and provides a description.
- Amphora budayana* Pantocsek 1892, pl. 23, fig. 336 [ref. 001034]. Description in Pantocsek 1905, p. 10 (ref. 001445).
- Amphora bullata* Cleve 1895, p. 119 [ref. 000949].
- Amphora bullatoides* Hohn & Hellerman 1963, p. 278; pl. 2, pl. 13 [ref. 000486].
- Amphora bullosa* (Fiorini-Mazzanti) Fiorini-Mazzanti 1879, p. 104 [ref. 000318]. Basionym: *Colletonema bullosum (bullosa)* Fiorini-Mazzanti 1861. [according to VLC].
- Amphora bullosa* var. *lineolata* (Ehrenberg) H.L. Smith 1876-1888, no. 611 (1888) [ref. 000858]. As *Amphora bullosa* var. *lineolata* E. on slide label and printed schedule of taxa names. H.L. Smith also notes on printed schedule of notes "=*A. lineolata* E.?".
- Amphora bulnheimii* Rabenhorst 1866, no. 1934 [ref. 011640].
- Amphora calumetica* (B.W. Thomas in Thomas & Chase) M. Peragallo 1897, p. 59 [ref. 012539]. Basionym: *Amphiprora calumetica* B.W. Thomas in Thomas & Chase 1886. *Invalid*. Basionym invalid.
- Amphora calumeticoides* C. Cocquyt 2003, p. 582, 585; figs. 1-19 [ref. 013102].
- Amphora camelus* Cleve & Grove 1892, p. 158; pl. 22, fig. 9-12 [ref. 000239].
- Amphora capensis* Schmidt in Schmidt et al. 1875, pl. 25, fig. 49, 50 [ref. 012447].
- Amphora capensis* var. *samoensis* M. Peragallo in Peragallo & Peragallo 1911, p. 6 (as *A. samoensis (capensis* var.?) M. Perag.) [ref. 000734]. *Invalid*. Validly published as *Amphora samoensis* M. Perag.
- Amphora capitata* Brander 1933, p. 26; fig. 4b [ref. 000156].
- Amphora capitata* Meister 1937, p. 264; pl. 8, fig. 1 [ref. 000646]. *Illegitimate*. Non Brander 1933. Synonym (replacement name): *Amphora advena* VanLandingham 1967.
- Amphora capitellata* Frenguelli 1938, p. 303; pl. 2, fig. 19 (as *Amphora (Halamphora) capitellata*) [ref. 000362].
- Amphora caribaea* A.H. Wachnicka & E.E. Gaiser 2007, p. 399, 446; fig. 35-37 [ref. 012976].
- Amphora carinata* Ehrenberg 1840, p. 205 [ref. 000293].
- Amphora caroliniana* Giffen 1980, p. 156-157; pl. 1, fig. 5 [ref. 008263]. Based on *Amphora granulata* sensu Hustedt 1955, p. 40, pl. 14, fig. 8-10 (ref. 000530).
- Amphora carvajaliana* Patrick 1961, p. 52; pl. 1, fig. 7 [ref. 000724].
- Amphora castellata* Giffen 1963, p. 216; pl. 1, fig. 13-14 [ref. 000383].
- Amphora castracanei* De Toni 1891, p. 379 [ref. 000271]. New name for *Amphora staurophora* Castracane 1886, non Juhlin-Dannfelt 1882, nec Pantocsek 1889.
- Amphora catharinaria* Cholnoky 1968, p. 17; fig. 16 [ref. 001969].
- Amphora caucasica* M. Peragallo in Tempère & Peragallo 1913, p. 398; no. 825 [ref. 001069].
- Amphora ceylanensis* Leuduger-Fortmorel 1879, p. 21; pl. 1, fig. 13 [ref. 000606].
- Amphora charcotii* M. Peragallo 1921, p. 61; pl. 2, fig. 24, 25 [ref. 000737].
- Amphora charrua* D. Metzeltin, H. Lange-Bertalot & F. García-Rodríguez 2005, p. 25; pl. 131, fig. 1-7 [ref. 012898].

- Amphora chilensis* Hustedt 1927, p. 239; pl. 7, fig. 8-10 [ref. 000499].
- Amphora chinensis* A. Schmidt in Schmidt et al. 1875, pl. 26, fig. 41, 42 [ref. 012447]. Orth. variant (or correction) “*sinensis*” introduced by De Toni 1891, p. 397 (ref. 000271).
- Amphora cimbrica* Østrup 1910, p. 110; pl. 3, fig. 72 [ref. 000706].
- Amphora cingulata* Cleve in A. Schmidt et al. 1875, pl. 26, fig. 17 [ref. 012447]. Illustration only. See also Cleve 1878, p. 9, pl. 3, fig. 15 (ref. 000221) for brief description (dimensions).
- Amphora cingulata* Cleve var. *hyalina* Salah 1955, p. 100; pl. 1, fig. 30 [ref. 000802].
- Amphora cingulata* Pantocsek 1889, p. 35; pl. 25, fig. 369 [ref. 001033]. *Illegitimate*. Non Cleve in A. Schmidt et al. 1875. In text, misprinted “pl. 29”, corrected in 2nd (1903) edition.
- Amphora cipollae* Zanon 1933, p. 33; pl. 1, fig. 38 [ref. 001574].
- Amphora clara* Schmidt in Schmidt et al. 1875, pl. 25, fig. 20 [ref. 012447].
- Amphora clathrata* Mann 1925, p. 19; pl. 3, fig. 5 [ref. 000632].
- Amphora clevei* Grunow in Schmidt et al. 1875, pl. 25, fig. 46-48 [ref. 012447].
- Amphora clevei* var. *interrupta* Grunow in Cleve & Möller 1879, No. 257 [ref. 001978]. *Invalid*. Nomen nudum.
- Amphora clevei* var. *splendida* M. Peragallo in Tempère & Peragallo 1908, p. 103; No. 189 [ref. 001064].
- Amphora coarcta* Leuduger-Fortmorel 1879, p. 22; pl. 2, fig. 18 [ref. 000606]. Illustrated as *Amphora coarctata*.
- Amphora coarctata* ‘Grunow’ Castracane 1886, p. 19 [ref. 000193]. *Invalid*. Citation error for *Amphora contracta* Grunow in Schmidt 1875, pl. 25, fig. 62 (ref. 012447). Cited in synonymy of *Amphora philippinica* Castracane.
- Amphora coarctata* Leuduger-Fortmorel 1879, Expl. pl. 2, fig. 18 [ref. 000606]. Described as *A. coarcta* on p. 22.
- Amphora coffeaeformis* (Agardh) Kützing 1844, p. 108; pl. 5, fig. 37 [ref. 000595]. Basionym: *Frustulia coffeaeformis* Agardh 1827.
- Amphora coffeaeformis* var. *acutiuscula* (Kützing) Rabenhorst 1864, p. 89 (as *Amphora coffeaeformis* e *acutiuscula* Ktz.) [ref. 000775]. Basionym: *Amphora acutiuscula* Kützing 1844.
- Amphora coffeaeformis* var. *acutiuscula* (Kützing) Hustedt 1930, p. 346 [ref. 000502]. Basionym: *Amphora acutiuscula* Kützing 1844. Attributed to “(Kützing) Hustedt”. Perhaps isonym: a combination was previously validly published by Rabenhorst 1864, as *Amphora coffeaeformis* e *acutiuscula* (rank considered variety or unspecified?).
- Amphora coffeaeformis* var. *africana* Fritsch & Rich 1929, p. 112; fig. 8 A-D [ref. 000369].
- Amphora coffeaeformis* var. *angularis* Cleve 1895, p. 121 (as *Amphora coffaeiformis* var. *angularis* V. H.) [ref. 000949]. We are treating this name as the name of a new taxon, rather than a new combination of *Amphora angularis* Gregory 1855. Cleve cites *Amphora angularis* [sensu] Van Heurck 1885, p. 57 (ref. 001040), and Van Heurck 1880, pl. 1, fig. 21 (*A. angulosa* var. *hybrida*), Van Heurck 1880, pl. 1, fig. 22 (*A. lyrata*) (ref. 000895), and *Amphora bullosa* var. *lineolata* H.L. Smith 1874. Cleve does not cite Gregory (but Van Heurck 1885 does). Synonym: *Amphora angulosa* H. Peragallo & M. Peragallo 1899.
- Amphora coffeaeformis* var. *aponina* (Kützing) R.E.M. Archibald & F.R. Schoeman 1984, p. 95; fig. 70-75, 163-171 [ref. 003400]. Basionym: *Amphora aponina* Kützing 1844. *Invalid*. Lacking full and direct reference to basionym.
- Amphora coffeaeformis* var. *araulensis* (Héribaud) VanLandingham 1967, p. 203 [ref. 006293]. Basionym: *Amphora araulensis* Héribaud 1908. Also on p. 193. Deliberate new combination.
- Amphora coffeaeformis* var. *asiatica* Meister 1932, p. 8; fig. 4 (‘*coffaeiformis*’) [ref. 000644].
- Amphora coffeaeformis* var. *bhusavalensis* Sarode & Kamat 1984, p. 160, 243; pl. 19, fig. 430 [ref. 008758].
- Amphora coffeaeformis* var. *borealis* (Kützing) Cleve 1895, p. 121 [ref. 000949]. Basionym: *Amphora borealis* Kützing 1844.
- Amphora coffeaeformis* f. *curta* Poretzky & Anissimova 1933, p. 57; pl. 10, fig. 31 (as *Amphora coffaeiformis* var. *angularis* f. *curta* n.f.) [ref. 000759].
- Amphora coffeaeformis* var. *dubiosa* (Østrup) Woodhead & Tweed 1953, p. 269; fig. 3 [ref. 000921]. Basionym: *Amphora dubiosa* Østrup 1918.
- Amphora coffeaeformis* var. *dusenii* (Brun) Cleve-Euler 1922, p. 53 [ref. 000247]. Basionym: *Amphora dusenii* Brun 1901.
- Amphora coffeaeformis* var. *dusenii* (Brun) Cleve-Euler 1939, p. 4 [ref. 001153]. Basionym: *Amphora dusenii* Brun 1901. [according to ANSP].
- Amphora coffeaeformis* var. *elegans* Venkataraman 1957, caption for fig. 30 [ref. 000900]. *Invalid*. As *Amphora coffeaeformis* var. *africana* f. *kurze* in text p. 84. In text misprinted “fig. 31”.
- Amphora coffeaeformis* var. *exigua* (Gregory) Rabenhorst 1864, p. 89 [ref. 000775]. Basionym: *Amphora exigua* Gregory 1857.
- Amphora coffeaeformis* var. *exigua* (Gregory) De Toni 1891, p. 389 [ref. 000271]. Basionym: *Amphora exigua* Gregory 1857.
- Amphora coffeaeformis* var. *fischeri* Kützing 1844, p. 108; pl. 5, fig. 38 (as *Amphora coffeaeformis* β *Fischeri* on p. 108) [ref. 000595]. As *Amphora fischeri* in plate caption (p. 142), and index (p. 146). Both names are validly published.
- Amphora coffeaeformis* var. *fossilis* Pantocsek 1889, p. 36; pl. 4, fig. 69 [ref. 001033].
- Amphora coffeaeformis* var. *fossilis* (Pantocsek) Cleve 1895, p. 121 [ref. 000949]. Basionym: *Amphora salina* var. *fossilis*

- Pantocsek 1889.
- Amphora coffeaeformis* var. *gallica* (Héribaldi) F.W. Mills 1933, p. 153 (as [*Amphora coffeaeformis*] v. GALLICA (Herib.) Ost.) [ref. 000998]. Basionym: *Amphora protracta* var. *gallica* Héribaldi 1908. Mills credits Østrup for the combination. Combination accepted by Mills (upper case print) and valid.
- Amphora coffeaeformis* var. *hungarica* Cleve 1895, p. 121 (as *A. coffaeiformis* var. *hungarica* Cl.) [ref. 000949]. New name for *A. acutiuscula* var. *fossilis* Pantocsek 1889, p. 35, pl. II, fig. 29.
- Amphora coffeaeformis* f. *kurze* Venkataraman 1957, p. 84, fig. 30 (as *Amphora coffeaeformis* var. *africana* f. *kurze*) [ref. 000900]. Misprinted “fig. 31”. As *A. coffeaeformis* var. *elegans* in legend.
- Amphora coffeaeformis* var. *lineata* (Gregory) Rabenhorst 1864, p. 89 [ref. 000775]. Basionym: *Amphora lineata* Gregory 1857.
- Amphora coffeaeformis* f. *minima* A. Schmidt in Schmidt et al. 1875, pl. 26, fig. 98 [ref. 012447]. A. Schmidt notes: “= *A. borealis* Ktzig”.
- Amphora coffeaeformis* var. *perpusilla* Grunow 1884, p. 50 (102); pl. 1 (A), fig. 6 (as *Amphora (coffeaeformis) var.?* *perpusilla* in text and *Amphora perpusilla* in plate caption) [ref. 000444]. *Invalid*. Validly published in this work as *Amphora perpusilla* Grunow. Trinomial validly published by Cleve 1895.
- Amphora coffeaeformis* var. *perpusilla* (Grunow) Cleve 1895, p. 120 (‘*coffaeiformis*’) [ref. 000949]. Basionym: *Amphora perpusilla* Grunow 1884.
- Amphora coffeaeformis* var. *protracta* (Pantocsek) Cleve 1895, p. 121 (‘*coffaeiformis*’) [ref. 000949]. Basionym: *Amphora protracta* Pantocsek 1889.
- Amphora coffeaeformis* var. *salina* (W. Smith) Schönfeldt 1907, p. 211 [ref. 000808]. Basionym: *Amphora salina* W. Smith 1853.
- Amphora coffeaeformis* var. *salinarum* Grunow 1882, p. 148 [ref. 000442].
- Amphora coffeaeformis* f. *subconstricta* (Grunow) Zabelina et al. 1951, p. 425 (as *Amphora coffeaeformis* var. *acutiuscula* f. *subconstricta* Grun.) [ref. 000800]. Basionym: *Amphora lineata* Greg. var. *subconstricta* Grunow 1878. Not a deliberate new combination, and no basionym is listed. The name is accepted by Zabelina, and a description is provided. We treat it as a valid new combination. Could also be treated as the valid name of a new taxon.
- Amphora coffeaeformis* var. *tenuissima* Proschkina-Lavrenko 1962, p. 27; Abb. 3, fig. 3, 4 [ref. 000763].
- Amphora coffeaeformis* var. *thumensis* Mayer 1919, p. 208; pl. 9, fig. 69 (‘*coffeiformis*’) [ref. 000637].
- Amphora coffeaeformis* var. *transcaspica* Petersen 1930, p. 48; fig. 8 (‘*coffaeiformis*’) [ref. 000743].
- Amphora coffeaeformis* sensu H.L. Smith 1876-1888, no. 31 (1876) [ref. 000858]. *Invalid*. Clearly not intended by H.L. Smith as the name of a new taxon. As “*Amphora coffeaeformis* K[ützing]” in slide label and printed schedule of taxa names. H.L. Smith also cites in the printed schedule of notes “K.B. v. 37, 38” (i.e. Kützing 1844, ref. 000595). Non (Agardh) Kützing 1844 according to Cleve 1895, p. 119 (ref. 000949) who expressed the opinion that the specimens examined by H.L. Smith belonged to *Amphora veneta* Kützing 1844. Cleve’s opinion resulted in the “sensu H.L. Smith” entry in VanLandingham’s catalogue.
- Amphora cognata* Cholnoky 1966, p. 173; pl. 1, fig. 1 [ref. 003667].
- Amphora commutata* Grunow in Van Heurck 1880, (p. 58); pl. 1, fig. 14 [ref. 000895]. Description in Van Heurck 1885, p. 58 (ref. 001040).
- Amphora commutata* var. *constricta* Mereschkowsky 1902, p. 55, 84 [ref. 001381]. No illustration, Mereschkowsky notes however, on p. 84 that this species is *A. angularis* sensu Mereschkowsky 1901, p. 26; pl. 5, fig. 21 (ref. 000650).
- Amphora commutata* f. *constricta* Liebetanz 1926, p. 111; pl. 3, fig. 9 [ref. 001348].
- Amphora commutata* var. *fossilis* (Pantocsek) Cleve 1895, p. 120 [ref. 000949]. Basionym: *Amphora fossilis* Pantocsek 1889.
- Amphora commutata* var. *major* M. Peragallo 1924, p. 249 [ref. 002803].
- Amphora commutata* var. *occidentalis* Amossé 1932, p. 32; pl. 1, fig. 3-4 (as *A. (commutata) var.?* *occidentalis* nov.) [ref. 003338]. *Invalid*. Validly published by Amossé 1932 as *Amphora occidentalis* Amossé.
- Amphora comoroensis* Cleve 1895, p. 111 [ref. 000949].
- Amphora compacta* Mann 1925, p. 19; pl. 3, fig. 6 [ref. 000632].
- Amphora complanata* Grunow 1867, p. 25 [ref. 000431].
- Amphora complexa* Gregory 1857, p. 523; pl. 13, fig. 90 [ref. 000399]. *Invalid?* In reprint: p. 51; pl. 5, fig. 90. Erroneously as “fig. 91” in text and legend (see corrigenda p. 543). Withdrawn as a separate species on p. 543 (corrigenda). Name invalid if corrigenda was simultaneously published with paper.
- Amphora composita* Janisch in Schmidt et al. 1875, pl. 26, fig. 44 [ref. 012447].
- Amphora concerta* (Lewis) Grunow according to Mills 1933, p. 154 [ref. 000998]. *Invalid*. Typographical error for *Amphora conserta* (Lewis) Grunow 1867.
- Amphora conjuncta* Pantocsek 1902, p. 629; pl. 13, fig. 46 [ref. 000718]. (p. 3 of reprint).
- Amphora conserta* (Lewis) Grunow 1867, p. 22 [ref. 000431]. Basionym: *Amphiprora conserta* Lewis 1861.
- Amphora constricta* (Ehrenberg) Carruthers 1864, p. 101 [ref. 000189]. Basionym: *Amphiprora constricta* Ehrenberg 1843.

- Amphora constricta* Grunow in Cleve & Möller 1878, No. 154-155 [ref. 001976]. *Invalid*. Nomen nudum.
- Amphora contorta* Leuduger-Fortmorel 1898, p. 36; pl. 7, fig. 15 [ref. 000608]. In text misprinted “fig. 14”.
- Amphora contracta* Grunow in Schmidt et al. 1875, pl. 25, fig. 54, 55 [ref. 012447]. Fig. 57, 62 are included with question.
- Amphora contracta* sensu Grove & Sturt 1887, p. 131; pl. 10, fig. 4 [ref. 000989]. Described by Grove & Sturt as “*Amphora contracta* Grun. var.?” Described as a new species by Grunow 1888: *Amphora sturtii* Grunow 1888 (ref. 000446).
- Amphora copulata* (Kützing) Schoeman & Archibald 1986, p. 429; fig. 11-13, 30-34 [ref. 005425]. Basionym: *Frustulia copulata* Kützing 1833.
- Amphora copulata* var. *epiphytica* Round & Lee 1989, p. 346; fig. 1-12 [ref. 008738].
- Amphora coraensis* Foged 1964, p. 123; pl. 16, fig. 11 [ref. 000331].
- Amphora corinata* Kützing 1844, p. 108 [ref. 000595]. Citation error for *Amphora carinata* Ehrenberg 1840.
- Amphora corpulenta* Cleve & Grove 1891, p. 68; pl. 10, fig. 14 [ref. 001973].
- Amphora corpulenta* var. *capitata* Tempère & Peragallo 1909, p. 145; No. 268 [ref. 001065].
- Amphora costata* W. Smith 1853, p. 20; pl. 30, fig. 253 [ref. 000863].
- Amphora costata* W. Sm. var. *inflata* (Grunow in Schmidt et al.) H. Peragallo & M. Peragallo 1897-1908, p. 228 [ref. 000733]. Basionym: *Amphora inflata* Grunow in Schmidt et al. 1875. As “*Amphora costata* var.” in Atlas on caption for pl. 50, fig. 18, 19 (ref. 001054; issued 1899). Description was published between 1897-1899 (probably 1899 for p. 228).
- Amphora costata* sensu Fricke 1902, p. 12 [ref. 002239]. [according to VLC].
- Amphora costulata* Skvortzow 1937, p. 342; pl. 12, fig. 1 [ref. 000846].
- Amphora crameri* Foged 1966, p. 103, 144; pl. 19, fig. 8 [ref. 006033].
- Amphora crassa* Gregory 1857, p. 72; pl. 1, fig. 35 [ref. 002719]. Also in Gregory 1857, p. 524, pl. 6, fig. 94 (ref. 000399).
- Amphora crassa* var. *antarctica* M. Peragallo 1924, p. 21; pl. 1, fig. 2 [ref. 000738].
- Amphora crassa* var. *campechiana* Grunow in Schmidt et al. 1875, pl. 28, fig. 16 [ref. 012447].
- Amphora crassa* var. *degenerata* Cleve 1895, p. 109 [ref. 000949].
- Amphora crassa* var. *egregia* Cleve & Möller 1879, No. 257 [ref. 001978]. *Invalid*. Nomen nudum.
- Amphora crassa* var. *elongata* Cleve 1895, p. 109 [ref. 000949].
- Amphora crassa* var. *euprepes* Pantocsek 1886, p. 21; pl. 14, fig. 128 (as “*Amphora* (*crassa* Greg. var.?) *euprepes* nov. spec. in text and fig. caption) [ref. 000714]. *Invalid*. Name validly published by Pantocsek 1886 as *Amphora euprepes*. Trinomial validated by Cleve 1895, p. 109 (ref. 000949).
- Amphora crassa* var. *euprepes* (Pantocsek) Cleve 1895, p. 109 [ref. 000949]. Basionym: *Amphora euprepes* Pantocsek 1886.
- Amphora crassa* var. *gemmata* Jurilj 1957, p. 116; pl. 30, fig. 7 [ref. 000553].
- Amphora crassa* var. *incurva* Grunow 1867, p. 24 [ref. 000431].
- Amphora crassa* var. *interlineata* (Grove & Sturt) Cleve 1895, p. 109 [ref. 000949]. Basionym: *Amphora interlineata* Grove & Sturt 1887.
- Amphora crassa* var. *interrupta* Lin & Chin 1980, p. 109; fig. C [ref. 008497]. [according to ANSP].
- Amphora crassa* var. *italiae* Zanon 1929, p. 451; fig. 19 [ref. 000929].
- Amphora crassa* var. *minor* Pantocsek 1889, p. 36; pl. 3, fig. 51 [ref. 001033].
- Amphora crassa* f. *minor* Zanon 1948, p. 222; text fig. 4 (on p. 221) (as *Amphora crassa* var. *soelswigiensis* f. *minor*) [ref. 000932]. *Illegitimate*. Non *Amphora crassa* var. *minor* Pantocsek 1889.
- Amphora crassa* var. *modesta* Cleve 1895, p. 109 [ref. 000949].
- Amphora crassa* var. *oceanica* Heiden in Heiden & Kolbe 1928, p. 637; pl. 1 (31), fig. 3 [ref. 000473].
- Amphora crassa* f. *parva* Cleve & Möller 1879, No. 257 (as *Amphora crassa* var. *egregia* f. *parva*) [ref. 001978]. *Invalid*. Nomen nudum.
- Amphora crassa* var. *punctata* Grunow in Schmidt et al. 1875, pl. 28, fig. 30-33 [ref. 012447].
- Amphora crassa* var. *seychellensis* Cleve 1895, p. 110 [ref. 000949].
- Amphora crassa* var. *soelswigiensis* (Petit) Cleve 1895, p. 109 (“var. *sölswigiensis*”) [ref. 000949]. Basionym: *Amphora soelswigiensis* Petit 1888.
- Amphora crassa* var. *spuria* Cleve 1895, p. 110 [ref. 000949].
- Amphora crassa* sensu Briggs 1873, p. 234; pl. 4, fig. 5 [ref. 000164]. As “*A. crassa* Greg. D. C., f. 94”. Briggs notes: “in Gregory’s figure these [puncta] are not accurately drawn”.
- Amphora crassa* sensu Hanna & Grant 1926, p. 124; pl. 12, fig. 5 [ref. 000012]. As “*Amphora crassa* Gregory”. Hanna & Grant note: “Our specimen does not seem to differ from the above [*A. crassa* Greg.] sufficiently to warrant specific separation”.
- Amphora crassocostata* Missuna 1914, p. 143; fig. 82 (‘*crasso-costata*’) [ref. 000663].
- Amphora crassopunctata* Missuna 1914, p. 144; fig. 78 (‘*crasso-punctata*’) [ref. 000663].
- Amphora crenulata* A.H. Wachnicka & E.E. Gaiser 2007, p. 398, 446; fig. 25-28 [ref. 012976].
- Amphora crescens* Mann 1907, p. 374; pl. 44, fig. 3 [ref. 000631]. Mann cites “*Amphora crassa punctata* Grun.? Schmidt, Atlas pl. 28. f. 32. 1875”.
- Amphora cristata* Petit 1878, p. 240; pl. 14, fig. 8 [ref. 002117]. Previously published in Petit 1877 “Fond de la Mer”, p. 18;

- pl. 4, fig. 8 (ref. 000747)?
- Amphora cristodenata* Skabichevskii 1936, p. 715, 721; pl. 3, fig. 25 [ref. 000826].
- Amphora cruciata* Østrup 1897, p. 326; pl. 2, fig. 6 [ref. 000700].
- Amphora cruciata* Brander 1933, p. 26; fig. 4 c [ref. 000156]. *Illegitimate*. Non Østrup 1897.
- Amphora crucifera* Cleve-Euler 1922, p. 53 [ref. 000247]. *Invalid*. No illustration (fossil). Validated by Cleve-Euler 1932, p. 65, fig. 142 (ref. 000246). Also in Cleve-Euler 1953, p. 91, fig. 669 (ref. 001042).
- Amphora crucifera* Cleve-Euler 1932, p. 65; fig. 142 (as *Amphora* (*pusio* Cl. v.?) *crucifera* A. Cl.) [ref. 000248]. Previously invalid in Cleve-Euler 1922, p. 53 (ref. 000247). Also in Cleve-Euler 1953, p. 91, fig. 669 (ref. 001042).
- Amphora cruciferoides* Stoermer & Yang 1971, p. 401; fig. 3 a, b [ref. 006007].
- Amphora crystallina* Ehrenberg 1840, p. 205 [ref. 000293].
- Amphora cucumeris* Mann 1925, p. 20; pl. 3, fig. 7 [ref. 000632].
- Amphora cuneata* Cleve in Schmidt et al. 1876, pl. 39, fig. 29 [ref. 012449].
- Amphora curvata* Pantocsek 1889, p. 36; pl. 1, fig. 11 [ref. 001033].
- Amphora cyclops* Leuduger-Fortmorel 1879, p. 22; pl. 8, fig. 82 [ref. 000606].
- Amphora cymbamphora* Cholnoky 1960, p. 22; pl. 1, fig. 54 [ref. 000208].
- Amphora cymbelloides* Grunow 1867, p. 24 [ref. 000431].
- Amphora cymbelloides* var. *latior* A. Schmidt in Schmidt et al. 1875, pl. 25, fig. 8 (as *A. cybelloides* Grunow var. *latior*) [ref. 012447].
- Amphora cymbelloides* var. *mauritiana* Grunow 1867, p. 25 [ref. 000431].
- Amphora cymbelloides* var. *obtusiuscula* Cleve & Möller 1879, No. 198 [ref. 001977]. *Invalid*. Nomen nudum.
- Amphora cymbelloides* A. Schmidt in Schmidt et al. 1875, pl. 25, fig. 14 (as *Amphora cymbelloides* Grunow?) [ref. 012447]. Non *A. cymbelloides* Grunow?
- Amphora cymbellula* Mereschkowsky 1902, p. 147(41) [ref. 001382]. *Invalid*. Nomen nudum. As *Cymbophora cymbellula* Mereschkowsky (name only) on pp. 54, 149.
- Amphora cymbifera* Gregory 1857, p. 526; pl. 14, fig. 97 [ref. 000399]. In reprint: p. 54; pl. 6, fig. 97.
- Amphora cymbifera* Greg. var. *gigantea* Grunow in Van Heurck 1882-1885, p. 122; Type No. 546 [ref. 000896]. *Invalid*. Nomen nudum. Described by Cleve 1895, p. 122 (ref. 000949) as *Amphora eunotia* var. *gigantea* Grun.
- Amphora cymbifera* Greg. var. *heritierarum* A.H. Wachnicka & E.E. Gaiser 2007, p. 394, 446; fig. 2-8 [ref. 012976].
- Amphora cymbifera* Greg. var. *rara* Frenguelli 1945, p. 190; pl. 10, fig. 6 [ref. 000365].
- Amphora cymbifera* Cleve 1883, p. 462 [ref. 000224]. *Illegitimate*. Non Gregory 1857. As *A. cymbifera* (Greg.?) Cl., with a description and a reference to an unnamed specimen in Schmidt's Atlas (1875) pl. XXV, fig. 35 (ref. 012447). Can probably be treated as the name of a new taxon, not a "sensu". Synonym: *Amphora erebi* f. *cymbifera* De Toni 1891.
- Amphora cymbiformis* Ehrenberg 1854, pl. 16/1, fig. 43 [ref. 000966]. As "*Amphora ? cymbiformis ?*" on p. 8, and "*Cocconema? cymbiforme (Amphora ?)*" in plate caption. Described from figure by Ralfs in Pritchard 1861, p. 885 (ref. 001063). Possibly a new combination of *Cocconema cymbiforme* Ehrenberg 1838.
- Amphora cymbiformis* Cleve 1895, p. 136 [ref. 000949]. *Illegitimate*. Non Ehrenberg 1854. Cleve refers to illustration without name in Schmidt 1875, pl. 25, fig. 9 (ref. 012447).
- Amphora czekeházensis* Pantocsek 1889, p. 36; pl. 1, fig. 6 [ref. 001033].
- Amphora dalaica* Skvortzow 1971, p. 85, 86 [ref. 008823]. *Invalid?* No description. Mentioned under *Amphora dalaica* var. *cornuta* (p. 85), and *Amphora dalaica* var. *gracilis* (p. 86), with reference to pl. 146, fig. 25 in an unpublished 1957 manuscript. Also mentioned under *A. dalaica* var. *hinganica* Skvortzov 1976, p. 417 (ref. 003229), but cited as Tab. 145, figs. 17, 18.
- Amphora dalaica* var. *cornuta* Skvortzow 1971, p. 85; pl. 13, fig. 9 [ref. 008823]. May be invalid if *Amphora dalaica* is invalid.
- Amphora dalaica* var. *gracilis* Skvortzow 1971, p. 86; pl. 13, fig. 10 [ref. 008823]. May be invalid if *Amphora dalaica* is invalid.
- Amphora dalaica* var. *hinganica* Skvortzow 1976, p. 417; fig. 278 [ref. 003229]. May be invalid if *Amphora dalaica* is invalid.
- Amphora dalaica* var. *oculata* Skvortzov 1976, p. 417 [ref. 003229]. *Invalid*. Mentioned under *Amphora dalaica* var. *hinganica*, with reference to a 1957 manuscript (Tab. 145, figs. 17-18; Tab. 149, figs. 9-10). No description or illustration.
- Amphora dannfeltii* A. Berg 1952, p. 21, 35; fig. 8 [ref. 000136]. *Illegitimate*. New name for *Amphora staurophora* Juhlin-Dannfelt 1882, non Castracane 1886. *Illegitimate*: renamed the older synonym.
- Amphora debyi* Leuduger-Fortmorel 1892, p. 10; pl. 1, fig. 4 [ref. 000607].
- Amphora decipiens* Grunow in Van Heurck 1883, pl. 22B, fig. 11 (as "*Amphora (Amphoropsis) decipiens* Grun. (*Amphiprora plicata* Gregory?)") [ref. 001037].
- Amphora decipiens* Cleve 1895, p. 108; pl. 4, fig. 16, 17, 18 [ref. 000949]. *Illegitimate*. Non *Amphora decipiens* Grunow in Van Heurck 1883.
- Amphora decipiens* Cleve var. *neceaensis* 'H. Peragallo' Mills 1933, p. 156 [ref. 000998]. *Invalid*. Citation error for *Am-*



- phora decussata* var. *niceaensis* Peragallo & Peragallo 1899.
- Amphora decloitrei* Amossé 1970, p. 293; pl. 3, fig. 2 [ref. 008058]. *Invalid*. No Latin diagnosis, type not indicated.
- Amphora decloitrei* var. *rufisquiana* Amossé 1970, p. 293 [ref. 008058]. *Invalid*. No illustration, type not indicated, no Latin diagnosis.
- Amphora decora* Castracane 1886, p. 18; pl. 27, fig. 14 [ref. 000193].
- Amphora decussata* Grunow 1867, p. 23 [ref. 000431]. Replaces the herbarium name *A. stauroneiformis* Lorenz.
- Amphora decussata* var. *briocensis* Leuduger-Fortmorel ex Cleve 1895, p. 129; pl. 4, fig. 11 [ref. 000949].
- Amphora decussata* var. *niceaensis* H. Peragallo & M. Peragallo 1899, p. 222; pl. 49, fig. 25 [ref. 001054].
- Amphora decussata* var. *robusta* Tempère & H. Peragallo 1915, p. 13 (Table des espèces) [ref. 001071]. *Invalid*. Nomen nudum.
- Amphora deflecta* Andrews 1971, p. E13; pl. 2, fig. 6, 7 [ref. 006295].
- Amphora deflexa* G.S. West 1919, p. 35-40, 1 pl. [ref. 003122]. [according to VLC].
- Amphora delapunctata* Hohn & Hellerman 1966, p. 120; pl. 1, fig. 19 [ref. 008350].
- Amphora delicatissima* Krasske in Hustedt 1930, p. 346; fig. 635 [ref. 000502].
- Amphora delicatissima* var. *protracta* Nygaard 1954, p. 311; fig. 2 [ref. 000687].
- Amphora delicatissima* f. *sinica* Skvortzow 1935, p. 10; pl. 2, fig. 6 [ref. 000841].
- Amphora delicatula* L. S. Bljulina 1959, p. 68, fig. 5, 6 [ref. 000143].
- Amphora delphina* L.W. Bailey 1861, p. 162 [ref. 007053]. Also in L.W. Bailey 1862, p. 330, fig. 1 (ref. 000125).
- Amphora delphinea* Cleve 1895, p. 134 (as *A. delphinea* (Bail.1861?) A.S. Atlas (1876)) [ref. 000949]. Name for *Amphora delphinea* sensu Schmidt 1876, pl. 40, fig. 26, 27? Cleve clearly refers to illustrations in Schmidt, and refers with question to Bailey's taxon.
- Amphora delphinea* var. *jamaicensis* (Cleve & Grunow) Cleve 1895, p. 134 [ref. 000949]. Basionym: *Amphora ocellata* Donk. var. *jamaicensis* 'Cleve & Grunow' Cleve 1895.
- Amphora delphinea* var. *javanica* Meyer 1938 [ref. 002519]. According to Hollerbakh & Krasavina 1971, p. 26. [according to VLC].
- Amphora delphinea* var. *minor* Cleve 1895, p. 134 [ref. 000949]. Cleve refers to illustration with no name in Schmidt et al. 1876 (ref. 012449), pl. 40, fig. 25.
- Amphora delphinea* sensu Schmidt in Schmidt et al. 1876, pl. 40, fig. 25 (as *Amphora delphinea* Bailey) [ref. 012449]. The specimen illustrated in fig. 25 was named *Amphora delphinea* var. *minor* by Cleve 1895, p. 134 (ref. 000949).
- Amphora delta* Karsten 1899, p. 108; fig. 142 [ref. 000558].
- Amphora densistriata* Hajós 1973, p. 375 (fig. caption), Table 1 (p. 377); pl. 5, fig. 85 [ref. 003202]. *Invalid*. No description.
- Amphora depravata* Eichwald 1860, p. 209; fig. 4 [ref. 002696].
- Amphora detoni* Brun 1895, pl. 17, fig. 104 ('*De Toni*') [ref. 000181]. No description.
- Amphora diaphana* Cleve 1895, p. 112; pl. 4, fig. 27 [ref. 000949].
- Amphora dichotoma* Mann 1925, p. 21; pl. 4, fig. 1 [ref. 000632].
- Amphora diducta* Schmidt in Schmidt et al. 1875, pl. 25, fig. 13 [ref. 012447].
- Amphora digitus* Schmidt in Schmidt et al. 1875, pl. 26, fig. 30 [ref. 012447].
- Amphora dissimilis* D. Metzeltin & K. Krammer in G. Moser, H. Lange-Bertalot & D. Metzeltin 1998, p. 90; pl. 43, fig. 1-8 [ref. 007020]. [according to INA].
- Amphora distincta* Hérilbaud 1903, p. 15; pl. 9, fig. 2 [ref. 000992].
- Amphora divisa* Leuduger-Fortmorel 1879, p. 21; pl. 1, fig. 15 [ref. 004789].
- Amphora doddii* Selva 1981, p. 86; pl. 1, fig. 3 [ref. 008778]. [according to ANSP].
- Amphora domkeana* Jurilj 1957, p. 117-118; pl. 32, fig. 1, 2 [ref. 000553].
- Amphora donkinii* Rabenhorst 1864, p. 96 [ref. 000775].
- Amphora dorsalis* Cleve & Grove 1892, p. 158; pl. 22, fig. 13-15 [ref. 000239].
- Amphora dubia* Gregory 1857, p. 514; pl. 13, fig. 76 [ref. 000399]. In reprint: p. 42; pl. 5, fig. 76.
- Amphora dubiosa* Østrup 1918, p. 39; pl. 4, fig. 59 [ref. 000710].
- Amphora dura* Mann 1925, p. 22; pl. 4, fig. 2 [ref. 000632].
- Amphora dusenii* Brun 1901, p. 16; pl. 2, fig. 14-16 [ref. 000184].
- Amphora dusenii* f. *simplex* Krasske 1938, p. 533 (= fig. caption); pl. 11, fig. 26 [ref. 000586]. *Invalid*. No description. Not mentioned in text (p. 530-531). As "var. *simplex*" on Table 2 (p. 517).
- Amphora eatoniana* O'Meara 1874, p. 259; pl. 8, fig. 7 [ref. 000693].
- Amphora egregia* Ehrenberg 1861, p. 294 [ref. 000307].
- Amphora egregia* var. *exornata* (Janisch in Schmidt et al.) H. Peragallo & M. Peragallo 1898, p. 209; pl. 46; fig. 3, 4 [ref. 001053]. Basionym: *Amphora exornata* Janisch in Schmidt et al. 1876.
- Amphora egregia* var. *ininterrupta* H. Peragallo & M. Peragallo 1898, p. 209; pl. 46, fig. 6, 7, 11 [ref. 001053].
- Amphora egregia* var. *interrupta* 'H. Peragallo' Mills 1933, p. 158 [ref. 000998]. *Invalid*. Citation error for *Amphora egregia* var. *ininterrupta* H. Peragallo & M. Peragallo 1898.

- Amphora egregia* var. *neogradensis* Pantocsek 1889, p. 38; pl. 4, fig. 64 (as *Amphora (egregaria) E. var.?*) *neogradensis* n.s. in text and plate caption [ref. 001033]. *Invalid*. Validly published by Pantocsek as *Amphora neogradensis*. Combination as trinomial listed by VanLandingham 1967, p. 214 (ref. 006293), but not validated (not accepted).
- Amphora egregia* var. *oamaruensis* 'Grove ms. (Grove collection)' according to F.W. Mills 1933, p. 158 [ref. 000998]. No reference cited.
- Amphora egregia* var. *polita* (Cleve) H. Peragallo & M. Peragallo 1898, p. 209; pl. 46, fig. 10 [ref. 001053]. Basionym: *Amphora inelegans* var. *polita* Cleve 1895.
- Amphora egregia* var. *rigida* Cleve-Euler 1953, p. 95; fig. 676B [ref. 001042].
- Amphora ehrenbergii* Woodhead & Tweed 1960, p. 359 [ref. 000925]. *Invalid?* New name for *Amphora pediculus* (Kützing) Grunow (sensu Grunow in Van Heurck 1880, pl. 1, fig. 6-7; ref. 000895), non *Cocconeis pediculus* Ehrenberg. May be invalid: no description, and direct reference to illustration in Van Heurck is lacking.
- Amphora ehta* Karsten 1899, p. 109; fig. 144 [ref. 000558].
- Amphora elegans* Gregory 1857, p. 70; pl. 1, fig. 30 [ref. 002719].
- Amphora elegans* sensu H. Peragallo in Tempère & Peragallo 1889, p. 204-205; No. 414 [ref. 000881]. *Invalid*. As *Amphora elegans* Gregory, with the notes on p. 204, that it is near *A. elegans* Greg. No description. Name validly published by H. Peragallo in Cleve 1893.
- Amphora elegans* H. Peragallo in Cleve 1893, p. 56; pl. 3, fig. 8 [ref. 000230]. *Illegitimate*. Non Gregory 1857. Synonym (substitute name): *Amphora longa* Hustedt 1955.
- Amphora elegantula* Hustedt 1955, p. 41; pl. 14, fig. 7 [ref. 000530].
- Amphora elliptica* (Agardh) Kützing 1844, p. 108; pl. 5, fig. 31 [ref. 000595]. Basionym: *Frustulia elliptica* Agardh 1824.
- Amphora elongata* Gregory 1857, p. 521; pl. 13, fig. 84 [ref. 000399]. In reprint: p. 49; pl. 5, fig. 84.
- Amphora enoculata* Héribaud 1908, p. 55; pl. 13, fig. 3 [ref. 000993].
- Amphora epiphytica* Skvortzow 1946, p. 23; pl. 3, fig. 25 [ref. 000854].
- Amphora epsilon* Karsten 1899, p. 111; fig. 148 [ref. 000558].
- Amphora erebi* Ehrenberg 1853, p. 526 [ref. 001189].
- Amphora erebi* f. *cymbifera* De Toni 1891, p. 387 [ref. 000271]. Intended new combination of *Amphora cymbifera* Cleve 1883 (illegitimate, non Gregory 1857); we treat it as a new name in accordance with ICBN Art. 58.
- Amphora erebi* f. *cymbifera* (Gregory) Zimmermann 1918, p. 117 [ref. 010188]. Basionym: *Amphora cymbifera* Gregory 1857. *Illegitimate*. Non De Toni 1891. [according to INA].
- Amphora erezii* Reimer & Lee 1988, p. 348; fig. 26-30 [ref. 005253].
- Amphora ergadensis* Gregory 1857, p. 512; pl. 12, fig. 71 [ref. 000399]. In reprint: p. 40; pl. 4, fig. 71.
- Amphora eulensteinii* Grunow in Schmidt et al. 1875, pl. 25, fig. 1-3 [ref. 012447].
- Amphora eulensteinii* var. *fossilis* Pantocsek 1889, p. 36; pl. 1, fig. 3, pl. 3, fig. 49 [ref. 001033].
- Amphora eulensteinii* var. *minor* M. Peragallo 1897 [ref. 000736]. *Invalid?* Unpublished manuscript? Cited by Forti 1909, p. 121 (ref. 000489).
- Amphora eulensteinii* var. *vitrea* Tempère & Peragallo 1889, p. 123; No. 241 [ref. 000881]. *Invalid*. Nomen nudum.
- Amphora eunotia* Cleve 1873, p. 21; pl. 3, fig. 17 [ref. 000220].
- Amphora eunotia* var. *baltica* Cleve-Euler 1940, p. 303 [ref. 001636]. *Invalid*. No illustration (fossil). [according to INA].
- Amphora eunotia* var. *gigantea* Grunow in Cleve 1895, p. 122 [ref. 000949]. Cleve cites *Amphora cymbifera* var. *gigantea* Grun. in V.H. Type no. 546.
- Amphora eunotia* var. *japonica* Skvortzow 1932, p. 145; pl. 6, fig. 24 [ref. 000836].
- Amphora eunotia* var. *striolata* Frenguelli 1934, p. 359; pl. 2, fig. 22 (as *Amphora (Halamphora) eunotia* var. *striolata*) [ref. 000359].
- Amphora eunotiaeformis* Grunow in Schmidt et al. 1876, pl. 39, fig. 5 [ref. 012449].
- Amphora euprepes* Pantocsek 1886, p. 21; pl. 14, fig. 128 (as *Amphora (crassa) Greg. var.?*) *euprepes* nov. spec.) [ref. 000714].
- Amphora evanida* Giffen 1984, p. 187-188; pl. 1, fig. 15-17 [ref. 008264].
- Amphora excisa* Gregory 1857, p. 521; pl. 13, fig. 86 [ref. 000399]. In reprint: p. 49; pl. 5, fig. 86.
- Amphora excludens* Mann 1925, p. 9F; pl. 1, fig. 3 [ref. 000633].
- Amphora exigua* Gregory 1857, p. 514; pl. 12, fig. 75 [ref. 000399]. In reprint: p. 42; pl. 4, fig. 75.
- Amphora exigua* var. *robusta* Cholnoky 1960, p. 23; pl. 1, fig. 57 [ref. 000208].
- Amphora exilis* 'Kützing' according to Tempère & Peragallo 1889, p. 182, No. 358 [ref. 000881]. *Invalid*. No description. No reference.
- Amphora exilissima* Giffen 1966, p. 251; pl. 59(1), fig. 8, 9 [ref. 004242].
- Amphora exilitata* Giffen 1971, p. 2; pl. 1, fig. 5-7 [ref. 004244].
- Amphora eximia* J.R. Carter in Haworth 1974, p. 48; fig. 3, 14 [ref. 002707].
- Amphora exornata* Janisch in Schmidt et al. 1876, pl. 39, fig. 26 [ref. 012449].
- Amphora exsecta* Grunow in Schmidt et al. 1875, pl. 27, fig. 55 [ref. 012447].

- Amphora extensa* Salah 1955, p. 100; pl. 1, fig. 28 [ref. 000802].
- Amphora fallax* Tempère & Brun in Brun & Tempère 1889, p. 14; pl. 7, fig. 13 [ref. 000185].
- Amphora farcimen* Grunow in Schmidt et al. 1875, pl. 27, fig. 57 [ref. 012447].
- Amphora farcimen* var. *crassa* M. Peragallo in Peragallo & Peragallo 1911, p. 9; pl. 1, fig. 8 [ref. 000734].
- Amphora farcimen* var. *fusca* (Schmidt in Schmidt et al.) Tempère & Peragallo 1912, p. 318; No. 647, 648? (as *Amphora farcimen* fa. *fusca* A.S.) [ref. 001068]. Basionym: *Amphora fusca* Schmidt in Schmidt et al. 1875.
- Amphora farcimen* var. *gigantea* M. Peragallo in Peragallo & Peragallo 1911, p. 9; pl. 1, fig. 2 [ref. 000734].
- Amphora farciminosa* M. Peragallo in Peragallo & Peragallo 1911, p. 7; pl. 1, fig. 1 [ref. 000734].
- Amphora fasciata* Ehrenberg 1840, p. 205 [ref. 000293].
- Amphora fasciata* Gregory 1857, p. 523; pl. 13, fig. 91 [ref. 000399]. *Illegitimate*. Non Ehrenberg 1840. In reprint: p. 51; pl. 5, fig. 91. Erroneously as “fig. 90” in text and legend (see corrigenda p. 543).
- Amphora faurelii* Amossé 1941, p. 147; fig. 7-8 (as *Amphora (Sancti-Martiali)* M Per.?) var. *Faureli* nov.) [ref. 000109]. *Invalid*. Validly published in this publication as *A. Sancti martiali* var. *faurelii* Amossé. Combination as a trinomial listed but not validated by VanLandingham 1967, p. 217 (ref. 006293).
- Amphora ferrazae* Cholnoky 1968, p. 236; fig. 1 [ref. 003670].
- Amphora ferrosis* Meyer 1938 [ref. 002519]. According to Hollerbakh & Krasavina 1974, p. 26. [according to VLC].
- Amphora fimbriata* Cleve & Grove in Cleve 1895, p. 139 [ref. 000949].
- Amphora fischeri* Kützing 1844, p. 142, 146; pl. 5, fig. 38 [ref. 000595]. As *Amphora coffeaeformis* β *Fischeri* on p. 108. As *Amphora fischeri* in plate caption (p. 142), and index (p. 146). Both names are validly published.
- Amphora fischeri* sensu Neupauer 1867, p. 190; pl. 2, fig. 32 (as *Amphora Fischeri* Ktz?) [ref. 000683]. *Illegitimate*. Non Kützing 1844. Valid as the name of a new taxon. Synonym (nomenclatural): *Amphora striolata* Pantocsek 1889.
- Amphora fischeri* (Kützing) H.L. Smith 1873, p. 84 [ref. 001006]. Basionym: *Amphora coffeaeformis* var. *fischeri* Kützing 1844. Isonym. Names *Amphora fischeri* Kützing 1844 and *Amphora coffeaeformis* var. *fischeri* Kützing 1844 were previously simultaneously validly published.
- Amphora flammiger* Leuduger-Fortmorel 1898, p. 36; pl. 7, fig. 16 [ref. 000608].
- Amphora flebilis* Simonsen 1960, p. 128; pl. 2, fig. 4-6 [ref. 000824]. *Invalid*. Type not designated.
- Amphora flexa* Mann 1925, p. 22; pl. 4, fig. 4 [ref. 000632].
- Amphora flexuosa* Greville 1863, p. 183; pl. 4, fig. 4 [ref. 000414]. Also in Greville 1863, p. 576, pl. XV: fig. 4 (ref. 001029).
- Amphora flexuosa* A. Schmidt in Schmidt et al. 1875, pl. 25, fig. 82 (as *A. flexuosa* Greville?) [ref. 012447]. Non *Amphora flexuosa* Greville 1863?
- Amphora floridae* A.H. Wachnicka & E.E. Gaiser 2007, p. 414, 448; fig. 90-93 [ref. 012976].
- Amphora fluminensis* Grunow 1863, p. 148; pl. 13, fig. 15 [ref. 000429].
- Amphora fluminensis* Grunow in Schmidt et al. 1875, pl. 25, fig. 24 [ref. 012447]. Name previously published by Grunow 1863 (ref. 000429), possibly for the same species (figures are very similar). Not intended by Schmidt as the name of a new species. The specimen illustrated in Schmidt 1875 is from Singapore, whereas the specimen in Grunow 1863 is from the Adriatic Sea. Cleve 1895, p. 123 (ref. 000949) treats them as different species, and cites *Amphora fluminensis* Grunow in Schmidt 1875 in synonymy of *Amphora turgida* Gregory.
- Amphora fluminensis* var. *curta* Rochoux d’Aubert in Héribaud 1920, p. 69; pl. 4, fig. 6 [ref. 000482].
- Amphora fogediana* Krammer in Krammer & Lange-Bertalot 1985, p. 9; pl. 10, fig. 1-3 [ref. 006263].
- Amphora fonticola* Maillard 1967, p. 29; fig. 10 [ref. 008533]. *Invalid*. Type not designated.
- Amphora fontinalis* Hustedt 1937, p. 414; pl. 24, fig. 4, 5 [ref. 001013].
- Amphora formosa* Cleve in Schmidt et al. 1875, pl. 28, fig. 34 [ref. 012447]. Schmidt notes: “viell. *A. formosa* Cleve zu rechnen”. Also illustrated in A. Schmidt 1876, pl. 39, fig. 2 (ref. 012449).
- Amphora formosa* Cleve var. *minuta* Cleve 1895, p. 138 [ref. 000949].
- Amphora formosa* Cleve var. *studerii* (Janisch in Schmidt et al.) H. Peragallo & M. Peragallo 1898, p. 214; pl. 47, fig. 18 [ref. 001053]. Basionym: *Amphora studerii* Janisch in Schmidt et al. 1876.
- Amphora formosa* Leuduger-Fortmorel 1879, pl. 2, fig. 16 [ref. 000606]. Illustrated as a new species (“nov. spec.”). Leuduger notes, however, on p. 21: “*A. formosa?* (Cleve). Pl. 2, f. 16. J’hésite à considérer cet *Amphora* comme une espèce nouvelle; je suis porté à croire que c’est l’*A. formosa* de Cleve, représentée par Ad. Schmidt in Atlas, pl. 39, f. 2” (I hesitate to consider this *Amphora* a new species; I tend to believe that it is *A. formosa* Cleve illustrated by Schmidt in Atlas, pl. 39, fig. 2).
- Amphora fossilis* Pantocsek 1889, p. 36; pl. 1, fig. 2 [ref. 001033].
- Amphora foveauxiana* Taylor 1970, p. 172 [ref. 008885]. New name for *Amphora schmidtii* Petit 1877, non *A. schmidtii* Grunow in Schmidt 1875.
- Amphora francescae* Giffen 1970, p. 266; pl. 1, fig. 16, 17 [ref. 004243].
- Amphora frenguelli* Forti in Frenguelli 1934, p. 359 (as *Amphora (Halamphora) Frenguelli* Forti) [ref. 000359]. Refers to Frenguelli 1923, p. 34; pl. 1, fig. 10 (ref. 000347) where it is described and illustrated as “*Amphora* n. sp.”.
- Amphora frickei* Reichelt 1903, p. 775; fig. 36 [ref. 000785].

- Amphora furcata* Leuduger-Fortmorel 1879, p. 20; pl. 1, fig. 11 [ref. 000606].
- Amphora fusca* Schmidt in Schmidt et al. 1875, pl. 27, fig. 68 [ref. 012447].
- Amphora fusca* f. *lata* M. Peragallo in Peragallo & Peragallo 1911, p. 6; pl. 1, fig. 4 [ref. 000734].
- Amphora gallurae* Zanon 1948, p. 223; fig. 7 [ref. 000932].
- Amphora gamma* Karsten 1899, p. 107; fig. 141 [ref. 000558].
- Amphora gamtoosae* Giffen 1963, p. 218; pl. 2, fig. 21 [ref. 000383].
- Amphora geinitzi* Heiden 1900, p. 2; fig. 1 [ref. 000472].
- Amphora gemmifera* Petit 1888, p. 120; pl. 10, fig. 12 [ref. 000751].
- Amphora geniculata* Hustedt 1922, p. 142; pl. 9, fig. 25, 26 [ref. 000496].
- Amphora genkalii* Guslyakov 1987, p. 1394-1395; pl. 2, fig. 13 [ref. 008280].
- Amphora gibba* Schmidt in Schmidt et al. 1876, pl. 39, fig. 32 [ref. 012449].
- Amphora gibberosa* Mouneimne 1974, p. 331; fig. 3 A [ref. 008615]. [according to ANSP].
- Amphora gibberula* Missuna 1914, p. 144; fig. 32 [ref. 000663].
- Amphora gieskesii* Cholnoky 1963, p. 160; pl. 25, fig. 7-8 [ref. 000213].
- Amphora gigantea* Grunow in Schmidt et al. 1875, pl. 27, fig. 46, 46\* [ref. 012447].
- Amphora gigantea* var. *andesitica* Pantocsek 1889, p. 36 [ref. 001033]. Illustrated in Pantocsek 1892, pl. 17, fig. 243 (ref. 001034).
- Amphora gigantea* var. *fusca* (Schmidt in Schmidt et al.) Cleve 1895, p. 106 [ref. 000949]. Basionym: *Amphora fusca* Schmidt in Schmidt et al. 1875.
- Amphora gigantea* f. *minor* Cleve 1895, p. 106 (as *Amphora gigantea* var. *obscura* f. *minor*) [ref. 000949]. Cleve refers to illustrations with no name in Schmidt's Atlas (1876), pl. 40, fig. 28, 29 (ref. 012449).
- Amphora gigantea* f. *minor* (Cleve) Fricke 1902, p. 12 [ref. 002239]. Basionym: *Amphora gigantea* f. *minor* Cleve 1895. [according to VLC]. Fricke did not publish a new combination of *Amphora gigantea* (var. *obscura*) f. *minor* Cleve, but rather expressed a taxonomic opinion.
- Amphora gigantea* f. *minor* Tempère & Peragallo 1913, p. 398; No. 825 [ref. 001069]. *Invalid*. Nomen nudum.
- Amphora gigantea* var. *nodosa* Tempère & Peragallo 1914, p. 453; No. 932 [ref. 001070]. *Invalid*. Nomen nudum.
- Amphora gigantea* var. *obscura* Cleve 1895, p. 106; pl. 4, fig. 28, 29 [ref. 000949]. Cleve also refers to a figure without a name in Schmidt's Atlas 1875, pl. 28, fig. 20 (ref. 012447).
- Amphora gigas* Ehrenberg 1854, p. 8; pl. 6/2, fig. 13 [ref. 000966]. Described from figure by Ralfs in Pritchard 1861, p. 885 (ref. 001063).
- Amphora globosa* Schumann 1867, p. 55; pl. 1, fig. 24 [ref. 001004]. Also in Schumann 1867, p. 133 (ref. 012535), according to ANSP.
- Amphora globulosa* Schumann 1867, p. 55; pl. 1, fig. 25 [ref. 001004].
- Amphora globulosa* var. *perpusilla* Grunow in Van Heurck 1880, pl. 1, fig. 11 [ref. 000895]. Described as *Amphora perpusilla* Grun. in Van Heurck 1885 (ref. 001040), p. 58. Also described in Van Heurck 1882, Type no. 4 (ref. 0008096) as *Amphora (globulosa Schum. var.?) perpusilla* Grun.
- Amphora gobii* Mereschkowsky 1902, p. 55 (5), 84 (34) [ref. 001381].
- Amphora gourdonii* M. Peragallo 1921, p. 60; pl. 2, fig. 23 [ref. 000737].
- Amphora gouwsii* Cholnoky 1953, p. 352; fig. 1 [ref. 000197].
- Amphora gracilis* Ehrenberg 1843, p. 316, 410; pl. 3/1, fig. 43 [ref. 000294].
- Amphora gracilis* var. *angusta* Ehrenberg 1845, p. 360 (as *Amphora angusta* = *Amphora gracilis*  $\beta$  *angusta*) [ref. 000957]. *Invalid*. Intended combination of *Amphora angusta* Ehr. (invalid)? Nomen nudum.
- Amphora gracilis* f. *exilis* 'Gutwinski' according to Hollerback & Krasavina 1971, p. 26 (as *Amphora gracilis* var. *pediculus* f. *exilis*) [ref. 002458]. *Invalid*. Citation error for *Amphora ovalis* var. *pediculus* f. *exilis* Grunow 1885. Gutwinski's 1895 entry (ref. 001691), p. 122(395) is a correct citation of Grunow's name.
- Amphora gracilis* f. *minor* 'Gutwinski' according to Hollerback & Krasavina 1971, p. 26 (as *Amphora gracilis* var. *pediculus* f. *minor*) [ref. 002458]. *Invalid*. Citation error for *Amphora ovalis* var. *pediculus* f. *minor* (Grunow) Grunow 1885. Gutwinski's 1895 entry (ref. 001691), p. 122(395) is a correct citation of Grunow's name.
- Amphora gracilis* f. *parva* Van Heurck 1880, pl. 1, fig. 3 (as *Amphora gracilis* Ehr.? forma *parva* (= *Amphora ovalis* var. ?)) [ref. 000895]. Van Heurck 1885, p. 59 (ref. 001040) refers to that figure under *Amphora ovalis*  $\beta$  *gracilis* [(Ehrenberg) Van Heurck].
- Amphora gracilis* f. *parva* Truan y Luard 1884, p. 336, pl. 7, fig. 3 [ref. 002374]. *Illegitimate*. Non Grunow in Van Heurck 1880.
- Amphora gracilis* var. *pediculus* 'Gutwinski' according to Hollerback & Krasavina 1971, p. 26 [ref. 002458]. *Invalid*. Citation error for *Amphora ovalis* var. *pediculus* (Kützing) Van Heurck 1885. Gutwinski's 1895 entry (ref. 001691), p. 121 (394) is a correct citation of Van Heurck's combination.
- Amphora graeffeana* Hendey 1973, p. 317-318; fig. 12-19 [ref. 008339]. New name for *Amphora graeffii* Cleve 1895, non *Amphora graeffei* Grunow in A. Schmidt 1875.

- Amphora graeffei* Grunow in Schmidt et al. 1875, pl. 25, fig. 40, 42 [ref. 012447]. Fig. 40 is labeled “*A. graeffei* Grunow var.” Specimen illustrated on fig. 40 is treated as a different species by Cleve 1895, p. 113 (ref. 000949) (*Amphora graeffii* Cleve 1895 = *Amphora graeffeana* Hendey 1973).
- Amphora graeffii* Cleve 1895, p. 113 (as *A. graeffii* (Grun. 1875) Cl.) [ref. 000949]. Non *Amphora graeffei* Grunow in Schmidt 1875, pl. 25, fig. 42. Cleve refers to the illustration of “*Amphora graeffei* Grunow var.” in Schmidt’s Atlas 1875, pl. 25, fig. 40 (ref. 012447). Also on p. 113, he treats *Amphora graeffei* Grunow in Schmidt (pl. 25, fig. 42) as a synonym of *Amphora grevilleana* Gregory. Synonym (substitute name): *Amphora graeffeana* Hendey 1973.
- Amphora graeffii* Cleve var. *minor* H. Peragallo & M. Peragallo 1898, p. 211; pl. 46, fig. 14-15 [ref. 001053].
- Amphora graeffii* Cleve var. *staurophora* Cleve 1895, p. 113 [ref. 000949].
- Amphora gramenorum* A.H. Wachnicka & E.E. Gaiser 2007, p. 419, 448; fig. 119-121 [ref. 012976].
- Amphora granii* Pantocsek 1902, p. 630; pl. 13, fig. 50 [ref. 000718]. (p. 4 of reprint).
- Amphora granulata* Gregory 1857, p. 525; pl. 14, fig. 96 [ref. 000399]. In reprint: p. 53; pl. 6, fig. 96.
- Amphora granulata* var. *biggibosa* Ricard 1975, p. 202; pl. 2, fig. 22 [ref. 008711].
- Amphora granulata* var. *costata* Proschkina-Lavrenko 1963, p. 174, 211; pl. 9, fig. 18, 19 [ref. 000765].
- Amphora granulata* var. *lineata* M. Peragallo in Peragallo & Peragallo 1911, p. 7; pl. 1, fig. 6 [ref. 000734].
- Amphora granulata* var. *punctata* Proschkina-Lavrenko 1963, p. 212, 174; pl. 9, fig. 12-15 [ref. 000765].
- Amphora granulifera* Cleve 1895, p. 116; pl. 3, fig. 32, 33 [ref. 000949].
- Amphora gregorii* Ralfs in Pritchard 1861, p. 883 [ref. 001063]. New name for *A. quadrata* Gregory 1857, non Bréb. ex Kützing 1844.
- Amphora grevilleana* Gregory 1857, p. 73; pl. 1, fig. 36 (‘*grevilliana*’) [ref. 002719].
- Amphora grevilleana* var. *campechiana* Grunow in Schmidt et al. 1875, pl. 25, fig. 45 [ref. 012447].
- Amphora grevilleana* var. *complexa* (Gregory) Rabenhorst 1864, p. 93 [ref. 000775]. Basionym: *Amphora complexa* Gregory 1857.
- Amphora grevilleana* var. *contracta* Cleve 1895, p. 113 [ref. 000949]. Cleve refers to Schmidt’s Atlas 1876, pl. 40, fig. 33 (specimen with no name) (ref. 012449).
- Amphora grevilleana* var. *fasciata* (Gregory) Rabenhorst 1864, p. 93 (‘*grevilliana*’) [ref. 000775]. Basionym: *Amphora fasciata* Gregory 1857.
- Amphora grevilleana* var. *indentata* Ricard 1975, p. 203; pl. 2, fig. 23 [ref. 008711].
- Amphora grevilleana* f. *minor* Cleve & Möller 1882, No. 311 [ref. 001979]. *Invalid*. Nomen nudum.
- Amphora grevilleana* var. *prominens* Grunow in Schmidt et al. 1875, pl. 25, fig. 43, 44 [ref. 012447].
- Amphora grevilleana* var. *sepulta* Pantocsek 1886, p. 22; pl. 24, fig. 223 (as “*Amphora (Grevilleana) Greg. var.?*) *sepulta* nov. spec.” in text and fig. caption) [ref. 000714]. *Invalid*. Validly published by Pantocsek 1886 as *Amphora sepulta* Pant. Trinomial (*A. grevilleana* var. *sepulta*) listed by Mills 1933, p. 163 (ref. 000998) but invalid (not accepted: lower case print).
- Amphora grevilleana* var. *typica* Cleve-Euler 1953, p. 95; fig. 677 (as *Amphora grevilleana*  $\alpha$  *typica* mh.) [ref. 001042]. Cleve-Euler cites *Amphora grevilleana* Gregory (see plate caption).
- Amphora groenlandica* Østrup 1895, p. 411; pl. 3, fig. 5 [ref. 000698]. Non Cleve. Synonym (substitute name): *Amphora lunata* Østrup 1897.
- Amphora groenlandica* Cleve 1895, p. 128; pl. 4, fig. 1 [ref. 000949]. Non Østrup 1895.
- Amphora grovei* Cleve in Cleve & Grunow 1892, p. 158; pl. 22, fig. 16-17 [ref. 000239].
- Amphora gruendleri* Grunow in Schmidt et al. 1875, pl. 28, fig. 24-27 (‘*gründleri*’) [ref. 012447].
- Amphora gruendleri* var. *approximata* Cleve 1895, p. 112 (‘*Gründleri*’) [ref. 000949].
- Amphora gruendleri* var. *robusta* Cleve 1895, p. 112 (‘*Gründleri*’) [ref. 000949].
- Amphora gruendleri* var. *trachytica* Pantocsek 1889, p. 37; pl. 7, fig. 132 (‘*gründleri*’) [ref. 001033].
- Amphora grunowii* A. Schmidt 1874, fig. 15 [ref. 012527]. Description in Cleve 1895, p. 123 (ref. 000949).
- Amphora guinardii* M. Peragallo 1929, p. 20; pl. 2, fig. 5 [ref. 000739].
- Amphora guinense* Leuduger-Fortmorel 1898, p. 30; pl. 5, fig. 16 [ref. 000608].
- Amphora gulfusiis* Salah & Tamas 1968, p. 237; pl. 4, fig. 1-6 [ref. 008751].
- Amphora hamata* Heiden in Heiden & Kolbe 1928, p. 639; pl. 1 (31), fig. 9 [ref. 000473].
- Amphora hartii* Chohnoky 1963, p. 30; fig. 1-3 [ref. 000215].
- Amphora hassiaca* Krammer & Strecker in Krammer 1997, p. 225-226; pl. 206, fig. 1-8 [ref. 008010]. [according to ANSP].
- Amphora helenensis* Giffen 1973, p. 33; pl. 1, fig. 7-9 [ref. 004245].
- Amphora hemicycla* Stoermer & Yang 1971, p. 402; fig. 5 a, b, c [ref. 006007]. “*hemicyclus*” in expl. fig. p. 399.
- Amphora hemisphaerica* Grunow 1867, p. 24 [ref. 000431].
- Amphora hendeyi* Crosby & Ferguson Wood 1959, p. 34; pl. 7, fig. 104 [ref. 000260].
- Amphora henshawii* Mann 1925, p. 23; pl. 3, fig. 8 [ref. 000632].
- Amphora heterostriata* Mereschkowsky 1902, p. 50, 147 [ref. 001382]. *Invalid*. Nomen nudum.
- Amphora hevesensis* Pantocsek 1889, p. 37; pl. 2, fig. 32, pl. 3, fig. 46, pl. 4, fig. 68 [ref. 001033].

- Amphora hexagonalis* Witt 1873, p. 66; pl. 8, fig. 12 [ref. 000914].
- Amphora hians* Flögel 1873, p. 88; fig. 7 [ref. 000319].
- Amphora hidasensis* Hajós 1973, p. 375 (fig. caption), Table 1 (p. 377); pl. 5, fig. 87 [ref. 003202]. *Invalid*. No description.
- Amphora hilliardii* Manguin 1961, p. 278; pl. 2 (27), fig. 24 [ref. 000628]. *Invalid*. No type designated and no Latin diagnosis. Validated by Kociolek & Reviere 1996 (ref. 008441).
- Amphora hilliardii* Manguin ex Kociolek & Reviere 1996, p. 185 [ref. 008441]. Cite illustration in Manguin 1961 (ref. 000628): pl. 2, fig. 24.
- Amphora hiromuii* T. Nagumo 2003, p. 20-21; pl. 33-37 [ref. 012900].
- Amphora hohenackeri* Rabenhorst 1853, p. 31; pl. 9, fig. 11 [ref. 000772].
- Amphora holsatica* Hustedt 1930, p. 345; fig. 633 [ref. 000502].
- Amphora holsatica* var. *malayana* Prowse 1962, p. 57; pl. 17, fig. 1 [ref. 001827].
- Amphora holsatica* f. *pyriformis* A. Berg 1952, p. 21; pl. 1, fig. 7 (as *Amphora holsatica* var. *ventrestriata* f. *pyriformis*) [ref. 000136].
- Amphora holsatica* f. *scanica* Cleve-Euler 1953, p. 99 [ref. 001042]. No illustration (living species).
- Amphora holsatica* var. *tenera* Karajeva 1963, p. 47; fig. 4 [ref. 000557].
- Amphora holsatica* var. *ventrestriata* A. Berg 1952, p. 21, 35 [ref. 000136].
- Amphora holsaticoides* Nagumo & Kobayasi 1990, p. 152; fig. 27-38 [ref. 008620].
- Amphora honshuensis* Mann 1907, p. 375; pl. 44, fig. 1 [ref. 000631].
- Amphora humicola* Grunow in Schmidt et al. 1875, pl. 26, fig. 90-92 [ref. 012447].
- Amphora humicola* var. *calderiorum* Grunow in Cleve & Möller 1879, No. 191 [ref. 001977]. *Invalid*. Nomen nudum.
- Amphora humicola* var. *javanica* Grunow in Schmidt et al. 1875, pl. 26, fig. 87-89 [ref. 012447].
- Amphora hungarica* Palik 1958, p. 88; pl. 11, fig. 25 [ref. 000711].
- Amphora huronensis* Stoermer & Yang 1971, p. 403; fig. 6 a, b [ref. 006007].
- Amphora hyalina* Ehrenberg 1841, p. 204 [ref. 002001]. *Invalid*. Nomen nudum.
- Amphora hyalina* Kützing 1844, p. 108; pl. 30, fig. 18 [ref. 000595].
- Amphora hyalina* Kütz. var. *delicatula* Proschkina-Lavrenko 1963, p. 42; fig. 12, 13 [ref. 000767]. Not seen (we assume that it was described as a variety of Kützing's species).
- Amphora hyalina* Kütz. var. *inpalpabilis* Proschkina-Lavrenko 1963, p. 43; fig. 14, 15 [ref. 000767]. Not seen (we assume that it was described as a variety of Kützing's species).
- Amphora hyalina* Kütz. var. *parvula* Grunow in Rabenhorst 1864, no. 1722 [ref. 011638]. *Invalid*. Nomen nudum in Rabenhorst 1864, p. 177 (ref. 002558). Comments but no description in Alg. Eur. No. 1722 (Rabenhorst 1864, ref. 011638).
- Amphora hyalina* H.L. Smith 1873, pl. 1, fig. 21 [ref. 001006]. *Illegitimate*. Non Kützing 1844. According to Boyer 1927, p. 264 (ref. 000946).
- Amphora hyalina* sensu H.L. Smith 1876-1888, no. 614 (1888) [ref. 000858]. *Invalid*. Clearly not intended by H.L. Smith as the name of a new taxon. In H.L. Smith as *Amphora hyalina* K[ützing]. H.L. Smith also cites in printed schedule of notes "K.B. pl. xxx, 18" (i.e. original reference of *Amphora hyalina* Kützing 1844). Non *Amphora hyalina* Kützing 1844 according to Boyer 1927, p. 264 (ref. 000946) and Cleve 1895, p. 126 (ref. 000949).
- Amphora hybrida* Grunow in Van Heurck according to Mills 1933, p. 164 [ref. 000998]. *Invalid*. Citation error for *Amphora angularis* var. *hybrida* Grunow in Van Heurck 1885.
- Amphora hyperborea* Grunow 1884, p. 3 (55); pl. 1 (A), fig. 10 [ref. 000444].
- Amphora ignota* Cholnoky 1960, p. 234-235; fig. 3 [ref. 000209].
- Amphora immarginata* T. Nagumo 2003, p. 22; pl. 38-42 [ref. 012900].
- Amphora impercepta* Meister 1937, p. 264; pl. 7, fig. 7 [ref. 000646].
- Amphora imperfecta* Manguin 1962, p. 26; pl. 4, fig. 10 [ref. 000629]. *Invalid*. No Latin diagnosis; type not indicated. Validated by Kociolek & Reviere 1996 (ref. 008442).
- Amphora imperfecta* Manguin ex Kociolek & Reviere 1996, p. 207-208 [ref. 008442].
- Amphora impressa* A. Cleve 1915, p. 35; pl. 2, fig. 43 (as *Amphora (proteus* var.?) *impressa* in text, *Amphora impressa* on plate caption and index) [ref. 000246].
- Amphora inaequistriata* De Toni & Forti 1913, p. 39; fig. 1 [ref. 000272].
- Amphora inaequistriata* var. *elongata* De Toni & Forti 1913, p. 40 [ref. 000272].
- Amphora inariensis* K. Krammer 1980, p. 211; pl. 4, fig. 21-24, pl. 6, fig. 36, 37, 43-45 [ref. 008971].
- Amphora incerta* A. Schmidt in Schmidt et al. 1876, pl. 40, fig. 1 [ref. 012449].
- Amphora incisa* 'Gregory' according to Chase 1885, p. 45 [ref. 001049]. *Invalid*. Citation err. for *A. incurva* Gregory 1855.
- Amphora incisa* Hajós 1973, table 1 (p. 377) [ref. 003202]. *Invalid*. Nomen nudum.
- Amphora inconspicua* Proschkina-Lavrenko 1963, p. 47; fig. 9, 10 [ref. 000767].
- Amphora incrassata* Giffen 1984, p. 189; pl. 1, fig. 20-22 [ref. 008264].
- Amphora incredulata* Giffen 1966, p. 252; pl. 59(1), fig. 13 [ref. 004242].
- Amphora incurva* Gregory 1855, p. 39; pl. 4, fig. 5 [ref. 000396].

- Amphora incurvata* Carter 1966, p. 448; pl. 62 (3), fig. 29-31 [ref. 008093].
- Amphora indentata* A.H. Wachnicka & E.E. Gaiser 2007, p. 430, 449; fig. 164-166 [ref. 012976].
- Amphora inelegans* Cleve & Grove 1891, p. 68; pl. 10, fig. 15 [ref. 001973].
- Amphora inelegans* var. *polita* Cleve 1895, p. 111; pl. 4, fig. 39 [ref. 000949]. In text misprinted fig. 40.
- Amphora inflata* Grunow in Schmidt et al. 1875, pl. 25, fig. 29, 30 [ref. 012447].
- Amphora inflexa* (Brébisson ex Kützing) H.L. Smith 1873, p. 78; pl. 2, fig. 16 [ref. 001006]. Basionym: *Amphipleura inflexa* Brébisson ex Kützing 1849.
- Amphora ingeniosa* Pantocsek 1909, p. 49; pl. 2, fig. 28 [ref. 001446]. Also described as new in Pantocsek 1909, p. 5, pl. 2, fig. 28 (ref. 002333).
- Amphora inornata* Cleve 1895, p. 110; pl. 4, fig. 35-38 [ref. 000949].
- Amphora insecta* Grunow in Schmidt et al. 1876, pl. 40, fig. 2, 3 [ref. 012449].
- Amphora interlineata* Grove & Sturt 1887, p. 131; pl. 10, fig. 2 [ref. 000989].
- Amphora intermedia* F.W. Lewis 1864, p. 346; fig. 7 [ref. 000610]. Description published later in Lewis 1865, p. 17, pl. 1, fig. 7 (ref. 000611). Validly published by Lewis 1864 with illustration only.
- Amphora intermedia* F.W. Lewis 1865, p. 17; pl. 1, fig. 7 a-c [ref. 000611]. Previously validly published with illustration only in Lewis 1864, p. 346; fig. 7 (ref. 000610).
- Amphora interrupta* Pantocsek 1886, p. 21; pl. 15, fig. 134 (as “*Amphora (ostrearia) Bréb. var.?) interrupta* nov. spec.” in text and fig. caption) [ref. 000714].
- Amphora interrupta* Mann 1925, p. 24; pl. 5 fig. 6 [ref. 000632]. *Invalid*. Provisional name. Proposed by Mann for possible use in place of “*Amphora intersecta* A. Schmidt var.?”; “in case it may be found necessary to rename this more robust form”.
- Amphora interrupta* Heiden in Heiden & Kolbe 1928, p. 638; pl. 1 (31), fig. 6 [ref. 000473]. *Illegitimate*. Non Pantocsek 1886. Synonym (substitute name): *Amphora maletracta* Simonsen 1992.
- Amphora interrupta* Heiden var. *constricta* Heiden in Heiden & Kolbe 1928, p. 638; pl. 1 (31), fig. 7 [ref. 000473].
- Amphora intersecta* A. Schmidt in Schmidt et al. 1875, pl. 25, fig. 37, 38 [ref. 012447].
- Amphora intersecta* var. *sarmatica* Pantocsek 1886, p. 21; pl. 15, fig. 135 [ref. 000714]. As “*Amphora (intersecta) A. Schm. var.?) sarmatica* nov. spec.” on plate caption.
- Amphora intersecta* var. *sarmatica* (Pantocsek) Jurilj 1957, p. 118; pl. 30, fig. 8 (as “comb. nova”) [ref. 000553]. Basionym: *Amphora intersecta* var. *sarmatica* Pantocsek 1886. Isonym: The combination was already valid as of Pantocsek 1886.
- Amphora intersecta* var. *striata* Pantocsek 1886, p. 22; pl. 17, fig. 156 [ref. 000714]. Illustrated as “*Amphora (intersecta) A. Schm. var.?) striata* nov. spec.”.
- Amphora intersecta* var. *striata* (Pantocsek) Jurilj 1957, p. 118-119 (as “comb. nova”) [ref. 000553]. Basionym: *Amphora intersecta* var. *striata* Pantocsek 1886. Isonym: The combination was already valid as of Pantocsek 1886.
- Amphora invidenda* Pantocsek 1892, pl. 14; fig. 210 [ref. 001034]. Description in Pantocsek 1905, p. 10 (ref. 001445).
- Amphora jacksoni* Schrader 1969, p. 75; pl. 11, fig. 4 [ref. 003203].
- Amphora jamalinensis* Cleve & Grunow 1880, p. 24; pl. 1, fig. 6 (as *A. (ocellata) Donkin var.?) jamalinensis* Cleve et Grunow in text p. 24 and *Amphora jamalinensis* in fig. caption) [ref. 000241]. The combination “*A. ocellata* var. ? *jamalinensis*” is mentioned at the end of the description (p. 24).
- Amphora jamalinensis* var. *fossilis* Pantocsek 1913, p. 127; pl. 1, fig. 1 [ref. 000720].
- Amphora janischii* A. Schmidt in Schmidt et al. 1875, pl. 25, fig. 51-53, 56 [ref. 012447]. Fig. 56 labeled “var.” Also in Schmidt 1876, pl. 40, fig. 30-32 (ref. 012449).
- Amphora japonica* Meister 1937, p. 264; pl. 7, fig. 6 [ref. 000646].
- Amphora javanica* Schmidt in Schmidt et al. 1875, pl. 27, fig. 27, 30-33 [ref. 012447].
- Amphora javanica* var. *oculata* M. Peragallo in Peragallo & Peragallo 1911, p. 6; pl. 1, fig. 5 [ref. 000734].
- Amphora javorkae* Szemes 1959, p. 337; pl. 22, fig. 338 [ref. 000874].
- Amphora jeniseyensis* Skvortzow 1971, p. 85; pl. 13, fig. 7 [ref. 008823].
- Amphora jeschkei* Janisch in Schmidt et al. 1876, pl. 39, fig. 14 [ref. 012449].
- Amphora jostesorum* A. Witkowski, D. Metzeltin & H. Lange-Bertalot in A. Witkowski, H. Lange-Bertalot & D. Metzeltin 2000, p. 141, 420; pl. 171, fig. 1-9 [ref. 009017].
- Amphora juvenalis* Pantocsek 1892, pl. 13, fig. 199 [ref. 001034]. Description in Pantocsek 1905, p. 10 (ref. 001445).
- Amphora kamorthensis* Grunow 1867, p. 99; pl. 1A, fig. 12 [ref. 000432].
- Amphora kamorthensis* f. *minor* A. Schmidt in Schmidt et al. 1875, pl. 25, fig. 81 (“*kamorthensis*”) [ref. 012447].
- Amphora karajevae* Guslyakov 1987, p. 1394; pl. 2, fig. 14 [ref. 008280].
- Amphora kariana* Grunow in Cleve & Grunow 1880, p. 24; pl. 1, fig. 7 (as *A. (proteus) var.?) kariana* Grunow in text and *Amphora proteus* var. *kariana* in plate caption) [ref. 000241].
- Amphora karpinskii* Missuna 1914, p. 144; fig. 7 [ref. 000663].
- Amphora katii* Selva 1981, p. 86; pl. 1, fig. 7-10 [ref. 008778]. [according to ANSP].
- Amphora kattrayi* Cleve & Möller 1882, No. 310 [ref. 001979]. *Invalid*. Nomen nudum. Misprint for “*Rattrayi*”. The name

- of this taxon was validly published by Cleve 1895, p. 133 (ref. 000949) as *Amphora arenaria* var. *ratrayi*.
- Amphora kenyaensis* Gasse 1986, p. 22-23; pl. 26, fig. 7-9 [ref. 006042].
- Amphora kerguelensis* Heiden in Heiden & Kolbe 1928, p. 642; pl. 1 (31), fig. 13 [ref. 000473].
- Amphora kertschiana* Pantocsek 1902, p. 630; pl. 11, fig. 15 [ref. 000718]. (p. 4 of reprint).
- Amphora kittonii* Leuduger-Fortmorel 1879, p. 19; pl. 1, fig. 7 [ref. 000606].
- Amphora kolbei* Aleem 1950, p. 320-321; fig. 2A-2D [ref. 000106].
- Amphora kolbei* Skvortzow 1969, p. 378; fig. 1 h [ref. 008822]. Non *Amphora kolbei* Aleem 1950.
- Amphora kolbei* Skvortzow 1971, p. 85; pl. 13, fig. 6 (as *Amphora kolbei* n. sp.) [ref. 008823]. *Illegitimate*. Non *Amphora kolbei* Aleem 1950, nec *Amphora kolbei* Skvortzow 1969.
- Amphora koshovii* Skabichevskii 1936, p. 716, 721; pl. 3, fig. 28 [ref. 000826].
- Amphora kossuthii* Pantocsek 1892, pl. 10, fig. 169 [ref. 001034]. Description in Pantocsek 1905, p. 11 (ref. 001445).
- Amphora kossuthii* var. *ventricosa* Missuna 1914, p. 145; fig. 81 [ref. 000663].
- Amphora kuehniae* Schoeman 1970, p. 333; pl. 1, fig. 1-3 [ref. 006539].
- Amphora labuensis* Cleve 1883, p. 493; pl. 35, fig. 1 [ref. 000224].
- Amphora labuensis* var. *fusififormis* Leuduger-Fortmorel 1892, p. 12; pl. 1, fig. 8 [ref. 000607].
- Amphora labyrinthica* Grunow in Cleve & Grunow 1880, p. 25 [ref. 000241].
- Amphora lacinia* A.H. Wachnicka & E.E. Gaiser 2007, p. 427, 449; fig. 148-150 [ref. 012976].
- Amphora lacustris* R.E.M. Archibald 1966, p. 481; pl. 97, fig. 9, 10 [ref. 003381].
- Amphora laevis* Meneghini 1848, p. 7 [ref. 011701]. [according to INA].
- Amphora laevis* Ehrenberg 1854, p. 316 (table) [ref. 000300]. *Invalid*. Nomen nudum.
- Amphora laevis* Gregory 1857, p. 514; pl. 12, fig. 74 a-c [ref. 000399]. *Illegitimate*. Non Meneghini 1848. In reprint: p. 42; pl. 4, fig. 74 a-c. Not fig. 74c (see corrigenda p. 544).
- Amphora laevis* Greg. var. *laevissima* (Gregory) Cleve 1895, p. 130 [ref. 000949]. Basionym: *Amphora laevissima* Gregory 1857.
- Amphora laevis* Greg. var. *minuta* Cleve 1895, p. 130 [ref. 000949]. Cleve cites *Amphora laevissima* H.L. Smith Type no. 615.
- Amphora laevis* Greg. var. *perminuta* (Grunow in Van Heurck) Cleve 1895, p. 130 [ref. 000949]. Basionym: *Amphora laevissima* Greg. var. *perminuta* Grunow in Van Heurck 1882-1885.
- Amphora laevis* Greg. var. *producta* Mereschkowsky 1902, p. 426 [ref. 000653]. No description, but cites: "C'est l'Amphore figuré par Dannfelt sous le nom d'*A. laevis* dans son ouvrage sur les Diat. de la Baltique", referring to Juhlin-Dannfelt 1882, pl. 1, fig. 5 (ref. 000550).
- Amphora laevis* Greg. var. *producta* Mereschkowsky 1902, p. 71 [ref. 001381]. *Invalid*. Nomen nudum. Validly published in Mereschkowsky 1902, p. 426 (ref. 000653).
- Amphora laevis* Greg. var. *typica* Cleve-Euler 1953, p. 102; fig. 698 a-d (as *Amphora laevis*  $\alpha$  *typica* mh.) [ref. 001042]. Cleve-Euler cites *Amphora laevis* Gregory 1857. Rank implied, but not clearly indicated.
- Amphora laevis* sensu Juhlin-Dannfelt 1882, p. 20; pl. 1, fig. 5 (as *Amphora laevis* Greg.) [ref. 000550]. Specimens illustrated by Juhlin-Dannfelt named *Amphora laevis* Greg. var. *producta* by Mereschkowsky 1902.
- Amphora laevissima* Gregory 1857, p. 513; pl. 12, fig. 72 [ref. 000399]. In reprint: p. 41; pl. 4, fig. 72.
- Amphora laevissima* Greg. var. *perminuta* Grunow in Van Heurck 1882-1885, p. 2; Type No. 9 [ref. 000896]. Diagnosis included. Described by Cleve 1895, p. 130 as *A. laevis* var. *perminuta* Grunow (ref. 000949).
- Amphora laevissima* (Greg.?) var. *minuta* Usachev 1949 [ref. 002600]. According to Hollerbakh & Krasavina 1971, p. 27. [according to VLC].
- Amphora laevissima* sensu H.L. Smith 1876-1888, no. 615 (1888) [ref. 000858]. *Invalid*. Clearly not intended by H.L. Smith as the name of a new taxon. In H.L. Smith as *Amphora laevissima* Greg[ory]. H.L. Smith also cites in printed schedule of notes: "G.D.C. iv, 72" (i.e. original reference for *A. laevissima* Greg.). Cited by Cleve 1895, p. 130 (ref. 000949) as a synonym of *A. laevis* Greg. var. *minuta* Cleve. Cleve's opinion resulted in the "sensu H.L. Smith" entry in VanLandingham's catalogue.
- Amphora lagerheimii* Cleve 1894, p. 99; pl. 7, fig. 2 [ref. 000231].
- Amphora lagerheimii* var. *minuta* Playfair 1915, p. 344; pl. 45, fig. 8 [ref. 011209]. [according to INA].
- Amphora lanceolata* Cleve 1867, p. 667; pl. 23, fig. 2 ab [ref. 000218].
- Amphora lanceolata* var. *angustissima* (Van Heurck) M. Peragallo 1921, p. 62 [ref. 000737]. Basionym: *Amphora angusta* Greg. var. *angustissima* Van Heurck 1909.
- Amphora lanceolata* var. *aperta* M. Peragallo 1921, p. 62; pl. 2, fig. 26 [ref. 000737].
- Amphora lanceolata* var. *incurvata* Brun 1891, p. 8; pl. 12, fig. 3 [ref. 000176].
- Amphora lanceolata* var. *minor* Cleve 1883, p. 462 [ref. 000224].
- Amphora lanceolata* var. *perlonga* M. Peragallo 1924, p. 21; pl. 1, fig. 3 [ref. 000738].
- Amphora lanceolata* var. *robusta* M. Peragallo 1921, p. 63; pl. 2, fig. 27 [ref. 000737].
- Amphora langebaanae* Giffen 1975, p. 74; pl. 1, fig. 13-15 [ref. 004246].



- Amphora latecingulata* M. Peragallo in Tempère & Peragallo 1908, p. 65; No. 120 [ref. 001064].
- Amphora lecoqi* Amossé 1975, p. 81-82; fig. 2 [ref. 008060]. [according to ANSP].
- Amphora leeana* S. Mayama, T. Nagumo & A. Kurimaya 2000, p. 4; fig. 1-9 [ref. 009424].
- Amphora leighsmithiana* O'Meara 1874, p. 259; pl. 8, fig. 8 [ref. 000693].
- Amphora lepta* Schrader 1969, p. 74; pl. 13, fig. 5 [ref. 003203].
- Amphora leudugeriana* P. Petit 1888, p. 119; pl. 10, fig. 13 [ref. 000751].
- Amphora leudugeriana* var. *intermedia* M. Peragallo 1924, p. 21 [ref. 000738].
- Amphora leudugeriana* var. *minor* M. Peragallo 1924, p. 21 [ref. 000738].
- Amphora levenensis* Haworth 1974, p. 47; fig. 1, 2, 13 [ref. 002707].
- Amphora libyca* Ehrenberg 1840, p. 205 [ref. 000293].
- Amphora libyca* Ehr. var. *baltica* (Brander) Cleve-Euler 1953, p. 90; fig. 666 e-h (as *Amphora libyca*  $\gamma$  *baltica* (Br) A. Cl.) [ref. 001042]. Basionym: *Amphora baltica* Brander 1933. *Invalid*. Rank implied, but not clearly indicated.
- Amphora libyca* Ehr. var. *brevis* Ehrenberg 1873, p. 163, 179 (as *Amphora libyca*  $\beta$  *brevis*) [ref. 000311]. *Invalid*. Nomen nudum.
- Amphora libyca* Ehr. var. *cymbiformis* Frenguelli 1923, p. 32; pl. 1, fig. 8 (as *Amphora lybica* Ehr. var. *cymbiformis* n. var.) [ref. 000347].
- Amphora libyca* Ehr. var. *gigas* Ehrenberg 1871, table in p. 76 [ref. 000310]. *Invalid*. Nomen nudum.
- Amphora libyca* Ehr. var. *globosa* (Schumann) Cleve-Euler 1953, p. 90; fig. 666 i (as *Amphora libyca*  $\delta$  *globosa* (Schum.) A. Cl. in text and fig. caption) [ref. 001042]. Basionym: *Amphora globosa* Schumann 1867. *Invalid*. Rank implied, but not clearly indicated.
- Amphora libyca* Ehr. var. *interrupta* Pantocsek 1889, p. 37; pl. 2, fig. 28 [ref. 001033].
- Amphora libyca* Ehr. f. *major* Frenguelli 1923, p. 32; pl. 1, fig. 9 (as *Amphora lybica* Ehr. fa. *major* n.f.) [ref. 000347].
- Amphora libyca* Ehr. var. *typica* Cleve-Euler 1953, p. 90; fig. 666a, b (as *Amphora libyca*  $\alpha$  *typica* mh.) [ref. 001042]. Does Cleve-Euler exclude the type of *Amphora libyca* ehrenberg?
- Amphora libyca* Ehr. var. *vittata* Cleve-Euler 1932, p. 63; fig. 137 [ref. 000248].
- Amphora libyca* (Ehr.?) f. *minor* Gutwinski 1890, p. 26 [ref. 000451].
- Amphora libyca* (Ehr.?) var. *minor* 'Gutwinski' VanLandingham 1967, p. 232 [ref. 006293]. *Invalid*. Probable error for *A. libyca* f. *minor* Gutwinski 1890 (not seen). Combination not accepted by VanLandingham.
- Amphora libyca* Ehrenberg 1854, pl. 5/3 fig. 24, 6/1 fig. 39a-b, 13/1 fig. 20, 13/2, fig. 18 [ref. 000966]. Non Ehrenberg 1840, according to M. Peragallo 1897, p. 69 (ref. 012539) who lists this name, and these particular illustrations, as a separate entry from *A. libyca* Ehrenberg 1840, and who cites *Amphora ovalis* Kützing as the accepted synonym.
- Amphora libyca* sensu H.L. Smith 1876-1888, no. 34 (1876) [ref. 000858]. *Invalid*. Clearly not intended by H.L. Smith as the name of a new taxon. In H.L. Smith as *Amphora libyca* E[hrenberg]. H.L. Smith also cites on the schedule of notes "K.B. xxix, 28" (i.e. Kützing 1844, referring to *Amphora libyca* Ehrenberg). Non Ehrenberg 1840 according to Cleve 1895, p. 119 (ref. 000949) who cites it as synonym of *Amphora veneta* Kützing 1844. Cleve's opinion resulted in the "sensu H.L. Smith" entry of VanLandingham.
- Amphora lima* Schmidt 1874, fig. 14 [ref. 012527].
- Amphora lima* Schmidt var. *fossilis* Pantocsek 1903, p. 38 [ref. 002331]. Name first appeared on list (nomen nudum) in Pantocsek 1889, p. 20 (ref. 001033). Refers to illustration in Pantocsek 1892, pl. 23 fig. 347 ("*Amphora lima* Pant." in legend) (ref. 001034). Description for this variety is identical to the description for *A. lima* Pantocsek 1889, p. 37 (ref. 001033).
- Amphora lima* Pantocsek 1889, p. 37 [ref. 001033]. *Illegitimate*. Non *Amphora lima* A. Schmidt 1874. No illustration in Pantocsek 1889. Illustrated as "*Amphora lima* Pant." in Pantocsek 1892, pl. 23, fig. 347 (ref. 001034). Probably an error: although it is described as "*Amphora lima* n.s." on p. 37, it is listed on p. 20 as "*Amphora lima* A.S. var. *fossilis* n.v.". In Pantocsek 1903 (second edition), p. 37 (ref. 002331), that same description applies to "*Amphora lima* A. Schm. var. *fossilis* Pant. n.var.". The plate caption for Pantocsek 1892, pl. 23, fig. 347 (ref. 001034) is changed to *Amphora lima* A. Schm. in Pantocsek 1905 (ref. 001445).
- Amphora limbata* Cleve & Grove 1892, p. 159; pl. 23, fig. 1, 2 [ref. 000239].
- Amphora limpidus* Janisch in Schmidt et al. 1876, pl. 39, fig. 8 [ref. 012449].
- Amphora lindbergii* Cleve-Euler 1915, p. 36; pl. 2, fig. 46 [ref. 000246].
- Amphora linearis* Meister 1935, p. 97; fig. 50 [ref. 000645].
- Amphora lineata* Gregory 1857, p. 71; pl. 1, fig. 33 [ref. 002719].
- Amphora lineata* Gregory 1857, p. 512; pl. 12, fig. 70 [ref. 000399]. In reprint: p. 40; pl. 4, fig. 70. Non *A. lineata* Gregory 1857, p. 71 (ref. 002719). Gregory notes: "in my last paper [ref. 002719]...I described and figured it...But by some mistake of mine, the form there figured was either not a characteristic specimen, or, more probably, a form of *A. salina*".
- Amphora lineata* Greg. var. *constricta* Grunow 1878, p. 105 [ref. 000439].
- Amphora lineata* Greg. f. *minor* Grunow 1878, p. 105 [ref. 000439]. Grunow refers to illustration of *A. lineata* in Schmidt's Atl., pl. 27, fig. 15, 1875 (ref. 012447).

- Amphora lineata* Greg. f. *minor* Grunow in Schneider 1878, p. 105 [ref. 010751]. No description or illustration, but reference to Schmidt 1875 (ref. 012447), pl. 27, fig. 15 (“*A. lineata* Greg.”). [according to INA].
- Amphora lineata* Greg. var. *proboscidea* (Gregory) Cleve & Möller 1878, No. 136 (as “*Amphora lineata* Greg. (var. *proboscidea* Greg.)”) [ref. 001976]. Basionym: *Amphora proboscidea* Gregory 1857.
- Amphora lineata* Greg. var. *subconstricta* Grunow 1878, p. 105; pl. 3, fig. 5 [ref. 000439].
- Amphora lineata* A. Schmidt in Schmidt et al. 1875, pl. 26, fig. 82-83 (as “*A. lineata* Gregory. ?”) [ref. 012447]. Non *Amphora lineata* Gregory 1857 ?
- Amphora lineolata* Ehrenberg 1838, p. 189 [ref. 000288]. Alternate name for *Navicula lineolata* Ehrenberg 1838: described and illustrated (p. 188; pl. 14, fig. 4) as *Navicula lineolata*. Treated by Kützing 1844, p. 107 (ref. 000595) as *Amphora lineolata* Ehrenberg. [according to INA].
- Amphora lineolata* Ehr. var. *calamae* G. Frenguelli 1929, p. 220; pl. 10, fig. 18, 19 [ref. 000345].
- Amphora lineolata* Ehr. var. *plicata* (Gregory) Cleve-Euler 1953, p. 100; fig. 694 (as *Amphora lineolata*  $\alpha$  *plicata* (Greg.) A. Cl.) [ref. 001042]. Basionym: *Amphora plicata* Gregory 1857. *Invalid*. Rank implied, but not clearly indicated. Place of publication of basionym not cited.
- Amphora lineolata* Ehr. var. *sinensis* (Schmidt in Schmidt et al.) Cleve 1895, p. 126 (‘*chinensis*’) [ref. 000949]. Basionym: *Amphora chinensis* A. Schmidt in Schmidt et al. 1875. The original “*chinensis*” was corrected to “*sinensis*” by De Toni 1891, p. 397 (ref. 000271).
- Amphora lineolata* Ehr. f. *sparsestriata* A. Berg 1952, p. 21, 35 [ref. 000136].
- Amphora lineolata* Ehr. var. *undata* (H.L. Smith) Cleve 1895, p. 126 [ref. 000949]. Basionym: *Amphora undata* H.L. Smith 1873.
- Amphora lineolata* ‘Ehrenberg’ [sensu] Kützing 1844, p. 107; pl. 5, fig. 36 [ref. 000595]. A citation of *Amphora lineolata* Ehrenberg 1838 (= alternate name for *Navicula lineolata* Ehrenberg 1838). Would be treated as a new combination of *Navicula lineolata* Ehrenberg 1838 if *Amphora lineolata* Ehrenberg 1838 had not been published simultaneously. W. Smith created the name *Amphora tenera* W. Smith 1853 for *Amphora lineolata* sensu Kützing 1844.
- Amphora lineolata* Ehrenberg 1854, p. 8; pl. XIII, I: fig. 19 [ref. 000966]. Probably not the same species as *Amphora lineolata* Ehrenberg 1838. Ralfs in Prichard 1861, p. 883, however, treats them as the same (ref. 001063).
- Amphora lineolata* Donkin 1861, p. 12; pl. 1, fig. 13 [ref. 000278]. *Illegitimate*. Non Ehrenberg 1838. Figures are numbered in the plate caption, but not on the plate itself.
- Amphora lingulata* Mereschkowsky 1902, p. 146(40), 169 (63) [ref. 001382]. *Invalid*. Nomen nudum.
- Amphora liococca* Ehrenberg 1858, p. 595 [ref. 000304]. *Invalid*. Nomen nudum.
- Amphora liouvillei* M. Peragallo 1921, p. 63; pl. 2, fig. 28 [ref. 000737].
- Amphora liriopie* M. Sakabe & T. Nagumo 1997, p. 115; pl. 4, fig. 27a-b (as *Amphora liriopie* sp. nov. (nom. nud.)) [ref. 009327]. *Invalid*. No Latin diagnosis; no type indicated. Some text in Japanese.
- Amphora liriopie* T. Nagumo 2003, p. 28-29; pl. 61-65 [ref. 012900].
- Amphora litoralis* Donkin 1858, p. 30; pl. 3, fig. 15 [ref. 000277].
- Amphora litoralis* sensu Cleve & Möller 1879, No. 255 (as *Amphora littoralis* Donkin) [ref. 001978]. *Invalid*. No description. Cleve 1895, p. 130 (ref. 000949) named this taxon *Amphora ostrearia* var. *lineata*.
- Amphora litoralis* var. *fossilis* Pantocsek 1889, p. 37 [ref. 001033].
- Amphora lóczyi* Pantocsek 1889, p. 37; pl. 5, fig. 93 [ref. 001033].
- Amphora longa* Hustedt 1955, p. 38; pl. 13, fig. 4-5 [ref. 000530]. New name for *Amphora elegans* H. Peragallo 1893, non Gregory 1857.
- Amphora longiceps* Simonsen 1960, p. 128; pl. 2, fig. 7-9 [ref. 000824]. *Invalid*. Type not designated.
- Amphora luciae* Cholnoky 1960, p. 23; pl. 1, fig. 58-61 [ref. 000208].
- Amphora lunaris* Mann 1925, p. 24; pl. 4, fig. 5 [ref. 000632].
- Amphora lunaris* Meister 1937, p. 265; pl. 8, fig. 6 [ref. 000646]. *Illegitimate*. Non Mann 1925. Synonym (substitut name): *Amphora meisteri* VanLandingham 1967.
- Amphora lunata* Østrup 1897, p. 324 [ref. 000700]. New name for *Amphora groenlandica* Østrup 1895 (non Cleve 1895).
- Amphora lunata* var. *parvula* (Heiden & Kolbe) F.W. Mills 1933, p. 169 [ref. 000998]. Citation error for *Amphora lunula* var. *parvula* Heiden in Heiden & Kolbe 1928 (ref. 000473). Combination accepted by Mills.
- Amphora lunula* Cleve 1895, p. 129; pl. 4, fig. 13 [ref. 000949].
- Amphora lunula* var. *parvula* Heiden in Heiden & Kolbe 1928, p. 641; pl. 1 (31), fig. 10 [ref. 000473].
- Amphora lunulata* A.H. Wachnicka & E.E. Gaiser 2007, p. 426, 449; fig. 141-143 [ref. 012976].
- Amphora lunyacsekii* Pantocsek 1889, p. 38 [ref. 001033]. Illustration in Pantocsek 1892, pl. 35, fig. 498 (ref. 001034). Also described in Pantocsek 1905, p. 11.
- Amphora lutea* Leuduger-Fortmorel 1879, p. 20; pl. 1, fig. 10 [ref. 000606].
- Amphora lutea* A.H. Wachnicka & E.E. Gaiser 2007, p. 429, 449; fig. 154-156 (‘*luteum*’) [ref. 012976]. *Illegitimate*. Non Leuduger-Fortmorel 1879.
- Amphora lybica* Ehrenberg 1840 [ref. 000293]. See *Amphora libyca* Ehrenberg 1840. [according to VLC].

- Amphora lydiae* Guslyakov 1987, p. 1392; pl. 1, fig. 4-6 [ref. 008280].
- Amphora lyrata* Gregory 1857, p. 520; pl. 13, fig. 82 [ref. 000399]. In reprint: p. 48; pl. 5, fig. 82.
- Amphora lyrata* A. Schmidt in Schmidt et al. 1875, pl. 26, fig. 1, 6-7 (as *A. lyrata* Gregory?) [ref. 012447]. Non *Amphora lyrata* Gregory 1857?
- Amphora macedoniensis* T. Nagumo 2003, p. 30; pl. 66-70 [ref. 012900].
- Amphora macilenta* Gregory 1857, p. 510; pl. 12, fig. 65 [ref. 000399]. In reprint: p. 38; pl. 4, fig. 65.
- Amphora macilenta* var. *elongata* M. Peragallo 1929, p. 20; pl. 2, fig. 6 [ref. 000739].
- Amphora macilenta* var. *ergadensis* (Gregory) Cleve 1895, p. 122 [ref. 000949]. Basionym: *Amphora ergadensis* Gregory 1857.
- Amphora macilenta* var. *maeotica* Proschkina-Lavrenko 1963, p. 172, 211; pl. 9, fig. 23, 24 [ref. 000765].
- Amphora macilenta* var. *typica* Cleve 1895, p. 122 (as “var. *typica* Cl.”) [ref. 000949]. Cleve cites *Amphora macilenta* Gregory 1857.
- Amphora maeandrina* Cleve 1895, p. 127; pl. 4, fig. 14 [ref. 000949].
- Amphora maeotica* Pantocsek 1902, p. 630; pl. 13, fig. 48 [ref. 000718]. (p. 4 of reprint).
- Amphora magellanica* Petit 1888, p. 119; pl. 10, fig. 14 [ref. 000751].
- Amphora magellanica* var. *tristani* Cleve-Euler 1949, p. 18, fig. 22 [ref. 000254].
- Amphora magnifica* Greville 1863, p. 182; pl. 4, fig. 1 [ref. 000414]. Also in Greville 1963 (ref. 001029), p. 575, pl. XV: fig. 1.
- Amphora maharashtrensis* Sarode & Kamat 1984, p. 160 (key), 243-244; pl. 19, fig. 438 [ref. 008758].
- Amphora makarovae* Guslyakov 1987, p. 1391; pl. 1, fig. 1-3 [ref. 008280].
- Amphora malectractata* Simonsen 1992, p. 71 [ref. 006194]. New name for *Amphora interrupta* Heiden in Heiden & Kolbe 1928, non Pantocsek 1886.
- Amphora malectractata* var. *constricta* (Heiden) Simonsen 1992, p. 72 [ref. 006194]. Basionym: *Amphora interrupta* Heiden var. *constricta* Heiden in Heiden & Kolbe 1928.
- Amphora mansiensis* Foged 1966, p. 103, 144; pl. 20, fig. 1 [ref. 006033].
- Amphora marchesettiana* Pantocsek 1902, p. 630; pl. 13, fig. 82 [ref. 000718]. (p. 4 of reprint).
- Amphora margalefii* X. Tomàs in Sabater et al. 1990, p. 168; pl. 2, fig. 10, 10', pl. 7, fig. 2-5 [ref. 008744].
- Amphora margalefii* var. *lacustris* P. Sanchez 1993, p. 85; fig. 1A-D, 2A-F. [ref. 008753].
- Amphora margaritifera* Cleve 1895, p. 117; pl. 3, fig. 30, 31 [ref. 000949].
- Amphora marginata* Østrup 1903, p. 541; fig. 114 [ref. 000702].
- Amphora maria* Hanna & Grant 1926, p. 124; pl. 12, fig. 6 [ref. 000012].
- Amphora marina* W. Smith 1857, p. 7; pl. 1, fig. 2 [ref. 000865]. [according to INA].
- Amphora marina* W. Sm. var. *arenicola* Grunow in Cleve & Möller 1882, No. 310 [ref. 001979]. *Invalid*. Nomen nudum. Name later validated in Cleve 1895, p. 104 (ref. 000949) as *Amphora arenicola* Grunow in Cleve 1895.
- Amphora marina* ‘W. Smith’ sensu Van Heurck 1880, (p. 58); pl. 1, fig. 16 [ref. 000895]. *Invalid*. Not meant by Van Heurck as the name of a new taxon. Non W. Smith 1857 according to Cleve 1895, p. 103 (ref. 000949). Cleve’s treatment of this taxon results in creating the name of a new taxon based on Van Heurck’s illustration.
- Amphora marina* Van Heurck ex Cleve 1895, p. 103 (as *A. marina* (W. Sm. 1957?) V. H. (1880)) [ref. 000949]. *Illegitimate*. Non W. Smith 1857. Cleve cites “V.H. Syn. p. 58, pl. I, fig. 16” and “A.S. Atl. XXVII f. 14, 17, 18”. Furthermore he cites the reference of *A. marina* W. Sm. 1857 with a query and notes: “*Amphora marina* of W. Sm. is too badly figured for identification”.
- Amphora marina* V. H. var. *genuina* Cleve-Euler 1953, p. 92; fig. 671 a, b (as *Amphora marina*  $\alpha$  *genuina* mh.) [ref. 001042]. Cleve-Euler seems to exclude *Amphora marina* Smith. She cites *Amphora marina* [sensu] Van Heurck 1880, pl. 1, fig. 16 (ref. 000895).
- Amphora marina* V. H. var. *minima* Cleve-Euler 1915, p. 33; pl. 4, fig. 84 [ref. 000246]. Although described as “*A. marina* (W. Sm.) var. *minima*”, it is treated as belonging to Van Heurck’s species.
- Amphora marina* (Castracane) Desikachary & Prema in Desikachary 1987, p. 3; pl. 229, fig. 9-11 [ref. 006019]. Basionym: *Cymbella marina* Castracane 1886. *Illegitimate*. Non *Amphora marina* W. Smith 1857. Synonym (substitute name): *Amphora neomarina* T.V. Desikachary & P. Prema 1989.
- Amphora mauritiana* (Grunow) H.L. Smith 1873, p. 87 [ref. 001006]. Basionym: *Amphora cymbelloides* var. *mauritiana* Grunow 1867. [according to ANSP].
- Amphora megapora* Pantocsek 1889, p. 38; pl. 29, fig. 418 [ref. 001033].
- Amphora meisteri* VanLandingham 1967, p. 235, 237 [ref. 006293]. New name for *Amphora lunaris* Meister 1937, non Mann 1925.
- Amphora membranacea* W. Smith 1853, p. 20; pl. 2, fig. 29 [ref. 000863].
- Amphora membranacea* Brébisson ex Cleve & Möller 1878, No. 98 [ref. 001975]. *Invalid*. Nomen nudum.
- Amphora meneghiniana* Castracane 1886, p. 17; pl. 27, fig. 16 [ref. 000193].
- Amphora menisca* Hohn & Hellerman 1963, p. 278-279; pl. 2, fig. 11 [ref. 000486].

- Amphora mexicana* Schmidt in Schmidt et al. 1875, pl. 27, fig. 47-48 [ref. 012447].
- Amphora mexicana* var. *boryana* Pantocsek 1889, p. 38 (as *Amphora mexicana* A.S. var.? *boryana* n.v.) [ref. 001033]. Name changed to "*Amphora boryana* n.s." in second edition (1903), p. 36 (ref. 002331). Illustrated as *Amphora boryana* in Pantocsek 1892, pl. 38, fig. 531 (ref. 001034).
- Amphora mexicana* var. *fusca* Cleve 1895, p. 105 [ref. 000949].
- Amphora mexicana* var. *major* (Cleve) A. Cleve 1915, p. 35 [ref. 000246]. Basionym: *Amphora arenicola* var. *major* Cleve 1895.
- Amphora mexicana* f. *minima* H. Peragallo & M. Peragallo 1898, (p. 203); pl. 45, fig. 7 [ref. 001053]. No description. Illustration is cited in "text" on p. 203, with no formal name (as "petite forme bretonne"). Forma "*minima*" only in plate caption for pl. 45, fig. 7. Non *Amphora mexicana* f. *minor* Per. & Per. 1898 (p. 203; pl. 44, fig. 32) (ref. 001053).
- Amphora mexicana* f. *minor* H. Peragallo & M. Peragallo 1898, p. 203; pl. 44, fig. 32 [ref. 001053]. No description.
- Amphora mexicana* var. *minor* Skvortzow 1932, p. 146; pl. 6, fig. 26 [ref. 000836]. *Illegitimate*. Non H. Peragallo & M. Peragallo 1898.
- Amphora mexicana* var. *schmidtiana* Van Heurck 1909, p. 7 [ref. 000898]. Refers to Schmidt 1875 (ref. 012447), pl. 27, fig. 49.
- Amphora mexicana* var. *schmidtii* Cleve-Euler 1953, p. 94; fig. 675a (as *Amphora mexicana* α. *schmidtii* A.Cl. in text and fig. caption) [ref. 001042]. Cleve-Euler includes the type of *Amphora mexicana* A. Schmidt. Rank implied but not indicated.
- Amphora micans* A. Schmidt in Schmidt et al. 1875, pl. 26, fig. 18 [ref. 012447].
- Amphora michiganensis* Stoermer & Yang 1971, p. 404; fig. 7 a, b, c [ref. 006007].
- Amphora micrometra* Giffen 1966, p. 253; pl. 59(1), fig. 16, 17 [ref. 004242].
- Amphora milesiana* Gregory 1857, p. 521; pl. 13, fig. 83 [ref. 000399]. In reprint: p. 49; pl. 5, fig. 83.
- Amphora minima* Hustedt 1955, p. 42; pl. 9, fig. 30 [ref. 000530].
- Amphora minuscula* Frenguelli 1934, p. 358; pl. 2, fig. 24 (as *Amphora (Halumphora) minuscula*) [ref. 000359].
- Amphora minuta* Pantocsek 1889, p. 38; pl. 1, fig. 16 [ref. 001033].
- Amphora minuta* var. *interrupta* Hajós 1968, p. 192; pl. 56, fig. 14-15 [ref. 002445].
- Amphora minutissima* W. Smith 1853, p. 20; pl. 2, fig. 30 [ref. 000863].
- Amphora miocenica* Hajós 1959, p. 165, 167 [ref. 000455]. *Invalid*. Nomen nudum.
- Amphora miocenica* Hajós & Palfalvy 1961, p. 385 [ref. 008291]. [according to ANSP].
- Amphora mira* Krasske 1949, p. 85; fig. 23 [ref. 000590].
- Amphora miramaris* Frenguelli 1925, p. 148; pl. 1, fig. 1-2 (as *Amphora (Halumphora) miramaris*) [ref. 000348].
- Amphora moelleri* Foged 1971, p. 932-933; pl. 4, fig. 8; pl. 19, fig. 12-13 [ref. 004052].
- Amphora mongolica* Østrup 1908, p. 76; pl. 1, fig. 1 [ref. 000705].
- Amphora mongolica* var. *baicalensis* Skvortzow & Meyer 1928, p. 37; pl. 3, fig. 170 [ref. 000855].
- Amphora mongolica* var. *cornuta* Skvortzow 1937, p. 341; pl. 12, fig. 6 [ref. 000846].
- Amphora mongolica* var. *gracilis* Skvortzow 1937, p. 341; pl. 12, fig. 13 [ref. 000846].
- Amphora mongolica* f. *interrupta* Skvortzow 1937, p. 341-342; pl. 12, fig. 7 (as *Amphora mongolica* var. *cornuta* f. *interrupta*) [ref. 000846].
- Amphora mongolica* var. *maculata* Skvortzow 1971, p. 85; pl. 13, fig. 8 [ref. 008823].
- Amphora monilifera* 'Leuduger-Fortmorel' according to Peragallo 1897, p. 71 [ref. 012539]. *Invalid*. Error of Peragallo who refers to an unnamed *Epithemia* in Leuduger-Fortmorel 1879 (ref. 000606), p. 23; pl. 9, fig. 89. Not accepted by Peragallo (Synonymized with *Amphora leudugeriana* Petit).
- Amphora monilifera* Gregory 1857, p. 511; pl. 4, fig. 69 [ref. 000399]. In reprint: p. 39; pl. 4, fig. 69.
- Amphora monilifera* var. *aralensis* Borscow 1877 [ref. 002902]. According to Gaidukov 1901, p. 31 (ref. 002710) (fide VanLandingham 1979, p. 4254) (ref. 006514).
- Amphora montana* Krasske 1932, p. 119; pl. 2, fig. 27 [ref. 000583]. See Carter & Round 1993, p. 6 (ref. 008097) for an emended diagnosis.
- Amphora montgomeryi* A.H. Wachnicka & E.E. Gaiser 2007, p. 411, 448; fig. 84-86 [ref. 012976].
- Amphora mucronata* H.L. Smith 1878, p. 17; pl. 3, fig. 9 (Type No. 38) [ref. 000860].
- Amphora muelleri* A. Schmidt in Schmidt et al. 1875, pl. 26, fig. 31 ('*Müllerii*') [ref. 012447].
- Amphora multigramma* Hohn & Hellerman 1966, p. 120; pl. 1, fig. 23 [ref. 008350].
- Amphora munda* Schmidt in Schmidt et al. 1876, pl. 40, fig. 15 [ref. 012449].
- Amphora mutabunda* Manguin in Bourrelly & Manguin 1952, p. 91; pl. 7, fig. 153 a-e [ref. 000149].
- Amphora nagpurensis* Sarode & Kamat 1984, p. 160 (key), 244; pl. 19, fig. 439 [ref. 008758].
- Amphora nana* Gregory 1857, p. 510; pl. 12, fig. 64 [ref. 000399]. In reprint: p. 38; pl. 4, fig. 64.
- Amphora nana* Greg. f. *parva* Schmidt in Schmidt et al. 1875, pl. 26, fig. 67, 68 [ref. 012447].
- Amphora nana* Flögel 1873, p. 90; fig. 12 [ref. 000319]. This is citation of *Amphora nana* Gregory, and not the publication of the name of a new species (as suggested by VanLandingham's entry, p. 240, ref. 006293).

- Amphora nana* ‘Rabenhorst’ according to De Toni 1891, p. 412 [ref. 000271]. *Invalid*. Cited and described by De Toni in synonymy of *Amphora ovalis* var. *pediculus*, and with the note: “Alg. sub. n. 765?”. Name not found in Alg. Eur. No. 765 (Rabenhorst 1858) (ref. 010857). Citation error for *Amphora ovalis* forma *nana* Rabenhorst 1864, p. 92 (ref. 000775): Rabenhorst 1864 cites Alg. sub. no. 765.
- Amphora natalensis* Cholnoky 1960, p. 24; pl. 1, fig. 63-65 [ref. 000208].
- Amphora naumannii* Janisch in Schmidt et al. 1876, pl. 39, fig. 19 [ref. 012449].
- Amphora naviculacea* Donkin 1861, p. 11; pl. 1, fig. 12 [ref. 000278].
- Amphora navicularis* Ehrenberg 1843, p. 410; pl. 1/1, fig. 2 [ref. 000294].
- Amphora naviformis* Leuduger-Fortmorel 1892, p. 11; pl. 1, fig. 6 [ref. 000607].
- Amphora neglecta* Stoermer & Yang 1971, p. 405; fig. 8 a, b [ref. 006007].
- Amphora neglecta* f. *densestriata* Foged 1981, p. 53; pl. 45, fig. 6 [ref. 006676]. As *Amphora neglecta* f. *alaskaensis* on p. 177.
- Amphora neogradensis* Pantocsek 1889, p. 38; pl. 4, fig. 64 (as *Amphora (egregaria* E. var.?) *neogradensis* n.s. in text and plate caption) [ref. 001033].
- Amphora neomarina* Desikachary & Prema in Desikachary 1989, p. 15 [ref. 006022]. New name for *Amphora marina* (Castro-cane) Desikachary & Prema in Desikachary 1987, non *Amphora marina* W. Smith 1857.
- Amphora neupaueri* Pantocsek 1889, p. 38; pl. 1, fig. 7 (*‘neupauerii’*) [ref. 001033]. Name for *Amphora aponina* sensu Neupauer 1867, non Kützing 1844.
- Amphora nilotica* Ehrenberg 1854, p. 207 [ref. 000300]. *Invalid*. Nomen nudum.
- Amphora nobilis* Gregory 1857, p. 521; pl. 13, fig. 87 [ref. 000399]. in reprint: p. 49; pl. 5, fig. 87.
- Amphora nobilis* Flögel 1873, p. 88; fig. 9 (as *A. nobilis* Greg. (?)) [ref. 000319]. Non Gregory 1857?
- Amphora nodosa* Brun 1891, p. 9; pl. 12, fig. 2 [ref. 000176].
- Amphora normanii* Rabenhorst 1864, p. 88 (*‘normani’*) [ref. 000775]. See Carter & Round 1993, p. 8 for an emended diagnosis (ref. 008097).
- Amphora normanii* var. *gibbosa* Skvortzow 1935, p. 185; pl. 1, fig. 31 [ref. 000840].
- Amphora normanii* var. *javanica* (Grunow in Schmidt et al.) M. Peragallo 1897, p. 72 [ref. 012539]. Basionym: *Amphora humicola* var. *javanica* Grunow in Schmidt et al. 1875.
- Amphora normanii* var. *undulata* Krasske in Hustedt 1930, p. 344 [ref. 000502]. *Invalid*. Not accepted. Not validated by Simonsen 1987 (ref. 003164).
- Amphora normanii* var. *undulata* Krasske 1929, p. 355; fig. 21 [ref. 000582].
- Amphora nova caledonica* Grunow in Schmidt et al. 1875, pl. 26, fig. 16 [ref. 012447]. Schmidt notes: “= *Amphora porcellus* Kitton, nur kleiner”. The orth. variant “*novae caledoniae*” is introduced in the caption for *Amphora porcellus* Kitton in A. Schmidt 1876, pl. 39, figs. 15-17 (ref. 012449).
- Amphora nova caledonica* (sensu?) Pantocsek 1892, pl. 15, fig. 227 (as *Amphora Nova Caledonica* Grun. ) [ref. 001034]. Described in Pantocsek 1905, p. 11 (ref. 001445) as *Amphora Nova Caledonica* Grun. var. *hungarica* Pant. n. v.
- Amphora nova caledonica* var. *hungarica* Pantocsek 1905, p. 11 (as *Amphora Nova Caledonica* Grun. var. *hungarica* Pant. n. v.) [ref. 001445]. Illustrated in Pantocsek 1892, pl. 15, fig. 227 (ref. 001034) as *Amphora Nova Caledonica* Pant.
- Amphora novaeguineae* Cholnoky 1963, p. 161; pl. 25, fig. 9-10 [ref. 000213].
- Amphora nuda* Leuduger-Fortmorel 1892, p. 9; pl. 1, fig. 2 [ref. 000607].
- Amphora nuwukiana* Patrick & Freese 1961, p. 255; pl. 3, fig. 16 [ref. 000725].
- Amphora nuwukiana* var. *arctica* Patrick & Freese 1961, p. 256; pl. 3, fig. 15 [ref. 000725].
- Amphora oamaruensis* ‘Grove Collection’ according to Mills 1933, p. 173 [ref. 000998]. *Invalid*. Not accepted by Mills. Not a valid combination of *Amphora ocellata* var. *oamaruensis* Cleve 1895.
- Amphora oamaruensis* Schrader 1969, p. 75; pl. 11, fig. 10 [ref. 003203]. As “*Navicula oamaruensis* nov. spec.” in plate caption.
- Amphora obesa* Cleve & Grove 1892, p. 157; pl. 22, fig. 8 [ref. 000239].
- Amphora oblonga* Gregory 1857, p. 515; pl. 13, fig. 78, 78b [ref. 000399]. In reprint: p. 43; pl. 5, fig. 78, 78b.
- Amphora oblongella* Grunow 1878, p. 104; pl. 4, fig. 20 (as *Amphora (angusta* var.?) *oblongella*) [ref. 000439].
- Amphora oblongella* var. *adriatica* Cleve & Möller 1879, No. 208-210 [ref. 001977]. *Invalid*. Nomen nudum.
- Amphora obscura* Reichelt 1903, p. 775; fig. 35 [ref. 000785].
- Amphora obscura* Krasske 1938, p. 530; pl. 11, fig. 28-33 [ref. 000586]. *Illegitimate*. Non Reichelt 1903. Synonym (replacement name): *Amphora spitzbergenensis* VanLandingham 1967.
- Amphora obsecta* L.W. Bailey 1861, p. 167 [ref. 007053]. Also in L.W. Bailey 1862, p. 348, fig. A, B (ref. 000125).
- Amphora obtusa* Gregory 1857, p. 72, pl. 1, fig. 34 [ref. 002719].
- Amphora obtusa* Greg. var. *baicalensis* Jasnitzky 1936, p. 698, 702; pl. 2, fig. 8 [ref. 000543].
- Amphora obtusa* Greg. var. *baikalensis* Skvortzow 1937, p. 343; pl. 12, fig. 20, 28 [ref. 000846]. *Illegitimate*. Non Jasnitzky 1936. Synonym (replacement name): *Amphora obtusa* var. *skvortzowii* VanLandingham 1967.
- Amphora obtusa* Greg. var. *crassa* Tempère & Peragallo 1908, p. 65; No. 120 [ref. 001064].

- Amphora obtusa* Greg. f. *distinguenda* Proschkina-Lavrenko 1963, p. 180, 212; pl. 10, fig. 4 [ref. 000765].
- Amphora obtusa* Greg. var. *fallax* ‘Grove Collection’ according to Mills 1933, p. 174 [ref. 000998]. No more information given.
- Amphora obtusa* Greg. var. *fossilis* Pantocsek 1889, p. 38 [ref. 001033].
- Amphora obtusa* Greg. var. *hungarica* ‘Pantocsek’ according to Mills 1933, p. 174 [ref. 000998].
- Amphora obtusa* Greg. var. *lunyacsekii* (Pantocsek) Cleve 1895, p. 131 [ref. 000949]. Basionym: *Amphora lunyacsekii* Pantocsek 1889.
- Amphora obtusa* Greg. f. *minuta* Cleve 1895, p. 131 [ref. 000949].
- Amphora obtusa* Greg. f. *miocena* Brun 1896, p. 231; pl. 19, fig. 1 [ref. 000183]. In legend as “forma MAJOR miocena”.
- Amphora obtusa* Greg. var. *miocena* (Brun) Tempère & Peragallo 1912, p. 341; No. 701-726 [ref. 001068]. Basionym: *Amphora obtusa* Greg. f. *miocena* Brun 1896.
- Amphora obtusa* Greg. var. *oamaruensis* Schrader 1969, p. 73; pl. 11, fig. 9 [ref. 003203].
- Amphora obtusa* Greg. var. *oceanica* (Castracane) Cleve 1895, p. 131 [ref. 000949]. Basionym: *Amphora oceanica* Castracane 1886.
- Amphora obtusa* Greg. var. *permagna* ‘Pantocsek’ F.W. Mills 1933, p. 174 [ref. 000998]. *Invalid*. Invalid (not accepted) combination of *Amphora permagna* Pantocsek 1889.
- Amphora obtusa* Greg. var. *radula* Cleve 1895, p. 132 [ref. 000949].
- Amphora obtusa* Greg. var. *rectangulata* H. Peragallo & M. Peragallo 1898, p. 216; pl. 48, fig. 2 [ref. 001053].
- Amphora obtusa* Greg. var. *skvortzowii* VanLandingham 1967, p. 244, 245 [ref. 006293]. New name for *Amphora obtusa* var. *baikalensis* Skvortzow 1937, non Jasnitzky 1936.
- Amphora obtusa* Greg. var. *transfuga* Cleve 1895, p. 131 [ref. 000949].
- Amphora obtusa* Greg. f. *typica* Cleve 1895, p. 131 [ref. 000949]. Cleve cites *Amphora obtusa* Gregory 1857 and its original reference.
- Amphora obtusa* Greg. var. *typica* (Cleve) Cleve-Euler 1953, p. 102; fig. 700 (as *Amphora obtusa* α *typica* Cl.) [ref. 001042]. Basionym: *Amphora obtusa* Greg. f. *typica* Cleve 1895. Cleve-Euler seems to be excluding the type of *Amphora obtusa* Gregory. Rank implied, but not clearly indicated.
- Amphora obtusa* (Greg.?) var. *typica* (Cleve) Fricke 1902, p. 13 [ref. 002239]. Basionym: *Amphora obtusa* Greg. f. *typica* Cleve 1895. [according to VLC].
- Amphora obtusa* sensu Schmidt in Schmidt et al. 1876, pl. 40, fig. 16, 17 (as “*A. obtusa* Greg. (& H.L. Sm.)”) [ref. 012449]. Non Gregory 1857 according to Cleve 1895, p. 131 (ref. 000949) who cites “*Amphora obtusa* A.S. Atl. XL f. 16, 17?” in synonymy of *Amphora obtusa* Greg. var. *transfuga* Cleve.
- Amphora obtusa* Leuduger-Fortmorel 1879, pl. 2, fig. 17 [ref. 000606]. *Illegitimate*. Non Gregory 1857. As “*Amphora obtusa* (Leuduger-Fortmorel) (nov. spec.)” on plate caption. On p. 22, however, Leuduger-F. notes: *A. obtusa?* var. (Gregory). Pl. 2, f. 17. On doit peut-être ne voir dans cette forme qu’une variété de l’*A. obtusa* de Gregory...” (Translation: Perhaps this form should merely be considered a variety of Gregory’s *A. obtusa*).
- Amphora obtusaeformis* Cholnoky 1961, p. 292; fig. 9 [ref. 000210].
- Amphora obtusiuscula* Grunow in Schmidt et al. 1875, pl. 25, fig. 7 [ref. 012447].
- Amphora occidentalis* Amossé 1932, p. 32; pl. 1, fig. 3-4 (as *A. (commutata* var.?) *occidentalis* nov.) [ref. 003338].
- Amphora oceanica* Castracane 1886, p. 20; pl. 27, fig. 20 [ref. 000193].
- Amphora ocellata* Ehrenberg 1838, p. 189 [ref. 000288]. New name for *Navicula amphora* Ehrenberg 1832. Illustrated in Ehrenberg 1863, p. 65; pl. 1, fig. 10 (ref. 000308) as “*Amphora ocellata?*”.
- Amphora ocellata* Donkin 1861, p. 11; pl. 1, fig. 11 [ref. 000278]. *Illegitimate*. Non Ehrenberg 1838.
- Amphora ocellata* Donk. var. *bistriata* Peragallo & Peragallo 1899, p. 218; pl. 49, fig. 3 [ref. 001054]. Illustrated as *Amphora (ocellata* var.?) *bistriata* Per.
- Amphora ocellata* Donk. var. *cingulata* (Cleve) Cleve 1895, p. 133; pl. 3, fig. 39 [ref. 000949]. Basionym: *Amphora cingulata* Cleve in A. Schmidt et al. 1875.
- Amphora ocellata* Donk. var. *elongata* H. Peragallo & M. Peragallo 1899, p. 219; pl. 49, fig. 9 [ref. 001054].
- Amphora ocellata* Donk. var. *hyalina* Skvortzow 1932, p. 146; pl. 6, fig. 27 [ref. 000836].
- Amphora ocellata* Donk. var. *interrupta* (Pantocsek) Cleve 1895, p. 133 [ref. 000949]. Basionym: *Amphora ostrearia* var. *interrupta* Pantocsek 1886.
- Amphora ocellata* Donk. var. *jamalinensis* ‘Cleve & Grunow’ Cleve 1895, p. 134 [ref. 000949]. *Invalid*. Citation error for *Amphora (ocellata* var.) *jamalinensis* Cleve & Grunow 1880. Cited in synonymy of *A. delphinea* var. *jamalinensis* (Cleve & Grunow) Cleve.
- Amphora ocellata* Donk. f. *minor* Van Heurck 1880, pl. 1, fig. 26 [ref. 000895].
- Amphora ocellata* Donk. var. *oamaruensis* Cleve 1895, p. 133 [ref. 000949].
- Amphora ocellata* Donk. var. *subacuta* H. Peragallo & M. Peragallo 1899, p. 219; pl. 49, fig. 8 [ref. 001054].
- Amphora ocellata* Donk. var. *typica* Cleve 1895, p. 133 [ref. 000949]. Cleve refers to *Amphora ocellata* Donkin 1861 and its original publication.

- Amphora oculus* Schmidt in Schmidt et al. 1875, pl. 27, fig. 52 [ref. 012447].
- Amphora oculus* var. *farciemen* (Grunow in Schmidt et al.) Cleve 1895, p. 106 [ref. 000949]. Basionym: *Amphora farciemen* Grunow in Schmidt et al. 1875.
- Amphora oculus* var. *fossilis* Pantocsek 1886, p. 22; pl. 14, fig. 127 [ref. 000714]. In legend of 1st edition as “*Amphora oculus* A. Schm. nov. spec.” Corrected in 2nd (1903) edition (ref. 000717).
- Amphora ohgii* Skvortzow 1929, p. 425; pl. 2, fig. 10 [ref. 000830].
- Amphora ohridana* Z. Levkov in Levkov, Krstic, Metzeltin & Nakov 2007, p. 18; pl. 160, fig. 3, pl. 161, fig. 1-7 [ref. 012897].
- Amphora okawangoi* Cholnoky 1966, p. 8-9; pl. 1, fig. 4 [ref. 003668].
- Amphora oligotrappenta* H. Lange-Bertalot in Lange-Bertalot & Metzeltin 1996, p. 28; pl. 96, fig. 21-22 [ref. 007048]. New name for *Amphora veneta* var. *capitata* Haworth 1974 (priority for *Amphora capitata* Brander 1933).
- Amphora onclinorum* (Compère) K. Krammer 1997, p. 83-84; Band 1, fig. 97:11 [ref. 008010]. Basionym: *Cymbella onclinorum* P. Compère 1967. [according to ANSP].
- Amphora ornata* Leuduger-Fortmorel 1879, p. 20; pl. 1, fig. 9 [ref. 000606].
- Amphora oscitans* Frenguelli 1936, p. 32; pl. 2, fig. 7 (as *Amphora (Halumphora) oscitans*) [ref. 004118].
- Amphora ostenfeldii* Hustedt 1922, p. 142; pl. 9, fig. 38, 39 [ref. 000496].
- Amphora ostrearia* Brébisson ex Kützing 1849, p. 94 [ref. 000596].
- Amphora ostrearia* var. *beguinotti* Zanon in Brunelli et al. 1938, p. 461, pl. 58, fig. 26 [ref. 011726]. [according to INA].
- Amphora ostrearia* subvar. *belgica* Grunow in Van Heurck 1885, p. 56 (as *Amphora ostrearia* Sous-var. *belgica* Grun.) [ref. 001040]. Described in “Types du Synopsis” (Van Heurck 1884?) (ref. 000896) as *Amphora (ostrearia var.?) belgica* Grun. It is unclear which of these 2 names was published first.
- Amphora ostrearia* var. *densepunctata* Cleve-Euler 1953, p. 101; fig. 697 d (as *Amphora ostrearia*  $\gamma$  *densepunctata*) [ref. 001042]. *Invalid*. Rank implied but not indicated. Name for *Amphora polaris* sensu Cleve-Euler 1915 (non Østrup 1895), p. 36, pl. 2, fig. 47 (ref. 000246). VanLandingham 1969, p. 246 (ref. 006293) lists this name as *Amphora ostrearia* var. *densestriata* Cleve-Euler, but does not satisfy all the requirements for valid publication.
- Amphora ostrearia* var. *fossilis* (Pantocsek) M. Peragallo 1897, p. 73 [ref. 012539]. Basionym: *Amphora litoralis* var. *fossilis* Pantocsek 1889.
- Amphora ostrearia* var. *granulata* Tempère & Peragallo 1908, p. 65, 66; No. 120, 121 [ref. 001064].
- Amphora ostrearia* var. *interrupta* Pantocsek 1886, p. 21; pl. 15, fig. 134 (as “*Amphora (ostrearia Bréb. var.?) interrupta* nov. spec.” in text and fig. caption) [ref. 000714]. *Invalid*. Validly published by Pantocsek 1886 as *Amphora interrupta*. Combination as a trinomial validated by De Toni 1891.
- Amphora ostrearia* var. *interrupta* (Pantocsek) De Toni 1891, p. 21; pl. 15, fig. 134 [ref. 000271]. Basionym: *Amphora interrupta* Pantocsek 1886.
- Amphora ostrearia* var. *lineata* Cleve 1895, p. 130 [ref. 000949]. Based on *Amphora litoralis* sensu Cl. & Möller no. 255 (invalid name) (ref. 001978).
- Amphora ostrearia* var. *minor* Grunow in Cleve & Grunow 1880, p. 25 [ref. 000241].
- Amphora ostrearia* var. *nova caledonica* Grunow in Cleve 1883, p. 461 [ref. 000224]. No description but a reference to an illustration in Schmidt 1875, pl. 26, fig. 24 (ref. 012447).
- Amphora ostrearia* var. *porcellus* (Kitton in Schmidt et al.) Cleve 1883, p. 492 [ref. 000224]. Basionym: *Amphora porcellus* Kitton in Schmidt et al. 1876.
- Amphora ostrearia* var. *quadrata* (Brébisson ex Kützing) Rabenhorst 1864, p. 88 (as *Amphora ostreata* b. *quadrata* Bréb.) [ref. 000775]. Basionym: *Amphora quadrata* Brébisson ex Kützing 1849.
- Amphora ostrearia* var. *quadrata* (Brébisson ex Kützing) Van Heurck 1885, p. 56; (pl. 1, fig. 24) (as *Amphora ostrearia*  $\beta$  *quadrata* Bréb.) [ref. 001040]. Basionym: *Amphora quadrata* Brébisson ex Kützing 1849. Refers to pl. 1, fig. 24 in Van Heurck 1880 (ref. 000895) where it is illustrated as *Amphora quadrata* Bréb.
- Amphora ostrearia* var. *typica* Cleve 1895, p. 129 [ref. 000949]. Cleve cites *Amphora oestrearia* Brébisson in Kützing and its original reference.
- Amphora ostrearia* var. *vitrea* (Cleve) Cleve 1895, p. 129 [ref. 000949]. Basionym: *Amphora vitrea* Cleve 1868.
- Amphora ovalis* (Kützing) Kützing 1844, p. 107; pl. 5, fig. 35, 39 [ref. 000595]. Basionym: *Frustulia ovalis* Kützing 1833. (= *Navicula Amphora* Ehrenberg 1832).
- Amphora ovalis* var. *affinis* (Kützing) Van Heurck 1885, p. 59 (as *Amphora ovalis*  $\gamma$  *affinis* Kütz.) [ref. 001040]. Basionym: *Amphora affinis* Kützing 1844. Rank ambiguous (var. implied?).
- Amphora ovalis* var. *affinis* (Kützing) Pero 1893, p. 271 [ref. 002339]. Basionym: *Amphora affinis* Kützing 1844. [according to INA].
- Amphora ovalis* f. *angusta* Mayer 1913, p. 276; pl. 12, fig. 16 (as *Amphora ovalis* var. *pediculus* f. *angusta*) [ref. 000551].
- Amphora ovalis* var. *baicalensis* Skvortzow & Meyer 1928, p. 37; pl. 3, fig. 169 [ref. 000855].
- Amphora ovalis* var. *baltica* (Brander) Tynni 1978, p. 20 [ref. 008906]. Basionym: *Amphora baltica* Brander 1933. *Invalid*. Page where basionym is published is not cited. The combination was previously suggested by Maillard 1962, p. 113 (ref.

- 001754), but invalidly published because the basionym was not indicated.
- Amphora ovalis* var. *barrowiana* Patrick & Freese 1961, p. 256; pl. 3, fig. 17 [ref. 000725].
- Amphora ovalis* var. *constricta* Skvortzow 1937, p. 340; pl. 12, fig. 17 [ref. 000846].
- Amphora ovalis* f. *elliptica* Rabenhorst 1864, p. 92 [ref. 000775]. Rabenhorst refers to *Amphora ovalis* sensu W. Smith 1853, pl. 2, fig. 26, 26b' (ref. 000863). As "var. *elliptica*" in index p. 327.
- Amphora ovalis* var. *elliptica* Petit 1877, p. 37 [ref. 005177]. *Invalid*. Nomen nudum.
- Amphora ovalis* var. *elliptica* Petit in H. Peragallo in Pelletan 1889, p. 226 [ref. 001001]. *Invalid*. Nomen nudum.
- Amphora ovalis* var. *elongata* Østrup in Héribaud 1920, p. 25; pl. 7, fig. 31 [ref. 000482].
- Amphora ovalis* var. *elongata* Jurilj 1954, p. 147; fig. 56b [ref. 000552]. *Illegitimate*. Non Østrup in Héribaud 1920.
- Amphora ovalis* f. *exilis* (Grunow in Van Heurck) Grunow in Van Heurck 1885, p. 59; (pl. 1, fig. 9-10) (as *Amphora ovalis*  $\delta$  *pediculus* f. *exilis* Grun.) [ref. 001040]. Basionym: *Amphora pediculus* var. *exilis* Grunow in Van Heurck 1880.
- Amphora ovalis* var. *fossilis* 'Pantocsek' according to Mills 1933, p. 177 [ref. 000998]. *Invalid*. Citation error for *Navicula ovalis* var. *fossilis* Pantocsek 1889. Not a valid combination (not accepted by Mills).
- Amphora ovalis* f. *globosa* (Schumann) Mayer 1913, p. 275; pl. 12, fig. 10 (as *Amphora ovalis* var. *pediculus* f. *globosa*) [ref. 000551]. Basionym: *Amphora globosa* Schumann 1867.
- Amphora ovalis* var. *globosa* (Schumann) Schumann 1869, p. 87 (as *Amphora ovalis*  $\beta$  *globosa* Schum.) [ref. 001005]. Basionym: *Amphora globosa* Schumann 1867. Rank not stated, but probably to be admitted as a variety in accordance with ICBN 2006, Art. 35.4.
- Amphora ovalis* var. *globosa* (Schumann) Cleve 1891, p. 53 (as *Amphora ovalis* var. *globosa* Schum.) [ref. 000229]. Basionym: *Amphora globosa* Schumann 1867. Probably isonym: see *Amphora ovalis*  $\beta$  *globosa* (Schumann) Schumann 1869, admitted as a variety in accordance with Art. 35.4.
- Amphora ovalis* var. *gracilis* (Ehrenberg) Van Heurck 1885, p. 59 (as *Amphora ovalis*  $\beta$  *gracilis*) [ref. 001040]. Basionym: *Amphora gracilis* Ehrenberg 1843. Cites illustration in Van Heurck 1880 (ref. 000895) (pl. 1, fig. 3) labeled as *Amphora gracilis* Ehr.? forma *parva* (= *Amphora ovalis* var. ?).
- Amphora ovalis* f. *gracilis* Aleksenko 1892, p. 56 [ref. 003296]. *Illegitimate*. As "*Amphora ovalis* f. *gracilis* Kz." with some description (dimensions) in Russian. There is no such name in Kützing's work. Presumably non *Amphora ovalis*  $\beta$  *gracilis* (Ehrenberg) Van Heurck 1885.
- Amphora ovalis* var. *gracilis* (Ehrenberg) Pero 1893, p. 279 [ref. 002339]. Basionym: *Amphora gracilis* Ehrenberg 1843. [according to INA]. Perhaps isonym: See *Amphora ovalis*  $\beta$  *gracilis* (Ehrenberg) Van Heurck 1885.
- Amphora ovalis* f. *gracilis* (Ehrenberg) Hustedt 1930, p. 342 [ref. 000502]. Basionym: *Amphora gracilis* Ehrenberg 1843.
- Amphora ovalis* f. *levissima* Borscow 1870 (as *Amphora ovalis* var. *minor* f. *levissima*) [ref. 002655]. According to Hollerbakh & Krasavina 1971, p. 28 (ref. 002458). [according to VLC].
- Amphora ovalis* var. *libyca* (Ehrenberg) Cleve 1895, p. 104 [ref. 000949]. Basionym: *Amphora libyca* Ehrenberg 1840.
- Amphora ovalis* f. *lybica* Nikonov 1959 [ref. 003020]. According to Hollerbakh & Krasavina 1971, p. 28 (ref. 002458). [according to VLC].
- Amphora ovalis* f. *maior* (*major*) Istvánffi 1897, p. 79 (as *Amphora ovalis* var. *pediculus* f. *maior*) [ref. 001714]. Non *Amphora ovalis* f. *major* Istvánffi 1897 (different taxon described in same paper, same page).
- Amphora ovalis* f. *major* Istvánffi 1897, p. 79 [ref. 001714]. Non *Amphora ovalis* var. *pediculus* f. *maior* Istvánffi 1897 (different taxon described in same paper, same page).
- Amphora ovalis* var. *minor* Kützing 1844, p. 107 (as *Amphora ovalis*  $\beta$  *minor*) [ref. 000595].
- Amphora ovalis* var. *minor* Rabenhorst 1864, p. 92 [ref. 000775]. *Illegitimate*. Refers to *Amphora abbreviata* Bleich in Rabenhorst Alg. sub. no. 1489 (a nomen nudum). Non Kützing 1844.
- Amphora ovalis* f. *minor* (Grunow in Van Heurck) Van Heurck 1885, p. 59; (pl. 1, fig. 4-5) (as *Amphora ovalis*  $\gamma$  *affinis* Kütz. forma *minor*) [ref. 001040]. Basionym: *Amphora affinis* Kütz. f. *minor* Grunow in Van Heurck 1880. *Illegitimate*. Refers to Van Heurck 1880 (ref. 000895), pl. 1, fig. 4-5, where it is illustrated as "*Amphora pediculus* Kütz. forma *major* (peut également bien porter le nom de *A. affinis* forma *minor*)". Non *Amphora ovalis*  $\delta$  *pediculus* f. *minor* (Grunow in V.H.) Grunow in Van Heurck 1885 (same publication). Non Kützing 1844.
- Amphora ovalis* f. *minor* (Grunow in Van Heurck) Grunow in Van Heurck 1885, p. 59; (pl. 1, fig. 8) (as *Amphora ovalis*  $\delta$  *pediculus* f. *minor* Grun.) [ref. 001040]. Basionym: *Amphora pediculus* var. *minor* Grunow in Van Heurck 1880. *Illegitimate*. Non *Amphora ovalis*  $\gamma$  *affinis* Kütz. forma *minor* Grunow in Van Heurck 1885 (same publication). Non Kützing 1844.
- Amphora ovalis* f. *minor* Gaponov 1915, p. 22 (as *Amphora ovalis* var. *pediculus* f. *minor*) [ref. 001219]. Non Kützing 1844? [according to VLC].
- Amphora ovalis* f. *minutissima* (W. Smith) Mayer 1913, p. 276; pl. 12, fig. 15; pl. 27, fig. 3 (as *Amphora ovalis* var. *pediculus* f. *minutissima*) [ref. 000551]. Basionym: *Amphora minutissima* W. Smith 1853.
- Amphora ovalis* var. *minutissima* (W. Smith) Hurter 1928, p. 176 [ref. 012542]. Basionym: *Amphora minutissima* W. Smith 1853.
- Amphora ovalis* f. *mongolica* Skvortzow 1930, p. 34; pl. 2, fig. 7 (as *Amphora ovalis* var. *pediculus* f. *mongolica*) [ref.



- 000832].
- Amphora ovalis* f. *nana* Rabenhorst 1864, p. 92 [ref. 000775]. In index p. 327 as “var. *nana*”.
- Amphora ovalis* var. *nana* ‘Plutenko 1871’ according to Hollerbakh & Krasavina 1971, p. 28 [ref. 002458]. [according to VLC]. Error? Not found in Plutenko 1871 (ref. 002807). VanLandingham 1979, p. 4254 (ref. 006514) lists Timofeiev 1871 (ref. 003102) as alternate source. Non Rabenhorst 1864?
- Amphora ovalis* f. *nebulosa* Proschkina-Lavrenko 1963, p. 42; fig. 11 (as *Amphora ovalis* var. *pediculus* f. *nebulosa*) [ref. 000767].
- Amphora ovalis* var. *nikiskii* Stone in McLaughlin & Stone 1986, p. 17; pl. 1, fig. 19, 20 [ref. 004949].
- Amphora ovalis* f. *parva* Cleve & Möller 1879, No. 242, 244 [ref. 001978]. *Invalid*. Nomen nudum.
- Amphora ovalis* f. *parva pauca* DeNotaris ex Cuboni? 1887, p. 228 [ref. 012548]. Nomen nudum. [according to ANSP].
- Amphora ovalis* f. *pauca* DeNotaris ex Cuboni? 1887, p. 228 [ref. 012548]. Nomen nudum. [according to ANSP].
- Amphora ovalis* var. *pediculus* (Kützing) Van Heurck 1885, p. 59 (as *Amphora ovalis*  $\delta$  *pediculus* Kütz.) [ref. 001040]. Basionym: *Cymbella pediculus* Kützing 1844.
- Amphora ovalis* var. *pediculus* (Kützing) Pero 1893, p. 271 [ref. 002339]. Basionym: *Cymbella pediculus* Kützing 1844. [according to INA]. Isonym? see *Amphora ovalis*  $\delta$  *pediculus* (Kütz.) Van Heurck 1885.
- Amphora ovalis* var. *pellucida* (Gregory) Rabenhorst 1864, p. 92 [ref. 000775]. Basionym: *Amphora pellucida* Gregory 1857.
- Amphora ovalis* var. *perlonga* Meister 1912, p. 193, 237; pl. 33, fig. 8 [ref. 000642].
- Amphora ovalis* f. *permiana* Zanon 1930, p. 74, text-fig. 1 (on p. 77) (as *Amphora ovalis* var. *gracilis* f. *permiana*) [ref. 002622].
- Amphora ovalis* var. *permiana* ‘Zanon’ VanLandingham 1979, p. 4254 [ref. 006514]. *Invalid*. Citation error for *Amphora ovalis* var. *gracilis* f. *permiana* Zanon 1930 (ref. 002622); not a valid new combination of Zanon’s name.
- Amphora ovalis* var. *perpusilla* Meyer & Reinhardt 1925, p. 215 (as *Amphora ovalis* Ktz. var. *perpusilla* V.H.) [ref. 001769]. *Invalid?* No description. Perhaps meant as a new combination of *Amphora globulosa* var. *perpusilla* Grunow in Van Heurck, but no basionym is cited. Valid as a new combination, invalid as the name of a new taxon.
- Amphora ovalis* f. *robusta* Cleve & Möller 1878, No. 82 [ref. 001975]. *Invalid*. Nomen nudum.
- Amphora ovalis* var. *rostrata* Mereschkowsky 1902, p. 50, 146 (as *Amphora* (*ovalis* var.?) *rostrata*) [ref. 001382]. *Invalid*. Nomen nudum.
- Amphora ovalis* var. *tallingiae* Gasse 1986, p. 24; pl. 25, fig. 7-8 [ref. 006042].
- Amphora ovalis* f. *typica* Cleve 1895, p. 104 [ref. 000949]. Among other synonyms/citations, Cleve cites *A. [Frustulia] ovalis* Kützing [1833], fig. 5, 6 (ref. 000594).
- Amphora ovalis* f. *typica* Istvánffi 1897, p. 79 (as *Amphora ovalis* var. *pediculus* f. *typica*) [ref. 001714]. *Invalid*. No description.
- Amphora ovalis* var. *typica* (Cleve) Cleve-Euler 1953, p. 91; fig. 667 a (as *Amphora ovalis*  $\alpha$  *typica* Cl.) [ref. 001042]. Basionym: *Amphora ovalis* f. *typica* Cleve 1895. Rank implied, not indicated. Cleve-Euler cites *Amphora ovalis* Kützing.
- Amphora ovalis* f. *ucranica* Reinhard 1869, p. 5; pl. 1, fig. 1 [ref. 003057].
- Amphora ovalis* f. *varia* DeNotaris ex Cuboni? 1887, p. 228 [ref. 012548]. Nomen nudum. [according to ANSP].
- Amphora ovalis* var. *viridis* Karsten 1899, p. 100; fig. 125 [ref. 000558].
- Amphora ovalis* var. *vittata* Cleve-Euler 1932, p. 63; fig. 137 [ref. 000248].
- Amphora ovalis* sensu W. Smith 1853, p. 19; pl. 2, fig. 26, 26b’ [ref. 000863]. As “*Amphora ovalis*, Kütz.”. Named *Amphora ovalis* f. *elliptica* by Rabenhorst 1864.
- Amphora ovalis* sensu A. Schmidt in Schmidt et al. 1875, pl. 26, fig. 106-111 (as *Amphora ovalis* Kützing) [ref. 012447]. Non Kützing according to Cleve 1895 (ref. 000949), p. 105, who proposed that Schmidt’s specimens belong to *Amphora ovalis* var. *libyca* (Ehr.) Cleve.
- Amphora ovum* Cleve 1895, p. 102; pl. 4, fig. 12 [ref. 000949].
- Amphora oxeia* H. Peragallo & M. Peragallo 1899, p. 223; pl. 49, fig. 21 [ref. 001054].
- Amphora pagesi* Lauby 1910, p. 198; pl. 9, fig. 1 [ref. 001335].
- Amphora pallida* Frenguelli 1930, p. 252; pl. 1, fig. 6 (as *Amphora* (*Halamphora*) *pallida*) [ref. 000354].
- Amphora paludosa* ‘Kisselev 1940’ According to Hollerbakh & Krasavina 1971, p. 29. [according to VLC]. Error?
- Amphora pampaninii* Forti 1928, p. 2 (417); text fig. [ref. 000343].
- Amphora pampaninii* Zanon 1948, p. 223; fig. 6 [ref. 000932]. *Illegitimate*. Non Forti 1928.
- Amphora pannonica* Hajós 1973, p. 375 (fig. caption), Table 1 (p. 377); pl. 5, fig. 83 [ref. 003202]. *Invalid*. No description.
- Amphora pannucea* Giffen 1984, p. 188-189; pl. 1, fig. 18, 19 [ref. 008264].
- Amphora pantocsekii* De Toni 1891, p. 380 [ref. 000271]. New name for *Amphora staurophora* Pantocsek 1889, non Juhlin-Dannfelt 1882, nec Castracane 1886.
- Amphora pantocsekii* Hajós 1968, p. 191; pl. 56, fig. 11 (‘*pantocseki*’) [ref. 002445]. *Illegitimate*. Non De Toni 1891. New name for *Amphora arcuata* Pantocsek 1889, non A. Schmidt 1875.
- Amphora paradoxa* Ehrenberg 1854, p. 39 [ref. 000300]. *Invalid*. Nomen nudum. Also invalid in Ehrenberg 1849, p. 195

- (ref. 010821).
- Amphora parallela* Flogel 1873, p. 88; fig. 8 [ref. 000319].
- Amphora parallelistriata* Manguin 1961, p. 278; pl. 2 (27), fig. 25 [ref. 000628]. *Invalid*. No type designated and no Latin diagnosis. Validated by Kociolek & Reviere 1996 (ref. 008441).
- Amphora parallelistriata* Manguin ex Kociolek & Reviere 1996, p. 185 [ref. 008441]. Cites illustration in Manguin 1961 (ref. 000628): pl. 2, fig. 25.
- Amphora parallelistriata* var. *manguinii* Foged 1971, p. 933; pl. 19, fig. 9 [ref. 004052].
- Amphora parasitica* Bleisch 1863, p. 76 [ref. 002202]. New name for *Amphora minutissima* W. Smith 1853 (“den Namen minutissima trägt sie mit Unrecht”).
- Amphora paraveneta* H. Lange-Bertalot, P. Cavacini, N. Tagliaventi & S. Alfinito 2003, p. 28; pl. 93, fig. 1-8, pl. 94, fig. 1-6, pl. 95, fig. 1-5 [ref. 011561].
- Amphora parvula* Proschkina-Lavrenko 1963, p. 171, 211; pl. 8, fig. 24-27 [ref. 000765].
- Amphora pauca* Mann 1925, p. 25; pl. 4, fig. 6 [ref. 000632].
- Amphora paulii* Patrick 1970, p. 503; pl. 1, fig. 8 [ref. 006544].
- Amphora pavillardii* M. Peragallo 1929, p. 21; pl. 2, fig. 7 [ref. 000739].
- Amphora pavementum* Boyer 1922, p. 1; pl. 1, fig. 4 [ref. 000154].
- Amphora pecten* Brun 1891, p. 9; pl. 12, fig. 4 [ref. 000176].
- Amphora pecten* var. *argus* Cleve 1895, p. 110 [ref. 000949].
- Amphora pediculus* (Kützing) Grunow in Schmidt et al. 1875, pl. 26, fig. 99 [ref. 012447]. Basionym: *Cymbella pediculus* Kützing 1844.
- Amphora pediculus* var. *distincta* Cleve-Euler 1949, p. 17; fig. 20 [ref. 000254].
- Amphora pediculus* var. *exilis* Grunow in Van Heurck 1880, pl. 1, fig. 9-10 [ref. 000895].
- Amphora pediculus* var. *major* Grunow in Van Heurck 1880, pl. 1, fig. 4, 5 [ref. 000895]. Alternate name also valid is: *A. affinis* forma *minor*. Caption reads: “*A. pediculus* Kg. forma *major* (peut également porter le nom de *A. affinis* forma *minor*)”.
- Amphora pediculus* var. *minor* Grunow in Van Heurck 1880, pl. 1, fig. 8 [ref. 000895].
- Amphora pediculus* var. *minutissima* (W. Smith) H. Peragallo in Pelletan 1889, p. 226 [ref. 001001]. Basionym: *Amphora minutissima* W. Smith 1853.
- Amphora pediculus* var. *nebulosa* Proschkina-Lavrenko 1963, p. 42; fig. 11 [ref. 000767].
- Amphora pediculus* var. *vetteri* Cleve-Euler 1953, p. 89; fig. 665 d (as *Amphora pediculus*  $\delta$  *vetteri* n.v.) [ref. 001042].
- Amphora pellucida* Gregory 1857, p. 513; pl. 12, fig. 73, 73b [ref. 000399]. In reprint: p. 41; pl. 4, fig. 73, 73b.
- Amphora pellucida* sensu A. Schmidt in Schmidt et al. 1875, pl. 27, fig. 36 [ref. 012447]. Schmidt notes: “mit *A. pellucida* verwandt?”.
- Amphora peragalli* Cleve 1895, p. 124 [ref. 000949]. Name for “*Amphora* sp. n.” Peragallo 1888, p. 40, pl. 3, fig. 26 (ref. 000729).
- Amphora peragalli* var. *balearica* H. Peragallo & M. Peragallo 1898, p. 227; pl. 43, fig. 14 [ref. 001053].
- Amphora peragalli* var. *catalaunica* H. Peragallo & M. Peragallo 1898, p. 227; pl. 43, fig. 15 [ref. 001053].
- Amphora peragallorum* Van Heurck 1909, p. 7; pl. 1, fig. 2 [ref. 000898].
- Amphora peragallorum* var. *minor* M. Peragallo 1924, p. 21 [ref. 000738].
- Amphora peragallorum* var. *parvula* Heiden in Heiden & Kolbe 1928, p. 636; pl. 1 (31), fig. 2 [ref. 000473].
- Amphora peragallorum* var. *robusta* Van Heurck 1909, p. 8; pl. 1, fig. 4 [ref. 000898].
- Amphora permagna* Pantocsek 1889, p. 38; pl. 6, fig. 113 [ref. 001033].
- Amphora perpusilla* (Grunow in Van Heurck) Grunow in Van Heurck 1882-1885, p. [1]; Type no. 4 (as *Amphora (globulosa* Schum. var?) *perpusilla* Grunow.) [ref. 000896]. Basionym: *Amphora globulosa* var. *perpusilla* Grunow in Van Heurck 1880. Non Grunow 1884. Grunow notes: “Parait devoir être élevé au rang d’espèce et est probablement à réunir à l’*A. pediculus* var. *exilis*”. Probably published in 1882.
- Amphora perpusilla* Grunow 1884, p. 50 (102); pl. 1 (A), fig. 6 (as *Amphora (coffeaeformis* var.?) *perpusilla* in text and *Amphora perpusilla* in plate caption) [ref. 000444]. *Illegitimate*. Non Grunow 1882.
- Amphora perpusilla* (Grunow in Van Heurck) Grunow in Van Heurck 1885, p. 58 [ref. 001040]. Basionym: *Amphora globulosa* var. *perpusilla* Grunow in Van Heurck 1880. Non *Amphora perpusilla* Grunow 1884. Isonym: Combination previously published by Grunow in Van Heurck 1882 (p. [1], type no. 4) ref. (000896).
- Amphora perpusilla* var. *exilis* (Grunow in Van Heurck) Frenguelli 1923, p. 33; pl. 1, fig. 18, 19 [ref. 000347]. Basionym: *Amphora pediculus* var. *exilis* Grunow in Van Heurck 1880.
- Amphora perstriata* Peragallo & Peragallo 1899, p. 232; pl. 50, fig. 40 [ref. 001054].
- Amphora perstriata* var. *minor* Peragallo & Peragallo 1897-1908, p. 232 [ref. 000733]. Combination published in Text only; illustrated as *A. perstriata* Per. in Atlas, pl. 50, fig. 4 (ref. 001054; issued 1899). Description was published between 1897-1899 (probably 1899 for p. 232).
- Amphora pestilenta* Giffen 1980, p. 141-142; pl. 1, fig. 6, 7 [ref. 008263].

- Amphora petermannii* M. Peragallo 1921, p. 61; pl. 2, fig. 20 [ref. 000737].
- Amphora petiti* Tempère & Brun in Brun & Tempère 1889, p. 15; pl. 9, fig. 16 [ref. 000185].
- Amphora petiti* Leuduger-Fortmorel 1892, p. 10; pl. 1, fig. 3 [ref. 000607]. *Illegitimate*. Non Tempère & Brun 1889.
- Amphora peuchi* ‘Lauby’ Mills 1933, p. 179 [ref. 000998]. *Invalid*. Typographical error for *Amphora puechi* Laubi 1910.
- Amphora philippinica* Castracane 1886, p. 19; pl. 27, fig. 2 [ref. 000193].
- Amphora pimenteli* M. Peragallo 1921, p. 29 (table) [ref. 000737]. *Invalid?* No description. Refers to “A. Schmidt 1875, pl. 24, fig. 44” (ref. 012446): an illustration which does not exist (possible error for pl. 27, fig. 44 ?).
- Amphora piper* Cholnoky 1968, p. 20; fig. 19 [ref. 001969].
- Amphora platensis* Frenguelli 1945, p. 190; pl. 10, fig. 9 [ref. 000365].
- Amphora plativalvata* T. Nagumo 2003, p. 37 [ref. 012900]. New name for *Amphora gigantea* Grun. var. *obscura* Cleve 1895. Error in citation of replaced name (wrong volume and issue numbers), but it should not invalidate new name.
- Amphora pleniluna* Hohn & Hellerman 1966, p. 121; pl. 1, fig. 21 [ref. 008350].
- Amphora pleurosigma* Tempère & Brun in Brun & Tempère 1889, p. 15; pl. 7, fig. 8 [ref. 000185]. (in text misprinted “fig. 13”).
- Amphora plicata* Gregory 1857, p. 70; pl. 1, fig. 31 [ref. 002719].
- Amphora polaris* Østrup 1895, p. 408; pl. 3, fig. 2 [ref. 000698].
- Amphora polaris* sensu Cleve-Euler 1915, p. 36; pl. 2, fig. 47 [ref. 000246]. In Cleve-Euler as “*A. polaris* Ostr.” This taxon was named *Amphora ostrearia*  $\gamma$  *densestriata* by Cleve-Euler 1953, p. 101 (ref. 001042).
- Amphora polita* Krasske 1939, p. 401; pl. 12, fig. 24, 25 [ref. 000587].
- Amphora polycocca* Mereschkowsky 1902, p. 148(42) [ref. 001382].
- Amphora polyzonata* Castracane 1886, p. 18; pl. 27, fig. 18 [ref. 000193].
- Amphora pontica* Mereschkowsky 1901, p. 28; pl. 6, fig. 6-7 [ref. 000650].
- Amphora porcellus* Kitton in Schmidt et al. 1876, pl. 39; fig. 15-17 [ref. 012449]. As “*A. porcellus* Kitton O.E. (= *A. Novae Caledoniae* Grunow)”. The name *A. porcellus* first appeared in the caption for *Amphora nova caledonica* Grunow in Schmidt 1875, pl. 26, fig. 16 (ref. 012447).
- Amphora porcellus* var. *nova caledonica* (A. Schmidt) H. Peragallo in Peragallo 1889, p. 226 [ref. 001001]. Basionym: *Amphora nova caledonica* Grunow in Schmidt et al. 1875.
- Amphora praelata* Hendey 1973, p. 320; fig. 25-30 [ref. 008339].
- Amphora praevalida* Janisch 1888, pl. 20, fig. 21 [ref. 000541]. *Invalid*. Unpublished manuscript.
- Amphora prespanensis* Z. Levkov, S. Krstic & D. Metzeltin in Levkov, Krstic, Metzeltin & Nakov 2007, p. 19-20; pl. 159, fig. 1-9, pl. 160, fig. 1, 2 [ref. 012897].
- Amphora prisca* Cleve & Grove in Cleve 1895, p. 139 [ref. 000949].
- Amphora prismatica* Cleve 1895, p. 112; pl. 4, fig. 26 [ref. 000949].
- Amphora proboscidea* Gregory 1857, p. 526; pl. 14, fig. 98 [ref. 000399]. In reprint: p. 54; pl. 6, fig. 98.
- Amphora proboscidea* Cleve 1895, p. 113; pl. 3, fig. 19-21 (as *A. proboscidea* (Greg. 1857?) Cl.) [ref. 000949]. Non Gregory? Cleve assigns this diatom with question to *Amphora proboscidea* Gregory, and notes on p. 114 “this form... of all the *Amphorae* observed by me has the greatest resemblance to *A. proboscidea* of Gregory...”.
- Amphora profusa* Giffen 1970, p. 88; pl. 1, fig. 8 [ref. 003156].
- Amphora proshkiniana* Guslyakov 1987, p. 1393; pl. 2, fig. 1-12 [ref. 008280].
- Amphora proteoides* Hustedt 1955, p. 37; pl. 13, fig. 9-11 [ref. 000530].
- Amphora proteoides* f. *varians* Proshkina-Lavrenko 1963, p. 168, 211; pl. 9, fig. 1-4 [ref. 000765].
- Amphora proteus* Gregory 1857, p. 518; pl. 13, fig. 81 [ref. 000399]. In reprint: p. 46; pl. 5, fig. 81.
- Amphora proteus* var. *alata* Cleve 1895, p. 103 [ref. 000949].
- Amphora proteus* f. *ambigua* Proshkina-Lavrenko 1963, p. 210, 167; pl. 9, fig. 7 [ref. 000765].
- Amphora proteus* var. *baikalensis* Skvortzow 1937, p. 343; pl. 12, fig. 16, 25 [ref. 000846].
- Amphora proteus* var. *contigua* Cleve 1895, p. 103 [ref. 000949]. Cleve refers to illustrations without definite names in Schmidt’s Atlas (1875) (ref. 012447) pl. 27, figs 7-9, and “probably also pl. 28, fig. 4”.
- Amphora proteus* var. *gregorii* Cleve-Euler 1953, p. 93; fig. 673 a (as *Amphora proteus*  $\alpha$  *gregorii* mh. in text and fig. caption) [ref. 001042]. *Invalid*. Rank implied, but not indicated.
- Amphora proteus* var. *impressa* Cleve-Euler 1915, p. 35; pl. 2, fig. 43 (as *Amphora (proteus* var.?) *impressa* in text, *Amphora impressa* on plate caption and index) [ref. 000246]. *Invalid*. Validly published by Cleve-Euler as *Amphora impressa*. Combination as a trinomial accepted and validated by Mills 1933, p. 180 (ref. 000998).
- Amphora proteus* var. *impressa* (Cleve-Euler) F.W. Mills 1933, p. 180 [ref. 000998]. Basionym: *Amphora impressa* A. Cleve 1915. Although it is a citation error for *Amphora (proteus* var.?) *impressa* Cleve-Euler 1915, the combination *Amphora proteus* var. *impressa* is accepted by Mills and we treat Mill’s entry as a valid new combination.
- Amphora proteus* var. *kariana* Grunow in Cleve & Grunow 1880, legend to pl. 1, fig. 7 (as *A. (proteus* var.?) *kariana* Grunow in text and *Amphora proteus* var. *kariana* in plate caption) [ref. 000241]. Described on. p. 24 as “*A. (proteus* var.?) *kariana*”.

- Amphora proteus* f. *lacunata* Jurilj 1957, p. 116; pl. 30, fig. 5 [ref. 000553].
- Amphora proteus* var. *laevistriata* Cleve-Euler 1915, p. 34; pl. 2, fig. 42 [ref. 000246].
- Amphora proteus* var. *maxima* H. Peragallo & M. Peragallo 1898, p. 201; pl. 44, fig. 29, 30 [ref. 001053].
- Amphora proteus* var. *mexicana* (A. Schmidt) Cleve 1883, p. 493 [ref. 000224]. Basionym: *Amphora mexicana* Schmidt in Schmidt et al. 1875.
- Amphora proteus* var. *minor* Grunow 1867, p. 23 [ref. 000431]. *Invalid*. No description and no illustration. Grunow notes “(*A. marina* W. Smith in Ann. of Nat. Hist. 1857, tab.1, fig. 7?)”.
- Amphora proteus* f. *nana* Bodeanu 1976, p. 67-68; pl. 2, fig. 2 (as *Amphora proteus* var. *oculata* f. *nana*) [ref. 008076]. [according to ANSP].
- Amphora proteus* var. *nodosa* Jurilj 1957, p. 115; pl. 30, fig. 4 [ref. 000553].
- Amphora proteus* var. *oculata* H. Peragallo & M. Peragallo 1898, p. 201; pl. 44, fig. 21, 22 [ref. 001053].
- Amphora proteus* var. *parvula* Flögel 1873, p. 89; fig. 10 [ref. 000319].
- Amphora proteus* var. *robusta* (Gregory) Cleve 1883, p. 493 [ref. 000224]. Basionym: *Amphora robusta* Gregory 1857.
- Amphora proteus* var. *robusta* Skvortzow 1929, p. 425 [ref. 000830]. *Illegitimate*. Non (Gregory) Cleve 1883.
- Amphora proteus* var. *tenuissima* Cleve-Euler 1915, p. 34; pl. 2, fig. 41 [ref. 000246].
- Amphora protracta* Pantocsek 1889, p. 39; pl. 1, fig. 5 [ref. 001033].
- Amphora protracta* var. *gallica* Héribaud 1908, p. 61; pl. 13, fig. 1 [ref. 000993].
- Amphora prudentii* Héribaud 1920, p. 69; pl. 4, fig. 3B [ref. 000482].
- Amphora pseudocingulata* De Toni 1891, p. 383 [ref. 000271]. New name for *Amphora cingulata* Pantocsek 1889, non Cleve in A. Schmidt 1875.
- Amphora pseudoholsatica* Nagumo & Kobayasi 1990, p. 151; fig. 13-26 [ref. 008620].
- Amphora pseudohyalina* Simonsen 1960, p. 129; pl. 2, fig. 1-3 [ref. 000824]. *Invalid*. Type not designated.
- Amphora pseudomontana* Cholnoky 1960, p. 25; pl. 1, fig. 66 [ref. 000208].
- Amphora pseudoproteus* A.H. Wachnicka & E.E. Gaiser 2007, p. 433, 449; fig. 177-182 [ref. 012976].
- Amphora pseudotenuissima* A.H. Wachnicka & E.E. Gaiser 2007, p. 400, 447; fig. 38-40 [ref. 012976].
- Amphora puechi* Lauby 1910, p. 145; pl. 11, fig. 4 [ref. 001335].
- Amphora pulchella* H. Peragallo & M. Peragallo 1898, p. 201; pl. 44, fig. 20 [ref. 001053].
- Amphora pulchra* Greville 1863, p. 184; pl. 4, fig. 2 [ref. 000414]. Also in Greville 1963 (ref. 001029), p. 575, pl. XV: fig. 2.
- Amphora punctata* Schrader 1969, p. 76; pl. 11, fig. 6 [ref. 003203].
- Amphora punctata* Andrews 1971, p. E13; pl. 2, fig. 8-10 [ref. 006295]. *Illegitimate*. Non Schrader 1969.
- Amphora punctifera* Grunow in Cleve & Möller 1882, No. 320 [ref. 001979]. *Invalid*. Nomen nudum.
- Amphora pusilla* Gregory 1857, p. 525; pl. 14, fig. 95, 95b [ref. 000399]. In reprint: p. 53; pl. 6, fig. 95, 95b.
- Amphora pusio* Cleve 1895, p. 102; pl. 3, fig. 40 [ref. 000949].
- Amphora pusio* var. *crucifera* Cleve-Euler 1932, p. 65; fig. 142 (as *Amphora* (*pusio* Cl. v.?) *crucifera* A. Cl.) [ref. 000248]. *Invalid*. Validly published in Cleve-Euler 1932 as *Amphora crucifera*.
- Amphora pusio* var. *genuina* Cleve-Euler 1953, p. 246; fig. 670a-d (as *Amphora pusio*  $\alpha$  *genuina* A. Cl. in plate caption) [ref. 001042]. Description on p. 92. Cleve-Euler cites the original reference of *Amphora pusio* Cleve.
- Amphora pusio* var. *interrupta* Cleve-Euler 1953, p. 246; fig. 670 e (as *Amphora pusio*  $\beta$  *interrupta* n.v.) [ref. 001042]. Description on p. 92.
- Amphora pusio* var. *parvula* (Flogel) H. Peragallo & M. Peragallo 1898, p. 199; pl. 44, fig. 9-10 [ref. 001053]. Basionym: *Amphora proteus* var. *parvula* Flögel 1873.
- Amphora quadrangulata* Mereschkowsky 1901, p. 28, pl. 5, figs. 15-16 [ref. 000650].
- Amphora quadrangulata* Mereschkowsky 1903, p. 170, pl. 3, fig. 25-27 (as *Amphora* (*ocellata* var.?) *quadrangulata* Mer. in text and plate caption) [ref. 002514]. Previously validly published by Mereschkowsky 1901 (ref. 000650).
- Amphora quadrata* Brébisson ex Kützing 1849, p. 95 [ref. 000596].
- Amphora quadrata* Gregory 1857, p. 521; pl. 13, fig. 85 [ref. 000399]. *Illegitimate*. Non *Amphora quadrata* Brébisson ex Kützing 1849. Synonym (substitute name): *Amphora gregorii* Ralfs 1861. (In reprint: p. 49; pl. 5, fig. 85).
- Amphora quadricostata* Rabenhorst 1853, pl. 9, fig. 5 [ref. 000772].
- Amphora quadrisulcata* Rabenhorst in Cleve & Möller 1879, No. 180 [ref. 001977]. *Invalid*. Nomen nudum.
- Amphora quadrisulcum* H. Peragallo in Tempère & Peragallo 1909, p. 116; No. 213- 214 [ref. 001065]. *Invalid*. Nomen nudum.
- Amphora racovitzae* Van Heurck 1909, p. 8; pl. 1, fig. 1, 3 [ref. 000898].
- Amphora racovitzae* var. *minor* M. Peragallo 1921, p. 61 [ref. 000737].
- Amphora ramsbottomi* Salah 1955, p. 99; pl. 1, fig. 27 [ref. 000802].
- Amphora ranomafanensis* Manguin 1952, p. 33; fig. 66 [ref. 000625].
- Amphora rattrayi* Cleve & Möller 1882, No. 310 [ref. 001979]. *Invalid*. Nomen nudum. Misspelled “Kattrayi”. The name of this taxon was later validly published by Cleve 1895, p. 133 (ref. 000949) as *Amphora arenaria* var. *rattrayi*.

- Amphora recessa* Mann 1925, p. 27; pl. 5, fig. 2 [ref. 000632].
- Amphora recta* Leuduger-Fortmorel 1879, p. 21; pl. 1, fig. 14 [ref. 000606].
- Amphora recta* (Gregory) Grunow in Van Heurck 1883, pl. 22B, fig. 9-10 (as “*Amphora (Amphoropsis) recta* Grun. (*Amphiprora recta* Gregory?)”) [ref. 001037]. Basionym: *Amphiprora recta* Gregory 1857. *Illegitimate*. Not *Amphora recta* Leuduger-Fortmorel 1879. Basionym cited with “?” and cites Cleve & Möller Diat. no. 310 (ref. 001979).
- Amphora recta* Grunow in Van Heurck 1883, pl. 22 bis, figs. 9, 10 (as “*Amphora (Amphoropsis) recta* Grun. (*Amphiprora recta* Gregory?)”) [ref. 001037]. *Illegitimate*. Non Leuduger-Fortmorel 1879. Cites Cleve & Möller Diat. no. 310 (ref. 001979). Can be treated as a the name of a new taxon as well as a new combination.
- Amphora recta* ‘De Toni’ according to M. Peragallo 1897, p. 348 [ref. 012539]. M. Peragallo refers to De Toni 1891, p. 348 (ref. 000271). De Toni’s entry, however, is only a citation of *Amphora recta* (Gregory) Grunow in Van Heurck.
- Amphora rectangularis* Gregory 1857, p. 70; pl. 1, fig. 29 [ref. 002719].
- Amphora rectilineata* Cleve & Grove in Cleve 1895, p. 139; pl. 4, fig. 24, 25 [ref. 000949].
- Amphora recurva* Meister 1937, p. 265; pl. 8, fig. 5 [ref. 000646].
- Amphora reichardtiana* Grunow 1867, p. 25 [ref. 000431].
- Amphora reinholdi* Hanna 1932, p. 372; pl. 31, fig. 1 [ref. 000027].
- Amphora reinholdii* var. *parva* Poretzky ex Proschkina-Lavrenko 1950, p. 273 [ref. 001823]. No illustration. Illustration (without description) in Poretzky 1953, p. 57, fig. 3 (ref. 004363).
- Amphora reniformis* Sreenivasa & Duthie 1971, p. 77; fig. 1A [ref. 008837].
- Amphora reniformis* Guo, Xie & Li 1997, p. 273-374; fig. 1-22 [ref. 008031]. *Illegitimate*. Non Sreenivasa & Duthie 1971. [according to ANSP].
- Amphora revirescens* Pantocsek 1902, p. 631; pl. 13, fig. 47 [ref. 000718]. (p. 5 of reprint).
- Amphora rhombica* Kitton in Schmidt et al. 1876, pl. 40, fig. 39 [ref. 012449].
- Amphora rhombica* var. *gracilior* Cleve 1895, p. 127 [ref. 000949].
- Amphora rhombica* var. *intermedia* Cleve 1895, p. 127 [ref. 000949].
- Amphora rhombica* var. *sinica* Skvortzow 1929, p. 425; pl. 2, fig. 9 [ref. 000830].
- Amphora richardiana* Chohnoky 1968, p. 21; fig. 21 [ref. 001969].
- Amphora ridicula* Giffen 1976, p. 382; pl. 1, fig. 10-13 [ref. 004247].
- Amphora rimosa* Ehrenberg 1838, p. 189 [ref. 000288]. Alternate name. Described (p. 188) and illustrated (pl. XIV: fig. IV-2) as *Navicula rimosa*. [according to INA].
- Amphora rimosa* Ehrenberg 1854, p. 8; pl. V: I: fig. 27; pl. XIII, II: fig. 17 (as *Amphora rimosa (hyalina)* on p. 8, and *Amphora rimosa* on fig. caption) [ref. 000966]. Previously appeared as “*Amphora rimosa (hyalina)*” and nomen nudum in Ehrenberg 1843, p. 367 (ref. 000294). Non *Amphora rimosa* Ehrenberg 1838 (= *Navicula rimosa* Ehrenberg 1938)?
- Amphora robertsonii* Podzorski 1985, p. 51-52; pl. 19, fig. 13, pl. 40, fig. 4 [ref. 008668]. [according to ANSP].
- Amphora robusta* Gregory 1857, p. 516; pl. 13, fig. 79 a-c [ref. 000399]. In reprint: p. 44; pl. 5, fig. 79 a-c.
- Amphora robusta* Greg. var. *brevistriata* Cleve-Euler 1915, p. 35; pl. 2, fig. 44 [ref. 000246].
- Amphora robusta* Greg. var. *fusca* Cleve 1895, p. 103 [ref. 000949].
- Amphora robusta* Greg. var. *genuina* Cleve-Euler 1953, p. 92 (as *Amphora robusta*  $\alpha$  *genuina* mh.) [ref. 001042]. Cleve-Euler cites *Amphora robusta* Gregory 1857.
- Amphora robusta* Greg. var. *hemicostata* H. Peragallo & M. Peragallo 1898, p. 202; pl. 44, fig. 35 [ref. 001053].
- Amphora robusta* Greg. var. *minor* Juhlin-Dannfelt 1882, p. 20; pl. 1, fig. 7 [ref. 000550].
- Amphora robusta* Greg. var. *subplicata* Cleve 1895, p. 103 [ref. 000949].
- Amphora robusta* Greg. var. *tenuissima* (Cleve-Euler) Cleve-Euler 1953, p. 92; fig. 672 b (as *Amphora robusta*  $\gamma$  *tenuissima* A. Cl.) [ref. 001042]. Basionym: *Amphora proteus* var. *tenuissima* Cleve-Euler 1915. *Invalid*. Rank implied, but not clearly indicated. Combination validated by VanLandingham 1967, p. 260 (ref. 006293).
- Amphora robusta* Greg. var. *tenuissima* (Cleve-Euler) VanLandingham 1967, p. 260 [ref. 006293]. Basionym: *Amphora proteus* var. *tenuissima* Cleve-Euler 1915. Previously invalid (Rank not indicated) in Cleve-Euler 1853, p. 92 as *Amphora robusta*  $\gamma$  *tenuissima* A. Cl. (ref. 001042). Combination accepted and validated by VanLandingham, although not introduced as new.
- Amphora robusta* sensu A. Schmidt in Schmidt et al. 1875, pl. 27, fig. 38-41 (as *A. robusta* Gregory) [ref. 012447]. Specimens on fig. 38-41 named *Amphora arenicola* var. *major* by Cleve 1895, p. 104 (ref. 000949).
- Amphora robusta* sensu A. Schmidt in Schmidt et al. 1875, pl. 27, fig. 38-41 (As *A. robusta* Gregory) [ref. 012447]. Specimen on fig. 40 named *Amphora subalata* by Peragallo 1911 (ref. 000743).
- Amphora roettgeri* Lee & Reimer 1984, p. 335-336; text fig. 1c, pl. 1, fig. 2 [ref. 008486].
- Amphora rognonii* Gasse 1975, p. 26; pl. 36, fig. 13-14, pl. 52, fig. 5-6 [ref. 004220]. *Invalid*. Type not indicated.
- Amphora rossi* Hajós 1973, p. 375 (fig. caption), table 1 (p. 377); pl. 5, fig. 82 [ref. 003202]. *Invalid*. No description.
- Amphora rostrata* ‘W. Smith’ according to Van Heurck 1896, p. 133; pl. 24, fig. 679 [ref. 000897]. *Invalid*. Citation (typographical) error for *Amphora costata* W. Smith 1853.
- Amphora rostrata* Mereschkowsky 1902, p. 50, 146 (as *Amphora (ovalis* var.?) *rostrata*) [ref. 001382]. *Invalid*. Nomen

nudum.

- Amphora rostrata* Zanon 1948, p. 222; fig. 9 [ref. 000932].
- Amphora rostrata* var. *minor* Zanon 1948, p. 222; fig. 10 [ref. 000932].
- Amphora rostrigera* Frenguelli 1936, p. 32; pl. 2, fig. 5-6 (as *Amphora (Halamphora) rostrigera*) [ref. 004118].
- Amphora rotunda* Skvortzow 1937, p. 342; pl. 12, fig. 18 [ref. 000846].
- Amphora rugosa* Hustedt 1937, p. 415; pl. 24, fig. 1-3 [ref. 001013].
- Amphora russica* Pantocsek 1902, p. 631; pl. 11, fig. 14 [ref. 000718]. (p. 5 of reprint).
- Amphora sabiniana* Reimer in Patrick & Reimer 1975, p. 79-80; pl. 14, fig. 8 [ref. 006176].
- Amphora sabyii* Salah 1955, p. 99; pl. 2, fig. 10 [ref. 000802].
- Amphora salina* W. Smith 1853, p. 19; pl. 30, fig. 251 [ref. 000863].
- Amphora salina* var. *capitata* M. Peragallo in Héribaud 1920, p. 106; pl. 1, fig. 5 [ref. 000482]. Non Rochoux d'Aubert in Héribaud 1920, p. 69 (same publication).
- Amphora salina* var. *capitata* Rochoux d'Aubert in Héribaud 1920, p. 69; pl. 4, fig. 4 [ref. 000482]. Non M. Peragallo in Héribaud 1920, p. 106 (same publication).
- Amphora salina* var. *fossilis* Pantocsek 1889, p. 39; pl. 3, fig. 47 [ref. 001033].
- Amphora salina* f. *minor* Van Heurck 1880, pl. 1, fig. 20 (as "A. BOREALIS Kg. (*A. salina* forma *minor*?)") [ref. 000895]. Invalid. Pro syn. *A. borealis* Kützing. Name validly published in Van Heurck 1885, p. 57 (ref. 001040) as *Amphora salina*  $\beta$  *minor*.
- Amphora salina* var. *minor* Van Heurck 1885, p. 57; (pl. 1, fig. 20) (as *Amphora salina*  $\beta$  *minor*) [ref. 001040]. New name, based on *Amphora borealis* Kützing 1844. Refers to illustration in Atlas: Van Heurck 1880, pl. 1, fig. 20 (ref. 000895) "A. BOREALIS Kg. (*A. salina* forma *minor*?)".
- Amphora salsa* Patrick & Freese 1961, p. 258; pl. 3, fig. 18 [ref. 000725].
- Amphora samoensis* M. Peragallo in Peragallo & Peragallo 1911, p. 6 (as *A. samoensis* (*capensis* var.?) M. Perag.) [ref. 000734].
- Amphora sanctenectairense* Rochoux d'Aubert in Héribaud 1920, p. 69; pl. 4, fig. 1 [ref. 000482].
- Amphora sancti-cataldi* Zanon 1933, p. 33; pl. 1, fig. 18 (as *Amphora S.ti Cataldi* in text, *Amphora S. Cataldi* in plate caption) [ref. 001574].
- Amphora sancti-naumii* Z. Levkov & D. Metzeltin in Levkov, Krstic, Metzeltin & Nakov 2007, p. 21; pl. 157, fig. 1-7, pl. 158, fig. 1-6 [ref. 012897].
- Amphora sanctimartiali* M. Peragallo in Héribaud 1920, p. 98; pl. 1, fig. 2, 3 ('*Sancti Martiali*') [ref. 000482].
- Amphora sanctimartiali* var. *faureli* Amossé 1941, p. 147; fig. 7-8 (as *Amphora (Sancti-Martiali* M Per.?) var. *Faureli* nov.) [ref. 000109]. Name listed as such on p. 130 (list), p. 146 (fig. caption), p. 147 (description) and as "*Amphora Sancti-Martiali* M Per.? var. *Faureli* nov." on p. 136 (list).
- Amphora sarmatica* Pantocsek 1886, pl. 15, fig. 135 (as "*Amphora (intersecta* A. Schm. var.?) *sarmatica* nov. spec." on plate caption) [ref. 000714]. Described on p. 21 as *Amphora intersecta* A. Schm. var. *sarmatica* Pant. Both names (*A. sarmatica* and *A. intersecta* var. *sarmatica*) are simultaneously validly published by Pantocsek 1886.
- Amphora sarmatica* Pant. var. *striata* Pantocsek 1903, p. 24 (second edition); pl. 17, fig. 156 [ref. 000717]. Invalid? Probable typographical error in Pantocsek's 2nd edition (1903). Described as *Amphora intersecta* A. Schm. var. *striata* Pant. on p. 22 of 1st edition (1886) (ref. 000714) and *Amphora (intersecta* A. Schm. var.?) *sarmatica* var. *striata* Pant. on p. 24 of 2nd edition (1903). Illustrated as *Amphora (intersecta* A. Schm. var.?) *striata* nov. sp. in both editions.
- Amphora sarmatica* Gaponov 1915, p. 23 [ref. 001219]. *Illegitimate*. Non Pantocsek 1886. [according to VLC].
- Amphora sarniensis* Greville 1862, p. 95; pl. 9, fig. 12 [ref. 000977].
- Amphora sarniensis* Grev. var. *flexuosa* (Greville) Cleve 1895, p. 120 [ref. 000949]. Basionym: *Amphora flexuosa* Greville 1863.
- Amphora sarniensis* Grev. var. *sinuata* (Greville) Cleve 1895, p. 120 [ref. 000949]. Basionym: *Amphora sinuata* Greville 1863.
- Amphora sarniensis* A. Schmidt in Schmidt et al. 1875, pl. 25, fig. 80 (as *Amphora sarniensis* Greville?) [ref. 012447]. Non *Amphora sarniensis* Greville 1862? A. Schmidt notes "wenigstens sehr nahe mit ihr verwandt (at least very closely related)". See discussion in Mann 1925, p. 28 (ref. 000632). Synonyms: *A. tetragibba* Cleve 1895, *A. tumulifer* Mann 1925.
- Amphora scabriuscula* Cleve & Grove in Cleve 1893, p. 56; pl. 3, fig. 7 [ref. 000230].
- Amphora scala* Cleve & Grove 1892, p. 158; pl. 22, fig. 18, 19 [ref. 000239].
- Amphora scala* var. *alata* Cleve 1895, p. 138 [ref. 000949].
- Amphora scalaris* Castracane 1886, p. 18; pl. 17, fig. 19 [ref. 000193].
- Amphora schleinitzii* Janisch in Schmidt et al. 1876, pl. 39, fig. 9, 10 [ref. 012449].
- Amphora schmidtii* Grunow in Schmidt et al. 1875, pl. 28, fig. 2, 3 [ref. 012447]. Specimen on fig. 3 was later assigned to "var. major" by Cleve 1895, p. 107 (ref. 000949).
- Amphora schmidtii* Grun. var. *alata* Cleve 1895, p. 107 [ref. 000949].

- Amphora schmidtii* Grun. f. *major* Cleve 1895, p. 107 [ref. 000949]. Cleve refers to figure in Schmidt's Atlas 1875, pl. 28, fig. 3 (ref. 012447) (*A. schmidtii*).
- Amphora schmidtii* Grun. var. *minor* Cleve 1895, p. 107 [ref. 000949].
- Amphora schmidtii* Grun. var. *minor* H. Peragallo & M. Peragallo 1898, p. 204; pl. 43, fig. 3 [ref. 001053]. *Illegitimate*. Non Cleve 1895.
- Amphora schmidtii* Grun. var. *schleinitzii* (Janisch in Schmidt et al.) Cleve 1895, p. 107 [ref. 000949]. Basionym: *Amphora schleinitzii* Janisch in Schmidt et al. 1876.
- Amphora schmidtii* Petit 1878, p. 240 [ref. 002117]. *Illegitimate*. Non *Amphora schmidtii* Grunow in Schmidt 1875. Illustration in Schmidt's Atlas, pl. 28, fig. 51 (fig. with no name). Previously published in Petit 1877 "Fond de la Mer", p. 17 (ref. 000747)? Synonym (replacement name): *Amphora foveauxiana* Taylor 1970.
- Amphora Schroederi* Hustedt 1921, p. 161; fig. 16-18 [ref. 000495].
- Amphora scopulorum* Giffen 1980, p. 142; pl. 1, fig. 8 [ref. 008263].
- Amphora scotica* 'Cleve' according to Van Heurck 1882-1885, p. 100; Type No. 416 [ref. 000896]. *Invalid*. No description.
- Amphora scotica* f. *minor* Grunow in Van Heurck 1882-1885, p. 100; Type No. 416 [ref. 000896]. *Invalid*. No description.
- Amphora sculpta* Frenguelli 1934, p. 359; pl. 2, fig. 23 (as *Amphora (Halumphora) sculpta*) [ref. 000359].
- Amphora scutella* A.H. Wachnicka & E.E. Gaiser 2007, p. 426, 449; fig. 144-147 [ref. 012976].
- Amphora securicula* Peragallo & Peragallo 1899, p. 224; pl. 50, fig. 2 [ref. 001054].
- Amphora sejuncta* Pantocsek 1892, pl. 35, fig. 495 [ref. 001034]. Description in Pantocsek 1905, p. 12 (ref. 001445).
- Amphora semen* Ehrenberg 1854, p. 8; pl. 38A/17, fig. 10 [ref. 000966]. Described from figure by Ralfs in Pritchard 1861, p. 882 (ref. 001063).
- Amphora semi-ovum* Leuduger-Fortmorel 1898, p. 37; pl. 7, fig. 18 [ref. 000608].
- Amphora seminuda* Meister 1937, p. 265; pl. 8, fig. 7 [ref. 000646].
- Amphora semperpalorum* A.H. Wachnicka & E.E. Gaiser 2007, p. 403, 447; fig. 44-48 [ref. 012976].
- Amphora sendaiana* J. Brun 1891, p. 9; pl. 12, fig. 1 [ref. 000176].
- Amphora sendaiense* 'J. Brun' according to Tempère & Peragallo 1915, p. 14 [ref. 001071]. *Invalid*. Citation error for *Amphora sendaiana* Brun 1891.
- Amphora senonquei* M. Peragallo 1921, p. 61; pl. 2, fig. 21 [ref. 000737].
- Amphora separanda* M. Peragallo in Peragallo & Peragallo 1911, p. 7 [ref. 000734]. Cites *Amphora* sp. in Schmidt's Atlas pl. 25, fig. 57 (*A. Schmidt* 1875; ref. 012447).
- Amphora septentrionalis* Østrup 1895, p. 410; pl. 3, fig. 7 [ref. 000698].
- Amphora sepulta* Pantocsek 1886, p. 22; pl. 24, fig. 223 (as "*Amphora (Grevilleana* Greg. var.?) *sepulta* nov. spec." in text and fig. caption) [ref. 000714].
- Amphora serrata* Skabichevskii 1936, p. 716, 721; pl. 3, fig. 27 [ref. 000826].
- Amphora sibirica* Skvortzow & Meyer 1928, p. 36-37; pl. 3, fig. 168 [ref. 000855].
- Amphora sibirica* var. *gracilis* Skvortzow 1937, p. 342; pl. 12, fig. 19 [ref. 000846].
- Amphora sima* Mann 1925, p. 27; pl. 5, fig. 5 [ref. 000632].
- Amphora simplex* Leuduger-Fortmorel 1898, p. 36; pl. 7, fig. 13 [ref. 000608]. Misprinted "*Amplora*" on p. 36.
- Amphora sinensis* A. Schmidt in Schmidt et al. 1875, pl. 26, fig. 41, 42 ('*chinensis*') [ref. 012447]. Orthographic variant for *A. chinensis* Schmidt 1875, (first?) introduced by De Toni 1891, p. 397 (ref. 000271).
- Amphora sinuata* Greville 1863, p. 183; pl. 4, fig. 5 [ref. 000414]. Also in Greville 1963 (ref. 001029), p. 576, pl. XV: fig. 5.
- Amphora sinuata* sensu Grunow in Schmidt et al. 1875, pl. 25, fig. 78, 79 (as "Yokohama, nach Grunow verwandt mit *A. sinuata* Greville") [ref. 012447]. Non *Amphora sinuata* Greville according to Cleve 1895, p. 120 (ref. 000949) who includes this in his new species *Amphora tetragibba* Cleve 1895.
- Amphora soelsvigiensis* Petit 1888, p. 120; pl. 10, fig. 15 ("*sölsvigiensis*") [ref. 000751].
- Amphora sokolovii* Missuna 1914, p. 146; fig. 66 [ref. 000663].
- Amphora somalica* Frenguelli 1927, p. 4; pl. I, fig. 1 (as *Amphora (Halumphora) somalica*) [ref. 004138].
- Amphora spartinetensis* Sullivan & Reimer 1975, p. 116; pl. 1 & 2, fig. 7 [ref. 006743].
- Amphora speciosa* Castracane 1886, p. 17; pl. 27, fig. 1 [ref. 000193].
- Amphora spectabilis* Gregory 1857, p. 516; pl. 13, fig. 80 [ref. 000399]. In reprint: p. 44; pl. 5, fig. 80.
- Amphora spectabilis* var. *minor* H. Peragallo in Pelletan 1889, p. 227 [ref. 001001]. *Invalid*. Nomen nudum.
- Amphora spitzbergenensis* VanLandingham 1967, p. 270 [ref. 006293]. Also on p. 243. New name for *Amphora obscura* Krasske 1938, non Reichelt 1903.
- Amphora splendida* Rivera 1974, p. 61-62; fig. 94 [ref. 008717]. [according to ANSP].
- Amphora spriggerica* A.H. Wachnicka & E.E. Gaiser 2007, p. 421, 448; fig. 123-126 [ref. 012976].
- Amphora staubii* Pantocsek 1892, pl. 10, fig. 171 [ref. 001034]. Description in Pantocsek 1905, p. 12 (ref. 001445).
- Amphora staurohyalina* Podzorski & Håkansson 1987, p. 52; pl. 15, fig. 11, pl. 51, fig. 4-6 [ref. 006169].
- Amphora stauroneiformis* 'Lorenz manuscript' according to Grunow 1867, p. 23 [ref. 000431]. *Invalid*. Herbarium name

- that is replaced by *A. decussata* Grunow.
- Amphora staurophora* Juhlin-Dannfelt 1882, p. 20; pl. 1, fig. 9 [ref. 000550]. Non Castracane 1886. Synonym (replacement name): *Amphora dannfeltii* Berg 1952 (illegitimate: Berg replaced the older name).
- Amphora staurophora* Castracane 1886, p. 20; pl. 27, fig. 6 [ref. 000193]. *Illegitimate*. Non Juhlin-Dannfelt 1882.
- Amphora staurophora* Pantocsek 1889, p. 39 [ref. 001033]. *Illegitimate*. Non Juhlin-Dannfelt 1882, nec Castracane 1886. Illustration in Pantocsek 1892, pl. 15, fig. 228 (ref. 001034). Redescribed in Pantocsek 1905, p. 11 (ref. 001445).
- Amphora staurophora* Cleve 1895, p. 129; pl. IV, fig. 33, 34 (as *Amphora staurophora* (Castr. 1886?) Cl.) [ref. 000949]. Non Juhlin-Dannfelt 1882, nec Castracane 1886?
- Amphora stauroptera* J.W. Bailey 1854, p. 8; fig. 14, 15 [ref. 000122].
- Amphora stausira* Loseva 1982, p. 131; pl. 85, fig. 18, 19 [ref. 006904].
- Amphora strangulata* Leuduger-Fortmorel 1879, p. 19 [ref. 000606]. Cites unnamed figure in Schmidt's Atlas (1875): pl. 25, fig. 61 (ref. 012447).
- Amphora streckeriae* Krammer 1997, p. 226-227; pl. 206, fig. 9-11 [ref. 008010]. [according to ANSP].
- Amphora striata* Eichwald 1852, p. 501; pl. 6, fig. 7 [ref. 010684]. [according to INA].
- Amphora striata* Pantocsek 1886, legend to pl. 17, fig. 156 (as *Amphora (intersecta* A. Schm. var.?) *striata* nov. sp. in fig. caption) [ref. 000714]. *Illegitimate*. Non Eichwald 1852. Described in text (p. 22) as *Amphora intersecta* var. *striata* Pant. Both names (as species, and as variety) are simultaneously validly published.
- Amphora striata* Pantocsek 1889, p. 39; pl. 2, fig. 31 [ref. 001033]. *Illegitimate*. Not *Amphora striata* Pantocsek 1886, nec *A. striata* Eichwald 1852.
- Amphora striata* Hajós 1968, p. 189; pl. 58, fig. 12 [ref. 002445]. *Illegitimate*. Non Eichwald 1852, nec Pantocsek 1886, nec Pantocsek 1889.
- Amphora strigata* Pantocsek 1892, pl. 11, fig. 181 [ref. 001034]. Description in Pantocsek 1905, p. 12 (ref. 001445).
- Amphora strigosa* Hustedt 1949, p. 44; pl. 1 (on p. 53), fig. 30-33 [ref. 000520].
- Amphora striolata* Pantocsek 1889, p. 39; pl. 2, fig. 25 [ref. 001033]. Name for *Amphora fischeri* sensu Neupauer 1867, non Kützing 1844.
- Amphora stroppiana* Selva 1981, p. 86, 90; pl. 1, fig. 11-13 [ref. 008778]. [according to ANSP].
- Amphora studeri* Janisch in Schmidt et al. 1876, pl. 39, fig. 1 [ref. 012449].
- Amphora sturtii* Grunow 1888, p. 36 [ref. 000446]. Name for *Amphora contracta* sensu Grove & Sturt 1887, non Grunow 1875.
- Amphora suavis* Pantocsek 1892, pl. 28, fig. 416 [ref. 001034]. Description in Pantocsek 1905, p. 12 (ref. 001445).
- Amphora subacutiuscula* Schoeman 1972, p. 240; fig. 1-5 [ref. 008770].
- Amphora subalata* M. Peragallo in H. Peragallo & M. Peragallo 1911, p. 7; pl. 1, fig. 3 [ref. 000734].
- Amphora subangularis* Hustedt 1955, p. 39; pl. 13, fig. 16-17 [ref. 000530].
- Amphora subcapitata* (Kisselev) Hustedt 1959, p. 426; text-fig. 8 (on p. 421) [ref. 000536]. Basionym: *Amphora veneta* Kütz. var. *subcapitata* Kisselev 1932.
- Amphora subcostulata* Stoermer & Yang 1971, p. 406; fig. 12 a, b [ref. 006007]. [according to ANSP].
- Amphora subcuneata* Hustedt 1955, p. 39; pl. 14, fig. 17-18 [ref. 000530].
- Amphora subelliptica* Mereschowsky 1902, p. 174(41) [ref. 001382]. *Invalid*. Nomen nudum.
- Amphora subholsatica* K. Krammer 1997, p. 223-225; pl. 205, fig. 1-10 [ref. 008010]. [according to ANSP].
- Amphora subhyalina* Podzorski & Håkansson 1987, p. 52; pl. 15, fig. 10, pl. 51, fig. 7-8 [ref. 006169].
- Amphora subinflata* Grunow in Schmidt et al. 1875, pl. 26, fig. 48, 49 [ref. 012447].
- Amphora sublaevis* Hustedt 1955, p. 41; pl. 13, fig. 3, 12-15 [ref. 000530].
- Amphora submontana* Hustedt 1949, p. 112-113; pl. 11, fig. 4 [ref. 000521].
- Amphora submontana* var. *ebroicensis* Maillard 1978, p. 198, fig. 2-6 [ref. 008537]. *Invalid*. Type not indicated.
- Amphora subovalis* Renault ex Lauby 1910, p. 320 [ref. 001335]. [According to VanLandingham, pers. com., 2007].
- Amphora subpunctata* Grove & Sturt 1887, p. 131; pl. 10, fig. 3 [ref. 000989].
- Amphora subrobusta* Hustedt 1927, p. 239; pl. 7, fig. 11, 12 [ref. 000499].
- Amphora subrobusta* var. *pliocenica* Frenguelli 1934, p. 358; pl. 2, fig. 19-20 [ref. 000359].
- Amphora subtilis* Grunow in Cleve & Möller 1879, No. 255 [ref. 001978]. *Invalid*. Nomen nudum.
- Amphora subtilissima* Schwabe & Simonsen 1961, p. 266; Abb. 5, fig. 10-14 [ref. 002574]. *Invalid?* Type not indicated?
- Amphora subtropica* A.H. Wachnicka & E.E. Gaiser 2007, p. 407, 447; fig. 64-70 [ref. 012976].
- Amphora suburgida* Hustedt 1937, p. 416; pl. 24, fig. 9-11 [ref. 001013].
- Amphora suessii* Missuna 1914, p. 146; fig. 83 [ref. 000663].
- Amphora sulcata* Brébisson 1854, p. 256; pl. 1, fig. 8 [ref. 000157].
- Amphora sulcata* f. *parva* A. Schmidt in Schmidt et al. 1875, pl. 27, figs. 12, 13 (as *A. sulcata* Bréb. f. *parva*) [ref. 012447].
- Amphora sulcata* f. *parva* Tempère & Peragallo 1911, p. 285; No. 571 (as *A. sulcata* Bréb. fa. *parva*) [ref. 001067]. *Invalid*. Nomen nudum.
- Amphora sulcata* Brébisson ex Gregory 1857, p. 523; pl. 14, fig. 92 [ref. 000399]. In reprint: p. 51; pl. 13, fig. 92. Although



- Gregory notes “n. sp.”, the name was previously published by Brébisson 1854 (ref. 000157).
- Amphora sulcata* Brébisson ex Roper 1858, p. 24; pl. 3, fig. 7 [ref. 000794]. Although there is such entry in VanLandingham, p. 272 (ref. 006293), there is no such name as *A. sulcata* Roper. Roper describes a species of *Amphora*, notes differences and similarities with *Amphora sulcata* Bréb. and decides to include his specimens in Brébisson’s species.
- Amphora sulcata* A. Schmidt in Schmidt et al. 1875, pl. 26, fig. 46, 47 (as “*A. sulcata* Gregory?”) [ref. 012447]. Non Brébisson 1854 (?). A. Schmidt’s taxon was later named *Amphora arcus* var. *sulcata* Cleve 1895.
- Amphora sulcata* Juhlin-Dannfelt 1882, p. 20; pl. 1, fig. 8 (as *A. sulcata* (Bréb.) Greg.) [ref. 000550]. *Illegitimate*. Non Brébisson 1854. Juhlin-D. cites “Greg. Clyde PL. V, fig. 92. Schmidt Atl. pl. 26, fig. 46, 47”, and notes: “Like the figs in Schmidts Atlas, differs from Gregory’s quoted figure by its very conspicuous central nodule. Striae very fine”.
- Amphora sulcata* Cleve 1895, p. 112 [ref. 000949]. Non Brébisson 1854? Cleve states, p. 112, that “it is impossible to make out what form Brébisson denotes by the name *A. sulcata*” and for this reason “adopted this name for a form, which in all points is nearly akin to it”.
- Amphora sulcata* H. Peragallo in H. Peragallo & M. Peragallo 1898, p. 212; pl. 47, fig. 7 (as *A. sulcata* (Bréb.) Per.) [ref. 001053]. *Illegitimate*. Non Brébisson 1854. Peragallo indicates that neither Brébisson nor Gregory’s species are recognizable, and that since Cleve [1895, ref. 000949] did not provide an illustration for his species, he had to do so. Diagnosis of Peragallo and Cleve differ slightly.
- Amphora sumatrensis* Leuduger-Fortmorel 1892, p. 10; pl. 1, fig. 5 [ref. 000607].
- Amphora suspecta* Marsson 1900, p. 66 [ref. 002304]. [according to VLC].
- Amphora svavis* ‘Pantocsek’ Mills 1933, p. 188 [ref. 000998]. *Invalid*. Orth. variant for *Amphora suavis* Pantocsek 1892.
- Amphora sydowii* Chohnoky 1963, p. 237; pl. 8, fig. 3-6 [ref. 002409].
- Amphora szabói* Pantocsek 1889, p. 39; pl. 2, fig. 20 [ref. 001033]. Name for *Cocconeis limbata* sensu Neupauer 1867, non Ehrenberg 1840.
- Amphora szontághii* Pantocsek 1889, p. 39; pl. 7, fig. 138 [ref. 001033].
- Amphora tahitiana* Castracane 1886, p. 19; pl. 27, fig. 15 (as *Amphora thaitiana*) [ref. 000193]. Corrected spelling of the original “*thaitiana*”. Corrected name (first?) appeared in De Toni 1891, p. 406 (ref. 000271), also in Peragallo 1897 (ref. 012539).
- Amphora tamnaeana* Guermeur 1954, p. 68; pl. 16, fig. 12 [ref. 000449].
- Amphora tanganyikae* Caljon in Caljon & Cocquyt 1992, p. 148; pl. 4, fig. 1-3, 6-7, pl. 5, fig. 1-4 [ref. 008089]. [according to ANSP].
- Amphora tasmanica* W. Vyverman, K. Sabbe, D.G. Mann, R. Vyverman, D. Hodgson & K. Muylaert 1997, p. 20 [ref. 013101]. *Invalid*. Nomen nudum.
- Amphora taylori* Grunow in Van Heurck 1882-1885, p. 4; Type No. 13 [ref. 000896]. Description included.
- Amphora tegetum* A.H. Wachnicka & E.E. Gaiser 2007, p. 415, 448; fig. 101-103 [ref. 012976].
- Amphora tenae* Zanon 1928, p. 269; fig. 21 [ref. 000928].
- Amphora tenellula* Giffen 1970, p. 268; pl. 1, fig. 21 [ref. 004243]. New name for *Amphora tenuissima* Giffen 1967, non Hustedt 1955.
- Amphora tenera* W. Smith 1853, p. 20; pl. 30, fig. 252 [ref. 000863]. W. Smith cites as synonym *Amphora lineata* [sensu] Kützing [1844, pl. 5] fig. 36 and notes “ad specim. authen. quae communicavit cl. De Brébisson”.
- Amphora tenerascens* Chohnoky 1961, p. 293; fig. 11 [ref. 000210].
- Amphora tenerrima* Aleem & Hustedt 1951, p. 16-17; fig. 3 [ref. 000107].
- Amphora tenuirostris* Marsson 1900, p. 67 [ref. 002304]. [according to VLC].
- Amphora tenuis* Flögel 1873, p. 90; fig. 13 [ref. 000319].
- Amphora tenuissima* Hustedt 1955, p. 39; pl. 14, fig. 16 [ref. 000530].
- Amphora tenuissima* Giffen 1966, p. 254; pl. 59(1), fig. 19, 20 [ref. 004242]. *Illegitimate*. Non Hustedt 1955. Synonym (replacement name): *Amphora tenellula* Giffen 1970.
- Amphora tenuistriata* Manguin in Bourrelly & Manguin 1952, p. 90; pl. 7, fig. 150 [ref. 000149].
- Amphora terroris* Ehrenberg 1853, p. 526 [ref. 001189].
- Amphora terroris* var. *inflata* Østrup 1910, p. 212 (as *Amphora terroris* Ehr., var. *inflata* Øst.) [ref. 000707]. Cites “*Amphora inflata* Grunow?” in Østrup 1895, p. 410; pl. 3, fig. 6 (ref. 000698).
- Amphora terroris* var. *limbata* Cleve 1895, p. 123 [ref. 000949].
- Amphora terroris* var. *rara* (Frenguelli) VanLandingham 1967, p. 274 [ref. 006293]. Basionym: *Amphora cymbifera* Greg. var. *rara* Frenguelli 1945. Also on p. 210. Deliberate new combination.
- Amphora tertiaria* Pantocsek 1889, p. 39 [ref. 001033]. Illustration in Pantocsek 1892, pl. 15, fig. 225 (ref. 001034). Re-described in Pantocsek 1905, p. 13 (ref. 001445).
- Amphora tessellata* Grove & Sturt 1887, p. 131; pl. 10, fig. 1 [ref. 000989].
- Amphora testudinata* Hohn & Hellerman 1966, p. 121; pl. 1, fig. 22 [ref. 008350].
- Amphora teta* Karsten 1899, p. 112; fig. 149 [ref. 000558].
- Amphora tetragibba* Cleve 1895, p. 120 [ref. 000949]. Cites *A. sarniensis* [sensu] A. Schmidt 1875, Atlas, pl. 25, fig. 80,

- and *A. sinuata* aff. Grun. in A. Schmidt 1875, Atlas pl. 25, fig. 78, 79 (ref. 012447).
- Amphora thaitiana* Castracane 1886, p. 19; pl. 27, fig. 15 [ref. 000193]. Original but probably incorrect spelling (see *Amphora tahitiana*).
- Amphora thermalis* Hustedt 1949, p. 111-112; pl. 11, fig. 1-3 [ref. 000521].
- Amphora theta* 'Karsten' Mills 1933, p. 189 [ref. 000998]. *Invalid*. Error (or correction?) for *Amphora teta* Karsten 1899.
- Amphora thromboliticola* Cocquyt 1991, p. 105; fig. 2, 4-9 [ref. 008129].
- Amphora thumensis* (A. Mayer) Krieger 1929, p. 280 [ref. 001735]. Basionym: *Amphora coffeaeformis* var. *thumensis* Mayer 1919.
- Amphora thumensis* (A. Mayer) Cleve-Euler 1932, p. 133; (fig. 373?) [ref. 000248]. Basionym: *Amphora coffeaeformis* var. *thumensis* Mayer 1919. Isonym: combination previously published (Krieger 1929).
- Amphora tibestiensis* Amossé 1925, p. 107; fig. 1-2 [ref. 002896].
- Amphora tithonia* Pantocsek 1902, (p. 631); caption to pl. 13, fig. 49 [ref. 000718]. Described as "*Amphora tithoniana*" on p. 631 (p. 5 of reprint).
- Amphora tithoniana* Pantocsek 1902, p. 631; pl. 13, fig. 49 [ref. 000718]. (p. 5 of reprint). As "*Amphora tithonia*" on plate caption.
- Amphora tomassiniana* Pantocsek 1902, p. 631; pl. 13, fig. 83 [ref. 000718]. (p. 5 of reprint). As *Amphora tomasinii* on plate caption.
- Amphora tomassinii* Pantocsek 1902, pl. 13, fig. 83 [ref. 000718]. Described as *Amphora tomasiniana* on p. 631 (p. 5 of reprint).
- Amphora tomiakae* A. Witkowski, H. Lange-Bertalot & D. Metzeltin 2000, p. 153, 421; pl. 169, fig. 12-14 [ref. 009017].
- Amphora torontoensis* Sreenivasa & Duthie 1971, p. 78; fig. 1B [ref. 008837].
- Amphora tortonica* Hajós 1968, p. 193; pl. 56, fig. 10, 17 [ref. 002445].
- Amphora towutensis* Hustedt 1942, p. 96; fig. 178-179 [ref. 000517].
- Amphora transcaspica* (J.B. Petersen) A. Dulmaa 1979 [ref. 010166]. Basionym: *Amphora coffeaeformis* var. *transcaspica* Petersen 1930. [according to INA].
- Amphora transfixa* Meister 1937, p. 265; pl. 7, fig. 8 [ref. 000646].
- Amphora transylvanica* Jurilj 1954, p. 146-147; fig. 54 (as *Amphora transsylvanica* (Pant.) Jurilj (spec. nov. rec.)) [ref. 000552]. Jurilj cites Pantocsek's fossil taxon. Unclear from the text (Croatian) if this should be treated as the description of a new taxon.
- Amphora transylvanica* Pantocsek 1892, pl. 1, fig. 12 [ref. 001034]. Described in Pantocsek 1905, p. 13 as *Amphora transilvanica* (ref. 001445).
- Amphora treubii* Leuduger-Fortmorel 1892, p. 11; pl. 1, fig. 7 [ref. 000607].
- Amphora triasica* Zanon 1929, p. 298; fig. 8 [ref. 001927].
- Amphora triseriata* Ricard 1975, p. 203; pl. 2, fig. 17 [ref. 008711].
- Amphora triundulata* Ross 1947, p. 222; pl. 11, fig. 13 [ref. 000796].
- Amphora tropidoneioides* Salah 1955, p. 100; pl. 1, fig. 29 [ref. 000802].
- Amphora truncata* Gregory 1857, p. 515; pl. 13, fig. 77 [ref. 000399]. In reprint: p. 43; pl. 5, fig. 77.
- Amphora truncata* Cleve 1895, p. 112; pl. 3, fig. 17, 18 [ref. 000949]. Non Gregory 1857? Cleve states on p. 112, "What *A. truncata* Greg. may exactly denote is not possible to make out without original specimens".
- Amphora truncata* var. *brevis* Bodeanu 1976, p. 68-69; pl. 2, fig. 3 [ref. 008076]. [according to ANSP].
- Amphora truncata* var. *punctata* Cleve & Möller 1879, No. 208-210 [ref. 001977]. *Invalid*. Nomen nudum.
- Amphora tucumana* Herbst & Maidana 1988, p. 48; fig. 1-17 [ref. 008020].
- Amphora tumida* Hustedt 1956, p. 120; tex-fig. 51-54 (on p. 118) [ref. 000531].
- Amphora tumidula* Grunow in Rabenhorst 1864, p. 175 [ref. 002558]. Also described in Alg. Eur. no. 1716 (Rabenhorst 1864).
- Amphora tumulifer* Mann 1925, p. 28; pl. 4, fig. 3 [ref. 000632]. Name for *A. sarniensis* [sensu] A. Schmidt 1875, Atlas, pl. 25, fig. 80 (ref. 012447). Cleve 1895 created *A. tetragibba* for this figure (A.S. pl. 25, fig. 80), and for figs 78, 79 (same plate: *A. sinuata* aff. Grun.). Mann explicitly excludes fig. 78, 79 in his concept of *A. tumulifer*.
- Amphora turgida* Gregory 1857, p. 510; pl. 12, fig. 63 [ref. 000399]. In reprint: p. 38; pl. 4, fig. 63.
- Amphora turgida* var. *africana* Cholnoky 1962, p. 11; pl. 1, fig. 15-17 [ref. 000211].
- Amphora turgida* var. *ceylonica* Skvortzow 1930, p. 258; pl. 33, fig. 10 [ref. 000833].
- Amphora turgida* var. *parallela* Heiden in Heiden & Kolbe 1928, p. 640 [ref. 000473].
- Amphora turgida* var. *wisei* Salah 1955, p. 101; pl. 2, fig. 11 [ref. 000802].
- Amphora twenteana* K. Krammer 2003, p. 150, 171; pl. 138, fig. 25-29 [ref. 011692].
- Amphora uncinatum* (Ehrenberg) Edwards 1906, p. 64, 68 [ref. 003953]. Basionym: *Cocconema uncinatum* Ehrenberg 1871. [according to INA].
- Amphora undata* H.L. Smith 1873, p. 70; pl. 1, fig. 21 [ref. 001006].
- Amphora undata* Leuduger-Fortmorel 1892, p. 11; pl. 2, fig. 1 [ref. 000607]. *Illegitimate*. Non H.L. Smith 1873.

- Amphora undata* ‘Greville’ according to VanLandingham 1967, p. 276 [ref. 006293]. *Invalid*. Typographical error for *Amphora undulata* Greville 1863.
- Amphora undulata* Greville 1863, p. 182; pl. 4, fig. 3 [ref. 000414]. Also in Greville 1863 (ref. 001029), p. 575, pl. XV: fig. 3.
- Amphora vadosini* A.H. Wachnicka & E.E. Gaiser 2007, p. 416, 448; fig. 106-107 [ref. 012976].
- Amphora valida* H. Peragallo 1888, p. 40; pl. 3, fig. 25 [ref. 000729].
- Amphora variabilis* Kozyrenko 1959, p. 57, 58; pl. 1, fig. 5a-b [ref. 000578]. *Invalid*. No description. See *Amphora variabilis* Kozyrenko 1961 (ref. 002297).
- Amphora variabilis* Kozyrenko 1961, p. 73-74; pl. 2, fig. 7-13 [ref. 002297].
- Amphora vaughanii* Giffen 1980, p. 142-143; pl. 1, fig. 9, 10 [ref. 008263].
- Amphora veneta* Kützing 1844, p. 108; pl. 3, fig. 25 [ref. 000595].
- Amphora veneta* Kütz. var. *angularis* Stoermer 1963, p. 130; pl. 1, fig. 14 [ref. 015013]. *Invalid?* Unpublished dissertation?
- Amphora veneta* Kütz. var. *angularis* Stoermer & Kreis 1978, p. 151 [ref. 005986]. *Invalid*. Nomen nudum. No description, no authors cited. Name listed with the note “nomen nudum”.
- Amphora veneta* Kütz. var. *balchaschica* Makarova & Akhmetova 1987, p. 248; fig. 1-18 [ref. 008556]. [according to ANSP].
- Amphora veneta* Kütz. var. *capitata* Haworth 1974, p. 48; fig. 6, 19 [ref. 002707].
- Amphora veneta* Kütz. var. *gibbosa* Frenguelli 1926, p. 27; pl. 1, fig. 1 (as *Amphora (Halamphora) veneta* var. *gibbosa*) [ref. 000349].
- Amphora veneta* Kütz. f. *globulosa* Foged 1982, p. 603; pl. 3, fig. 24 [ref. 008210].
- Amphora veneta* Kütz. var. *grossestriata* Playfair 1914, p. 111; pl. 4, fig. 2, 3 [ref. 002345].
- Amphora veneta* Kütz. var. *indica* Skvortzow 1935, p. 185; pl. 1, fig. 33 [ref. 000840].
- Amphora veneta* Kütz. f. *minor* ‘Frenguelli’ VanLandingham 1967, p. 277 [ref. 006293]. *Invalid*. Citation error for *Cymbella cymbiformis* f. *minor* Frenguelli 1925.
- Amphora veneta* Kütz. var. *minor* Frenguelli 1925, p. 148; pl. 1, fig. 3-4 [ref. 000348].
- Amphora veneta* Kütz. var. *somalica* Frenguelli 1929, p. 35 (403); pl. 49, fig. 18-21 [ref. 002019].
- Amphora veneta* Kütz. var. *subcapitata* Kisselev 1932, p. 87, 94; fig. 22 [ref. 002283].
- Amphora veneta* Kütz. var. *tumida* Skvortzow 1975, p. 412; pl. 2, fig. 39 [ref. 008825]. [according to ANSP].
- Amphora veneta* A. Schmidt in Schmidt et al. 1875, pl. 27, fig. 16 (as “*A. veneta* Ktzg.?”) [ref. 012447]. Non *A. veneta* Kützing 1844?
- Amphora veneziana* Mereschkowsky 1901, p. 26, 28; pl. 5, fig. 24-25 [ref. 000650].
- Amphora ventricosa* Gregory 1857, p. 511; pl. 12, fig. 68 [ref. 000399]. In reprint: p. 39; pl. 4, fig. 68, 68b.
- Amphora venusta* Østrup 1910, p. 212; pl. 13, fig. 6 [ref. 000707].
- Amphora verrucosa* Pantocsek 1892, pl. 10, fig. 166 [ref. 001034]. Description in Pantocsek 1905, p. 13 (ref. 001445).
- Amphora vetusta* Cleve 1895, p. 115; pl. 4, fig. 30, 31, 32 [ref. 000949]. Ascribed to “Cleve and Grove” in plate caption.
- Amphora virgata* Østrup 1910, p. 210; pl. 13, fig. 12 [ref. 000707].
- Amphora virgata* var. *crassa* M. Peragallo 1921, p. 62 [ref. 000737].
- Amphora vitrea* Montagne 1860, p. 167 [ref. 000671].
- Amphora vitrea* Cleve 1868, p. 237; pl. 4, fig. 5, 6 [ref. 000219]. *Illegitimate*. Non Montagne 1860.
- Amphora vittata* Pantocsek 1889, p. 39 [ref. 001033]. No illustration in Pantocsek 1889. Illustrated in Pantocsek 1892, pl. 22, fig. 326 (ref. 001034). Redescribed in Pantocsek 1905, p. 13 (ref. 001445).
- Amphora vulgaris* Ehrenberg 1854, p. 79 [ref. 000300]. *Invalid*. Nomen nudum.
- Amphora wachenhusenii* Janisch in Schmidt et al. 1876, “Beachtigungen und Nachträge”(Heft 11), “T. 40, F. 38” [ref. 012450]. A name is given by Janisch for the illustration with no name (just “n. sp.”) in Schmidt 1876, pl. 40, fig. 38 (ref. 012449).
- Amphora wandelensis* Petit 1908, p. 2; pl. 1, fig. 3 [ref. 000753].
- Amphora weinekii* Janisch in Schmidt et al. 1876, pl. 39, fig. 20 [ref. 012449].
- Amphora weisneri* Pantocsek 1889, p. 40; pl. 3, fig. 45 (‘*weisnerii*’) [ref. 001033]. Name for *Cymbella maculata* sensu Neupauer 1867, non Kützing.
- Amphora weissflogii* A. Schmidt in Schmidt et al. 1875, pl. 25, fig. 58,59 [ref. 012447].
- Amphora weissflogii* f. *minor* Cleve & Möller 1882, No. 311 [ref. 001979]. *Invalid*. Nomen nudum.
- Amphora wisei* (Salah) Simonsen 1962, p. 94 [ref. 000825]. Basionym: *Amphora turgida* var. *wisei* Salah 1955.
- Amphora wittsteinii* Janisch in Schmidt et al. 1876, pl. 39, fig. 6, 7 [ref. 012449].
- Amphora wresneri* Pantocsek in Tempère & Peragallo 1909, p. 166; No. 304-305 [ref. 001065]. *Invalid*. Probable typographical error for *Amphora weisneri* Pantocsek 1889.
- Amphora zebrata* Tempère & Brun in Brun & Tempère 1889, p. 16; pl. 7, fig. 14 [ref. 000185].
- Amphora zebrina* Schmidt in Schmidt et al. 1875, pl. 25, fig. 11 [ref. 012447].
- Amphora zeta* Karsten 1899, p. 109; fig. 143 [ref. 000558].

**AMPHOROPSIS (Cleve) Mereschkowsky 1901, p. 429 [ref. 000651]**

T: not designated

*Amphoropsis* was first validly published as a section of *Tropidoneis* (*Tropidoneis* sect. *Amphoropsis* Grunow ex Cleve 1891, p. 52-53, ref. 000228), including *Amphiprora conserta* Lewis 1861, and *Amphiprora recta* Gregory 1857 (syntypes). First treated as a genus by Mereschkowsky 1901 who included in the genus 5 species (incl. *A. conserta* and *A. recta*).

***Amphoropsis complexa*** ‘Grunow in litt.’ according to M. Peragallo 1897, p. 81 [ref. 012539]. *Invalid*. Not a valid new combination of *Amphiprora complexa* Gregory 1857, because not accepted by M. Peragallo. Predates the valid publication of the generic name.

***Amphoropsis conserta*** (Lewis) M. Peragallo 1897, p. 81 [ref. 012539]. Basionym: *Amphiprora conserta* Lewis 1861. *Invalid*. Predates the valid publication of the generic name.

***Amphoropsis conserta*** (Lewis) Mereschkowsky 1901, p. 429 adn. [ref. 000651]. Basionym: *Amphiprora conserta* Lewis 1861.

***Amphoropsis decipiens*** Grunow in Van Heurck 1883, pl. 22B, fig. 11 (as *Amphora (Amphoropsis) decipiens* Grun. (*Amphiprora plicata* Gregory?)) [ref. 001037]. *Invalid*.

***Amphoropsis decipiens*** ‘Grunow in Van Heurck’ Cleve 1894, pl. 22B, fig. 11 [ref. 000232]. *Invalid*. Err. cit. pro *Amphora (Amphoropsis) decipiens* Grunow in Van Heurck. Cited by Cleve as synonym of *Auricula decipiens* (Grunow) Cleve.

***Amphoropsis decipiens*** (Grunow in Van Heurck) Peragallo 1897, p. 81 [ref. 012539]. Basionym: *Amphora decipiens* Grunow in Van Heurck 1883. *Invalid*. Predates the valid publication of the generic name.

***Amphoropsis paradoxa*** (Greville) Cleve 1894, p. 29 [ref. 000232]. Basionym: *Amphiprora paradoxa* Greville 1863. *Invalid*. Epithet *paradoxa* not definitely associated with the genus name. Also predates the valid publication of the generic name.

***Amphoropsis pontica*** Mereschkowsky 1901, p. 429 [ref. 000651]. *Invalid*. Nomen nudum. Name validated by Mereschkowsky 1902 (ref. 001381).

***Amphoropsis pontica*** Mereschkowsky 1902, p. 57, 85 [ref. 001381].

***Amphoropsis recta*** (Gregory) Grunow in Van Heurck 1883, pl. 22B, fig. 9, 10 (as *Amphora (Amphoropsis) recta* Grun. (*Amphiprora recta* Gregory?)) [ref. 001037]. Basionym: *Amphiprora recta* Gregory 1857. *Invalid*.

***Amphoropsis recta*** (Gregory) ‘Grunow in Van Heurck’ Cleve 1894, p. 28 [ref. 000232]. Basionym: *Amphiprora recta* Gregory 1857. *Invalid*. Err. cit. pro *Amphora (Amphoropsis) recta* Grunow in Van Heurck. In syn. pro *Tropidoneis recta* (Gregory) Grunow.

***Amphoropsis recta*** (Gregory) Mereschkowsky 1901, p. 429 [ref. 000651]. Basionym: *Amphiprora recta* Gregory 1857.

***Amphoropsis recta*** var. *subplicata* (Grunow in Cleve & Grunow) M. Peragallo 1897, p. 81 [ref. 012539]. Basionym: *Amphiprora plicata* var. *subplicata* Grunow in Cleve & Grunow 1880. *Invalid*. Predates the valid publication of the generic name.

***Amphoropsis spicula*** (Mereschkowsky) Mereschkowsky 1902, p. 57, 152 [ref. 001382]. Basionym: *Auricula spicula* Mereschkowsky 1902.

***Amphoropsis stauroneis*** (Mereschkowsky) Mereschkowsky 1901, p. 429 [ref. 000651]. Basionym: *Auricula stauroneis* Mereschkowsky 1901.

***Amphoropsis stauroneis*** var. *elegans* Mereschkowsky 1902, p. 57 [ref. 001382]. In French text p. 152 as *Amphoropsis stauroneis* var. *gracilis* M. [according to INA].

***Amphoropsis stauroneis*** var. *gracilis* (Mereschkowsky) Mereschkowsky 1902, p. 152 (46) [ref. 001382]. Basionym: *Auricula stauroneis* var. *gracilis* Mereschkowsky 1902. In Russian text p. 57 as *Amphoropsis stauroneis* var. *elegans* M.

***Amphoropsis thwaitesiana*** (Greville) Cleve 1894, p. 29 [ref. 000232]. *Invalid*. Specific epithet not associated with generic name. Also, predates the valid publication of the generic name.

***Amphoropsis vanheurckii*** (Grunow) Mereschkowsky 1901, p. 429 (‘*Van Heurckii*’) [ref. 000651]. Basionym: *Plagiotropis vanheurckii* Grunow in Van Heurck 1883.

**AMPHOROTIA D.M. Williams & G. Reid 2006, p. 41, 42 [ref. 012689]**T: *Amphorotia clevei* (Grunow in Cleve) D.M. Williams & G. Reid  
(= *Eunotia clevei* Grunow in Cleve 1891)

***Amphorotia aculeata*** (Moiseeva) Williams & Reid 2006, p. 90 [ref. 012689]. Basionym: *Eunotia clevei* var. *aculeata* Moiseeva 1971.

***Amphorotia americana*** (Kain & Schultze) Williams & Reid 2006, p. 85 [ref. 012689]. Basionym: *Eunotia americana* Kain & Schultze 1889.

***Amphorotia asiatica*** (M. Voigt) Williams & Reid 2006, p. 70 [ref. 012689]. Basionym: *Eunotia americana* var. *asiatica* Voigt 1969.

***Amphorotia baicalensis*** (Skvortzow) Williams & Reid 2006, p. 52 [ref. 012689]. Basionym: *Eunotia clevei* var. *baikalensis* Skvortzow 1937.

- Amphorotia clevei* (Grunow) Williams & Reid 2006, p. 43 [ref. 012689]. Basionym: *Eunotia clevei* Grunow in Cleve 1891.
- Amphorotia curvata* Williams & Reid 2006, p. 88 [ref. 012689]. New name for *Eunotia botuliformis* Wang 1998, non *E. botuliformis* Wild et al. in Lange-Bertalot 1993.
- Amphorotia hispida* (Skvortzow) Williams & Reid 2006, p. 63 [ref. 012689]. Basionym: *Eunotia clevei* var. *hispida* Skvortzow 1937.
- Amphorotia lacusbaikali* (Skvortzow) Williams & Reid 2006, p. 58 [ref. 012689]. Basionym: *Eunotia lacusbaikalii* Skvortzow 1937.
- Amphorotia linearis* Williams & Reid 2006, p. 56; pl. 8, fig. 1, 4, 6, 8, pl. 9, fig. 1-6 ('lineare') [ref. 012689].
- Amphorotia lunata* Williams & Reid 2006, p. 61; pl. 11, fig. 1-6, pl. 12, fig. 1-7 [ref. 012689].
- Amphorotia maculata* (Lupikina & Dolmatova) Williams & Reid 2006, p. 88 [ref. 012689]. Basionym: *Eunotia maculata* Lupikina & Dolmatova 1984.
- Amphorotia mekonensis* Williams & Reid 2006, p. 77; pl. 16, fig. 2, 3, 5 [ref. 012689].
- Amphorotia miocenica* (Li) Williams & Reid 2006, p. 89 [ref. 012689]. Basionym: *Actinella miocenica* Li, J.-Y. 1988.
- Amphorotia penzhica* (Lupikina & Dolmatova) Williams & Reid 2006, p. 89 [ref. 012689]. Basionym: *Actinella penzhica* Lupikina & Dolmatova 1984.
- Amphorotia reimeri* (Williams & Reid) Williams & Reid 2006, p. 78 [ref. 012689]. Basionym: *Eunotia reimeri* Williams & Reid 2004.
- Amphorotia sinica* (Skvortzow) Williams & Reid 2006, p. 74 [ref. 012689]. Basionym: *Eunotia clevei* var. *sinica* Skvortzow 1929.
- Amphorotia spinusnullosi* Williams & Reid 2006, p. 79; pl. 18, fig. 4-7, pl. 19, fig. 1-8 [ref. 012689].
- Amphorotia stoermeri* Williams & Reid 2006, p. 68; pl. 8, fig. 2, 3, 5, 7, 9 ('stoermerii') [ref. 012689].
- Amphorotia voigtii* Williams & Reid 2006, p. 82; pl. 17, fig. 2, pl. 20, fig. 1-6 [ref. 012689].

**ANAULUS C.G. Ehrenberg 1844, p. 197 [ref. 001184]**

T: *Anaulus scalaris* C.G. Ehrenberg 1844

Type by monotypy. Boyer's designation of *A. birostratus* as generitype (Boyer 1927, p. 143; ref. 000946) should be disregarded.

- Anaulus acutus* Brun 1896, p. 231; pl. 20, fig. 15-18 [ref. 000183].
- Anaulus americanus* Hustedt 1955, p. 9; pl. 4, fig. 23-24 [ref. 000530].
- Anaulus australis* Drebes & Schulz 1989, p. 54; fig. 1-21 [ref. 008175].
- Anaulus balticus* Simonsen 1959, p. 74; pl. 10, fig. 1-3 [ref. 000823]. *Invalid*. Type not designated.
- Anaulus birostratus* (Grunow) Grunow in Van Heurck 1882, pl. 103, fig. 1-2 [ref. 001036]. Basionym: *Biddulphia birostrata* Grunow 1863.
- Anaulus birostratus* De Toni 1894, p. 889 [ref. 000951]. De Toni's entry is a citation of *Anaulus birostratus* (Grunow) Grunow in Van Heurck 1882, not a "sensu" as suggested by VanLandingham 1967, p. 280 (ref. 006293).
- Anaulus birostratus* var. *acuta* Brun 1896, p. 231 [ref. 000183]. Alternate name for *Anaulus acutus* Brun.
- Anaulus birostratus* f. *angustior* Grunow in Van Heurck 1882, pl. 103, fig. 3 [ref. 001036].
- Anaulus californicus* Ehrenberg ex Cleve & Möller 1879, No. 276 [ref. 001978]. *Invalid*. Nomen nudum.
- Anaulus californicus* Long, Fuge & Smith 1946, p. 95; pl. 14, fig. 2 [ref. 000616].
- Anaulus campylodiscus* Ehrenberg 1844, p. 265 [ref. 001185].
- Anaulus constrictus* 'Ehrenberg' according to De Toni 1894, p. 265 [ref. 000951]. Citation error for *Anaulus campylodiscus* Ehrenberg 1844, p. 265 (ref. 001185).
- Anaulus creticus* Drebes & Schulz 1981, p. 166-167; fig. 1-19 [ref. 008174].
- Anaulus debilis* (Grunow in Van Heurck) Van Heurck 1885, p. 202 [ref. 001040]. Basionym: *Eunotogramma debile* Grunow in Van Heurck 1883.
- Anaulus ellipticus* Hendey 1937, p. 288; pl. 9, fig. 4-13 [ref. 000475].
- Anaulus excavatus* Heiden in Heiden & Kolbe 1928, p. 546; pl. 13 (43), fig. 182-184 [ref. 000473].
- Anaulus fennerae* Fourtanier 1991, p. 180; pl. 4, fig. 5-7, pl. 5, fig. 1 [ref. 006298].
- Anaulus fossus* (Grove & Sturt) De Toni 1894, p. 889 [ref. 000951]. Basionym: *Biddulphia fossa* Grove & Sturt 1887. The combination was suggested by Grunow 1888, p. 37 (ref. 000446), and Grunow 1889, p. 391 (ref. 000447), but not validly published because the species epithet was not definitely associated with the genus name. Combination validly published by De Toni 1894.
- Anaulus incisus* Hajós & Stradner 1975, p. 935; text-fig. 18; pl. 13, fig. 23 [ref. 003209].
- Anaulus indicus* Ehrenberg 1845, p. 361 [ref. 000957].
- Anaulus jellinekii* Ehrenberg 1862, table to p. 1102 [ref. 010874]. *Invalid*. Nomen nudum.
- Anaulus laevis* (Grunow in Van Heurck) Boyer 1900, p. 737 [ref. 000151]. Basionym: *Eunotogramma laeve* Grunow in Van Heurck 1883. Boyer credits Van Heurck for the combination.

- Anaulus latecavatus* Brun in Brun & Tempère 1889, p. 16; pl. 1, fig. 13 [ref. 000185].
- Anaulus maritimus* Nikolaev 1970, p. 30; pl. 1, fig. 1, 2 [ref. 008636].
- Anaulus mediterraneus* Grunow in Van Heurck 1882, pl. 102, fig. 8, 10, 11 (as *Anaulus mediterraneus* Grunow (*A. biros-tratus* var.??)) [ref. 001036].
- Anaulus mediterraneus* var. *intermedia* Grunow in Van Heurck 1882, pl. 102, fig. 9 [ref. 001036].
- Anaulus minutus* Grunow in Van Heurck 1882, pl. 103, fig. 4-5 [ref. 001036].
- Anaulus obtusus* Bone & Gosden 1968, p. 70; fig. 1 a-c [ref. 003504].
- Anaulus ovalis* K.E. Lohman & G. Andrews 1968, p. E13; pl. 1, fig. 9, 14 [ref. 003189].
- Anaulus primordialis* Brun 1896, p. 231; pl. 20, fig. 14 [ref. 000183].
- Anaulus priscus* Boyer 1922, p. 2; pl. 1, fig. 3 [ref. 000154].
- Anaulus scalaris* Ehrenberg 1844, p. 199 [ref. 001184].
- Anaulus sibiricus* Strelnikova 1974, p. 106; tabl. 52, fig. 1-5 [ref. 000058].
- Anaulus simonsenii* A. Witkowski & D. Metzeltin in A. Witkowski, H. Lange-Bertalot & D. Metzeltin 2000, p. 23, 421; pl. 10, fig. 7-12 [ref. 009017].
- Anaulus simplex* Hajós 1973, p. 369, Table 1 (p. 377), p. 374 (fig. caption); pl. 2, fig. 28, 29 [ref. 003202]. *Invalid*. No description.
- Anaulus simplex* Hajós 1974, p. 504 [ref. 008287]. [according to ANSP].
- Anaulus simplex* Hajós in Hajós & Rehakova 1974, p. 552-553; pl. 2, fig. 4 [ref. 003225]. [according to ANSP].
- Anaulus subantarcticus* Hajós in Hajós & Stradner 1975, p. 935; pl. 13, fig. 26 [ref. 003209].
- Anaulus subconstrictus* Grove & Sturt 1887, p. 143; pl. 14, fig. 59, 60 [ref. 000989].
- Anaulus tenuis* Grove & Sturt ms. 1887, p. 77 [ref. 000988]. *Invalid*. Manuscript name. In syn. *Eumotogramma bivittata* Grunow & Pantocsek in Pantocsek 1886.
- Anaulus thomei* (Leuduger-Fortmorel) F.W. Mills 1933, p. 193 [ref. 000998]. Basionym: *Asterolampra thomei* Leuduger-Fortmorel 1898. Citation error for *Asterolampra thomei* Leuduger-Fortmorel 1898. Name accepted by Mills (upper case print), and probably could be treated as a valid new combination. An *Asterolampra* taxonomically.
- Anaulus undulatus* Long, Fuge & Smith 1946, p. 95; pl. 14, fig. 3 [ref. 000616]. In text misprinted “undalatus”.
- Anaulus uniseptatus* Salah 1955, p. 90; pl. 1, fig. 9 [ref. 000802].
- Anaulus vallus* Nikolaev 1970, p. 30; pl. 1, fig. 3-8 [ref. 008636].
- Anaulus weyprechtii* Grunow 1884, p. 6 (58); pl. 2 (B), fig. 18 [ref. 000444].

**ANCOROPSIS N.I. Hendey & P.A. Sims 1984, p. 62 [ref. 003188]**

T: *Ancoropsis eocenica* N.I. Hendey & P.A. Sims 1984

- Ancoropsis eocenica* Hendey & Sims 1984, p. 62-65; pl. 1, figs. A, pl. 4, fig. 1-8 [ref. 003188].

**ANCYLOPYRGUS R. Gersonde & D.M. Harwood 1990, p. 370 [ref. 006383]**

T: *Ancylopyrgus reticulatus* R. Gersonde & D.M. Harwood 1990

- Ancylopyrgus reticulatus* Gersonde & Harwood 1990, p. 370; pl. 4, fig. 1-4, pl. 6, fig. 1, 3-7, pl. 17, fig. 5, 6 [ref. 006383].
- Ancylopyrgus reticulatus* var. *elongatus* Gersonde & Harwood 1990, p. 370; pl. 4, fig. 19-20, 23-24, pl. 6, fig. 2 [ref. 006383].

**ANDREWSIELLA T. Jurkschat 1998, p. 244 [ref. 007017]**

T: *Andrewsiella fossilis* (Grunow) T. Jurkschat 1998 ‘fossile’ invalid name  
(= *Dimerogramma fossile* Grunow in Pantocsek 1886)

- Andrewsiella fossilis* (Grunow) Jurkschat 1997, p. 245; fig. 5-18 (‘fossile’) [ref. 007017]. Basionym: *Dimeregramma fossile* Grunow in Pantocsek 1886. *Invalid*. Place of publication of basionym not cited.

**ANEUMASTUS D.G. Mann & A.J. Stickle in**

**F.E. Round, R.M. Crawford & D.G. Mann 1990, p. 663 [ref. 003245]**

T: *Aneumastus tusculus* (C.G. Ehrenberg) D.G. Mann & A.J. Stickle in F.E. Round, R.M. Crawford & D.G. Mann 1990 (= *Navicula tuscula* C.G. Ehrenberg 1940)

- Aneumastus aksaraiensis* S.A. Spaulding, A. Akbulut & J.P. Kociolek 2003, p. 151-152; figs. 1-24 [ref. 011581].
- Aneumastus albanicus* H. Lange-Bertalot & A. Miho in H. Lange-Bertalot 2001, p. 152, 216; pl. 123, fig. 1-10 [ref. 009456].
- Aneumastus apiculatus* (Østrup) Lange-Bertalot in H. Lange-Bertalot & S.I. Genkal 1999, p. 32 [ref. 009014]. Basionym: *Navicula lacustris* var. *apiculata* Østrup 1910.
- Aneumastus aratus* (Grunow) H. Lange-Bertalot 2001, p. 153 [ref. 009456]. Basionym: *Navicula arata* Grunow 1882.
- Aneumastus balticus* H. Lange-Bertalot 2001, p. 153, 216; pl. 117, fig. 11-15, pl. 118, fig. 7-8 [ref. 009456]. Valid? Type lo-

- cality cited; specimens illustrated on pl. 117, fig. 11-14, and pl. 118, fig. 7-8 are cited in caption as “type population, Arkona basin of the Baltic Sea, fossil”.
- Aneumastus carolinianus* (Patrick) H. Lange-Bertalot 2001, p. 154 [ref. 009456]. Basionym: *Navicula caroliniana* Patrick 1959.
- Aneumastus humboldtianus* H. Lange-Bertalot & A. Miho in H. Lange-Bertalot 2001, p. 154, 217; pl. 120, fig. 3-7 [ref. 009456].
- Aneumastus juriljii* Z. Levkov & D. Metzeltin in Levkov, Krstic, Metzeltin & Nakov 2007, p. 22-23; pl. 71, fig. 5, pl. 79, fig. 12-14 [ref. 012897]. Cite in synonymy: “*Navicula tuscula* Ehrenberg var *media* Jurilj 1954, nom. inval.”.
- Aneumastus laetus* (A. Mayer) Lange-Bertalot in Lange-Bertalot & Metzeltin 1996, p. 29; pl. 110, fig. 1 [ref. 007048]. Basionym: *Navicula laeta* Mayer 1919.
- Aneumastus macedonicus* Z. Levkov in Levkov, Krstic, Metzeltin & Nakov 2007, p. 23-24; pl. 70, fig. 1-10, pl. 71, fig. 1-4, pl. 72, fig. 1-6 [ref. 012897].
- Aneumastus maculosus* (Donkin) H. Lange-Bertalot 2001, p. 155 [ref. 009456]. Basionym: *Navicula maculosa* Donkin 1871.
- Aneumastus metzeltinii* Z. Levkov in Levkov, Krstic, Metzeltin & Nakov 2007, p. 25; pl. 73, fig. 1-7 [ref. 012897].
- Aneumastus minor* H. Lange-Bertalot 1993, p. 9; pl. 39, fig. 8, pl. 40, fig. 1-4 (as *Aneumastus minor* (Hustedt) Lange-Bertalot nov. comb. nov. stat.) [ref. 008467]. Intended new combination of *Navicula tuscula* f. *minor* Hustedt 1930 (invalid). Validly published by Lange-Bertalot 1993, however, as the name of a new taxon.
- Aneumastus minor* var. *densistriatus* Z. Levkov & S. Krstic in Levkov, Krstic, Metzeltin & Nakov 2007, p. 226; pl. 80, fig. 1-16 [ref. 012897].
- Aneumastus ohridanus* Z. Levkov & D. Metzeltin in Levkov, Krstic, Metzeltin & Nakov 2007, p. 27-28; pl. 76, fig. 1-10 [ref. 012897].
- Aneumastus pseudoapiculatus* Z. Levkov & D. Metzeltin in Levkov, Krstic, Metzeltin & Nakov 2007, p. 28-29; pl. 77, fig. 1-12, pl. 78, fig. 1, 4-6 [ref. 012897].
- Aneumastus pseudotusculus* (Hustedt) Cox & Williams 2000, p. 273 [ref. 013100]. Basionym: *Navicula pseudotuscula* Hustedt 1943. *Invalid*. Place of publication of basionym not cited.
- Aneumastus rhombicus* Z. Levkov & D. Metzeltin in Levkov, Krstic, Metzeltin & Nakov 2007, p. 30; pl. 70, fig. 1-9 [ref. 012897].
- Aneumastus rosettae* H. Lange-Bertalot & A. Miho in H. Lange-Bertalot 2001, p. 156, 217; pl. 115, fig. 1-6, pl. 116, fig. 1-5 [ref. 009456].
- Aneumastus rostratus* (Hustedt) H. Lange-Bertalot 2001, p. 156 [ref. 009456]. Basionym: *Navicula tuscula* var. *rostrata* Hustedt 1911.
- Aneumastus stroesei* (Østrup) Mann in Round, Crawford & Mann 1990, p. 663 [ref. 003245]. Basionym: *Navicula tuscula* var. *stroesei* Østrup 1910.
- Aneumastus subapiculatus* Z. Levkov & T. Nakov in Levkov, Krstic, Metzeltin & Nakov 2007, p. 31; pl. 75, fig. 4-11 [ref. 012897].
- Aneumastus tuscula* (Ehrenberg) Mann & Stickle in Round, Crawford & Mann 1990, p. 663 (‘*tusculus*’) [ref. 003245]. Basionym: *Navicula tuscula* Ehrenberg 1840.
- Aneumastus tuscula* f. *angulatus* (Hustedt) H. Lange-Bertalot in H. Lange-Bertalot & S.I. Genkal 1999, p. 33 (‘*tusculus*’) [ref. 009014]. Basionym: *Navicula tuscula* f. *angulata* Hustedt 1942.
- Aneumastus tuscula* f. *minor* N.A. Andresen, E.F. Stoermer & R.G. Kreis, Jr. 2000, p. 414 (‘*tusculus*’) [ref. 009394]. *Invalid*. Intended combination of *Navicula tuscula* f. *minor* Hustedt 1930 (invalid).
- Aneumastus tuscula* f. *obtusus* (Hustedt) N.A. Andresen, E.F. Stoermer & R.G. Kreis, Jr. 2000, p. 414 (‘*tusculus*’) [ref. 009394]. Basionym: *Navicula tuscula* var. *obtusata* Hustedt 1922.
- Aneumastus tuscula* var. *rostratus* (Hustedt) N.A. Andresen, E.F. Stoermer & R.G. Kreis, Jr. 2000, p. 414 (‘*tusculus*’) [ref. 009394]. Basionym: *Navicula tuscula* var. *rostrata* Hustedt 1911.
- Aneumastus tusculoides* (Cleve-Euler) Mann in Round, Crawford & Mann 1990, p. 663 [ref. 003245]. Basionym: *Navicula tusculoides* Cleve-Euler 1953.
- Aneumastus tusculus* f. *minor* (Hustedt) Bukhtiyarova 1995, p. 419 [ref. 008000]. Basionym: *Navicula tuscula* f. *minor* Hustedt 1930. [according to ANSP]. Note: *Navicula tuscula* f. *minor* Hustedt 1930 is invalid. This combination may be invalid, unless *Aneumastus minor* Lange-Bertalot 1993 is cited.
- Aneumastus tusculus* f. *rostrata* (Hustedt) Bukhtiyarova 1995, p. 419 [ref. 008000]. Basionym: *Navicula tuscula* var. *rostrata* Hustedt 1911. [according to ANSP].

**ANGULOPYXIDIUM A.G. Vologdin 1962, p. 911 [ref. 006651]**

T: *Angulopyxidium tannuloaicum* A.G. Vologdin 1962

*Angulopyxidium tannuloaicum* Vologdin 1962, p. 911, fig. 1 [ref. 006651]. [according to INA].

**ANISODISCUS A. Grunow in J. Pantocsek 1886, p. 67 [ref. 000714]**T: *Anisodiscus pantocsekii* A. Grunow in J. Pantocsek 1886

- Anisodiscus adeei* Mann 1925, p. 28; pl. 6, fig. 1 [ref. 000632].
- Anisodiscus apollinis* (Ehrenberg) Brown 1920, p. 219 [ref. 000941]. Basionym: *Coscinodiscus apollinis* Ehrenberg 1844.
- Anisodiscus castracanei* (Karsten) Brown 1920, p. 219 [ref. 000941]. Basionym: *Coscinodiscus castracanei* Karsten 1905. *Invalid.* Brown stated that Karsten's species belongs in *Anisodiscus* but he did not associate the final epithet with the name of the genus. The combination *Anisodictus castracanei* is listed, but not validated in Mills 1933, p. 194 (ref. 000998), and VanLandingham 1967, p. 282 (ref. 006293).
- Anisodiscus chromoradiatus* (Karsten) Brown 1920, p. 219 [ref. 000941]. Basionym: *Coscinodiscus chromoradiatus* Karsten 1905. *Invalid.* Brown stated that Karsten's species belongs in *Anisodiscus* but he did not associate the final epithet with the name of the genus. The combination *Anisodictus chromoradiatus* is listed, but not validated in Mills 1933, p. 194 (ref. 000998), and VanLandingham 1967, p. 282 (ref. 006293).
- Anisodiscus hungaricus* Hajós & Palfalvy 1963, p. 95; pl. 1, fig. 17-18, pl. 2, fig. 23, 28 [ref. 008292]. [according to ANSP].
- Anisodiscus intermittens* (Karsten) Brown 1920, p. 219 [ref. 000941]. Basionym: *Coscinodiscus intermittens* Karsten 1906. *Invalid.* Brown stated that Karsten's species belongs in *Anisodiscus* but he did not associate the final epithet with the name of the genus. The combination *Anisodictus intermittens* is listed, but not validated in Mills 1933, p. 194 (ref. 000998), and VanLandingham 1967, p. 283 (ref. 006293).
- Anisodiscus janus* (Castracane) Brown 1920, p. 219 [ref. 000941]. Basionym: *Coscinodiscus janus* Castracane 1886. *Invalid.* Brown stated that Castracane's species belongs in *Anisodiscus* but he did not associate the final epithet with the name of the genus. The combination *Anisodictus janus* is listed, but not validated in Mills 1933, p. 194 (ref. 000998), and VanLandingham 1967, p. 283 (ref. 006293).
- Anisodiscus pantocsekii* Grunow in Pantocsek 1886, p. 67; pl. 3, fig. 29, pl. 26, fig. 241, 243, pl. 28, fig. 280 [ref. 000714].
- Anisodiscus pantocsekii* f. *major* Pantocsek 1886, p. 67; pl. 27, fig. 255 [ref. 000714].
- Anisodiscus patera* (Castracane) Brown 1920, p. 219 [ref. 000941]. Basionym: *Coscinodiscus patera* Castracane 1886. *Invalid.* Brown stated that Castracane's species belongs in *Anisodiscus* but he did not associate the final epithet with the name of the genus. The combination *Anisodictus patera* is listed, but not validated in Mills 1933, p. 194 (ref. 000998), and VanLandingham 1967, p. 283 (ref. 006293).

**ANNELLUS J. Tempère in J. Tempère & H. Peragallo 1908, p. 60 [ref. 001064]**T: *Annellus californicus* J. Tempère in J. Tempère & H. Peragallo 1908

- Annellus californicus* Tempère in J. Tempère & H. Peragallo 1908, p. 60; No. 109-112 [ref. 001064].
- Annellus californicus* var. *hannae* Barron 1981, p. 528; pl. 6, fig. 3, 4, 6, 9, 11, 12, pl. 7, fig. 1-3 ('*hannai*') [ref. 003449].
- Annellus saturnulus* Srinivasan & Srivastava 1977, p. 193; pl. 1, fig. 1, 2, 5 [ref. 008838]. [according to ANSP].

**ANNULARIUS S. Komura 2005, p. 31 [ref. 012822]**T: *Annularius foveatus* S. Komura 2005

- Annularius foveatus* S. Komura 2005, p. 31; fig. 41, 202-218 [ref. 012822].

**ANOMOEONEIS E. Pfitzer 1871, p. 77 [ref. 000754]**T: *Anomoeoneis sphaerophora* (Kützing) E. Pfitzer 1871  
(= *Navicula sphaerophora* Kützing 1844)

- Anomoeoneis atacamensis* Frenguelli 1934, p. 163; pl. 40, fig. 2 [ref. 001207].
- Anomoeoneis bicapitata* Andrews 1971, p. E10; pl. 1, fig. 12, 13 [ref. 006295].
- Anomoeoneis biceps* (Ehrenberg) Fricke 1902, p. 14 [ref. 002239]. Basionym: *Navicula biceps* Ehrenberg 1843. [according to VLC].
- Anomoeoneis bipunctata* (Grunow in Van Heurck) Cleve 1895, p. 8 [ref. 000949]. Basionym: *Navicula bipunctata* Grunow in Van Heurck 1880.
- Anomoeoneis bohemica* (Ehrenberg) Reinhardt 1913, p. 107 [ref. 003058]. Basionym: *Navicula bohemica* Ehrenberg 1854. The combination was suggested, but not validly published by Pfitzer 1871, p. 78 (ref. 000754).
- Anomoeoneis bonnieri* 'Lauby' Mills 1933, p. 195 [ref. 000998]. *Invalid.* Combination of *Navicula bonnieri* Lauby 1910 (not accepted).
- Anomoeoneis brachysira* (Brébisson in Rabenhorst) Cleve 1895, p. 7 [ref. 000949]. Basionym: *Navicula brachysira* Brébisson in Rabenhorst 1853.
- Anomoeoneis brachysira* f. *acutiuscula* Cleve-Euler 1934, p. 69 [ref. 000249]. *Invalid.* No illustration (fossil).
- Anomoeoneis brachysira* var. *elliptica* Cleve-Euler 1939, p. 17; fig. 32 [ref. 000250]. misprinted in text "fig. 31".



- Anomoeoneis brachysira* var. *genuina* Cleve-Euler 1953, p. 198; fig. 919 a, b (as *Anomoeoneis brachysira*  $\alpha$  *genuina* mh.) [ref. 001042]. Seems to exclude the type of *Navicula brachysira* Brébisson.
- Anomoeoneis brachysira* f. *inflata* Mayer 1933, p. 149 [ref. 000639]. Not illustrated.
- Anomoeoneis brachysira* var. *lanceolata* (Mayer) Cleve-Euler 1953, p. 199; fig. 919 e, f (as *Anomoeoneis brachysira*  $\gamma$  *lanceolata* (Mayer) Cl. in text and plate caption) [ref. 001042]. Basionym: *Anomoeoneis exilis* var. *lanceolata* Mayer 1919. *Invalid*. Rank implied, but not clearly indicated. Error of citation (fig. no.) of place of publication of basionym.
- Anomoeoneis brachysira* var. *minima* (Grunow in Van Heurck) Cleve-Euler 1953, p. 199; fig. 919 g, h (as *Anomoeoneis brachysira*  $\delta$  *minima* (Grunow) A. Cl. in text and plate caption) [ref. 001042]. Basionym: *Navicula seriens* var. *minima* Grunow in Van Heurck 1880. *Invalid*. Rank implied, but not clearly indicated.
- Anomoeoneis brachysira* var. *oblonga* Mayer 1933, p. 149; pl. 1, fig. 12 [ref. 000639].
- Anomoeoneis brachysira* f. *quadripunctata* Cleve-Euler 1953, p. 199; fig. 919 i (as *Anomoeoneis brachysira*  $\delta$  *minima* f.? *quadripunctata* n.f.) [ref. 001042].
- Anomoeoneis brachysira* f. *subacuminata* (Mayer) Cleve-Euler 1953, p. 198 (as *Anomoeoneis brachysira*  $\alpha$  *genuina* f. *subacuminata*) [ref. 001042]. Basionym: *Anomoeoneis exilis* f. *subacuminata* Mayer 1919.
- Anomoeoneis brachysira* var. *thermalis* (Grunow in Van Heurck) Cleve-Euler 1953, p. 198; fig. 919 c, d (as *Anomoeoneis brachysira*  $\beta$  *thermalis* in text and plate caption) [ref. 001042]. Basionym: *Navicula seriens* var. *thermalis* Grunow in Van Heurck 1880. *Invalid*. Rank implied, but not clearly indicated.
- Anomoeoneis brachysira* f. *thermalis* (Grunow in Van Heurck) Woodhead & Tweed 1953, p. 121 [ref. 000921]. Basionym: *Navicula seriens* var. *thermalis* Grunow in Van Heurck 1880. [according to ANSP].
- Anomoeoneis brachysira* var. *zellensis* (Grunow) K. Krammer in Krammer & Lange-Bertalot 1986, p. 254, 628 (caption for Fig. 94:11-14) [ref. 006519]. Basionym: *Navicula zellensis* Grunow 1860. *Invalid*. Krammer suggests that the combination was previously published in Krammer & Lange-Bertalot 1985 (ref. 006263). The combination was, however, not validly published in 1985 (just a mention of *N. zellensis* on p. 11), and is not valid either in Krammer & Lange-Bertalot 1986 (page of publication of basionym not cited).
- Anomoeoneis canadensis* Woodhead & Tweed 1960, p. 339; pl. 8, fig. 74 [ref. 000924].
- Anomoeoneis chilensis* Krasske 1939, p. 377; pl. 11, fig. 34, 38 [ref. 000587].
- Anomoeoneis concreta* Frenguelli 1936, p. 32; pl. 1, fig. 23-24 [ref. 004118].
- Anomoeoneis costata* (Kützing) Hustedt 1959, p. 744; fig. 1111 [ref. 000535]. Basionym: *Navicula costata* Kützing 1844.
- Anomoeoneis decipiens* Cleve-Euler 1953, p. 200; fig. 923 [ref. 001042].
- Anomoeoneis decipiens* var. *densestriata* Cleve-Euler 1953, p. 200; fig. 923 c (as *Anomoeoneis decipiens*  $\beta$  *densestriata* n.v.) [ref. 001042].
- Anomoeoneis decipiens* var. *hybrida* Cleve-Euler 1953, fig. 923 e (as *A. decipiens*  $\gamma$  *hybrida* n. v.) [ref. 001042]. *Invalid*. No description.
- Anomoeoneis decipiens* var. *typica* Cleve-Euler 1953, p. 200; fig. 923 a, b (as *Anomoeoneis decipiens*  $\alpha$  *typica* mh.) [ref. 001042].
- Anomoeoneis diaphanae* Manguin in Guermeur 1954, p. 43; pl. 6, fig. 11 (as *Anomoeoneis* (ou *Navicula*) *diaphanae* in text and *Anomoeoneis* (?) *diaphanae* in fig. caption) [ref. 000449]. Manguin explains that is similar to, but not *Navicula diaphanae* Manguin 1952.
- Anomoeoneis dickiei* Jousé 1939 [ref. 002466]. According to Hollerbakh & Krasavina 1971, p. 40 (ref. 002458). [according to VLC]. Or in Jousé 1939 (ref. 002968)?
- Anomoeoneis dumbeana* Maillard 1978, p. 153; pl. 2, fig. 6 [ref. 008536]. *Invalid*. No type. See *Brachysira dumbeana* Lange-Bertalot & Moser 1994, p. 225 (ref. 006662).
- Anomoeoneis elliptica* Zakrzewski 1934, p. 136 (Russian), p. 139 (Latin), fig. 7 [ref. 000927].
- Anomoeoneis exellii* Salah 1953, p. 159; pl. 1, fig. 6 [ref. 000801].
- Anomoeoneis exilis* (Kützing) Cleve 1895, p. 8 [ref. 000949]. Basionym: *Navicula exilis* Kützing 1844.
- Anomoeoneis exilis* var. *azorica* Manguin 1942, p. 134; pl. 2, fig. 27 [ref. 000623].
- Anomoeoneis exilis* var. *genuina* Mayer 1919, p. 202; pl. 7, fig. 10 [ref. 000637].
- Anomoeoneis exilis* f. *gibbosa* Foged 1980, p. 25; pl. 13, fig. 17, 18 [ref. 006036].
- Anomoeoneis exilis* var. *gomphonemacea* (Grunow) Cleve 1895, p. 8 [ref. 000949]. Basionym: *Navicula gomphonemacea* Grunow in Van Heurck 1880.
- Anomoeoneis exilis* f. *intermedia* Kiselev-Vozzhennikova 1950, p. 322 [ref. 002485]. Not seen (valid?). See *A. exilis* f. *intermedia* Vozzhennikova 1953. [according to ANSP].
- Anomoeoneis exilis* f. *intermedia* Vozzhennikova 1953, p. 75; fig. 2/2 [ref. 000903].
- Anomoeoneis exilis* var. *lanceolata* Mayer 1919, p. 202; pl. 7, fig. 12-14 [ref. 000637].
- Anomoeoneis exilis* f. *lanceolata* (A. Mayer) Hustedt 1959, p. 752; fig. 1114 d [ref. 000535]. Basionym: *Anomoeoneis exilis* var. *lanceolata* Mayer 1919.
- Anomoeoneis exilis* var. *minor* Krasske 1939, p. 377; pl. 11, fig. 35-37 (as *Anomoeoneis* (*exilis* var.?) *minor* nov. sp.) [ref. 000587]. *Invalid*. Validly published in Krasske 1939 as *Anomoeoneis minor* Krasske.

- Anomoeoneis exilis* var. *nipponica* Skvortzow 1936, p. 33; pl. 11, fig. 12 [ref. 000843].
- Anomoeoneis exilis* var. *speciosa* Rampi 1943, p. 48; pl. 2, fig. 41 [ref. 000779].
- Anomoeoneis exilis* f. *subacuminata* Mayer 1919, p. 202; pl. 7, fig. 15 (as *Anomoeoneis exilis* var. *lanceolata* f. *subacuminata*) [ref. 000637].
- Anomoeoneis exilis* var. *thermalis* (Grunow in Van Heurck) Cleve 1895, p. 8 [ref. 000949]. Basionym: *Navicula serians* var. *thermalis* Grunow in Van Heurck 1880.
- Anomoeoneis exilis* f. *undulata* Kisselev & Vozzhennikova 1950, p. 322 [ref. 002485]. Not seen (valid?). See *A. exilis* f. *undulata* Kisselev 1955. [according to ANSP].
- Anomoeoneis exilis* f. *undulata* Kisselev 1955, p. 41; fig. 1 [ref. 000565].
- Anomoeoneis fogedii* Reimer 1982, p. 267-268; fig. 1A, 1B [ref. 005978].
- Anomoeoneis follis* (Ehrenberg) Cleve 1895, p. 7 [ref. 000949]. Basionym: *Navicula follis* Ehrenberg 1838.
- Anomoeoneis follis* var. *fossilis* Reimer 1961, p. 187-188; pl. 1, fig. 9 [ref. 000788].
- Anomoeoneis follis* var. *hannae* Reimer 1961, p. 188-189; pl. 1, fig. 5 a-b [ref. 000788].
- Anomoeoneis formidolosa* Cholnoky 1959, p. 13; Abb. 1, fig. 81-84 [ref. 000206].
- Anomoeoneis frenguelli* Manguin in Bourrelly & Manguin 1952, p. 55; pl. 3, fig. 48 [ref. 000149].
- Anomoeoneis garrensis* Lange-Bertalot & Krammer in Krammer & Lange-Bertalot 1985, p. 12; pl. 1, fig. 1-5 [ref. 006263].
- Anomoeoneis gomphonemacea* (Grunow) Kobayashi 1969, p. 31; fig. 24-29 [ref. 008429]. Basionym: *Navicula gomphonemacea* Grunow in Van Heurck 1880.
- Anomoeoneis gomphonemoides* Maillard 1978, p. 153; pl. 2, fig. 4 [ref. 008536]. *Invalid*. Type not designated.
- Anomoeoneis grandis* Zakrzewski 1934, p. 136 (Russian), p. 139 (Latin), fig. 6 [ref. 000927].
- Anomoeoneis hungarica* Hajós 1959, p. 167 [ref. 000455]. *Invalid*. Nomen nudum.
- Anomoeoneis intermedia* Østrup 1910, p. 70; pl. 2, fig. 48 [ref. 000706].
- Anomoeoneis irawanae* Podzorski & Håkansson 1987, p. 53-54; pl. 17, fig. 6 [ref. 006169].
- Anomoeoneis kolbei* Skvortzow 1969, p. 378; fig. 1 g [ref. 008822].
- Anomoeoneis kolbei* Skvortzow 1971, p. 74; pl. 8, fig. 4 [ref. 008823]. Described as “n. sp.” but probably same as *Anomoeoneis kolbei* Skvortzow 1969.
- Anomoeoneis lanceolata* Gandhi 1959, p. 134; pl. 1, fig. 9-10 [ref. 000376].
- Anomoeoneis lignerii* (Lauby) F.W. Mills 1933, p. 196 [ref. 000998]. Basionym: *Navicula ligneri* (*lignerii*) Lauby 1910. Citation error (or deliberate new combination?) for *Navicula ligneri* Lauby 1910. Combination accepted by Mills (upper case print); we treat it as valid.
- Anomoeoneis longirostris* Hustedt 1942, p. 48; text fig. 70-73 [ref. 000517].
- Anomoeoneis macdonaghi* Frenguelli 1929, p. 272; fig. 65-1 (as *Navicula (Anomoeoneis) MacDonaghi*) [ref. 002237]. *Invalid*. Validly published in Frenguelli 1929 as *Navicula macdonaghi* Fr., combination under *Anomoeoneis* published by VanLandingham 1979, p. 4257 (ref. 006514).
- Anomoeoneis macdonaghi* (Frenguelli) VanLandingham 1979, p. 4257 [ref. 006514]. Basionym: *Navicula macdonaghi* (*mac-donaghi*) Frenguelli 1929. Although it is not listed as a “new comb.”, we treat it as a valid new combination because the basionym is cited as well as its place of publication, and the name is accepted by VanLandingham, (upper case print).
- Anomoeoneis macraeana* (Pantocsek) Cleve 1895, p. 7 [ref. 000949]. Basionym: *Navicula macraeana* Pantocsek 1889.
- Anomoeoneis malinvaudi* (Héribaud) Amossé 1921, p. 254 [ref. 001077]. Basionym: *Navicula malinvaudi* Héribaud 1902.
- Anomoeoneis malinvaudi* var. *minor* Amossé 1921, p. 254 [ref. 001077].
- Anomoeoneis manginii* Amossé 1921, p. 252; fig. 3 (as *Anomoeoneis (sphaerophora* var.) *mangini* nov. sp. ) [ref. 001077].
- Anomoeoneis manginii* f. *minor* Amossé 1921, p. 254; fig. 4 (as *Anomoeoneis (sphaerophora* var.) *mangini* forma *minor* ) [ref. 001077].
- Anomoeoneis menilitica* (Pantocsek) Cleve 1895, p. 7 [ref. 000949]. Basionym: *Navicula menilitica* Pantocsek 1889.
- Anomoeoneis microcephala* A. Berg 1945, p. 12; pl. 3, fig. 125 [ref. 000135].
- Anomoeoneis minor* Krasske 1939, p. 377; pl. 11, fig. 35-37 (as *Anomoeoneis (exilis* var.?) *minor* nov. sp.) [ref. 000587].
- Anomoeoneis neocaledonica* Maillard 1978, p. 153; pl. 2, fig. 8 [ref. 008536]. *Invalid*. Type not designated.
- Anomoeoneis neocaledonica* var. *angusta* Maillard 1978, p. 153; pl. 2, fig. 5 [ref. 008536]. *Invalid*. Specific name invalid and type not designated. The name of this taxon has been validly published as *Brachysira angusta* Lange-Bertalot & Moser 1994, p. 12 (ref. 006662).
- Anomoeoneis okadae* Skvortzow 1938, p. 211; fig. 1/37, 38 [ref. 000853].
- Anomoeoneis paludigena* Scherer 1988, p. 149; fig. 42-45, 72 [ref. 008764].
- Anomoeoneis palustris* Maillard 1978, p. 153; pl. 2, fig. 3 [ref. 008536]. *Invalid*. No type, fide Moser et al. 1995, p. 53 (ref. 008613). Moser et al. 1995 designate a type but fail to validate the name as they treat it in synonymy of *Brachysira palustris*.
- Anomoeoneis pannonica* (Grunow) Cholnoky 1927, p. 319 [ref. 002921]. Basionym: *Navicula pannonica* Grunow 1860. [according to VLC].

- Anomoeoneis polygramma* (Ehrenberg) Cleve 1895, p. 6 [ref. 000949]. Basionym: *Stauroneis polygramma* Ehrenberg 1843.
- Anomoeoneis polygramma* var. *pannonica* (Grunow) Frenguelli 1934, p. 355; pl. 2, fig. 1 [ref. 000359]. Basionym: *Navicula pannonica* Grunow 1860.
- Anomoeoneis polygramma* var. *platensis* Frenguelli 1945, p. 173; pl. 9, fig. 1 [ref. 000365].
- Anomoeoneis polygramma* var. *rhomboides* Jao 1964, p. 181; pl. 1, fig. 8 [ref. 008361].
- Anomoeoneis polygramma* var. *tibetica* Jao 1964, p. 181; pl. 1, fig. 7 [ref. 008361].
- Anomoeoneis rhetica* Wuthrich 1975, p. 310; pl. 15, fig. 1-5 [ref. 008955]. Holotype designated as “isotype”? Probably valid.
- Anomoeoneis rhomboidea* Krishnamurthy 1954, p. 365; fig. 33 [ref. 000592].
- Anomoeoneis rhomboidea* f. *minor* Krishnamurthy 1954, p. 367; fig. 31 [ref. 000592].
- Anomoeoneis rhomboides* Hustedt 1942, p. 48; text fig. 68 [ref. 000517].
- Anomoeoneis rostrata* (Otto Müller) Frenguelli 1934, p. 355; pl. 2, fig. 11 [ref. 000359]. Basionym: *Anomoeoneis sphaerophora* f. *rostrata* Otto Müller 1900.
- Anomoeoneis santapau* Sarode & Kamat 1984, p. 96 (key), 97, 240; pl. 11, fig. 240 [ref. 008758].
- Anomoeoneis sculpta* ‘(Ehrenberg) Pfitzer’ according to De Toni 1891, p. 139 [ref. 000271]. Basionym: *Navicula sculpta* Ehrenberg 1854. *Invalid*. The combination was suggested, but not validly published by Pfitzer 1871, p. 78 (ref. 000754). Combination not validated by De Toni as it is cited pro syn. *Navicula rostrata* Ehr. Combination validly published in Cleve 1895, p. 9 (ref. 000949).
- Anomoeoneis sculpta* (Ehrenberg) Cleve 1895, p. 6 [ref. 000949]. Basionym: *Navicula sculpta* Ehrenberg 1854.
- Anomoeoneis sculpta* var. *acuta* Cleve-Euler 1922, p. 58; fig. 29 [ref. 000247].
- Anomoeoneis sculpta* var. *apiculata* Frenguelli 1926, p. 47; pl. 6, fig. 5 (as *Navicula (Anomoeoneis) sculpta* var. *apiculata*) [ref. 000349]. *Invalid*. Validly published by Frenguelli 1926 as *Navicula sculpta* var. *apiculata*.
- Anomoeoneis sculpta* var. *apiculata* ‘Frenguelli’ VanLandingham 1967, p. 289 [ref. 006293]. *Invalid*. Citation error for *Navicula sculpta* var. *apiculata* Frenguelli 1926. Combination not accepted by VanLandingham.
- Anomoeoneis sculpta* var. *delicatula* (Peragallo & Peragallo) F.W. Mills 1935, p. 1702 (*‘delicatula’*) [ref. 006153]. Basionym: *Navicula sculpta* var. *delicata* Peragallo & Peragallo 1897. Citation error for *Navicula sculpta* var. *delicata* Peragallo & Peragallo? or intended new combination? The combination is nevertheless accepted by Mills and thus valid.
- Anomoeoneis sculpta* var. *doliolus* Frenguelli 1923, p. 58; pl. 4, fig. 34 [ref. 000347].
- Anomoeoneis sculpta* f. *elongata* Schulz 1926, p. 219; fig. 116 (as *Anomoeoneis sculpta* var. *lanceolata* f. *elongata*) [ref. 000812].
- Anomoeoneis sculpta* var. *genuina* Cleve-Euler 1953, p. 202; fig. 927 a, b (as *Anomoeoneis sculpta*  $\alpha$  *genuina* mh.) [ref. 001042]. Unclear if the type of *Navicula sculpta* Ehrenberg is included. Rank implied, not clearly indicated.
- Anomoeoneis sculpta* var. *gigantea* (M. Peragallo in Héribaud) Frenguelli 1933, p. 415 [ref. 000356]. Basionym: *Navicula sculpta* var. *gigantea* M. Peragallo in Héribaud et al. 1920.
- Anomoeoneis sculpta* var. *guentheri* (O. Müller) Cleve-Euler 1953, p. 202; fig. 927f (as *Anomoeoneis sculpta*  $\delta$  *guentheri* O.M. in text and fig. caption) [ref. 001042]. Basionym: *Anomoeoneis sphaerophora* var. *guentheri* Otto Müller 1900. *Invalid*. Rank implied, but not clearly indicated. Place of publication of basionym not cited.
- Anomoeoneis sculpta* var. *jacutica* Kisselev 1932, p. 82 (Russian), p. 97 (German), fig. 7 [ref. 002283].
- Anomoeoneis sculpta* var. *lanceolata* (Heiden) Schulz 1926, p. 219 [ref. 000812]. Basionym: *Navicula sculpta* var. *lanceolata* Heiden 1900.
- Anomoeoneis sculpta* var. *major* Cleve 1895, p. 6 [ref. 000949].
- Anomoeoneis sculpta* var. *minima* Frenguelli 1926, p. 47; pl. 6, fig. 3 (as *Navicula (Anomoeoneis) sculpta* var. *minima*) [ref. 000349]. *Invalid*. Validly published in Frenguelli 1923 as *Navicula sculpta* var. *minima*.
- Anomoeoneis sculpta* var. *minima* ‘Frenguelli’ VanLandingham 1967, p. 290 [ref. 006293]. *Invalid*. Citation error for *Navicula sculpta* var. *minima* Frenguelli 1923. Combination not accepted by VanLandingham.
- Anomoeoneis sculpta* var. *neogena* Mayer 1946, p. 61; text fig. [ref. 002510]. *Invalid*. No description.
- Anomoeoneis sculpta* var. *ornata* Frenguelli 1926, p. 47; pl. 6, fig. 1, 2 (as *Navicula (Anomoeoneis) sculpta* var. *ornata*) [ref. 000349]. *Invalid*. Validly published by Frenguelli 1926 as *Navicula sculpta* var. *ornata*. See *Anomoeoneis sculpta* var. *ornata* (Frenguelli) Frenguelli in Auer 1959, p. 102 (ref. 012872).
- Anomoeoneis sculpta* var. *ornata* (Frenguelli) Frenguelli in Auer 1959, p. 102 [ref. 012872]. Basionym: *Anomoeoneis sculpta* var. *ornata* Frenguelli 1926. [according to INA].
- Anomoeoneis sculpta* var. *polygramma* (Ehrenberg) Höfler 1940, p. 98 adn. [ref. 011729]. Basionym: *Stauroneis polygramma* Ehrenberg 1843. *Invalid*. [according to INA]. INA notes: “Not accepted. Combination made in this form: A. bohémica (Ehrb.) Legle = A. polygramma O. Müll. - A. sculpta var. polygramma (O. Müll.); but A. bohémica used throughout text”.
- Anomoeoneis sculpta* var. *rostrata* (Pantocsek) Cleve-Euler 1953, p. 202; fig. 927 e (as *Anomoeoneis sculpta*  $\beta$  *rostrata* A. Cl. in text and fig. caption) [ref. 001042]. Basionym: *Navicula sculpta* var. *rostrata* Pantocsek 1902. *Invalid*. Rank implied, but not clearly indicated.

- Anomoeoneis sculpta* var. *temperei* Frenguelli 1923, p. 58; pl. 4, fig. 33 (as *Navicula (Anomoeoneis) sculpta* var. *temperei*) [ref. 000347]. *Invalid*. Name validly published in Frenguelli 1923 as *Navicula sculpta* var. *temperei*. Combination under *Anomoeoneis* validly published by Frenguelli 1951.
- Anomoeoneis sculpta* var. *temperei* (Frenguelli) Frenguelli 1951, p. 7, 31 [ref. 011711]. Basionym: *Navicula sculpta* var. *temperei* Frenguelli 1923. [according to INA].
- Anomoeoneis sculpta* f. *undulata* Frenguelli 1931, p. 13; fig. 3 (as *Navicula (Anomoeoneis) sculpta* var. *gigantea* f. *undulata*) [ref. 000355]. *Invalid*. Validly published by Frenguelli 1931 as *Navicula sculpta* f. *undulata*.
- Anomoeoneis sculpta* f. *undulata* 'Frenguelli' VanLandingham 1967, p. 289 (as *Anomoeoneis sculpta* var. *gigantea* f. *undulata*) [ref. 006293]. *Invalid*. Citation error for *Navicula sculpta* f. *undulata* Frenguelli 1931. Name not accepted by VanLandingham (lower case print).
- Anomoeoneis serians* (Brébisson) Cleve 1895, p. 7 [ref. 000949]. Basionym: *Frustulia serians* Brébisson 1838.
- Anomoeoneis serians* var. *acuta* Hustedt 1937, p. 218; pl. 15, fig. 23, 24 [ref. 001012].
- Anomoeoneis serians* var. *apiculata* Boyer 1927, p. 325 (as *Anomoeoneis serians apiculata*) [ref. 000946]. Citation error for *Navicula serians* var. a (apiculate) Lewis 1865 (invalid). Boyer's name is valid.
- Anomoeoneis serians* var. *bacillifer* Maillard 1978, p. 154; pl. 2, fig. 2, pl. 8, fig. 4 [ref. 008536]. *Invalid* (no type) according to Lange-Bertalot & Moser 1994 (ref. 006662), p. 18-19.
- Anomoeoneis serians* var. *brachysira* (Brébisson in Rabenhorst) Hustedt 1930, p. 264 [ref. 000502]. Basionym: *Navicula brachysira* Brébisson in Rabenhorst 1853.
- Anomoeoneis serians* var. *brachysira* '(Brébisson in Rabenhorst) Cleve in Cleve & Möller' according to VanLandingham 1967, p. 291 [ref. 006293]. Basionym: *Navicula brachysira* Brébisson in Rabenhorst 1853. Citation error for *Navicula serians* var. *brachysira* (Brébisson) Cleve & Möller 1882, no. 324 (ref. 001979). Combination previously published: see *Anomoeoneis serians* var. *brachysira* (Brébisson ex Rabenhorst) Hustedt 1930.
- Anomoeoneis serians* var. *distans* Cleve-Euler 1953, p. 198; fig. 918 h (as *Anomoeoneis serians*  $\epsilon$  *distans* n. v.) [ref. 001042].
- Anomoeoneis serians* var. *elliptica* (Cleve-Euler) Cleve-Euler 1953, p. 198; fig. 918 f, g (as *Anomoeoneis serians*  $\delta$  *elliptica* in text and plate caption) [ref. 001042]. Basionym: *Anomoeoneis brachysira* var. *elliptica* Cleve-Euler 1939. *Invalid*. Rank implied but not indicated.
- Anomoeoneis serians* var. *irregularis* Cleve-Euler 1953, p. 198; fig. 918 i (as *Anomoeoneis serians*  $\gamma$  *irregularis* n.v.) [ref. 001042].
- Anomoeoneis serians* f. *minor* Boyer 1916, p. 80; pl. 17, fig. 13 [ref. 000152]. It is not specified that this is meant as the name of a new taxon, but validly published as such. Mills' entry (1933, p. 197, ref. 000998) suggests a synonymy with *Navicula serians* var. *minor* Grunow. There is no evidence in Boyer, however, in support of that synonymy.
- Anomoeoneis serians* var. *minor* (Grunow in Van Heurck) F.W. Mills 1933, p. 197 [ref. 000998]. Basionym: *Anomoeoneis serians* f. *minor* Boyer 1916. Probably a citation error for *Anomoeoneis serians* f. *minor* Boyer 1916, p. 80 (ref. 000152). The name is, however, accepted by Mills (upper case print), who suggests the synonymy with *Navicula serians* var. *minor* Grunow in Van Heurck, and we treat it as a valid new combination.
- Anomoeoneis serians* f. *minor* Hustedt 1921, p. 157 [ref. 000495]. *Invalid*. Nomen nudum. Not validated by Simonsen 1987 (ref. 003164).
- Anomoeoneis serians* f. *minuta* Carter 1961, p. 75; fig. 13 (as *Anomoeoneis serians* (Bréb.) Cl. var. *brachysira* (Bréb.) Hustedt f. *minuta*) [ref. 003622]. *Invalid*. Type not designated. No Latin diagnosis.
- Anomoeoneis serians* var. *modesta* Cleve-Euler 1934, p. 70; pl. 4, fig. 115 [ref. 000249].
- Anomoeoneis serians* var. *peragallii* (Brun & Héribaud in Héribaud) F.W. Mills 1933, p. 197 [ref. 000998]. Basionym: *Navicula serians* var. *peragalli* Brun & Héribaud in Héribaud 1893. Citation error or deliberate new combination of *Navicula serians* var. *peragalli* Brun & Héribaud in Héribaud 1893. Combination accepted by Mills.
- Anomoeoneis serians* var. *rostrata* Krasske 1948, p. 427; pl. 1, fig. 28-29 [ref. 001320].
- Anomoeoneis serians* f. *rotundata* A. Berg 1945, p. 12; pl. 3, fig. 121 [ref. 000135].
- Anomoeoneis serians* var. *rotundata* (Berg) Cleve-Euler 1953, p. 198; fig. 918 e (as *Anomoeoneis serians*  $\gamma$  *rotundata* Berg in text and fig. caption) [ref. 001042]. Basionym: *Anomoeoneis serians* f. *rotundata* A. Berg 1945. *Invalid*. Rank implied, but not clearly indicated.
- Anomoeoneis serians* var. *sibirica* Skvortzow 1938, p. 406; pl. 3, fig. 5 [ref. 000850].
- Anomoeoneis serians* f. *thermalis* (Grunow in Van Heurck) Hustedt 1930, p. 264; fig. 428 (as *Anomoeoneis serians* var. *brachysira* f. *thermalis*) [ref. 000502]. Basionym: *Navicula serians* var. *thermalis* Grunow in Van Heurck 1880.
- Anomoeoneis serians* var. *thermalis* Shirshov 1935 [ref. 001520]. *Illegitimate*. Non (Grunow in V.H.) Hustedt 1930. [according to VLC].
- Anomoeoneis serians* var. *typica* Cleve-Euler 1953, p. 197; fig. 918 a, b [ref. 001042]. Cleve-Euler cites "*Navicula serians*" Brébisson.
- Anomoeoneis serians* f. *undulata* Hustedt 1959, p. 747; fig. 1112b [ref. 000535].
- Anomoeoneis spectabilis* Manguin 1942, p. 135; pl. 2, fig. 29 [ref. 000623].
- Anomoeoneis sphaerophora* Pfitzer 1871, p. 77; pl. 3, fig. 10 (as *Anomoeoneis (Navicula) sphaerophora* (Kütz.)) [ref.

- 000754]. Based on *Navicula sphaerophora* Kützing 1844 (illegitimate), not *Navicula sphaerophora* Ehrenberg 1843.
- Anomoeoneis sphaerophora* f.  $\alpha$  Otto Müller 1900, p. 302; pl. 12, fig. 6, 7 (as *Anomoeoneis sphaerophora* var. *güntheri* f.  $\alpha$ ) [ref. 000674]. *Invalid*. Improper epithet.
- Anomoeoneis sphaerophora* var. *angusta* Frenguelli 1934, p. 355; pl. 2, fig. 10 [ref. 000359].
- Anomoeoneis sphaerophora* status *auxosporus* Otto Müller 1900, p. 304; pl. 12, fig. 1 (as *Anomoeoneis sphaerophora* status *auxosporus*) [ref. 000674]. *Invalid?*
- Anomoeoneis sphaerophora* var. *biceps* (Ehrenberg) Cleve 1895, p. 6 [ref. 000949]. Basionym: *Navicula biceps* Ehrenberg 1843.
- Anomoeoneis sphaerophora* f. *capitata* Otto Müller 1900, p. 303 (as *Anomoeoneis sphaerophora* forma  $\beta$  *capitata*, genuina) [ref. 000674].
- Anomoeoneis sphaerophora* f. *costata* (Kützing) A.-M. Schmid 1977, p. 321, 329 [ref. 008767]. Basionym: *Navicula costata* Kützing 1844. *Invalid*. Basionym not cited (*A. costata* (Kg.) Hustedt is cited on p. 328). Place of publication of basionym not cited.
- Anomoeoneis sphaerophora* f. *curta* Otto Müller 1900, p. 302; pl. 12, fig. 10 (as *Anomoeoneis sphaerophora* var. *navicularis* n.v. forma  $\beta$  *curta*) [ref. 000674]. Non O. Müller 1900 (fig. 11).
- Anomoeoneis sphaerophora* f. *curta* Otto Müller 1900, p. 301; pl. 12, fig. 11 (as *Anomoeoneis sphaerophora* var. *elliptica* n.v. forma  $\beta$  *curta*) [ref. 000674]. Non O. Müller 1900 (fig. 10).
- Anomoeoneis sphaerophora* var. *elliptica* Otto Müller 1900, p. 300; fig. 11, 12 [ref. 000674]. No diagnosis for variety as whole, diagnosis for forma *elongata* (fig. 12) and forma *curta* (fig. 11).
- Anomoeoneis sphaerophora* f. *elongata* Otto Müller 1900, p. 300; pl. 12, fig. 12 (as *Anomoeoneis sphaerophora* var. *elliptica* n.v. forma  $\alpha$  *elongata*) [ref. 000674]. Non O. Müller 1900 (fig. 13).
- Anomoeoneis sphaerophora* f. *elongata* Otto Müller 1900, p. 301; pl. 12, fig. 13 (as *Anomoeoneis sphaerophora* var. *navicularis* n.v. forma  $\alpha$  *elongata*) [ref. 000674]. Non O. Müller 1900 (fig. 12).
- Anomoeoneis sphaerophora* var. *genuina* Cleve-Euler 1953, p. 202; fig. 928 a (as *Anomoeoneis sphaerophora*  $\alpha$  *genuina* A. Cl.) [ref. 001042]. Cleve-Euler cites *Navicula sphaerophora* Kützing.
- Anomoeoneis sphaerophora* var. *grandis* (Zakrzewski) Zabelina in Zabelina et al. 1951, p. 259; fig. 147, 1 [ref. 000800]. Basionym: *Anomoeoneis grandis* Zakrzewski 1934.
- Anomoeoneis sphaerophora* var. *guentheri* Otto Müller 1900, p. 302; pl. 12, fig. 6-9 (as *Anomoeoneis sphaerophora* var. *Güntheri* n.v.) [ref. 000674]. No diagnosis for variety as a whole, but diagnosis for forma  $\alpha$  (fig. 6, 7), and forma *truncata* (fig. 8, 9).
- Anomoeoneis sphaerophora* f. *indica* Venkataraman 1939, p. 324-325; fig. 80, 70 (as *Anomoeoneis sphaerophora* var. *sculpta* f. *indica*) [ref. 000899].
- Anomoeoneis sphaerophora* var. *intermedia* McCall 1933, p. 256, 306; text-fig. 20 [ref. 000640].
- Anomoeoneis sphaerophora* var. *jacutica* (Kisselev) Zabelina in Proschkina-Lavrenko 1950, p. 148; pl. 49, fig. 8 [ref. 001823]. Basionym: *Anomoeoneis sculpta* var. *jacutica* Kisselev 1932.
- Anomoeoneis sphaerophora* var. *jacutica* (Kisselev) Zabelina in Zabelina et al. 1951, p. 261; fig. 147, 3 [ref. 000800]. Basionym: *Anomoeoneis sculpta* var. *jacutica* Kisselev 1932. Isonym: See *A. sphaerophora* var. *jacutica* (Kisselev) Zabelina in Proschkina-Lavrenko 1950.
- Anomoeoneis sphaerophora* var. *lanceolata* 'Proschkina-Lavrenko 1853' 1953, p. 41 According to Hollerbakh & Krasavina 1971, p. 41. [according to VLC]. Not found in Proschkina-Lavrenko 1953 (ref. 0014609) or Proschkina-Lavrenko 1953 (ref. 002811).
- Anomoeoneis sphaerophora* var. *laticeps* (Pantocsek) Cleve-Euler 1953, p. 203; fig. 928 c (as *Anomoeoneis sphaerophora*  $\gamma$  *laticeps* Pant. in text and fig. caption) [ref. 001042]. Basionym: *Navicula sphaerophora* var. *laticeps* Pantocsek 1902. *Invalid*. Rank implied but not clearly indicated.
- Anomoeoneis sphaerophora* var. *linearis* (Lauby) F.W. Mills 1933, p. 198 [ref. 000998]. Basionym: *Navicula sphaerophora* var. *linearis* Lauby 1910. Citation error or deliberate new combination of *Navicula sphaerophora* var. *linearis* Lauby 1910. Combination accepted by Mills.
- Anomoeoneis sphaerophora* var. *linearis* Frenguelli 1945, p. 174; pl. 9, fig. 2 [ref. 000365]. *Illegitimate*. Non (Lauby) Mills 1933.
- Anomoeoneis sphaerophora* var. *magnifica* Schoeman & Archibald 1988, p. 227, 230; fig. 44-47 [ref. 008772].
- Anomoeoneis sphaerophora* f. *minor* M. & J. Serbanescu 1960, p. 184; pl. 2, fig. 3 (as *Anomoeoneis sphaerophora* var. *sculpta* f. *minor*) [ref. 000819].
- Anomoeoneis sphaerophora* var. *minor* Kociolek & Herbst 1992, p. 345; fig. 11-16, 19-21 [ref. 005972]. *Illegitimate*. Non M. & J. Serbanescu 1960.
- Anomoeoneis sphaerophora* var. *navicularis* Otto Müller 1900, p. 301; fig. 10, 13 [ref. 000674]. No diagnosis for variety as a whole, but diagnosis for forma *elongata* (fig. 13), and forma *curta* (fig. 10).
- Anomoeoneis sphaerophora* var. *obtusa* (M. Peragallo in Héribaud et al.) F.W. Mills 1933, p. 198 [ref. 000998]. Basionym: *Navicula sphaerophora* var. *obtusa* M. Peragallo in Héribaud 1920. Citation error or deliberate new combination of *Nav-*

- icula sphaerophora* var. *obtus*a M. Peragallo in Héribaud et al. 1920. Combination accepted by Mills.
- Anomoeoneis sphaerophora* var. *planipunctata* Hajós 1968, p. 172; pl. 50, fig. 6 [ref. 002445].
- Anomoeoneis sphaerophora* var. *polygramma* (Ehrenberg) Otto Müller 1900, p. 301 [ref. 000674]. Basionym: *Stauroneis polygramma* Ehrenberg 1843.
- Anomoeoneis sphaerophora* status *primigenus* Otto Müller 1900, p. 304; pl. 12, fig. 2 (as *Anomoeoneis sphaerophora* status *primigenus*) [ref. 000674]. *Invalid?*
- Anomoeoneis sphaerophora* f. *rostrata* Otto Müller 1900, p. 303; pl. 12, fig. 3-5 (as *Anomoeoneis sphaerophora* forma  $\alpha$  *rostrata*) [ref. 000674].
- Anomoeoneis sphaerophora* f. *rostrata* Gonzalves & Gandhi 1954, p. 263; fig. 90 (as *Anomoeoneis sphaerophora* var. *guentheri* f. *rostrata*) [ref. 000386]. *Illegitimate*. Non O. Müller 1900.
- Anomoeoneis sphaerophora* var. *schmidtii* (M. Peragallo in Héribaud et al.) F.W. Mills 1933, p. 198 [ref. 000998]. Basionym: *Navicula sphaerophora* var. *schmidtii* M. Peragallo in Héribaud 1920. Citation error or deliberate new combination of *Navicula sphaerophora* var. *schmidtii* M. Peragallo in Héribaud et al. 1920. Combination accepted by Mills.
- Anomoeoneis sphaerophora* var. *sculpta* (Ehrenberg) Otto Müller 1900, p. 303 [ref. 000674]. Basionym: *Navicula sculpta* Ehrenberg 1854.
- Anomoeoneis sphaerophora* f. *sculpta* (Ehrenberg) A.-M. Schmid 1977, p. 328, 329 [ref. 008767]. Basionym: *Navicula sculpta* Ehrenberg 1854. *Invalid*. Basionym and its place of publication not cited. *A. sphaerophora* (Ehrenberg) O. Müller is cited on p. 328, but not its place of publication.
- Anomoeoneis sphaerophora* f. *sculpta* (Ehrenberg) Krammer in Krammer & Lange-Bertalot 1985, p. 13 [ref. 006263]. Basionym: *Navicula sculpta* Ehrenberg 1854.
- Anomoeoneis sphaerophora* f. *signata* Fontell ms. Cleve-Euler 1953, p. 202 (as *Anomoeoneis sphaerophora*  $\beta$  *genuina* f. *signata* Font.) [ref. 001042]. *Invalid*. No illustration (fossil).
- Anomoeoneis sphaerophora* f. *truncata* Otto Müller 1900, p. 302; pl. 12, fig. 8-9 (as *Anomoeoneis sphaerophora* var. *guentheri* f.  $\beta$  *truncata*) [ref. 000674].
- Anomoeoneis sphaerophora* f. *undulata* (Frenguelli) Hustedt 1959, p. 742; fig. 1110 (as *Anomoeoneis sphaerophora* var. *sculpta* f. *undulata*) [ref. 000535]. Basionym: *Navicula sculpta* f. *undulata* Frenguelli 1931.
- Anomoeoneis sphaerophora* status *auxosporeus* f. *constricta* Amossé 1921, p. 252; fig. 5 [ref. 001077]. [according to INA].
- Anomoeoneis starmuhlneri* Maillard 1978, p. 154; pl. 2, fig. 7 [ref. 008536]. Considered invalid by Moser et al. 1998, p. 100 (ref. 007020).
- Anomoeoneis styriaca* (Grunow in Van Heurck) Hustedt 1930, p. 265; fig. 432 [ref. 000502]. Basionym: *Navicula styriaca* Grunow in Van Heurck 1880.
- Anomoeoneis styriaca* var. *ventricosa* (Hustedt) Hustedt 1930, p. 265 [ref. 000502]. Basionym: *Frustulia styriaca* var. *ventricosa* Hustedt 1922.
- Anomoeoneis styriaca* f. *ventricosa* (Hustedt) Hustedt 1959, p. 754, fig. 1116 c [ref. 000535]. Basionym: *Frustulia styriaca* var. *ventricosa* Hustedt 1922.
- Anomoeoneis sulcata* Mereschkowsky 1906, p. 383; pl. 1, fig. 35 [ref. 003006].
- Anomoeoneis undulata* K.E. Lohman & G. Andrews 1968, p. E17; pl. 1, fig. 25, 27 [ref. 003189].
- Anomoeoneis variabilis* (Ross) Reimer 1961, p. 194-195; pl. 1, fig. 7-8 [ref. 000788]. Basionym: *Navicula variabilis* Ross 1947.
- Anomoeoneis vitrea* (Grunow) Ross in Patrick & Reimer 1966, p. 380; pl. 33, fig. 12, 13 [ref. 003167]. Basionym: *Gomphonema vitreum* Grunow 1878.
- Anomoeoneis vitrea* var. *gomphonemacea* (Grunow) Moghadam 1969, p. 190 [ref. 008601]. Basionym: *Navicula gomphonemacea* Grunow in Van Heurck 1880. [according to ANSP].
- Anomoeoneis vitrea* f. *lanceolata* (A. Mayer) Moghadam 1969, p. 190 [ref. 008601]. Basionym: *Anomoeoneis exilis* var. *lanceolata* Mayer 1919. [according to ANSP].
- Anomoeoneis vitrea* f. *lanceolata* (Mayer) Fabri 1983, p. 509 [ref. 008192]. Basionym: *Anomoeoneis exilis* var. *lanceolata* Mayer 1919. Isonym: See *A. vitrea* f. *lanceolata* (Mayer) Moghadam 1969.
- Anomoeoneis walzii* Reinhardt 1913, p. 102 [ref. 003058]. *Invalid*. Nomen nudum.
- Anomoeoneis zellensis* (Grunow) Cleve 1895, p. 7 [ref. 000949]. Basionym: *Navicula zellensis* Grunow 1860.
- Anomoeoneis zellensis* var. *baicalensis* Meyer 1930, p. 348; pl. 16, fig. 19 [ref. 002518].
- Anomoeoneis zellensis* var. *constricta* Florin 1944, p. 425; fig. 4/1 [ref. 000320].
- Anomoeoneis zellensis* f. *difficilis* (Grunow in Van Heurck) Hustedt 1959, p. 753; fig. 1115 b-c [ref. 000535]. Basionym: *Navicula difficilis* Grunow in Van Heurck 1880.
- Anomoeoneis zellensis* var. *hustedtii* Woodhead & Tweed 1960, p. 355 [ref. 000925]. New name for *Anomoeoneis zellensis* var. *linearis* Hustedt 1922, non Østrup 1910.
- Anomoeoneis zellensis* var. *linearis* Østrup 1910, p. 239; pl. 14, fig. 6 [ref. 000707].
- Anomoeoneis zellensis* var. *linearis* Hustedt 1922, p. 234 [ref. 000494]. *Illegitimate*. Non Østrup 1910. Synonym (substitute name): *A. zellensis* var. *hustedtii* Woodhead & Tweed 1960.

*Anomoeoneis zellensis* var. *scandica* Cleve-Euler 1953, p. 199; fig. 920 b (as *Anomoeoneis zellensis*  $\beta$  *scandica* n.v.) [ref. 001042].

*Anomoeoneis zellensis* var. *subovata* Cleve-Euler 1934, p. 70; fig. 116 [ref. 000249].

*Anomoeoneis zellensis* var. *typica* Cleve-Euler 1953, p. 199; fig. 920 a (as *Anomoeoneis zellensis*  $\alpha$  *typica* mh.) [ref. 001042]. Cleve-Euler does not cite *Navicula zellensis* Grunow 1860, but she cites *Navicula zellensis* Grunow in Van Heurck 1880, pl. 12, fig. 14 (ref. 000895).

*Anomoeoneis zellensis* f. *ventralis* Cleve-Euler 1953, p. 199; fig. 920 d (as *Anomoeoneis zellensis*  $\beta$  *scandica* f. *ventralis* n.f.) [ref. 001042].

**ANORTHONEIS A. Grunow 1868, p. 9 [ref. 000432]**

T: *Anorthoneis excentrica* (A. Donkin) A. Grunow 1868  
(= *Cocconeis excentrica* A. Donkin 1858)

*Anorthoneis dulcis* Hein 1991, p. 269; fig. 2-21 [ref. 008338].

*Anorthoneis eurystoma* Cleve 1895, p. 166; pl. 3, fig. 2 [ref. 000949].

*Anorthoneis excentrica* (Donkin) Grunow 1867, p. 10 [ref. 000432]. Basionym: *Cocconeis excentrica* Donkin 1858.

*Anorthoneis excentrica* var. *ornata* Takano 1981, p. 49-50; text fig. 1(A-C); fig. 22, 23 [ref. 008875].

*Anorthoneis hummii* Hustedt 1955, p. 15; pl. 2, fig. 6, pl. 5, fig. 18-19 [ref. 000530].

*Anorthoneis hyalina* Hustedt 1955, p. 15; pl. 2, fig. 3-4, pl. 5, fig. 12-13 [ref. 000530].

*Anorthoneis maculata* M. Peragallo in Tempère & Peragallo 1910, p. 214; No. 401-402 [ref. 001066].

*Anorthoneis minima* Foged 1975, p. 12-13; pl. 7, fig. 14, 15 [ref. 006786].

*Anorthoneis peragalli* Héribaud 1908, p. 26; pl. 13, fig. 29, 30 [ref. 000993].

*Anorthoneis pulex* Sterrenburg 1987, p. 16; 2 figs [ref. 008841]. [according to ANSP].

*Anorthoneis tenuis* Hustedt 1955, p. 15; pl. 2, fig. 5, pl. 5, fig. 14-15 [ref. 000530].

*Anorthoneis vortex* Sterrenburg 1987, p. 16; 4 figs [ref. 008841]. [according to ANSP].

**ANTELMINELLIA F. Schütt 1893, p. 17 [ref. 001510]**

T: *Antelminellia gigas* (A.F. Castracane) Schütt 1893  
(= *Ethmodiscus gigas* A.F. Castracane 1885)

*Antelminellia gigas* (Castracane) Schütt 1893, p. 17 [ref. 001510]. Basionym: *Ethmodiscus gigas* Castracane 1886.

**ANTHEMODISCUS J.W. Barker & S.H. Meakin 1944, p. 252 [ref. 000127]**

T: *Anthemodiscus elegans* J.W. Barker & S.H. Meakin 1944

*Anthemodiscus elegans* Barker & Meakin 1944, p. 252; pl. 38, fig. 5 [ref. 000127].

**ANTHODISCINA P.C. Silva 1970, p. 941 [ref. 003191]**

T: *Anthodiscina floreata* (E. Grove & G. Sturt) P.C. Silva 1970  
(= *Anthodiscus floreatus* E. Grove & G. Sturt 1887)

Substitute name for *Anthodiscus* Grove et Sturt 1887, non G.F.W. Meyer 1818.

*Anthodiscina floreata* (Grove & Sturt) Silva 1970, p. 941 [ref. 003191]. Basionym: *Anthodiscus floreatus* Grove & Sturt 1887.

**ANTHODISCUS E. Grove & G. Sturt 1887, p. 65 [ref. 000988]**

T: *Anthodiscus floreatus* E. Grove & G. Sturt 1887

Non *Anthodiscus* Meyer 1818. Synonym (substitute name): *Anthodiscina* P.C. Silva 1970.

*Anthodiscus floreatus* Grove & Sturt 1887, p. 65; pl. 6, fig. 20 [ref. 000988].

**ANULOPLICATA (Gleser) Gleser 1992, p. 61 [ref. 006385]**

T: *Anuloplicata ornata* (A. Grunow 1882) Gleser 1992  
(= *Paralia ornata* Grunow in Van Heurck 1882)

Taxon first described by Gleser as a subsection of the genus *Paralia* Heiberg (Gleser 1990, p. 547, ref. 006387).

*Anuloplicata concentrica* (A. Schmidt) Gleser in Gleser, Makarova, Moisseeva & Nikolaev 1992, p. 61-62; pl. 49, fig. 7-11 [ref. 006385]. Basionym: *Paralia concentrica* Schmidt in Schmidt et al. 1892.

*Anuloplicata ornata* (Grunow) Gleser in Gleser, Makarova, Moisseeva & Nikolaev 1992, p. 62; pl. 49, fig. 1-6 [ref. 006385]. Basionym: *Melosira ornata* Grunow in Van Heurck 1882.

*Anuloplicata saratoviana* (Pantocsek) Gleser in Gleser, Makarova, Moisseeva & Nikolaev 1992, p. 62; pl. 49, fig. 12 [ref. 006385]. Basionym: *Melosira saratoviana* Pantocsek 1889.

**APORODISCUS J. Rattray in A. Schmidt et al. 1890, pl. 153  
(Berichtigungen for pl. 149, fig. 22) [ref. 012468]**

T: *Aporodiscus oamaruensis* (Grunow 1888 in Schmidt et al.) Rattray 1889 in Schmidt et al.  
(= *Eupodiscus oamaruensis* Grunow 1887? = *Glyphodiscus oamaruensis* Grunow in Schmidt 1888?)

Orthographical variant of *Aporidiscus* Rattray in Grunow 1889, p. 390 (ref. 000447). Superfluous substitute name for *Debya* Rattray 1888. Synonym: *Rattrayella* DeToni 1889.

*Aporodiscus oamaruensis* (Grunow in Schmidt et al.) Rattray in Schmidt et al. 1890, pl. 153 (Berichtigungen for pl. 149, fig. 22) (as *Aporodiscus oamaruensis* Rattray) [ref. 012468]. Basionym: *Glyphodiscus oamaruensis* Grunow in Schmidt et al. 1888. Illustrated without name in Schmidt 1890, pl. 149, fig. 22 (ref. 012467). Treated by VanLandingham as a new combination of *Glyphodiscus oamaruensis* Grunow (possible by comparison of figures). Could also be treated as the name of a new taxon (as in INA).

*Aporodiscus simbirskianus* (Grunow in Schmidt et al.) F.W. Mills 1933, p. 200 [ref. 000998]. Basionym: *Glyphodiscus simbirskianus* Grunow in Schmidt et al. 1888. *Invalid*. Combination not accepted by Mills (lower case print). Citation error?

**APTEROSOMA S. Komura 1997, p. 71 [ref. 009323]**

T: *Apterosoma translucidum* 'translucida' S. Komura 1997

*Apterosoma translucidum* S. Komura 1997, p. 71-72; fig. 11-15, 58-75, Text-fig. 6 ('translucida') [ref. 009323].

**ARACHNODISCUS J.W. Bailey ex C.G. Ehrenberg 1849, p. 63 [ref. 002011]**

T: *Arachnodiscus ornatus* (C.G. Ehrenberg) C.G. Ehrenberg  
(= *Hemiptychus ornatus* C.G. Ehrenberg)

Name rejected vs. *Arachnoidiscus* Deane ex Shadbolt 1852 (see ICBN 1956, p. 200, ref. 009616).

Prerejection lectotypification with *A. ornatus* in Taxon 1:95-97. July 1952 (ref. 006922). Two species were originally included: *A. ornatus*, *A. ehrenbergii*, and no type was originally designated.

*Arachnodiscus ehrenbergii* J.W. Bailey in Ehrenberg 1849, p. 64 [ref. 002011]. See also Bailey & Harvey 1862, p. 174, pl. 9, fig. 9, 10 (ref. 000124).

*Arachnodiscus ornatus* (Ehrenberg) Ehrenberg 1849, p. 64 [ref. 002011]. Basionym: *Hemiptychus ornatus* Ehrenberg 1848. Although Ehrenberg 1849 does not cite *Hemiptychus ornatus*, it is clear, when comparing the description of *H. ornatus* Ehrenberg 1848, p. 7 (ref. 000960), and the almost identical description of *A. ornatus* in Ehrenberg 1849, that the latter is a new combination of the former.

**ARACHNOIDISCUS H. Deane ex G. Shadbolt 1852, p. 49, pl. 11, fig. 1-5 [ref. 000820]**

T: *Arachnoidiscus japonicus* G. Shadbolt ex A. Pritchard 1852

Name conserved vs. *Arachnodiscus* Bailey ex Ehrenberg 1849 (nom. rej.) (see ICBN 1996, ref. 006916, p. 200).

*Arachnoidiscus abnormis* Brown 1933, p. 41, 73 [ref. 000172]. No illustration in Brown, but he cites a specimen illustrated in A. Schmidt's Atlas, pl. 147, fig. 8 (Schmidt 1890, ref. 012467) as probably belonging to this species.

*Arachnoidiscus adamsii* Brown 1933, p. 44, 63; pl. 5, fig. 4 [ref. 000172].

*Arachnoidiscus antarcticus* Brown 1920, p. 219 [ref. 000941]. Illustration in Brown 1933, pl. 6, fig. 4-5 (ref. 000172).

*Arachnoidiscus antiquus* Barker & Meakin 1945, p. 18; pl. 3, fig. 2 [ref. 000128].

*Arachnoidiscus atlanticus* Hanna, Hendey & Brigger 1976, p. 7; pl. 1, fig. 2 [ref. 000013].

*Arachnoidiscus barbadensis* Schmidt in Schmidt et al. 1881, pl. 68, fig. 11 [ref. 012454].

*Arachnoidiscus beringensis* Brown 1933, p. 47, 78; pl. 6, fig. 7 [ref. 000172].

*Arachnoidiscus cibdelus* Brown 1933, p. 46, 77 [ref. 000172]. No illustration, but Brown cites an illustration in Schmidt's Atlas: *A. indicus* sensu Schmidt 1881 pl. 68, fig. 8 (ref. 012454) (not Ehrenberg).

*Arachnoidiscus clarus* Brown 1933, p. 46, 68; pl. 6, fig. 1, 2 [ref. 000172].

*Arachnoidiscus cognatus* Brown 1933, p. 43, 57; pl. 5, fig. 7 [ref. 000172].

*Arachnoidiscus confusus* Brown 1933, p. 42, 54 [ref. 000172]. Brown does not provide a figure, but he cites *A. ehrenbergii* var. *californica* sensu Truan and Witt 1888 (ref. 000889) p. 11, and *A. ehrenbergii* sensu Truan and Witt (same work) pl. 2, fig. 8 (not Bailey).

*Arachnoidiscus decorus* Brown 1933, p. 47, 71; pl. 6, fig. 3 [ref. 000172].



- Arachnoidiscus deficiens* (Grove in Schmidt) Brown 1933, p. 64; pl. 5, fig. 5 [ref. 000172]. Basionym: *Arachnoidiscus ehrenbergii* Bailey (?) var. *deficiens* Grove in Schmidt et al. 1890. Based on *A. ehrenbergii* var. *deficiens* Grove in Schmidt 1890 (ref. 012468) pro parte (includes figure 147/2, but not 147/3 from Schmidt 1890, ref. 012467).
- Arachnoidiscus ehrenbergii* J.W. Bailey in Ehrenberg 1849, p. 64 [ref. 002011]. Orth. variant for *Arachnoidiscus ehrenbergii* Bailey in Ehrenberg 1849. See also Bailey & Harvey 1862, p. 174, pl. 9, fig. 9, 10 (ref. 000124).
- Arachnoidiscus ehrenbergii* Bailey var. *californicus* Schmidt in Schmidt et al. 1881, pl. 68, fig. 3, 4 ('*californica*') [ref. 012454]. Description in Schmidt 1882 (expl. pl. 73, fig. 1) (ref. 012455).
- Arachnoidiscus ehrenbergii* Bailey var. *californicus* sensu Pantocsek 1886, p. 69; pl. 19, fig. 170 (as *A. ehrenbergii* var. *californica* A. Schmidt) [ref. 000714]. Non A. Schmidt 1881 according to Brown 1933, p. 62. Synonym: *A. hungaricus* Brown 1933.
- Arachnoidiscus ehrenbergii* Bailey var. *californicus* sensu Truan & Witt 1888, p. 11 (as *Arachnoidiscus Ehrenbergii* Bailey & Harvey var. *californica* A.S.) [ref. 000889]. Will be named *A. confusus* by Brown 1933.
- Arachnoidiscus ehrenbergii* Bailey var. *evanescens* Grunow in Schmidt et al. 1881, pl. 68, fig. 7 [ref. 012454]. See comments in Schmidt 1882, for fig. 73/3 (ref. 012455).
- Arachnoidiscus ehrenbergii* Bailey var. *grevillii* according to Mills 1933, p. 200 [ref. 000998]. Mills notes: "name often found in old collections" and cites for synonym *Arachnoidiscus grevilleanus* Hardman 1865.
- Arachnoidiscus ehrenbergii* Bailey var. *indica* (Ehrenberg) Grunow in Pantocsek 1886, p. 69; pl. 19, fig. 171 [ref. 000714]. Basionym: *Arachnoidiscus indicus* Ehrenberg 1854.
- Arachnoidiscus ehrenbergii* Bailey var. *javanica* Reinhold 1937, p. 82; pl. 4, fig. 2 [ref. 000039].
- Arachnoidiscus ehrenbergii* Bailey var. *montereyana* Schmidt in Schmidt et al. 1881, pl. 68, fig. 2 [ref. 012454].
- Arachnoidiscus ehrenbergii* Bailey f. *palaeoceanicus* Jousé 1951, p. 30; text-fig. 1, 2 (p. 32) [ref. 000548].
- Arachnoidiscus ehrenbergii* Bailey (?) var. *cuneatus* Monks 1920, p. 207 [ref. 005022].
- Arachnoidiscus ehrenbergii* Bailey (?) var. *deficiens* Grove in Schmidt et al. redefined by Brown 1933, p. 61 [ref. 000172]. Name originally (Grove 1890, ref. 12468) applied to specimens illustrated as *A. ehrenbergii* var. *oamaruensis* in Schmidt 1890, pl. 147, fig. 2-3 (ref. 012467). Only fig. 147/2 was retained by Brown 1933 (ref. 000172) in *A. deficiens* (Grove) Brown, in his revision of *Arachnoidiscus* (Brown placed fig. 147/3 in *A. oamaruensis*).
- Arachnoidiscus ehrenbergii* Bailey (?) var. *deficiens* Grove in Schmidt et al. 1890, pl. 153 (correction to pl. 147) [ref. 012468]. Illustrated as *A. ehrenbergii* var. *oamaruensis* in Schmidt 1890, pl. 147, fig. 2-3 (ref. 012467). Only fig. 2 was retained by Brown 1933 in *A. deficiens* (Grove) Brown, in his revision of *Arachnoidiscus* (Brown placed fig. 3 in *A. oamaruensis*).
- Arachnoidiscus ehrenbergii* Bailey (?) var. *evanescens* Grunow in Schmidt et al. 1882, pl. 73, fig. 3 [ref. 012455]. *Invalid?* Accepted?
- Arachnoidiscus ehrenbergii* Bailey (?) var. *indicus* Grunow in Van Heurck 1909, p. 43 [ref. 000898]. *Invalid*. No real diagnosis. Refers to Schmidt 1881 (ref. 0012454) "...une série de variations dont la majeure partie se rapproche des formes dessinées dans Ad. Schmidt (Atl., pl. 68, fig. 9 et 10)." Seems to be treated by Grunow in Van Heurck as a different taxon than *Arachnoidiscus indicus* Ehrenberg. Has been named by Brown 1933, p. 75 (ref. 000172): *A. evanescens* var. *paulus* Brown 1933.
- Arachnoidiscus ehrenbergii* Bailey (?) var. *nankoorensis* Desikachary & Ranjitha Devi in Desikachary 1986, p. 3; pl. 11, fig. 1, 2 [ref. 006017].
- Arachnoidiscus ehrenbergii* Bailey (?) var. *oamaruensis* Schmidt redefinition by Grove in Schmidt 1890, expl. pl. 153 (correction to pl. 147) [ref. 012468]. Illustration on pl. 147, figs. 1, 4. Originally (Schmidt 1890, ref. 012467), this taxon included specimens illustrated on pl. 147, fig. 1-4. Grove in Schmidt 1890, expl. pl. 153 (ref. 012468) attributed figs. 2, and 3 to a new taxon: *A. ehrenbergii* var. *deficiens* Grove), leaving figs. 1 and 4 for *A. ehrenbergii* var. *oamaruensis*. Subsequently Brown 1933 (ref. 000172), included in *A. oamaruensis* (Schmidt) Brown, figs. 1, 3-4 of plate 147 (but not fig. 2 that he included with *A. deficiens*).
- Arachnoidiscus ehrenbergii* Bailey (?) var. *oamaruensis* Schmidt in Schmidt et al. 1890, pl. 147, fig. 1-4 [ref. 012467]. Originally this taxon included specimens illustrated on pl. 147, fig. 1-4. Later (Grove in Schmidt 1890, expl. pl. 153, ref. 012468) attributed figs. 2, and 3 to a new taxon: *A. ehrenbergii* var. *deficiens* Grove). Subsequently Brown 1933 (ref. 000172), included in *A. oamaruensis* (Schmidt) Brown, figs. 1, 3-4 of plate 147 (but not fig. 2 that he included with *A. deficiens*).
- Arachnoidiscus ehrenbergii* Bailey (?) var. *splendens* Brun 1896, p. 232; pl. 23, fig. 7 [ref. 000183].
- Arachnoidiscus ehrenbergii* sensu A. Schmidt in Schmidt et al. 1881, pl. 68, fig. 1 (as "*Arachnoidiscus ehrenbergii* Bailey") [ref. 012454]. Non *A. Ehrenbergii* Bailey in Ehrenberg 1849 according to Brown 1933, p. 58 (ref. 000172). Synonym: *Arachnoidiscus sendaicus* Brown 1933.
- Arachnoidiscus ehrenbergii* sensu Pantocsek 1886, p. 69; pl. 19, fig. 169 (as "*Arachnoidiscus ehrenbergii* Bail.") [ref. 000714]. Non *A. Ehrenbergii* Bailey in Ehrenberg 1849 according to Brown 1933, p. 63 (ref. 000172). Synonym: *Arachnoidiscus similis* Brown 1933.
- Arachnoidiscus ehrenbergii* sensu Van Heurck 1896, p. 507; fig. 256 (as *A. ehrenbergii* Bail. and Harv.) [ref. 000897].

- Brown 1933 (ref. 000172), p. 57-58, includes Van Heurck's specimen in *Arachnoidiscus sendaicus* Brown.
- Arachnoidiscus evanescens* (Grunow in Schmidt et al.) Brown 1933, p. 74 [ref. 000172]. Basionym: *Arachnoidiscus ehrenbergii* Bailey var. *evanescens* Grunow in Schmidt et al. 1881.
- Arachnoidiscus evanescens* var. *paulus* Brown 1933, p. 44, 75 [ref. 000172]. Not illustrated by Brown. Brown cites *A. indicus* small var.? Schmidt's Atlas (1881), pl. 68, fig. 9-10 (ref. 012454), and Wolle 1890, pl. 91, fig. 10-11 (ref. 000916).
- Arachnoidiscus formosus* Walker-Arnott 1858, p. 162 [ref. 000111]. *Invalid?* This name was proposed in error by Arnott: see Arnott 1858, p. 195 (footnote) (ref. 000112). Arnott 1858 had intended to publish a new combination of *Hemiptychus ornatus* Ehrenberg.
- Arachnoidiscus giganteus* Pantocsek 1889, p. 111 [ref. 001033]. Illustrated in Pantocsek 1892, pl. 2, fig. 26 (ref. 001034).
- Arachnoidiscus grevilleanus* Hardman ex Greville 1865, p. 47; pl. 5, fig. 7 [ref. 000982].
- Arachnoidiscus grevilleanus* sensu Schmidt in Schmidt et al. 1882, pl. 73, fig. 3 (as *A. grevilleanus* Hardm.) [ref. 012455]. Named *A. decorus* by Brown 1933.
- Arachnoidiscus grevilleanus* f. *typica* Truan & Witt 1888, p. 11; pl. 2, fig. 12 (as *A. grevilleanus* Hardm. f. *typ.*) [ref. 000889]. Cites Greville 1865. Renamed *Arachnoidiscus clarus* by Brown 1933.
- Arachnoidiscus hannai* Reinhold 1937, p. 83; pl. 5, fig. 6-8 [ref. 000039].
- Arachnoidiscus hungaricus* Brown 1933, p. 43, 61; pl. 5, fig. 6 [ref. 000172]. Includes *A. ehrenbergii* var. *californica* Pantocsek 1886, and *A. ehrenbergii* var. *indica* Pantocsek 1886.
- Arachnoidiscus hustedti* Reinhold 1937, p. 84; pl. 5, fig. 1 [ref. 000039].
- Arachnoidiscus hybridus* Brown 1933, p. 59; pl. 5, fig. 1 [ref. 000172]. *Invalid?* Description may be insufficient for valid publication of the name.
- Arachnoidiscus indicus* Ehrenberg 1854, p. 165 (Text); p. 8; pl. 36, fig. 34 (Atlas) [ref. 000966].
- Arachnoidiscus indicus* Ehr. var. *borealis* Cleve-Euler 1951, p. 78; fig. 5 a (as *Arachnoidiscus indicus* E.  $\beta$  *borealis*) [ref. 000255]. Rank implied, not clearly indicated.
- Arachnoidiscus indicus* sensu A. Schmidt in Schmidt et al. 1882, Bermekung zu T. 68, fig. 8 (as *Arachnoidiscus indicus* E.) [ref. 012455]. Non Ehrenberg?
- Arachnoidiscus indicus* sensu Witt 1885, p. 153 (17); pl. 8, fig. 4 [ref. 000915]. As "*A. indicus* (Ehrenbg.) A.S." Non Ehrenberg 1854 according to VanLandingham 1967, p. 307 (ref. 006293).
- Arachnoidiscus indicus* sensu Schmidt in Schmidt et al. 1890, pl. 147, fig. 9 [ref. 012467]. *Invalid.* Schmidt wrote: "Oamaru (Grove), ähnlich 68, 7, vielleicht zu arachnoid. indicus rechnen" (similar to 68, 7, perhaps to be classified under *Arachnoidiscus indicus*).
- Arachnoidiscus interruptus* Barker & Meakin 1946, p. 76; pl. 15, fig. 1 [ref. 000129].
- Arachnoidiscus japonicus* Shadbolt ex Pritchard 1852, p. 319, 700; pl. 24, fig. 18-21 [ref. 001062].
- Arachnoidiscus japonicus* Ehrenberg 1873, p. 198 [ref. 000311]. *Invalid.* Nomen nudum. Non Pritchard 1852.
- Arachnoidiscus lepidus* Brown 1933, p. 48, 76 [ref. 000172]. Brown cites an unnamed illustration in A. Schmidt 1890 (ref. 012467): pl. 147, fig. 9.
- Arachnoidiscus longii* Brown 1933, p. 41, 53; pl. 3, fig. 1 [ref. 000172].
- Arachnoidiscus magister* Hanna, Hendey & Brigger 1976, p. 9; pl. 2, fig. 4, 5 [ref. 000013].
- Arachnoidiscus magnificus* Hanna, Hendey & Brigger 1976, p. 10; pl. 1, fig. 4 [ref. 000013].
- Arachnoidiscus major* Brown 1933, p. 41, 54 [ref. 000172]. Description based on illustration of "*A. ornatus* var." in Schmidt's Atlas (1882) pl. 73, fig. 10 (ref. 012455).
- Arachnoidiscus manni* Hanna & Grant 1926, p. 125; pl. 12, fig. 7-9 [ref. 000012]. New name for *Arachnoidiscus ornatus* var. *montereyana* Schmidt 1882 (non *Arachnoidiscus ehrenbergii* var. *montereyana* Schmidt 1881).
- Arachnoidiscus maunii* 'Hollerbakh & Krasavina' 1971, p. 46 [ref. 002458]. *Invalid.* Probaby citation error for *Arachnoidiscus manni* Hanna & Grant 1926.
- Arachnoidiscus millsii* Reinhold 1937, p. 85; pl. 5, fig. 5, 9 [ref. 000039].
- Arachnoidiscus montereyana* (A. Schmidt) Chase 1885, p. 51 [ref. 001049]. Basionym: *Arachnoidiscus ehrenbergii* Bailey var. *montereyana* Schmidt in Schmidt et al. 1881. Citation error for *A. ehrenbergii* var. *montereyana* Schmidt in Schmidt et al. 1881. We treat it as a valid new combination.
- Arachnoidiscus nicobaricus* Ehrenberg 1854, p. 165 (Text); p. 8; pl. 36, fig. 35 (Atlas) [ref. 000966].
- Arachnoidiscus oamaruensis* (A. Schmidt) Brown 1933, p. 44, 60; pl. 5, fig. 2, 3 [ref. 000172]. Basionym: *Arachnoidiscus ehrenbergii* Bailey (?) var. *oamaruensis* Schmidt in Schmidt et al. 1890. Brown's concept of *Arachnoidiscus oamaruensis* includes *A. ehrenbergii* var. *oamaruensis* Schmidt 1890, pl. 147, fig. 1, and *A. ehrenbergii* var. *deficiens* Grove in A. Schmidt et al. 1890, pl. 147, fig. 2 (ref. 012467).
- Arachnoidiscus ornatus* (Ehrenberg) Ehrenberg 1849, p. 64 [ref. 002011]. Basionym: *Hemiptychus ornatus* Ehrenberg 1848. Orth. variant for *Arachnoidiscus ornatus* (Ehrenberg) Ehrenberg 1849.
- Arachnoidiscus ornatus* (Ehr.) Ehr. var. *dispar* Brown 1933, p. 41, 51; pl. 4, fig. 1-4 [ref. 000172].
- Arachnoidiscus ornatus* (Ehr.) Ehr. var. *marylandica* Welsch 1915, p. 291; pl. 16, fig. 2 [ref. 000909]. [according to VLC].
- Arachnoidiscus ornatus* (Ehr.) Ehr. var. *montereyana* Schmidt in Schmidt et al. 1882, pl. 73, fig. 7-9 [ref. 012455]. Not the

- same taxon as *Arachnoidiscus ehrenbergii* var. *montereyana* Schmidt 1881 (pl. 68, fig. 2). Synonym: *A. manni* Hanna & Grant 1926.
- Arachnoidiscus ornatus* (Ehr.) Ehr. var. *montereianus* sensu Gaylord & Hanna 1925, pl. 5, fig. 2 (as *Arachnoidiscus ornatus montereanus* A. Schmidt) [ref. 000004].
- Arachnoidiscus ornatus* (Ehr.) Ehr. var. *obscurus* Forti in Tempère & Peragallo 1909, p. 196; No. 367-369 ('*obscura*') [ref. 001065]. *Invalid*. Nomen nudum. Also invalid in Forti 1910, p. 1307 (ref. 000337). Validated by Forti 1913, p. 1580 (ref. 000342).
- Arachnoidiscus ornatus* (Ehr.) Ehr. var. *obscurus* Forti 1913, p. 1580; pl. 4, fig. 3-8, pl. 5, fig. 5 ('*obscura*') [ref. 000342]. Previously invalid in Tempère & Peragallo 1909, p. 196 (ref. 001065) and Forti 1910, p. 1307 (ref. 000337). Validated by Forti 1913.
- Arachnoidiscus ornatus* (Ehr.) Ehr. f. *typica* sensu Truan & Witt 1888, p. 11; pl. 2, fig. 15 (as *A. ornatus* Ehr. f. *typ.*) [ref. 000889]. Cites Ehrenberg 1849, p. 64 (ref. 002011). Renamed *A. longii* by Brown 1933.
- Arachnoidiscus ornatus* sensu Van Heurck 1896, p. 506; fig. 255 (as *A. ornatus* Ehr.) [ref. 000897]. Brown 1933 (ref. 000172), p. 57-58, included Van Heurck's specimen in *Arachnoidiscus sendaicus* Brown.
- Arachnoidiscus parvulus* 'J.W. Bailey? Habirshaw's Cat.' according to Mills 1933, p. 202 [ref. 000998]. *Invalid*. Citation error for *Arachnoidiscus parvus* Bailey? according to Habirshaw's Cat. (ref. 001049). Combination not accepted by Mills.
- Arachnoidiscus parvus* 'J.W. Bailey' according to Chase 1885, p. 51 [ref. 001049]. *Invalid?* Also cited (but not described) by De Toni 1894, p. 1313 (ref. 000951). No precise reference to Bailey's work found.
- Arachnoidiscus primordialis* Hanna, Hendey & Brigger 1976, p. 10; pl. 3, fig. 5, 6 [ref. 000013].
- Arachnoidiscus rajui* Singh, Vimal & Nautiyal 1978, p. 52; pl. 1, fig. 9, 12 [ref. 008804]. [according to ANSP].
- Arachnoidiscus rossicus* Pantocsek 1905, p. 14 [ref. 001445]. Orth. variant (or correction?) for *Arachnoidiscus russicus* Pantocsek 1889.
- Arachnoidiscus russicus* Pantocsek 1889, p. 112 [ref. 001033]. No illustration in Pantocsek 1889. Illustration in Pantocsek 1892, pl. 15, fig. 226 (ref. 0013034). Redescribed as *Arachnoidiscus rossicus* Pant. in Pantocsek 1905, p. 14 (ref. 001445).
- Arachnoidiscus sastryi* Singh, Vimal & Nautiyal 1978, p. 53; pl. 2, fig. 1-3 [ref. 008804]. [according to ANSP].
- Arachnoidiscus schmidti* Hajós 1976, p. 827; pl. 8, fig. 1, 2 [ref. 002385].
- Arachnoidiscus sendaicus* Brown 1933, p. 45, 57; pl. 1, fig. 1, pl. 4, fig. 6-8 [ref. 000172].
- Arachnoidiscus simbirscianus* Pantocsek 1892, pl. 15, fig. 223 [ref. 001034]. Description in Pantocsek 1905, p. 14 (ref. 001445). Orthographical variant (or correction?) "*simbirskianus*" first introduced by De Toni 1894, p. 1313 (ref. 000951).
- Arachnoidiscus simbirskianus* Pantocsek 1892 [ref. 001034]. Orth. variant for *Arachnoidiscus simbirscianus* Pantocsek 1892 (ref. 001034), possibly first introduced by De Toni 1894, p. 1313 (ref. 000951).
- Arachnoidiscus similis* Brown 1933, p. 45, 63 [ref. 000172]. Name for *A. ehrenbergii* sensu Pantocsek 1886 (not Bailey). Brown refers to Pantocsek 1886, p. 69, pl. 19, figs. 169 (not 170, 171) (ref. 000714).
- Arachnoidiscus sokoli* Hanna, Hendey & Brigger 1976, p. 11; pl. 2, fig. 3 [ref. 000013].
- Arachnoidiscus spissus* Brown 1933, p. 45, 71; pl. 3, fig. 6 [ref. 000172].
- Arachnoidiscus splendens* (Brun) Brown 1933, p. 66 [ref. 000172]. Basionym: *Arachnoidiscus ehrenbergii* Bailey (?) var. *splendens* Brun 1896.
- Arachnoidiscus stictodiscoides* Hanna, Hendey & Brigger 1976, p. 12; pl. 3, fig. 1-4 [ref. 000013].
- Arachnoidiscus talukdari* Singh, Vimal & Nautiyal 1978, p. 53; pl. 2, fig. 4-6 [ref. 008804]. [according to ANSP].

**ARANISCUS S. Komura 1998, p. 8 [ref. 009350]**T: *araniscus umbonatus* S. Komura 1998

- Araniscus immaturus* S. Komura 1998, p. 10; fig. 27-30, 133-147 [ref. 009350].
- Araniscus lewisianus* (Greville) S. Komura 1998, p. 6 [ref. 009350]. Basionym: *Coscinodiscus lewisianus* Greville 1866.
- Araniscus peripheralis* S. Komura 1998, p. 9; fig. 25, 26, 120-132 [ref. 009350].
- Araniscus umbonatus* S. Komura 1998, p. 8; fig. 23, 24, 105-119 [ref. 009350].

**ARCHAEGLADIOPSIS V.A. Nikolaev & D.M. Harwood 1997, p. 52 [ref. 006871]**T: *Archaegliopsis jackii* Nikolaev & Harwood 1997 '*jacki*'

- Archaegliopsis davidii* Nikolaev & Harwood 1997, p. 45; fig. 8-13 ('*davidii*') [ref. 006871].
- Archaegliopsis etheridgei* Nikolaev & Harwood 1997, p. 46; fig. 14-19 [ref. 006871].
- Archaegliopsis jackii* Nikolaev & Harwood 1997, p. 44-45; fig. 1-7 ('*jacki*') [ref. 006871].

**ARCHEOPANTOCSEKIA Borbas 1893, p. 63 [ref. 002399]**

T: *Archeopantocsekia clivosa* (Grunow in Pantocsek) Borbas 1893  
 (= *Pantocsekia clivosa* Grunow in Pantocsek 1886)  
 New name for *Pantocsekia* Grunow ex Pantocsek 1886.

*Archeopantocsekia clivosa* (Grunow in Pantocsek) Borbas 1893, p. 63 [ref. 002399]. Basionym: *Pantocsekia clivosa* Grunow in Pantocsek 1886.

**ARCHEPYRGUS R. Gersonde & D.M. Harwood 1990, p. 370 [ref. 006383]**

T: *Archepyrgus melosiroides* R. Gersonde & D.M. Harwood 1990

*Archepyrgus melosiroides* Gersonde & Harwood 1990, p. 370-371; pl. 10, fig. 2-6, 14, 15, pl. 13, fig. 1-8 [ref. 006383].

**ARCOCELLULUS G.R. Hasle, H.A. von Stosch & E.E. Syvertsen 1983, p. 54 [ref. 003148]**

T: *Arcocellulus mammifer* G.R. Hasle, H.A. von Stosch & E.E. Syvertsen 1983

*Arcocellulus cornucervis* Hasle, von Stosch & Syvertsen 1983, p. 59-63; text fig. 11, fig. 301-333, 408-414 [ref. 003148].

*Arcocellulus mammifer* Hasle, von Stosch & Syvertsen 1983, p. 55-59; text fig. 10, fig. 272-300, 415-421 [ref. 003148].

**ARCUS A.P. Olshtynskaja 1978, p. 77 [ref. 003192]**

T: *Arcus kasjanicus* A.P. Olshtynskaja 1978

*Arcus kasjanicus* Olshtynskaja 1978, p. 77-78; pl. 1, fig. 1 [ref. 003192].

**ARDISSONEA G. De Notaris in G. De Notaris & F. Baglietto 1870, no. 334 [ref. 006509]**

T: *Ardissonea robusta* (Ralfs in Pritchard) De Notaris in De Notaris & Baglietto 1870  
 (= *Synedra robusta* Ralfs in Pritchard 1861)

Also described in De Notaris & Baglietto 1871, p. 95 (ref. 000267). Often misspelled *Ardissonia*.

*Ardissonea baculus* (Gregory) Grunow in Cleve & Grunow 1880, p. 108 (as *Ardissonia baculus*) [ref. 000241]. Basionym: *Synedra baculus* Gregory 1857.

*Ardissonea brockmanni* according to Mills 1933, p. 202 ('*Ardissonia*') [ref. 000998]. *Invalid*. Listed but not accepted by Mills who notes: "see *Synedra brockmani* Hustedt". Not a valid combination of *S. brockmani* Hustedt 1932.

*Ardissonea cornigera* (Grunow) De Toni 1892, p. 676 ('*Ardissonia*') [ref. 000950]. Basionym: *Synedra cornigera* Grunow 1877.

*Ardissonea crystallina* (Agardh) Grunow in Cleve & Grunow 1880, p. 108 (as *Ardissonia crystallina* (Kg.)) [ref. 000241]. Basionym: *Diatoma crystallinum* Agardh 1824.

*Ardissonea crystallina* var. *bacillaris* (Grunow) Grunow in Cleve & Grunow 1880, p. 108 (as *Ardissonia crystallina* var.? *bacillaris* Grun.) [ref. 000241]. Basionym: *Synedra crystallina* var. *bacillaris* Grunow 1877.

*Ardissonea crystallina* var. *conspicua* (Grunow in Van Heurck) F.W. Mills 1933, p. 203 ('*Ardissonia*') [ref. 000998]. Basionym: *Synedra crystallina* var. *conspicua* Grunow ex H. Peragallo & M. Peragallo 1900.

*Ardissonea crystallina* var. *dalmatica* (Kützing) F.W. Mills 1933, p. 203 ('*Ardissonia*') [ref. 000998]. Basionym: *Synedra dalmatica* Kützing 1844.

*Ardissonea crystallina* var. *decipiens* (Grunow) F.W. Mills 1933, p. 203 ('*Ardissonia*') [ref. 000998]. Basionym: *Synedra decipiens* Cleve & Grunow in Grunow 1877.

*Ardissonea crystallina* var. *fossilis* (Pantocsek) De Toni 1892, p. 674 ('*Ardissonia*') [ref. 000950]. Basionym: *Synedra crystallina* var. *fossilis* Pantocsek 1889.

*Ardissonea crystallina* f. *gibba* (Pantocsek) Peragallo 1897, p. 86 ('*Ardissonia*') [ref. 012539]. Basionym: *Synedra crystallina* f. *gibba* Pantocsek 1886.

*Ardissonea crystallina* var. *insignis* (Grunow) Grunow in Cleve & Grunow 1880, p. 108 (as *Ardissonia crystallina* var.? *bacillaris* Grun.) [ref. 000241]. Basionym: *Synedra crystallina* var. *insignis* Grunow 1877.

*Ardissonea crystallina* var. *smithii* Grunow in Van Heurck 1881, pl. 42, fig. 10 (as *Synedra (Ardissonia) crystallina* var. *smithii*) [ref. 001035]. *Invalid*. Validly published by Grunow in Van Heurck 1881 as *Synedra crystallina* var. *smithii*. Combination under *Ardissonea* appears to have remained invalid.

*Ardissonea cuneata* Mills 1933, p. 203 ('*Ardissonia*') [ref. 000998]. Based on the illegitimate name *Synedra cuneata* Grunow 1867 (ref. 000431) (non *S. cuneata* Ehrenberg 1834). Name accepted by Mills. Possibly intended by Mills as a new combination.

*Ardissonea dalmatica* (Kützing) De Toni 1892, p. 675 ('*Ardissonia*') [ref. 000950]. Basionym: *Synedra dalmatica* Kützing 1844.

- Ardissonea decipiens* (Grunow) Grunow in Cleve & Grunow 1880, p. 108 (as *Ardissonia decipiens*) [ref. 000241]. Basionym: *Synedra decipiens* Cleve & Grunow in Grunow 1877.
- Ardissonea formosa* (Hantzsch in Rabenhorst) Grunow in Cleve & Grunow 1880, p. 108 (as *Ardissonia formosa*) [ref. 000241]. Basionym: *Synedra formosa* Hantzsch in Rabenhorst 1863.
- Ardissonea formosa* var. *amphipachya* (Grunow in Van Heurck) F.W. Mills 1933, p. 203 ('*Ardissonia*') [ref. 000998]. Basionym: *Synedra formosa* var. *amphipachya* Grunow in Van Heurck 1881. Seems to be a deliberate new comb.
- Ardissonea fulgens* (Greville) Grunow in Cleve & Grunow 1880, p. 108 (as *Ardissonia fulgens* (Kg.)) [ref. 000241]. Basionym: *Exilaria fulgens* Greville 1827.
- Ardissonea fulgens* var. *conspicua* 'Grunow in Van Heurck' Mills 1933, p. 204 ('*Ardissonia*') [ref. 000998]. *Invalid*. Not accepted by Mills (lower case print). Not a valid combination of *Synedra fulgens* var. *conspicua* Grunow in Van Heurck 1885.
- Ardissonea fulgens* var. *cornigera* Grunow in Cleve & Grunow 1880, p. 108 (as *Ardissonia fulgens* var.? *cornigera* Grun.) [ref. 000241]. *Invalid*. Nomen nudum.
- Ardissonea fulgens* var. *dalmatica* 'Kützing' Mills 1933, p. 204 ('*Ardissonia*') [ref. 000998]. *Invalid*. Not accepted by Mills (lower case print). Not a valid combination of *Synedra dalmatica* Kützing 1844.
- Ardissonea fulgens* var. *eximia* 'Grunow' Mills 1933, p. 204 ('*Ardissonia*') [ref. 000998]. *Invalid*. Citation error for *Synedra fulgens* var. *eximia* Grunow 1867. Not accepted by Mills (lower case print).
- Ardissonea fulgens* var. *gigantea* (Lobazewsky) De Toni 1892, p. 674 ('*Ardissonia*') [ref. 000950]. Basionym: *Synedra gigantea* Lobazewsky 1840.
- Ardissonea fulgens* var. *maeotica* (Pantocsek) M. Peragallo 1903, p. 899 ('*Ardissonia*') [ref. 001463]. Basionym: *Synedra fulgens* var. *maeotica* Pantocsek 1902. Listed as the accepted synonym of *Synedra fulgens* var. *maeotica* Pantocsek.
- Ardissonea fulgens* var. *mediterranea* (Grunow) Mereschkowsky 1902, p. 91, 178 ('*Ardissonia*') [ref. 001382]. Basionym: *Synedra fulgens* var. *mediterranea* Grunow in Van Heurck 1881.
- Ardissonea fulgens* var. *mediterranea* (Grunow in Van Heurck) F.W. Mills 1933, p. 204 ('*Ardissonia*') [ref. 000998]. Basionym: *Synedra fulgens* var. *mediterranea* Grunow in Van Heurck 1881. Isonym: See *Ardissonea fulgens* var. *mediterranea* (Grunow) Mereschkowsky 1902.
- Ardissonea fulgens* var. *minor* (Rabenhorst) M. Peragallo 1903, p. 899 ('*Ardissonia*') [ref. 001463]. Basionym: *Synedra fulgens* f. *minor* Rabenhorst 1864. Listed as the accepted synonym of *Synedra fulgens* var. *minor* Rab.
- Ardissonea pulcherrima* (Hantzsch in Rabenhorst) Grunow in Cleve & Grunow 1880, p. 108 (as *Ardissonia pulcherrima* (Hantzsch)) [ref. 000241]. Basionym: *Synedra pulcherrima* Hantzsch in Rabenhorst 1863.
- Ardissonea robusta* (Ralfs in Pritchard) De Notaris in De Notaris & Baglietto 1871, p. 95 [ref. 000267]. Basionym: *Synedra robusta* Ralfs in Pritchard 1861. Previously published in De Notaris & Baglietto 1870, no. 334 (ref. 00 6509)?
- Ardissonea superba* (Kützing) Grunow in Cleve & Grunow 1880, p. 108 (as *Ardissonia superba* (Kg.)) [ref. 000241]. Basionym: *Synedra superba* Kützing 1844.
- Ardissonea superba* var. *minor* (Grunow in Cleve & Grunow) De Toni 1892, p. 675 ('*Ardissonia*') [ref. 000950]. Basionym: *Synedra superba* var. *minor* Grunow in Cleve & Grunow 1880.
- Ardissonea vanheurckii* (Brun) De Toni 1892, p. 676 ('*Ardissonia*') [ref. 000950]. Basionym: *Synedra vanheurcki* Brun 1891.

**ARGONAUTA G. Karsten in A. Engler & K. Prantl 1928, p. 243 [ref. 000560]**

T: *Argonauta grayii* (Grove & Brun) G. Karsten 1928  
(= *Grayia argonauta* Grove & Brun 1892)

Superfluous substitute name for *Grayia* E. Grove et Brun ex. A. Schmidt 1892, non W.J. Hooker et Arnott 1840. Synonym: *Neograya* O. Kuntze 1898.

*Argonauta grayii* (Grove & Brun) Karsten 1928, p. 243; fig. 299 [ref. 000560]. Basionym: *Grayia argonauta* Grove & Brun in Schmidt et al. 1892.

**ARISTELLA F.T. Kützing 1834, p. 35 [ref. 000594]**

T: *Aristella minuta* F.T. Kützing 1834

*Aristella minuta* Kützing 1833, p. 563; fig. 42 [ref. 000594].

**ARTHRODESMUS C.G. Ehrenberg 1836, p. 185 [ref. 012650]**

A genus of desmid with a diatom species.

*Arthrodesmus striatulus* (Lyngbye) Ehrenberg 1840, p. 205 [ref. 000293]. Basionym: *Fragilaria striatula* Lyngbye 1819. Ehrenberg gives a description and cites as synonyms: *Fragilaria striatula* Lyngbye and *Nematoplata caudata* Bory.

**ARTHROGYRA C.G. Ehrenberg ex Ralfs in Pritchard 1861, p. 822 [ref. 001063]**

T: not designated

Name first introduced in Ehrenberg 1854 (ref. 000966), where 2 species are illustrated (pl. 33/6, figs. 1, 2), *Arthrogyra guatimalensis* (fig. 1) and *Arthrogyra semilunaris* (fig. 2). Genus name invalid in Ehrenberg 1854 for the lack of a description. Genus name, and names of the 2 included species validated by Ralfs in Pritchard 1861.

*Arthrogyra guatimalensis* Ehrenberg 1854, p. 8; pl. 33/6, fig. 1 [ref. 000966]. *Invalid*. Predates the valid publication of the genus name “*Arthrogyra*”. Name validated by Ralfs in Pritchard 1861, p. 822 (ref. 001063).

*Arthrogyra guatimalensis* Ehrenberg ex Ralfs in Pritchard 1861, p. 822 [ref. 001063]. Illustrated in Ehrenberg 1854, pl. 33/6, fig. 1 (ref. 000966).

*Arthrogyra semilunaris* Ehrenberg 1854, pl. 33/6, fig. 2 [ref. 000966]. *Invalid*. Predates the valid publication of the genus name “*Arthrogyra*”. Name validated by Ralfs in Pritchard 1861, p. 822 (ref. 001063).

*Arthrogyra semilunaris* Ehrenberg ex Ralfs in Pritchard 1861, p. 822 [ref. 001063]. Illustration in Ehrenberg 1854, pl. 33/6, fig. 2 (ref. 000966).

**ARTHROTOMA Corda 1840, p. 199 [ref. 012529]**

T: not designated

*Arthrotoma bifaciatum* Corda 1840, p. 201; pl. III, figs. 25-26 [ref. 012529]. (p. 16 of reprint).

*Arthrotoma compressum* Corda 1840, p. 200; pl. III, figs. 19-22 [ref. 012529]. (p. 15 of reprint).

*Arthrotoma hyalinum* Corda 1840, p. 201; pl. III, figs. 23-24 [ref. 012529]. (p. 16 of reprint).

*Arthrotoma lentigerum* Corda 1840, p. 200; pl. III, figs. 15-18 [ref. 012529]. (p. 15 of reprint).

**ASTARTIELLA A. Witkowski, H. Lange-Bertalot & D. Metzeltin  
in G. Moser et al. 1998, p. 357 [ref. 007020]**

T: *Astartiella bahusiensis* (Grunow) Moser, Lange-Bertalot & Metzeltin 1998  
(= *Navicula minuscula* var. *bahusiensis* Grunow in Van Heurck 1880)

*Astartiella bahusiensis* (Grunow in Van Heurck) Witkowski, Lange-Bertalot & Metzeltin in Moser, Lange-Bertalot & Metzeltin 1998, p. 359 [ref. 007020]. Basionym: *Navicula minuscula* var. *bahusiensis* Grunow in Van Heurck 1880.

*Astartiella bahusiensoides* (Foged) Witkowski, Lange-Bertalot & Metzeltin in Moser, Lange-Bertalot & Metzeltin 1998, p. 359 [ref. 007020]. Basionym: *Navicula bahuensoides* Foged 1975.

*Astartiella bremeyeri* (Lange-Bertalot) Witkowski & Lange-Bertalot in Moser, Lange-Bertalot & Metzeltin 1998, p. 359 [ref. 007020]. Basionym: *Achnanthes bremeyeri* Lange-Bertalot in Lange-Bertalot & Krammer 1989.

*Astartiella bremeyeri* var. *rostrata* (Hustedt) Witkowski & Lange-Bertalot in Moser, Lange-Bertalot & Metzeltin 1998, p. 359 [ref. 007020]. Basionym: *Navicula bremeyeri* var. *rostrata* Hustedt 1939.

*Astartiella glacialis* A. Witkowski, H. Lange-Bertalot & D. Metzeltin 2000, p. 100, 421; pl. 52, fig. 5-10 [ref. 009017].

*Astartiella ignota* (Hustedt) Witkowski & Lange-Bertalot in Moser, Lange-Bertalot & Metzeltin 1998, p. 359 [ref. 007020]. *Invalid*. Intended new combination of *Achnanthes ignota* Hustedt in A. Schmidt 1958 (invalid).

*Astartiella iks* A. Witkowski, H. Lange-Bertalot & D. Metzeltin 2000, p. 100, 422; pl. 52, fig. 35-39 [ref. 009017].

*Astartiella modica* (Hustedt) Witkowski & Lange-Bertalot in Moser, Lange-Bertalot & Metzeltin 1998, p. 360 [ref. 007020]. Basionym: *Achnanthes modica* Hustedt 1952.

*Astartiella producta* A. Witkowski, H. Lange-Bertalot & D. Metzeltin 2000, p. 101, 422; pl. 52, fig. 1-4 [ref. 009017].

*Astartiella punctifera* (Hustedt) Witkowski & Lange-Bertalot in Moser, Lange-Bertalot & Metzeltin 1998, p. 360 [ref. 007020]. Basionym: *Achnanthes punctifera* Hustedt 1955.

*Astartiella tenuis* (Hustedt) Witkowski & Lange-Bertalot in Moser, Lange-Bertalot & Metzeltin 1998, p. 360 [ref. 007020]. Basionym: *Achnanthes tenuis* Hustedt 1955.

*Astartiella wellsiae* (Reimer in Patrick & Reimer) Witkowski & Lange-Bertalot in Moser, Lange-Bertalot & Metzeltin 1998, p. 360 [ref. 007020]. Basionym: *Achnanthes wellsiae* Reimer in Patrick & Reimer 1966. *Illegitimate*. Nomenclatural synonym: *Achnanthes solea* Hustedt 1952 (non Zimmermann 1917). The epithet “*solea*” should had been used in *Astartiella*.

**ASTERIONELLA A.H. Hassall 1850, pl. 2 (lower half) [ref. 000470]**T: *Asterionella formosa* Hassall 1850

*Asterionella africana* Cholnoky 1958, p. 103; pl. 1, fig. 2-5 [ref. 000205].

*Asterionella antiqua* Héribaud & M. Peragallo in Héribaud 1902, p. 16; pl. 8, fig. 8 [ref. 000991]. Authorship is “M. Peragallo & Héribaud” in plate caption.

*Asterionella bleakeleyi* W. Smith 1856, p. 82 (*‘bleakeleyii’*) [ref. 001007].

- Asterionella bleakeleyi* var. *notata* Grunow 1867, p. 2 [ref. 000431].
- Asterionella candelabrum* Manguin in Bourrelly & Manguin 1949, p. 165; pl. 5, fig. 58 [ref. 000148].
- Asterionella candelabrum* f. *baculata* Manguin in Bourrelly & Manguin 1949, p. 165; pl. 5, fig. 59 [ref. 000148].
- Asterionella canina* Smejev 1872 [ref. 002843]. According to Gaidukov 1901, p. 105 (ref. 002710) (fide VanLandingham 1979, p. 4258, ref. 006514).
- Asterionella cleaveana* O'Meara 1874, p. 258; pl. 8, fig. 6 ('*cleviana*') [ref. 000693].
- Asterionella contorta* Carter & Denny 1987, p. 234; pl. 1, fig. 7, 8 [ref. 008095].
- Asterionella costata* 'Cleve' according to H. Körner 1970, p. 674 [ref. 006133]. *Invalid*. Nomen nudum (according to Körner).
- Asterionella edlundii* Stoermer & Pappas in Pappas & Stoermer 2003, p. 63; fig. 30 [ref. 012565].
- Asterionella fibula* (Brébisson in Kützing) Hustedt 1952, p. 274 [ref. 000525]. Basionym: *Gomphonema fibula* Brébisson ex Kützing 1849.
- Asterionella flavor* Edwards 1897, p. 317, text-fig. p. 323 [ref. 003950].
- Asterionella formosa* Hassall 1850, p. 10; pl. 2/lower figure, fig. 5 [ref. 000470]. See *A. formosa* emend. Heiberg 1863, p. 68, pl. 6, fig. 20 (ref. 000471).
- Asterionella formosa* var. *acaroides* Lemmermann 1903, p. 120; fig. 5a-b [ref. 003001].
- Asterionella formosa* f. *acaroides* (Lemmermann) Skabichevskii 1960, p. 282; text fig. 106 [ref. 013114]. Basionym: *Asterionella formosa* var. *acaroides* Lemmermann 1903. [according to ANSP].
- Asterionella formosa* var. *bleakeleyi* (W. Smith) Van Heurck 1896, p. 321; pl. 30, fig. 838 [ref. 000897]. Basionym: *Asterionella bleakeleyi* W. Smith 1856.
- Asterionella formosa* var. *brevis* Sergejeva et al. 1909 [ref. 003074]. According to Hollerbakh & Krasavina 1971, p. 52 (ref. 002458). [according to VLC].
- Asterionella formosa* f. *brevis* Rauschenbach 1912, p. 19 (as *Asterionella formosa* var. *ralfsii* f. *brevis*) [ref. 003055].
- Asterionella formosa* f. *capitellata* Skabichevskii 1960, p. 282-283; text fig. 107 [ref. 013114]. [according to ANSP].
- Asterionella formosa* var. *epilimnetica* Ruttner 1939 [ref. 003068]. [according to VLC].
- Asterionella formosa* var. *gracillima* (Hantzsch in Rabenhorst) Grunow in Van Heurck 1881, pl. 51, fig. 22 [ref. 001035]. Basionym: *Diatoma gracillimum* Hantzsch in Rabenhorst 1861. Also in Van Heurck 1885, p. 155 (ref. 001040).
- Asterionella formosa* var. *hypolimnetica* Ruttner 1939 [ref. 003068]. [according to VLC].
- Asterionella formosa* var. *inflata* (Heiberg) Grunow in Van Heurck 1881, pl. 51, fig. 23 [ref. 001035]. Basionym: *Asterionella inflata* Heiberg 1863. New combination or new taxon? Grunow notes in caption: "*A. formosa* var. *inflata* Grun. (analogue à l'*A. inflata* Heiberg). Also in Van Heurck 1885 (ref. 001040), p. 155, but with no reference to Heiberg's taxon.
- Asterionella formosa* var. *inflata* Grunow in Van Heurck 1881, pl. 51; fig. 23 [ref. 001035]. New combination or new taxon? Grunow notes in caption: "*A. formosa* var. *inflata* Grun. (analogue à l'*A. inflata* Heiberg). Also in Van Heurck 1885 (ref. 001040), p. 155, but with no reference to Heiberg's taxon.
- Asterionella formosa* var. *ralfsii* (W. Smith) Grunow in Van Heurck 1881, pl. 52, fig. 2 (as *A. (formosa* var ?) *ralfsii* ) [ref. 001035]. Basionym: *Asterionella ralfsii* W. Smith 1856. *Invalid*. Combination as a trinomial has been validly published by Wolle 1890, pl. 46, figs. 5, 6 (ref. 000916).
- Asterionella formosa* var. *ralfsii* (W. Smith) Wolle 1890, pl. 46, fig. 5, 6 [ref. 000916]. Basionym: *Asterionella ralfsii* W. Smith 1856.
- Asterionella formosa* var. *subtilis* Grunow in Van Heurck 1881, pl. 51, fig. 21 [ref. 001035].
- Asterionella formosa* var. *subtilissima* Grunow in Van Heurck 1881, pl. 51, fig. 24 [ref. 001035].
- Asterionella formosa* var. *tatrica* Woloszyńska 1934, p. 140, 148; pl. 7, fig. 1-7 [ref. 000919].
- Asterionella frauenfeldii* Grunow 1863, p. 140; pl. 14, fig. 18 [ref. 000429].
- Asterionella glacialis* Castracane 1886, p. 50; pl. 14, fig. 1 [ref. 000193].
- Asterionella gracilioides* Novikoff 1910, p. 167 (as *Asterionella (gracilioides?)*) [ref. 003021]. *Invalid*. No description.
- Asterionella gracilis* Formin 1900 [ref. 002942]. According to Hollerbakh & Krasavina 1971, p. 52 (ref. 002458). [according to VLC].
- Asterionella gracillima* (Hantzsch in Rabenhorst) Heiberg 1863, p. 68; pl. 6, fig. 19 [ref. 000471]. Basionym: *Diatoma gracillimum* Hantzsch in Rabenhorst 1861.
- Asterionella gracillima* var. *acaroides* (Lemmermann) Meister 1912, p. 241 [ref. 000642]. Basionym: *Asterionella formosa* var. *acaroides* Lemmermann 1903.
- Asterionella gracillima* var. *acaroides* (Lemmermann) Cleve-Euler 1953, p. 77; fig. 401B h (as *Asterionella gracillima* γ *acaroides* (Lemm.) A. Cl. in text and fig. caption) [ref. 001041]. Basionym: *Asterionella formosa* var. *acaroides* Lemmermann 1903. *Invalid*. Rank implied, not clearly indicated. Combination previously validly published by Meister 1912.
- Asterionella gracillima* var. *biformis* Lozeron 1902, p. 191 [ref. 000617].
- Asterionella gracillima* f. *brevis* Rauschenbach 1921 [ref. 002566]. According to Hollerbakh & Krasavina 1971, p. 53 (ref.

- 002458). [according to VLC].
- Asterionella gracillima* f. *circinalis* Cleve-Euler 1953, p. 77; fig. 401B e (as *Asterionella gracillima*  $\alpha$  *genuina* f. *circinalis* n.f.) [ref. 001041].
- Asterionella gracillima* f. *curta* Ussacev (as *Asterionella gracillima* var. *zigzagostellata* f. *curta*) According to Sabelina et al. 1951, p. 154 (ref. 000800). [according to VLC].
- Asterionella gracillima* f. *curvata* Radzymowsky 1930, p. 409; fig. 12a-b [ref. 003054].
- Asterionella gracillima* var. *formosa* (Hassall) Wislouch 1921, p. 107, 110 [ref. 001921]. Basionym: *Asterionella formosa* Hassall 1850. As “*A. gracillima* v. *formosa* (Hass.) Heid.” The new combination may have been published earlier, but it is valid in Wislouch 1921.
- Asterionella gracillima* var. *genuina* Lozeron 1902, p. 192 [ref. 000617]. [according to INA].
- Asterionella gracillima* var. *genuina* Cleve-Euler 1953, p. 76; fig. 401B a-f (as *Asterionella gracillima*  $\alpha$  *genuina* A. Cl. in text and fig. caption) [ref. 001041]. Cleve-Euler does not seem to include the type of *Diatoma gracillimum* Hantzsch. Rank implied, not clearly indicated.
- Asterionella gracillima* var. *inflata* (Grunow in Van Heurck) Cleve-Euler 1953, p. 78; fig. 401B m (as *Asterionella gracillima*  $\epsilon$  *inflata* (Grun.) mh.) [ref. 001041]. Basionym: *Asterionella formosa* var. *inflata* Grunow in Van Heurck 1881. *Invalid*. Rank implied, not clearly indicated.
- Asterionella gracillima* var. *maxima* Lozeron 1902, p. 192 [ref. 000617].
- Asterionella gracillima* var. *ralfsii* (W. Smith) Cleve-Euler 1953, p. 77; fig. 401B i-k (as *Asterionella gracillima*  $\delta$  *ralfsii* (W.Sm.) A. Cl.) [ref. 001041]. Basionym: *Asterionella ralfsii* W. Smith 1856. *Invalid*. Rank implied, not clearly indicated in text or fig. caption.
- Asterionella gracillima* f. *sol* Cleve-Euler 1953, p. 77; fig. 401 B f (as *Asterionella gracillima*  $\alpha$  *genuina* f. *sol* n.f.) [ref. 001041]. Missprinted fig. 410 Bd in text.
- Asterionella gracillima* var. *subtilis* (Grunow in Van Heurck) Cleve-Euler 1953, p. 77; fig. 401B g (as *Asterionella*  $\beta$  *subtilis* (Grun) mh.) [ref. 001041]. Basionym: *Asterionella formosa* var. *subtilis* Grunow in Van Heurck 1881. *Invalid*. Rank implied, not clearly indicated in text or fig. caption.
- Asterionella gracillima* f. *tabellarioides* A. Cleve-Euler 1910, p. 211 [ref. 000245].
- Asterionella gracillima* f. *tabellarioides* Cleve-Euler 1953, p. 77 (as *Asterionella gracillima*  $\alpha$  *genuina* f. *tabellarioides*) [ref. 001041]. Listed as such in VanLandingham 1967, p. 319, but should not be treated as the name of a new taxon as it is just a taxonomic opinion. Synonym: *Asterionella gracillima* f. *tabellarioides* Cleve-Euler 1910, p. 211 (ref. 000245).
- Asterionella gracillima* var. *zigzagostellata* ‘(Elenkin) Wislouch’ according to Proshkina-Lavrenko 1950, p. 58 [ref. 001823]. Basionym: *Asterionella zigzagostellata* Elenkin 1914.
- Asterionella gracillima* f. *zigzagostellata* Kavanov 1928 [ref. 002973]. According to Hollerbakh & Krasavina 1971, p. 53 (ref. 002458). [according to VLC].
- Asterionella gracilloides* f. *spiroides* Kisselev 1935 [ref. 002741]. According to Hollerbakh & Krasavina 1971, p. 53 (ref. 002458). [according to VLC].
- Asterionella inflata* Heiberg 1863, p. 69, pl. 6, fig. 21 [ref. 000471].
- Asterionella japonica* Cleve in Cleve & Möller 1882, No. 307 [ref. 001979]. *Invalid*. Nomen nudum. Name may have been validly published by Kisselev 1935 (ref. 002741, not seen) or Smayda 1962 (ref. 002154, not seen): see subordinate taxa of *A. japonica*.
- Asterionella japonica* f. *spiroides* Kisselev 1935, p. 100, 118; fig. 24 [ref. 002741]. [according to INA]. *Invalid* if *A. japonica* is *invalid*.
- Asterionella japonica* f. *tropicum* Smayda 1963, p. 240 [ref. 002154]. [according to VLC]. *Invalid* if *A. japonica* is *invalid*.
- Asterionella japonica* f. *tropicum* Smayda 1966, p. 610 [ref. 003088]. Isonym? See Smayda 1963. [according to ANSP]. *Invalid* if *A. japonica* is *invalid*.
- Asterionella kariana* Grunow in Cleve & Grunow 1880, p. 110; pl. 6, fig. 121 [ref. 000241].
- Asterionella krusadiana* F. Thivy 1949, p. [215] [ref. 013103].
- Asterionella madagascariensis* Manguin in Bourrelly & Manguin 1949, p. 165; pl. 5, fig. 60 [ref. 000148].
- Asterionella madagascariensis* var. *minor* Manguin in Bourrelly & Manguin 1949, p. 166; pl. 5, fig. 62 [ref. 000148].
- Asterionella madagascariensis* f. *minor* ‘Manguin in Bourrelly & Manguin’ VanLandingham 1967, p. 321 [ref. 006293]. *Invalid*. Citation error for *Asterionella madagascariensis* var. *minor* Manguin in Bourrelly & Manguin 1949.
- Asterionella madagascariensis* f. *ossoeiformis* Manguin in Bourrelly & Manguin 1949, p. 166; pl. 5, fig. 61 [ref. 000148].
- Asterionella madagascariensis* var. *tibiaeformis* Manguin in Bourrelly & Manguin 1949, p. 166; pl. 5, fig. 63, pl. 6, fig. 64 [ref. 000148]. Synonym: *Actinella reviersii* Kociolek & Rhode 1998.
- Asterionella mediterranea* (Pavillard) Margalef 1957, p. 51 [ref. 002767]. Basionym: *Thalassiothrix mediterranea* Pavillard 1916.
- Asterionella mediterranea* subsp. *pacifica* (Cupp) Margalef 1951, p. 60 [ref. 010557]. Basionym: *Thalassiothrix mediterranea* var. *pacifica* Cupp 1943. [according to INA].
- Asterionella notata* (Grunow) Grunow in Van Heurck 1881, pl. 52, fig. 3 [ref. 001035]. Basionym: *Asterionella bleakeleyi*



var. *notata* Grunow 1867.

*Asterionella notata* var. *recticostata* H. Körner 1970, p. 650-651; fig. 44-45, 135-139 [ref. 006133].

*Asterionella pusilla* Tynni 1994, p. 15-16; pl. 5, fig. 1 a-g (14), pl. 3, fig. 4 (9) [ref. 008910]. [according to ANSP].

*Asterionella ralfsii* W. Smith 1856, p. 81 [ref. 001007].

*Asterionella ralfsii* var. *americana* H. Körner 1970, p. 613-614; fig. 29-35, 105-107 [ref. 006133].

*Asterionella ralfsii* var. *hustedtiana* H. Körner 1970, p. 611-612; fig. 24-28, 101-104 [ref. 006133].

*Asterionella roperii* ‘De Toni’ 1892, p. 679 [ref. 000950]. *Invalid*. Nomen nudum. Listed by De Toni without an author’s name, and with the note: “in Coll. photogramm. Debyana”.

*Asterionella roperii* ‘W. Smith’ according to H. Körner 1970, p. 674 [ref. 006133]. *Invalid*. Nomen nudum (according to Körner). Körner notes that the name can be found on British Museum preparation Nr. 373 (W. Smith Collection).

*Asterionella socialis* J. Lewin & R. Norris 1970, p. 145; fig. 1, 5, 6, 13-15, 18 [ref. 008489]. *Invalid*. Type not indicated.

*Asterionella spathulifera* Cleve 1897, p. 101 [ref. 000234]. [according to VLC].

*Asterionella subtilissima* (Grunow in Van Heurck) Meister 1913, p. 308, 312; pl. 4, fig. 8-10 [ref. 000643]. Basionym: *Asterionella formosa* var. *subtilissima* Grunow in Van Heurck 1881.

*Asterionella synedraeformis* Greville 1865, p. 4; pl. 5, fig. 5, 6 [ref. 000419].

*Asterionella thomassonii* Nauwerck 1978, p. 161; fig. 1, 2a-i [ref. 008622]. Iconotype: Nauwerck notes “typus: fig. 2”.

*Asterionella vinaninkarenae* Manguin 1949, p. 96; pl. 2, fig. 33 [ref. 000624].

*Asterionella zasuminensis* (Cabejszekowna) Lundh-Almestrand 1954, p. 179, 181; fig. 1b-e, 2, 3 [ref. 000619]. Basionym: *Fragilaria zasuminensis* Cabejszekowna 1937.

*Asterionella zigzagostellata* Elenkin 1914 [ref. 002426]. According to Sabelina et al. 1951, p. 154 (ref. 000800). [according to VLC]. No more information found.

**ASTERIONELLOPSIS F.E. Round in F.E. Round, R.M. Crawford & D.G. Mann 1990, p. 664 [ref. 003245]**

T: *Asterionellopsis glacialis* (A.F. Castracane) F.E. Round in F.E. Round, R.M. Crawford & D.G. Mann 1990  
(= *Asterionella glacialis* A.F. Castracane 1886)

*Asterionellopsis glacialis* (Castracane) Round in Round, Crawford & Mann 1990, p. 664 [ref. 003245]. Basionym: *Asterionella glacialis* Castracane 1886.

*Asterionellopsis kariana* (Grunow in Cleve & Grunow) Round in Round, Crawford & Mann 1990, p. 664 [ref. 003245]. Basionym: *Asterionella kariana* Grunow in Cleve & Grunow 1880.

*Asterionellopsis socialis* (Lewin & Norris) Crawford & Gardner 1997, p. 48; fig. 20-21 [ref. 006899]. Basionym: *Asterionella socialis* J. Lewin & R. Norris 1970.

**ASTERODISCUS A.S. Johnson 1852, p. 33 [ref. 000544]**

T: not designated

*Asterodiscus johnsoni* Ralfs 1861, p. 839 [ref. 001063]. *Illegitimate*. Composite species: includes *A. quinarius*, *A. senarius* & *A. nonarius* of Johnson 1852.

*Asterodiscus nonarius* Johnson 1852, p. 33 [ref. 000544].

*Asterodiscus quinarius* Johnson 1852, p. 33 [ref. 000544].

*Asterodiscus senarius* Johnson 1852, p. 33 [ref. 000544].

**ASTEROLAMPRA C.G. Ehrenberg 1844, p. 73 [ref. 002694]**

T: *Asterolampra marylandica* C.G. Ehrenberg 1844

*Asterolampra acutiloba* Forti 1913, p. 1564, pl. 3, fig. 1, 5, 6, 9 [ref. 000342]. Name previously appeared in Tempère & Peragallo 1912, p. 337; No. 696-698 (ref. 001068) with no description.

*Asterolampra adriatica* Thum’s Catalogue 1889, p. 5 (no. 246) [ref. 000885]. *Invalid*. No description.

*Asterolampra aemulans* Greville 1862, p. 52; pl. 8, fig. 34, 35 [ref. 000412].

*Asterolampra affinis* Greville 1862, p. 45; pl. 7, fig. 7-9 [ref. 000412].

*Asterolampra affinis* var. *cellulosa* Forti 1913, p. 1566; pl. 2, fig. 3, 11 [ref. 000342]. Name appeared previously (without description or illustration) in Forti 1912, p. 5(81) (ref. 000341) and Tempère & Peragallo 1912, p. 330 (ref. 001068).

*Asterolampra affinis* var. *punctifera* Grove in Schmidt 1896, pl. 202, fig. 18 [ref. 012477].

*Asterolampra aliena* Greville 1862, p. 55; pl. 8, fig. 46 [ref. 000412].

*Asterolampra ambigua* Greville 1862, p. 54; pl. 8, figs 42-45 [ref. 000412].

*Asterolampra ambigua* var. *a* Greville 1862, p. 54; pl. 8, pl. 42-44 [ref. 000412]. *Invalid*. “a” is an improper epithet.

*Asterolampra ambigua* var. *b* Greville 1862, p. 54; pl. 8, fig. 45 [ref. 000412]. *Invalid*. “b” is an improper epithet.

- Asterolampra arachne* (Brébisson) Greville 1860, p. 123 [ref. 000408]. Basionym: *Spatangidium arachne* Brébisson 1857.
- Asterolampra arrhenii* Kolbe 1954, p. 22, 47; text fig. 8; pl. 4, fig. 43 [ref. 000575].
- Asterolampra balearica* Cleve 1881, p. 20; pl. 5, fig. 59 [ref. 000222].
- Asterolampra barboi* Brun 1896, p. 232; pl. 24, fig. 13 [ref. 000183].
- Asterolampra beaumontii* (Ehrenberg) Greville 1860, p. 115 [ref. 000408]. Basionym: *Asteromphalus beaumontii* Ehrenberg 1844.
- Asterolampra bishopii* Chimno 1870, p. 15; pl. 1, fig. 1 [ref. 000195]. [according to VLC].
- Asterolampra brebissoniana* Greville 1860, p. 114; pl. 3, fig. 9 [ref. 000408].
- Asterolampra brightwelliana* Greville 1862, p. 48; pl. 8, fig. 26, 27 [ref. 000412]. *Illegitimate*. New name for *Craspedodiscus semiplanus* Brightwell 1860. Unwarranted change of epithet.
- Asterolampra brookei* (J.W. Bailey) Greville 1860, p. 119; pl. 4, fig. 18 [ref. 000408]. Basionym: *Asteromphalus brookei* J.W. Bailey 1856.
- Asterolampra centraster* 'Johnston' M. Peragallo 1897, p. 90 [ref. 012539]. *Invalid*. Citation error for *Asteromphalus centraster* Johnston 1860, p. 12 (ref. 000545). *Invalid* as a new combination because not accepted by Peragallo. Listed but also *invalid* in Mills 1933, p. 210 (ref. 000998) and VanLandingham 1967, p. 325 (ref. 006293). Combination validly published by Hernández-Becerril 1991, p. 36 (ref. 004355).
- Asterolampra centraster* (Johnston) Hernández-Becerril 1991, p. 36 [ref. 004355]. Basionym: *Asteromphalus centraster* Johnston 1860.
- Asterolampra concinna* Greville 1862, p. 46; pl. 7, fig. 10-12 [ref. 000412].
- Asterolampra crenata* Greville 1862, p. 47; pl. 8, fig. 14-16 [ref. 000412].
- Asterolampra curviradiata* (Forti in Tempère & Peragallo) Tempère & Peragallo 1915, p. 15 [ref. 001071]. Basionym: *Asterolampra stellaris* var. *curviradiata* Forti in Tempère & Peragallo 1914. *Invalid*. Err. cit. for *Asterolampra stellaris* var. *curviradiata* Forti in Tempère & Peragallo 1914 (nomen nudum).
- Asterolampra dallasiana* Greville 1860, p. 115; pl. 4, fig. 10 [ref. 000408].
- Asterolampra dallasiana* f. *12-radiata* Grunow 1867, p. 104 [ref. 000432]. *Invalid*. No description or illustration. Not acceptable epithet form ?
- Asterolampra darwinii* (Ehrenberg) Greville 1860, p. 116; pl. 4, fig. 12, 13 [ref. 000408]. Basionym: *Asteromphalus darwinii* Ehrenberg 1844.
- Asterolampra decora* Greville 1862, p. 45; pl. 7, fig. 4-6 [ref. 000412]. Not the same species as *Asterolampra decorata* Greville 1862 (same paper).
- Asterolampra decora* var. *concentrica* Rattray 1890, p. 650 (202) [ref. 001485].
- Asterolampra decora* var. *japonica* Brun 1891, expl. pl. 13, fig. 7 (as *Asterolampra decorata* var. *japonica* Brun in text, p. 10) [ref. 000176]. Unclear if meant as a variety of *A. decora* Grev. 1862, or *A. decorata* Grev. 1862.
- Asterolampra decorata* Greville 1862, p. 46; pl. 7, fig. 13 [ref. 000412]. Not the same species as *Asterolampra decora* Greville 1862 (same paper).
- Asterolampra decorata* var. *japonica* Brun 1891, p. 10; pl. 13, fig. 7 (as *Asterolampra decora* var. *japonica* Brun in expl. fig.) [ref. 000176]. Unclear if meant as a variety of *A. decora* Grev. 1862, or *A. decorata* Grev. 1862.
- Asterolampra distincta* Barker & Meakin 1945, p. 18; pl. 3, fig. 3 [ref. 000128].
- Asterolampra dubia* Greville 1862, p. 54; pl. 8, fig. 41 [ref. 000412].
- Asterolampra dubia* f. *5-radiata* Grunow 1867, p. 103 [ref. 000432]. *Invalid*. No description or illustration. Epithet form not acceptable?
- Asterolampra elegans* (Greville) Greville 1860, p. 118; pl. 4, fig. 16 [ref. 000408]. Basionym: *Asteromphalus elegans* Greville 1859.
- Asterolampra eximia* Greville 1865, p. 99; pl. 8, fig. 10 [ref. 000983].
- Asterolampra flabellata* (Brébisson) Greville 1860, p. 116 [ref. 000408]. Basionym: *Spatangidium flabellatum* Brébisson 1857.
- Asterolampra gradiata* Gombos in Gombos & Ciesielski 1983, p. 606; pl. 1, fig. 4-6 [ref. 004269].
- Asterolampra grevillei* (Wallich) Greville 1860, p. 113; pl. 4, fig. 21 ('grevillii') [ref. 000408]. Basionym: *Asteromphalus grevillei* Wallich 1860.
- Asterolampra grevillei* var. *adriatica* Grunow in Van Heurck 1883, pl. 127, fig. 12 ('grevillii') [ref. 001037].
- Asterolampra grevillei* var. *eximia* Castracane 1886, p. 136; pl. 5, fig. 5 ('grevillii') [ref. 000193].
- Asterolampra grevillei* var. *octonalis* Ichikawa 1960, p. 196; pl. 4, fig. 36 [ref. 000537].
- Asterolampra heptactis* (Brébisson) Greville 1860, p. 122 [ref. 000408]. Basionym: *Spatangidium heptactis* Brébisson 1857.
- Asterolampra hexactis* Ehrenberg 1872, p. 296 [ref. 001196]. Also in Ehrenberg 1873, p. 148; pl. 9, fig. 1, 2 (ref. 000311).
- Asterolampra hiltoniana* Greville 1860, p. 117; pl. 4, fig. 15 [ref. 000408].
- Asterolampra hookerii* (Ehrenberg) Greville 1860, p. 114 [ref. 000408]. Basionym: *Asteromphalus hookeri* Ehrenberg 1844.
- Asterolampra imbricata* (Wallich) Greville 1860, p. 119; pl. 4, fig. 17 [ref. 000408]. Basionym: *Asteromphalus imbricatus* Wallich 1860.

- Asterolampra impar* Shadbolt 1854, p. 17; pl. 1, fig. 14 [ref. 000821].
- Asterolampra inordinata* K.E. Lohman 1974, p. 345; pl. 4, fig. 7 [ref. 004844].
- Asterolampra insignis* Schmidt in Schmidt et al. 1888, pl. 137, fig. 1-3 [ref. 012466].
- Asterolampra jeffreysiana* (Castracane) Gombos 1980, p. 236; fig. 8-11 [ref. 003162]. Basionym: *Heterodictyon jeffreysianum* Castracane 1886.
- Asterolampra johnsonii* Greville ex Cleve & Möller 1879, No. 215-215 [ref. 001977]. *Invalid*. Nomen nudum.
- Asterolampra kittoniana* Greville 1862, p. 53; pl. 8, fig. 39 [ref. 000412].
- Asterolampra laevis* Greville 1862, p. 51; pl. 8, fig. 33 [ref. 000412].
- Asterolampra malleus* (Wallich) Habirshaw 1877, p. [31] [ref. 000453]. Basionym: *Asteromphalus malleus* Wallich 1860. Citation error for *Asteromphalus malleus* Wallich 1860.
- Asterolampra marginata* (Brightwell) Greville 1862, p. 50; pl. 8, fig. 30 [ref. 000412]. Basionym: *Craspedodiscus marginatus* Brightwell 1860.
- Asterolampra marginata* var. *curvilineata* Brun 1896, p. 232; pl. 24, fig. 14 [ref. 000183].
- Asterolampra marginata* var. *minor* Walker & Chase in Chase & Walker 1887, p. 7; pl. 5, fig. 8 [ref. 002868].
- Asterolampra marylandica* Ehrenberg 1844, p. 76; fig. 10 on pl. for June [ref. 002694]. Ehrenberg cites “Abh. d. berl. Akad. 1841 (1843): p. 232, pl. VI: f. 4” (O. Müller?). Ehrenberg 1854 cites that same figure for *Asterolampra pelagica* Ehr. 1854 (ref. 000301).
- Asterolampra marylandica* f. *acuta* Heiden in Heiden & Kolbe 1928, p. 502 [ref. 000473].
- Asterolampra marylandica* var. *appropinquans* Grove in Rattray 1890, p. 642 (194) [ref. 001485].
- Asterolampra marylandica* var. *ausonia* Castracane 1875, p. 393; pl. 6, fig. 4 [ref. 000192].
- Asterolampra marylandica* var. *barbadensis* Tempère & Peragallo 1912, p. 341; No. 701-726 [ref. 001068]. *Invalid*. Nomen nudum.
- Asterolampra marylandica* var.  $\beta$  Wallich 1860, p. 48; pl. 2, fig. 13 [ref. 000906]. *Invalid*. Invalid (improper epithet form).
- Asterolampra marylandica* var. *fossilis* Pantocsek 1889, p. 111 [ref. 001033].
- Asterolampra marylandica* var. *fragilis* Pantocsek in Tempère & Peragallo 1909, p. 196; No. 367-369 [ref. 001065]. *Invalid*. No description.
- Asterolampra marylandica* var.  $\gamma$  Wallich 1860, p. 48; pl. 2, fig. 14 [ref. 000906]. *Invalid*. Improper epithet form. Validly published by Peragallo 1888 (ref. 000729) as *A. marylandica* var. *major*. Rattray 1890, p. 642 (ref. 001485), proposed *Asterolampra marylandica* var. *ramosa* Rattray for this taxon.
- Asterolampra marylandica* f. *intermedia* Heiden in Heiden & Kolbe 1928, p. 503 [ref. 000473].
- Asterolampra marylandica* var. *major* H. Peragallo 1888, p. 74 [ref. 000729]. Previously invalidly published by Wallish 1860, p. 48, pl. 2, fig. 14 (ref. 000906) as *Asterolampra marylandica* var.  $\gamma$ .
- Asterolampra marylandica* f. *mediterranea hepta radiata* M. Peragallo 1904, p. 11; fig. 1 [ref. 000732]. *Invalid?* Unsure if it is meant as the name of a new taxon (Peragallo does not indicate “n.f.” whereas he indicates “n.var” or “n. sp.” for other new taxa described in this paper).
- Asterolampra marylandica* var. *ramosa* Rattray 1890, p. 642 (194) [ref. 001485]. *Illegitimate*. Superfluous name. Name proposed by Rattray for *Asterolampra marylandica* var.  $\gamma$  Wallich 1860 (ref. 000906). *Asterolampra marylandica* var.  $\gamma$  Wallich however was renamed *Asterolampra marylandica* var. *major* by M. Peragallo 1888, p. 74 (ref. 000729).
- Asterolampra marylandica* f. *rotunda* Heiden in Heiden & Kolbe 1928, p. 503 [ref. 000473].
- Asterolampra marylandica* var. *stellaris* (Tempère & Brun) Kanaya 1963, p. 23 [ref. 004592]. Basionym: *Asteromphalus stellaris* Tempère & Brun in Brun & Tempère 1889.
- Asterolampra moronensis* Greville 1863, p. 230; pl. 9, fig. 8 [ref. 000416].
- Asterolampra nankoorensis* Desikachary & Ranjitha Devi in Desikachary 1986, p. 8; pl. 77, fig. 5 [ref. 006017].
- Asterolampra nicobarica* Grunow in Van Heurck 1883, pl. 127, fig. 7 [ref. 001037].
- Asterolampra pelagica* Ehrenberg 1854, p. 238 [ref. 000301]. Ehrenberg cites illustration in Müller, Abh. Akad. Wiss. Berlin 1841: p. 232, pl. VI: f. 4; p. 232. Ehrenberg 1844, p. 76 had cited that same figure for *Asterolampra marylandica* Ehr. 1844 (ref. 002694).
- Asterolampra praeacutiloba* Fenner in Schrader & Fenner 1976, p. 965; pl. 28, fig. 9-11 [ref. 003219].
- Asterolampra praemarylandica* Jousé 1974, [p. 360]; pl. 2, fig. 7 [ref. 003194]. *Invalid*. No description.
- Asterolampra princeps* Rattray 1890, p. 644 (196) [ref. 001485]. New name for *Asterolampra grevillii* var. *eximia* Castracane 1886 (priority for *Asterolampra eximia* Greville 1865).
- Asterolampra principis-alberti* M. Peragallo 1904, p. 11; fig. 2 (*‘Principis Alberti’*) [ref. 000732].
- Asterolampra pulchra* Greville 1862, p. 53; pl. 8, fig. 37, 38 [ref. 000412].
- Asterolampra pulchra* var. *weissflogii* Grunow in Van Heurck 1883, pl. 127, fig. 9 (as *A. (pulchra* Grev. var.?) *weissflogii* Grun.) [ref. 001037]. *Invalid*. Invalid as a trinomial, validly published as *Asterolampra weissflogii* Gr. in VH. Trinomial listed but not validly published (not accepted) by Mills 1933 (ref. 000998), p. 213.
- Asterolampra punctata* Greville 1862, p. 51; pl. 8, fig. 32 [ref. 000412].
- Asterolampra punctifera* ‘Greville’ according to Tempère & Peragallo 1914, p. 477 (as *Asterolampra punctifera* Grev.) [ref.

- 001070]. No description. Error for *Asterolampra punctata* Greville 1862? Or error for *Asterolampra punctifera* (Grove in A. Schmidt) Forti in Tempère & Peragallo 1914? Referred to as *Asterolampra punctifera* Forti in “Table des Espèces” p. 15 (Tempère & Peragallo 1915, ref. 001071).
- Asterolampra punctifera* (Grove in Schmidt et al.) Forti in Tempère & Peragallo 1914, p. 451; No. 926-929 (as “*Asterolampra punctifera* (Grove) Forti”) [ref. 001070]. Basionym: *Asterolampra affinis* var. *punctifera* Grove in Schmidt 1896.
- Asterolampra punctifera* (Grove in Schmidt et al.) Hanna 1927, p. 109; pl. 17, fig. 3 [ref. 000007]. Basionym: *Asterolampra affinis* var. *punctifera* Grove in Schmidt 1896. Isonym: see *Asterolampra punctifera* (Grove) Forti in Tempère & Peragallo 1914.
- Asterolampra ralfsiana* Greville 1862, p. 50; pl. 8, fig. 31 [ref. 000412].
- Asterolampra roperiana* Greville 1860, p. 120; pl. 4, fig. 14 [ref. 000408].
- Asterolampra rotula* Greville 1860, p. 111; pl. 3, fig. 5 [ref. 000408].
- Asterolampra rotula* var. *eximia* (Castracane) Tsumura 1966, p. 84; pl. 11, fig. 3, 4, pl. 13, fig. 1, 2 [ref. 008903]. Basionym: *Asterolampra grevillei* var. *eximia* Castracane 1886.
- Asterolampra rylandsiana* Greville 1862, p. 49; pl. 8, fig. 28, 29 [ref. 000412].
- Asterolampra sarcophagus* (Wallich) Greville 1860, p. 124 [ref. 000408]. Basionym: *Asteromphalus sarcophagus* Wallich 1860.
- Asterolampra schmidtii* Hajós 1976, p. 827; pl. 21, fig. 6 [ref. 002385].
- Asterolampra scutula* Greville 1862, p. 52; pl. 8, fig. 47 [ref. 000412].
- Asterolampra septenaria* Ehrenberg 1844, p. 76 [ref. 002694].
- Asterolampra septenaria* Johnson 1852, p. 33 [ref. 000544]. Non Ehrenberg 1844.
- Asterolampra shadboltiana* Greville 1860, p. 121; pl. 4, fig. 17 [ref. 000408]. Misprinted “fig. 19” in text.
- Asterolampra simulans* Greville 1862, p. 52; pl. 8, fig. 36 [ref. 000412].
- Asterolampra splendida* Greville 1862, p. 48; pl. 8, fig. 25 [ref. 000412]. *Invalid*. In Syn. *A. vulgaris* var. e. Name used formerly by Greville for specimen(s) described in Greville 1862 as a variety of *A. vulgaris*, and illustrated as *A. vulgaris* var. e. Name validated by Rattray 1890, p. 648 (ref. 001485).
- Asterolampra splendida* Greville ex Rattray 1890, p. 648 [ref. 001485]. Refers to *A. vulgaris* var. e. and *A. splendida* in Greville 1862, p. 48; pl. 8, fig. 25 (ref. 000412).
- Asterolampra stella* Norman 1861, p. 6; pl. 2, fig. 1 [ref. 000686].
- Asterolampra stellaris* var. *curviradiata* Forti in Tempère & Peragallo 1914, p. 451; No. 926-929 [ref. 001070]. *Invalid*. Nomen nudum.
- Asterolampra stellata* Greville 1860, p. 124; pl. 4, fig. 20 [ref. 000408]. *Invalid*. Nom. prov. Greville notes: “I shall not attempt a formal character, but it may bear, for the sake of convenience, the provisional name of *A. stellata*.”
- Asterolampra stellulata* Greville 1862, p. 54; pl. 8, fig. 40 [ref. 000412].
- Asterolampra tela* Gombos in Gombos & Ciesielski 1983, p. 600; pl. 3, fig. 1-4 [ref. 004269]. *Asterolampra* sp. A on p. 600, *Asterolampra tela* n. sp. on expl. fig.
- Asterolampra tenerrima* Rattray 1890, p. 649 (201); pl. 3, fig. 18, 20 [ref. 001485].
- Asterolampra thomei* Leuduger-Fortmorel 1898, p. 35; pl. 7, fig. 9 [ref. 000608].
- Asterolampra traducens* Rattray 1890, p. 637 (189); pl. 3, fig. 22 [ref. 001485].
- Asterolampra transmarginata* Gombos 1980, p. 238; fig. 5-7 [ref. 003162].
- Asterolampra uraster* Grove & Sturt 1887, p. 143; pl. 13, fig. 42 [ref. 000989].
- Asterolampra vanheurckii* Brun 1891, p. 10; pl. 14, fig. 1 (“*van heurcki*”) [ref. 000176].
- Asterolampra variabilis* Greville 1860, p. 111; pl. 3, fig. 6-8 [ref. 000408].
- Asterolampra variabilis* var. *richardii* M. Peragallo 1904, p. 12; fig. 3 (“*richardi*”) [ref. 000732].
- Asterolampra vulgaris* Greville 1862, p. 47; pl. 7, fig. 17-25 [ref. 000412].
- Asterolampra vulgaris* var. *cellulosa* Rattray 1890, p. 647 (199) [ref. 001485]. Valid name for *Asterolampra vulgaris* var. d Greville 1862, p. 47, pl. 7, fig. 23 (ref. 000412).
- Asterolampra vulgaris* var. *hyalina* Gombos in Gombos & Ciesielski 1983, p. 606; pl. 1, fig. 3, 9 [ref. 004269].
- Asterolampra vulgaris* var. *planior* Rattray 1890, p. 647 (199) [ref. 001485]. Valid name for *Asterolampra vulgaris* var. c Greville 1862, p. 47, pl. 7, fig. 22 (ref. 000412).
- Asterolampra wallichiana* Greville 1860, p. 115; pl. 4, fig. 11 [ref. 000408].
- Asterolampra weissflogii* Grunow in Van Heurck 1883, pl. 127, fig. 9 (as *A. (pulchra* Grev. var.?) *weissflogii* Grun.) [ref. 001037].
- Asterolampra wisei* Desikachary & Sreelatha 1989, p. 56; pl. 17, fig. 2 [ref. 006023].

**ASTEROMPHALUS C.G. Ehrenberg 1844, p. 198 [ref. 001184]**LT: *Asteromphalus darwinii* C.G. Ehrenberg 1844

Type designated by Boyer 1927, p. 72 (ref. 000155).

- Asteromphalus aequatorialis* Stüwe 1909, p. 276; pl. 2, fig. 2 [ref. 001887].
- Asteromphalus antarcticus* Castracane 1886, p. 135; pl. 16, fig. 11 [ref. 000193].
- Asteromphalus arachne* (Brébisson) Ralfs in Pritchard 1861, p. 837; pl. 5, fig. 66 [ref. 001063]. Basionym: *Spatangidium arachne* Brébisson 1857.
- Asteromphalus arachne* (Brébisson) Janisch 1861, p. 161 [ref. 000539]. Basionym: *Spatangidium arachne* Brébisson 1857. Combination also in Ralfs in Pritchard 1861, p. 837 (ref. 001063).
- Asteromphalus arachne* var. *gazellae* Mereschowsky 1901, p. 496 [ref. 001767]. Refers to *A. arachne* Schmidt (pro parte) Atlas pl. 38, fig. 3 (i.e. Schmidt et al. 1876, ref. 012449). [according to INA].
- Asteromphalus arachne* var. *mallea* (Wallich) Mereschowsky 1901, p. 496 [ref. 001767]. Basionym: *Asterolampra malleus* (Wallich) 1877. [according to INA].
- Asteromphalus arachne* var. *pacifica* (Mereschkowsky) F.W. Mills 1933, p. 216 [ref. 000998]. Basionym: *Asteromphalus malleus* var. *pacifica* Mereschowsky 1899. Mills attributes this new comb. to Mereschowsky but does not give a reference. Combination validly published by Mills.
- Asteromphalus areolatus* Mann 1925, p. 30; pl. 6, fig. 5 [ref. 000632].
- Asteromphalus atlanticus* Cleve 1896, p. 5 [ref. 000233]. Name for *Asteromphalus brookei* sensu Cleve 1873, p. 10; pl. 4, fig. 19 (ref. 000220). Later, Cleve 1900, p. 20 (ref. 000236) thought it was synonymous with *Asteromphalus hookeri* Ehrenberg.
- Asteromphalus atlanticus* f. *10-radiata* M. Peragallo 1904, p. 13; fig. 5 [ref. 000732]. *Invalid?* Unsure if it is meant as the name of a new taxon (Peragallo does not indicate “n.f.” whereas he indicates “n. var” or “n. sp.” for other new taxa described in this paper).
- Asteromphalus atlanticus* f. *9-radiata* M. Peragallo 1904, p. 13; fig. 4 [ref. 000732]. *Invalid?* Unsure if it is meant as the name of a new taxon (Peragallo does not indicate “n.f.” whereas he indicates “n. var” or “n. sp.” for other new taxa described in this paper).
- Asteromphalus beaumontii* Ehrenberg 1844, p. 200; plate for June, fig. 5 [ref. 001184].
- Asteromphalus beaumontii* Janisch in Schmidt et al. 1876, pl. 38, fig. 6-7 [ref. 012449]. *Invalid.* As “*Asteromphalus ralfsianus* (Norman) Grunow” with note in caption: “Janisch hält F. 6,7. für *A. beaumontii* E.”.
- Asteromphalus braunii* Janisch 1861, p. 161; pl. 2B, fig. 28 [ref. 000539].
- Asteromphalus brebissonii* Janisch 1861, p. 160; pl. 2B, fig. 24 [ref. 000539].
- Asteromphalus brookei* J.W. Bailey 1856, p. 2; pl. 1, fig. 1 [ref. 000123].
- Asteromphalus brookei* var. *8-radiata* Grunow 1867, p. 32 [ref. 000431]. *Invalid.* No description. Improper epithet?
- Asteromphalus brookei* var. *genuinus* Cleve-Euler 1951, p. 80; fig. 139 a-b (as *Asteromphalus brookei*  $\alpha$  *genuinus* mh.) [ref. 000255]. Cleve-Euler seems to be excluding the type of *Asteromphalus brookei* Bailey. She cites “*Asteromphalus brookei* Bail. Schmidt Atlas pl. 38, figs. 21- 23”(ref. 012449). Rank implied, not clearly indicated.
- Asteromphalus brookei* var. *humboldtii* (Ehrenberg) Cleve-Euler 1951, p. 80; fig. 139 e (as *A. brookei*  $\gamma$  *humboldtii*) [ref. 000255]. Basionym: *Asteromphalus humboldtii* Ehrenberg 1844. Rank implied, not clearly indicated.
- Asteromphalus brookei* var. *robustus* (Castracane) H. Peragallo 1888, p. 75; (pl. 2, fig. 15) (as *A. (brookei)* var.) ? *robustus*, Cast. in text and *A. robustus* in plate caption) [ref. 000729]. Basionym: *Asteromphalus robustus* Castracane 1875. *Invalid.* Combination validly published by Rattray 1890, p. 658 (ref. 001485).
- Asteromphalus brookei* var. *robustus* (Castracane) Rattray 1890, p. 658 (210) (*‘robusta’*) [ref. 001485]. Basionym: *Asteromphalus robustus* Castracane 1875.
- Asteromphalus brookei* var. *robustus* (Castracane) Cleve-Euler 1951, p. 80; fig. 139 c, d (as *A. brookei*  $\beta$  *robustus* (Castr.) mh.) [ref. 000255]. Basionym: *Asteromphalus robustus* Castracane 1875. Isonym? See *Asteromphalus brookei* var. *robustus* (Castracane) Rattray 1890. Rank implied, not clearly indicated.
- Asteromphalus brookei* sensu Cleve 1873, p. 10; pl. 4, fig. 19 [ref. 000220]. Citation of *Asteromphalus brookei* Bailey, not meant by Cleve 1873 as the name of a new taxon. Synonym: *Asteromphalus atlanticus* Cleve 1896.
- Asteromphalus brookei* sensu Grunow in Schmidt et al. 1876, pl. 38, fig. 9 [ref. 012449]. Schmidt notes “nach Grunow kleine Form von *A. brookei*, was ich bezweifle”.
- Asteromphalus brookei* sensu Karsten 1905, p. 90; pl. 8, fig. 10 (as *A. brookei* Bail.) [ref. 000559].
- Asteromphalus brunii* Pantocsek 1892, pl. 21, fig. 309 [ref. 001034]. Description in Pantocsek 1905, p. 15 (ref. 001445).
- Asteromphalus buchii* Ehrenberg 1844, p. 200; plate for June, fig. 4 [ref. 001184].
- Asteromphalus centraster* Johnston 1860, p. 12; pl. 1, fig. 10 [ref. 000545].
- Asteromphalus challengerensis* Castracane 1886, p. 134; pl. 5, fig. 2, pl. 9, fig. 2 [ref. 000193].
- Asteromphalus cholnokyi* Jurilj 1957, p. 31-32; pl. 5, fig. 3 [ref. 000553].
- Asteromphalus cleveanus* ‘Janisch’ Chase 1885, p. 54 [ref. 001049]. *Invalid.* Error in Chase’s Catalogue for *Asteromphalus*

- cohnii* Janisch 1862.
- Asteromphalus cleveanus* Grunow in Schmidt et al. 1876, pl. 38, fig. 13, 14 [ref. 012449]. Name for *Asteromphalus wallichianus* sensu Cleve 1873, p. 5; pl. 1, fig. 1 (ref. 001797).
- Asteromphalus clevei* Grunow in Cleve & Möller 1878, No. 145, 146 [ref. 001976]. *Invalid*. Err. cit. for *Asteromphalus cleveanus* Grunow in Schmidt ? No description.
- Asteromphalus cohnii* Janisch 1861, p. 160; pl. 2B, fig. 26 [ref. 000539].
- Asteromphalus concavus* Harwood & Maruyama 1992, p. 700-701; pl. 19, fig. 3-4 [ref. 008316].
- Asteromphalus cuvieri* Ehrenberg 1844, p. 200; plate for June, fig. 7 [ref. 001184].
- Asteromphalus dallasianus* (Greville) Ralfs in Pritchard 1861, p. 836 [ref. 001063]. Basionym: *Asterolampra dallasiana* Greville 1860.
- Asteromphalus darwinii* Ehrenberg 1844, p. 200; plate for June, fig. 1 [ref. 001184].
- Asteromphalus debyi* Pantocsek 1892, pl. 21, pl. 305 [ref. 001034]. Description in Pantocsek 1905, p. 15 (ref. 001445).
- Asteromphalus decorus* (Greville) Bukry & Foster 1973, p. 833; pl. 10, fig. 6-9 [ref. 000048]. Basionym: *Asterolampra decora* Greville 1862.
- Asteromphalus denarius* Janisch 1861, p. 160; pl. 2B, fig. 22 [ref. 000539].
- Asteromphalus diminutus* Mann 1937, p. 25; pl. 2, fig. 3-4 [ref. 000634].
- Asteromphalus dubius* Hanna & Grant 1926, p. 126; pl. 13, fig. 2 [ref. 000012].
- Asteromphalus ehrenbergii* Janisch 1861, p. 161; pl. 2B, fig. 27 (16 rays) [ref. 000539].
- Asteromphalus elegans* Greville 1859, p. 161; pl. 7, fig. 6 [ref. 000972].
- Asteromphalus emagens* Mann 1937, p. 25; pl. 2, fig. 5 [ref. 000634].
- Asteromphalus eminens* Mann 1937, p. 26; pl. 2, fig. 6-7 [ref. 000634].
- Asteromphalus flabellatus* (Brébisson) Greville 1859, p. 160; pl. 7, fig. 4, 5 [ref. 000972]. Basionym: *Spatangidium flabellatum* Brébisson 1857.
- Asteromphalus flabellatus* var. *tergestina* Grunow in Van Heurck 1883, pl. 127, fig. 5, 6 [ref. 001037].
- Asteromphalus flabellatus* f. *trigona* Brun 1895, pl. 15, fig. 46 (as *Asteromphalus flabellatus* Breb. (forma *trigona*)) [ref. 000181]. No description.
- Asteromphalus flabellatus* var. *trigona* (Brun) F.W. Mills 1933, p. 218 [ref. 000998]. Basionym: *Asteromphalus flabellatus* f. *trigona* Brun 1895. Err. cit. in Mills for *A. flabellatus* f. *trigona*. New combination validly published by Mills.
- Asteromphalus grevillei* Wallich 1860, p. 47; pl. 2, fig. 15 ('*grevillii*') [ref. 000906]. Misprinted fig. 13 in plate caption.
- Asteromphalus grovei* Pantocsek 1892, pl. 25, pl. 380 [ref. 001034]. Description in Pantocsek 1905, p. 15 (ref. 001445).
- Asteromphalus heptactis* (Brébisson) Ralfs in Pritchard 1861, p. 838; pl. 8, fig. 21 [ref. 001063]. Basionym: *Spatangidium heptactis* Brébisson 1857.
- Asteromphalus hiltonianus* (Greville) Ralfs in Pritchard 1861, p. 837 [ref. 001063]. Basionym: *Asterolampra hiltoniana* Greville 1860.
- Asteromphalus hookeri* Ehrenberg 1844, p. 200; plate for June, fig. 3 [ref. 001184].
- Asteromphalus hookeri* sensu Cleve 1900, p. 20 [ref. 000236]. Not meant by Cleve as the name of a new taxon.
- Asteromphalus hookeri* var. *robusta* 'Peragallo & Peragallo' Mills 1933, p. 219 [ref. 000998]. *Invalid*. Citation error for *Asteromphalus Brookei* var. *robusta* (cites Diat. Mar. Fr., p. 407, pl. 110, fig. 6). Not accepted (lower case print).
- Asteromphalus hookeri* var. *senectus* (Tempère & Brun in Brun & Tempère) F.W. Mills 1933, p. 219 [ref. 000998]. Basionym: *Asteromphalus senectus* Tempère & Brun in Brun & Tempère 1889. Err. cit. in Mills for *A. (humboldtii)* var. *senectus*. New combination validly published by Mills.
- Asteromphalus humboldtii* Ehrenberg 1844, p. 200; plate for June, fig. 6 [ref. 001184].
- Asteromphalus humboldtii* var. *senectus* 'Tempère & Brun' Schmidt et al. 1896, pl. 202, fig. 17 (as *A. (humboldtii)* var. *senectus*) [ref. 012477]. *Invalid*. Invalid as a trinomial. Binomial *Asteromphalus senectus* Tempère & Brun in Brun & Tempère 1889, previously validly published (ref. 000185). Trinomial listed but not validated (not accepted) by Mills 1933, p. 219 (ref. 000998), or by VanLandingham 1967, p. 339 (ref. 006293).
- Asteromphalus hungaricus* Pantocsek 1889, p. 111 [ref. 001033]. Illustrated in Pantocsek 1892, pl. 30, fig. 436 (ref. 001034). The specimen illustrated as *Asteromphalus hungaricus* on pl. 31, fig. 451, in Pantocsek 1892 (ref. 001034), has been assigned to *Asteromphalus loczyi* Pant. in the second edition: 1905 (ref. 002331). Also described in Pantocsek 1905 (ref. 001445), p. 15.
- Asteromphalus hungaricus* Pant.1889 var. *bergii* Cleve-Euler 1941, p. 180, 188; pl. (VI) XXI, fig. 105-109 [ref. 000251].
- Asteromphalus hungaricus* Pant.1889 var. *brunii* (Pantocsek) Cleve-Euler 1941, p. 180 [ref. 000251]. Basionym: *Asteromphalus brunii* Pantocsek 1892. [according to INA].
- Asteromphalus hungaricus* Pant.1889 var. *debyi* (Pantocsek) Cleve-Euler 1941, p. 180 [ref. 000251]. Basionym: *Asteromphalus debyi* Pantocsek 1892. [according to INA].
- Asteromphalus hungaricus* Pant.1889 var. *loczyi* (Pantocsek) Cleve-Euler 1941, p. 180 [ref. 000251]. Basionym: *Asteromphalus loczyi* Pantocsek 1905. [according to INA].
- Asteromphalus hungaricus* Pantocsek 1892, pl. 31, fig. 451 [ref. 001034]. *Illegitimate*. Non Pantocsek 1889. Renamed *As-*

- teromphalus lóczyi* Pant. in the second edition (1905) (ref. 002332), while the specimen illustrated as *Asteromphalus hungaricus* on pl. 30, fig. 436, remains in *Asteromphalus hungaricus* Pantocsek 1889. Described as *Asteromphalus lóczyi* Pant. in Pantocsek 1905, p. 15 (ref. 001445).
- Asteromphalus hustedtii* (Kolbe) Thorrington-Smith 1970, p. 822; pl. 1, fig. 4 [ref. 006548]. Basionym: *Liriogramma hustedtii* Kolbe 1955.
- Asteromphalus hyalinus* Karsten 1905, p. 90; pl. 8, fig. 15 [ref. 000559].
- Asteromphalus ichikawai* Tsumura 1967, p. 135; pl. 16, fig. 2 [ref. 008904]. [according to ANSP].
- Asteromphalus imbricatus* Wallich 1860, p. 46; pl. 2, fig. 9 [ref. 000906].
- Asteromphalus imbricatus* var.  $\beta$  Wallich 1860, p. 46 [ref. 000906]. *Invalid*. Improper epithet form. Name for this taxon validly published as *Asteromphalus imbricatus* var. *rectiradiata* Rattray 1890.
- Asteromphalus imbricatus* var.  $\gamma$  Wallich 1860, p. 46 [ref. 000906]. *Invalid*. Improper epithet form.
- Asteromphalus imbricatus* var. *rectiradiata* Rattray 1890, p. 661 (213 ) [ref. 001485]. Valid name for *Asteromphalus imbricatus* var.  $\beta$  Wallich 1860, p. 46 (ref. 000906).
- Asteromphalus impar* (Shadbolt) Cleve 1883, p. 504 [ref. 000224]. Basionym: *Asterolampra impar* Shadbolt 1854.
- Asteromphalus inaequalis* Gersonde 1990, p. 792; pl. 2, fig. 4, pl. 6, fig. 3 [ref. 006383].
- Asteromphalus indicus* Sousa 1956, p. 34-35; pl. 3, fig. 4 [ref. 008796].
- Asteromphalus ingens* Simonsen 1974, p. 25; pl. 21 [ref. 003158].
- Asteromphalus jeffreysianum* Castracane 1871, p. 23 [ref. 001119].
- Asteromphalus kennettii* Gersonde 1990, p. 793; pl. 2, fig. 1, pl. 6, fig. 2 [ref. 006383].
- Asteromphalus kinkarii* Pantocsek 1892, pl. 24, fig. 357 [ref. 001034]. Description in Pantocsek 1905, p. 16 (ref. 001445).
- Asteromphalus leboimeii* Manguin 1957, p. 116; pl. 2, fig. 12 [ref. 000626]. Also described as new in Manguin 1960, p. 257; pl. 3, fig. 44 (ref. 000627).
- Asteromphalus lóczyi* Pantocsek 1905, p. 16 (\*'lóczyi'\*) [ref. 001445]. Illustrated in Pantocsek 1892 (ref. 001034), pl. 31, fig. 451 (non pl. 30, fig. 436) as *Asteromphalus hungaricus* Pant., corrected to *Asteromphalus lóczyii* in 2nd edition (1905) (ref. 001445).
- Asteromphalus malleiformis* Wallich 1860, expl. pl. 2, fig. 11 [ref. 000906]. Described on p. 47 as *Asterolampra malleus*, illustrated as *A. malleiformis*.
- Asteromphalus malleus* Wallich 1860, p. 47; pl. 2, fig. 11 [ref. 000906]. Described on p. 47 as *Asterolampra malleus*, illustrated as *A. malleiformis*.
- Asteromphalus malleus* var. *pacifica* Mereschkowsky 1899, p. 487; pl. 16, fig. 11, 12 (as *Asteromphalus malleus* (or *malleiformis*), Wall., var. *pacifica*, var. nov.) [ref. 000647].
- Asteromphalus marylandicus* (Ehrenberg) Leuduger-Fortmorel 1879, p. 71 [ref. 000606]. Basionym: *Asterolampra marylandica* Ehrenberg 1844.
- Asteromphalus marylandicus* var. *stellaris* Tempère & Brun in Brun & Tempère 1889, p. 17; pl. 3, fig. 1 (as *Asteromphalus stellaris* (*marylandicus* var.) Temp. et Brun. on p. 17 and *Asteromphalus* (*marylandicus* var.) *stellaris* Temp. et Brun on expl. fig.) [ref. 000185]. *Invalid*. Name invalid as a trinomial, validly published by Brun & Tempère 1889 as *A. stellaris*.
- Asteromphalus moronensis* (Greville) A. Schmidt in Schmidt et al. 1876, pl. 38, fig. 24 [ref. 012449]. Basionym: *Asterolampra moronensis* Greville 1863.
- Asteromphalus moronensis* var. *senectus* Tempère & Brun in Brun & Tempère 1889, p. 17; pl. 3, fig. 2 [ref. 000185]. *Invalid*. Described on p. 17 as “*Asteromphalus senectus* (*moronensis* var.) Temp. et Brun” and illustrated on pl. 3, fig. 2 as “*Asteromphalus* (*humboldtii* var. ?) *senectus* Temp. et Brun”. The name of this taxon is validly published in Brun & Tempère 1889 as *Asteromphalus senectus* Tempère & Brun.
- Asteromphalus nankoorensis* Grunow 1867, p. 104; pl. 1A, fig. 22 [ref. 000432].
- Asteromphalus nankoorensis* var. *minor* Grunow in Van Heurck 1883, pl. 127, fig. 13 (\*'nancoorensis'\*) [ref. 001037].
- Asteromphalus nanus* Mann 1907, p. 276; pl. 45, fig. 4 [ref. 000631].
- Asteromphalus oligocenicus* Schrader & Fenner 1976, p. 965-966; pl. 21, fig. 8, 13, 14, pl. 28, fig. 1 [ref. 003219].
- Asteromphalus ornithopus* Karsten 1905, p. 90; pl. 8, fig. 13 [ref. 000559].
- Asteromphalus ovatus* Castracane 1886, p. 132; pl. 5, fig. 7 [ref. 000193].
- Asteromphalus ovatus* Schröder 1906, p. 343; fig. 2 [ref. 001504]. *Illegitimate*. Non Castracane 1886.
- Asteromphalus parvulus* Karsten 1905, p. 90; pl. 8, fig. 14 [ref. 000559].
- Asteromphalus peltatus* (Brébisson) Greville 1859, p. 160 [ref. 000972]. Basionym: *Spatangidium peltatum* Brébisson 1857.
- Asteromphalus peptartis* [Mellor]? 1920, pl. G, fig. 41 [ref. 002771]. *Invalid*. Illustrated in Mellor without citation. [according to ANSP].
- Asteromphalus petterssonii* (Kolbe) Thorrington-Smith 1970, p. 822; pl. 1, fig. 5 [ref. 006548]. Basionym: *Liriogramma petterssonii* Kolbe 1954.
- Asteromphalus pringsheimii* Janisch 1861, p. 160; pl. 2B, fig. 25 [ref. 000539].
- Asteromphalus ralfsianus* (Norman) Grunow 1867, p. 32 [ref. 000431]. Basionym: *Spatangidium ralfsianum* Norman ex Greville 1859.

- Asteromphalus ralfsianus* (Norman) Grunow in Schmidt et al. 1876, pl. 38, fig. 5-7 [ref. 012449]. Basionym: *Spatangidium ralfsianum* Norman ex Greville 1859. Isonym (the combination was already published by Grunow 1867).
- Asteromphalus rarus* Rattray 1890, p. 664 (216) [ref. 001485]. Valid name for *A. elegans* var. of Wallich 1860, p. 46, pl. 2, fig. 10 (ref. 000906).
- Asteromphalus regularis* Karsten 1905, p. 90; pl. 8, fig. 12 [ref. 000559].
- Asteromphalus reticulatus* Cleve 1873, p. 5; pl. 1, fig. 2 [ref. 001797].
- Asteromphalus robustus* Castracane 1875, p. 393; pl. 6, fig. 5 (as *Asteromphalos robustus*) [ref. 000192].
- Asteromphalus robustus* var. *triangulata* Kisselev in Proshkina-Lavrenko 1949, p. 105; pl. 36, fig. 2 a, b [ref. 002554]. Non *A. robustus* var. *triangulata* Kisselev 1935? (ref. 002741).
- Asteromphalus robustus* var. *triangulatus* Kisselev 1935, p. 100, 117; fig. 20 [ref. 002741].
- Asteromphalus roperianus* (Greville) Ralfs in Pritchard 1861, p. 838 [ref. 001063]. Basionym: *Asterolampra roperiana* Greville 1860.
- Asteromphalus roperianus* var. *atlantica* Castracane 1886, p. 133; pl. 5, fig. 3 [ref. 000193].
- Asteromphalus roperianus* var. *delicatula* Desikachary & Prema 1987, p. 3; pl. 238, fig. 3-4 [ref. 006019].
- Asteromphalus roperianus* var. *sexradiatus* E.A. Schultze 1887, p. 96 (text fig.) [ref. 000810]. [according to VLC].
- Asteromphalus rossii* Ehrenberg 1844, p. 200; plate for June, fig. 2 [ref. 001184].
- Asteromphalus roundii* Hernández-Becerril 1991, p. 11; pl. 7-8 [ref. 004355].
- Asteromphalus sarcophagus* Wallich 1860, p. 47; pl. 2, fig. 12 [ref. 000906].
- Asteromphalus sarcophagus* f. *obovatus* Thornington-Smith 1970, p. 821; pl. 1, fig. 3 [ref. 006548].
- Asteromphalus sarcophagus* f. *pandorae* Thornington-Smith 1970, p. 821; pl. 1, fig. 2 [ref. 006548].
- Asteromphalus schmidtii* Heiden in Heiden & Kolbe 1928, p. 506 [ref. 000473]. Illustration is cited from Schmidt's Atlas T. 38 f. 9 (1876) (ref. 012449) (unnamed small form of *A. brookei*).
- Asteromphalus schroeterianus* Schröder 1906, p. 342; text fig. 1 ('*schröterianus*') [ref. 001504].
- Asteromphalus senectus* Tempère & Brun in Brun & Tempère 1889, p. 17; pl. 3, fig. 2 (as "*Asteromphalus senectus* (*moroniensis* var.) Temp. et Brun" on p. 17 and "*Asteromphalus* (*humboldtii* var. ?) *senectus* Temp. et Brun" on expl. pl.) [ref. 000185].
- Asteromphalus shadboltianus* (Greville) Ralfs in Pritchard 1861, p. 838 [ref. 001063]. Basionym: *Asterolampra shadboltiana* Greville 1860.
- Asteromphalus stellaris* Tempère & Brun in Brun & Tempère 1889, p. 17; pl. 3, fig. 1 (as *Asteromphalus stellaris* (*marylandicus* var.) Temp. et Brun. on p. 17 and *Asteromphalus* (*marylandicus* var.) *stellaris* Temp. et Brun on expl. fig.) [ref. 000185].
- Asteromphalus stellatus* (Greville) Ralfs in Pritchard 1861, p. 838 [ref. 001063]. Basionym: *Asterolampra stellata* Greville 1860.
- Asteromphalus symmetricus* Schrader & Fenner 1976, p. 966; pl. 21, fig. 7, 10-12 [ref. 003219].
- Asteromphalus trigonus* Schmidt in Schmidt et al. 1874, fig. 9 [ref. 012527].
- Asteromphalus urbani* Jurilj 1957, p. 31; pl. 5, fig. 2 [ref. 000553].
- Asteromphalus vanheurckii* Mann 1907, p. 276; pl. 45, fig. 5 ('*van heurckii*') [ref. 000631].
- Asteromphalus variabilis* (Greville) Rattray 1890, p. 655 (207) [ref. 001485]. Basionym: *Asterolampra variabilis* Greville 1860.
- Asteromphalus wallichianus* (Greville) Ralfs in Pritchard 1861, p. 837 [ref. 001063]. Basionym: *Asterolampra wallichiana* Greville 1860.
- Asteromphalus wallichianus* sensu Cleve 1873, p. 5; pl. 1, fig. 1 (as *Asteromphalus Wallichianus* (Grev.) Ralfs) [ref. 001797]. Cleve's taxon was named *Asteromphalus cleveanus* Grunow in Schmidt 1876, pl. 38, fig. 13,14.
- Asteromphalus wyville-thomsonianus* O'Meara 1876, p. 57; pl. 1, fig. 5 [ref. 000695].
- Asteromphalus wyvillii* Castracane 1886, p. 134; pl. 5, fig. 6 [ref. 000193].

**ASTEROPLANUS C. Gardner & R.M. Crawford in  
R.M. Crawford & C. Gardner 1997, p. 49 [ref. 006899]**

T: *Asteroplanus karianus* (Grunow in Cleve & Grunow) Gardner & Crawford in Crawford & Gardner 1997  
(= *Asterionella kariana* Grunow in Cleve & Grunow 1880)

*Asteroplanus karianus* (Grunow in Cleve & Grunow) Gardner & Crawford in Crawford & Gardner 1997, p. 49; fig. 1-19 [ref. 006899]. Basionym: *Asterionella kariana* Grunow in Cleve & Grunow 1880.

**ATTHEYA T. West 1860, p. 152 [ref. 000910]**

T: *Attheya decora* T. West 1860

*Attheya arenicola* Gardner & Crawford in Crawford, Gardner & Medlin 1994, p. 30; table 2, fig. 6-18 [ref. 006867].



- Attheya armata* (West) Crawford in Crawford, Gardner & Medlin 1994, p. 46; table 2, fig. 51-56 ('armatus') [ref. 006867].  
Basionym: *Chaetoceros armatus* West 1860.
- Attheya decora* West 1860, p. 152; pl. 7, fig. 15 [ref. 000910].
- Attheya decora* var. *hyalina* H. Peragallo 1892, p. 106 (as *Atth. (decora* var?) *hyalina*) [ref. 006427]. *Invalid*. Validly published by Peragallo 1892 as *Atteya hyalina* Per. Name as a trinomial validated by H. Peragallo 1907, p. 469 (ref. 001060).
- Attheya decora* var. *hyalina* (H. Peragallo) H. Peragallo in H. Peragallo & M. Peragallo 1907, p. 469 [ref. 001060].  
Basionym: *Attheya hyalina* H. Peragallo 1892.
- Attheya decora* var. *minuta* H. Peragallo 1892, p. 106 (as *Atth. (decora* var?) *minuta*) [ref. 006426]. *Invalid*. Validly published by Peragallo 1892 as *Atteya minuta* Per. Name as a trinomial validated by Peragallo 1907, p. 469 (ref. 001060).
- Attheya decora* var. *minuta* (H. Peragallo) H. Peragallo in H. Peragallo & M. Peragallo 1907, p. 469 [ref. 001060].  
Basionym: *Attheya minuta* H. Peragallo 1892.
- Attheya flexuosa* Gardner in Crawford, Gardner & Medlin 1994, p. 34; table 2, fig. 19-29 [ref. 006867].
- Attheya flexuosa* var. *enodulifer* Gardner in Crawford, Gardner & Medlin 1994, p. 37-38; table 2, fig. 30-35 [ref. 006867].
- Attheya gaussii* (Heiden) Crawford 2000, p. 241 [ref. 010558]. Basionym: *Chaetoceros gaussii* Heiden & Kolbe 1928. [according to INA].
- Attheya hyalina* H. Peragallo 1892, p. 106 (as *Atth. (decora* var?) *hyalina*) [ref. 006427].
- Attheya lata* Woloszynska 1912, p. 134 [ref. 000917].
- Attheya longicornis* Crawford & Gardner in Crawford, Gardner & Medlin 1994, p. 38; table 2, fig. 36-41, 50 [ref. 006867].
- Attheya minuta* H. Peragallo 1892, p. 106 (as *Atth. (decora* var?) *minuta*) [ref. 006426].
- Attheya septentrionalis* (Østrup) Crawford in Crawford, Gardner & Medlin 1994, p. 41; table 2, fig. 42-49 [ref. 006867].  
Basionym: *Chaetoceros septentrionalis* Cleve 1896.
- Attheya ussurensis* I.V. Stonik, T.Yu. Orlova & R.M. Crawford 2006, p. 142, fig. 1-17 [ref. 012875]. According to Gogorev et al. 2006, p. 133 (ref. 012871).
- Attheya zachariasi* Brun 1894, p. 53; pl. 1, fig. 11 [ref. 002403].
- Attheya zachariasi* var. *curvata* Rivera 1974, p. 89; fig. 4-5 [ref. 008718].

**AULACOCYSTIS A.H. Hassall 1845, p. 437 [ref. 000469]**

T: *Aulacocystis pellucida* (F.T. Kützing 1833) A.H. Hassall 1845  
(= *Frustulia pellucida* F.T. Kützing 1833)

Superfluous name, nomenclatural synonym of *Amphipleura* Kützing 1844 (by lectotypification). When Cleve 1894 (ref. 000232) selected *Frustulia pellucida* Kütz. as the type of genus *Amphipleura* Kützing 1844 (ref. 000595) (which is also the type of *Aulacocystis* Hassall 1845), *Aulacocystis* Hassall 1845 became superfluous.

*Aulacocystis pellucida* (Kützing) Hassall 1845, p. 437; pl. 102, fig. 8 [ref. 000469]. Basionym: *Frustulia pellucida* Kützing 1833.

**AULACODISCUS C.G. Ehrenberg 1844, p. 73 [ref. 002694]**

T: *Aulacodiscus crux* C.G. Ehrenberg 1844

Name conserved (see ICBN 1956, p. 200, ref. 006910) vs. *Tripodiscus* Ehrenberg 1840 (nom. rej., taxonomic synonym), *Pentapodiscus* Ehrenberg 1843 (nom. rej., taxonomic synonym) and *Tetrapodiscus* Ehrenberg 1843 (nom. rej., taxonomic synonym).

*Aulacodiscus acutus* Rattray 1888, p. 368 [ref. 000781].

*Aulacodiscus adonis* Tempère & Brun in Brun & Tempère 1889, p. 18; pl. 3, fig. 10 [ref. 000185].

*Aulacodiscus adonis* var. *horyuensis* Ichikawa in Ichikawa, Fuji & Bachmann 1964, p. 46; pl. 5, fig. 30 [ref. 000538].

*Aulacodiscus aemulans* Barker & Meakin 1948, p. 175; pl. 24, fig. 1 [ref. 000131].

*Aulacodiscus affinis* Grunow in Schmidt et al. 1876, pl. 34, fig. 9, 10 [ref. 012449].

*Aulacodiscus affinis* var. *commutata* Rattray 1888, p. 360 [ref. 000781].

*Aulacodiscus affinis* var. *lunyacsekii* Rattray 1888, p. 360 [ref. 000781]. Rattray cites *A. lunyacsekii* f. *major* Pantocsek in litt. Nomenclatural synonym of *Aulacodiscus lunyacsekii* f. *major* Pantocsek 1886?

*Aulacodiscus africanus* Cottam 1876, p. 152; pl. 12, fig. 1-3, 8 [ref. 000258].

*Aulacodiscus africanus* Leuduger-Fortmorel 1898, p. 17 [ref. 000608]. *Illegitimate*. Non Cottam 1876. Leuduger-F. refers to an unnamed illustration in Schmidt's Atlas (1886), pl. 102, fig. 4 (ref. 012460).

*Aulacodiscus allorgei* Chenevière 1934, p. 106; pl. 8, fig. 2 [ref. 000055].

*Aulacodiscus alternans* Long, Fuge & Smith 1946, p. 96; pl. 14, fig. 11 [ref. 000616].

*Aulacodiscus americanus* Long, Fuge & Smith 1946, p. 96; pl. 13, fig. 11 [ref. 000616].

- Aulacodiscus amherstia* Venkateswarlu & Round 1973, p. 1633, figs. 1-27, 32-36 [ref. 008920].
- Aulacodiscus amoenus* Greville 1864, p. 10; pl. 1, fig. 3 [ref. 000418].
- Aulacodiscus amoenus* var. *hungarica* Pantocsek 1886, p. 57; pl. 2, fig. 13 [ref. 000714].
- Aulacodiscus amoenus* var. *madeirensis* Zimmermann 1909, p. 126; pl. 9, fig. 1 [ref. 000934].
- Aulacodiscus amoenus* var. *minor* Grove & Sturt manuscript in Rattray 1888, p. 358 [ref. 000781].
- Aulacodiscus amoenus* f. *minor* Forti in Tempère & Peragallo 1909, p. 196 (as *Aulacodiscus amoenus* var. *sparsiradiata* f. *minor*) [ref. 001065]. *Invalid*. Nomen nudum. Also invalid in Forti 1910, p. 1307 (ref. 000337).
- Aulacodiscus amoenus* var. *sparsipunctata* Desikachary & Sreelatha 1989, p. 58-59; pl. 21, fig. 1-2 [ref. 006023].
- Aulacodiscus amoenus* var. *sparsoradiata* Grove & Sturt 1887, p. 9 [ref. 000448].
- Aulacodiscus amoenus* var. *subdecorus* Rattray 1888, p. 358; pl. 7, fig. 5 ('*subdecora*') [ref. 000781].
- Aulacodiscus amoenus* var. *tumida* (Pantocsek) Chase 1907, p. 90 [ref. 002211]. Basionym: *Clavicula polymorpha* var. *tumida* Pantocsek 1886. Citation error for *Clavicula polymorpha* var. *tumida* Pantocsek 1886.
- Aulacodiscus ananinensis* Pantocsek 1889, p. 101; pl. 20, fig. 309 [ref. 001033].
- Aulacodiscus anastomosans* Wise 1956, p. 310-311; fig. 3 [ref. 000911].
- Aulacodiscus angulatus* Greville 1863, p. 71; pl. 5, fig. 15 [ref. 000978].
- Aulacodiscus angulatus* var. *brunii* Lefébure & Chenevière 1939, p. 21; pl. 1, fig. 1 [ref. 002071].
- Aulacodiscus angulatus* var. *hungarica* (Pantocsek) Rattray 1888, p. 347 [ref. 000781]. Basionym: *Aulacodiscus hungaricus* Pantocsek 1886.
- Aulacodiscus angulatus* var. *japonica* Tempère & Brun in Brun & Tempère 1889, p. 18; pl. 4, fig. 14 [ref. 000185].
- Aulacodiscus angulatus* var. *neogradensis* (Pantocsek) Rattray 1888, p. 347 [ref. 000781]. Basionym: *Aulacodiscus neogradensis* Pantocsek 1886.
- Aulacodiscus angulatus* var. *plana* Rattray 1888, p. 348 [ref. 000781].
- Aulacodiscus anthoides* Schmidt in Schmidt et al. 1886, pl. 103, fig. 1 [ref. 012460].
- Aulacodiscus antiquus* Pantocsek 1889, p. 101; pl. 18, fig. 291 [ref. 001033].
- Aulacodiscus apedicellatus* Rattray 1888, p. 349 [ref. 000781].
- Aulacodiscus archangelskianus* Witt 1885, p. 154 (18); pl. 6, fig. 11, 12 [ref. 000915].
- Aulacodiscus archangelskianus* var. *pugnalis* (Hanna) Long, Fuge & Smith 1946, p. 97 ('*pugnalis*') [ref. 000616]. Basionym: *Aulacodiscus pugnalis* Hanna 1927.
- Aulacodiscus areolatus* O'Meara 1878, p. 104 [ref. 000697]. [according to VLC].
- Aulacodiscus argus* (Ehrenberg) Schmidt in Schmidt et al. 1886, pl. 107, fig. 4 [ref. 012462]. Basionym: *Tripodiscus argus* Ehrenberg 1840. Combination also in Pantocsek 1886, p. 57 (ref. 000714).
- Aulacodiscus argus* (Ehrenberg) Pantocsek 1886, p. 57 [ref. 000714]. Basionym: *Tripodiscus argus* Ehrenberg 1840. Combination also in Schmidt et al. 1886, caption for pl. 107, fig. 4 (ref. 012462).
- Aulacodiscus asiaticus* Brun in Schmidt et al. 1892, pl. 169, fig. 2 [ref. 012470]. Cites pl. 158, fig. 1 (i.e. Schmidt 1890; ref. 012468) where it is described and illustrated with no name.
- Aulacodiscus asiaticus* var. *vallonea* Brun in Schmidt et al. 1892, pl. 169, fig. 3, 4 [ref. 012470].
- Aulacodiscus asperulus* 'Rattray' Burke & Woodward 1970, p. 259 [ref. 002672]. *Invalid*. Provisional name. Provisional new combination of *Aulacodiscus petersii* var. *asperula* Rattray 1888.
- Aulacodiscus atlanticus* Tempère in Tempère & Peragallo 1908, p. 78; No. 145-147 (as *Aulacodiscus* (*Crux* var.?) *atlanticus* Temp.) [ref. 001064]. *Invalid*. Nomen nudum.
- Aulacodiscus attenuatus* Rattray 1888, p. 356; pl. 5, fig. 2 [ref. 000781].
- Aulacodiscus aucklandicus* Grunow in Schmidt et al. 1876, pl. 41, fig. 3 ('*aucklandicus*') [ref. 012450].
- Aulacodiscus aucklandicus* var. *late-inflata* Rattray 1888, p. 365 [ref. 000781].
- Aulacodiscus australiensis* Hustedt in Schmidt et al. 1959, pl. 465, fig. 8-10 [ref. 012523]. *Invalid*. German (not Latin) description included in plate explanation (Recent marine species). Validated by Simonsen 1987, p. 464 (ref. 003164).
- Aulacodiscus australiensis* Hustedt ex Simonsen 1987, p. 464; pl. 693/1-2, 694/1-2 [ref. 003164].
- Aulacodiscus barbadensis* Ralfs in Pritchard 1861, p. 939 [ref. 001063].
- Aulacodiscus barberi* N.I. Hendeby & P.A. Sims 1984, p. 128; fig. 1-8, 10-15 [ref. 017063].
- Aulacodiscus beeveriae* Johnson ex Pritchard 1861, p. 844; pl. 6, fig. 5 [ref. 001063].
- Aulacodiscus beeveriae* sensu Grove & Sturt 1887, p. 9 [ref. 000448]. Cited and described as *Aulacodiscus beeveriae* Johnson ("Prichard"). Has been described as a new species: *Aulacodiscus rattrayii* Grove & Sturt 1887, p. 139 (ref. 000989).
- Aulacodiscus beeveriae* var. *ceylanica* Grunow ex Rattray Rattray 1888, p. 340 [ref. 000781]. Based on the invalid name *Aulacodiscus comberi* var. *ceylanica* Grunow in Cleve & Möller 1882, No. 278.
- Aulacodiscus behani* Hanna & Brigger 1964, p. 3; pl. 1, fig. 6 [ref. 000460].
- Aulacodiscus beringensis* (Mann) Boyer 1927, p. 77 [ref. 000155]. Basionym: *Tripodiscus beringensis* Mann 1907.
- Aulacodiscus beringensis* var. *molokischianus* Missuna 1914, p. 146; fig. 51 [ref. 000663].
- Aulacodiscus beringensis* var. *podolicus* Missuna 1914, p. 147; fig. 53 [ref. 000663].
- Aulacodiscus bifrons* Strelnikova 1966, p. 38; fig. 1-4 [ref. 005596].

- Aulacodiscus boliviensis* Brébisson manuscript in Pritchard 1861, p. 843 [ref. 001063]. *Invalid*. Cited in syn. *Aulacodiscus formosus* Arnott.
- Aulacodiscus bonapartei* Pantocsek 1909, p. 50; pl. 2, fig. 29 [ref. 001446]. Also described as new in Pantocsek 1909, p. 5, pl. 2, fig. 29 (ref. 002333).
- Aulacodiscus bonei* Woodward 1967, p. 307; 2 figs (on p. 307) [ref. 005811].
- Aulacodiscus boryanus* Pantocsek 1889, p. 101 [ref. 001033]. Illustrated in Pantocsek 1892, pl. 3, fig. 43 (ref. 001034).
- Aulacodiscus breviprocessus* Strelnikova 1974, p. 76; tabl. 25, fig. 1-4 [ref. 000058].
- Aulacodiscus brightwellii* Ralfs ms. in Pritchard 1861, p. 843 [ref. 001063]. *Invalid*. Cited in syn. *Aulacodiscus formosus* Arnott.
- Aulacodiscus brightwellii* Janisch 1861, p. 162; pl. 2, fig. 7 [ref. 000539].
- Aulacodiscus browni* Norman ex Pritchard 1861, p. 844 [ref. 001063].
- Aulacodiscus brunii* A. Schmidt in Schmidt et al. 1890, pl. 157, fig. 5, pl. 169, fig. 11 [ref. 012468].
- Aulacodiscus bullatus* Wise 1956, p. 313; fig. 6 [ref. 000911].
- Aulacodiscus californicus* 'J.W. Bailey ms.' according to Habirshaw 1881, p. 52 [ref. 001048]. Also cited (but not described) by De Toni 1894, p. 1133 (ref. 000951).
- Aulacodiscus carruthersianus* Kitton & Grove manuscript ex Rattray 1888, p. 364; pl. 5, fig. 7 [ref. 000781]. See *Aulacodiscus carruthersii* Kitton & Grove in A. Schmidt 1890 (orth. variant).
- Aulacodiscus carruthersii* Kitton & Grove in A. Schmidt 1890, pl. 146, fig. 1 ('*carushusii*') [ref. 012467]. Misspelled "*carushusii*", corrected to "*carruthersii*" on pl. 153 (Berichtigungen) (Schmidt 1890, ref. 0012468), with the indication that it is a synonym of *A. carruthersianus* Rattray [1888].
- Aulacodiscus catenarius* Witt in Schmidt et al. 1886, pl. 105, fig. 2, (106/3?), (105/5?) [ref. 012462].
- Aulacodiscus cellosus* var. *nova zeelandica* Christian 1888, p. 373 [ref. 012546]. [according to ANSP]. Error for "*cellulosus*" ?
- Aulacodiscus cellulosus* Grove & Sturt 1887, p. 8; pl. 2, fig. 8, 9 [ref. 000448].
- Aulacodiscus cellulosus* var. *inflatus* Long, Fuge & Smith 1946, p. 97; pl. 14, fig. 7 [ref. 000616].
- Aulacodiscus cellulosus* var. *plana* Grove & Sturt 1887, p. 140 [ref. 000989].
- Aulacodiscus chasei* Pantocsek 1886, p. 57; pl. 29, fig. 294 [ref. 000714].
- Aulacodiscus cinctus* Greville manuscript ex Rattray 1888, p. 365 [ref. 000781]. Based on *Aulacodiscus infatus* Grev. sensu Schmidt in Atlas pl. 35, fig. 9, pl. 107, fig. 5 (ref. 012449).
- Aulacodiscus circumdatus* Schmidt in Schmidt et al. 1876, pl. 35, fig. 5 [ref. 012449].
- Aulacodiscus comberi* Arnott ex Pritchard 1861, p. 844 [ref. 001063].
- Aulacodiscus comberi* var. *ceylanica* Grunow in Cleve & Möller 1882, No. 278 [ref. 001979]. *Invalid*. Nomen nudum. Has been validly published as *Aulacodiscus beeveriae* var. *ceylanica* Grunow ex Rattray 1888 (ref. 000781).
- Aulacodiscus comberi* var. *irregularis* Rattray 1888, p. 342; pl. 6, fig. 5 [ref. 000781].
- Aulacodiscus comberi* var. *oamaruensis* Grove & Sturt 1887, p. 140, 146 [ref. 000989].
- Aulacodiscus compactus* Rattray 1888, p. 354; pl. 5, fig. 8 [ref. 000781].
- Aulacodiscus concentricus* (Mann) Boyer 1927, p. 76 [ref. 000155]. Basionym: *Tripodiscus concentricus* Mann 1907.
- Aulacodiscus concinnus* Kitton manuscript ex Rattray 1888, p. 374; pl. 5, fig. 4 [ref. 000781].
- Aulacodiscus conspectus* Wise 1956, p. 311-312; fig. 4 [ref. 000911].
- Aulacodiscus convexus* Grove & Sturt 1887, p. 140; pl. 12, fig. 32 [ref. 000989].
- Aulacodiscus cornutus* Brun in Schmidt et al. 1892, pl. 170, fig. 2 [ref. 012470].
- Aulacodiscus coronatus* Grove manuscript in Rattray 1888, p. 379 [ref. 000781].
- Aulacodiscus cosmiodiscus* (Mann) F.W. Mills 1933, p. 227 [ref. 006140]. Basionym: *Tripodiscus cosmiodiscus* Mann 1907. Deliberate new combination.
- Aulacodiscus cosmiodiscus* f. *minor* Missuna 1914, p. 147; fig. 52 (as *Aulacodiscus* cf. *cosmiodiscus* Mann. f. *minor*) [ref. 000663].
- Aulacodiscus crater* Brun in Brun & Tempère 1889, p. 19; pl. 4, fig. 5 [ref. 000185].
- Aulacodiscus cretaceus* Hanna 1927, p. 14; pl. 1, fig. 5 (as '*cretaceous*' on p. 14 and '*cretaceus*' on plate caption) [ref. 000010].
- Aulacodiscus cruciatus* Pantocsek 1889, p. 101; pl. 16, fig. 269 [ref. 001033].
- Aulacodiscus crucifer* (Shadbolt) A. Schmidt in Schmidt et al. 1876, pl. 41, fig. 4 (as "*A. crucifer* Shadb.?" ) [ref. 012450]. Basionym: *Eupodiscus crucifer* Shadbolt 1854. Rattray 1888, p. 366 (ref. 000781) included the specimens illustrated by A. Schmidt in his new taxon *Aulacodiscus petersii* var. *asperula* Rattray.
- Aulacodiscus crux* Ehrenberg 1844, p. 76 [ref. 002694].
- Aulacodiscus crux* Ehrenberg 1854, pl. 35A/16, fig. 2 [ref. 000966]. Ralfs in Pritchard 1861, p. 844 (ref. 001063), believed this specimen did not belong to *Aulacodiscus crux* Ehrenberg 1844, and created for it the name *Aulacodiscus margari-taceus* Ralfs.
- Aulacodiscus crux* sensu Janisch 1861, p. 161; pl. 2, fig. 1-3 [ref. 000539]. Not meant as the description of a new species.

- Janisch cites *Aulacodiscus crux* Ehrenberg 1844.
- Aulacodiscus crux* var. *atlanticus* Tempère in Tempère & Peragallo 1908, p. 78; No. 145-147 (as *Aulacodiscus* (*Crux* var.?) *atlanticus* Temp.) [ref. 001064]. *Invalid*. Nomen nudum.
- Aulacodiscus crux* var. *glacialis* Grunow 1884, p. 17 (69); pl. 2 (B), fig. 62 [ref. 000444].
- Aulacodiscus crux* var. *papulifer* Brun in Schmidt et al. 1891, pl. 162, fig. 6 [ref. 012469].
- Aulacodiscus crux* var. *peruana* Grunow 1884, p. 17 (69) [ref. 000444]. Grunow refers to illustration in Schmidt's Atlas pl. 33: figs. 1-3, 1876 (as *A. crux*) (ref. 012449).
- Aulacodiscus crux* var. *subsquamosa* Grunow manuscript ex Rattray 1888, p. 350; pl. 6, fig. 8 [ref. 000781].
- Aulacodiscus crux* var. *tenera* Witt 1885, p. 155 (19); pl. 6, fig. 10 [ref. 000915].
- Aulacodiscus curvus* Hanna & Brigger 1964, p. 4, pl. 1, fig. 5 [ref. 000460].
- Aulacodiscus darvini* Pantocsek 1889, p. 102; pl. 15, fig. 254 [ref. 001033].
- Aulacodiscus debyi* Pantocsek 1886, p. 58; pl. 25, fig. 226 (as "*Aulacodiscus* (*margaritaceus* Ralfs var.?) *Debyi* nov. spec." in text and fig. caption) [ref. 000714].
- Aulacodiscus decorus* Greville 1864, p. 82; pl. 10, fig. 2 [ref. 000979].
- Aulacodiscus decorus* Grev. var. *canariensis* Rattray 1888, p. 345; pl. 6, fig. 6 [ref. 000781].
- Aulacodiscus decorus* Grev. var. *stoschii* (Janisch in Schmidt et al.) Rattray 1888, p. 345 [ref. 000781]. Basionym: *Aulacodiscus stoschii* Janisch in Schmidt et al. 1876.
- Aulacodiscus decorus* sensu A. Schmidt in Schmidt et al. 1876, pl. 33, fig. 9 [ref. 012449]. A. Schmidt notes: "mit *A. decorus* Grev. verwandt". Deliberately excludes the type of *A. decorus* Greville? Placed into a new species, *A. simplex*, by Rattray 1888 (ref. 000781).
- Aulacodiscus decorus* sensu Grove & Sturt 1887, p. 8 [ref. 000448]. As *A. decorus* Grev. Placed into a new species, *Aulacodiscus elegans*, by Grove & Sturt 1887, p. 140 (ref. 000989); see Grove & Sturt 1887, p. 146 (ref. 000989).
- Aulacodiscus deformis* 'Chase' 1885, p. 56 [ref. 001049]. *Invalid?* Chase cites *Eupodiscus deformis* and *Aulacodiscus kittonii* var. as synonyms. Also cited by De Toni 1894, p. 1123 (ref. 000951) as synonym of *Aulacodiscus kittonii* Ralfs in Pritchard. Place of valid publication of this name (if any) is not found.
- Aulacodiscus dispersus* Rattray 1888, p. 346; pl. 5, fig. 9 [ref. 000781].
- Aulacodiscus distinguendus* Hustedt in Schmidt et al. 1958, pl. 461, fig. 1-2 [ref. 012522]. Description in German included on plate caption. (Fossil).
- Aulacodiscus dubius* Azpeitia 1911, p. 189, pl. 10, fig. 3, 6 [ref. 000114].
- Aulacodiscus ehrenbergii* Janisch 1861, p. 162; pl. 2, fig. 6 [ref. 000539].
- Aulacodiscus elegans* Ehrenberg 1854, p. 224, 226 [ref. 000300]. *Invalid*. Nomen nudum.
- Aulacodiscus elegans* Grove & Sturt 1887, p. 140, 146; pl. 12, fig. 30 [ref. 000989].
- Aulacodiscus eminens* Barker & Meakin 1944, p. 251; pl. 38, fig. 1 [ref. 000127].
- Aulacodiscus erectus* Long, Fuge & Smith 1946, p. 97; pl. 14, fig. 15 [ref. 000616].
- Aulacodiscus erinaceus* Barker & Meakin 1948, p. 176; pl. 24, fig. 3 [ref. 000131].
- Aulacodiscus excavatus* Schmidt in Schmidt et al. 1876, pl. 36, fig. 10 [ref. 012449]. Illustration only; described by Rattray 1888, p. 367 (ref. 000781).
- Aulacodiscus excavatus* var. *apiculata* Rattray 1888, p. 368; pl. 6, fig. 4 [ref. 000781].
- Aulacodiscus excavatus* var. *robusta* Hustedt in Schmidt et al. 1944, pl. 459, fig. 5-6, pl. 460, fig. 1, 2 [ref. 012526]. Description included in plate explanation.
- Aulacodiscus exiguus* Witt 1885, p. 155 (19); pl. 8, fig. 6 [ref. 000915].
- Aulacodiscus exiguus* var. *undulata* Rattray 1888, p. 343; pl. 6, fig. 7 [ref. 000781].
- Aulacodiscus extans* Greville 1864, p. 87; pl. 12, fig. 1 [ref. 000980].
- Aulacodiscus fasciculatus* Gleser in Sheschukova-Poretskaya & Gleser 1964, p. 86; pl. 3, fig. 3 [ref. 001498].
- Aulacodiscus floridanus* (Boyer) F.W. Mills 1933, p. 229 [ref. 006140]. Basionym: *Auliscus floridanus* Boyer 1920. Citation error for *Auliscus floridanus* Boyer 1920, p. 67 (ref. 000153). Name accepted by Mills.
- Aulacodiscus formosus* Arnott ex Pritchard 1861, p. 843 [ref. 001063].
- Aulacodiscus formosus* var. *robusta* 'Grove Collection' according to Mills 1933, p. 229 [ref. 006140].
- Aulacodiscus fugei* Barker & Meakin 1947, p. 143; pl. 22, fig. 1 [ref. 000130].
- Aulacodiscus gamundii* Azpeitia Moros 1911, p. 190; pl. 9, fig. 2, 6 [ref. 000114].
- Aulacodiscus garvini* Christian 1888, p. 373 [ref. 012546]. [according to ANSP].
- Aulacodiscus gemmatus* Barker & Meakin 1948, p. 176; pl. 24, fig. 4 [ref. 000131].
- Aulacodiscus germanicus* (Ehrenberg) 'A. M. Edwards in Habirshaw' according to De Toni 1894, p. 1121-1122 [ref. 000951]. Basionym: *Tripodiscus germanicus* Ehrenberg 1840. *Invalid*. Cited by De Toni as "*Aulacodiscus germanicus* Edwards in Habirsh.-Chase Cat. of Diat. (Exemplar Debyanum) pag. 44", in synonymy of *A. argus* (Ehrenberg) A. Schmidt. Probably an invalid combination if only listed in Deby's copy of Habirshwaw's catalogue.
- Aulacodiscus giganteus* Tempère & Brun in Brun & Tempère 1889, p. 19; pl. 4, fig. 15 [ref. 000185].
- Aulacodiscus giganteus* var. *permagna* Brun in Schmidt et al. 1892, pl. 170, fig. 3 [ref. 012470].

- Aulacodiscus gigas* ‘Gregory’ according to VanLandingham 1967, p. 354 [ref. 006293]. *Invalid*. Citation error for *Aulacodiscus gigas* Greville 1865.
- Aulacodiscus gigas* Greville 1865, p. 26; pl. 4, fig. 23 [ref. 000981]. [according to INA].
- Aulacodiscus glacialis* (Grunow) Burke & Woodward 1965, p. 37 [ref. 002665]. Basionym: *Aulacodiscus crux* var. *glacialis* Grunow 1884.
- Aulacodiscus gracilis* Rattray 1888, p. 361; pl. 5, fig. 1 [ref. 000781].
- Aulacodiscus grandis* Walker in Walker & Chase 1886, p. 3; pl. 1, fig. 8 [ref. 000904].
- Aulacodiscus granuloprocessus* Bone & Gosden 1968, p. 71; fig. 2-4 [ref. 003504].
- Aulacodiscus grevilleanus* Norman ex Greville 1864, p. 10; pl. 1, fig. 1 [ref. 000418].
- Aulacodiscus grunowii* Cleve 1885, p. 171; pl. 12, fig. 8 [ref. 000225].
- Aulacodiscus grunowii* var. *africana* Tempère in Tempère & Peragallo 1908, p. 81; No. 151 [ref. 001064]. *Invalid*. Nomen nudum.
- Aulacodiscus grunowii* var. *divergens* Tempère & Peragallo 1912, p. 325; No. 655-657 [ref. 001068]. *Invalid*. Nomen nudum.
- Aulacodiscus grunowii* f. *genuina* Pantocsek 1886, p. 58; pl. 11, fig. 93, 95 [ref. 000714]. Cites illustration (*A. grunowii* Cleve) in Schmidt’s Atlas pl. 107, fig. 1, 2 (1886) (ref. 012462).
- Aulacodiscus grunowii* var. *genuina* (Pantocsek) Pantocsek 1903, p. 60 [ref. 000717]. Basionym: *Aulacodiscus grunowii* f. *genuina* Pantocsek 1886.
- Aulacodiscus grunowii* f. *punctata* Pantocsek 1886, p. 59; pl. 12, fig. 102 [ref. 000714]. As “var. *punctata*” on fig. caption. Both names (var. *punctata* and f. *punctata*) are simultaneously validly published by Pantocsek 1886 (1st edition). In second edition (1903) (ref. 000717) Pantocsek adopts “var. *punctata*” on both text (p. 61) and plate caption.
- Aulacodiscus grunowii* var. *punctata* Pantocsek 1886, pl. 12, fig. 102 [ref. 000714]. Described as “forma *punctata*” on p. 59. Both names (var. *punctata* and f. *punctata*) are simultaneously validly published by Pantocsek 1886 (1st edition). In second edition (1903) (ref. 000717) Pantocsek adopts “var. *punctata*” on both text (p. 61) and plate caption.
- Aulacodiscus grunowii* var. *senarius* Ichikawa 1967, p. 83; pl. 7, fig. 17 a, b [ref. 004506]. *Invalid*. No type designated. Ichikawa cites *Aulacodiscus grunowii* Cl.: Laporte & Lefebure 1930 (ref. 001334), pl. 20, fig. 135.
- Aulacodiscus grunowii* f. *squamosa* Pantocsek 1886, p. 59; pl. 1, fig. 4 [ref. 000714]. As “var. *squamosa*” on fig. legend. Both names (f. *squamosa* and var. *squamosa*) are simultaneously validly published by Pantocsek 1886 (1st edition). In second edition (1903) (ref. 000717) Pantocsek adopts “var. *squamosa*” in both text (p. 61) and fig. caption.
- Aulacodiscus grunowii* var. *squamosa* Pantocsek 1886, pl. 1, fig. 4 [ref. 000714]. Described as “forma *squamosa*” in text, p. 59 (1st edition). Both names (f. *squamosa* and var. *squamosa*) are simultaneously validly published by Pantocsek 1886 (1st edition). In second edition (1903) (ref. 000717) Pantocsek adopts “var. *squamosa*” in both text (p. 61) and fig. caption. Var. *squamosa* also used by Rattray 1888, p. 372 (ref. 000781).
- Aulacodiscus grunowii* f. *subsquamosa* Pantocsek 1886, p. 58; pl. 1, fig. 3, pl. 12, fig. 100 [ref. 000714]. As “var. *subsquamosa*” in fig. caption. In second edition (1903) (ref. 000717), as “var. *subsquamosa*” in both text (p. 60) and fig. caption.
- Aulacodiscus grunowii* var. *subsquamosa* Pantocsek 1886, (p. 58); pl. 1, fig. 3, pl. 12, fig. 100 [ref. 000714]. As “f. *subsquamosa*” in text, p. 58 (first edition), and “var.” in fig. caption. In second edition (1903) (ref. 000717), as “var. *subsquamosa*” in both text (p. 60) and fig. caption. Both names (as variety and as forma) are validly published by Pantocsek 1886. Var. *subsquamosa* also used by Rattray 1888, p. 372 (ref. 000781).
- Aulacodiscus gurovii* Pantocsek 1892, pl. 21, fig. 313 [ref. 001034]. Described in Pantocsek 1905, p. 16 (ref. 001445) as *Aulacodiscus gurovii*.
- Aulacodiscus gutwinski* Pantocsek 1909, p. 20; pl. 1, fig. 1 [ref. 001447].
- Aulacodiscus habirshawii* Pantocsek 1886, p. 58; pl. 29, fig. 296 [ref. 000714].
- Aulacodiscus hartianus* Nelson according to Kitton 1884, p. 18 [ref. 000574]. Kitton (footnote p. 18) notes: “Mr. E.M. Nelson ....also informs me that the *Aulacodiscus Hartianus* shewn by him at the meeting held Feb. 8, 1884 (vide Journ., vol. i, S. 2, p. 371), was the above [*A. sturtii*], *Hartianus* being a misprint”.
- Aulacodiscus haynaldii* Pantocsek 1889, p. 102; pl. 30, fig. 429 [ref. 001033].
- Aulacodiscus heterostictus* Barker & Meakin 1944, p. 251; pl. 38, fig. 2 [ref. 000127].
- Aulacodiscus hirtus* Barker & Meakin 1949, p. 301; pl. 37, fig. 1 [ref. 000133].
- Aulacodiscus hispidus* Pantocsek 1889, p. 103; pl. 3, fig. 43 [ref. 001033].
- Aulacodiscus hungaricus* Pantocsek 1886, p. 57; pl. 25, fig. 231 (as “*Aulacodiscus (angulatus* Grev. var.?) *hungaricus* nov. spec.” in text and fig. caption) [ref. 000714]. Cites illustration (*A. angulatus* Grev.) in Schmidt’s Atlas pl. 105, fig. 7 (1886) (ref. 012462).
- Aulacodiscus hustedtii* Ross & Sims 1970, p. 70; pl. 11, fig. 57-64 [ref. 005304].
- Aulacodiscus huttonii* Grove & Sturt 1887, p. 140; pl. 12, fig. 31 [ref. 000989].
- Aulacodiscus huttonii* Grove & Sturt var. *dichotoma* Brun 1896, p. 232; pl. 23, fig. 12 [ref. 000183].
- Aulacodiscus huttonii* ‘Grunow in litt.’ Rattray 1888, p. 363 [ref. 000781]. *Invalid*. In syn. *A. janischii*.

- Aulacodiscus hyalinus* Pantocsek 1886, p. 58; pl. 1, fig. 5 [ref. 000714].
- Aulacodiscus hyalinus* (Boyer) F.W. Mills 1933, p. 230 [ref. 006140]. Basionym: *Auliscus hyalinus* Boyer 1920. *Illegitimate*. Non Pantocsek 1886. Citation error for *Auliscus hyalinus* Boyer 1920, p. 67 (ref. 000153). Name accepted by Mills.
- Aulacodiscus hystrix* Pantocsek 1889, p. 103; pl. 16, fig. 273 [ref. 001033].
- Aulacodiscus imperfectus* Grunow 1884, p. 17 (69) [ref. 000444]. *Invalid*. In syn. *Cosmiodiscus imperfectus* Grunow.
- Aulacodiscus impressus* Hustedt in Schmidt et al. 1958, pl. 463, fig. 16 [ref. 012522]. Description in German included on plate caption (fossil).
- Aulacodiscus inflatus* Greville 1863, p. 69; pl. 4, fig. 12 [ref. 000978].
- Aulacodiscus inflatus* Grev. f. *hillabyana* Brun 1896, pl. 23, fig. 10 [ref. 000183].
- Aulacodiscus inflatus* Grev. var. *hillabyana* 'Burke' 1968, p. 173 [ref. 002668]. *Invalid*. Cited on p. 173, with a limited diagnosis. This cannot be accepted as the description of a new taxon (no illustration, no type cited), nor as a new combination of *A. inflatus* f. *hillabyana* Brun 1896 (no reference for Brun's taxon is cited).
- Aulacodiscus inflatus* Grev. var. *huttonii* Grunow 1887, p. 133 [ref. 000445].
- Aulacodiscus inflatus* Grev. var. *minor* Rattray 1888, p. 362; pl. 7, fig. 4 [ref. 000781].
- Aulacodiscus inflatus* Grev. var. *spinifer* Brun 1896, p. 233; pl. 23, fig. 11 [ref. 000183].
- Aulacodiscus inflatus* Grev. var. *stellata* Rattray 1888, p. 363; pl. 7, fig. 3 [ref. 000781].
- Aulacodiscus inflatus* A. Schmidt in Schmidt et al. 1876, pl. 35, fig. 9 (as "*A. inflatus* Grev. var.?" [ref. 012449]). Has been named *Aulacodiscus cinctus* Greville ex Rattray 1888, p. 365 (ref. 000781). See also pl. 92, fig. 14 (1886) (ref. 012458); and pl. 458, fig. 1, 2 (1944) (ref. 012526).
- Aulacodiscus inflexus* 'Greville' according to Tempère & Peragallo 1915, p. 16 [ref. 001071]. *Invalid*. Error for *Aulacodiscus inflatus* Greville 1863.
- Aulacodiscus insignis* Hustedt in Schmidt et al. 1944, pl. 458, fig. 3-6 [ref. 012526]. Description included in plate explanation.
- Aulacodiscus interruptus* Pantocsek 1889, p. 103; pl. 11, fig. 189 [ref. 001033].
- Aulacodiscus intumescens* Rattray 1888, p. 359; pl. 5, fig. 6 [ref. 000781].
- Aulacodiscus invictus* Schmidt in Schmidt et al. 1892, pl. 170, fig. 1 [ref. 012470]. A. Schmidt refers to pl. 134, fig. 2, 3 (specimen not named) (i.e. Schmidt 1888; ref. 012465).
- Aulacodiscus italicus* Forti in Tempère & Peragallo 1909, p. 196; No. 367-369 [ref. 001065]. *Invalid*. Nomen nudum. Also invalid in Forti 1910, p. 1307 (ref. 000337). Validated by Forti 1913, p. 1596 (ref. 000342).
- Aulacodiscus italicus* Forti 1913, p. 1596; pl. 7, fig. 1, 3, 4 [ref. 000342]. Previously invalid in Tempère & Peragallo 1909, p. 196 (ref. 001065) and Forti 1910, p. 1307 (ref. 000337). Validated by Forti 1913.
- Aulacodiscus janischii* Grove & Sturt 1887, p. 139; pl. 11, fig. 28 [ref. 000989].
- Aulacodiscus janischii* var. *abrupta* Grove & Sturt 1887, p. 139 [ref. 000989].
- Aulacodiscus janischii* var. *areolata* Rattray 1888, p. 364 [ref. 000781].
- Aulacodiscus japonicus* (Tempère & Brun in Brun & Tempère) Burke & Woodward 1965, p. 8, 39 [ref. 002665]. Basionym: *Aulacodiscus angulatus* var. *japonica* Tempère & Brun in Brun & Tempère 1889.
- Aulacodiscus jimboi* Pantocsek 1892, pl. 41, fig. 567 [ref. 001034]. Description in Pantocsek 1905, p. 17 (ref. 001445).
- Aulacodiscus johnsonii* Arnott ex Pritchard 1861, p. 844 [ref. 001063].
- Aulacodiscus johnsonii* Arnott var. *amherstia* (Venkateswarlu & Round) Sims & Holmes 1983, p. 275-277; fig. 36 [ref. 005491]. Basionym: *Aulacodiscus amherstia* Venkateswarlu & Round 1973.
- Aulacodiscus johnsonii* sensu A. Schmidt in Schmidt et al. 1876, pl. 36, fig. 1, 2 (as *Aulacodiscus johnsonii* Arnott) [ref. 012449]. Also on pl. 41, fig. 7-10 (ref. 012450) (1876), and pl. 104, fig. 1 (ref. 012461) (1886).
- Aulacodiscus jonesianus* Greville 1862, p. 24; pl. 2, fig. 5 [ref. 000410].
- Aulacodiscus jouseae* ('jousei') Strelnikova 1966, p. 36; fig. 5, 6 [ref. 005596].
- Aulacodiscus jucundus* Hustedt in Schmidt et al. 1958, pl. 461, fig. 5-6 [ref. 012522]. Description in German included on plate caption. (Fossil).
- Aulacodiscus jutlandicus* Kitton 1870, p. 168; pl. 13, fig. 3 [ref. 000567].
- Aulacodiscus kelleri* Pantocsek 1889, p. 103; pl. 5, fig. 77, 79 ('*kellerii*') [ref. 001033].
- Aulacodiscus kelleri* sensu Hustedt in Schmidt et al. 1944, pl. 456, fig. 5 (as *Aulacodiscus kelleri* Pant.) [ref. 012526]. Not meant by Hustedt as the name of a new taxon.
- Aulacodiscus kelleri* f. *fasciculatus* Sheshukova-Poretskaya & Gleser 1964, p. 86; pl. 3, fig. 1, 2 [ref. 001498].
- Aulacodiscus kilkellyanus* Greville 1863, p. 70; pl. 4, fig. 14 [ref. 000978].
- Aulacodiscus kilkellyanus* f. *minor* Grunow in Schmidt et al. 1886, pl. 102, fig. 3 [ref. 012460]. A. Schmidt notes: "nach Grunow viel. *A. kilkellyanus* Grev. f. *minor*".
- Aulacodiscus kilkellyanus* var. *minor* Rattray 1888, p. 344 [ref. 000781]. *Illegitimate*. Non *A. kilkellyanus* f. *minor* Grunow in Schmidt 1886.
- Aulacodiscus kilkellyanus* var. *sparsus* (Greville) Rattray 1888, p. 344 ('*sparsa*') [ref. 000781]. Basionym: *Aulacodiscus sparsus* Greville 1866.

- Aulacodiscus kinkeri* A. Schmidt in Schmidt et al. 1886, pl. 106, fig. 4, 5 [ref. 012462].
- Aulacodiscus kinkarianus* Nott in Walker & Chase 1886, p. 3; pl. 1, fig. 9 [ref. 000904].
- Aulacodiscus kittonianus* according to VanLandingham 1979, p. 4260 [ref. 006514]. VanLandingham notes “defunct name often found on slides in old collections” and cites *A. kittonii* Arnott as the accepted synonym.
- Aulacodiscus kittonii* Arnott ex Ralfs in Pritchard 1861, p. 844; pl. 8, fig. 24 (*‘kittoni’*) [ref. 001063].
- Aulacodiscus kittonii* var. *africana* (Cottam) Rattray 1888, p. 376 [ref. 000781]. Basionym: *Aulacodiscus africanus* Cottam 1876.
- Aulacodiscus kittonii* var. *amherstii* ‘[Rattray?] ms.’ according to Burke & Woodward 1970, p. 256 [ref. 002672]. *Invalid*. This manuscript name is not validated by Burke and Woodward, they only indicate that this name may be synonymous with *A. johnsonii*.
- Aulacodiscus kittonii* f. *amherstii* ‘J.A. Long’ Burke & Woodward 1965, p. 4 [ref. 002665]. *Invalid*. Name that appeared on slides mounted by Long. Although Burke & Woodward provide a description, they do not validate the name as they do not give an illustration.
- Aulacodiscus kittonii* subsp. *brightwellii* (Janisch) Sims & Holmes 1983, p. 272-273; fig. 1-8, 33 [ref. 005491]. Basionym: *Aulacodiscus brightwellii* Janisch 1861.
- Aulacodiscus kittonii* var. *johnsonii* (Arnott ex Pritchard) Rattray 1888, p. 376 [ref. 000781]. Basionym: *Aulacodiscus johnsonii* Arnott ex Pritchard 1861.
- Aulacodiscus klavsenii* Schmidt in Schmidt et al. 1896, pl. 201, fig. 8 [ref. 012477].
- Aulacodiscus kryshstofovichii* Jousé in Proschkina-Lavrenko 1949, p. 109; pl. 37, fig. 6 [ref. 002554].
- Aulacodiscus labyrinthus* Meakin & Brigger 1949, p. 41; pl. 6, fig. 2 [ref. 000641].
- Aulacodiscus laevis* Brightwell 1860, p. 95; pl. 6, fig. 13 [ref. 000947]. It is not specified that this is the name of a new taxon. Illustrated as “*Aulacodiscus*, abnormal specimen”. In the “errata and corrigenda” for this paper (p. 139), Brightwell notes: “*Aulacodiscus laevis*. I find this form has been named and distributed by Dr. Arnott as *A. kittoni*; the specific name of “*laevis*” should, therefore, be canceled, and “*kittoni*” substituted”.
- Aulacodiscus lahusenii* Witt 1885, p. 156 (20); pl. 6, fig. 9, pl. 7, fig. 5 (*‘lahuseni’*) [ref. 000915].
- Aulacodiscus lahusenii* var. *hyalina* Rattray 1888, p. 369 [ref. 000781].
- Aulacodiscus lahusenii* var. *marginalis* Witt 1885, p. 157 (21); pl. 7, fig. 3 [ref. 000915].
- Aulacodiscus lahusenii* var. *marginata* A. Schmidt in Schmidt et al. 1886, pl. 101, fig. 4 [ref. 012460]. Probably an error for *A. lahusenii* var. *marginalis* Witt 1885 (from comparison of illustrations), however, it can also be treated as the name of a new taxon.
- Aulacodiscus lahusenii* var. *partita* Pantocsek 1889, p. 103; pl. 26, fig. 373 [ref. 001033].
- Aulacodiscus lahusenii* var. *punctata* Witt 1885, p. 156 (20); pl. 7, fig. 4 [ref. 000915].
- Aulacodiscus lahusenii* var. *verrucosa* Brun in Brun, Bergon, Cleve, Grove, Pantocsek & Tempère 1890, p. 30; pl. 5, fig. 2 [ref. 000175]. Simultaneously to proposing this valid name, Brun proposed 2 alternate names for this taxon: *Aulacodiscus verrucosus* Brun and *Aulacodiscus marginatus* var. *verrucosa* Brun. These 2 alternate names are invalid because they are not accepted by Brun.
- Aulacodiscus laxus* (Mann) Boyer 1927, p. 78 [ref. 000155]. Basionym: *Tripodiscus laxus* Mann 1907.
- Aulacodiscus laxus* var. *octonarius* Ichikawa in Ichikawa, Fuji & Bachmann 1964, p. 45; pl. 4, fig. 26 a-b [ref. 000538].
- Aulacodiscus ledebourii* Pantocsek 1889, p. 103 [ref. 001033]. Illustrated in Pantocsek 1892, pl. 16, fig. 234 (ref. 001034).
- Aulacodiscus lefeburei* Chenevière 1934, p. 105; pl. 7, fig. 2 [ref. 000055].
- Aulacodiscus lemardleyi* Chenevière 1934, p. 105; pl. 5, fig. 2 [ref. 000055].
- Aulacodiscus lindavianus* Muschler 1908, p. 147 [ref. 002318].
- Aulacodiscus longicornis* Barker & Meakin 1948, p. 177; pl. 24, fig. 5 [ref. 000131].
- Aulacodiscus lucidus* Rattray 1888, p. 379; pl. 5, fig. 3 [ref. 000781].
- Aulacodiscus lunyacsekii* Pantocsek 1886, p. 59; pl. 1, fig. 2, pl. 25, fig. 229 (forma minor), pl. 2, fig. 9-10, pl. 25, fig. 225 (forma maxima= major) [ref. 000714].
- Aulacodiscus lunyacsekii* f. *major* Pantocsek 1886, pl. 2, fig. 9, 10, pl. 25, fig. 225 [ref. 000714]. Described as “forma maxima” in text, p. 59 (1st edition). In second edition (1903), forma *maxima* in both text (p. 61) and fig. caption (ref. 000717).
- Aulacodiscus lunyacsekii* var. *major* (Pantocsek) Chase 1907, p. 93 [ref. 002211]. Basionym: *Aulacodiscus lunyacsekii* f. *major* Pantocsek 1886. *Invalid?* Citation error for *A. lunyacsekii* f. *major* Pantocsek 1886.
- Aulacodiscus lunyacsekii* f. *maxima* Pantocsek 1886, p. 59; pl. 2, fig. 9, 10, pl. 25, fig. 225 [ref. 000714]. As “forma major” in plate caption (1st edition). In second edition (1903) (ref. 000717), forma *maxima* in both text (p. 61) and fig. caption.
- Aulacodiscus lunyacsekii* var. *maxima* ‘Pantocsek’ Chase 1907, p. 94 [ref. 002211]. *Invalid?* Citation error for *Aulacodiscus lunyacsekii* f. *maxima* Pantocsek 1886.
- Aulacodiscus lunyacsekii* f. *minor* Pantocsek 1886, p. 59; pl. 1, fig. 2, pl. 25, fig. 229 [ref. 000714].
- Aulacodiscus lunyacsekii* var. *minor* ‘Pantocsek’ Chase 1907, p. 94 [ref. 002211]. *Invalid?* Citation error for *Aulacodiscus lunyacsekii* f. *minor* Pantocsek 1886. Valid new combination?

- Aulacodiscus macraeanus* Greville 1862, p. 23, pl. 2, fig. 4 [ref. 000410].
- Aulacodiscus macraeanus* f. *minor* A. Schmidt in Schmidt et al. 1886, pl. 104, fig. 2 [ref. 012461].
- Aulacodiscus madagascovusis* ‘Tempère?’ according to Mills 1933, p. 232 [ref. 006140]. No reference cited.
- Aulacodiscus mammosus* Greville 1863, p. 70; pl. 4, fig. 13 [ref. 000978].
- Aulacodiscus mammosus* var. *extans* (Greville) Rattray 1888, p. 363 [ref. 000781]. Basionym: *Aulacodiscus extans* Greville 1864.
- Aulacodiscus margareticus* [Mellor]? 1920, A4 [ref. 002771]. *Invalid*. Illustrated by Mellor 1920, without citation. [according to ANSP].
- Aulacodiscus margaritaceus* Ralfs in Pritchard 1861, p. 844 [ref. 001063]. Based on *A. crux* sensu Ehrenberg 1854, non *A. crux* Ehrenberg 1844.
- Aulacodiscus margaritaceus* Ralfs var. *debyi* (Pantocsek) Rattray 1888, p. 351 [ref. 000781]. Basionym: *Aulacodiscus debyi* Pantocsek 1886.
- Aulacodiscus margaritaceus* Ralfs var. *distans* Rattray 1888, p. 352 [ref. 000781].
- Aulacodiscus margaritaceus* Ralfs var. *distincta* Rattray 1888, p. 353 [ref. 000781]. Refers to illustration in Schmidt’s Atlas, pl. 92, fig. 13 (no name).
- Aulacodiscus margaritaceus* Ralfs var. *elongatus* Rattray 1888, p. 351 (‘*elongata*’) [ref. 000781]. Rattray 1888, p. 352, cites A. Schmidt Atlas, 1876, pl. 37, fig. 1-3 (ref. 012449) [figures labeled *A. margaritaceus* and var.] and notes: “Schmidt regards this, on what appears to me to be insufficient grounds, as perhaps a new species”.
- Aulacodiscus margaritaceus* Ralfs var. *hungaricus* Pantocsek 1889, p. 104 (‘*hungarica*’) [ref. 001033]. No fig.
- Aulacodiscus margaritaceus* Ralfs var. *inconspicua* Rattray 1888, p. 353; pl. 6, fig. 3 [ref. 000781].
- Aulacodiscus margaritaceus* Ralfs var. *kinkeri* (A. Schmidt in Schmidt et al.) Rattray 1888, p. 352 [ref. 000781]. Basionym: *Aulacodiscus kinkeri* A. Schmidt in Schmidt et al. 1886.
- Aulacodiscus margaritaceus* Ralfs var. *moelleri* (Grunow in Schmidt et al.) Rattray 1888, p. 352 (‘*Mölli*’) [ref. 000781]. Basionym: *Aulacodiscus moelleri* Grunow in Schmidt et al. 1876.
- Aulacodiscus margaritaceus* Ralfs var. *tenera* (Witt) Rattray 1888, p. 353 [ref. 000781]. Basionym: *Aulacodiscus crux* var. *tenera* Witt 1885.
- Aulacodiscus margaritaceus* Ralfs var. *undosus* Grove & Sturt manuscript ex Rattray 1888, p. 352 (‘*undosa*’) [ref. 000781].
- Aulacodiscus margaritaceus* A. Schmidt in Schmidt et al. 1876, pl. 37, fig. 1-7 (as *Aulacodiscus margaritaceus* Ralfs and var.) [ref. 012449]. A. Schmidt notes: “1-4 viell. besondere Art, 7 typus?”. Figs. 1-3 have been assigned to a new variety by Rattray 1888: *A. margaritaceus* var. *elongatus* Rattray.
- Aulacodiscus margaritaceus* Witt & A. Schmidt in A. Schmidt et al. 1886, pl. 105, fig. 1 [ref. 012462]. Non *A. margaritaceus* Ralfs 1861.
- Aulacodiscus margaritaceus* Witt & A. Schmidt var. *robusta* Witt in A. Schmidt et al. 1886, pl. 105, fig. 3 [ref. 012462].
- Aulacodiscus margaritaceus* Hanna & Grant 1926, p. 127; pl. 13, fig. 3, 4 [ref. 000012]. *Illegitimate*. Non *Aulacodiscus margaritaceus* Ralfs in Pritchard 1861. Although Hanna & Grant attribute the name to Ralfs, they exclude the original type. Their interpretation of the species follows that of Schmidt (Atlas, pl. 37, 1876, figs. 1-8; pl. 105, 1886, figs. 1, 4, 5).
- Aulacodiscus marginatus* Ralfs ex Schmidt in Schmidt et al. 1888, pl. 133, fig. 1 [ref. 012465].
- Aulacodiscus marginatus* var. *verrucosa* Brun in Brun, Bergon, Cleve, Grove, Pantocsek & Tempère 1890, p. 30; pl. 5, fig. 2 [ref. 000175]. *Invalid*. Not accepted alternate name for *Aulacodiscus lahusenii* var. *verrucosa* Brun.
- Aulacodiscus mastoideus* Jousé in Proschkina-Lavrenko 1949, p. 109; pl. 37, fig. 5 [ref. 002554].
- Aulacodiscus meakinii* Woodward & Flint 1969, p. 161; 3 figs. (on p. 159, 160) [ref. 005810].
- Aulacodiscus minimus* Hustedt in Schmidt et al. 1958, pl. 463, fig. 12-15 [ref. 012522]. *Invalid*. German but not Latin description included in plate caption. Validated by Simonsen 1987, p. 454 (ref. 003164).
- Aulacodiscus minimus* Hustedt ex Simonsen 1987, p. 454; pl. 677/1-3; 678/1-3 [ref. 003164].
- Aulacodiscus minutus* Rattray 1888, p. 343 [ref. 000781]. Refers to Schmidt’s Atlas, pl. 58, fig. 34.
- Aulacodiscus miocenicus* Forti 1908, p. 3 (132) [ref. 000334]. *Invalid*. Nomen nudum.
- Aulacodiscus miocenicus* Forti 1908, p. 39 [ref. 000335]. First appeared as Nomen nudum in Forti 1908, p. 3 (132) (ref. 000334).
- Aulacodiscus moelleri* Grunow in Schmidt et al. 1876, pl. 33, fig. 14 (‘*Mölli*’) [ref. 012449].
- Aulacodiscus moelleri* var. *distincta* ‘Rattray’ Tempère & Peragallo 1909, p. 128 [ref. 001065]. Citation error for *Aulacodiscus margaritaceus* var. *distincta* Rattray? Can probably be treated as a valid new combination of *Aulacodiscus margaritaceus* var. *distincta* Rattray 1888.
- Aulacodiscus morenoensis* Long, Fuge & Smith 1946, p. 98; pl. 18, fig. 3 [ref. 000616].
- Aulacodiscus muelleri* Grunow in Schmidt et al. 1876, pl. 41, fig. 11 (‘*Mülleri*’) [ref. 012450].
- Aulacodiscus multispadix* Tempère & Brun in Brun & Tempère 1889, p. 20; pl. 3, fig. 11 [ref. 000185].
- Aulacodiscus neglectus* Rattray 1888, p. 378; pl. 6, fig. 1 [ref. 000781].
- Aulacodiscus neogradensis* Pantocsek 1886, p. 59; pl. 25, fig. 227 [ref. 000714].
- Aulacodiscus neogradensis* var. *subangulatus* Pantocsek 1886, p. 60; pl. 2, fig. 11, pl. 28, fig. 276 [ref. 000714]. *Invalid*.



- As “*Aulacodiscus (neogradensis* Pant. var.?) *subangulatus* nov. sp.” on p. 60, and “*Aulacodiscus (neogradensis* Pant. var.?) *subangulatus* Pant.” on plate caption. Invalid as a trinomial, but validly published by Pantocsek 1886 as *Aulacodiscus subangulatus*. Listed as a trinomial but not validated by VanLandingham 1979, p. 4260 (ref. 006514).
- Aulacodiscus nigrescens* Pantocsek 1892, pl. 26, fig. 393 [ref. 001034]. Description in Pantocsek 1905, p. 17 (ref. 001445).
- Aulacodiscus nigricans* Tempère & Brun in Brun & Tempère 1889, p. 20; pl. 4, fig. 1 [ref. 000185].
- Aulacodiscus nigricans* var. *monicae* Tempère in Tempère & Peragallo 1908, p. 61; No. 109-112 [ref. 001064]. *Invalid.* Nomen nudum.
- Aulacodiscus nigricans* var. *spinifera* Brun in Schmidt et al. 1892, pl. 169, fig. 5 [ref. 012470].
- Aulacodiscus nobilis* Rattray 1889, p. 38; pl. 3, fig. 1 [ref. 000782].
- Aulacodiscus notabilis* Pantocsek 1889, p. 104 [ref. 001033]. Illustrated in Pantocsek 1892, pl. 9, fig. 151 (ref. 001034).
- Aulacodiscus notatus* Grove & Sturt 1887, p. 9; pl. 3, fig. 11 [ref. 000448].
- Aulacodiscus nova-zealandicus* (Grove & Sturt) Grunow in Schmidt et al. 1888, pl. 124, fig. 8 (‘*Nova Zealandicus*’) [ref. 012464]. Basionym: *Aulacodiscus sollittianus* var. *nova-zealandica* Grove & Sturt 1887.
- Aulacodiscus novae-seelandiae* A. Schmidt in Schmidt et al. 1888, pl. 124, fig. 8 (‘*Novae Seelandiae*’) [ref. 012464]. Orthographic variant for *Aulacodiscus nova-zealandicus* (Grove & Sturt) Grunow in Schmidt et al. 1888 (pl. 124, fig. 8). See also on pl. 157, fig. 2.
- Aulacodiscus oamaruensis* Grunow in Schmidt et al. 1888, pl. 124, fig. 9 [ref. 012464].
- Aulacodiscus oamaruensis* Grunow emend. Barker & Meakin 1948, p. 233; pl. 28, fig. 1-2 [ref. 000132]. Redefinition of the species concept to include *Aulacodiscus oamaruensis* Grunow 1888 and *Aulacodiscus amoenus* Greville 1864.
- Aulacodiscus orbiculatus* Subrahmanyam 1946, p. 107; fig. 90, 91, 94, 95 [ref. 000870].
- Aulacodiscus oreganus* Harvey & Bailey 1854, p. 430 [ref. 000468]. Illustrated by Bailey and Harvey 1861 (ref. 000124) as *Aulacodiscus oregonensis*.
- Aulacodiscus oreganus* var. *octavius* MacKay in L.W. Bailey & MacKay 1915, p. 147 (‘*oregonus*’) [ref. 001094]. *Invalid.* Provisional name: “Dr. MacKay does not think that it agrees exactly with the specific description, and has therefore provisionally marked it as var. *octavius* in allusion to its eight sectors”.
- Aulacodiscus oreganus* f. *sparsius-punctata* Grunow in Schmidt et al. 1886, pl. 107, fig. 6 (‘*sparsius punctata*’) [ref. 012462].
- Aulacodiscus oregonensis* Bailey & Harvey 1862, p. 176; pl. 9, fig. 6 [ref. 000124]. New name (or orthographical variant?) for *Aulacodiscus oreganus* Harvey & Bailey 1854 (respective Latin descriptions are identical). Unwarranted change of epithet.
- Aulacodiscus orientalis* Greville 1864, p. 12; pl. 2, fig. 6 [ref. 000418].
- Aulacodiscus orientalis* var. *nankoorensis* Grunow 1867, p. 103 [ref. 000432].
- Aulacodiscus pallidus* Greville 1863, p. 72; pl. 5, fig. 17 [ref. 000978].
- Aulacodiscus paradoxus* Greville 1863, p. 72; pl. 5, fig. 18 [ref. 000978].
- Aulacodiscus parvulus* Rattray 1888, p. 341 [ref. 000781].
- Aulacodiscus patens* Rattray 1888, p. 354; pl. 6, fig. 2 [ref. 000781].
- Aulacodiscus patulus* Grunow in Schmidt et al. 1888, pl. 134, fig. 6 [ref. 012465]. Caption for pl. 134, fig. 5: “*A. patulus* Grunow var.?”.
- Aulacodiscus pellucidus* Greville 1864, p. 12; pl. 1, fig. 5 [ref. 000418].
- Aulacodiscus peragalloi* Pantocsek 1892, pl. 25, fig. 371 [ref. 001034]. Description in Pantocsek 1905, p. 18 (ref. 001445).
- Aulacodiscus permagnus* Brun in Schmidt et al. 1892, pl. 170, fig. 3 [ref. 012470]. *Invalid.* In syn. *A. giganteus* var. *permagna* Brun in Schmidt et al. 1892.
- Aulacodiscus petersii* Ehrenberg 1845, p. 361 [ref. 000957].
- Aulacodiscus petersii* sensu A. Schmidt in Schmidt et al. 1876, pl. 35, fig. 1-4 [ref. 012449]. A. Schmidt notes: fig. 1-3. “*Aulacodiscus petersi* E. var.?” Fig. 4. “*Aulacodiscus petersi* E. typ.” Rattray 1888, p. 366 (ref. 000781) included specimens illustrated on fig. 1-3 in his new taxon *Aulacodiscus petersii* var. *notabilis* Rattray.
- Aulacodiscus petersii* var. *asperulus* Rattray 1888, p. 366 (‘*asperula*’) [ref. 000781]. Refers to Schmidt’s Atlas, pl. 41, fig. 4 (“*A. crucifer* Shad.?”).
- Aulacodiscus petersii* var. *circumdata* (Schmidt in Schmidt et al.) Rattray 1888, p. 367 [ref. 000781]. Basionym: *Aulacodiscus circumdatus* Schmidt in Schmidt et al. 1876.
- Aulacodiscus petersii* var. *crucifer* Tempère & Peragallo 1889, p. 32; No. 58 [ref. 000881]. *Invalid.* Nomen nudum. Could be a new combination of *Eupodiscus crucifer* Shadbolt 1854, although there is no indication to suggest a new combination.
- Aulacodiscus petersii* var. *expansa* Rattray 1888, p. 366; pl. 7, fig. 1 [ref. 000781].
- Aulacodiscus petersii* var. *notabilis* Rattray 1888, p. 366 [ref. 000781]. Refers to Schmidt’s Atlas, pl. 35, fig. 1-3 (“*A. petersii* Ehrb. var.?”) (ref. 012449).
- Aulacodiscus petersii* f. *pentamera* Frenguelli 1930, p. 303 (‘*petersi*’) [ref. 000354]. *Invalid.* Nomen nudum.
- Aulacodiscus petersii* var. *rara* Rattray 1888, p. 367; pl. 7, fig. 2 [ref. 000781].

- Aulacodiscus petersii* f. *tetramera* Frenguelli 1930, p. 303 ('*petersii*') [ref. 000354].
- Aulacodiscus petersii* var. *trimera* Forti 1913, p. 1598, pl. 7, fig. 5 [ref. 000342]. First appeared as nomen nudum in Forti 1912, p. 81 (ref. 000341).
- Aulacodiscus polygonus* Grunow in Pantocsek 1886, p. 59; pl. 26, fig. 236 [ref. 000714].
- Aulacodiscus polygonus* var. *polygibbus* Grunow in Pantocsek 1886, p. 59; pl. 26, fig. 237 ('*polygibba*') [ref. 000714].
- Aulacodiscus pretiosus* Mann 1925, p. 31; pl. 6, fig. 2 [ref. 000632].
- Aulacodiscus probabilis* Schmidt in Schmidt et al. 1876, pl. 36, fig. 13-16 [ref. 012449]. In the 1885 edition of Schmidt's Atlas (ref. 012637), this species is restricted to fig. 13-14, while fig. 15-16 are assigned to *Aulacodiscus brownei* Norman.
- Aulacodiscus probabilis* Schmidt in Schmidt et al. 1876, pl. 36, fig. 15-16 [ref. 012449]. In the 1885 edition of Schmidt's Atlas (ref. 012637), these figures are assigned to *Aulacodiscus brownei* Norman.
- Aulacodiscus probabilis* f. *immarginatus* Gleser 1967, p. 22; fig. 4-6 [ref. 004252].
- Aulacodiscus prominens* Kitton manuscript ex Rattray 1888, p. 375; pl. 5, fig. 5 [ref. 000781].
- Aulacodiscus pugnalis* Hanna 1927, caption to pl. 1, fig. 6, 7 [ref. 000010]. Described on p. 14 as '*Aulacodiscus pugnalis*'.  
*Aulacodiscus pugnalis* Hanna 1927, p. 14; pl. 1, fig. 6, 7 [ref. 000010]. '*pugnalis*' in text, '*pugnalis*' in plate caption.
- Aulacodiscus pulcher* Norman in Pritchard 1861, p. 845; pl. 8, fig. 28 [ref. 001063].
- Aulacodiscus pulcher* var. *sparse-radiata* Rattray 1888, p. 361 [ref. 000781].
- Aulacodiscus quadrans* Schmidt in Schmidt et al. 1876, pl. 35, fig. 10 [ref. 012449]. Also pl. 161, fig. 5 (1891) (ref. 012469).
- Aulacodiscus quinarius* Janisch 1861, p. 162 [ref. 000539].
- Aulacodiscus radiatus* (Bailey) Brightwell 1860, p. 95; pl. 5, fig. 10 [ref. 000947]. Basionym: *Eupodiscus radiatus* J.W. Bailey 1851.
- Aulacodiscus radiatus* Greville 1864, p. 11; pl. 1, fig. 4 [ref. 000418]. *Illegitimate*. Non *Aulacodiscus radiatus* (Bailey) Brightwell 1860.
- Aulacodiscus radiosus* Grove & Sturt 1887, p. 140; pl. 12, fig. 33 [ref. 000989].
- Aulacodiscus rattrayii* Grove & Sturt 1887, p. 139; pl. 11, fig. 29 [ref. 000989].
- Aulacodiscus rattrayii* var. *convexa* (Grove & Sturt) Rattray 1888, p. 377 [ref. 000781]. Basionym: *Aulacodiscus convexus* Grove & Sturt 1887.
- Aulacodiscus rattrayii* var. *minor* 'Grove Collection?' according to Mills 1933, p. 236 [ref. 006140]. *Invalid*. No other reference cited.
- Aulacodiscus rattrayii* var. *robusta* "Mills Collection?" according to Mills 1933, p. 236 [ref. 006140]. *Invalid*. No other reference cited.
- Aulacodiscus rawsonii* Barker & Meakin 1949, p. 301; pl. 37, fig. 2 [ref. 000133].
- Aulacodiscus recedens* Mann 1925, p. 31; pl. 6, fig. 3 [ref. 000632].
- Aulacodiscus rellae* Hanna & Grant 1926, p. 128; pl. 13, fig. 5, 6 [ref. 000012].
- Aulacodiscus reticulatus* Pantocsek 1886, p. 60; pl. 1, fig. 1 [ref. 000714]. .
- Aulacodiscus reticulatus* Pantocsek in A. Schmidt 1886, pl. 102, fig. 7 [ref. 012460]. From comparison of illustrations, may not be the same species as *A. reticulatus* Pantocsek 1886, p. 60, pl. 1, fig. 1 (ref. 000714). A. Schmidt notes: "Szent Peter (Thum), nach Grunow's Versicherung, *A. reticulatus* Pantoczek Mscr."
- Aulacodiscus rogersii* (Ehrenberg) Schmidt in Schmidt et al. 1886, pl. 107, fig. 3 [ref. 012462]. Basionym: *Eupodiscus rogersii* Ehrenberg 1844. As "*A. rogersii* E.". Mills notes both *Podiscus rogersii* Bailey 1844 and *Eupodiscus rogersii* Ehrenberg 1844 in his list of synonyms.
- Aulacodiscus rothii* 'Grove collection?' according to Mills 1933, p. 237 [ref. 006140]. *Invalid*. Mills notes: "error for *Coscinodiscus rothii*". Not accepted by Mills (lower case print).
- Aulacodiscus rotulus* Rattray 1888, p. 348; pl. 5, fig. 10 [ref. 000781].
- Aulacodiscus sagittarius* Long, Fuge & Smith 1946, p. 98; pl. 14, fig. 10 [ref. 000616].
- Aulacodiscus sagittarius* var. *distentus* Long, Fuge & Smith 1946, p. 98; pl. 14, fig. 6 [ref. 000616].
- Aulacodiscus samoensis* 'Grunow in Möller's Catalogue' according to Mills 1933, p. 237 [ref. 006140]. *Invalid?* Not found in Möller 1883 (ref. 000666).
- Aulacodiscus scaber* Ralfs in Pritchard 1861, p. 844 [ref. 001063].
- Aulacodiscus scaber* var. *jonesiana* (Greville) Rattray 1888, p. 354 [ref. 000781]. Basionym: *Aulacodiscus jonesianus* Greville 1862.
- Aulacodiscus schmidtii* Witt 1885, p. 157 (21); pl. 7, fig. 1, 2 [ref. 000915]. In text misprinted fig. 12.
- Aulacodiscus schmidtii* var. *quatuor-radiata* (Pantocsek) Rattray 1888, p. 355 [ref. 000781]. Basionym: *Aulacodiscus septus* f. *quatuor-radiata* Pantocsek 1886.
- Aulacodiscus sculptus* (W. Smith) Brightwell 1860, p. 94; pl. 5, fig. 5 [ref. 000947]. Basionym: *Eupodiscus sculptus* W. Smith 1853.
- Aulacodiscus secedens* Schmidt in Schmidt et al. 1886, pl. 106, fig. 2 [ref. 012462]. Also illustrated in Schmidt et al. 1890 (ref. 012467), pl. 146, fig. 2.

- Aulacodiscus sendaiense* ‘Tempère, Schmidt et al.’ according to Mills 1933, p. 237 (*‘sandaiense’*) [ref. 006140]. *Invalid.* Mills refers to an unnamed specimen from Sendai illustrated in Schmidt et al. 1890, pl. 158, fig. 1 (ref. 012468). The specimen was later named *Aulacodiscus asiaticus* Brun in A. Schmidt et al. 1892 (Schmidt 1892, pl. 169, fig. 2; ref. 012470). The name, *A. sendaiense*, that can be credited to Mills, is invalid (not accepted by Mills).
- Aulacodiscus septus* Schmidt in Schmidt et al. 1876, pl. 36, fig. 19-21 [ref. 012449]. Illustration only. Description by Witt 1886, p. 158 (ref. 000915).
- Aulacodiscus septus* f. *pentagona* Jousé 1948, p. 350, 351, 355/356 [ref. 004561]. Also described in Jousé 1949, p. 70, text-fig. 2 (ref. 000547).
- Aulacodiscus septus* f. *quatuor-radiata* Pantocsek 1886, p. 60; pl. 10, fig. 84 (*‘quatuor radiata’*) [ref. 000714].
- Aulacodiscus septus* f. *tetragona* Jousé 1948, p. 350, 351, 355/356 [ref. 004561]. Also described in Jousé 1949, p. 70 (ref. 000547).
- Aulacodiscus sieminskiae* Geroch 1978, p. 289; pl. 3, fig. 1-6, pl. 4, fig. 5, pl. 5, fig. 1, 5 [ref. 006936].
- Aulacodiscus simbirskianus* Pantocsek 1889, p. 105; pl. 18, fig. 289 [ref. 001033].
- Aulacodiscus simplex* Rattray 1888, p. 340 [ref. 000781]. Rattray cites *Aulacodiscus decorus* [sensu] A. Schmidt in Schmidt et al. 1876, pl. 33, fig. 9 [ref. 012449].
- Aulacodiscus simulans* Barker & Meakin 1946, p. 76; pl. 15, fig. 2 [ref. 000129].
- Aulacodiscus singiliewskyanus* Barker & Meakin 1944, p. 251-252; pl. 38, fig. 3 [ref. 000127].
- Aulacodiscus sollittianus* Norman 1861, p. 7; pl. 2, fig. 5 [ref. 000686]. Also described in Pritchard 1861, p. 968-969 (ref. 001063) (description almost identical and same locality).
- Aulacodiscus sollittianus* var. *jutlandica* (Kitton) Rattray 1888, p. 378 (*‘jütlandica’*) [ref. 000781]. Basionym: *Aulacodiscus jutlandicus* Kitton 1870.
- Aulacodiscus sollittianus* var. *nova-zealandica* Grove & Sturt 1887, p. 9; pl. 3, fig. 10 (*‘nova zealandica’*) [ref. 000448].
- Aulacodiscus sollittianus* var. *protuberans* Rattray 1888, p. 377 [ref. 000781].
- Aulacodiscus sparsus* Greville 1866, p. 123; pl. 11, fig. 6 [ref. 000985].
- Aulacodiscus spectabilis* Greville 1863, p. 71; pl. 5, fig. 16 [ref. 000978].
- Aulacodiscus spectabilis* Grev. var. *depressa* Rattray 1888, p. 346; pl. 7, fig. 6 [ref. 000781].
- Aulacodiscus spectabilis* sensu Grove & Sturt 1887, p. 141 [ref. 000448]. Non Greville? Grove and Sturt note: “*A. spectabilis* Greville...An example of this form has occurred, differing only from Greville’s by having four processes instead of five”.
- Aulacodiscus splendidus* Hustedt in Schmidt et al. 1958, pl. 464, fig. 1-2 [ref. 012522]. New name for *Thumia elegans* Cleve ex Lefébure & Chenevière 1938, non *Aulacodiscus elegans* Grove & Sturt 1887.
- Aulacodiscus squamosus* Brun in Schmidt et al. 1891, pl. 161, fig. 1, 2 [ref. 012469].
- Aulacodiscus stellaris* Barker & Meakin 1949, p. 301; pl. 37, fig. 3 [ref. 000133].
- Aulacodiscus stelliformis* Barker & Meakin 1947, p. 143; pl. 22, fig. 2 [ref. 000130].
- Aulacodiscus stoeckhartii* ‘Pantocsek’ M. Peragallo 1897, p. 108 [ref. 012539]. Citation error for *Auliscus stoeckhardtii* var. *flavescens* Pantocsek 1892. Name accepted by Peragallo. Can be treated as a valid new name, although the specimen illustrated by Pantocsek is taxonomically an *Auliscus*.
- Aulacodiscus stoschii* Janisch in Schmidt et al. 1876, pl. 34, fig. 11 [ref. 012449]. Also (with description) in Walker & Chase 1886, p. 3, pl. 1, fig. 2 (ref. 000904).
- Aulacodiscus stoschii* sensu Walker & Chase 1886, p. 3; pl. 1, fig. 2 (as *Aulacodiscus stoschii* Janisch) [ref. 000904]. Not *Aulacodiscus stoschii* Janisch in A. Schmidt 1876 according to Peragallo 1897, p. 108 (ref. 012539).
- Aulacodiscus striatus* Long, Fuge & Smith 1946, p. 98; pl. 14, fig. 1 [ref. 000616].
- Aulacodiscus sturtianus* Kitton (various collection [according to VLC]).
- Aulacodiscus sturtii* Kitton 1884, pl. 4, fig. 1 [ref. 000574].
- Aulacodiscus subangulatus* Pantocsek 1886, p. 60; pl. 2, fig. 11, pl. 28, fig. 276 [ref. 000714]. As “*Aulacodiscus (neogradensis* Pant. var.?) *subangulatus* nov. sp.” on p. 60, and “*Aulacodiscus (neogradensis* Pant. var.?) *subangulatus* Pant.” on plate caption.
- Aulacodiscus subangulatus* var. *concentricus* Lefébure 1935, p. 52; pl. 4, fig. 14 [ref. 002756].
- Aulacodiscus subexcavatus* Hustedt in Schmidt et al. 1944, Expl. pl. 460, fig. 3-13 [ref. 012526]. German description included in plate explanations.
- Aulacodiscus subrimosus* Grunow in Schmidt et al. 1888, pl. 124, fig. 4, 5 [ref. 012464].
- Aulacodiscus subsquamosus* (Grunow ex Rattray) Burke & Woodward 1965, p. 43 [ref. 002665]. Basionym: *Aulacodiscus crux* var. *subsquamosa* Grunow manuscript ex Rattray 1888. This combination was suggested (but not validly published) by Schmidt in Atlas, pl. 157, fig. 3, 4 (1890); pl. 162, fig. 4 (1891).
- Aulacodiscus superbus* Kitton 1873, p. 205; pl. 38, fig. 1 [ref. 000569].
- Aulacodiscus suspectus* Schmidt in Schmidt et al. 1876, pl. 36, fig. 17, 18 [ref. 012449].
- Aulacodiscus symmetricus* Barker & Meakin 1945, p. 18; pl. 3, fig. 4 [ref. 000128].
- Aulacodiscus szakalensis* Pantocsek 1892, pl. 28, fig. 415 [ref. 001034]. Description in Pantocsek 1905, p. 18 (ref. 001445).

- Aulacodiscus tabernaculum* Brun 1895, pl. 17, fig. 96, 97 [ref. 000181]. Diagnosis in expl. fig.
- Aulacodiscus temperei* Schmidt in Schmidt et al. 1890, pl. 157, fig. 7 [ref. 012468].
- Aulacodiscus tener* (Witt) Hustedt in Schmidt et al. 1958, pl. 463; pl. 3, 4, 10, 11 [ref. 012522]. Basionym: *Aulacodiscus crux* var. *tenera* Witt 1885.
- Aulacodiscus tenuipunctatus* Anissimova 1938 [ref. 002897]. Cited and described by Proshkina-Lavrenko 1949, p. 112 (ref. 002554). Anissimova 1938 not seen by us.
- Aulacodiscus tenuis* Strelnikova 1974, p. 77-78; tabl. 18, fig. 7 [ref. 000058].
- Aulacodiscus ternatus* Janisch 1861, p. 161; pl. 2, fig. 4 [ref. 000539].
- Aulacodiscus tetrapurgon* Brun 1896, p. 233; pl. 23, fig. 8-9 [ref. 000183].
- Aulacodiscus thumii* Schmidt in Schmidt et al. 1886, pl. 102, fig. 8 [ref. 012460]. Also illustrated in A. Schmidt et al. 1888 (ref. 012465), pl. 133, fig. 8.
- Aulacodiscus tripartitus* Tempère & Brun in Brun & Tempère 1889, p. 21; pl. 4, fig. 3 [ref. 000185].
- Aulacodiscus truanii* Pantocsek 1889, p. 105; pl. 4, fig. 61 [ref. 001033].
- Aulacodiscus tschestnovii* Pantocsek 1889, p. 105 [ref. 001033]. Illustrated in Pantocsek 1892, pl. 6, fig. 93 (ref. 001034).
- Aulacodiscus tuberculatus* Pantocsek 1889, p. 105; pl. 15, fig. 258 [ref. 001033].
- Aulacodiscus tubulo-crenatus* Tempère & Brun in Brun & Tempère 1889, p. 22; pl. 7, fig. 19 [ref. 000185].
- Aulacodiscus tubulo-crenatus* var. *japonicus* Ichikawa in Ichikawa, Fuji & Bachmann 1964, p. 46; pl. 4, fig. 28 [ref. 000538].
- Aulacodiscus tumulifer* Brun in Schmidt et al. 1891, pl. 162, fig. 3, pl. 170, fig. 7-9 [ref. 012469].
- Aulacodiscus tumulosus* Bone & Gosden 1968, p. 71; fig. 5 [ref. 003504].
- Aulacodiscus umbonatus* Greville 1864, p. 9; pl. 1, fig. 2 [ref. 000418].
- Aulacodiscus umbonatus* var. *dirupta* Grove & Sturt manuscript ex Rattray 1888, p. 379; pl. 6, fig. 9 [ref. 000781].
- Aulacodiscus validus* Barker & Meakin 1947, p. 143; pl. 22, fig. 3 [ref. 000130].
- Aulacodiscus variabilis* Lupikina 1965, p. 16; pl. 1, fig. 1-6, pl. 2, fig. 1-4 [ref. 008518].
- Aulacodiscus verrucosus* Brun in Brun, Bergon, Cleve, Grove, Pantocsek & Tempère 1890, p. 30; pl. 5, fig. 2 [ref. 000175].
- Invalid.* Not accepted alternate name for *Aulacodiscus lahusenii* var. *verrucosa* Brun.
- Aulacodiscus victoriae* Karsten 1906, p. 159; pl. 28(9), fig. 4A-C [ref. 001023].
- Aulacodiscus voluta-coeli* Brun in Schmidt et al. 1892, pl. 170, fig. 5, 6 ('*Voluta Coeli*') [ref. 012470].
- Aulacodiscus weissflogii* Pantocsek 1889, p. 105; pl. 18, fig. 293 [ref. 001033].
- Aulacodiscus wittii* Janisch in Schmidt et al. 1886, pl. 106, fig. 1 [ref. 012462].
- Aulacodiscus zanoni* Chenevière 1934, p. 105; pl. 7, fig. 1 [ref. 000055].
- Aulacodiscus zonulatus* Rattray 1889, p. 39; pl. 4, fig. 1 [ref. 000782].

***AULACOSEIRA* G.H.K. Thwaites 1848, p. 167 [ref. 000886]**

T: *Aulacoseira crenulata* (C.G. Ehrenberg) G.H.K. Thwaites 1848

(= *Gallionella crenulata* C.G. Ehrenberg 1843)

Often misspelled *Aulacosira*.

- Aulacoseira accincta* (Hohn & Hellerman) Simonsen 1979, p. 55 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira accinctus* Hohn & Hellerman 1963.
- Aulacoseira aculeifera* (Sheshukova-Poretzkaya) Simonsen 1979, p. 55 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira aculeifera* Scheschukova-Poretzkaya in Scheschukova-Poretzkaya & Moissejeva 1964.
- Aulacoseira aculeifera* (Sheshukova-Poretzkaya) Moisseeva in Gleser, Makarova, Moisseeva & Nikolaev 1992, p. 77; pl. 58, fig. 1-7 ('*Aulacosira*') [ref. 006385]. Basionym: *Melosira aculeifera* Scheschukova-Poretzkaya in Scheschukova-Poretzkaya & Moissejeva 1964. Isonym: see *Aulacoseira aculeifera* (Sheschukova-Poretzkaya) Simonsen 1979.
- Aulacoseira agassizii* (Ostenfeld) Simonsen 1979, p. 56 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira agassizii* Ostenfeld 1909.
- Aulacoseira agassizii* var. *malayensis* (Hustedt) Simonsen 1979, p. 56 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira agassizii* (agassizii) var. *malayensis* Hustedt 1942.
- Aulacoseira alpigena* (Grunow) Krammer 1991, p. 93; fig. 1-15 [ref. 006893]. Basionym: *Melosira distans* var. *alpigena* Grunow in Van Heurck 1882.
- Aulacoseira ambigua* (Grunow) Simonsen 1979, p. 56 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira crenulata* var. *ambigua* Grunow in Van Heurck 1882.
- Aulacoseira ambigua* f. *japonica* A. Tuji & D.M. Williams 2007, p. 69 [ref. 012997]. Intended combination of the illegitimate name *Melosira japonica* Meister 1913 (non Pantocsek 1892); therefore treated as a nomen novum in accordance with ICBN Art. 58.
- Aulacoseira americana* (Kützing) Simonsen 1979, p. 56 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira americana* Kützing 1844.

- Aulacoseira antiqua* (Moiseeva) Moiseeva 1986, p. 71 [ref. 008603]. Basionym: *Melosira antiqua* Moiseeva 1960. [according to ANSP].
- Aulacoseira areolata* (Moiseeva) Moiseeva 1986, p. 71 [ref. 008603]. Basionym: *Melosira areolata* Moiseeva 1971. [according to ANSP].
- Aulacoseira argus* (Otto Müller) Simonsen 1979, p. 56 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira argus* Otto Müller 1904.
- Aulacoseira atlymica* (Rubina) Moiseeva 1986, p. 71 [ref. 008603]. Basionym: *Melosira atlymica* Rubina 1962. [according to ANSP].
- Aulacoseira baicalensis* (K. Meyer) Simonsen 1979, p. 56 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira islandica* var. *baicalensis* Meyer 1916. [according to ANSP].
- Aulacoseira bellicosa* (Héribaud) Simonsen 1979, p. 56 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira bellicosa* Héribaud 1903.
- Aulacoseira camusii* (Héribaud) Simonsen 1979, p. 56 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira camusi* (*camusii*) Héribaud 1903.
- Aulacoseira canadensis* (Hustedt) Simonsen 1979, p. 57 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira canadensis* Hustedt 1952.
- Aulacoseira canalifera* (Brun & Héribaud) Simonsen 1979, p. 57 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira canalifera* Brun & Héribaud in Héribaud 1893.
- Aulacoseira canalifera* var. *anastomosans* (Héribaud) Simonsen 1979, p. 57 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira canalifera* var. *anastomosans* Héribaud 1903.
- Aulacoseira cataractorum* (Hustedt) Simonsen 1979, p. 57 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira cataractorum* Hustedt 1937.
- Aulacoseira ceretana* Haworth & Sabater 1993, p. 230-231; fig. 4-18 [ref. 006576].
- Aulacoseira circularis* (Ehrenberg) Crawford 1981, p. 191 [ref. 008148]. Basionym: *Liparogyra circularis* Ehrenberg 1848.
- Aulacoseira crassipunctata* K. Krammer 1991, p. 490; fig. 71-79 [ref. 006894]. [according to ANSP].
- Aulacoseira crassipunctata* var. *kamtschatica* Lupikina & Genkal in Genkal and Lupikina 1998, p. 107-108; pl. 1, fig. 4-6, pl. 2, fig. 1-5 ('*Aulacosira*') [ref. 008038]. [according to ANSP].
- Aulacoseira crenulata* (Ehrenberg) Thwaites 1848, p. 168 [ref. 000886]. Basionym: *Gaillonella crenulata* Ehrenberg 1843.
- Aulacoseira dendrophila* (Ehrenberg) Crawford 1981, p. 190 [ref. 008148]. Basionym: *Porocyclia dendrophyla* Ehrenberg 1848.
- Aulacoseira dendroteres* (Ehrenberg) Crawford 1981, p. 191 [ref. 008148]. Basionym: *Liparogyra dendroteres* Ehrenberg 1848.
- Aulacoseira dianchiensis* Yang, Stoermer & Kociolek 1994, p. 226; fig. 1-24 [ref. 006062].
- Aulacoseira distans* (Ehrenberg) Simonsen 1979, p. 57 ('*Aulacosira*') [ref. 003160]. Basionym: *Gaillonella distans* Ehrenberg 1837.
- Aulacoseira distans* var. *africana* (Otto Müller) Simonsen 1979, p. 57 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira distans* var. *africana* Otto Müller 1904.
- Aulacoseira distans* var. *alpigena* (Grunow) Simonsen 1979, p. 57 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira distans* var. *alpigena* Grunow in Van Heurck 1882.
- Aulacoseira distans* var. *alpigena* (Grunow) Valeva & Temniskova-Topalova 1993, p. 69; pl. 1, fig. 15 [ref. 008918]. Basionym: *Melosira distans* var. *alpigena* Grunow in Van Heurck 1882. Isonym: See *A. distans* var. *alpigena* (Grunow) Simonsen 1979. [according to ANSP].
- Aulacoseira distans* var. *helvetica* (Hustedt) Simonsen 1987, p. 310 [ref. 003164]. Basionym: *Melosira distans* var. *helvetica* Hustedt 1943. [according to ANSP].
- Aulacoseira distans* var. *humilis* (A. Cleve-Euler) R. Ross in Hartley 1986, p. 606 [ref. 002355]. Basionym: *Melosira distans* var. *humilis* Cleve-Euler 1939.
- Aulacoseira distans* var. *humilis* (A. Cleve) Gasse 1986, p. 76; pl. 3, fig. 1-4, 7-8 ('*Aulacosira*') [ref. 006042]. Basionym: *Melosira distans* var. *humilis* Cleve-Euler 1939.
- Aulacoseira distans* f. *lacustris* (Grunow) Simonsen 1979, p. 58 (as *Aulacosira distans* var. *lirata* f. *lacustris*) [ref. 003160]. Basionym: *Melosira lyrata* var. *lacustris* Grunow in Van Heurck 1882.
- Aulacoseira distans* var. *laevissima* (Grunow) Haworth 1990, p. 195 [ref. 008332]. Basionym: *Melosira laevissima* Grunow in Van Heurck 1882. Combination previously invalidly published in Haworth 1988, p. 140 (ref. 008331).
- Aulacoseira distans* var. *limnetica* (Otto Müller) Simonsen 1979, p. 57 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira distans* var. *limnetica* Otto Müller 1904.
- Aulacoseira distans* var. *lirata* (Ehrenberg) Simonsen 1979, p. 58 ('*Aulacosira*') [ref. 003160]. Basionym: *Gaillonella lirata* Ehrenberg 1843.
- Aulacoseira distans* var. *nivalis* (W. Smith) Haworth 1990, p. 195 [ref. 008332]. Basionym: *Melosira nivalis* W. Smith 1856. Combination previously invalidly published in Haworth 1988, p. 140 (ref. 008331).

- Aulacoseira distans* var. *nivaloides* (Camburn) Haworth 1988, p. 150; fig. 66 [ref. 008331]. Basionym: *Melosira distans* var. *nivaloides* Camburn in Camburn & Kingston 1986. [according to ANSP].
- Aulacoseira distans* var. *septentrionalis* K.E. Camburn & D.F. Charles 2000, p. 14; pl. 2, figs. 23-30; pl. 35, fig. 1 [ref. 009549]. [according to INA].
- Aulacoseira distans* f. *seriata* (Otto Müller) Vodopian 1985, p. 36 (as *Aulacosira distans* var. *lirata* f. *seriata*) [ref. 008925]. Basionym: *Melosira lirata* var. *seriata* Otto Müller 1898. [according to ANSP].
- Aulacoseira distans* f. *seriata* (Otto Müller) Davydova in Gleser, Makarova, Moisseeva & Nikolaev 1992, p. 80; pl. 60, fig. 8 (as *Aulacosira distans* var. *lirata* f. *seriata*) [ref. 006385]. Basionym: *Melosira lirata* var. *seriata* Otto Müller 1898. Isonym: see *A. distans* f. *seriata* (O. Müller) Vodopian 1985.
- Aulacoseira distans* var. *tenella* (Nygaard) R. Ross in Hartley 1986, p. 606 [ref. 002355]. Basionym: *Melosira tenella* Nygaard 1956.
- Aulacoseira elegans* (Mukhina) Simonsen 1979, p. 58 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira elegans* Mukhina in Jousé & Mukhina 1978.
- Aulacoseira epidendron* (Ehrenberg) Crawford 1981, p. 190 [ref. 008148]. Basionym: *Stephanosira epidendron* Ehrenberg 1848.
- Aulacoseira excurrens* (Nygaard) Simonsen 1979, p. 58 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira excurrens* Nygaard 1956.
- Aulacoseira fennoscandica* (A. Cleve-Euler) R. Ross in Hartley 1986, p. 606 [ref. 002355]. Basionym: *Melosira fennoscandica* Cleve-Euler 1951.
- Aulacoseira gessneri* (Hustedt) Simonsen 1987, p. 497 [ref. 003164]. Basionym: *Melosira gessneri* Hustedt 1965.
- Aulacoseira goetzeana* (Otto Müller) Simonsen 1979, p. 58 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira goetzeana* Otto Müller 1904.
- Aulacoseira granulata* (Ehrenberg) Simonsen 1979, p. 58 ('*Aulacosira*') [ref. 003160]. Basionym: *Gaillonella granulata* Ehrenberg 1843.
- Aulacoseira granulata* var. *angustissima* (Otto Müller) Simonsen 1979, p. 58 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira granulata* var. *angustissima* Otto Müller 1900.
- Aulacoseira granulata* f. *curvata* (Hustedt) Simonsen 1979, p. 59 (as *Aulacosira granulata* var. *valida* f. *curvata*) [ref. 003160]. Basionym: *Melosira granulata* f. *curvata* Hustedt 1935.
- Aulacoseira granulata* f. *curvata* (Hustedt) Davydova in Gleser, Makarova, Moisseeva & Nikolaev 1992, p. 81; pl. 60, fig. 14-16, 18-20 ('*Aulacosira*') [ref. 006385]. *Invalid*. Unclear what the intended basionym is.
- Aulacoseira granulata* var. *jonensis* (Grunow) Simonsen 1979, p. 58 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira granulata* var. *jonensis* Grunow in Van Heurck 1882.
- Aulacoseira granulata* var. *muzzanensis* (Meister) Simonsen 1979, p. 59 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira muzzanensis* Meister 1912.
- Aulacoseira granulata* f. *spiralis* (Hustedt) Czarnecki & Reinke 1982, p. 174-175 (as *Aulacosira granulata* var. *angustissima* f. *spiralis*) [ref. 008157]. Basionym: *Melosira granulata* f. *spiralis* Hustedt 1930.
- Aulacoseira granulata* var. *valida* (Hustedt) Simonsen 1979, p. 59 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira granulata* var. *valida* Hustedt 1935.
- Aulacoseira gusseviae* Genkal & Korneva in Korneva & Genkal 1996, p. 16; fig. 1-7 [ref. 008450]. [according to ANSP].
- Aulacoseira herzogii* (Lemmermann) Simonsen 1979, p. 59 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira herzogii* Lemmermann 1910.
- Aulacoseira humilis* (Cleve-Euler) Genkal & Trifonova in Trifonova & Genkal 2001, p. 319 [ref. 010097]. Basionym: *Melosira distans* var. *humilis* Cleve-Euler 1939. Place of original publication of basionym (Cleve-Euler 1939, ref. 000250) is not cited; Cleve-Euler 1951, p. 21, fig. 11e-g (ref. 000255) is cited instead; under ICBN 2006-Art. 33.7(a) this error does not render the combination invalid.
- Aulacoseira ikapoensis* (Otto Müller) Simonsen 1979, p. 59 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira ikapoensis* Otto Müller 1904.
- Aulacoseira ikapoensis* var. *minor* Czarnecki & Reinke 1982, p. 175 ('*Aulacosira*') [ref. 008157]. Intended combination of *Melosira ikapoensis* var. *minor* Cholnoky (illegitimate: non O. Müller 1904). Treated as new name.
- Aulacoseira ikapoensis* var. *procera* (Otto Müller) Simonsen 1979, p. 59 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira ikapoensis* var. *procera* Otto Müller 1904.
- Aulacoseira inordinata* (Lohman & Andrews) Simonsen 1979, p. 59 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira inordinata* Lohman & Andrews 1968.
- Aulacoseira interrupta* (Lohman & Andrews) Simonsen 1979, p. 59 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira interrupta* Lohman & Andrews 1968.
- Aulacoseira islandica* (Otto Müller) Simonsen 1979, p. 60 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira islandica* Otto Müller 1906.
- Aulacoseira islandica* f. *curvata* Valeva & Temniskova-Topalova 1993, p. 70-71; pl. 1, fig. 22 [ref. 008918]. *Invalid*. Im-

- proper basionym citation. Based on: *Gaillonella spiralis* Ehrenberg 1845. [according to ANSP].
- Aulacoseira islandica* subsp. *helvetica* (Otto Müller) Simonsen 1979, p. 60 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira islandica* subsp. *helvetica* Otto Müller 1906.
- Aulacoseira italica* (Ehrenberg) Simonsen 1979, p. 60 ('*Aulacosira*') [ref. 003160]. Basionym: *Gaillonella italica* Ehrenberg 1838.
- Aulacoseira italica* var. *bacilligera* (Otto Müller) Gasse 1986, p. 81; pl. 2, fig. 5 ('*Aulacosira*') [ref. 006042]. Basionym: *Melosira italica* var. *bacilligera* Otto Müller 1904.
- Aulacoseira italica* f. *crenulata* (Ehrenberg) R. Ross in Hartley 1986, p. 606 [ref. 002355]. Basionym: *Gaillonella crenulata* Ehrenberg 1843.
- Aulacoseira italica* f. *curvata* (Pantocsek) Davydova in Gleser, Makarova, Moisseeva & Nikolaev 1992, p. 82 ('*Aulacosira*') [ref. 006385]. Basionym: *Melosira crenulata* var. *curvata* Pantocsek 1902.
- Aulacoseira italica* f. *curvata* (Pantocsek) Valeva & Temniskova-Topalova 1993, p. 71; pl. 1, fig. 26-27 [ref. 008918]. Basionym: *Melosira crenulata* var. *curvata* Pantocsek 1902. Isonym: see Davydova in Gleser, Makarova, Moisseeva & Nikolaev 1992. [according to ANSP].
- Aulacoseira italica* var. *semilaevis* (Grunow) Valeva & Temniskova-Topalova 1993, p. 71; pl. 2, fig. 3 [ref. 008918]. Basionym: *Melosira semilaevis* Grunow in Van Heurck 1882. [according to ANSP].
- Aulacoseira italica* subsp. *subarctica* (Otto Müller) Simonsen 1979, p. 60 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira italica* subsp. *subarctica* Otto Müller 1906.
- Aulacoseira italica* var. *subarctica* (Otto Müller) Davydova in Gleser, Makarova, Moisseeva & Nikolaev 1992, p. 82-83; pl. 61, fig. 19-20 ('*Aulacosira*') [ref. 006385]. Basionym: *Melosira italica* subsp. *subarctica* Otto Müller 1906.
- Aulacoseira italica* var. *tenuissima* (Grunow) Simonsen 1979, p. 60 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira tenuissima* Grunow in Van Heurck 1882.
- Aulacoseira italica* var. *valida* (Grunow) Simonsen 1979, p. 60 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira italica* var. *valida* Grunow.
- Aulacoseira jeremiae* (Grunow) V. Houk, R. Klee & U. Passauer 2007, p. 67 [ref. 012912]. Basionym: *Melosira granulata* var. *jeremiae* Grunow in Van Heurck 1882.
- Aulacoseira jouseana* (Moiseeva) Moiseeva 1986, p. 71 [ref. 008603]. Basionym: *Melosira jouseana* Moiseeva 1971. [according to ANSP].
- Aulacoseira karelica* (Mölder) Simonsen 1979, p. 60 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira karelica* Mölder 1951.
- Aulacoseira kondeensis* (Otto Müller) Simonsen 1979, p. 61 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira kondeensis* Otto Müller 1904.
- Aulacoseira krammeri* R.K. Edgar, J.P. Kociolek & S.M. Edgar 2004, p. 13; fig. 1, 7-45 [ref. 012594].
- Aulacoseira lacustris* (Grunow in Van Heurck) Krammer 1991, p. 98 [ref. 006893]. Basionym: *Melosira lyrata* var. *lacustris* Grunow in Van Heurck 1882.
- Aulacoseira lacustris* f. *tenuior* (Grunow) V. Houk, R. Klee & U. Passauer 2007, p. 71 [ref. 012912]. Basionym: *Melosira lyrata* f. *tenuior* (*tenuiores*) Grunow in Van Heurck 1882. Error in citation of place of publication of basionym: "Pl. 86, Fig. 4-5" cited in error, should have been "pl. 87, fig. 4-5".
- Aulacoseira laevisima* (Grunow in Van Heurck) Krammer 1991, p. 98 [ref. 006893]. Basionym: *Melosira laevisima* Grunow in Van Heurck 1882.
- Aulacoseira lirata* (Ehrenberg) R. Ross in Hartley 1986, p. 606-607 [ref. 002355]. Basionym: *Gaillonella lirata* Ehrenberg 1843.
- Aulacoseira lirata* var. *alpigena* (Grunow) Haworth 1990, p. 195 [ref. 008332]. Basionym: *Melosira distans* var. *alpigena* Grunow in Van Heurck 1882. Combination previously invalidly published in Haworth 1988, p. 141 (ref. 008331).
- Aulacoseira lirata* var. *lacustris* (Grunow in Van Heurck) R. Ross in Hartley 1986, p. 607 [ref. 002355]. Basionym: *Melosira lyrata* var. *lacustris* Grunow in Van Heurck 1882.
- Aulacoseira lirata* var. *perglabra* (Østrup) R. Ross in Hartley 1986, p. 607 [ref. 002355]. Basionym: *Melosira perglabra* Østrup 1910.
- Aulacoseira lirata* var. *seriata* (Otto Müller) Vyverman 1991, p. 46-47; pl. 163, fig. B [ref. 006268]. Basionym: *Melosira lirata* var. *seriata* Otto Müller 1898. *Invalid*. Place of publication of basionym not cited.
- Aulacoseira longispina* (Hustedt) Simonsen 1979, p. 61 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira longispina* Hustedt in Huber-Pestalozzi 1942.
- Aulacoseira longispina* var. *tenuis* (Hustedt) Simonsen 1979, p. 61 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira longispina* var. *tenuis* Hustedt in Huber-Pestalozzi 1942.
- Aulacoseira magnusii* (Otto Müller) Simonsen 1979, p. 61 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira magnusii* Otto Müller 1904.
- Aulacoseira mbasiensis* (Otto Müller) Simonsen 1979, p. 61 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira mbasiensis* Otto Müller 1904.

- Aulacoseira mexicana* 'Grunow' Simonsen 1979, p. 61 ('*Aulacosira*') [ref. 003160]. *Invalid*. Intended combination of *Melosira mexicana* Grunow in Cleve & Möller 1878, no. 130 (ref. 001076) (*invalid*).
- Aulacoseira muzzanensis* (Meister) Krammer 1991, p. 98 [ref. 006893]. Basionym: *Melosira muzzanensis* Meister 1912.
- Aulacoseira nipponica* (Skvortzow) A. Tuji 2002, p. 315 [ref. 012664]. Basionym: *Melosira solida* var. *nipponica* Skvortzow 1936. [according to INA].
- Aulacoseira nyassensis* (Otto Müller) Simonsen 1979, p. 61 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira nyassensis* Otto Müller 1903.
- Aulacoseira nyassensis* var. *victoriae* (Otto Müller) Simonsen 1979, p. 61 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira nyassensis* var. *victoriae* Otto Müller in Ostenfeld 1908.
- Aulacoseira nygaardii* (Camburn) Camburn & Charles 2000, p. 14 [ref. 009549]. Basionym: *Melosira nygaardii* Camburn in Camburn & Kingston 1986.
- Aulacoseira papilio* (Mukhina in Jousé & Mukhina) Simonsen 1979, p. 62 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira papilio* Mukhina in Jousé & Mukhina 1978.
- Aulacoseira patagonica* (Otto Müller) Simonsen 1979, p. 62 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira lineolata* var. *patagonica* Otto Müller 1909.
- Aulacoseira paucistriata* J.P. Bradbury 1991, p. 240; pl. 1, fig. 1-6 [ref. 000040].
- Aulacoseira pella* (Lohman & Andrews) Simonsen 1979, p. 62 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira pella* Lohman & Andrews 1968.
- Aulacoseira penzhica* Lupikina & Dolmatova 1985, p. 121-122; pl. 11, fig. 1-4 [ref. 008522]. [according to ANSP].
- Aulacoseira perglabra* (Østrup) Haworth 1990, p. 195 [ref. 008332]. Basionym: *Melosira perglabra* Østrup 1910. Combination previously invalidly published in Haworth 1988, p. 143 (ref. 008331).
- Aulacoseira perglabra* var. *florinae* (Camburn) Haworth 1990, p. 195 [ref. 008332]. Basionym: *Melosira perglabra* var. *florinae* Camburn in Smol 1986.
- Aulacoseira pfaffiana* (Reinsch) Krammer 1991, p. 94; fig. 45-54 [ref. 006893]. Basionym: *Melosira pfaffiana* Reinsch 1866.
- Aulacoseira praegrnulata* (Jousé) Simonsen 1979, p. 62 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira praegrnulata* Jousé 1952.
- Aulacoseira praegrnulata* f. *curvata* (Jousé) Simonsen 1979, p. 62 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira praegrnulata* f. *curvata* Jousé 1952.
- Aulacoseira praegrnulata* f. *curvata* (Jousé) Moisseeva in Gleser, Makarova, Moisseeva & Nikolaev 1992, p. 85; pl. 64, fig. 8-9 (as *Aulacosira praegrnulata* var. *praeangustissima* f. *curvata*) [ref. 006385]. Basionym: *Melosira praegrnulata* f. *curvata* Jousé 1952. Not a new combination (see Simonsen 1979), but a taxonomic opinion.
- Aulacoseira praegrnulata* f. *curvata* (Jousé) Moisseeva in Gleser, Makarova, Moisseeva & Nikolaev 1992, p. 85; pl. 65, fig. 11-15 (as *Aulacosira praegrnulata* var. *praeislandica* f. *curvata*) [ref. 006385]. Basionym: *Melosira praeislandica* f. *curvata* Jousé 1952. Not a new combination (see Simonsen 1979), but a taxonomic opinion.
- Aulacoseira praegrnulata* var. *praeangustissima* (Jousé) Moisseeva in Gleser, Makarova, Moisseeva & Nikolaev 1992, p. 84; pl. 64, fig. 1-7 ('*Aulacosira*') [ref. 006385]. Basionym: *Melosira praegrnulata* var. *praeangustissima* Jousé 1952. *Invalid*. Basionym *invalid*. Intended new combination of *Melosira praegrnulata* var. *praeangustissima* Jousé 1952 (*invalid*). Not valid either as the name of a new taxon (no English or Latin diagnosis, no type).
- Aulacoseira praegrnulata* var. *praeislandica* (Jousé) Moisseeva in Gleser, Makarova, Moisseeva & Nikolaev 1992, p. 85; pl. 63, fig. 9-13, pl. 64, fig. 10-28, pl. 65, fig. 1-10 ('*Aulacosira*') [ref. 006385]. Basionym: *Melosira praeislandica* Jousé 1952.
- Aulacoseira praeislandica* (Jousé) Simonsen 1979, p. 62 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira praeislandica* Jousé 1952.
- Aulacoseira pseudogranulata* (Cleve-Euler) Simonsen 1979, p. 62 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira pseudogranulata* Cleve-Euler 1948.
- Aulacoseira pseudoislandica* E.G. Lupikina & S.P. Ozornina 1992, p. 103; pls. 1-3 ('*Aulacosira*') [ref. 011654]. [according to INA].
- Aulacoseira pusilla* (Meister) A. Tuji & A. Houki 2004, p. 38 [ref. 012948]. Basionym: *Melosira pusilla* Meister 1913.
- Aulacoseira pyxis* (Otto Müller) Simonsen 1979, p. 62 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira pyxis* Otto Müller 1904.
- Aulacoseira rdeiskoensis* M.S. Kulikovskiy 2007, p. 19, 20, 21 [ref. 013108]. *Invalid*. Nomen nudum.
- Aulacoseira robusta* Khursevich 1994, p. 270-271; fig. 11-13 ('*Aulacosira*') [ref. 008404].
- Aulacoseira scalaris* (Grunow) V. Houk, R. Klee & U. Passauer 2007, p. 63 [ref. 012912]. Basionym: *Melosira scalaris* Grunow in Van Heurck 1882.
- Aulacoseira skvortzowii* Edlund, Stoermer & Taylor 1996, p. 166; fig. 1-17 [ref. 008186].
- Aulacoseira solida* (Eulenstein in Van Heurck) K. Krammer 1991, p. 98 [ref. 006893]. Basionym: *Melosira solida* Eulenstein in Grunow in Van Heurck 1882.



- Aulacoseira solida* var. *haitiensis* (Grunow) V. Houk, R. Klee & U. Passauer 2007, p. 63 ('*haitiensis*') [ref. 012912]. Basionym: *Melosira solida* var. *haitiensis* Grunow in Van Heurck 1882.
- Aulacoseira sphaerica* (Héribaude) Loseva 1982, p. 53; pl. 4, fig. 1-3, pl. 7, fig. 2, 3 [ref. 006904]. Basionym: *Melosira sphaerica* Héribaude 1903.
- Aulacoseira subarctica* (Otto Müller) Haworth 1990, p. 195 [ref. 008332]. Basionym: *Melosira italica* subsp. *subarctica* Otto Müller 1906. Combination previously invalidly published in Haworth 1988, p. 143 (ref. 008331).
- Aulacoseira subarctica* var. *longispina* (Hustedt) A. Tuji & A. Houki 2004, p. 38-39 [ref. 012948]. Basionym: *Melosira longispina* Hustedt in Huber-Pestalozzi 1942.
- Aulacoseira subarctica* f. *recta* (Otto Müller) K. Krammer in Krammer & Lange-Bertalot 1991, p. 28 [ref. 006521]. Basionym: *Melosira italica* f. *recta* Otto Müller 1906. *Invalid*. Place of publication of basionym not cited.
- Aulacoseira subarctica* f. *subborealis* (Nygaard) Haworth 1990, p. 95 [ref. 008332]. Basionym: *Melosira italica* var. *subborealis* Nygaard 1956. Combination previously invalidly published in Haworth 1988, p. 144 (ref. 008331).
- Aulacoseira subarctica* var. *tenuis* (Hustedt) A. Tuji & A. Houki 2004, p. 39 [ref. 012948]. Basionym: *Melosira longispina* var. *tenuis* Hustedt in Huber-Pestalozzi 1942. Error (typo) in citation of page of publication of basionym (339, instead of 389); but does not invalidate the new combination.
- Aulacoseira subborealis* (Nygaard) L. Denys, K. Muylaert & K. Krammer 2003, p. 410 [ref. 011787]. Basionym: *Melosira italica* var. *subborealis* Nygaard 1956.
- Aulacoseira tenella* (Nygaard) Simonsen 1979, p. 63 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira tenella* Nygaard 1956.
- Aulacoseira tenuior* (Grunow) K. Krammer 1991, p. 96; fig. 83-91 [ref. 006893]. Basionym: *Melosira lyrata* f. *tenuior* (*tenuiores*) Grunow in Van Heurck 1882. *Invalid*. Intended as a new combination of *Melosira lyrata* "*formae tenuiores*" Grunow in Van Heurck, but invalid because basionym is invalid ("*formae tenuiores*" is descriptive). Invalid also as the name of a new taxon because there is no Latin diagnosis.
- Aulacoseira tenuis* (Hustedt) H. Kobayasi in Mayama, S., Idei, M., Osada, K. & Nagumo, T. 2002, p. 89 [ref. 012558]. Basionym: *Melosira longispina* var. *tenuis* Hustedt in Huber-Pestalozzi 1942. Basionym is incorrectly cited "*Melosira longipes* var. *tenuis*", but its place of publication with page and plate are correctly cited. We consider this combination valid.
- Aulacoseira tethera* Haworth 1988, p. 142; fig. 28-35 [ref. 008331]. *Invalid*. No type indicated. Name validated by Haworth 1990, p. 195 (ref. 008332).
- Aulacoseira tethera* Haworth 1990, p. 195 [ref. 008332]. Latin diagnosis and illustration cited from Haworth 1988, p. 142; fig. 28-35 (ref. 008331).
- Aulacoseira uzonica* Genkal & Lupikina 1998, p. 109; pl. 4, fig. 1-6 ('*Aulacosira*') [ref. 008038]. [according to ANSP].
- Aulacoseira valida* (Grunow in Van Heurck) K. Krammer 1991, p. 98 [ref. 006893]. Basionym: *Melosira crenulata* var. *valida* Grunow in Van Heurck 1882.
- Aulacoseira vitrea* (Lohman & Andrews) Simonsen 1979, p. 63 ('*Aulacosira*') [ref. 003160]. Basionym: *Melosira vitrea* Lohman & Andrews 1968.
- Aulacoseira volgensis* Genkal 1999, p. 44-45; pl. 2, fig. 7-12 ('*Aulacosira*') [ref. 008980]. [according to ANSP].

***AULISCUS* C.G. Ehrenberg 1843, p. 270 [ref. 001182]**

T: *Auliscus cylindricus* C.G. Ehrenberg 1843

Type by monotypy. The choice of *A. americanus* Ehrenberg 1854 as the type by Boyer 1927 (ref. 000155), p. 89, is untenable because that species is not part of the species originally included in the genus by Ehrenberg 1843.

- Auliscus accedens* Rattray 1888, p. 871 [ref. 000780]. Cites illustration in Schmidt's Atlas 1888, pl. 125, fig. 6 (figure without name) (ref. 012464).
- Auliscus actinoptuchoides* Gleser in Gleser & Posnova 1964, p. 64; pl. 3, fig. 1-2 [ref. 002028].
- Auliscus acutiusculus* Rattray 1888, p. 882; pl. 14, fig. 1 [ref. 000780].
- Auliscus aenigmus* Hanna 1927, p. 15; pl. 1, fig. 8 [ref. 000010].
- Auliscus africanus* Leuduger-Fortmorel 1898, p. 16; pl. 3, fig. 12 [ref. 000608].
- Auliscus albidus* Brun in Schmidt et al. 1892, pl. 171, fig. 3, 4 [ref. 012470].
- Auliscus albidus* var. *baccata* Brun in Schmidt et al. 1892, pl. 171, fig. 5 [ref. 012470].
- Auliscus alienus* VanLandingham 1967, p. 376 [ref. 006293]. New name for *Pseudauliscus schmidtii* Pantocsek 1886 (priority for *Auliscus schmidtii* Gründler 1875).
- Auliscus alienus* var. *tetramera* (Forti ex Laporte & Lefébure) VanLandingham 1967, p. 376 ('*tetrameri*') [ref. 006293]. Basionym: *Pseudauliscus schmidtii* var. *tetrameri* Forti ex Laporte & Lefébure 1930. *Invalid*. Basionym invalid. Intended new combination.
- Auliscus ambiguus* Greville 1863, p. 74; pl. 5, fig. 23 [ref. 000978].

- Auliscus ambiguus* var. *major* 'Ratray' Mills 1933, p. 241 [ref. 006140]. *Invalid*. Combination not accepted by Mills (lower case print). Not a valid new combination of *Pseudoauliscus ambiguus* var. *major* Ratray 1888.
- Auliscus ambiguus* var. *multiclava* Brun in Brun & Tempère 1889, p. 22; pl. 2, fig. 13 [ref. 000185].
- Auliscus americanus* Ehrenberg 1854, p. 8; pl. 33/14, fig. 2 [ref. 000966].
- Auliscus amoenus* Ratray 1888, p. 871; pl. 12, fig. 1 [ref. 000780].
- Auliscus antiquus* Ratray 1888, p. 876; pl. 13, fig. 4 [ref. 000780].
- Auliscus apedatus* Ratray 1889, p. 40; pl. 4, fig. 2 [ref. 000782].
- Auliscus apellatus* 'Ratray' according to Deby 1891, p. 184 [ref. 003755]. *Invalid*. Citation error (typographical error) for *Auliscus apedatus* Ratray 1888.
- Auliscus asiaticus* Brun in Brun & Tempère 1889, p. 22; pl. 2, fig. 4 [ref. 000185].
- Auliscus aucklandicus* (Grunow) Chase 1885, p. 58 [ref. 001049]. Basionym: *Auliscus caelatus* var. *aucklandica* Grunow in A. Schmidt et al. 1881. Citation error for *Auliscus caelatus* var. *aucklandica* Grunow in A. Schmidt et al. 1881.
- Auliscus australiensis* Greville 1865, p. 233; pl. 3, fig. 3 [ref. 001030].
- Auliscus baileyi* Greville 1863, p. 49 [ref. 000413]. *Invalid*. Nom. prov. Provisional name for taxon questionably identified by Greville as *Auliscus radiatus* Bailey.
- Auliscus barbadensis* Greville 1865, p. 5; pl. 1, fig. 1 [ref. 000420].
- Auliscus barbadensis* Deby 1891, p. 184 [ref. 003755]. Non Greville 1865? In addition to listing *Auliscus barbadensis* Greville 1865, Deby lists *Auliscus barbadensis* (no author) and states that it is synonymous with *Auliscus ralfsianus* Greville 1863.
- Auliscus barbadensis* (Greville) Schütt 1896, p. 81; fig. 128 [ref. 001512]. Basionym: *Fenestrella barbadensis* Greville 1863. *Illegitimate*. Non *Auliscus barbadensis* Greville 1865.
- Auliscus biddulphia* Kitton in Schmidt et al. 1881, pl. 67, fig. 3 [ref. 012454].
- Auliscus biddulphia* var. *dentata* Ratray 1888, p. 879 [ref. 000780]. No figure in Ratray, but Ratray cites illustration in Schmidt's Atlas: pl. 89, fig. 3. 1886 ("A. *Biddulphia* var.? Grun.") (ref. 0012458).
- Auliscus biddulphia* var. *prominens* Ratray 1888, p. 879 [ref. 000780]. No figure in Ratray, but Ratray cites illustration in A. Schmidt's Atlas: pl. 89, fig. 2. 1886 (ref. 0012458).
- Auliscus bonus* Hanna 1932, p. 176; pl. 5, fig. 4, 5 [ref. 000014].
- Auliscus bourgognei* Bergon in Brun, Bergon, Deby & Tempère 1891, p. 69; pl. 11, fig. 2 [ref. 001938].
- Auliscus bubo* Long, Fuge & Smith 1946, p. 99; pl. 14, fig. 14 [ref. 000616].
- Auliscus caballi* Schmidt in Schmidt et al. 1875, pl. 32; pl. 1, 2 [ref. 012448].
- Auliscus caelatus* J.W. Bailey 1854, p. 6; fig. 3, 4 [ref. 000122].
- Auliscus caelatus* var. *aucklandica* Grunow in A. Schmidt et al. 1881, pl. 67, fig. 13 [ref. 012454].
- Auliscus caelatus* var. *constricta* Ratray 1888, p. 887; pl. 15, fig. 8 [ref. 000780].
- Auliscus caelatus* var. *delicatula* Ratray 1888, p. 886; pl. 15, fig. 5 [ref. 000780].
- Auliscus caelatus* var. *dissolutus* Halden ex Cleve-Euler 1951, p. 84; fig. 151 b-e (as *Auliscus caelatus*  $\beta$  *dissolutus*) [ref. 000255]. Rank implied, not clearly indicated.
- Auliscus caelatus* var. *gigas* (Ehrenberg) Walker & Chase 1886, p. 4; pl. 2, fig. 12 [ref. 000904]. Basionym: *Auliscus gigas* Ehrenberg 1844.
- Auliscus caelatus* var. *gigas* sensu Walker & Chase 1886, p. 4; pl. 2, fig. 12 [ref. 000904]. Not intended by Walker & Chase as a new taxon ("Ehrenberg" cited). Not *Auliscus gigas* Ehrenberg according to Mills 1933, p. 243 (ref. 006140).
- Auliscus caelatus* var. *gigas* Peragallo & Peragallo 1902, p. 400; pl. 108, fig. 4 (as [*Aul. caelatus*] var. *gigas* Ehr.?? in text) [ref. 001057].
- Auliscus caelatus* var. *impressa* Ratray 1888, p. 887; pl. 15, fig. 9 [ref. 000780]. Ratray cites illustration in Leuduger-Fortmorel 1879 (ref. 000606): "*A. sculptus* var., Leud.-Fort. Diat. Ceyl., pl. 7, fig. 67".
- Auliscus caelatus* var. *latecostata* Schmidt in Schmidt et al. 1875, pl. 32, fig. 16-20 [ref. 012448].
- Auliscus caelatus* var. *latecostata* H. Peragallo in H. Peragallo & M. Peragallo 1911, p. 5; pl. 2, fig. 7 [ref. 000734]. *Illegitimate*. Non A. Schmidt 1875.
- Auliscus caelatus* f. *major* Schmidt in Schmidt et al. 1881, pl. 67, fig. 11 [ref. 012454]. *Invalid*. Invalid (pro syn. *Auliscus gigas* Ehrenberg). See *Auliscus caelatus* var. *major* Ratray 1888.
- Auliscus caelatus* var. *major* A. Schmidt ex Ratray 1888, p. 887 [ref. 000780]. *Illegitimate*. Citation error pro *Auliscus caelatus* f. *major* A. Schmidt 1881 (invalid). Ratray's name is valid, however, but illegitimate because *Auliscus sculptus* (W. Smith) Brightwell var. *permagnus* ('*permagna*') Witt 1888 is cited pro syn.
- Auliscus caelatus* var. *major* 'A. Schmidt' De Toni 1894, p. 1051 [ref. 000951]. *Illegitimate*. Err. cit. pro *A. caelatus* f. *major* Schmidt 1881 (invalid). "*Auliscus sculptus* var. *permagna* Witt in Schmidt pl. 117, fig. 4 (nec 5-7)" cited as synonym.
- Auliscus caelatus* var. *marmoratus* Jurilj 1957, p. 33-34; pl. 6, fig. 2 [ref. 000553].
- Auliscus caelatus* var. *mergens* Ratray 1888, p. 887 [ref. 000780]. No figure in Ratray, but Ratray cites illustration in A. Schmidt's Atlas (*A. caelatus* var.): pl. 32, fig. 12, 13, 23. 1875 (ref. 012448).
- Auliscus caelatus* var. *mutabilis* Ratray 1888, p. 888; pl. 15, fig. 6 [ref. 000780].

- Auliscus caelatus* var. *nankooensis* Desikachary & Ranjitha Devi in Desikachary 1986, p. 4; pl. 22, fig. 3 [ref. 006017].
- Auliscus caelatus* var. *nova* H. Peragallo in H. Peragallo & M. Peragallo 1911, p. 5; pl. 2, fig. 7 [ref. 000734]. *Invalid*. According to VanLandingham 1967, p. 380 (ref. 006293). Citation error for *Auliscus caelatus* var. *latecostata* H. Peragallo in H. Peragallo & M. Peragallo 1911. In H. Peragallo in H. Peragallo & M. Peragallo 1911 as “*Auliscus caelatus* var. *latecostata* an var. *nova*”. Not intended as new varietal name. *Auliscus caelatus* var. *latecostata* is validly published but illegitimate.
- Auliscus caelatus* var. *permagna* ‘Witt in Schmidt et al.’ according to Mills 1933, p. 243 [ref. 006140]. *Invalid*. Citation error for *Auliscus sculptus* var. *permagna* Witt in Schmidt et al. 1888, pl. 117, fig. 4 (ref. 012463). Not accepted by Mills (lower case print).
- Auliscus caelatus* var. *picta* Rattray 1888, p. 887; pl. 15, fig. 7 [ref. 000780].
- Auliscus caelatus* var. *protuberans* Rattray 1888, p. 888; pl. 16, fig. 6 [ref. 000780].
- Auliscus caelatus* f. *quadriocellata* Grunow in Rattray 1888, p. 895 [ref. 000780]. *Invalid*. In syn. *Auliscus opulentus* Rattray. Rattray remarks: “This form (*A. opulentus*) has been united by Grunow with *A. caelatus* as forma *quadriocellata*, but it bears little affinity with this species.” No literature reference cited.
- Auliscus caelatus* var. *rhipis* (Schmidt in Schmidt et al.) Peragallo & Peragallo 1902, pl. 109, fig. 2-5 (‘*coelatus*’) [ref. 001057]. Basionym: *Auliscus rhipis* Schmidt in Schmidt et al. 1875. As “*Auliscus (coelatus* var.) *rhipis* A. S.” in Text, on p. 401. As “*Auliscus coelatus* var. *rhipis* A. S.” on plate caption.
- Auliscus caelatus* var. *strigillata* Schmidt in Schmidt et al. 1875, pl. 32, fig. 24-26 [ref. 012448].
- Auliscus caelatus* var. *tenuis* Rattray 1888, p. 888; pl. 16, fig. 3 [ref. 000780].
- Auliscus caelatus* f. *triocellata* Pantocsek 1886, p. 56; pl. 28, fig. 279 (as *Auliscus caelatus* forma *triocellata*) [ref. 000714].
- Auliscus caelatus* var. *tripodiscus* ‘Brockmann’ Mills 1933, p. 243 [ref. 006140]. *Invalid*. Err. cit. pro. *A. sculptus* var. *tripodiscus* Brockmann 1914. Combination not accepted by Mills (lower case print).
- Auliscus caelatus* f. *trypodiscus* (Brockmann) Cleve-Euler 1951, p. 84; fig. 151 e (as *Auliscus caelatus*  $\beta$  *dissolutus* f. *trypodiscus*) [ref. 000255]. Basionym: *Auliscus sculptus* var. *tripodiscus* Brockmann 1914.
- Auliscus caelatus* var. *typicus* Cleve-Euler 1951, p. 84; fig. 151 (as *Auliscus caelatus*  $\alpha$  *typicus*) [ref. 000255]. Cleve-Euler seems to be excluding the type of *Auliscus caelatus* Bailey (?) Rank implied, not clearly indicated.
- Auliscus californicus* Brun in Schmidt et al. 1892, pl. 171, fig. 8, 9 [ref. 012470].
- Auliscus caribaeus* Cleve ex Schmidt in Schmidt et al. 1881, pl. 67, fig. 9, 10 [ref. 012454].
- Auliscus cellulatus* Greville ms, Rattray 1888, p. 904 [ref. 000780]. *Invalid*. In syn. *Pseudauliscus ralfsianus* (Grev.) Rattray 1888.
- Auliscus clevei* Grunow in Schmidt et al. 1875, pl. 31, fig. 1-4 [ref. 012448]. First published in A. Schmidt 1874, fig. 2 (ref. 012527).
- Auliscus coincidens* Schmidt in Schmidt et al. 1892, pl. 171, fig. 1 [ref. 012470].
- Auliscus compactus* Hustedt in Schmidt et al. 1944, pl. 453, fig. 32-33 [ref. 012526]. *Invalid*. No description. Validated by Simonsen 1987.
- Auliscus compactus* Hustedt ex Simonsen 1987, p. 323 [ref. 003164]. Previously invalidly published by Hustedt in Schmidt et al. 1944, pl. 453, fig. 32-33 (ref. 0012526).
- Auliscus compositus* A. Schmidt in Schmidt et al. 1875, pl. 30, fig. 9 [ref. 012448].
- Auliscus confluens* Grunow in Schmidt et al. 1874, fig. 1 [ref. 012527]. Also in A. Schmidt 1875, pl. 31, fig. 16, pl. 32, fig. 6-8 (ref. 012448).
- Auliscus confluens* Grunow in Schmidt et al. 1875, pl. 31, fig. 16, pl. 32, fig. 6-8 [ref. 012448]. First published in Schmidt 1874, fig. 1 (ref. 012527).
- Auliscus confluens* var. *hauckii* Pantocsek 1886, p. 56; pl. 30, fig. 304 (as *Auliscus (confluens* Grun. var.?) *Hauckii* nov. spec. in text and expl. fig.) [ref. 000714]. *Invalid*. Invalid as a trinomial, valid as *Auliscus hauckii* Pantocsek 1886.
- Auliscus constellatus* L.G. Mills 1881, p. 867; pl. 11, fig. 2, 3 [ref. 000661]. [according to VLC].
- Auliscus convolutus* Rattray 1888, p. 874; pl. 15, fig. 2 [ref. 000780].
- Auliscus convolutus* Grove in Schmidt 1892, pl. 171; fig. 6 [ref. 012470]. *Illegitimate*. Non Rattray 1888.
- Auliscus craterifer* Brun 1896, p. 234; pl. 24, fig. 2, 3 (as *Auliscus (Johnsonianus* Grev.) var. *craterifer*) [ref. 000183]. Alternate name for *Auliscus johnsonianus* var. *craterifer* Brun: “J’ai regardé cette forme comme étant une variété de l’*Auliscus* de Greville, mais elle peut aussi être considérée comme une espèce distincte”.
- Auliscus craterifer* (Brun) Tempère & Peragallo 1912, p. 342; No. 701-726 [ref. 001068]. Basionym: *Auliscus johnsonianus* var. *craterifer* Brun 1896. Isonym: see *Auliscus craterifer* Brun 1896 (valid alternate name for *Auliscus johnsonianus* var. *craterifer* Brun 1896).
- Auliscus crystallinus* Brun in Brun & Tempère 1889, p. 23; pl. 2, fig. 1 [ref. 000185].
- Auliscus curvatoradiosus* Brun 1895, pl. 15, fig. 42 [ref. 000181]. Diagnosis in expl. fig.
- Auliscus cylindricus* Ehrenberg 1844, p. 271 [ref. 001182].
- Auliscus dayii* Ross 1937, p. 18-19; fig. 4 [ref. 000795].
- Auliscus debyi* (Leuduger-Fortmorel) VanLandingham 1967, p. 383 [ref. 006293]. Basionym: *Pseudauliscus debyi*

- Leuduger-Fortmorel 1879. Deliberate new combination.
- Auliscus decoratus* Rattray 1888, p. 876; pl. 12, fig. 6 [ref. 000780].
- Auliscus decoratus* var. *affinis* Rattray 1888, p. 876; pl. 16, fig. 1 [ref. 000780].
- Auliscus diffusus* (Rattray) VanLandingham 1967, p. 383 [ref. 006293]. Basionym: *Pseudauliscus diffusus* Rattray 1888. Deliberate new combination.
- Auliscus dilectus* Long, Fuge & Smith 1946, p. 99; pl. 15, fig. 14 [ref. 000616].
- Auliscus dissimilis* Rattray 1888, p. 875; pl. 14, fig. 6 [ref. 000780].
- Auliscus dubius* 'Tempère in collections?' according to Mills 1933, p. 244 [ref. 006140].
- Auliscus elaboratus* Rafals in Greville 1863, p. 51; pl. 3, fig. 19 [ref. 000413].
- Auliscus elaboratus* f. *minor* Brun 1896, p. 233 [ref. 000183]. New name for *Auliscus parvulus* Greville 1863: "L'*Aul. parvulus* (Grev. M.J. 5, fig. 22) est, à mon avis la *forma minor* de cette espèce".
- Auliscus elaboratus* var. *tetraspadix* Brun 1896, p. 233; pl. 24, fig. 4 [ref. 000183].
- Auliscus elegans* Greville 1863, p. 45; pl. 2, fig. 8 [ref. 000413].
- Auliscus elegans* var. *californica* (Grunow in Schmidt et al.) Rattray 1888, p. 872 [ref. 000780]. Basionym: *Auliscus grunovii* var. *californica* Grunow in Schmidt et al. 1886.
- Auliscus elegans* var. *coloradica* H. Peragallo in Tempère & Peragallo 1909, p. 116; No. 213-214 [ref. 001065]. *Invalid.* Nomen nudum.
- Auliscus elegans* var. *flammula* (Tempère & Brun in Brun & Tempère) De Toni 1894, p. 872 [ref. 000951]. Basionym: *Auliscus grunovii* var. *flammula* Tempère & Brun in Brun & Tempère 1889.
- Auliscus elegans* var. *grunovii* (Schmidt in Schmidt et al.) Rattray 1888, p. 872 [ref. 000780]. Basionym: *Auliscus grunovii* Schmidt in Schmidt et al. 1875.
- Auliscus elegans* var. *pantocseckii* Forti 1913, p. 1595 (61); pl. 6, fig. 6 [ref. 000342]. Valid name for *Auliscus grunovii* var. *pantocseckii* Forti in Tempère & Peragallo 1909 (nomen nudum).
- Auliscus elegans* var. *subpunctata* Rattray 1888, p. 873; pl. 16, fig. 2 [ref. 000780].
- Auliscus ellipticus* Schmidt in Schmidt et al. 1890, pl. 149; fig. 4 [ref. 012467].
- Auliscus exceptus* Leuduger-Fortmorel 1898, p. 41; pl. 8, fig. 20 [ref. 000608].
- Auliscus eximius* Rattray 1888, p. 876; pl. 14, fig. 2 [ref. 000780]. In text misprinted pl. 13.
- Auliscus expectus* 'Leuduger-Fortmorel' Mills 1933, p. 245 [ref. 006140]. *Invalid.* Typographical error in Mills for *Auliscus exceptus* Leuduger-Fortmorel 1898.
- Auliscus febigerii* Cleve ms, Rattray 1888, p. 904 [ref. 000780]. *Invalid.* In syn. *Pseudauliscus spinosus* (Christian) Rattray 1888, p. 904 (ref. 000780).
- Auliscus fenestratus* Grove & Sturt 1887, p. 10; pl. 3, fig. 12 [ref. 000448].
- Auliscus fenestratus* sensu A. Schmidt 1888, pl. 125; fig. 10 [ref. 012464]. Designation [*Auliscus fenestratus* A.S.] is from Mills 1933, p. 245 (ref. 006140). Schmidt's illustration is unnamed. Valid synonym: *Pseudauliscus diffusus* Rattray 1888, p. 907 (ref. 000780).
- Auliscus fenestratus* sensu A. Schmidt 1888, pl. 125; fig. 11 [ref. 012464]. Valid synonym: *A. lunatus* Grove & Sturt ex Rattray 1888, p. 874 (ref. 000780).
- Auliscus floridanus* Boyer 1920, p. 67; pl. 2, fig. 3 [ref. 000153].
- Auliscus formosus* Leuduger-Fortmorel 1879, p. 63; pl. 7, fig. 71 [ref. 000606].
- Auliscus fractus* Grove & Kitton in litt. ex Rattray 1888, p. 888; pl. 14, fig. 5 [ref. 000780].
- Auliscus freultii* 'Leuduger-Fortmorel' according to Mills 1933, p. 246 [ref. 006140]. Mills notes: "Found in Thum's Type Slides?" No reference.
- Auliscus fulcratus* Schmidt in Schmidt et al. 1890, pl. 149, fig. 2, 3 [ref. 012467].
- Auliscus fulvus* (W. Smith) Rabenhorst 1864, p. 320 [ref. 000775]. Basionym: *Eupodiscus fulvus* W. Smith 1853.
- Auliscus gigas* Ehrenberg 1844, p. 77 [ref. 002694]. Illustrated in Ehrenberg 1854, pl. 19, fig. 63 (ref. 000966). Nomenclatural synonym: *Coscinodiscus auliscus* Kützing 1849.
- Auliscus gigas* sensu Grunow in Schmidt et al. 1888, pl. 117, fig. 5-7 [ref. 012463]. Named *Auliscus splendidus* by Rattray 1888 (ref. 000780).
- Auliscus gigas* sensu Grunow in Schmidt et al. 1888, pl. 117, fig. 4 [ref. 012463]. Not Ehrenberg 1844 according to VanLandingham 1967, p. 386 (ref. 006293).
- Auliscus gleser* Hajós 1976, p. 827; pl. 8, fig. 3-5 [ref. 002385]. '*gleseri*' in legend on p. 848.
- Auliscus gracillimus* Rattray 1888, p. 875; pl. 13, fig. 6 [ref. 000780].
- Auliscus granulatus* 'J.W. Bailey ms' Habirshaw 1881, p. 55 [ref. 001048]. *Invalid?* Nomen nudum according to De Toni 1894, p. 1063 (ref. 000951).
- Auliscus gregorii* Janisch 1861, p. 163; pl. 2, fig. 12 [ref. 000539].
- Auliscus grevillei* Janisch 1861, p. 163; pl. 2, fig. 11 ('*grevillii*') [ref. 000539].
- Auliscus grovei* 'Cleve ms in coll.' Rattray 1888, p. 907 [ref. 000780]. *Invalid.* In syn. *Pseudauliscus anceps* Rattray 1888, p. 907 (ref. 000780).

- Auliscus grunovii* Schmidt in Schmidt et al. 1875, pl. 30, fig. 14 [ref. 012448].
- Auliscus grunovii* sensu Pantocsek 1886, pl. 29, fig. 293 (as *Auliscus Grunowii* A. Schm.) [ref. 000714]. Listed in synonymy of *Auliscus elegans* var. *pantocsekii* Forti 1913, p. 1595 (ref. 000342).
- Auliscus grunovii* sensu Schmidt in Schmidt et al. 1886, pl. 89, fig. 7 [ref. 012458]. As “A. Grunovii A.S., (cf. T. 30, 14.), grösserer und deutlich punktirte Form”.
- Auliscus grunovii* var. *californica* Grunow in Schmidt et al. 1886, pl. 89, fig. 8 [ref. 012458].
- Auliscus grunovii* var. *flammula* Tempère & Brun in Brun & Tempère 1889, p. 23; pl. 2, fig. 3 [ref. 000185].
- Auliscus grunovii* var. *pantocsekii* (*pantocsekii*) Forti in Tempère & Peragallo 1909, p. 196; No. 367-369 (*grunovii*) [ref. 001065]. *Invalid*. Nomen nudum; also invalid in Forti 1910, p. 1307 (ref. 000337). Validly published as *A. elegans* var. *pantocsekii* Forti 1913.
- Auliscus grunovii* var. *subpunctata* ‘Ratray’ Mills 1933, p. 246 (*grunovii*) [ref. 006140]. *Invalid*. Combination not accepted by Mills (lower case print). Accepted synonym listed by Mills: *Auliscus elegans* var. *subpunctata* Ratray 1888.
- Auliscus haradaae* Pantocsek 1892, pl. 31, fig. 452 [ref. 001034]. Description in Pantocsek 1905, p. 19 (ref. 001445).
- Auliscus hardmanianus* Greville 1866, p. 6; pl. 2, fig. 17 [ref. 000423].
- Auliscus hardmanianus* var. *bifurcata* Ratray 1888, p. 878 [ref. 000780].
- Auliscus hardmanianus* var. *futilis* Ratray 1888, p. 877 [ref. 000780].
- Auliscus hardmanianus* var. *haytiana* Truan & Witt 1888, p. 12; pl. 2, fig. 4 [ref. 000889].
- Auliscus hardmanianus* var. *labyrinthula* Ratray 1888, p. 877 [ref. 000780].
- Auliscus hardmanianus* var. *maculosus* Long, Fuge & Smith 1946, p. 99; pl. 15, fig. 4 [ref. 000616].
- Auliscus hardmanianus* var. *obscura* Ratray 1888, p. 878 [ref. 000780].
- Auliscus hauckii* Pantocsek 1886, p. 56; pl. 30, fig. 304 (as *Auliscus (confluens)* Grun. var.?) *Hauckii* nov. spec. in text and expl. fig.) [ref. 000714]. Cites illustration with no name in A. Schmidt et al. 1886, pl. 108, fig. 8, 9 (ref. 012462).
- Auliscus hendeyi* Long, Fuge & Smith 1946, p. 99; pl. 14, fig. 8 [ref. 000616].
- Auliscus hirsutus* (Ratray) VanLandingham 1967, p. 388 [ref. 006293]. Basionym: *Pseudauliscus hirsutus* Ratray 1888. Deliberate new combination.
- Auliscus hungaricus* Hajós 1973, table 1 (p. 377) [ref. 003202]. *Invalid*. Nomen nudum.
- Auliscus hyalinus* Boyer 1920, p. 67; pl. 2, fig. 4 [ref. 000153].
- Auliscus incertus* Schmidt in Schmidt et al. 1886, pl. 89, fig. 18-19 [ref. 012458].
- Auliscus inflatus* Grove & Sturt 1887, p. 141; pl. 13, fig. 37 [ref. 000989].
- Auliscus insignis* Cleve 1881, p. 22; pl. 5, fig. 64 a-b [ref. 000222].
- Auliscus intercedens* Janisch in Schmidt et al. 1875, pl. 32, fig. 9 [ref. 012448].
- Auliscus intermedius* Grove & Sturt in litt. ex Ratray 1888, p. 890; pl. 12, fig. 8 [ref. 000780].
- Auliscus intermedius* var. *simplex* Ratray 1888, p. 890; pl. 16, fig. 5 [ref. 000780].
- Auliscus interruptus* Ratray 1888, p. 880; pl. 13, fig. 5 [ref. 000780].
- Auliscus interruptus* var. *sparsa* Ratray 1888, p. 880; pl. 13, fig. 3 [ref. 000780].
- Auliscus intestinalis* Schmidt in Schmidt et al. 1886, pl. 108, fig. 2 [ref. 012462].
- Auliscus jimboi* Pantocsek 1892, pl. 31, fig. 454 [ref. 001034]. Description in Pantocsek 1905, p. 19 (ref. 001445).
- Auliscus johnsonianus* Greville 1863, p. 51; pl. 3, fig. 20 [ref. 000413].
- Auliscus johnsonianus* var. *craterifer* Brun 1896, p. 234; pl. 24, fig. 2, 3 (as *Auliscus (Johnsonianus)* Grev.) var. *craterifer*) [ref. 000183]. Brun notes: “J’ai regardé cette forme comme étant une variété de l’*Auliscus* de Greville, mais elle peut aussi être considérée comme une espèce distincte”.
- Auliscus johnsonianus* var. *eludens* (Ratray) VanLandingham 1967, p. 389 [ref. 006293]. Basionym: *Pseudauliscus johnsonianus* var. *eludens* Ratray 1888. Deliberate new combination.
- Auliscus johnsonii* ‘A. Schmidt’ according to M. Peragallo 1897, p. 115 [ref. 012539]. *Invalid*. Error for *Auliscus joysonii* Schmidt 1881. Not accepted by M. Peragallo.
- Auliscus joysonii* Schmidt in Schmidt et al. 1881, pl. 67, fig. 2 [ref. 012454].
- Auliscus kinkeri* Schütt 1896, p. 81; fig. 129 (*kinkerii*) [ref. 001512]. Based on *Pseudocerataulus kinkeri* Pantocsek 1889 (illegitimate).
- Auliscus lacunosus* Grove & Sturt 1887, p. 141; pl. 12, fig. 35 [ref. 000989].
- Auliscus le-tourneuri* Brun in Brun et al. 1891, p. 69; pl. 11, fig. 10 (as *Auliscus Le Tourneri (pulvinatus)* Cl. var.) n.sp. J. Brun) [ref. 001938].
- Auliscus letoniensis* (Janisch) VanLandingham 1967, p. 389 [ref. 006293]. Basionym: *Pseudauliscus letoniensis* Janisch in Schmidt et al. 1881. Deliberate new combination.
- Auliscus leudugeri* H. Peragallo 1888, p. 71; pl. 4, fig. 32 (*leudugerii*) [ref. 000729].
- Auliscus lineatus* Grove & Sturt 1887, p. 141, 146; pl. 12, fig. 36 [ref. 000989].
- Auliscus lizii* ‘Tempère?’ according to Mills 1933, p. 248 [ref. 006140].
- Auliscus lobatus* Jurilj 1957, p. 34-35, pl. 6, fig. 5 [ref. 000553].
- Auliscus lóczyi* Pantocsek 1892, pl. 5, fig. 82 [ref. 001034]. Description in Pantocsek 1905, p. 19 (ref. 001445).

- Auliscus loczyi* f. *major* Forti in Tempère & Peragallo 1909, p. 196; No. 367-369 (as *Auliscus loczyi* Pant. fa. *major* n.v.) [ref. 001065]. *Invalid*. Nomen nudum; also invalid in Forti 1910, p. 1307 (ref. 000337). Validly published as *A. loczii* f. *major* in Forti 1913 (ref. 000342).
- Auliscus loczyi* f. *major* Forti 1913, p. 1594; pl. 6, fig. 2 ('*loczii*') [ref. 000342].
- Auliscus lucidus* Rattray 1888, p. 891 [ref. 000780]. Rattray cites illustration in A. Schmidt et al. 1875, pl. 31, fig. 10, 12 (ref. 012448) (no name).
- Auliscus luminosus* Brun 1891, p. 11; pl. 22, fig. 6 [ref. 000176].
- Auliscus lunatus* Grove & Sturt in litt. Rattray 1888, p. 874 [ref. 000780].
- Auliscus macraeanus* Greville 1863, p. 51; pl. 3, fig. 18 [ref. 000413].
- Auliscus macraeanus* sensu Möller in Schmidt et al. 1875, pl. 31, fig. 11 [ref. 012448]. *Invalid*. In syn. *A. pruinus* var. *carpentariae* Gr.
- Auliscus mediterraneus* H. Peragallo & M. Peragallo 1902, p. 401; pl. 109, fig. 8 (as *A. (reticulatus) var. mediterraneus* Per. in text and fig. caption) [ref. 001057].
- Auliscus microleion* Schmidt in Schmidt et al. 1890, pl. 149, fig. 5 [ref. 012467].
- Auliscus mirabilis* Greville 1863, p. 47; pl. 2, fig. 11 [ref. 000413].
- Auliscus moronensis* Greville 1864, p. 83; pl. 11, fig. 6 [ref. 000979].
- Auliscus moronensis* var. *pruinus* Weissflog Collection, Rattray 1888, p. 881 [ref. 000780]. *Invalid*. In syn. *A. moronensis* Greville. "A specimen in Weissflog's collection, named *A. moronensis* var. *pruinus* belongs to this species [*A. moronensis*]"
- Auliscus moronensis* var. *quadriocellata* Tempère & Peragallo 1912, p. 323; no. 653, 654 [ref. 001068]. *Invalid*. Nomen nudum.
- Auliscus mutabilis* 'Greville' Wolle 1890, pl. 108, fig. 8 [ref. 000916]. *Invalid*. Citation error for *Auliscus mirabilis* Greville 1863.
- Auliscus nanus* Schmidt in Schmidt et al. 1875, pl. 32, fig. 27 [ref. 012448].
- Auliscus nebulo-punctatus* Leuduger-Fortmorel 1879, p. 63; pl. 7, fig. 73 [ref. 000606].
- Auliscus nebulosus* Greville 1863, p. 74; pl. 5, fig. 21 [ref. 000978].
- Auliscus nervatus* Leuduger-Fortmorel 1898, p. 41; pl. 8, fig. 19 [ref. 000608].
- Auliscus nitidus* Rattray 1888, p. 864; pl. 12, fig. 4 [ref. 000780].
- Auliscus nobilis* Cleve ms, Rattray 1888, p. 878 [ref. 000780]. *Invalid*. In syn. *Auliscus hardmanianus* var. *bifurcata* Rattray.
- Auliscus normanianus* Greville 1864, p. 82; pl. 11, fig. 11 [ref. 000979].
- Auliscus normanianus* var. *bioculata* Tempère & Peragallo 1915, p. 17 (Table des espèces) [ref. 001071]. *Invalid*. Nomen nudum.
- Auliscus notatus* Greville 1865, p. 5; pl. 1, fig. 2 [ref. 000420].
- Auliscus notoensis* Ichikawa in Ichikawa, Fuji & Bachmann 1964, p. 47; pl. 5, fig. 33 [ref. 000538].
- Auliscus nova-zealandicus* Cleve Collection, Rattray 1888, p. 873 [ref. 000780]. *Invalid*. In syn. *A. lacunosus* Grove & Sturt.
- Auliscus oamaruensis* Grove & Sturt 1887, p. 10; pl. 3, fig. 13 [ref. 000448].
- Auliscus oamaruensis* var. *madagascarensis* Tempère in Bergon et al. 1890, p. 2; pl. 2, fig. 4, 5 [ref. 002590].
- Auliscus obscurus* Rattray 1888, p. 883 [ref. 000780].
- Auliscus opulentus* Rattray 1888, p. 895; pl. 14, fig. 4 [ref. 000780].
- Auliscus ornatus* Greville 1864, p. 88; pl. 12, fig. 2 [ref. 000980].
- Auliscus ovalis* Arnott ex Pritchard 1861, p. 846 [ref. 001063].
- Auliscus ovalis* f. *minor* Grunow in Schmidt 1888, pl. 125, fig. 3 [ref. 012464].
- Auliscus pacificus* 'Grunow in Schmidt et al.' Mills 1933, p. 250 [ref. 006140]. *Invalid*. Citation error for *Cerataulus pacificus* Grunow in Schmidt 1888. Combination not accepted by Mills (lower case print).
- Auliscus paleaceus* Long, Fuge & Smith 1946, p. 99; pl. 15, fig. 2 [ref. 000616].
- Auliscus parvulus* Greville 1863, p. 74; pl. 5, fig. 22 [ref. 000978].
- Auliscus pauper* Rattray 1888, p. 863 [ref. 000780]. For illustration refers to "Sch. Atl., pl. 125, fig. 5 (no name)" (i.e. Schmidt et al. 1888, ref. 012464).
- Auliscus pectinatus* Rattray 1888, p. 878; pl. 12, fig. 5 [ref. 000780]. Rattray notes: "In Cleve's collection under the name *A. sturtii* Cleve ms".
- Auliscus peruvianus* (Kitton ex Pritchard) Greville 1862, p. 25; pl. 2, fig. 6 [ref. 000410]. Basionym: *Eupodiscus peruvianus* Kitton ex Ralfs in Pritchard 1861.
- Auliscus peruvianus* var. *ovalis* 'Weissflog Collections' according to Rattray 1888, p. 903 (as *Auliscus peruvianus* var. (?) *ovalis* f. *quadriocellata*) [ref. 000780]. *Invalid*. In syn. *Auliscus peruvianus* Greville.
- Auliscus peruvianus* f. *quadriocellata* 'Weissflog Collection' Rattray 1888, p. 903 (as *Auliscus peruvianus* var. (?) *ovalis* f. *quadriocellata*) [ref. 000780]. *Invalid*. In syn. *Pseudauliscus peruvianus* (Grev.) Rattray.
- Auliscus petiti* (Leuduger-Fortmorel) Schütt in Engler & Prantl 1896, p. 81 [ref. 001512]. Basionym: *Pseudauliscus petiti* Leuduger-Fortmorel 1879. Although cited as "*Auliscus petiti* Grev." it is probably a new combination of *Pseudauliscus*

- cus petiti* Leud.-Fort. 1879 (Greville never named a taxon after Petit).
- Auliscus philippinarum* Mann 1925, p. 32; pl. 6, fig. 4 [ref. 000632].
- Auliscus polyphemus* Schmidt in Schmidt et al. 1890, pl. 149, fig. 6 [ref. 012467].
- Auliscus polystigma* (Ehrenberg) Ehrenberg 1844, p. 77 [ref. 002694]. Basionym: *Coscinodiscus polystigma* Ehrenberg 1844.
- Auliscus praelatus* Rattray 1888, p. 892 [ref. 000780].
- Auliscus pressus* Leuduger-Fortmorel 1879, p. 63; pl. 7, fig. 72 [ref. 000606].
- Auliscus priscus* Long, Fuge & Smith 1946, p. 99; pl. 14, fig. 4 [ref. 000616].
- Auliscus prominens* Tempère & Peragallo 1910, p. 244; No. 468-469 [ref. 001066]. *Invalid*. Nomen nudum.
- Auliscus propinquus* Grove & Sturt 1887, p. 141; pl. 12, fig. 34 [ref. 000989].
- Auliscus pruinus* J.W. Bailey 1854, p. 5; fig. 5-8 [ref. 000122].
- Auliscus pruinus* sensu Schmidt in Schmidt et al. 1875, pl. 31, fig. 6, 7 (as *A. pruinus* Bailey: fig. 6 “t” (typical); fig. 7: “var.”) [ref. 012448]. Rattray 1888, p. 870 (ref. 000780) cites “*A. pruinus* Bail., Sch. Atl., pl. xxxi. fig. 6-9” in synonymy of his new taxon *Auliscus punctatus* var. *circumducta* Rattray.
- Auliscus pruinus* var. *carpentariae* Grunow in Schmidt et al. 1875, pl. 31, fig. 11 [ref. 012448].
- Auliscus pruinus* var. *confluens* Grunow in Cleve & Möller 1879, No. 257 [ref. 001978]. *Invalid*. Nomen nudum.
- Auliscus pruinus* var. *lorcana* Azpeitia Moros 1911, p. 193; pl. 8, fig. 6 [ref. 000114].
- Auliscus pruinus* var. *nankooensis* Desikachary & Ranjitha Devi in Desikachary 1986, p. 4; pl. 21, fig. 2-4 [ref. 006017].
- Auliscus pruinus* var. *robusta* Grunow in Schmidt et al. 1890, pl. 149, fig. 1 [ref. 012467].
- Auliscus pruinus* var. *sansibarica* Grunow in Schmidt et al. 1875, pl. 31, fig. 13-15 [ref. 012448]. Orthographical variant for *A. pruinus* var. *zanzibarica*, introduced in the 1885 edition (ref. 012637).
- Auliscus pruinus* var. *subreticulata* Grunow in Schmidt et al. 1886, pl. 89, fig. 5, 6 [ref. 012458].
- Auliscus pruinus* var. *zanzibarica* Grunow in Schmidt et al. 1875, pl. 31, fig. 13-15 [ref. 012448]. ‘Var. *sansibarica*’ in 1885 edition (ref. 012637). ‘Var. *zanzibarica*’ in the original 1875 edition.
- Auliscus pulcherrimus* Hendey 1939, p. 12; pl. 1, fig. 2 [ref. 000476].
- Auliscus pulvinatus* Cleve 1885, p. 171; pl. 13, fig. 9 [ref. 000225].
- Auliscus pulvinatus* f. *apiculata* Pantocsek 1886, p. 56; pl. 19, fig. 177 [ref. 000714]. ‘*apiculata*’ in original edition, corrected to ‘*apiculata*’ in 2nd (1903) edition (ref. 000717).
- Auliscus pulvinatus* f. *inermis* Pantocsek 1886, p. 56; pl. 19, fig. 174, 175 [ref. 000714]. ‘forma *inermis* *triozellata*’ in expl. fig. 174, ‘forma *inermis*’ in expl. fig. 175. Entry for “forma *inermis*” in text of first edition (1886), p. 56, refers to both figs 174 and 175. Text corrected in second edition, p. 58 (Pantocsek 1903, ref. 000717) with “forma *inermis*” referring to fig. 175, and “forma *inermis* *triozellata*” referring to fig. 174.
- Auliscus pulvinatus* f. *inermis* *triozellata* Pantocsek 1886, pl. 19, fig. 174 [ref. 000714]. No description. Name does not appear in text of first edition (1886), p. 56. Name added in text of second edition, p. 58 (Pantocsek 1903, ref. 000717), but without a description.
- Auliscus pulvinatus* var. *le-tourneuri* Brun in Brun et al. 1891, p. 69; pl. 11, fig. 10 (as “*Auliscus Le Tourneuri* (*pulvinatus* Cl. var.) n. sp. Brun”) [ref. 001938]. *Invalid*. Invalid as a trinomial; validly published by Brun 1891 as *Auliscus le-tourneuri* Brun.
- Auliscus punctatus* J.W. Bailey 1854, p. 5; fig. 9 [ref. 000122].
- Auliscus punctatus* Bailey var. *abrupta* Rattray 1888, p. 870 [ref. 000780].
- Auliscus punctatus* Bailey var. *carpentariae* (Grunow in Schmidt et al.) Rattray 1888, p. 870 [ref. 000780]. Basionym: *Auliscus pruinus* var. *carpentariae* Grunow in Schmidt et al. 1875.
- Auliscus punctatus* Bailey var. *circumducta* Rattray 1888, p. 870 [ref. 000780]. Valid name for *A. pruinus* Bailey sensu Schmidt’s Atlas 1975, pl. 31, fig. 6-9 (ref. 012448).
- Auliscus punctatus* Bailey f. *monocula* Hardman ex Rattray 1888, p. 871 (as *Auliscus punctatus* var. *striolata* f. *monocula* Hardman M.S.) [ref. 000780].
- Auliscus punctatus* Bailey var. *robusta* Truan & Witt 1888, p. 12; pl. 2, fig. 9 [ref. 000889].
- Auliscus punctatus* Bailey var. *striolata* Rattray 1888, p. 870 [ref. 000780]. Valid name for *A. punctatus* Bailey sensu Schmidt’s Atlas pl. 89, fig. 14, 15.
- Auliscus punctatus* sensu A. Schmidt in A. Schmidt et al. 1886, pl. 89, fig. 14, 15 (as “*A. punctatus* Bail.”) [ref. 012458]. Non *Auliscus punctatus* Bailey according to Rattray 1888, p. 870 (ref. 000780). Specimens illustrated by A. Schmidt 1886 on pl. 89, fig. 14, 15, have been named *Auliscus punctatus* var. *striolata* by Rattray 1888.
- Auliscus punctulatus* Grunow in Schmidt et al. 1875, pl. 30, fig. 10 [ref. 012448].
- Auliscus quadratus* Mann 1925, p. 33; pl. 7, fig. 1, 2 [ref. 000632].
- Auliscus quadriceps* J.W. Bailey ms’ Habirshaw 1881, p. 56 [ref. 001048]. *Invalid?* Nomen nudum according to De Toni 1894, p. 1063 (ref. 000951).
- Auliscus racemosus* Ralfs ex Greville 1863, p. 46; pl. 2, fig. 9 [ref. 000413].
- Auliscus radiatus* J.W. Bailey 1854, p. 6; fig. 13 [ref. 000122].

- Auliscus radiatus* 'Ehrenberg' Janisch 1861, p. 162; pl. 1, fig. 6 (as *Auliscus radiatus* Ehrenberg) [ref. 000539]. *Illegitimate*. Non Bailey? Rattray 1888, p. 903 cites *Auliscus radiatus* Janisch in synonymy of *Pseudauliscus peruvianus* (Greville) Rattray 1888.
- Auliscus raeanus* Rattray 1888, p. 879; pl. 12, fig. 3 [ref. 000780].
- Auliscus raeanus* var. *transpennatus* Brun 1891, legend to pl. 22, fig. 7 [ref. 000176]. Alternate name for *Auliscus transpennatus* Brun. Described on p. 11 as *Auliscus transpennatus*.
- Auliscus ralfsianus* Greville 1863, p. 52; pl. 3, fig. 21 [ref. 000413].
- Auliscus rattrayi* Cleve in litt. ex Rattray 1888, p. 863; pl. 12, fig. 2 [ref. 000780].
- Auliscus reichelti* Debes ex Hustedt in Schmidt et al. 1944, pl. 454, fig. 2-4 [ref. 012526]. *Invalid*. No description. Not validated by Simonsen 1987 (ref. 003164).
- Auliscus reticulatus* Greville 1863, p. 46; pl. 2, fig. 10 [ref. 000413].
- Auliscus reticulatus* var. *capensis* Schmidt in Schmidt et al. 1875, pl. 30, fig. 6 [ref. 012448].
- Auliscus reticulatus* var. *genuinus* Cleve-Euler 1951, p. 83; fig. 149 a (as *Auliscus reticulatus*  $\alpha$  *genuinus*) [ref. 000255]. Unclear if Cleve-Euler is including the type of *Auliscus reticulatus* Greville. Rank implied, not clearly indicated.
- Auliscus reticulatus* var. *mediterraneus* H. Peragallo & M. Peragallo 1902, p. 401; pl. 109, fig. 8 (as *A. (reticulatus* var.) *mediterraneus* Per.) [ref. 001057]. *Invalid*. Invalid as a trinomial, but published by as *Auliscus mediterraneus* Per. & Per.. Trinomial listed but not validated by Mills 1933, p. 253 (ref. 006140).
- Auliscus reticulatus* var. *quadrisignata* A. Schmidt in Schmidt et al. 1875, pl. 30, fig. 5 [ref. 012448].
- Auliscus reticulatus* var. *schmidtii* (Grundler in Schmidt et al.) Hustedt 1929, p. 516; fig. 289 [ref. 000501]. Basionym: *Auliscus schmidtii* Gründler in Schmidt et al. 1875.
- Auliscus rhipis* Schmidt in Schmidt et al. 1875, pl. 32, fig. 10, 11 [ref. 012448].
- Auliscus rhipis* var. *triocellata* Tempère & Peragallo 1913, p. 404; No. 835 [ref. 001069]. *Invalid*. Nomen nudum.
- Auliscus robustus* (Truan & Witt) Rattray 1888, p. 863 [ref. 000780]. Basionym: *Auliscus punctatus* Bailey var. *robusta* Truan & Witt 1888.
- Auliscus rotatus* (Rattray) VanLandingham 1967, p. 398 [ref. 006293]. Basionym: *Pseudauliscus rotatus* Rattray 1888. Deliberate new combination.
- Auliscus rugosus* Rattray 1888, p. 880; pl. 13, fig. 1 [ref. 000780].
- Auliscus schmidtii* Gründler in Schmidt et al. 1875, pl. 30, fig. 7 [ref. 012448].
- Auliscus sculptus* (W. Smith) Brightwell 1860, p. 139 [ref. 000947]. Basionym: *Eupodiscus sculptus* W. Smith 1853. [according to INA].
- Auliscus sculptus* var. *caelata* (J.W. Bailey) Van Heurck 1896, p. 482 [ref. 000897]. Basionym: *Auliscus caelatus* J.W. Bailey 1854.
- Auliscus sculptus* var. *constrictus* (Rattray) Desikachary 1988, p. 4 (expl. pl. 451, fig. 6, 10) [ref. 006021]. Basionym: *Auliscus caelatus* var. *constricta* Rattray 1888.
- Auliscus sculptus* var. *major* Desikachary 1989, p. 15 (expl. pl. 21, fig. 5, pl. 22, fig. 2) [ref. 006022]. *Invalid*. Intended new combination of *Auliscus caelatus* J.W. Bailey f. *major* A. Schmidt 1881 (invalid).
- Auliscus sculptus* var. *nankoorensis* (Desikachary & Ranjitha Devi in Desikachary) Desikachary 1989, p. 15 (expl. pl. 222, fig. 3) [ref. 006022]. Basionym: *Auliscus caelatus* var. *nankoorensis* Desikachary & Ranjitha Devi in Desikachary 1986.
- Auliscus sculptus* var. *permagna* Witt in Schmidt et al. 1888, pl. 117, fig. 4-7 [ref. 012463]. Fig. 5-7 have been assigned by Rattray 1888, p. 885 (ref. 000780) to *Auliscus splendidus* Rattay; fig. 4 has been assigned by Rattray 1888, p. 887 to *Auliscus caelatus* var. *major* Rattray.
- Auliscus sculptus* var. *punctata* 'Mereschkowsky' Mills 1933, p. 254 [ref. 006140]. *Invalid*. Typographical error in Mills for *Auliscus sculptus* var. *punctulata* Mereschkowsky.
- Auliscus sculptus* var. *punctulata* Mereschkowsky 1902, p. 161 (27) [ref. 000649]. Name first appeared as nomen nudum in Mereschkowsky 1901, p. 517 (ref. 002083). Mereschkowsky 1902 refers to figure (no name) in Greville (date?) (ref. 001241) (i.e. Diatomeetafeln zusammengestellt für einige Freunde) pl. 51, fig. 22.
- Auliscus sculptus* var. *rhipis* (A. Schmidt) Giffen 1975, p. 75 [ref. 004246]. Basionym: *Auliscus rhipis* Schmidt in Schmidt et al. 1875.
- Auliscus sculptus* var. *rhipis* (A. Schmidt) Desikachary 1988, p. 4 (expl. pl. 451, fig. 9) [ref. 006021]. Basionym: *Auliscus rhipis* Schmidt in Schmidt et al. 1875. Isonym: See Giffen 1975.
- Auliscus sculptus* var. *strigillatus* (A. Schmidt) Giffen 1975, p. 75; fig. 23 [ref. 004246]. Basionym: *Auliscus caelatus* var. *strigillata* Schmidt in Schmidt et al. 1875.
- Auliscus sculptus* var. *tripodiscus* Brockmann 1914, p. 47; fig. 7 ('*tripodiscus*' on p. 47, '*tripodiscus*' in legend) [ref. 000168].
- Auliscus scutulum* Long, Fuge & Smith 1946, p. 100; pl. 14, fig. 5 [ref. 000616].
- Auliscus secalli* Azpeitia Moros 1911, p. 194; pl. 8, fig. 1 [ref. 000114].
- Auliscus shulzei* Boyer 1922, p. 2; pl. 4, fig. 1 [ref. 000154].
- Auliscus sigillum* Brun in Schmidt et al. 1892, pl. 171, fig. 7 [ref. 012470].



- Auliscus similis* Hustedt in Schmidt et al. 1944, pl. 454, fig. 14 [ref. 012526]. Description in expl. fig.
- Auliscus smithii* Janisch 1861, p. 163; pl. 2, fig. 9 [ref. 000539].
- Auliscus speciosus* A. Schmidt in Schmidt et al. 1882, pl. 80, fig. 5 [ref. 012456]. Also in Schmidt et al. 1886, pl. 108, fig. 3 (ref. 012462).
- Auliscus spectabilis* Rattray 1888, p. 885; pl. 13, fig. 2 [ref. 000780].
- Auliscus spinosus* Christian 1887, p. 68; fig. [6] [ref. 000217]. See also Schmidt's Atlas pl. 125, fig. 2 (1888) (ref. 012464).
- Auliscus spissus* Long, Fuge & Smith 1946, p. 100; pl. 15, fig. 1 [ref. 000616].
- Auliscus splendidus* Rattray 1888, p. 885 [ref. 000780]. Name for *Auliscus gigas* sensu Grunow (not Ehr.) in Schmidt's Atlas, pl. 117, fig. 5-7 (not fig. 4) (= *A. sculptus* var. *permagna* Witt in Schmidt et al. 1888, pl. 117, fig. 5-7).
- Auliscus splendidus* var. *minor* Tempère & Peragallo 1908, p. 53; No. 96-100 [ref. 001064]. *Invalid*. Nomen nudum.
- Auliscus squamosus* Brun 1896, p. 234; pl. 24, fig. 5 [ref. 000183].
- Auliscus stellatus* H.L. Smith in Walker & Chase 1886, p. 4; pl. 2, fig. 4 [ref. 000904].
- Auliscus stelliger* Petit 1878, p. 244; pl. 5, fig. 35 [ref. 002117]. Also in Petit 1877 "Fond de La Mer", p. 37, pl. 5, fig. 35 (ref. 000747)?
- Auliscus stenops* Schmidt in Schmidt et al. 1890, pl. 149, fig. 8 [ref. 012467].
- Auliscus stoekhardtii* Janisch 1861, p. 163; pl. 1, fig. 4 ('*stöckhardtii*') [ref. 000539].
- Auliscus stoekhardtii* var. *aspera* Grove in Schmidt et al. 1896, pl. 204, fig. 19 ('*stöckhardtii*') [ref. 012477].
- Auliscus stoekhardtii* var. *flavescens* Pantocsek 1892, pl. 31, fig. 445 (as *Auliscus stoekartii* Jan. var. *flavescens* n.s.) [ref. 001034]. Description in Pantocsek 1905, p. 20 (ref. 001445) (as *Auliscus stoekhardtii* Janisch var. *flavescens* Pan. nov. var.).
- Auliscus stoekhardtii* var. *grandis* Rattray 1888, p. 868 ('*stöckhardtii* var. *grandis*') [ref. 000780].
- Auliscus stoekhardtii* var. *inconspicua* Rattray 1888, p. 868 ('*stöckhardtii* var. *inconspicua*') [ref. 000780].
- Auliscus stoekhardtii* var. *subpunctata* Rattray 1888, p. 868 ('*stöckhardtii* var. *subpunctata*') [ref. 000780].
- Auliscus sturtii* Cleve ms, Rattray 1888, p. 878 [ref. 000780]. *Invalid*. In syn. *Auliscus pectinatus* Rattray.
- Auliscus subcaelatus* Rattray 1888, p. 889 [ref. 000780].
- Auliscus sublaevis* Grunow ms. ex Rattray 1888, p. 891; pl. 12, fig. 7 [ref. 000780].
- Auliscus subreticulatus* (Grunow in Schmidt et al.) Rattray 1888, p. 893 [ref. 000780]. Basionym: *Auliscus pruinosus* var. *subreticulata* Grunow in Schmidt et al. 1886.
- Auliscus subreticulatus* var. *decipiens* Rattray 1888, p. 894 [ref. 000780].
- Auliscus subreticulatus* f. *minor* 'Bailey' Tempère & Peragallo 1908, p. 25; No. 45-47 (as *A. subreticulatus* forma *minor* Bailey) [ref. 001064]. *Invalid*. Nomen nudum.
- Auliscus subreticulatus* var. *minor* 'Tempère & Peragallo' according to VanLandingham 1967, p. 402 [ref. 006293]. *Invalid*. Err. cit. for *Auliscus subreticulatus* f. *minor* Bailey (invalid?), cited in Tempère & Peragallo 1908, p. 25 (ref. 001064).
- Auliscus subspeciosus* Rattray 1888, p. 896; pl. 14, fig. 3 [ref. 000780].
- Auliscus superbus* Leuduger-Fortmorel 1879, p. 63; pl. 7, fig. 70 [ref. 000606].
- Auliscus suppressus* Hanna 1932, p. 177; pl. 5, fig. 6 [ref. 000014].
- Auliscus temperei* (Pantocsek) VanLandingham 1967, p. 403 [ref. 006293]. Basionym: *Pseudocerataulus temperei* Pantocsek 1889. Deliberate new combination.
- Auliscus tenuistriatus* Hustedt in Schmidt et al. 1944, pl. 453, fig. 28-30 [ref. 012526]. *Invalid*. No description. Validated by Simonsen 1987.
- Auliscus tenuistriatus* Hustedt ex Simonsen 1987, p. 322 [ref. 003164]. Previously invalidly published by Hustedt in Schmidt et al. 1944, pl. 453, fig. 28-30 (ref. 0012526).
- Auliscus textilis* Schmidt in Schmidt et al. 1886, pl. 89, fig. 9 [ref. 012458].
- Auliscus translucidus* Brun 1895, pl. 15, fig. 40, 41 [ref. 000181]. Diagnosis in expl. fig.
- Auliscus transpennatus* Brun 1891, p. 11; pl. 22, fig. 7 [ref. 000176]. As "*A. transpennatus* J. Br. (*Raeanus* Rattr. var.)" in expl. fig. (i.e. *A. raeanus* var. *transpennatus*, alternate name fide p. [48]).
- Auliscus treubii* Leuduger-Fortmorel 1892, p. 42; pl. 7, fig. 2 [ref. 000607].
- Auliscus tricorona* Brun in Brun & Tempère 1889, p. 24; pl. 2, fig. 14 [ref. 000185]. As *Auliscus trilumen* in expl. fig.
- Auliscus trigemmis* Schmidt in Schmidt et al. 1888, pl. 125, fig. 16 [ref. 012464].
- Auliscus trigemmis* var. *robusta* Brun in Brun & Tempère 1889, p. 24; pl. 2, fig. 15 [ref. 000185].
- Auliscus trilumen* Brun in Brun & Tempère 1889, pl. 2, fig. 14 [ref. 000185]. Described on p. 24 as *Auliscus tricorona*.
- Auliscus trilunaris* Brun in Brun & Tempère 1889, p. 24; pl. 2, fig. 2 [ref. 000185].
- Auliscus trioculatus* Long, Fuge & Smith 1946, p. 100; pl. 15, fig. 7 [ref. 000616].
- Auliscus tripinnatus* Bone & Gosden 1968, p. 74; fig. 6 [ref. 003504].
- Auliscus whartoni* Long, Fuge & Smith 1946, p. 100; pl. 15, fig. 13 [ref. 000616].

**AURICULA A.F. Castracane 1873, p. 21 [ref. 000190]**T: *Auricula amphitritis* A.F. Castracane 1873Name conserved against *Auricula* Hill 1756 (see ICBN 1956, p. 200, ref. 006916).

- Auricula adriatica* H. Peragallo & M. Peragallo 1898, p. 193; pl. 42, fig. 4-5 [ref. 001053].
- Auricula amphitritis* Castracane 1873, p. 406 (21); pl. 7, fig. 2 [ref. 000190].
- Auricula amphoropsis* Karsten 1899, p. 114; fig. 152 [ref. 000558].
- Auricula cholnokyi* Giffen 1963, p. 220-221; pl. 2, fig. 27-29 [ref. 000383].
- Auricula coarctata* (Brun in Brun & Tempère) Cleve 1894, p. 20 [ref. 000232]. Basionym: *Amphiprora coarctata* Brun in Brun & Tempère 1889.
- Auricula compacta* (Hustedt) L.K. Medlin in Medlin & Hasle 1990, p. 473 [ref. 012945]. Basionym: *Nitzschia compacta* Hustedt 1958.
- Auricula complexa* (Gregory) Cleve 1894, p. 21 [ref. 000232]. Basionym: *Amphiprora complexa* Gregory 1857.
- Auricula complexa* var. *reniformis* Tsumura 1964, p. 78; pl. 6, fig. 1-3, pl. 7, fig. 1-2 [ref. 008902].
- Auricula decipiens* (Grunow in Van Heurck) Cleve 1894, p. 20 [ref. 000232]. Basionym: *Amphora decipiens* Grunow in Van Heurck 1883.
- Auricula densestriata* Osada 1997, p. 288-289; fig. 1-30 [ref. 008023].
- Auricula dubia* H. Peragallo & M. Peragallo 1898, p. 194; pl. 42, fig. 8-11 [ref. 001053].
- Auricula flabelliformis* Voigt 1960, p. 3, fig. 1, fig. 8-9 [ref. 005720].
- Auricula flabelliformis* var. *hustedtii* Voigt 1960, p. 3; pl. 1, fig. 10, pl. 2, fig. 1 [ref. 005720]. Based on *Hustedtia mirabilis* Meister 1932.
- Auricula flabelliformis* var. *interjecta* Voigt 1960, p. 4; pl. 2, fig. 2 [ref. 005720].
- Auricula gemma* Voigt 1960, p. 4; pl. 2, fig. 3-7 [ref. 005720].
- Auricula gobii* Mereschkowsky 1902, p. 56, 151 [ref. 001382].
- Auricula grunowii* Pantocsek 1892, pl. 31; fig. 453 [ref. 001034]. Description in Pantocsek 1905, p. 20 (ref. 001445).
- Auricula hoffmanni* Simonsen 1959, p. 83; pl. 12, fig. 2-3 [ref. 000823].
- Auricula holsatica* Korotkevich 1960 [ref. 002992]. According to Hollerbakh & Krasavina 1971, p. 55 (ref. 002458). [according to VLC].
- Auricula holsatica* (Helmcke & Krieger) Paddock & Sims 1980, p. 168 [ref. 003176]. Basionym: *Rhopalodia holsatica* Krieger 1954.
- Auricula hyalina* (Kützing) Karsten 1899, p. 114; fig. 151, 153 [ref. 000558]. Basionym: *Amphora hyalina* Kützing 1844.
- Auricula incerta* Cleve 1894, p. 19 [ref. 000232]. Error for *Auricula insecta* (Grunow) Cleve (see corrigenda in Cleve 1895, p. 220; ref. 000949). As *Auricula insecta* on p. 20 (Cleve 1894).
- Auricula insecta* (Grunow in Schmidt et al.) Cleve 1894, p. 20 [ref. 000232]. Basionym: *Amphora insecta* Grunow in Schmidt et al. 1876. As *Auricula incerta* on p. 19, which is an error for *Auricula insecta* (see corrigenda in Cleve 1895, p. 220; ref. 000949).
- Auricula intermedia* (Lewis) Cleve 1894, p. 21 [ref. 000232]. Basionym: *Amphora intermedia* F.W. Lewis 1865.
- Auricula japonica* Brun in Brun & Tempère 1889, p. 25; pl. 4, fig. 8 [ref. 000185].
- Auricula javanica* Cleve 1894, p. 21; pl. 2, fig. 22 [ref. 000232].
- Auricula machutchoniae* Giffen 1970, p. 269; pl. 2, fig. 24 [ref. 004243].
- Auricula minuta* Cleve 1894, p. 21; pl. 1, fig. 7, 8 [ref. 000232].
- Auricula mirabilis* (Meister) Paddock & Sims 1980, p. 167 [ref. 003176]. Basionym: *Hustedtia mirabilis* Meister 1932.
- Auricula mucronata* (H.L. Smith) H. Peragallo 1888, p. 42; pl. 6, fig. 48 [ref. 000729]. Basionym: *Amphora mucronata* H.L. Smith 1878.
- Auricula ostrea* Tempère & Brun in Brun & Tempère 1889, p. 25; pl. 4, fig. 7 [ref. 000185].
- Auricula pethöi* (Pantocsek) Pantocsek 1905, p. 20 [ref. 001445]. Basionym: *Amphiprora pethöi* (*pethoei*) Pantocsek 1892.
- Auricula pulchra* (Greville) Cleve 1894, p. 20; pl. 2, fig. 23 [ref. 000232]. Basionym: *Amphora pulchra* Greville 1863.
- Auricula pulchra* var. *namaquensis* Giffen 1984, p. 189-190; pl. 1, fig. 23, 24 [ref. 008264].
- Auricula punctata* Karsten 1899, p. 115; fig. 154 [ref. 000558].
- Auricula punctata* Karsten var. *sebastopolensis* Mereschkowsky 1903, p. 177-178 [ref. 002514]. *Invalid*. Nomen nudum.
- Auricula punctata* (Pantocsek) Cleve 1901, p. 27, 57 [ref. 001146]. Basionym: *Amphiprora punctata* Pantocsek 1892. *Illegitimate*. [according to INA]. Non Karsten 1899.
- Auricula quadrangulata* Mereschkowsky 1901, p. 29; pl. 6, fig. 18 [ref. 000650]. Also described in Mereschkowsky 1902, p. 56 (6); 85 (35) (ref. 001381).
- Auricula quadrangulata* var. *sebastopolensis* Mereschkowsky 1902, p. 56, 85 [ref. 001381]. Previously appeared as nomen nudum in Mereschkowsky 1901, p. 29 (ref. 000650).
- Auricula quinquelobata* Voigt 1960, p. 5; pl. 2, fig. 8-10 [ref. 005720].
- Auricula spicula* Mereschkowsky 1902, p. 56 (6), 85 (35) (as "*Auricula* (*Amphoropsis* s. em.) *spicula* Mer.") [ref. 001381].

- Auricula spicula* var. *elegans* Mereschkowsky 1902, p. 427 [ref. 000653]. *Invalid*. Nomen nudum.  
*Auricula stauroneis* Mereschkowsky 1901, p. 29; pl. 6, fig. 15-16 [ref. 000650].  
*Auricula stauroneis* var. *gracilis* Mereschkowsky 1902, p. 56, 85 [ref. 001381]. No illustration. Mereschkowsky notes, however, on p. 85, that this species is *A. quadrata* sensu Meresch. 1901, p. 28; pl. 6, fig. 14 (ref. 000650).  
*Auricula staurophora* Karsten 1899, p. 117; fig. 156 [ref. 000558].  
*Auricula striata* (Pantocsek) Pantocsek 1905, p. 20 (as *Auricula striata* Pant. nov. spec. Syn. *Amphiprora striata* Pant) [ref. 001445]. Basionym: *Amphiprora striata* Pantocsek 1892.  
*Auricula szontaghii* Pantocsek 1892, pl. 7, fig. 104 [ref. 001034]. Description in Pantocsek 1905, p. 21 (ref. 001445). Spelled “szontághii” on plate caption, “szontaghii” in text.

**AURICULOPSIS N.I. Hendey 1964, p. 158 [ref. 000480]**

T: *Auriculopsis sparsipunctata* N.I. Hendey 1864

- Auriculopsis sparsipunctata* Hendey 1964, p. 158; pl. 26, fig. 15 [ref. 000480].

**AUSTARIELLA A. Witkowski, H. Lange-Bertalot & D. Metzeltin 2000, p. 154, 422 [ref. 009017]**

T: *Austariella admissa* (Hustedt) A. Witkowski, H. Lange-Bertalot & D. Metzeltin 2000

(= *Navicula admissa* Hustedt 1955)

- Austariella admissa* (Hustedt) A. Witkowski, H. Lange-Bertalot & D. Metzeltin 2000, p. 154 [ref. 009017]. Basionym: *Navicula admissa* Hustedt 1955.  
*Austariella jamalinensis* (Cleve in Cleve & Grunow) A. Witkowski, H. Lange-Bertalot & D. Metzeltin 2000, p. 155 [ref. 009017]. Basionym: *Navicula jamalinensis* Cleve in Cleve & Grunow 1880.  
*Austariella jamalinensis* var. *subcircularis* (Østrup) A. Witkowski, H. Lange-Bertalot & D. Metzeltin 2000, p. 155 [ref. 009017]. Basionym: *Navicula jamalinensis* var. *subcircularis* Østrup 1910.

**AUSTRALODISCUS V. Porguen & M.J. Sullivan 1997, p. 119 [ref. 006848]**

T: *Australodiscus peruvianus* V. Porguen & M.J. Sullivan 1997

- Australodiscus peruvianus* Porguen & Sullivan 1997, p. 119; fig. 1-12, 17 [ref. 006848].

**AZPEITIA M. Peragallo in J. Tempère & H. Peragallo 1912, p. 326 [ref. 001068]**

LT: *Azpeitia temperei* M. Peragallo in J. Tempère & H. Peragallo 1912

Type designated by Ross in Farr et al. (1979) (ref. 006663).

It is possible to interpret *Azpeitia temperei* to be the holotype (as it would be done in the zoological code) as it carries the formula “n. gen. n. sp.” The other species originally included by Peragallo was *Triceratium antiquum* Pantocsek 1886, although no combination of that name under *Azpeitia* was validly published in Tempère & Peragallo 1912.

- Azpeitia aeginensis* (Schmidt) P.A. Sims in Fryxell, Sims & Watkins 1986, p. 16 [ref. 004179]. Basionym: *Coscinodiscus aeginensis* Schmidt in Schmidt et al. 1888.  
*Azpeitia africana* (Janisch ex Schmidt) G. Fryxell & T. P. Watkins in Fryxell, Sims & Watkins 1986, p. 22-23; fig. 22 (1A-3), fig. 23 (1A-2B), fig. 32 (1, 2) [ref. 004179]. Basionym: *Coscinodiscus africanus* Janisch in Schmidt et al. 1878.  
*Azpeitia africana* var. *nodulifer* (Reinhold) Desikachary, Gowthaman & Latha 1987, p. 4; pl. 104, fig. 4 [ref. 006018]. Basionym: *Coscinodiscus africanus* var. *nodulifer* Reinhold 1937.  
*Azpeitia antiqua* (Pantocsek) M. Peragallo in Tempère & Peragallo 1912, p. 326; No. 658-660 (*antiquum*) [ref. 001068]. Basionym: *Triceratium antiquum* Pantocsek 1886. *Invalid*. Epithet not definitely associated with the genus name: “Le *Triceratium antiquum* Pant. rentre dans ce genre”. Combination listed and validated by Mills 1933, p. 258 (ref. 006140). See also Fryxell et al. 1986, p. 6 (ref. 004179).  
*Azpeitia antiqua* (Pantocsek) F.W. Mills 1933, p. 258 [ref. 006140]. Basionym: *Triceratium antiquum* Pantocsek 1886.  
*Azpeitia antiqua* (Pantocsek) P.A. Sims in Fryxell, Sims & Watkins 1986, p. 6; fig. 1 (1A-C), 2 fig. 2 (1-3B), fig. 3 (1A-2C) (as “comb. nov.”) [ref. 004179]. Basionym: *Triceratium antiquum* Pantocsek 1886. Isonym: combination validly published by Mills 1933, p. 258 (ref. 006140).  
*Azpeitia apiculata* P.A. Sims in Sims, Fryxell & Baldauf 1989, p. 294-295; pl. 1, fig. 1-2, pl. 3, fig. 1, 2, 12 [ref. 008800].  
*Azpeitia barronii* G. Fryxell & T. P. Watkins in Fryxell, Sims & Watkins 1986, p. 20-22; fig. 18 (3, 5), fig. 19 (1A-3), fig. 20 (1A-3), fig. 21 (1A-3), fig. 31 (1-3C) [ref. 004179].  
*Azpeitia biannulata* P.A. Sims in Mahood, Barron & Sims 1993, p. 244, 246; fig. 1-6, 59-60 [ref. 006044].  
*Azpeitia biradiata* (Greville) P.A. Sims in Fryxell, Sims & Watkins 1986, p. 7-8; fig. 4 (1A-E), fig. 5 (1F-2C), fig. 27 (1-3) [ref. 004179]. Basionym: *Coscinodiscus biradiatus* Greville 1861.

- Azpeitia bukryi* (J.A. Barron) J.A. Barron 2005, p. 641 [ref. 012686]. Basionym: *Thalassiosira bukryi* Barron 1983.
- Azpeitia crenuloides* P.A. Sims in Fryxell, Sims & Watkins 1986, p. 11-12; fig. 9 (1-2E), fig. 10 (1A-C), fig. 28 (3) [ref. 004179].
- Azpeitia elegantula* (Greville) P.A. Sims in Fryxell, Sims & Watkins 1986, p. 8; fig. 6 (1A-2C), fig. 27 (4-5) [ref. 004179]. Basionym: *Coscinodiscus elegantulus* Greville 1861.
- Azpeitia elmorenii* Moreno-Ruiz in Moreno-Ruiz, Santoyo & Vega-Murillo 1995, p. 416-417; fig. 1-7 [ref. 008608].
- Azpeitia elmorenii* var. *ferreira* Moreno-Ruiz in Moreno-Ruiz, Santoyo & Vega-Murillo 1995, p. 417; fig. 8-16 [ref. 008608].
- Azpeitia endoi* (Kanaya) P.A. Sims & G. Fryxell in Fryxell, Sims & Watkins 1986, p. 16 [ref. 004179]. Basionym: *Coscinodiscus endoi* Kanaya 1959.
- Azpeitia gombosii* Harwood & Maruyama 1992, p. 701; pl. 3, fig. 1-2 ('gombosi') [ref. 008316].
- Azpeitia grovei* P.A. Sims in Fryxell, Sims & Watkins 1986, p. 15; fig. 29/2 [ref. 004179]. New name for *Coscinodiscus vetustissimus* var. *curvatuloides* Grove in Rattray 1980.
- Azpeitia komurae* Akiba 1987, p. 159; pl. 1, fig. 1-5c, pl. 2, fig. 1-13 [ref. 003291].
- Azpeitia neocrenulata* (VanLandingham) G. Fryxell & T.P. Watkins in Fryxell, Sims & Watkins 1986, p. 18-19; fig. 16 (1-3D), fig. 30 (2) [ref. 004179]. Basionym: *Coscinodiscus neocrenulatus* VanLandingham 1968.
- Azpeitia nodulifera* (Schmidt) G. Fryxell & P.A. Sims in Fryxell, Sims & Watkins 1986, p. 19; fig. 17 (1A-3), fig. 18 (1, 2, 4, 5), fig. 30 (3, 4) ('nodulifer') [ref. 004179]. Basionym: *Coscinodiscus nodulifer* A. Schmidt in Schmidt et al. 1878.
- Azpeitia nodulifera* f. *cyclopa* (Jousé) P.A. Sims in Sims, Fryxell & Baldauf 1989, p. 304; pl. 2, fig. 7-10, pl. 3, fig. 6-7 [ref. 008800]. Basionym: *Coscinodiscus nodulifer* f. *cyclopus* Jousé 1971.
- Azpeitia nodulifera* f. *variantia* M. Shiono in M. Shiono & I. Koizumi 2002, p. 346; fig. 13-18, 61-66 [ref. 011590].
- Azpeitia obscura* (Greville) P.A. Sims in Williams 1988, p. 61 ('obscurum') [ref. 006218]. Basionym: *Triceratium obscurum* Greville 1861.
- Azpeitia oligocenica* (Jousé) P.A. Sims in Fryxell, Sims & Watkins 1986, p. 16 [ref. 004179]. Basionym: *Coscinodiscus oligocenicus* Jousé 1974.
- Azpeitia praeodulifera* (Barron) P.A. Sims & G. Fryxell in Fryxell, Sims & Watkins 1986, p. 16 ('praeodulifer') [ref. 004179]. Basionym: *Coscinodiscus praeodulifer* Barron 1983.
- Azpeitia salisburyana* (Lohman) P.A. Sims in Fryxell, Sims & Watkins 1986, p. 16 [ref. 004179]. Basionym: *Coscinodiscus salisburyanus* Lohman 1948.
- Azpeitia tabularis* (Grunow) G. Fryxell & P.A. Sims in Fryxell, Sims & Watkins 1986, p. 16; fig. 14 (1A-3B), fig. 15 (1A-4B), fig. 30 (1) [ref. 004179]. Basionym: *Coscinodiscus tabularis* Grunow 1884.
- Azpeitia tabularis* var. *egregius* (Rattray) Desikachary, Gowthaman & Latha 1987, p. 4-5; pl. 115, fig. 8 [ref. 006018]. Basionym: *Coscinodiscus egregius* Rattray 1890.
- Azpeitia temperi* M. Peragallo in Tempère & Peragallo 1912, p. 326; No. 658-660 [ref. 001068].
- Azpeitia tuberculata* (Greville) P.A. Sims in Fryxell, Sims & Watkins 1986, p. 10-11; fig. 7 (1A-4), fig. 8 (1A-3), fig. 28 (1-2) [ref. 004179]. Basionym: *Coscinodiscus tuberculatus* Greville 1861.
- Azpeitia tuberculata* var. *atlantica* (Gleser & Jousé) P.A. Sims in Fryxell, Sims & Watkins 1986, p. 16 [ref. 004179]. Basionym: *Coscinodiscus tuberculatus* var. *atlantica* Gleser & Jousé 1974.
- Azpeitia verruculosa* P.A. Sims in Fryxell, Sims & Watkins 1986, p. 12-14; fig. 11 (1A-F), fig. 12 (1G-2D), fig. 28 (4) [ref. 004179].
- Azpeitia vetustissima* (Pantocsek) P.A. Sims in Fryxell, Sims & Watkins 1986, p. 16 [ref. 004179]. Basionym: *Coscinodiscus vetustissimus* Pantocsek 1886.
- Azpeitia vetustissima* var. *voluta* (Baldauf) P.A. Sims in Sims, Fryxell & Baldauf 1989, p. 303 [ref. 008800]. Basionym: *Coscinodiscus volutus* Baldauf in Baldauf & Barron 1980.
- Azpeitia voluta* (Baldauf) P.A. Sims in Fryxell, Sims & Watkins 1986, p. 14-15; fig. 13 (1A-2C), fig. 29 (1) [ref. 004179]. Basionym: *Coscinodiscus volutus* Baldauf in Baldauf & Barron 1980.

**AZPEITIOPSIS P.A. Sims 1994, p. 185 [ref. 006395]**

T: *Azpeitiopsis morenoensis* (G D. Hanna) P.A. Sims 1994  
(= *Coscinodiscus morenoensis* G D. Hanna 1927)

- Azpeitiopsis morenoensis* (Hanna) P.A. Sims 1994, p. 171; fig. 21-28, 53 [ref. 006395]. Basionym: *Coscinodiscus morenoensis* Hanna 1927.

**BACILLARIA J.F. Gmelin 1788, Tomus I, pars 6, p. 3903 [ref. 000613]**

T: *Bacillaria paradoxa* J.F. Gmelin 1788

- Bacillaria acerosa* Schrank 1823, p. 533 [ref. 000809]. *Invalid*. Intended combination of *Vibrio acerosa*? Epithet not defi-

- nately associated with the genus name. No description or illustration. Combination listed, but not validated by VanLandingham 1979 (ref. 006514).
- Bacillaria acicularis*** Bukhalova & Shirokova 1938 [ref. 002918]. According to Hollerbakh & Krasavina 1971, p. 55 (ref. 002458). [according to VLC].
- Bacillaria acus*** Schrank 1823, p. 533 [ref. 000809]. *Invalid*. Intended combination of *Vibrio acus* O.F. Müller? Epithet not definitely associated with the genus name (*Bacillaria*). No description or illustration. Combination listed, but not validated by VanLandingham 1979 (ref. 006514).
- Bacillaria adriatica*** Lobarzewski 1840, p. 267; pl. 4, fig. 1 [ref. 000614].
- Bacillaria amphibia*** (Grunow) Elmore in Barbour 1895, p. 20 [ref. 003441]. Basionym: *Nitzschia amphibia* Grunow 1862.
- Bacillaria amphibia* var. *frauenfeldii*** (Grunow) Elmore in Barbour 1895, p. 20 [ref. 003441]. Basionym: *Bacillaria frauenfeldii* Grunow 1862.
- Bacillaria australis*** Ehrenberg 1854, p. 8; pl. 35A/2, figs. 3, 3+, 3\* [ref. 000966].
- Bacillaria bipunctata*** Schrank 1823, p. 533 [ref. 000809]. *Invalid*. Intended combination of *Vibrio bipunctatus* O.F. Müller? Epithet not definitely associated with the genus name. No description or illustration. Combination listed, but not validated by VanLandingham 1979, p. 4262 (ref. 006514).
- Bacillaria bipunctata*** Ehrenberg in Hemprich & Ehrenberg 1828, pl. 2/4, fig. 11 [ref. 000474].
- Bacillaria cipollae*** Zanon 1933, p. 35; pl. 1, fig. 5 [ref. 001574].
- Bacillaria cistula*** Ehrenberg in Hemprich & Ehrenberg 1828, pl. 2/4, fig. 10 [ref. 000474].
- Bacillaria cleopatrae*** Ehrenberg 1828, pl. III:V, fig. 2 (Phytozoa) [ref. 012549]. Description in Ehrenberg 1831, p.[5] (ref. 000990). Also in Ehrenberg 1838, p. 199; pl. 15, fig. 3 (ref. 000288). See also Ehrenberg 1832, p. 84 (ref. 000282) (described in German as *B. cleopatrae* Hemprich et Ehrenberg).
- Bacillaria communis*** Bory 1822, p. 127 [ref. 012544]. *Invalid*. Nomen nudum.
- Bacillaria conjugata*** Turpin 1828, p. 307; fig. 3 [ref. 006720].
- Bacillaria crassa*** Bory 1824 [ref. 000147]. According to Peragallo 1897, p. 122 (ref. 012539).
- Bacillaria cuneata*** (Kützing) Ehrenberg 1838, p. 198; pl. 15, fig. 6 [ref. 000288]. Basionym: *Diatoma tenue* var. *cuneatum* Kützing 1833.
- Bacillaria cursoria*** Donkin 1858, p. 26; pl. 3, fig. 12 [ref. 000277].
- Bacillaria cursoria*** Barkas 1865, p. 252 [ref. 002908]. Non Donkin 1858. [according to VLC].
- Bacillaria diophthalma*** Ehrenberg in Hemprich & Ehrenberg 1828, pl. 3/6, fig. 4 [ref. 000474].
- Bacillaria elongata*** Ehrenberg 1832, p. 83 [ref. 000282]. First appeared as nomen nudum in Ehrenberg 1830, p. 62 (ref. 000281). Valid in Ehrenberg 1832 (ref. 000282). See also Ehrenberg 1828, p. 198; pl. 15, fig. 5 (ref. 000288).
- Bacillaria eruca*** Schrank 1823, p. 533 [ref. 000809]. *Invalid*. Intended combination of *Vibrio eruca*? Epithet not definitely associated with the genus name. No description or illustration. Combination listed, but not validated by VanLandingham 1979, p. 4262 (ref. 006514).
- Bacillaria flocculosa*** (Roth) Leiblein 1827, p. 258 [ref. 022301]. Basionym: *Conferva flocculosa* Roth 1797. [according to INA].
- Bacillaria flocculosa*** (Roth) Ehrenberg 1832, p. 84 [ref. 000282]. Basionym: *Conferva flocculosa* Roth 1797. See also Ehrenberg 1838, p. 199; pl. 15, fig. 9 (ref. 000288).
- Bacillaria frauenfeldii*** Grunow 1862, p. 584; pl. 28/12, fig. 1 [ref. 000428].
- Bacillaria fulva*** Nitzsch 1817, p. 87; pl. 3, fig. 8-19 [ref. 000684].
- Bacillaria fusca*** Krishtofovich 1941 [ref. 002491]. According to Hollerbakh & Krasavina 1971, p. 55 (ref. 002458). [according to VLC].
- Bacillaria fusiformis*** Ehrenberg in Hemprich & Ehrenberg 1828, pl. 2/4, fig. 8 [ref. 000474].
- Bacillaria fusus*** Schrank 1823, p. 533 [ref. 000809]. *Invalid*. Intended combination of *Vibrio fusus*? Epithet not definitely associated with the genus name. No description or illustration. Combination listed, but not validated by VanLandingham 1979 (ref. 006514).
- Bacillaria glauca*** Morren 1835, p. 26 [ref. 002316]. Nomen nudum.
- Bacillaria hiemalis*** (Roth) Tömösváry 1879, p. 150 (as *B. hiemalis* (Kütz.)) [ref. 005657]. Basionym: *Conferva hiemalis* Roth 1800.
- Bacillaria hungarica*** Ehrenberg 1854, p. 8; pl. 8/1, fig. 14 [ref. 000966]. In syn. *Fragilaria hiemalis* on plate caption. Previously appeared as nomen nudum in Ehrenberg 1837, p. 105 (ref. 010810).
- Bacillaria hystrix*** Bory 1824 [ref. 000147]. According to De Toni 1892, p. 658 (ref. 000950).
- Bacillaria incrassata*** Eichwald 1844, p. 538 [ref. 002934]. [according to INA].
- Bacillaria interrupta*** Ehrenberg in Hemprich & Ehrenberg 1828, pl. 2/4, fig. 7 [ref. 000474].
- Bacillaria intestinum*** Schrank 1823, p. 533 [ref. 000809]. *Invalid*. Intended combination of *Vibrio intestinum* O.F. Müller? Epithet not definitely associated with the genus name. No description or illustration. Combination listed, but not validated by VanLandingham 1979, p. 4262 (ref. 006514).
- Bacillaria kuseliae*** A.M. Schmid & R. Jahn in R. Jahn & A.M. Schmid 2007, p. 302; fig. 7, 27-30 [ref. 012943].

- Bacillaria lagena* Schrank 1823, p. 533 [ref. 000809]. *Invalid*. Intended combination of *Vibrio lagena*? Epithet not definitely associated with the genus name. No description or illustration. Combination listed, but not validated by VanLandingham 1979, p. 4263 (ref. 006514).
- Bacillaria longa* (Grunow in Cleve & Grunow) De Toni 1892, p. 494 [ref. 000950]. Basionym: *Nitzschia longa* Grunow in Cleve & Grunow 1880.
- Bacillaria lunata* (O. F. Müller) Schrank 1823, p. 533 [ref. 000809]. Basionym: *Vibrio lunula (lunata)* O.F. Müller 1786. *Invalid*. Combination suggested by Schrank, but invalid because the epithet (*lunula*) is not definitely associated with the genus name. Combination listed, but invalid (not accepted) in Peragallo 1897 (ref. 012539), Mills 1933 (ref. 006140) and VanLandingham 1967 (ref. 006293).
- Bacillaria lunula* Schrank 1823, p. 533 [ref. 000809]. *Invalid*. Intended combination of *Vibrio lunula* O.F. Müller? Epithet not definitely associated with the genus name. No description or illustration. Combination listed, but not validated by VanLandingham 1979 (ref. 006514).
- Bacillaria lyngbyei* Bory 1824 [ref. 000147]. According to De Toni 1892, p. 653 (ref. 000950). Cited by De Toni pro syn. *Synedra ulna*.
- Bacillaria macilenta* (Gregory in Greville) Lefébure 1947, pl. 26, fig. 16 [ref. 000602]. Basionym: *Nitzschia macilenta* Gregory in Greville 1859.
- Bacillaria major* Ehrenberg 1838, p. 201 [ref. 000288]. First appeared as nomen nudum in Ehrenberg 1836, p. 53 (ref. 001171).
- Bacillaria marina* J.W. Bailey 1843, p. 150; pl. 2, fig. 38 [ref. 005993]. Described and illustrated, but unnamed in Bailey 1842, p. 102 (ref. 000116).
- Bacillaria meneghinii* Lobarzewski 1840, p. 269; pl. 4, fig. 3 [ref. 000614].
- Bacillaria militaris* Hobson 1869, p. 139 [ref. 010569]. *Invalid*. [according to INA]. INA notes: “epithet suggested as better suited than *paradoxa*, but not in a seriously scientific manner”.
- Bacillaria muelleri* Turpin 1816-1829, pl. 1; fig. 1f (as *B. Müllerii* (Bory) *Vibrio paxillifer* (Müll.)) [ref. 002169]. New name for *Vibrio paxillifer* O. Müller 1986?
- Bacillaria multipunctata* Ehrenberg in Hemprich & Ehrenberg 1828, pl. 2/4; fig. 12 [ref. 000474].
- Bacillaria multistriata* Ehrenberg in Hemprich & Ehrenberg 1828, pl. 2/4, fig. 9 [ref. 000474].
- Bacillaria naegeli* Ralfs in Pritchard 1861, p. 955 (expl. pl. 15, fig. 28) (*‘nägelii’*) [ref. 001063]. As *Melosira nägeli* Ralfs in text p. 822.
- Bacillaria obtusa* (Lyngbye) Tömösváry 1879, p. 150 (as *B. obtusa* (Kütz.)) [ref. 005657]. Basionym: *Echinella obtusa* Lyngbye 1819.
- Bacillaria obtusa* (W. Smith) Elmore in Barbour 1895, p. 20 [ref. 003441]. Basionym: *Nitzschia obtusa* W. Smith 1853.
- Bacillaria palea* Nitzsch 1817, p. 78; pl. 3, fig. 1-7 [ref. 000684].
- Bacillaria paradoxa* Gmelin in Linnaeus 1788, p. 3903 [ref. 000613]. Gmelin gives a description and refers to “O.F. Müller Kl. Schr. 1: 1, figs. 1-8”. [1782: according to INA].
- Bacillaria paradoxa* var. *minuta* Borscow 1877 [ref. 002902]. According to Hollerbakh & Krasavina 1971, p. 55 (ref. 002458). [according to VLC].
- Bacillaria paradoxa* var. *pacifica* (Grunow in Cleve & Grunow) De Toni 1892, p. 494 [ref. 000950]. Basionym: *Nitzschia paradoxa* var. *pacifica* Grunow in Cleve & Grunow 1880.
- Bacillaria paradoxa* var. *tropica* (Grunow) Grunow 1877, p. 173; pl. 194, fig. 11 [ref. 000437]. Basionym: *Bacillaria tropica* Grunow 1867.
- Bacillaria paradoxa* var. *tumidula* (Grunow in Cleve & Grunow) De Toni 1892, p. 494 [ref. 000950]. Basionym: *Nitzschia paradoxa* var. *tumidula* Grunow in Cleve & Grunow 1880.
- Bacillaria paxillifer* (O. F. Müller) T. Marsson 1901, p. 254 (*‘paxillifer’*) [ref. 001761]. Basionym: *Vibrio paxillifer* O.F. Müller 1786. Bory 1924, p. 128 (ref. 000147) had previously noted “Le *Vibrio paxillifer* de Müller est le type de ce genre”, but his statement did not constitute valid publication of the combination *Bacillaria paxillifer* which is validly published by Marsson.
- Bacillaria paxillifera* (O. F. Müller) Hendey 1951, p. 74 (*‘paxillifer’*) [ref. 000477]. Basionym: *Vibrio paxillifer* O.F. Müller 1786. Isonym: Combination previously published by Marsson 1901.
- Bacillaria paxillifera* var. *czarneckii* R. Jahn & A.-M. Schmid 2007, p. 301; fig. 5, 6, 22-26, 37 [ref. 012943].
- Bacillaria paxillifera* var. *tumidula* (Grunow) A. Witkowski, H. Lange-Bertalot & D. Metzeltin 2000, p. 357 (*‘paxillifer’*) [ref. 009017]. Basionym: *Nitzschia paradoxa* var. *tumidula* Grunow in Cleve & Grunow 1880.
- Bacillaria paxillum* Bory 1831, p. 42 [= expl. pl. 54 (Bacillariées, fig. 9)] [ref. 012705]. There is no entry for that name in Bory 1822, p. 127 (ref. 012544).
- Bacillaria pectinalis* Nitzsch 1817, p. 107; pl. 6, fig. 7-10 [ref. 000684].
- Bacillaria pectinalis* Ehrenberg 1838, p. 198; pl. 15, fig. 4 [ref. 000288]. A citation of *B. pectinalis* Nitzsch?
- Bacillaria pectinalis* var. *elongata* Ehrenberg 1838, p. 197 [ref. 000288]. *Invalid*. According to Ehrenberg 1838, p. 197 (fide VLC).

- Bacillaria phoenicenteron* Nitzsch 1817, p. 92; pl. 4, fig. 1–22 [ref. 000684].
- Bacillaria praelonga* (Cleve) De Toni 1892, p. 495 [ref. 000950]. Basionym: *Nitzschia praelonga* Cleve in Cleve & Grunow 1880.
- Bacillaria ptolemaei* Ehrenberg 1828, pl. III:V: fig. 1 (Phytozoa) [ref. 012549]. Description in Ehrenberg 1831, p. [5] (ref. 000990). See also Ehrenberg 1832, p. 84 (ref. 000282) (described in German as *B. ptolemaei* Hemprich et Ehrenberg). See also Ehrenberg 1838, p. 200; pl. 15, fig. 10 (ref. 000288).
- Bacillaria seriata* Ehrenberg 1835, p. 232 [ref. 000284].
- Bacillaria sigmoidea* Nitzsch 1817, p. 104; pl. 6, fig. 4–6 [ref. 000684].
- Bacillaria silicula* Musatova 1931 [ref. 003015]. According to Hollerbakh & Krasavina 1971, p. 55 (ref. 002458). [according to VLC].
- Bacillaria silicula* var. *genuina* Musatova 1931 [ref. 003015]. According to Hollerbakh & Krasavina 1971, p. 55 (ref. 002458). [according to VLC].
- Bacillaria silicula* var. *inflata* Musatova 1931 [ref. 003015]. According to Hollerbakh & Krasavina 1971, p. 55 (ref. 002458). [according to VLC].
- Bacillaria silicula* var. *major* Musatova 1931 [ref. 003015]. According to Hollerbakh & Krasavina 1971, p. 55 (ref. 002458). [according to VLC].
- Bacillaria silicula* var. *truncata* Musatova 1931 [ref. 003015]. According to Hollerbakh & Krasavina 1971, p. 55 (ref. 002458). [according to VLC].
- Bacillaria sinuata* (Thwaites in W. Smith) Elmore in Barbour 1895, p. 20 [ref. 003441]. Basionym: *Denticula sinuata* Thwaites in W. Smith 1856.
- Bacillaria socialis* (Gregory) Ralfs in Pritchard 1861, p. 784 [ref. 001063]. Basionym: *Nitzschia socialis* Gregory 1857.
- Bacillaria socialis* var. *australis* (Grunow in Cleve & Grunow) De Toni 1892, p. 494 [ref. 000950]. Basionym: *Nitzschia socialis* var. *australis* Grunow in Cleve & Grunow 1880.
- Bacillaria socialis* var. *baltica* (Grunow in Cleve & Grunow) De Toni 1892, p. 494 [ref. 000950]. Basionym: *Nitzschia socialis* var. *baltica* Grunow in Cleve & Grunow 1880.
- Bacillaria socialis* var. *basaltica* Héribaud 1903, p. 28 [ref. 001267]. *Invalid*. Nomen nudum.
- Bacillaria socialis* var. *indica* Castracane 1886, p. 69; pl. 25, fig. 9, 10 [ref. 000193].
- Bacillaria socialis* var. *kariana* (Grunow in Cleve & Grunow) De Toni 1892, p. 494 [ref. 000950]. Basionym: *Nitzschia socialis* var. *kariana* Grunow in Cleve & Grunow 1880.
- Bacillaria socialis* var. *massiliensis* (Grunow in Cleve & Grunow) De Toni 1892, p. 494 [ref. 000950]. Basionym: *Nitzschia socialis* var. *massiliensis* Grunow in Cleve & Grunow 1880.
- Bacillaria socialis* var. *sancti-cataldi* Zanon 1933, p. 35; pl. 1, fig. 7 (as *Bacillaria socialis* var. *S. ti Cataldi* in text, var. *S. Cataldi* in plate caption) [ref. 001574].
- Bacillaria socialis* var. *seyschellensis* (Grunow in Cleve & Grunow) De Toni 1892, p. 494 [ref. 000950]. Basionym: *Nitzschia socialis* var. *seyschellensis* Grunow in Cleve & Grunow 1880.
- Bacillaria spectabilis* (Ehrenberg) Elmore in Barbour 1895, p. 20 [ref. 003441]. Basionym: *Synedra spectabilis* Ehrenberg 1843.
- Bacillaria subtilis* (Kützing) Elmore in Barbour 1895, p. 20 [ref. 003441]. Basionym: *Synedra subtilis* Kützing 1844.
- Bacillaria tabellaris* Ehrenberg 1835, p. 232 [ref. 000284].
- Bacillaria tabellaris* Eichwald 1844 [ref. 002934]. According to Hollerbakh & Krasavina 1971, p. 55 (ref. 002458). [according to VLC]. Or Eichwald 1844 (ref. 002943)? Non Ehrenberg 1835.
- Bacillaria taeniaeformis* (J.E. Smith) Nitzsch 1817, p. 117 [ref. 000684]. *Invalid*. Implied? Not a valid new combination of *Conferva taeniaeformis* J.E. Smith 1808 (specific epithet not definitely associated with the generic name “*Bacillaria*”). Combination *Bacillaria taeniaeformis* (J.E. Smith) VanLandingham 1979, p. 4263 (ref. 006514) also invalid (combination listed but not accepted by VanLandingham, and place of publication of basionym not cited).
- Bacillaria tenuis* ‘Ehrenberg’ according to Peragallo 1897, p. 124 [ref. 012539]. Not found in Ehrenberg 1854, p. 305 (ref. 000300) as indicated by Peragallo. No additional information about this name found.
- Bacillaria tenuis* (C. Agardh) Tömösváry 1879, p. 150 [ref. 005657]. Basionym: *Diatoma tenue* C. Agardh 1812.
- Bacillaria tenuis* var. *elongata* (Lyngbye) Tömösváry 1879, p. 150 (as *Bacillaria tenuis*  $\gamma$  *elongata* (C.A. Ag.)) [ref. 005657]. Basionym: *Diatoma tenue* var. *elongatum* Lyngbye 1819. Tömösváry attributes the basionym to Agardh, however it should have been Lyngbye.
- Bacillaria thurifera* Schrank 1823, p. 533 [ref. 000809]. *Invalid*. Intended combination of *Vibrio thurifer*? Epithet not definitely associated with the genus name. No description or illustration. Combination listed, but not validated by VanLandingham 1979, p. 4263 (ref. 006514).
- Bacillaria triangularis* Preuss 1846, p. 195; fig. 8 [ref. 012543].
- Bacillaria trinodis* Musatova 1931 [ref. 003015]. According to Hollerbakh & Krasavina 1971, p. 55 (ref. 002458). [according to VLC].
- Bacillaria tripunctata* Schrank 1823, p. 533 [ref. 000809]. *Invalid*. Intended combination of *Vibrio tripunctata* O.F. Müller?

Epithet not definitely associated with the genus name. No description or illustration. Combination listed, but not validated by VanLandingham 1979, p. 4263 (ref. 006514).

*Bacillaria tropica* Grunow 1867, p. 19 (as *Bacillaria (paradoxa var.?) tropica*) [ref. 000431].

*Bacillaria ulna* Nitzsch 1817, p. 99; pl. 5, fig. 1-10 [ref. 000684].

*Bacillaria urve-millerae* A.M. Schmid & R. Jahn in R. Jahn & A.M. Schmid 2007, p. 303; fig. 8, 31-34, 36 [ref. 012943].

*Bacillaria vermicularis* (Kützing) Elmore in Barbour 1895, p. 20 [ref. 003441]. Basionym: *Frustulia vermicularis* Kützing 1833.

*Bacillaria vermiculus* Schrank 1823, p. 533 [ref. 000809]. *Invalid*. Intended combination of *Vibrio vermiculus* O.F. Müller? Epithet not definitely associated with the genus name. No description or illustration. Combination listed, but not validated by VanLandingham 1979, p. 4263 (ref. 006514).

*Bacillaria vermina* Schrank 1823, p. 533 [ref. 000809]. *Invalid*. Intended combination of *Vibrio verminus* O.F. Müller? Epithet not definitely associated with the genus name. No description or illustration. Combination listed, but not validated by VanLandingham 1979, p. 4263 (ref. 006514).

*Bacillaria viridis* Nitzsch 1817, p. 97; pl. 6, fig. 1, 3 [ref. 000684].

*Bacillaria vitrea* Bory 1831, p. 41 [= expl. pl. 54 (Bacillariées), fig. 8] [ref. 012705].

*Bacillaria vulgaris* (Bory) Ehrenberg 1836, p. 53 [ref. 001171]. Basionym: *Diatoma vulgaris* Bory 1824. See Ehrenberg 1838, p. 197; pl. 15, fig. 2 (ref. 000288).

### **BACTERIASTRUM G. Shadbolt 1854, p. 14 [ref. 000821]**

LT: *Bacteriastrum furcatum* G. Shadbolt 1854

Type designated by Boyer 1927, p. 114 (ref. 000155).

*Bacteriastrum affine* (Lauder) Tempère & Peragallo 1889, p. 144; No. 282-283 [ref. 000881]. Basionym: *Chaetoceros affinis* Lauder 1864.

*Bacteriastrum biconicum* Pavillard 1916, p. 29; pl. 2, fig. 2 [ref. 001453].

*Bacteriastrum brevispinum* Castracane 1886, p. 83; pl. 15, fig. 6, 8 [ref. 000193].

*Bacteriastrum comosum* Pavillard 1916, p. 29; pl. 1, fig. 3 [ref. 001453].

*Bacteriastrum comosum* var. *hispidum* (Castracane) Ikari 1927, p. 428; fig. 8b [ref. 001286]. Basionym: *Bacteriastrum wallichii* var. *hispidum* Castracane 1886.

*Bacteriastrum criophilum* Karsten 1906, p. 170; pl. 33, fig. 22 [ref. 001023].

*Bacteriastrum curvatum* Shadbolt 1854, p. 14; pl. 1, fig. 12 [ref. 000821].

*Bacteriastrum delicatulum* Cleve 1897, p. 298; fig. 16 [ref. 001138]. In text misprinted fig. 15.

*Bacteriastrum delicatulum* var. *princeps* (Castracane) Pavillard 1911, p. 26; fig. 1E [ref. 001451]. Basionym: *Bacteriastrum varians* Lauder var. *princeps* Castracane 1886. [according to VLC].

*Bacteriastrum elegans* Pavillard 1916, p. 28; pl. 1, fig. 2 [ref. 001453].

*Bacteriastrum elegans* var. *hispidum* (Castracane) Pavillard 1924, p. 1089 [ref. 001456]. Basionym: *Bacteriastrum wallichii* var. *hispidum* Castracane 1886.

*Bacteriastrum elongatum* Cleve 1897, p. 19; pl. 1, fig. 19 [ref. 001137].

*Bacteriastrum elongatum* var. *diversum* Ikari 1927, p. 426 [ref. 001286].

*Bacteriastrum furcatum* Shadbolt 1854, p. 14; pl. 1, fig. 1 [ref. 000821].

*Bacteriastrum furcatum* var. *hispidum* (Castracane) Simonsen 1974, p. 32 [ref. 003158]. Basionym: *Bacteriastrum wallichii* var. *hispidum* Castracane 1886.

*Bacteriastrum halo* Brun in Brun & Tempère 1889, p. 26; pl. 9, fig. 10 [ref. 000185].

*Bacteriastrum hebes* 'Mann' Mills 1933, p. 262 [ref. 006140]. *Invalid*. Citation error for *Chaetoceros hebes* Mann 1925. Combination listed but not accepted by Mills (lower case print).

*Bacteriastrum hyalinum* Lauder 1864, p. 8; pl. 3, fig. 7 [ref. 000600].

*Bacteriastrum hyalinum* var. *princeps* (Castracane) Ikari 1927, p. 423, fig. 3 [ref. 001286]. Basionym: *Bacteriastrum varians* Lauder var. *princeps* Castracane 1886.

*Bacteriastrum mediterraneum* Pavillard 1916, p. 29; pl. 2, fig. 1 [ref. 001453].

*Bacteriastrum medusa* 'Mann' Mills 1933, p. 263 [ref. 006140]. *Invalid*. Citation error for *Chaetoceros medusa* Mann 1925. Combination not accepted by Mills.

*Bacteriastrum minus* Karsten 1906, p. 171; pl. 33, fig. 21 [ref. 001023].

*Bacteriastrum nodulosa* Shadbolt 1854, p. 14 [ref. 000821].

*Bacteriastrum parallelum* Sarno, Zingone & Marino 1997, p. 259; fig. 3-18 [ref. 008759].

*Bacteriastrum pennatum* Grunow ex Cleve & Möller 1878, No. 125 [ref. 001976]. *Invalid*. Nomen nudum.

*Bacteriastrum princeps* 'Mann' Mills 1933, p. 263 [ref. 006140]. *Invalid*. Citation error for *Chaetoceros princeps* (Castracane) Mann 1925. Combination not accepted by Mills (lower case print).

*Bacteriastrum productum* H.L. Smith 1876-1888, no. 618 (1888) [ref. 000858]. *Invalid*. Nomen nudum. No Author cited by



- H.L. Smith, no description. Name of a new taxon? Name, credited to H.L. Smith, is also cited by De Toni 1894, p. 1000 (ref. 000951), pro. syn. *Chaetoceros productus*, but without a description.
- Bacteriastrum shadbolti*** Ehrenberg 1854, p. 237 [ref. 000301]. *Invalid*. Pro syn. (alternate name) *Actiniscus sexfurcatus*. Not accepted: see Ehrenberg 1854, p. 70 (ref. 012550).
- Bacteriastrum sinensis*** Reyssac 1968, p. 146; fig. 2 a, b [ref. 008710].
- Bacteriastrum solitarium*** L. Mangin 1913, p. 38; pl. 2, fig. 11; text-fig. 24 [ref. 001361].
- Bacteriastrum spirillum*** Castracane 1886, p. 83; pl. 19, fig. 2, pl. 29, fig. 1 [ref. 000193].
- Bacteriastrum symmetricum*** Leuduger-Fortmorel 1892, p. 36; pl. 7, fig. 1 [ref. 000607].
- Bacteriastrum tenue*** Nielsen 1931, p. 2; fig. 1 [ref. 001412].
- Bacteriastrum varians*** Lauder 1864, p. 8; pl. 3, figs. 1-6 [ref. 000600].
- Bacteriastrum varians*** Lauder var. *borealis* Ostenfeld 1901, p. 293; fig. 5 [ref. 001431].
- Bacteriastrum varians*** Lauder f. *curvata* (Shadbolt) M. Peragallo 1897, p. 125 [ref. 012539]. Basionym: *Bacteriastrum curvatum* Shadbolt 1854. Probable new combination of *Bacteriastrum curvatum* Shadbolt 1854. Name accepted by M. Peragallo; synonyms listed: “*Actiniscus curvatus* - *Bacteriastrum curvatum* Eh.”.
- Bacteriastrum varians*** Lauder f. *furcata* (Shadbolt) M. Peragallo 1897, p. 125 [ref. 012539]. Basionym: *Bacteriastrum furcatum* Shadbolt 1854. Probable new combination of *Bacteriastrum furcatum* Shadbolt 1854. Name accepted by M. Peragallo; synonyms listed: “*Actiniscus bioctonarius*, *biseptenarius*, *sexfurcatus* Eh. - *Bacteriastrum furcatum* Shad.”.
- Bacteriastrum varians*** Lauder var. *hispida* (Castracane) Schröder 1906, p. 347; fig. 11 [ref. 001504]. Basionym: *Bacteriastrium wallichii* var. *hispida* Castracane 1886.
- Bacteriastrum varians*** Lauder var. *hyalina* (Lauder) Peragallo & Peragallo 1897-1908, p. 470 [ref. 000733]. Basionym: *Bacteriastrium hyalinum* Lauder 1864. Combination in Text only. Illustrated as *Bacteriastrium hyalinum* on pl. 136, fig. 6 (ref. 001060; issued 1907). Text was published in the 1901-1908 interval (perhaps 1907 for page 470).
- Bacteriastrium varians*** Lauder f. *hyalina* (Lauder) Frenguelli 1928, p. 543 [ref. 000352]. Basionym: *Bacteriastrium hyalinum* Lauder 1864. [according to INA].
- Bacteriastrium varians*** Lauder var. *princeps* Castracane 1886, p. 84; pl. 14, fig. 2, pl. 29, fig. 3 [ref. 000193].
- Bacteriastrium varians*** Hustedt 1930, p. 615 (as “*Bacteriastrium varians* auct. nonnull. (non Lauder 1864)”) [ref. 000503]. *Invalid*. Cited pro synonym *Bacteriastrium hyalinum* Lauder.
- Bacteriastrium wallichii*** Ralfs in Pritchard 1861, p. 863; pl. 6, fig. 27 [ref. 001063]. New name for *Chaetoceros bacteriastrium* Wallich 1860.
- Bacteriastrium wallichii*** var. *hispida* Castracane 1886, p. 83; pl. 23, fig. 3 [ref. 000193].

**BACTEROSIRA H.H. Gran 1900, p. 114 [ref. 001228]**

T: *Bacterosira fragilis* (H.H. Gran) H.H. Gran 1900  
(= *Lauderia fragilis* H.H. Gran 1897)

- Bacterosira bathyomphala*** (P. T. Cleve) Syvertsen & Hasle in Hasle & Syvertsen 1993, p. 298; fig. 1-16 [ref. 006581]. Basionym: *Coscinodiscus bathyomphalus* Cleve 1883.
- Bacterosira concavo-convexa*** Makarova 1990, p. 1568; pl. 1, fig. 1-16 [ref. 008550]. [according to ANSP].
- Bacterosira fragilis*** (Gran) Gran 1900, p. 114 [ref. 001228]. Basionym: *Lauderia fragilis* Gran 1897. See also *Bacterosira fragilis* Gran emend Hasle 1973, p. 40 (ref. 006500).
- Bacterosira fragilis*** var. *umbonata* Gaarder 1938, p. 50; text fig. 3 (*‘Bacteriosira’*) [ref. 008220].
- Bacterosira setigera*** Jousé 1960, p. 189 (table) [ref. 004567]. Nomen nudum.

**BACTRYLLIUM O. Heer 1853, p. 117 [ref. 006652]**

LT: *Bactryllium canaliculatum* O. Heer 1853  
Type designated by H.N. Andrews, Jr. 1955, p. 114 (ref. 006660).

Probably not a diatom genus (see Allasinaz 1968 [ref. 013113]).

- Bactryllium canaliculatum*** Heer 1853, p. 125; pl. 6, fig. F [ref. 006652].
- Bactryllium deplanatum*** Heer 1853, p. 121, pl. 6, fig. B [ref. 006652].
- Bactryllium giganteum*** Heer 1853, p. 122, pl. 6, fig. C [ref. 006652].
- Bactryllium heeri*** A. Allasinaz 1968, p. 1100; pl. 72, fig. 2-6, tex-fig. 16 [ref. 013112]. Not a diatom.
- Bactryllium meriani*** Heer 1853, p. 122; pl. 6, fig. D [ref. 006652].
- Bactryllium plicatum*** A. Allasinaz 1968, p. 1097; pl. 71, fig. 1-10, tex-fig. 15 [ref. 013112]. Not a diatom.
- Bactryllium schmidtii*** Heer 1853, p. 123; pl. 6, fig. E [ref. 006652].
- Bactryllium striolatum*** Heer 1853, p. 118; pl. 6, fig. A [ref. 006652].

**BACULITES J. Grüss 1928, p. 513 [ref. 006653]**

T: not designated

Not validly published because lacking a description while not being monospecific (4 species originally included).

*Baculites binodatus* Grüss 1928, p. 514; text-fig. 25 (p. 511), 27 (p. 512); pl. 41, fig. 25, 26 [ref. 006653]. *Invalid*. Genus name invalid.*Baculites devonicus* Grüss 1928, p. 514-515; text-fig. 33 (p. 512) [ref. 006653]. *Invalid*. Genus name invalid.*Baculites medionodatus* Grüss 1928, p. 514; text-fig. 24 (p. 510) [ref. 006653]. *Invalid*. Genus name invalid.*Baculites minutus* Grüss 1928, p. 513-514; text-fig. 23 (p. 510) [ref. 006653]. *Invalid*. Genus name invalid.**BAILEYA T. Marsson 1901, p. 253 [ref. 001761]**T: *Baileya circumscuta* (Bailey) Marsson 1901(= *Surirella circumscuta* Bailey 1851)Non *Baileya* Harvey & A. Gray ex A. Gray 1849, nec *Baileya* Kützing 1857.*Baileya circumscuta* (J. W. Bailey) Marsson 1901, p. 253 [ref. 001761]. Basionym: *Surirella circumscuta* J.W. Bailey 1851.**BALANOSA S. Komura 1996, p. 51 [ref. 009313]**T: *Balanosa fusiformis* S. Komura 1996*Balanosa continua* S. Komura 1996, p. 53; fig. 21, 85-91 [ref. 009313].*Balanosa fusiformis* S. Komura 1996, p. 52; fig. 18-20, 77-84 [ref. 009313].**BANGIA H.C. Lyngbye 1819, p. 82 [ref. 000620]**LT: *Bangia fuscopurpurea* (Dillwyn) Lyngbye(= *Conferva fuscopurpurea* Dillwyn)

Type designated by Silva, Univ. Calif. Publ. Bot. 25: 261. 1952.

Eight species originally included. Although diatoms may have originally been assigned to this genus it belongs to the red algae.

*Bangia micans* Lyngbye 1819, p. 84; pl. 25, fig. A [ref. 000620].*Bangia quadripunctata* Lyngbye 1819, pl. 86 [ref. 000620].*Bangia rutilans* (Roth) Lyngbye 1819, p. 84; pl. 24, fig. D [ref. 000620]. Basionym: *Conferva rutilans* Trentepohl ex Roth 1806.**BANQUISIA T.B.B. Paddock 1988, p. 79 [ref. 006160]**T: *Banquisia belgicae* (H. Van Heurck) T.B.B. Paddock 1988(= *Amphiprora belgicae* Van Heurck 1909)*Banquisia belgicae* (Van Heurck) Paddock 1988, p. 79-81; pl. 28, fig. 1-10 [ref. 006160]. Basionym: *Amphiprora belgicae* Van Heurck 1909.**BASILICOSTEPHANUS R. Gersonde & D.M. Harwood 1990, p. 371 [ref. 006383]**T: *Basilicostephanus ornatus* R. Gersonde & D.M. Harwood 1990*Basilicostephanus mirabilis* Gersonde & Harwood 1990, p. 371; pl. 2, fig. 11-12, pl. 3, fig. 5, 7-8, pl. 4, fig. 13-14, 21-22, pl. 19, fig. 7-8 [ref. 006383].*Basilicostephanus ornatus* Gersonde & Harwood 1990, p. 371; pl. 3, fig. 4, pl. 4, fig. 5-12, 15-17, pl. 5, fig. 1-8 [ref. 006383].**BAXTERIA H. Van Heurck 1896, p. 460 [ref. 000897]**T: *Baxteria brunii* H. Van Heurck 1896Non *Baxteria* R. Brown ex W.J. Hooker, 1848 (nom. cons.), nec *Baxteria* H.G. Reichenbach 1828 (nom. rej.). Synonym (substitute name): *Baxteriopsis* G. Karsten 1928.The genus name *Baxteria* was first mentioned in Tempère 1894, p. 79 (ref. 001540) but was not validly published until Van Heurck 1896.*Baxteria brunii* Van Heurck in Tempère 1894, p. 79 [ref. 001540]. *Invalid*. Nomen nudum, and predates the valid publication of the genus name.

*Baxteria brunii* Van Heurck 1896, p. 460, text fig. 100 [ref. 000897].

*Baxteria formosa* Brun 1896, p. 234; pl. 20, figs. 1, 2 [ref. 000183].

**BAXTERIOPSIS G. Karsten in A. Engler & K. Prantl 1928, p. 250, fig. 315 [ref. 000560]**

T: *Baxteriopsis brunii* (H. Van Heurck) G. Karsten in A. Engler & K. Prantl 1928  
(= *Baxteria brunii* H. Van Heurck 1893)

Substitute name for *Baxteria* Van Heurck, 1896, non R. Brown ex W.J. Hooker 1843 (nom. cons.), nec H.G.L. Reichenbach 1828 (nom. rej.).

*Baxteriopsis brunii* (Van Heurck) Karsten 1928, p. 249, 250; fig. 314 [ref. 000560]. Basionym: *Baxteria brunii* Van Heurck 1896.

**BELLEROCHEA H. Van Heurck 1885, p. 203 [ref. 001040]**

T: *Bellerochea malleus* (T. Brightwell) H. Van Heurck 1885  
(= *Triceratium malleus* T. Brightwell 1858)

*Bellerochea horologicalis* von Stosch 1977, p. 130-131; text fig. 1b, fig. 26-42, 44 [ref. 003172].

*Bellerochea horologicalis* var. *recta* von Stosch 1987, p. 76, 78; fig. 205-208 [ref. 006657].

*Bellerochea indica* Karsten 1907, p. 393; pl. 46, fig. 2 [ref. 001024].

*Bellerochea malleus* (Brightwell) Van Heurck 1885, p. 203 [ref. 001040]. Basionym: *Triceratium malleus* Brightwell 1858.

*Bellerochea malleus* f. *biangularis* von Stosch 1977, p. 130 [ref. 003172]. *Invalid*. Citation error for *Bellerochea malleus* f. *biangularata* (Peragallo & Peragallo) Hustedt.

*Bellerochea malleus* var. *biangularata* H. Peragallo & M. Peragallo 1897-1908, p. 394 [ref. 000733]. No illustration. Text was published in the 1901-1908 interval; perhaps in 1901 for p. 394 (plate 95 in Atlas for genus *Bellerochea* was published in 1901; ref. 001056).

*Bellerochea malleus* f. *biangularata* (H. Peragallo & M. Peragallo) Hustedt 1930, p. 782 [ref. 000503]. Basionym: *Bellerochea malleus* var. *biangularata* H. Peragallo & M. Peragallo 1897-1908.

*Bellerochea malleus* f. *quadrangularis* von Stosch 1977, p. 130; [fig. 10] [ref. 003172]. *Invalid*. No Latin diagnosis, no type designated. Probable citation error for *Bellerochea malleus* f. *tetragona* (Van Heurck) Hustedt 1930.

*Bellerochea malleus* f. *tetragona* (Van Heurck) Hustedt 1930, p. 783 [ref. 000503]. Basionym: *Triceratium malleus* var. *tetragona* Grunow in Van Heurck 1883.

*Bellerochea malleus* var. *tetragona* (Grunow in Van Heurck) F.W. Mills 1933, p. 266 (as *Bellerochea malleus* f.v. *tetragona* V.H.) [ref. 006140]. Basionym: *Triceratium malleus* var. *tetragona* Grunow in Van Heurck 1883. Rank ambiguous. Accepted by Mills (upper case print).

*Bellerochea malleus* f. *triangularis* von Stosch 1977, p. 130; [fig. 9] [ref. 003172]. *Invalid*. No Latin diagnosis, no type designated.

*Bellerochea polymorpha* Hargraves & Guillard 1974, p. 166-168; fig. 1-8 [ref. 002955].

*Bellerochea spinifera* Hargraves & Guillard 1974, p. 168; fig. 9-12 [ref. 002955].

*Bellerochea yucatanensis* von Stosch 1977, p. 131-132; text fig. 1c, fig. 45-70 [ref. 003172].

**BELONASTRUM (Lemmermann) F.E. Round & N.I. Maidana 2001, p. 22 [ref. 009507]**

T: *Belonastrum berolinensis* (Lemmermann) Round & Maidana 2001  
(= *Synedra berolinensis* Lemmermann 1900)

Genus name based on *Synedra* section *Belonastrum* Lemmermann 1900 (ref. 001342).

Lemmermann 1900 included two species in his section of *Synedra*: *Synedra actinastroides* Lemm. and *Synedra berolinensis* Lemm., but did not indicate a type. Type designated by Round & Maidana.

*Belonastrum berolinensis* (Lemmermann) F. E. Round & N. I. Maidana 2001, p. 22 [ref. 009507]. Basionym: *Synedra berolinensis* Lemmermann 1900.

**BELONIDIUM C.G. Ehrenberg 1854, p. 290 [ref. 000300]**

T: *Belodinium vibrio* C.G. Ehrenberg 1854  
Non *Belonidium* Durieu de Maisonneuve 1848.

*Belonidium vibrio* Ehrenberg 1854, p. 290, 292 [ref. 000300]. Diagnosis on p. 290.

**BENETORUS G D. Hanna 1927, p. 15 [ref. 000010]**T: *Benetorus fantasmus* G D. Hanna 1927*Benetorus craspedodiscoides* Sims 1994, p. 169; fig. 13-20, 52 [ref. 006395].*Benetorus fantasmus* Hanna 1927, p. 16; pl. 1, fig. 9, 10 [ref. 000010].*Benetorus morenoensis* (Long, Fuge & Smith) Sims 1994, p. 167; fig. 7-12, 51, 56, 57 [ref. 006395]. Basionym: *Craspedodiscus morenoensis* Long, Fuge & Smith 1946.**BENNETTELLA R.W. Holmes 1985, p. 48 [ref. 004432]**T: *Bennettella ceticola* (E.W. Nelson) R.W. Holmes 1985(= *Cocconeis ceticola* E.W. Nelson 1920)*Bennettella berardii* Holmes & Nagasawa 1995, p. 35-36; pl. 3, fig. 1-9, pl. 4, fig. 1-10 [ref. 008351]. [according to ANSP].*Bennettella ceticola* (Nelson in Bennett) Holmes 1985, p. 51; fig. 1-11, 14-17, 18-23 [ref. 004432]. Basionym: *Cocconeis ceticola* Nelson in Bennett 1920. Page of publication of basionym not given. Probably valid, however, as only one species name (*Cocconeis ceticola*) is published in Bennett's article, and pagination of entire article is given by Homes in bibliography.*Bennettella constricta* (Nemoto) Holmes 1985, p. 53; fig. 24-26 [ref. 004432]. Basionym: *Cocconeis ceticola* f. *constricta* Nemoto 1956. *Invalid*. Page of publication of basionym not given.*Bennettella wheeleri* (Hart) Holmes 1985, p. 52; fig. 12-13, 27-39 [ref. 004432]. Basionym: *Cocconeis wheeleri* Hart 1935. *Invalid*. Page of publication of basionym not cited.**BERGONIA J. Tempère in J. Brun et al. 1891, p. 70 [ref. 001938]**T: *Bergonia barbadensis* J. Tempère in Brun et al. 1891*Bergonia angelica* Gombos 1982, p. 372, 374; fig. 1a-c, 2a-f, 3 [ref. 004266].*Bergonia barbadensis* Tempère in Brun et al. 1891, p. 70; pl. 11, fig. 8, 9 [ref. 001938].*Bergonia primitiva* Gombos 1980, p. 240-241; fig. 62-66 [ref. 003162].*Bergonia tetrapoda* 'J. Brun' according to M. Peragallo 1897, p. 126 [ref. 012539]. *Invalid*. Error (typographical) for *Bergonia tetrapora* Brun 1896.*Bergonia tetrapora* Brun 1896, p. 234; pl. 24, fig. 1 [ref. 000183].**BERKELEYA R.K. Greville 1827, pl. 294 [ref. 002033]**T: *Berkeleya fragilis* R.K. Greville 1827*Berkeleya adeliensis* Medlin 1990, p. 82, 84; fig. 3, 7-9, 20-24 [ref. 006273].*Berkeleya adriatica* Kützing 1844, p. 109; pl. 22, fig. 4 [ref. 000595].*Berkeleya adriatica* sensu Grunow 1877, p. 180; pl. 195, fig. 15 (as *Berkeleya adriatica* Kütz.) [ref. 000437]. Cleve 1894, p. 126 (ref. 000232) treats *Berkeleya adriatica* sensu Grunow as a synonym of *Amphipleura micans* (Lynbye) Cleve.*Berkeleya antarctica* Harvey ex Grunow 1880, p. 1592 [ref. 001245]. Also in Grunow in Van Heurck 1880, pl. 16, fig. 20 (ref. 000895).*Berkeleya blyttii* (Agardh) Grunow 1880, p. 1592 [ref. 001245]. Basionym: *Micromega blyttii* Agardh 1830.*Berkeleya bombycina* (Kützing) Grunow 1880, p. 1592 [ref. 001245]. Basionym: *Micromega bombycinum* Kützing 1844.*Berkeleya capensis* Giffen 1970, p. 89; pl. 1, fig. 5-7 [ref. 003156].*Berkeleya capitata* (Kützing) Grunow 1880, p. 1596 [ref. 001245]. Basionym: *Schizonema capitatum* Kützing 1844.*Berkeleya conferta* (W. Smith) Grunow 1880, p. 1593 [ref. 001245]. Basionym: *Schizonema confertum* W. Smith 1856.*Berkeleya conferta* var. *apiculata* Grunow 1880, p. 1593 [ref. 001245].*Berkeleya conferta* var. *clavata* (J. Agardh in Hohenacker's) Grunow 1880, p. 1593 [ref. 001245]. Basionym: *Schizonema clavatum* J. Agardh in Hohenacker 1852. Includes description.*Berkeleya conferta* var. *implexa* Grunow 1880, p. 1593 [ref. 001245].*Berkeleya corymbosa* Crouan ex Mazé & Schramm & Mazé 1866, p. 117 [ref. 011541]. Previously appeared as nomen nudum in Schramm & Mazé 1865, p. 48 (ref. 012894).*Berkeleya crispa* (Montagne) Grunow 1880, p. 1594 [ref. 001245]. Basionym: *Schizonema crispum* Montagne 1842.*Berkeleya dillwynii* (Agardh) Grunow 1867, p. 22 (adn.) [ref. 000432]. Basionym: *Schizonema dillwynii* Agardh 1824. Also in Van Heurck 1880, expl. pl. 16, fig. 15 (ref. 000895).*Berkeleya dillwynii* var. *rutilans* (Trentepohl ex Roth) Eiben 1871 [ref. 012651]. Basionym: *Conferva rutilans* Trentepohl ex Roth 1806. According to Chase 1907, p. 108 (ref. 002211).*Berkeleya dillwynii* var. *sericeum* Eiben ex Rabenhorst 1861-1882, no. 2234 [ref. 000773]. *Invalid*. No description.*Berkeleya dubia* (Harvey) Grunow 1880, p. 1593 [ref. 001245]. Basionym: *Schizonema dubium* Harvey 1841.

- Berkeleya ehrenbergii* (Kützing) Grunow 1880, p. 1593 [ref. 001245]. Basionym: *Schizonema ehrenbergii* Kützing 1844.
- Berkeleya ehrenbergii* var. *capillacea* Grunow 1880, p. 1594 [ref. 001245].
- Berkeleya ehrenbergii* var. *capitellata* Grunow 1880, p. 1594 [ref. 001245].
- Berkeleya ehrenbergii* var. *cirrhusa* Meneghini ex Grunow 1880, p. 1594 [ref. 001245]. Grunow cites as synonym: *Schizonema cirrhosum* Meneghini. *Schizonema cirrosus* Menigh. may be invalid (manuscript name?), but *Berkeleya ehrenbergii* var. *cirrhusa* is valid as the name of a new taxon as Grunow provides a description.
- Berkeleya ehrenbergii* var. *solieri* Meneghini ex Grunow 1880, p. 1594 ('*solierii*') [ref. 001245]. Grunow cites as synonym: *Schizonema solerii* Meneghini. *Schizonema solieri* Menigh. may be invalid (manuscript name?), but *Berkeleya ehrenbergii* var. *solieri* is valid as the name of a new taxon as Grunow provides a description.
- Berkeleya ehrenbergii* var. *subcorymbosa* Grunow 1880, p. 1594 [ref. 001245].
- Berkeleya fennica* Juhlin-Dannfelt 1882, p. 35; pl. 2, fig. 19 [ref. 000550].
- Berkeleya flagellifera* (Kützing) Grunow 1880, p. 1594 [ref. 001245]. Basionym: *Micromega flagelliferum* Kützing 1844.
- Berkeleya fragilis* Greville 1827, pl. 294, fig. 1-3 [ref. 002033].
- Berkeleya fragilis* Grev. var. *adriatica* (Kützing) Rabenhorst 1864, p. 265 [ref. 000775]. Basionym: *Berkeleya adriatica* Kützing 1844.
- Berkeleya fragilis* Grev. var. *adriatica* '(Kützing) Grunow' according to Mills 1933, p. 269 [ref. 006140]. Basionym: *Berkeleya adriatica* Kützing 1844. Citation error for *Berkeleya micans* var. *adriatica* (Kützing) Grunow 1880, p. 1585 (ref. 001245). Combination *B. fragilis* var. *adriatica* published by Rabenhorst 1864 (ref. 000775).
- Berkeleya fragilis* Grev. var. *libera* 'Arnott ms.' Grunow 1880, p. 1585 [ref. 001245]. *Invalid*. In syn. *Berkeleya micans* var. *libera* Grunow.
- Berkeleya fragilis* Grev. var. *radians* Grunow 1880, p. 1586 [ref. 001245].
- Berkeleya fragilis* sensu W. Smith 1856, p. 67; pl. 54, fig. 344 (as "*Berkeleya fragilis* Grev.") [ref. 001007]. *Invalid?* Non *B. fragilis* Greville according to Grunow in Van Heurck 1880, pl. 16, fig. 12 (ref. 000895).
- Berkeleya fusidium* Grunow 1867, p. 17 [ref. 000431].
- Berkeleya georgica* Reinsch 1890, p. 432; pl. 19, fig. 111 [ref. 001490].
- Berkeleya harveyana* Grunow 1867, p. 6; pl. 1, fig. 4 [ref. 000432]. Also described in Grunow 1868, p. 4 (ref. 000433).
- Berkeleya harveyi* Grunow 1867, p. 18 [ref. 000431]. *Invalid*. No description or illustration. Taxon later described by Grunow as *Berkeleya harveyana* Grunow 1967.
- Berkeleya harveyi* Grunow ex Pelletan 1888, p. 64; fig. 40 [ref. 000728]. *Illegitimate*. Name superfluous. Synonyms: *Berkeleya harveyi* Grunow 1867 (invalid, nomen nudum), *Berkeleya harveyana* Grunow 1867 (valid).
- Berkeleya hospitans* Grunow 1877, p. 181; pl. 195, fig. 16 [ref. 000437].
- Berkeleya hungarica* Pantocsek 1889, p. 55; pl. 9, fig. 165 [ref. 001033].
- Berkeleya hyalina* (Round & Brooks) Cox 1975, p. 11 [ref. 009594]. Basionym: *Amphipleura hyalina* Round & Brooks 1973. Page and plate not given with citation of basionym; combination valid, however, because the article cited in bibliography, with its entire pagination, is entirely on this species.
- Berkeleya hydruoides* (Kützing) Grunow 1880, p. 1595 [ref. 001245]. Basionym: *Schizonema hydruoides* Kützing 1844.
- Berkeleya hydruoides* var. *obscura* Grunow 1880, p. 1595 [ref. 001245].
- Berkeleya hydruoides* var. *rugosa* Grunow 1880, p. 1596 [ref. 001245].
- Berkeleya hydruoides* var. *subcapitata* Grunow 1880, p. 1595 [ref. 001245].
- Berkeleya insularis* Takano 1983, p. 14-15; fig. 1, 5-10 [ref. 003193].
- Berkeleya interrupta* (Kützing) Grunow 1877, p. 181 [ref. 000437]. Basionym: *Rhaphidogloea interrupta* Kützing 1844.
- Berkeleya interrupta* var. *medusina* (Kützing) Grunow 1880, p. 1586 [ref. 001245]. Basionym: *Rhaphidogloea medusina* Kützing 1844.
- Berkeleya intricata* (Kützing) Grunow 1880, p. 1594 [ref. 001245]. Basionym: *Micromega intricatum* Kützing 1844.
- Berkeleya intricata* var. *chrysoderma* Grunow 1880, p. 1594 [ref. 001245].
- Berkeleya lenormandi* (Kützing) M. Peragallo 1897, p. 128 [ref. 012539]. Basionym: *Schizonema lenormandi* Kützing 1849. Valid new combination (accepted by M. Peragallo). Listed synonyms: "*Monnema*[sic] *lenormandi* Men. - *Schiz. lenormandi*".
- Berkeleya lindheimeri* (Grunow) Giffen 1970, p. 89 [ref. 003156]. Basionym: *Amphipleura lindheimeri* Grunow 1862.
- Berkeleya lineata* (Kützing) Grunow 1880, p. 1597 [ref. 001245]. Basionym: *Micromega lineatum* Kützing 1844.
- Berkeleya manipulata* (Kützing) Grunow 1880, p. 1585 [ref. 001245]. Basionym: *Rhaphidogloea manipulata* Kützing 1844.
- Berkeleya medusina* (Kützing) Grunow 1877, p. 180 [ref. 000437]. Basionym: *Rhaphidogloea medusina* Kützing 1844.
- Berkeleya micans* (Lyngbye) Grunow 1868, p. 5 [ref. 000433]. Basionym: *Bangia micans* Lyngbye 1819. Also in Grunow 1868, p. 96 (ref. 000432).
- Berkeleya micans* var. *adriatica* (Kützing) Grunow 1880, p. 1585 [ref. 001245]. Basionym: *Berkeleya adriatica* Kützing 1844.
- Berkeleya micans* var. *fragilis* (Greville) Grunow in Peragallo & Peragallo 1897-1908, p. 50 [ref. 000733]. Basionym: *Berkeleya fragilis* Greville 1827. Combination in Text only. Illustrated in Atlas on pl. 7, fig. 9 (ref. 001052; issued 1897)

- as "*Berk. (micans* var.) *fragilis* Grev." Text was published in the 1897-1899 interval (perhaps 1897 for p. 50).
- Berkeleya micans*** var. *libera* Grunow 1880, p. 1585 [ref. 001245]. Valid name for *Berkeleya fragilis libera* Arnott, herbarium name.
- Berkeleya micans*** var. *radians* (Agardh) Grunow 1880, p. 1585 [ref. 001245]. Basionym: *Schizonema radians* Agardh 1830.
- Berkeleya minor*** Tempère in M. Peragallo 1897, p. 129 [ref. 012539]. *Invalid*. Refers to Tempère, P. Petit & M. Peragallo: Diatomées de France (exsiccata) Paris 1887-1891. Nomen nudum?
- Berkeleya neogradensis*** Pantocsek 1892, pl. 36, fig. 508 [ref. 001034]. No description. Diagnosis in Cleve 1894, p. 127 (ref. 000232).
- Berkeleya obtusa*** (Greville) Grunow in Van Heurck 1880, pl. 16, fig. 16 [ref. 000895]. Basionym: *Monema obtusum* Greville 1827.
- Berkeleya obtusa*** var. *adriatica* Grunow in Van Heurck 1880, pl. 16, figs. 17, 18 [ref. 000895].
- Berkeleya parasitica*** (Griffith in W.H. Harvey) Grunow in Van Heurck 1880, pl. 16, fig. 19 [ref. 000895]. Basionym: *Schizonema parasiticum* Griffith in Harvey 1841.
- Berkeleya parasitica*** var. *cervicornis* Grunow 1880, p. 1598 [ref. 001245].
- Berkeleya parasitica*** var. *gracillima* (W. Smith) Grunow 1880, p. 1597 [ref. 001245]. Basionym: *Schizonema gracillimum* W. Smith 1856.
- Berkeleya parasitica*** var. *mucosa* Grunow 1880, p. 1597 [ref. 001245].
- Berkeleya parasitica*** var. *novaezealandiae* (Grunow) De Toni 1891, p. 308 [ref. 000271]. Basionym: *Schizonema parasiticum* var. *novaezealandiae* Grunow 1867.
- Berkeleya parasitica*** var. *trichocephala* Grunow 1880, p. 1597 (as *Berkeleya parasitica* var.  $\beta$  *trichocephala*) [ref. 001245].
- Berkeleya patens*** (Kützing) Grunow 1880, p. 1595 [ref. 001245]. Basionym: *Micromega patens* Kützing 1844.
- Berkeleya patens*** var. *major* De Toni 1891, p. 305 [ref. 000271].
- Berkeleya pellucida*** (Kützing) Giffen 1970, p. 89 [ref. 003156]. Basionym: *Frustulia pellucida* Kützing 1833.
- Berkeleya penicillata*** (Kützing) Grunow 1877, p. 181 [ref. 000437]. Basionym: *Homoeocladia penicillata* Kützing 1849.
- Berkeleya prostratum*** H. Peragallo in Pelletan 1889, p. 286 [ref. 001001]. Valid? Listed as "*Schizonema prostratum* = *BERKELEYA*". To be treated as a valid combination of *Monema prostratum* Berkeley?
- Berkeleya pumila*** (Agardh) Grunow 1868, p. 5 [ref. 000433]. Basionym: *Schizonema pumilum* Agardh 1827. Also in Grunow 1868, p. 96 (ref. 000432).
- Berkeleya ramosissima*** according to Mills 1935, p. 1717 [ref. 006153]. Combination of *Schizonema ramosissimum* Agardh 1924? Accepted by Mills (upper case print), but no author cited, and in syn. of "*Micromega spinescens* Meneg." (lower case print).
- Berkeleya rutilans*** (Trentepohl ex Roth) Grunow 1880, p. 1587 [ref. 001245]. Basionym: *Conferva rutilans* Trentepohl ex Roth 1806.
- Berkeleya rutilans*** var. *adriatica* (Agardh) Grunow in Van Heurck 1880, pl. 16, fig. 17 [ref. 000895]. Basionym: *Schizonema adriaticum* Agardh 1830.
- Berkeleya rutilans*** var. *ambigua* Grunow 1880, p. 1589 [ref. 001245].
- Berkeleya rutilans*** var. *antarctica* 'Cleve' M. Peragallo M. Peragallo 1897, p. 130 [ref. 012539]. *Invalid*. Cit. error for *Amphipleura rutilans* var. *antarctica* (Grunow) Cleve 1894. Combination not accepted by M. Peragallo.
- Berkeleya rutilans*** f. *clavigera* (Brébisson in Kützing) De Toni 1891, p. 301 (as *Berkeleya rutilans* var. *striolata* f. *clavigera*) [ref. 000271]. Basionym: *Schizonema striolatum* var. *clavigerum* Kützing 1849.
- Berkeleya rutilans*** var. *comoides* Grunow 1880, p. 1591 [ref. 001245].
- Berkeleya rutilans*** var. *crinoidea* (Harvey) Grunow 1880, p. 1589 [ref. 001245]. Basionym: *Schizonema crinoideum* Harvey 1841.
- Berkeleya rutilans*** var. *dillwynii* (Agardh) Grunow 1880, p. 1590 [ref. 001245]. Basionym: *Schizonema dillwynii* Agardh 1824.
- Berkeleya rutilans*** var. *flava* (Kützing) Grunow 1880, p. 1589 [ref. 001245]. Basionym: *Schizonema flavum* Kützing 1849.
- Berkeleya rutilans*** var. *funicularis* Grunow 1880, p. 1590 [ref. 001245].
- Berkeleya rutilans*** var. *genuina* Grunow 1880, p. 1587 [ref. 001245]. *Invalid?*
- Berkeleya rutilans*** var. *hofmannii* (Agardh) Grunow 1880, p. 1588 [ref. 001245]. Basionym: *Schizonema hoffmannii* Agardh 1830.
- Berkeleya rutilans*** var. *illyrica* (Kützing) Grunow 1880, p. 1589 [ref. 001245]. Basionym: *Schizonema illyricum* Kützing 1844.
- Berkeleya rutilans*** var. *implicata* (Harvey) Grunow 1880, p. 1590 [ref. 001245]. Basionym: *Schizonema implicatum* Harvey 1841.
- Berkeleya rutilans*** var. *lubrica* (Kützing) Grunow 1880, p. 1590 [ref. 001245]. Basionym: *Schizonema lubricum* Kützing 1844.
- Berkeleya rutilans*** var. *lutea* (Kützing) Grunow 1880, p. 1587 [ref. 001245]. Basionym: *Schizonema luteum* Kützing 1849.
- Berkeleya rutilans*** var. *luteovirens* Grunow 1880, p. 1588 [ref. 001245].

- Berkeleya rutilans* var. *lutescens* (Kützing) Grunow 1880, p. 1588 [ref. 001245]. Basionym: *Schizonema lutescens* Kützing 1844.
- Berkeleya rutilans* var. *obtusa* (Greville) Peragallo & Peragallo 1897-1908, p. 51 [ref. 000733]. Basionym: *Monema obtusum* Greville 1827. Combination validly published in Text only. Illustrated as *Berkeleya (rutilans* var.) *obtusa* on pl. 7, fig. 16 (ref. 001052; issued 1897). Text was published in the 1897-1899 interval (perhaps 1897 for p. 51).
- Berkeleya rutilans* f. *obtusa* (Greville) Frenguelli 1930, p. 260 [ref. 000354]. Basionym: *Monema obtusum* Greville 1827.
- Berkeleya rutilans* var. *olivacea* Grunow 1880, p. 1588 [ref. 001245].
- Berkeleya rutilans* var. *pallescens* Grunow 1880, p. 1590 [ref. 001245].
- Berkeleya rutilans* var. *parasitica* (Griffith in Harvey) Peragallo & Peragallo 1897-1908, p. 51 [ref. 000733]. Basionym: *Schizonema parasiticum* Griffith in Harvey 1841. Combination validly published in text only. As *Berkeleya (rutilans* var.) *parasitica* in caption for pl. 7, fig. 12, 13 (ref. 001052; issued 1897). Text was published in the 1897-1899 interval (perhaps 1897 for p. 51).
- Berkeleya rutilans* var. *parvula* (Kützing) Grunow 1880, p. 1589 [ref. 001245]. Basionym: *Schizonema parvulum* Kützing 1844.
- Berkeleya rutilans* var. *plumosa* (Kützing) Grunow 1880, p. 1590 [ref. 001245]. Basionym: *Schizonema plumosum* Kützing 1844.
- Berkeleya rutilans* var. *pumila* Grunow 1880, p. 1591 [ref. 001245].
- Berkeleya rutilans* var. *sericea* Suhr ex Grunow 1880, p. 1588 (as *Berkeleya rutilans* var.  $\eta$  *sericea* (Shur.) Grun.) [ref. 001245]. Cites *Schizonema sericeum* Suhr., which is invalid. Should be treated as the valid name of a new taxon rather than a new combination.
- Berkeleya rutilans* var. *sordida* (Kützing) Grunow 1880, p. 1591 [ref. 001245]. Basionym: *Schizonema sordidum* Kützing 1844.
- Berkeleya rutilans* var. *spadicea* (Greville in Hooker) Grunow 1880, p. 1589 [ref. 001245]. Basionym: *Schizonema spadiceum* Greville in Hooker 1833.
- Berkeleya rutilans* var. *squarrosa* Grunow 1880, p. 1590 [ref. 001245].
- Berkeleya rutilans* var. *striolata* (Kützing) Grunow 1880, p. 1591 [ref. 001245]. Basionym: *Schizonema striolatum* Kützing 1844.
- Berkeleya rutilans* var. *substriata* Grunow 1880, p. 1591 [ref. 001245].
- Berkeleya rutilans* var. *tenuis* (Kützing) Grunow 1880, p. 1588 [ref. 001245]. Basionym: *Schizonema tenue* Kützing 1844.
- Berkeleya rutilans* var. *tenuissima* (Kützing) Grunow 1880, p. 1589 [ref. 001245]. Basionym: *Schizonema tenuissimum* Kützing 1844.
- Berkeleya rutilans* var. *virescens* (Harvey) Grunow 1880, p. 1590 [ref. 001245]. Basionym: *Schizonema virescens* Harvey 1841.
- Berkeleya rutilans* var. *viridis* (Kützing) Grunow 1880, p. 1588 [ref. 001245]. Basionym: *Schizonema rutilans* var. *viride* Kützing 1844. Basionym is illegitimate.
- Berkeleya scalaris* (Brébisson) Grunow 1867, p. 37 [ref. 000431]. Basionym: *Frustulia scalaris* Brébisson 1838.
- Berkeleya scopulorum* (Brébisson) Cox 1979, p. 173 [ref. 008146]. Basionym: *Navicula scopulorum* Brébisson in Kützing 1849.
- Berkeleya scopulorum* var. *belgica* (Van Heurck) Cardinal, Poulin & Bérard-Therriault 1984, p. 373; fig. 6, 15-18 [ref. 006804]. Basionym: *Navicula johnsonii* var. *belgica* Van Heurck 1885.
- Berkeleya scopulorum* var. *belgica* (Van Heurck) R. Ross in Hartley 1986, p. 607 [ref. 002355]. Basionym: *Navicula johnsonii* var. *belgica* Van Heurck 1885.
- Berkeleya scopulorum* var. *perlonga* (Brun) R. Ross in Hartley 1986, p. 607 [ref. 002355]. Basionym: *Navicula scopulorum* var. *perlonga* Brun 1891.
- Berkeleya sparsa* Mizuno 1981, p. 98-99; fig. 1-8 [ref. 008600].
- Berkeleya staliana* (Meneghini) Grunow 1880, p. 1596 [ref. 001245]. Basionym: *Schizonema stalianum* Meneghini 1845.
- Berkeleya trichocephala* (Kützing) Grunow 1880, p. 1596 [ref. 001245]. Basionym: *Schizonema trichocephalum* Kützing 1844.

**BERKELLA R. ROSS & P.A. SIMS 1978, p. 156 [ref. 003149]**

T: *Berkella linearis* R. Ross & P.A. Sims 1978

- Berkella alpina* Carter 1993, p. 106; fig. 24-25 (as *Berkella alpina* (Amossé) Carter, comb. nov.) [ref. 006565]. *Illegitimate*. Name superfluous. Intended new combination of *Frustulia spicula* var. *alpina* Amossé 1972 (name invalid) (ref. 008059). All the requirements for valid publication of the name of a new taxon were fulfilled by Carter 1993. A valid name for this taxon, however, had been previously proposed by Ross & Sims 1978 (ref. 003149): *Berkella linearis* Ross & Sims 1978.
- Berkella linearis* Ross & Sims 1978, p. 156-157; fig. 20-27 [ref. 003149]. Synonym: *Frustulia spicula* var. *alpina* Amossé 1972 (name invalid).

*Berkella spicula* (Amossé) Carter in Carter & Bailey-Watts 1981, p. 539; pl. 2, fig. 38, pl. 24, fig. 12 [ref. 003626]. Basionym: *Frustulia spicula* Amossé 1932. *Invalid*. Place of publication of basionym incorrectly cited.

**BIBLIARIUM C.G. Ehrenberg 1843, p. 47 [ref. 001183]**

T: *Biblarium glans* (Ehrenberg) Ehrenberg 1843

(= *Navicula glans* Ehrenberg 1838)

Name rejected vs. *Tetracyclus* Ralfs 1843 (taxonomic synonym).

*Biblarium castellum* Ehrenberg 1845, p. 73 [ref. 000955]. Name previously appeared as nomen nudum in Ehrenberg 1843, p. 47 (ref. 001183).

*Biblarium chilense* Ehrenberg 1854, p. 301, 303 [ref. 000300]. *Invalid*. Nomen nudum.

*Biblarium clypeus* (Ehrenberg) Ehrenberg 1854, p. 8; pl. XXXIII/II, fig. 18 (as *Biblarium* on p. 8, as *Stylobibulum* on fig. caption) [ref. 000966]. Basionym: *Stylobibulum clypeus* Ehrenberg 1845. Nomen nudum in Ehrenberg 1843, p. 47 (ref. 001183). Validly published as *Stylobibulum clypeus* Ehrenberg 1845, p. 80 (ref. 000955). Combination *Biblarium clypeus* (Ehrenberg) Ehrenberg validly published by Ehrenberg 1854.

*Biblarium compressum* Ehrenberg 1845, p. 73 [ref. 000955]. First appeared as nomen nudum in Ehrenberg 1843, p. 47 (ref. 001183).

*Biblarium constrictum* Ehrenberg 1854, p. 85, 90 [ref. 000300]. *Invalid*. Nomen nudum.

*Biblarium costellatus* 'Ehrenberg' Héribaud 1902 [ref. 000991]. *Invalid*. Cited in synonymy of *Tetracyclus costellatus*. Citation error (typographical error) for *Biblarium castellatum* Ehrenberg 1845.

*Biblarium crux* (Ehrenberg) Ehrenberg 1845, p. 74 [ref. 000955]. Basionym: *Navicula crux* Ehrenberg 1838.

*Biblarium divisum* (Ehrenberg) Wolle 1890, expl. pl. 22, fig. 6 (as *Biblarium* (*Stylobibulum*) *divisum*, Ehr.) [ref. 000916]. Basionym: *Stylobibulum divisum* Ehrenberg 1845.

*Biblarium elegans* Ehrenberg 1854, p. 8; pl. 33/2, fig. 4 [ref. 000966].

*Biblarium ellipticum* Ehrenberg 1845, p. 74 [ref. 000955]. First appeared as nomen nudum in Ehrenberg 1843, p. 47 (ref. 001183).

*Biblarium emarginatum* Ehrenberg 1845, p. 74 [ref. 000955]. First appeared as nomen nudum in Ehrenberg 1843, p. 47 (ref. 001183).

*Biblarium excentricum* (Ehrenberg) Wolle 1890, expl. pl. 22, fig. 5 (as "*Biblarium* (*Holobiblarium*) *eccentricum*, Ehrb.") [ref. 000916]. Basionym: *Stylobibulum excentricum* Ehrenberg 1845.

*Biblarium follis* (Ehrenberg) Ehrenberg 1843, p. 350 (62) [ref. 000294]. Basionym: *Navicula follis* Ehrenberg 1838. In Ehrenberg 1843, the basionym is not cited. In Ehrenberg 1845 (ref. 000955), p. 74, there is a citation of *Navicula follis* with the entry for *Biblarium follis*.

*Biblarium gibbum* Ehrenberg 1844, p. 265 [ref. 001185].

*Biblarium glans* (Ehrenberg) Ehrenberg 1843, p. 47, 48 [ref. 001183]. Basionym: *Navicula glans* Ehrenberg 1838. See *Biblarium glans* Ehrenberg 1845 (a different species).

*Biblarium glans* Ehrenberg 1845, p. 74 [ref. 000955]. Treated by Ehrenberg 1845 as a new species (there is no mention of *Navicula glans* Ehr. 1838). We have to assume that this is a different species from *Biblarium glans* (Ehrenberg) Ehrenberg 1843 (they also have different type localities).

*Biblarium lamina* Ehrenberg 1845, p. 74 [ref. 000955].

*Biblarium lancea* Ehrenberg 1845, p. 74 [ref. 000955].

*Biblarium leptostauron* Ehrenberg 1854, p. 8; pl. 12, fig. 35, 36 [ref. 000966].

*Biblarium lineare* Ehrenberg 1845, p. 74 [ref. 000955]. First appeared as nomen nudum in Ehrenberg 1843, p. 47 (ref. 001183).

*Biblarium rhombus* Ehrenberg 1845, p. 75 [ref. 000955]. First appeared as nomen nudum in Ehrenberg 1843, p. 47 (ref. 001183).

*Biblarium speciosum* Ehrenberg 1845, p. 75 [ref. 000955].

*Biblarium stella* Ehrenberg 1845, p. 75 [ref. 000955]. First appeared as nomen nudum in Ehrenberg 1843, p. 47 (ref. 001183).

*Biblarium strumosum* Ehrenberg 1854, p. 8; pl. 33/2, fig. 13 [ref. 000966].

**BICORNIS J. Fenner 1994, p. 109 [ref. 008197]**

T: *Bicornis kittonii* (Grunow) J. Fenner 1994

(= *Hemiaulus kittonii* Grunow in Van Heurck 1883)

*Bicornis incisus* (Hajós) Fenner 1994, p. 109 [ref. 008197]. Basionym: *Hemiaulus incisus* Hajós 1976.

*Bicornis kittonii* (Grunow) Fenner 1994, p. 109; pl. 6, fig. 9a, b [ref. 008197]. Basionym: *Hemiaulus kittonii* Grunow in Van Heurck 1883.



*Bicornis pyxilloides* Fenner 1994, p. 109 (as *Bicornis pyxilloides* (Schrader & Fenner) n. comb.) [ref. 008197]. Validation of the invalid name *Hemiaulus pyxilloides* Schrader & Fenner 1976, p. 984 (ref. 003219).

**BIDDULPHIA S.F. Gray 1821, p. 294 [ref. 000390]**

LT: *Biddulphia biddulphiana* (J.E. Smith) Boyer 1901 (= *Conferva biddulphiana* J.E. Smith 1807, = *Biddulphia pulchella* S.F. Gray 1821, nom. illeg.)

Type designated by Boyer 1927, p. 117 (ref. 000155).

*Biddulphia abjecta* Mann 1925, p. 33; pl. 7, fig. 3, 4 [ref. 000632].

*Biddulphia abyssorum* Grunow in Van Heurck 1883, pl. 113, fig. 1-2 (as *Triceratium (Biddulphia) abyssorum* Grun.) [ref. 001037]. *Invalid*. Validly published by Grunow in Van Heurck as *Triceratium abyssorum* Grunow. Name “*Biddulphia abyssorum*” listed but not validated (not accepted) by M. Peragallo 1897, p. 133 (ref. 012539), Mills 1933, p. 278 (ref. 006140) and VanLandingham 1968, p. 515 (ref. 006294).

*Biddulphia abyssorum* var. *polycistinorum* ‘Pantocsek’ Mills 1933, p. 278 [ref. 006140]. *Invalid*. Name not accepted by Mills. Not a valid new combination of *Triceratium polycistinorum* Pantocsek ex Tempère 1892.

*Biddulphia abyssorum* var. *saratovianum* (Pantocsek) F.W. Mills 1933, p. 278 [ref. 006140]. Basionym: *Triceratium abyssorum* var. *saratovianum* Pantocsek 1889. *Invalid*. Combination accepted by Mills, but not valid because *Biddulphia abyssorum* is invalid.

*Biddulphia acanthoceros* Forti 1913, p. 1611 (77); pl. 8, fig. 14 [ref. 000342].

*Biddulphia acuta* (Ehrenberg) Boyer 1900, p. 706 [ref. 000151]. Basionym: *Triceratium acutum* Ehrenberg 1844.

*Biddulphia advena* VanLandingham 1968, p. 515 [ref. 006294]. New name for *Biddulphia impressa* Long, Fuge & Smith 1946, non (Grunow) Mann 1925.

*Biddulphia affinis* (Grunow in Van Heurck) Van Heurck 1909, p. 81 (as *B. affinis (Triceratium)* Grun.) [ref. 000898]. Basionym: *Triceratium affine* Grunow in Van Heurck 1883.

*Biddulphia africana* Leuduger-Fortmorel 1898, p. 16; pl. 3, fig. 7 [ref. 000608].

*Biddulphia agulhas* Karsten 1906, p. 171; pl. 28, fig. 5, 5a [ref. 001023].

*Biddulphia alaskiensis* Mann 1907, p. 298; pl. 46, fig. 1 [ref. 000631].

*Biddulphia alternans* (J.W. Bailey) Van Heurck 1885, p. 208 [ref. 001040]. Basionym: *Triceratium alternans* J.W. Bailey 1851.

*Biddulphia alternans* var. *tenuipunctata* Mereschkowsky 1901, p. 514 (as *Biddulphia (Triceratium) alternans*, var. *tenuipunctata* Mer.) [ref. 002083]. *Invalid*. Nomen nudum. No description or illustration. Mereschkowsky 1901 notes “see my paper on Polynesian Diatoms chapter iv” referring to Mereschkowsky 1902 (ref. 000649) where it is described as “*Triceratium alternans* var. *tenuipunctata* Mer.” The combination *Biddulphia alternans* var. *tenuipunctata* is listed by Mills 1933, p. 279 (ref. 006140) but it is invalid (not accepted).

*Biddulphia alternans* var. *variabilis* (Brightwell) Mereschkowsky 1899, p. 485 (as *Biddulphia (Triceratium) alternans*, var. *variabilis*, Brightw.) [ref. 000647]. Basionym: *Triceratium variable* Brightwell 1856.

*Biddulphia americana* (Ralfs in Pritchard) Boyer 1900, p. 721 [ref. 000151]. Basionym: *Triceratium americanum* Ralfs in Pritchard 1861.

*Biddulphia ampiccephala* (Ehrenberg) Ralfs in Pritchard 1861, p. 849 [ref. 001063]. Basionym: *Odontella ampiccephala* Ehrenberg 1845.

*Biddulphia angulata* Schmidt in Schmidt et al. 1888, pl. 141, fig. 7, 8 [ref. 012466].

*Biddulphia antarctica* ‘Cleve’ Mills 1933, p. 279 [ref. 006140]. *Invalid*. Combination not accepted by Mills. Accepted synonym: *Triceratium arcticum* var. *antarctica* Cleve & Grunow 1880.

*Biddulphia antarctica* (Ehrenberg) M. Peragallo 1897, p. 134 [ref. 012539]. Basionym: *Hemiaulus antarcticus* Ehrenberg 1844.

*Biddulphia antarctica* f. *typica* ‘Meunier’ VanLandingham 1979, p. 4264 [ref. 006514]. *Invalid*. Citation error for *Biddulphia arctica* forma *typica* sensu Meunier 1910, p. 285 (ref. 000658).

*Biddulphia antediluviana* (Ehrenberg) Van Heurck 1885, p. 207 [ref. 001040]. Basionym: *Amphitetras antediluviana* Ehrenberg 1840.

*Biddulphia antediluviana* var. *cruciformis* ‘W. Smith’ according to Mills 1933, p. 279 [ref. 006140]. Mills does not give a reference but accepts the name. Perhaps citation error for *Amphitetras antediluviana* var.  $\beta$  *cruciformis* Sm. fide Peragallo in Pelletan 1889, p. 223 (ref. 001001).

*Biddulphia antediluviana* var. *excavata* “Adam’s Collection” according to Mills 1933, p. 279 [ref. 006140].

*Biddulphia antediluviana* var. *excavata* Frenguelli 1945, p. 212; pl. 15, fig. 2-3 (as *Biddulphia antediluviana* var. *excavata* (W. Sm.) n. comb.) [ref. 000365]. Intended new combination of *Amphitetras excavata* W. Smith (invalid). The trinomial is validly published by Frenguelli 1945 as the name of a new taxon.

*Biddulphia antediluviana* var. *minor* (H. Peragallo & M. Peragallo) F.W. Mills 1933, p. 279 [ref. 006140]. Basionym: *Am-*

*phitetras antediluviana* var. *minor* Peragallo & Peragallo 1902. Possible citation error for *Amphitetras antediluviana* var. *minor* Per. & Per. 1902. The combination is accepted by Mills (upper case print) and we treat it as a valid new combination.

*Biddulphia antediluviana* var. *minutum* (Greville) F.W. Mills 1933, p. 279 [ref. 006140]. Basionym: *Amphitetras minuta* Greville 1861. Combination accepted by Mills, and basionym cited.

*Biddulphia antediluviana* var. *nobilis* "Adam's Collection" according to F.W. Mills 1933, p. 279 [ref. 006140].

*Biddulphia antediluviana* var. *ornata* Hendey 1971, p. 380; fig. 6 [ref. 004394].

*Biddulphia antediluviana* var. *pentagona* (Hustedt) F.W. Mills 1933, p. 279 (as *B. antediluviana* v. *pentagona* Per.) [ref. 006140]. Basionym: *Triceratium antediluvianum* f. *pentagona* Hustedt 1930. Combination accepted by Mills.

*Biddulphia antediluviana* var. *tesselata* (Shadbolt) F.W. Mills 1933, p. 279 [ref. 006140]. Basionym: *Amphitetras tessellata* Shadbolt 1854. Combination accepted by Mills.

*Biddulphia antediluviana* var. *trigona* (M. Peragallo in Tempère & Peragallo) F.W. Mills 1933, p. 279 [ref. 006140]. Basionym: *Triceratium antediluvianum* var. *trigona* M. Peragallo in Peragallo & Peragallo 1911. Citation error for *Triceratium antediluvianum* var. *trigona* M. Peragallo? or deliberate new combination? Combination accepted by Mills.

*Biddulphia anthropomorpha* Van Heurck 1909, p. 39; pl. 10, fig. 136-137 [ref. 000898].

*Biddulphia antillarum* (Cleve) Boyer 1900, p. 722 [ref. 000151]. Basionym: *Triceratium antillarum* Cleve 1878.

*Biddulphia antiqua* Truan y Luard & Witt 1888, p. 12; pl. 3, fig. 16 [ref. 000889].

*Biddulphia apiculata* Long, Fuge & Smith 1946, p. 100; pl. 15, fig. 3 [ref. 000616].

*Biddulphia arctica* (Brightwell) Boyer 1900, p. 714 [ref. 000151]. Basionym: *Triceratium arcticum* Brightwell 1853.

*Biddulphia arctica* (Brightwell) E. Jørgensen 1905, p. 200 [ref. 000546]. Basionym: *Triceratium arcticum* Brightwell 1853. Isonym: Combination previously published by Boyer 1900.

*Biddulphia arctica* var. *antarctica* (Cleve & Grunow) F.W. Mills 1933, p. 280 [ref. 006140]. Basionym: *Triceratium arcticum* var. *antarctica* Cleve & Grunow 1880. Citation error for *Triceratium arcticum* var. *antarctica* Cleve & Grunow? or deliberate new combination? Nevertheless the combination is accepted by Mills, and we treat it as valid.

*Biddulphia arctica* f. *balaena* (Ehrenberg) E. Jørgensen 1905, p. 200 [ref. 000546]. Basionym: *Zygoceros balaena* Ehrenberg 1853.

*Biddulphia arctica* var. *californica* (Grunow in Schmidt et al.) Boyer 1900, p. 714 (as *Biddulphia arctica californica*) [ref. 000151]. Basionym: *Triceratium arcticum* var. *californicum* Grunow in Schmidt et al. 1882. Treated as a variety by Boyer ("the following are considered varieties").

*Biddulphia arctica* var. *campeachiana* (Grunow in Van Heurck) Boyer 1900, p. 714 (as *Biddulphia arctica campeachiana*) [ref. 000151]. Basionym: *Triceratium arcticum* f. *campechiana* Grunow in Van Heurck 1883. Treated as a variety by Boyer ("the following are considered varieties").

*Biddulphia arctica* f. *interjecta* (Schmidt in Schmidt et al.) F.W. Mills 1933, p. 280 [ref. 006140]. Basionym: *Triceratium interjectum* Schmidt in Schmidt et al. 1891. Citation error for *Triceratium interjectum* Schmidt? or deliberate new combination? Nevertheless the combination is accepted by Mills, and we treat it as valid.

*Biddulphia arctica* var. *japonica* (Grunow in Schmidt et al.) F.W. Mills 1933, p. 280 [ref. 006140]. Basionym: *Triceratium arcticum* var. *japonica* Grunow in Schmidt et al. 1882. Citation error for *Triceratium arcticum* var. *japonica* Grunow? or deliberate new combination? Nevertheless the combination is accepted by Mills, and we treat it as valid.

*Biddulphia arctica* var. *kerquelensis* (Grunow in Cleve & Grunow) Boyer 1900, p. 714 (as *Biddulphia arctica kerquelensis*) [ref. 000151]. Basionym: *Triceratium arcticum* var. *kerquelense* Grunow in Cleve & Grunow 1880. Treated as a variety by Boyer ("the following are considered varieties").

*Biddulphia arctica* var. *montereyi* (Brightwell) Boyer 1900, p. 715 (as *Biddulphia arctica montereyi*) [ref. 000151]. Basionym: *Triceratium montereyi* Brightwell 1853. Treated as a variety by Boyer ("the following are considered varieties").

*Biddulphia arctica* var. *neapolitana* (Grunow in Cleve & Grunow) F.W. Mills 1933, p. 280 ('*neapolitanum*') [ref. 006140]. Basionym: *Triceratium arcticum* var. *neapolitana* Grunow in Cleve & Grunow 1880. Citation error for *Triceratium arcticum* var. *neapolitanum* Grunow? or deliberate new combination? Nevertheless the combination is accepted by Mills, and we treat it as valid.

*Biddulphia arctica* var. *pentagona* Boyer 1900, p. 715 (as *Biddulphia arctica pentagona* = *Triceratium arcticum*, forma *pentagona*) [ref. 000151]. *Invalid*. A new combination of *Triceratium arcticum* f. *pentagona* [no author] (taxon unknown to us)? *Invalid* as the name of a new taxon (no description).

*Biddulphia arctica* f. *peragalli* 'Schmidt' Van Heurck 1909, p. 41 [ref. 000898]. Basionym: *Triceratium peragalli* Brun in Schmidt et al. 1891. *Invalid*. Not accepted. Listed under *B. (Tric.) Peragalli* J. B. within the comments: "Pourrait peut-être être dénommé: *B. (Tric.) arcticum* (Brightw.) forma *Peragalli* Ad. Schm".

*Biddulphia arctica* var. *quadrangularis* (Greville) Boyer 1900, p. 715 (as *Biddulphia arctica quadrangularis*) [ref. 000151]. Basionym: *Triceratium quadrangulare* Greville 1865. Treated as a variety by Boyer ("the following are considered varieties").

*Biddulphia arctica* var. *quinquelobatum* (Greville) F.W. Mills 1933, p. 280 ('*quinquelobata*') [ref. 006140]. Basionym:

- Triceratium quinquelobatum* Greville 1866. Citation error for *Triceratium arcticum* var. *quinquelobatum* Greville? or deliberate new combination? Nevertheless the combination is accepted by Mills, and we treat it as valid.
- Biddulphia arctica* var. *robusta*** (Truan y Luard & Witt) F.W. Mills 1933, p. 280 [ref. 006140]. Basionym: *Triceratium arcticum* var. *robusta* (*robustum*) Truan y Luard & Witt 1888. Citation error for *Triceratium arcticum* var. *robusta* Truan & Witt? or deliberate new combination? Nevertheless the combination is accepted by Mills, and we treat it as valid.
- Biddulphia arctica* var. *samoense*** (Cleve & Grunow) F.W. Mills 1933, p. 280 [ref. 006140]. Basionym: *Triceratium arcticum* var. *samoensis* Cleve & Grunow 1880. Citation error for *Triceratium arcticum* var. *samoensis* Cleve & Grunow? or deliberate new combination? Nevertheless the combination is accepted by Mills, and we treat it as valid.
- Biddulphia arctica* var. *sexangulata*** Boyer 1900, p. 715 (as *Biddulphia arctica sexangulata*) [ref. 000151]. *Invalid?* Based on the invalid name *Triceratium arcticum* var. *sexangulatum* J.A. Schulze ‘collection’ (not *Triceratium sexangulatum* Greville). Perhaps should be considered valid despite the very minimal description (“a very beautiful six-sided form”). Treated as a variety by Boyer (“the following are considered varieties”).
- Biddulphia arctica* var. *spitzbergensis*** (Grunow in Cleve & Grunow) F.W. Mills 1933, p. 280 (*‘spitsbergensis’*) [ref. 006140]. Basionym: *Triceratium arcticum* var. *spitzbergensis* Grunow in Cleve & Grunow 1880. Citation error for *Triceratium arcticum* var. *spitzbergensis* Cleve & Grunow? or deliberate new combination? Nevertheless the combination is accepted by Mills, and we treat it as valid.
- Biddulphia arctica* var. *tetragona*** (Grunow) Mereschkowsky 1901, p. 515 (as *Biddulphia (Triceratium) arctica*, var. *tetragona*, Grun.) [ref. 002083]. Basionym: *Triceratium arcticum* var. *tetragona* Grunow in Cleve & Grunow 1880.
- Biddulphia arctica* var. *tetragona*** (Grunow in Cleve & Grunow) F.W. Mills 1933, p. 280 [ref. 006140]. Basionym: *Triceratium arcticum* var. *tetragona* Grunow in Cleve & Grunow 1880. Citation error for *Triceratium arcticum* var. *tetragona* Cleve & Grunow? or deliberate new combination? Isonym: Combination previously published by Mereschkowsky 1901.
- Biddulphia arcuata*** (Shadbolt) F.W. Mills 1933, p. 280 [ref. 006140]. Basionym: *Triceratium arcuatum* Shadbolt 1854. Probably not a deliberate new combination (attributed to Shrubsole), but accepted by Mills. We consider it valid.
- Biddulphia areolata*** Hajós 1968, p. 134; pl. 37, fig. 2-8, 10-11 [ref. 002445].
- Biddulphia argus*** Boyer 1898, p. 469; pl. 24, fig. 6 [ref. 004337].
- Biddulphia armata*** Leuduger-Fortmorel 1879, p. 58; pl. 5, fig. 62 [ref. 000606].
- Biddulphia astrolabensis*** Hendey 1937, p. 275; pl. 9, fig. 1-3 [ref. 000475].
- Biddulphia auliscoformis*** Strelnikova 1964, p. 229; pl. 1, fig. 1 a-e [ref. 002847].
- Biddulphia aurita*** (Lyngbye) Brébisson 1838, p. 12 [ref. 000161]. Basionym: *Diatoma auritum* Lyngbye 1819.
- Biddulphia aurita* var. *minima*** Grunow in Van Heurck 1882, pl. 98, fig. 11-12, 13 [ref. 001036].
- Biddulphia aurita* var. *minuscule*** Grunow in Van Heurck 1882, pl. 98, fig. 10 [ref. 001036]. Cited by error as *Biddulphia aurita* var. *minima* Gr. by Van Heurck 1885, p. 205 (ref. 001040).
- Biddulphia aurita* var. *obtusata*** (Kützing) Hustedt 1930, p. 848; fig. 502 [ref. 000503]. Basionym: *Odontella obtusata* Kützing 1844.
- Biddulphia aurita* var. *orientalis*** Mereschkowsky 1902, p. 151 (17); pl. 18 [ref. 000649]. Mereschkowsky refers to an illustration in Schmidt’s Atlas (1888) pl. 120, fig. 5-6 (ref. 012463) named *Biddulphia aurita* Bréb.
- Biddulphia aurita* var. *polyspina*** Kisselev 1931, p. 96, 114; pl. 1, fig. 6-7, pl. 2, fig. 17-18 [ref. 000563].
- Biddulphia australis*** Montagne 1842, p. 5 [ref. 012625].
- Biddulphia azorica*** Pavillard 1930, p. 4, fig. 13 [ref. 001458]. Also in Pavillard 1931, p. 30, pl. 1, fig. 13 (ref. 001459).
- Biddulphia baileyi*** W. Smith 1856, p. 50; pl. 45, fig. 322, pl. 62, fig. 322 [ref. 001007].
- Biddulphia balaena*** (Ehrenberg) Brightwell 1859, p. 181; pl. 9, fig. 15 [ref. 000167]. Basionym: *Zygoceros balaena* Ehrenberg 1853.
- Biddulphia balaena* var. *arctica*** Peragallo & Peragallo 1902, p. 380; pl. 105, fig. 3 [ref. 001057].
- Biddulphia balaena* f. *campechiana*** Grunow in Van Heurck 1883, pl. 112, fig. 1 (as *Triceratium (Biddulphia balaena* Ehr. var.) *arcticum* forma *campechiana* Grun.) [ref. 001037]. *Invalid*. Validly published as *Triceratium arcticum* f. *campechiana*. Combination under *Biddulphia* listed, but not validated (not accepted) by VanLandingham 1968, p. 522 (ref. 006294).
- Biddulphia baldjikkii*** Girard 1867 [ref. 002715]. [according to ANSP].
- Biddulphia balearica*** (Cleve & Grunow in Cleve) Mann 1925, p. 34 [ref. 000632]. Basionym: *Triceratium balearicum* Cleve & Grunow in Cleve 1881.
- Biddulphia baltzoi*** Hanna 1970, p. 182; fig. 82 [ref. 000002].
- Biddulphia barbadensis*** Greville 1866, p. 437; pl. 6, fig. 15 [ref. 000421].
- Biddulphia belgicae*** M. Peragallo 1921, p. 72 [ref. 000737]. Refers to illustration in Van Heurck 1909, pl. 10, fig. 132 (*B. obtusata* var.?) (ref. 000898).
- Biddulphia belgicae* var. *lata*** M. Peragallo 1921, p. 72 [ref. 000737].
- Biddulphia bicornis*** Cleve 1878, p. 17; pl. 5, fig. 30 (as *Triceratium* (or *Biddulphia*) *bicornis* in text and *T. bicornis* in plate caption) [ref. 000221]. *Invalid*.

- Biddulphia biddulphiana* (J.E. Smith) Boyer 1900, p. 694 [ref. 000151]. Basionym: *Conferva biddulphiana* J.E. Smith 1790-1814. Basionym published in 1807.
- Biddulphia biddulphiana* var. *abnormis* Boyer 1927, p. 121 (as *Biddulphia biddulphiana abnormis* (A. Schmidt)) [ref. 000155]. Boyer provides a description and refers to an illustration in Schmidt's Atlas (1888), pl. 121, fig. 2 (ref. 012464) (illustrated in Schmidt's Atlas as an abnormal specimen of *Biddulphia pulchella* Gray).
- Biddulphia bifasciata* Wigand 1860, p. 45; pl. 7, fig. 20 [ref. 001562].
- Biddulphia bifenestra* Brun 1896, p. 235; pl. 22, fig. 15 [ref. 000183].
- Biddulphia bipons* 'Ehrenberg' Mills 1933, p. 283 [ref. 006140]. *Invalid*. Citation error for *Zygoceros bipons* Ehrenberg 1844. Combination not accepted by Mills (lower case print).
- Biddulphia biquadrata* (Janisch in Schmidt et al.) Boyer 1900, p. 717 [ref. 000151]. Basionym: *Triceratium biquadratum* Janisch in Schmidt et al. 1886.
- Biddulphia birostrata* Grunow 1863, p. 158; pl. 13, fig. 23 [ref. 000429].
- Biddulphia birostrum* Brun 1891, p. 11; pl. 12, fig. 10 [ref. 000176].
- Biddulphia blanda* Schmidt in Schmidt et al. 1888, pl. 122, fig. 25 [ref. 012464].
- Biddulphia boryana* 'Pantocsek' Mills 1933, p. 283 [ref. 006140]. *Invalid*. Combination not accepted by Mills (lower case print). Accepted synonym: *Tetracyclus boryanus* (Pant.) Schütt 1896 (= *Salacia boryana* Pantocsek 1889).
- Biddulphia brachiolum* (Brightwell) Taylor 1970, p. 172 [ref. 008885]. Basionym: *Triceratium brachiolum* Brightwell 1853.
- Biddulphia brevis* Ehrenberg 1845, p. 361 [ref. 000957].
- Biddulphia brittoniana* Kain & Schultze 1889, p. 208; pl. 92, fig. 1 [ref. 001300]. Name previously appeared as nomen nudum in Kain & Schultze 1889, p. 73 (ref. 000554).
- Biddulphia broeckii* (Leuduger-Fortmorel) Mann 1925, p. 35 [ref. 000632]. Basionym: *Triceratium broeckii* Leuduger-Fortmorel 1879.
- Biddulphia calamus* Tempère & Brun in Brun & Tempère 1889, p. 26; pl. 5, fig. 15 [ref. 000185].
- Biddulphia calamus* var. *glabra* Tsumura 1969, p. 6-7; pl. 1, fig. 4, pl. 2, fig. 4 [ref. 005666].
- Biddulphia californica* (Schmidt in Schmidt et al.) Wolle 1890, pl. 97, fig. 9 ('*californicus*') [ref. 000916]. Basionym: *Cerataulus californicus* Schmidt in Schmidt et al. 1888.
- Biddulphia californica* (Schmidt) Boyer 1900, p. 711 [ref. 000151]. Basionym: *Cerataulus californicus* Schmidt in Schmidt et al. 1888. Isonym: See *B. californica* (A. Schmidt) Wolle 1890.
- Biddulphia campechiana* (Grunow) Boyer 1900, p. 707 [ref. 000151]. Basionym: *Triceratium campechianum* Grunow in O'Meara 1874.
- Biddulphia capuzina* Schmidt in Schmidt et al. 1888, pl. 119, fig. 13-14 [ref. 012463].
- Biddulphia caraibica* Truan y Luard & Witt 1888, p. 12; pl. 3, fig. 9, 11 [ref. 000889].
- Biddulphia castellifera* (Grunow in Schmidt et al.) Mann 1925, p. 35 [ref. 000632]. Basionym: *Triceratium castelliferum* Grunow in Schmidt et al. 1888.
- Biddulphia catenata* Schussnig 1915, p. 398; fig. 14 [ref. 001517].
- Biddulphia cayennensis* Ehrenberg 1854, p. 317 [ref. 000300]. *Invalid*. Nomen nudum.
- Biddulphia centralis* Boyer 1922, p. 2; pl. 3, fig. 3 [ref. 000154].
- Biddulphia challengerii* Tsumura 1969, p. 7-9; pl. 3, fig. 1-7 [ref. 005666].
- Biddulphia chinensis* Greville 1866, p. 81; pl. 9, fig. 16 [ref. 000984]. See *B. sinensis* Greville (orthographical variant). Originally spelling: "*Biddulphia chinensis*".
- Biddulphia cingulata* Mann 1925, p. 35; pl. 7, fig. 5, 6 [ref. 000632].
- Biddulphia circinus* (Bailey) Van Heurck 1896, p. 466 [ref. 000897]. Basionym: *Zygoceros circinus* J.W. Bailey 1854. Illustrated on p. 467, fig. 200 as *Biddulphia (Zygoceros) concinnus* (an error for *circinus*); p. 466 the name is listed as *B. (Zygoceros) circinnus* Bailey. Listed as *Zygoceros circinus* Bailey in index p. 545.
- Biddulphia cirrus* Ehrenberg 1847, p. 50 [ref. 000959]. *Invalid*. Nomen nudum. According to INA, Ehrenberg 1875 (Abh. p. 40) placed this name in synonymy with *Hemiaulus polycistinorum* Ehr. 1854.
- Biddulphia clavulata* Ehrenberg 1861, p. 294 [ref. 000307].
- Biddulphia clypeolus* Boyer 1922, p. 2; pl. 3, fig. 1 [ref. 000154].
- Biddulphia concava* Mann 1925, p. 35 [ref. 000632]. New name for *Triceratium japonicum* A. Schmidt 1885 (priority for *B. japonicum* Castracane 1886).
- Biddulphia concinnus* Van Heurck 1896, p. 467; fig. 200 [ref. 000897]. *Invalid*. Typographical error for "*circinus*". On p. 466 the name is listed as *B. (Zygoceros) circinnus* Bailey. Listed as *Zygoceros circinus* Bailey in index p. 545.
- Biddulphia condecora* (Ehrenberg) Boyer 1900, p. 720 [ref. 000151]. Basionym: *Triceratium condecorum* Ehrenberg 1844.
- Biddulphia connecta* Wood 1963, p. 195; pl. 5, fig. 2 [ref. 001569]. *Invalid?* Type not designated.
- Biddulphia consimilis* (Grunow in Van Heurck) Van Heurck 1896, p. 466, 467, text fig. 198 (as *Biddulphia (Triceratium) consimile*) [ref. 000897]. Basionym: *Triceratium consimile* Grunow in Van Heurck 1883. As *Triceratium consimile* in index on p. 545.

- Biddulphia consimilis* (Grunow in Van Heurck) Boyer 1900, p. 709 [ref. 000151]. Basionym: *Triceratium consimile* Grunow in Van Heurck 1883. Isonym: combination previously published by Van Heurck 1896.
- Biddulphia contorta* Karsten 1905, p. 122; pl. 17, fig. 5 [ref. 000559].
- Biddulphia convexa* Mann 1937, p. 27; pl. 3, fig. 1-2 [ref. 000634].
- Biddulphia convexiuscula* (Grunow in Schmidt et al.) Boyer 1900, p. 709 [ref. 000151]. Basionym: *Triceratium convexiusculum* Grunow in Schmidt et al. 1890.
- Biddulphia cookiana* Kain & Schultze 1889, p. 73; pl. 89, fig. 4 [ref. 000554].
- Biddulphia cornigera* Mann 1925, p. 36; pl. 8, fig. 2 [ref. 000632].
- Biddulphia cornucaprae* Brun 1894, p. 73; pl. 6, fig. 4 ('*cornu-caprae*') [ref. 000180].
- Biddulphia cornuta* Brun 1894, p. 74; pl. 6, fig. 3 [ref. 000180].
- Biddulphia cornuta* (Greville) Mann 1925, p. 37 [ref. 000632]. Basionym: *Triceratium cornutum* Greville 1861. *Illegitimate*. Non Brun 1894.
- Biddulphia corpulenta* Greville 1865, p. 51; pl. 6, fig. 16 [ref. 000982].
- Biddulphia coruscans* Schmidt in Schmidt et al. 1888, pl. 121, fig. 18, 19 [ref. 012464].
- Biddulphia costata* Boyer 1922, p. 2; pl. 2, fig. 8 [ref. 000154].
- Biddulphia costulata* (Grunow in Schmidt et al.) Boyer 1900, p. 720 [ref. 000151]. Basionym: *Triceratium tumidum* var. *costulata* Grunow in Schmidt et al. 1882.
- Biddulphia crassiuscula* Pantocsek 1892, pl. 34, fig. 483 [ref. 001034]. Description in Pantocsek 1905, p. 21 (ref. 001445).
- Biddulphia crenulata* Walker in Walker & Chase 1886, p. 2; pl. 2, fig. 7 [ref. 000904].
- Biddulphia cretacea* Brun 1896, pl. 22, fig. 14 (as *Biddulphia (punctata)* Grev.) var. *cretacea* J. Brun) [ref. 000183].
- Biddulphia cretacea* Hajós & Stradner 1975, p. 930; pl. 5, fig. 6, 7, pl. 34, fig. 1, 2 [ref. 003209]. *Illegitimate*. Non Brun 1896.
- Biddulphia cristata* Grunow in Van Heurck 1882, pl. 102, fig. 4 [ref. 001036].
- Biddulphia cruciata* Petit 1908, p. 3; pl. 1, fig. 8 [ref. 000753].
- Biddulphia culcitella* Mann 1907, p. 300; pl. 46, fig. 3 [ref. 000631].
- Biddulphia curvata* Hendey & Sims 1984, p. 69-70; pl. 2, fig. D, pl. 7, fig. 23-28 [ref. 003188].
- Biddulphia curvinervia* Boyer 1922, p. 3; pl. 3, fig. 11 [ref. 000154].
- Biddulphia cuspidata* (Janisch in Schmidt et al.) Mann 1925, p. 37 [ref. 000632]. Basionym: *Triceratium cuspidatum* Janisch in Schmidt et al. 1885.
- Biddulphia cycloides* Mann 1925, p. 37; pl. 8, fig. 1 [ref. 000632].
- Biddulphia cylindrata* Wood, Crosby & Cassie 1959, p. 216; pl. 16, fig. 29 [ref. 001570]. Type is illustration.
- Biddulphia cylindrus* Weisse 1867, p. 305; pl. 1, fig. 13 [ref. 001556].
- Biddulphia damanuensis* Christian 1888, p. 373 [ref. 012546]. [according to ANSP].
- Biddulphia decipiens* Grunow in Van Heurck 1882, pl. 100, fig. 3, 4 [ref. 001036].
- Biddulphia decorata* Greville 1865, p. 99; pl. 8, fig. 7 [ref. 000983].
- Biddulphia decumana* Schmidt in Schmidt et al. 1892, pl. 172, fig. 1-3 [ref. 012470].
- Biddulphia decussata* Strelnikova 1965, p. 35; pl. 6, fig. 3-6 [ref. 005592].
- Biddulphia deodora* Hanna & Grant 1926, p. 131; pl. 14, fig. 1, 2 [ref. 000012].
- Biddulphia discigera* Grunow in Van Heurck 1883, pl. 108, fig. 9 (as *B. (Odontella) discigera* Grun.) [ref. 001037].
- Biddulphia discigera* var. *fossilis* Pantocsek 1909, p. 20; pl. 1, fig. 10 [ref. 001447].
- Biddulphia discursa* Mann 1925, p. 37; pl. 8, fig. 3 [ref. 000632].
- Biddulphia dissipata* Grove & Sturt 1887, p. 134; pl. 10, fig. 16 [ref. 000989].
- Biddulphia distincta* (Janisch in Schmidt et al.) Mann 1925, p. 38 [ref. 000632]. Basionym: *Triceratium distinctum* Janisch in Schmidt et al. 1885.
- Biddulphia divisa* Grunow in Van Heurck 1883, pl. 113, fig. 8 (as *Triceratium (Biddulphia) divisum* Grun.) [ref. 001037]. *Invalid*. Validly published as *Triceratium divisum* Grunow. Combination *Biddulphia divisa* listed but not validated (not accepted) by Mills 1933, p. 286 (ref. 006140).
- Biddulphia dubia* (Brightwell) Cleve 1883, p. 508 [ref. 000224]. Basionym: *Triceratium dubium* Brightwell 1859. In the same paper (p. 503), Cleve also transfers Brightwell's taxon to *Biddulphia reticulata* var. *dubia*.
- Biddulphia echinata* Kitton 1888, p. 466 [ref. 001309].
- Biddulphia echinulata* Jousé in Proschkina-Lavrenko 1949, p. 175; pl. 8, fig. 7 [ref. 002554].
- Biddulphia ecornuta* Strelnikova 1974, p. 92; tabl. 38, fig. 11-12 [ref. 000058].
- Biddulphia edwardsii* Febiger manuscript, H.L. Smith 1876-1888, no. 623 (1888) [ref. 000858]. In H.L. Smith as *Biddulphia edwardsii* Febiger. No description in H.L. Smith. Name previously published by Grunow in Van Heurck 1882, pl. 100, fig. 8, 9 (ref. 001036).
- Biddulphia edwardsii* Febiger ex Grunow in Van Heurck 1882, pl. 100, fig. 9-10 [ref. 001036].
- Biddulphia elaborata* Grove & Sturt 1886, p. 325; pl. 18, fig. 9 [ref. 000426].
- Biddulphia elegans* (Greville) Boyer 1900, p. 717 [ref. 000151]. Basionym: *Amphitetras elegans* Greville 1866.

- Biddulphia elegantula* Greville 1865, p. 50; pl. 6, fig. 12-14 [ref. 000982].
- Biddulphia elegantula* var. *polycystinica* Pantocsek 1889, p. 85; pl. 16, fig. 278 [ref. 001033]. “*polycystinica*” in fig. caption of 1st edition (1889), corrected to “*polycystinica*” in second edition (1903) (ref. 002331).
- Biddulphia elegantula* var. *polygibba* Pantocsek 1886, p. 50; pl. 30, fig. 303 [ref. 000714].
- Biddulphia elegantula* var. *sarmatica* Pantocsek 1889, p. 85; pl. 22, fig. 331 [ref. 001033].
- Biddulphia elegantula* var. *subgibbosa* Schmidt in Schmidt et al. 1888, pl. 119, fig. 11 [ref. 012463].
- Biddulphia elesdiana* Pantocsek 1889, p. 86; pl. 3, fig. 37 (‘*elesdiana*’) [ref. 001033]. Refers to unnamed new species in Schmidt 1888, pl. 120, fig. 4 (ref. 012463).
- Biddulphia elongata* Meneghini in Kützing 1849, p. 137 [ref. 000596]. *Invalid*. Cited as synonym of *Biddulphia quinquelocularis* Kützing 1849.
- Biddulphia eulensteini* (Grunow in A. Schmidt) Grunow in Van Heurck 1896, p. 466, 468; fig. 203 (as *Biddulphia* (*Pseudo-Stictodiscus*) *Eulensteini*) [ref. 000897]. Basionym: *Triceratium eulensteini* Grunow in Schmidt et al. 1882. As *Pseudo-stictodiscus eulensteini* Grun. in index (p. 547). Comparison of figures support treatment as a new combination of *Triceratium eulensteini* Grunow.
- Biddulphia exacta* Mann 1925, p. 38; pl. 9, fig. 1 [ref. 000632].
- Biddulphia eximia* Grunow in Van Heurck 1883, pl. 106; fig. 1, 3 (as *Syringidium* (*Biddulphia* ?) *eximium* Grun.) [ref. 001037]. *Invalid*. Validly published as *Syringidium eximium* Grunow in Van Heurck.
- Biddulphia eximia* (Grunow) Laporte & Lefébure 1930, expl. pl. 29, fig. 206 [ref. 001334]. Basionym: *Syringidium eximium* Grunow in Van Heurck 1883. *Invalid*. Pro syn. Cited as synonym of *Syringidium eximium* Grunow 1883.
- Biddulphia expedita* Janisch in Schmidt et al. 1888, pl. 121, fig. 3 [ref. 012464].
- Biddulphia extensa* Mann 1907, p. 302; pl. 47, fig. 1, 2 [ref. 000631].
- Biddulphia falcata* Boyer 1922, p. 3; pl. 3, fig. 4 [ref. 000154].
- Biddulphia favus* (Ehrenberg) Van Heurck 1885, p. 208 [ref. 001040]. Basionym: *Triceratium favus* Ehrenberg 1840.
- Biddulphia favus* var. *scitula* (Brightwell) Boyer 1927, p. 133 (as *Biddulphia favus scitula*) [ref. 000155]. Basionym: *Triceratium scitulum* Brightwell 1853. Meant by Boyer as a varietal name (see p. 134).
- Biddulphia fenestrata* (Grove & Sturt) Grunow in Schmidt et al. 1888, pl. 125, fig. 11-13 (as *Biddulphia* (*Odontella*) *fenestrata* Grunow) [ref. 012464]. Basionym: *Auliscus fenestratus* Grove & Sturt 1887.
- Biddulphia fimbriata* Greville 1865, p. 6; pl. 1, fig. 4 [ref. 000420].
- Biddulphia fimbriata* (Wallich) Mann 1925, p. 39 [ref. 000632]. Basionym: *Triceratium fimbriatum* Wallich 1858. *Illegitimate*. Non Greville 1865.
- Biddulphia fistulosa* Pantocsek 1892, pl. 18, fig. 273 [ref. 001034]. Description in Pantocsek 1905, p. 21 (ref. 001445).
- Biddulphia flos* Grunow 1884, p. 7 (59); pl. V(E), fig. 59 [ref. 000444]. Cites “*Triceratium flos* Ehbg., *Tr. reticulum* Weisse, Simbirsk, Taf. 1, Fig. 18b (nec Ehbg.), *Tr. undulatum* Weisse, Simbirsk, Taf. 1, fig. 19 (nec Ehbg.), *Tr. duplicatum* A. Schmidt, Diat.-Atl. Taf. 77, Fig. 10, fig. 10-13”. As Ehrenberg’s name is invalid, Grunow’s name is treated as the name of a new taxon, not as a new combination.
- Biddulphia flos* var. *hebetata* Grunow 1884, pl. 2 (B), fig. 19 [ref. 000444].
- Biddulphia formosa* (Brightwell) E. Jørgensen 1905, p. 200 [ref. 000546]. Basionym: *Triceratium formosum* Brightwell 1856.
- Biddulphia formosa* f. *balaena* E. Jørgensen 1905, p. 200 [ref. 000546]. *Invalid?* May be invalid for lack of a sufficient description.
- Biddulphia formosa* var. *pentagonalis* (A. Schmidt in Schmidt et al.) Witt in Walker & Chase 1886, p. 2; pl. 2, fig. 9 [ref. 000904]. Basionym: *Triceratium formosum* var. *pentagonalis* (*pentagonale*) Schmidt in Schmidt et al. 1882.
- Biddulphia fortiana* Tempère in Forti 1913, p. 1601, pl. 8, fig. 1, 5, 20, 24 [ref. 000342]. First appeared as nomen nudum in Forti 1912, p. 81 (ref. 000341).
- Biddulphia fossa* Grove & Sturt 1887, p. 133; pl. 10, fig. 15 [ref. 000989].
- Biddulphia fractosa* Mann 1925, p. 39; pl. 8, fig. 5, pl. 10, fig. 1 [ref. 000632].
- Biddulphia fragilaria* (Ehrenberg) Ralfs in Pritchard 1861, p. 849 [ref. 001063]. Basionym: *Denticella fragilaria* Ehrenberg 1844.
- Biddulphia fragilis* Bone & Gosden 1967, p. 268; fig. 1 [ref. 003503].
- Biddulphia frauenfeldii* Grunow in Van Heurck 1883, pl. 110, fig. 10 (as *Triceratium* (*Biddulphia*) *frauenfeldii* Grun.) [ref. 001037]. *Invalid*. Validly published by Van Heurck 1883 as *Triceratium frauenfeldii* Gr. Combination under *Biddulphia* listed but not validated (not accepted) by Mills 1933, p. 285 (ref. 006140), nor VanLandingham.
- Biddulphia frickei* Van Heurck 1909, p. 39; pl. 9, fig. 149 (as *Biddulphia* (*Triceratium*) *Frickei* H.V.H. ) [ref. 000898].
- Biddulphia fulva* Boyer 1922, p. 3; pl. 3, fig. 2 [ref. 000154].
- Biddulphia gallapagensis* Cleve 1881, p. 23; pl. 6, fig. 74 [ref. 000222].
- Biddulphia gemina* (Schmidt in Schmidt et al.) Mann 1925, p. 40 [ref. 000632]. Basionym: *Triceratium geminum* Schmidt in Schmidt et al. 1882.
- Biddulphia gibbosa* (Harvey & J.W. Bailey) Van Heurck ex Mann 1925, p. 40 [ref. 000632]. Basionym: *Triceratium gibbo-*

- sum* Harvey & J.W. Bailey 1854.
- Biddulphia gibbosa* var. *crenulata* ‘Post.’ according to Mills 1933, p. 285 [ref. 006140].
- Biddulphia gigantea* Greville 1864, p. 13; pl. 2, fig. 9 [ref. 000418].
- Biddulphia gigas* Ehrenberg 1844, p. 265 [ref. 001185].
- Biddulphia gladiatorum* Mann 1907, p. 304; pl. 47, fig. 4 [ref. 000631].
- Biddulphia grandicornis* Tsumura 1969, p. 5; pl. 1, fig. 3, pl. 2, fig. 3 [ref. 005666].
- Biddulphia grandis* (Brightwell) Boyer 1900, p. 706 [ref. 000151]. Basionym: *Triceratium grande* Brightwell 1853.
- Biddulphia granulata* Roper 1859, p. 13; pl. 1, fig. 10,11, pl. 2, fig. 12 [ref. 001491]. *Illegitimate*. New name for *Denticella turgida* Ehrenberg 1840. Name superfluous: unwarranted change of epithet and combination under *Biddulphia* previously published (*Biddulphia turgida* (Ehrenberg) W. Smith in Okeden 1855).
- Biddulphia grovei* Pantocsek 1892, pl. 9, fig. 147 [ref. 001034]. Description in Pantocsek 1905, p. 21 (ref. 001445).
- Biddulphia grueudleri* Schmidt in Schmidt et al. 1888, pl. 118, fig. 22-24 (‘Gründleri’) [ref. 012463].
- Biddulphia grunowiana* (Castracane) Mann 1925, p. 40 [ref. 000632]. Basionym: *Triceratium grunowianum* Castracane 1886.
- Biddulphia gurowii* Pantocsek 1892, pl. 24, fig. 366 [ref. 001034]. Description in Pantocsek 1905, p. 22 (ref. 001445).
- Biddulphia hamata* ‘Pantocsek’ De Toni 1894, p. 874 [ref. 000951]. *Invalid*. Citation error for *Biddulphia homala* Pantocsek 1886.
- Biddulphia hamata* f. *minor* ‘Pantocsek’ De Toni 1894, p. 874 [ref. 000951]. *Invalid*. Citation error for *Biddulphia homala* f. *minor* Pantocsek 1886.
- Biddulphia hebetata* (Grunow in Van Heurck) Boyer 1900, p. 722 [ref. 000151]. Basionym: *Triceratium irregulare* var. *hebetata* Grunow in Van Heurck 1883.
- Biddulphia heibergii* Grunow in Van Heurck 1883, pl. 112, fig. 9-11 (as *Triceratium (Biddulphia) heibergii* Grun. (*Tric. maculatum* Kitton)) [ref. 001037]. *Invalid*. Validly published as *Triceratium heibergii*. Combination under *Biddulphia* listed but not validated (not accepted) by Mills 1933, p. 290 (ref. 006140).
- Biddulphia heilpriniana* (Kain & E.A. Schultze) Boyer 1900, p. 715 [ref. 000151]. Basionym: *Triceratium heilprinianum* Kain & Schultze 1889.
- Biddulphia hemitropa* L.W. Bailey 1862, p. 344; pl. 2, fig. 71-73 [ref. 000125]. Synonym (alternate name): *Zygoceros hemitropus* L.W. Bailey 1862, p. 344.
- Biddulphia heteroceros* Grunow in Van Heurck 1882, pl. 102, fig. 5 [ref. 001036].
- Biddulphia heteropora* (Grunow in Van Heurck) Boyer 1900, p. 723 [ref. 000151]. Basionym: *Triceratium heteroporum* Grunow in Van Heurck 1883.
- Biddulphia hexagonalis* Boyer 1922, p. 3; pl. 3, fig. 5 [ref. 000154].
- Biddulphia homala* Pantocsek 1886, p. 50; pl. 6, fig. 50 [ref. 000714].
- Biddulphia homala* f. *minor* Pantocsek 1886, p. 50; pl. 18, fig. 168 [ref. 000714].
- Biddulphia hyalina* Schröder 1906, p. 353; fig. 21 [ref. 001504].
- Biddulphia hyalina* Peragallo in Tempère & Peragallo 1909, p. 116; No. 213-214 [ref. 001065]. *Invalid*. Nomen nudum.
- Biddulphia immanis* Boyer 1922, p. 3; pl. 2, fig. 2 [ref. 000154].
- Biddulphia imperialis* Walker in Walker & Chase 1886, p. 1; pl. 1, fig. 1 [ref. 000904].
- Biddulphia impressa* (Grunow in Van Heurck) Mann 1925, p. 40 [ref. 000632]. Basionym: *Triceratium impressum* Grunow in Van Heurck 1883.
- Biddulphia impressa* Long, Fuge & Smith 1946, p. 100; pl. 15, fig. 8 [ref. 000616]. *Illegitimate*. Non (Grunow) Mann 1925. Synonym (replacement name): *Biddulphia advena* VanLandingham 1968. In text misprinted *Bissulphia*.
- Biddulphia includens* Ehrenberg 1855, p. 301 [ref. 001191]. *Invalid*. Nomen nudum.
- Biddulphia indica* (Ehrenberg) Roper 1859, p. 16; pl. 2, fig. 20-22 [ref. 001491]. Basionym: *Denticella indica* Ehrenberg 1845. Synonym cited: *Denticella indica?* Ehrenberg 1845; *Triceratium contortum* Shadbolt.
- Biddulphia inelegans* (Greville) Boyer 1900, p. 725 [ref. 000151]. Basionym: *Triceratium inelegans* Greville 1866.
- Biddulphia inelegans* var. *araeopora* Grunow in Van Heurck 1883, pl. 110, fig. 2 (as *Triceratium (Biddulphia) inelegans* Grev. var. *araeopora*) [ref. 001037]. *Invalid*. Validly published by Van Heurck 1883 as *Triceratium inelegans* var. *araeopora* Gr. Combination under *Biddulphia* published by Boyer 1900.
- Biddulphia inelegans* var. *araeopora* (Grunow in Van Heurck) Boyer 1900, p. 725 (‘*araeopora*’) [ref. 000151]. Basionym: *Triceratium inelegans* var. *araeopora* Grunow in Van Heurck 1883.
- Biddulphia inelegans* var. *jucataensis* Grunow in Van Heurck 1883, pl. 110, fig. 4-5 (as *Tr. (Biddulphia) inelegans* Grev. var.? *yucataensis* Grun.) [ref. 001037]. *Invalid*. Validly published by Van Heurck 1883 as *Triceratium inelegans* var. *yucataense* (Grunow in A. Schmidt et al.) Grunow in Van Heurck 1883. Combination under *Biddulphia* published by Boyer 1900.
- Biddulphia inelegans* var. *jucataensis* (Grunow in Schmidt) Boyer 1900, p. 725 [ref. 000151]. Basionym: *Triceratium jucataense* Grunow in Schmidt et al. 1882.
- Biddulphia inelegans* var. *micropora* Grunow in Van Heurck 1883, pl. 110, fig. 3 (as *Triceratium (Biddulphia) inelegans* Grev. var. *micropora*) [ref. 001037]. *Invalid*. Validly published by Van Heurck 1883 as *Triceratium inelegans* var. *mi-*

- cropora* Gr. Combination under *Biddulphia* published by Boyer 1900.
- Biddulphia inelegans* var. *micropora*** (Grunow in Van Heurck) Boyer 1900, p. 725 [ref. 000151]. Basionym: *Triceratium inelegans* var. *micropora* Grunow in Van Heurck 1883.
- Biddulphia inelegans* var. *nicobarica*** Grunow in Van Heurck 1883, pl. 111, fig. 7 (as *Triceratium (Biddulphia) inelegans* Grev. var.? *nicobarica* Grun.) [ref. 001037]. *Invalid*. Validly published by Van Heurck 1883 as *Triceratium inelegans* var. *nicobarica*. Combination under *Biddulphia* listed by VanLandingham 1968, p. 533 (ref. 006294) but not validated (not accepted).
- Biddulphia inelegans* var. *tubulosa*** (Brun) F.W. Mills 1933, p. 290 [ref. 006140]. Basionym: *Triceratium inelegans* var. *tubulosa* Brun 1896. Citation error for *Triceratium inelegans* var. *tubulosa* Brun? or deliberate new combination? The combination is accepted by Mills (upper case print) and we accept it as valid.
- Biddulphia inelegans* var. *yucateensis*** Grunow in Van Heurck 1883, pl. 110, fig. 4-5 (as *Tr. (Biddulphia) inelegans* Grev. var.? *yucateensis* Grun.) [ref. 001037]. *Invalid*. Validly published by Van Heurck 1883 as *Triceratium inelegans* Grev. var. *yucateensis*. Combination under *Biddulphia* published by Boyer 1900, p. 725 (ref. 000151), as “*jucateensis*”.
- Biddulphia inflata*** Greville 1865, p. 50; pl. 6, fig. 15 [ref. 000982].
- Biddulphia inflata* var. *recta*** Boyer 1922, p. 4; pl. 1, fig. 7 [ref. 000154].
- Biddulphia informis*** Mann 1925, p. 41; pl. 9, fig. 2, 3 [ref. 000632].
- Biddulphia infundibuloides*** Desikachary, Gowthaman & Latha 1987, p. 3, 10; pl. 95, fig. 2-4 [ref. 006018].
- Biddulphia insignis*** (Greville) Mann 1925, p. 41 [ref. 000632]. Basionym: *Triceratium insigne* Greville 1861.
- Biddulphia interpunctata*** (Grunow in Schmidt et al.) Boyer 1900, p. 722 [ref. 000151]. Basionym: *Triceratium interpunctatum* Grunow in Schmidt et al. 1882.
- Biddulphia interrupta*** Boyer 1898, p. 468; pl. 24, fig. 2 [ref. 004337].
- Biddulphia inusitata*** Hohn & Hellerman 1966, p. 121; pl. 1, fig. 3 [ref. 008350].
- Biddulphia inversa*** ‘Mann’ Mills 1933, p. 291 [ref. 006140]. *Invalid*. Error (typographical) for *Biddulphia inverta* Mann 1925.
- Biddulphia inverta*** Mann 1925, p. 41; pl. 9, fig. 4, pl. 10, fig. 2, 3 [ref. 000632].
- Biddulphia irregulare*** Grunow in Van Heurck 1883, pl. 111, fig. 10 (as *Triceratium (Biddulphia) irregulare* Grev. var. *hebetata* Grun.) [ref. 001037]. *Invalid*. Combination under *Biddulphia* listed by VanLandingham 1968, p. 534 (ref. 006294) with the note “implied”, but invalid (not accepted). Not listed in Mill’s Index.
- Biddulphia irregulare* var. *hebetata*** Grunow in Van Heurck 1883, pl. 111, fig. 10 (as *Triceratium (Biddulphia) irregulare* Grev. var. *hebetata* Grun.) [ref. 001037]. *Invalid*. Validly published by Grunow in Van Heurck 1883 as *Triceratium irregulare* var. *hebetata* Gr. Combination under *Biddulphia* listed by Mills 1933, p. 291 (ref. 006140) but not validated (not accepted). See also *Biddulphia hebetata* (Grunow in Van Heurck) Boyer 1900.
- Biddulphia japonica*** Castracane 1886, p. 104; pl. 23, fig. 14 [ref. 000193].
- Biddulphia japonica*** Pantocsek 1892, pl. 18, fig. 267, 271 [ref. 001034]. *Illegitimate*. Non Castracane 1886. Corrected to *Biddulphia jimboi* Pant. in legend of second edition (Pantocsek 1903) (ref. 002332). Described as *Biddulphia jimboi* in Pantocsek 1905, p. 22 (ref. 001445). Synonyms (substitute names): *Biddulphia jimboi* Pantocsek 1903, *Biddulphia pantocsekites* VanLandingham 1968 (illegitimate).
- Biddulphia jimboi*** Pantocsek 1903, pl. 18, fig. 267, 271 [ref. 002332]. New name for *Biddulphia japonica* Pantocsek 1892, non Castracane 1886. Described in Pantocsek 1905, p. 22 (ref. 001445).
- Biddulphia johnsoniana*** Greville 1866, p. 6; pl. 2, fig. 14, 15 [ref. 000423].
- Biddulphia jordani*** Hanna & Grant 1926, p. 131; pl. 14, fig. 3 [ref. 000012].
- Biddulphia jucatensis*** (Grunow) Mann 1925, p. 42 (“*juncatensis*”) [ref. 000632]. Basionym: *Triceratium jucatense* Grunow in Schmidt et al. 1882. Valid despite typographical error.
- Biddulphia jucatensis*** (Grunow in Schmidt et al.) Boyer 1927, p. 138 [ref. 000155]. Basionym: *Triceratium jucatense* Grunow in Schmidt et al. 1882. New combination previously validly published by Mann 1925, p. 42 (ref. 000632) despite his misspelling of the epithet (“*juncatensis*”).
- Biddulphia juncatensis*** (Grunow) Mann 1925, p. 42 (“*juncatensis*”) [ref. 000632]. Basionym: *Triceratium jucatense* Grunow in Schmidt et al. 1882. *Invalid*. Typographical error for *Biddulphia jucatense* (Grunow) Mann 1925.
- Biddulphia juncta*** (Schmidt in Schmidt et al.) Mann 1925, p. 42 [ref. 000632]. Basionym: *Triceratium junctum* Schmidt in Schmidt et al. 1886.
- Biddulphia juncta* var. *fossile*** ‘Pantocsek’ Mills 1933, p. 291 [ref. 006140]. *Invalid*. Citation error for *Triceratium junctum* var. *fossile* Pantocsek 1889. Combination not accepted by Mills.
- Biddulphia juncta* f. *pentagona*** ‘Tempère’ Mills 1933, p. 291 (‘5 gona’) [ref. 006140]. *Invalid*. Citation error for *Triceratium junctum* f. *5 gona* Bergon et al. 1890. Combination not accepted by Mills. The epithet “*pentagona*” is first introduced by VanLandingham 1967, p. 535 (ref. 006294). VanLandingham however does not accept the name (lower case print) and thus does not validate the combination.
- Biddulphia kainii*** (E.A. Schultze in Kain & E.A. Schultze) Boyer 1900, p. 718 [ref. 000151]. Basionym: *Triceratium kainii* Schultze in Kain & E. A. Schultze 1889.



- Biddulphia keeleyi* Boyer 1898, p. 469; pl. 24, fig. 4 [ref. 004337].
- Biddulphia kemnae* Van Heurck 1909, pl. 10, fig. 145, 146 [ref. 000898]. *Invalid?* Alternate name for *Biddulphia translucida* Van Heurck? Name appears in legend only as “*Biddulphia translucida* H.V.H. (*B. Kemnae*)”. Described on p. 42 as *Biddulphia translucida*.
- Biddulphia lacunosa* Long, Fuge & Smith 1946, p. 101; pl. 15, fig. 10 [ref. 000616].
- Biddulphia laevis* Ehrenberg 1843, p. 339, 368, 410 [ref. 000294]. Description on p. 410.
- Biddulphia laevis* ‘Ehrenberg’ Roper 1859, p. 18; pl. 2, fig. 25, 26 [ref. 001491]. A citation of *Biddulphira laevis* Ehrenberg 1843 (ref. 000294), not the description of a new species. Roper notes, however, that *Biddulphia laevis* Ehr. 1843 is a different species from *Biddulphia laevis* of Ehrenberg 1854 (Mikr. 33/15, fig. 6) (ref. 000966).
- Biddulphia laevis* f. *minor* (Grunow in Van Heurck) Van Heurck 1896, p. 474; pl. 20, fig. 640 [ref. 000897]. Basionym: *Cerataulus polymorphus* f. *minor* Van Heurck 1883.
- Biddulphia laevis* var. *minor* Mereschkowsky 1901, p. 516 [ref. 002083]. *Illegitimate*. Non (Grunow in Van Heurck) Van Heurck 1896.
- Biddulphia laevis* f. *minor* Mereschkowsky 1902, p. 62 [ref. 000652]. Non (Grunow in Van Heurck) Van Heurck 1896 (nec Mereschkowsky 1901?).
- Biddulphia laevis* var. *minor* Meunier 1915, p. 29; pl. 10, fig. 16, 17 [ref. 000659]. *Illegitimate*. Non (Grunow in Van Heurck) Van Heurck 1896.
- Biddulphia laevis* var. *schmidti* (Forti) Hustedt 1930, p. 854 (‘*schmidti*’) [ref. 000503]. Basionym: *Cerataulus laevis* var. *schmidti* (*schmidtii*) Forti 1910.
- Biddulphia lata* Grove & Sturt 1887, p. 135; pl. 14, fig. 53 [ref. 000989].
- Biddulphia lata* (Greville) E. Jørgensen 1905, p. 200 [ref. 000546]. Basionym: *Triceratium latum* Greville 1865. *Illegitimate*. Not Grove & Sturt 1887.
- Biddulphia levigata* Sheshukova-Poretskaya 1967, p. 218; pl. 35, fig. 4a-b, pl. 36, fig. 3a-b [ref. 006198].
- Biddulphia levis* Ehrenberg 1843 (‘*laevis*’) [ref. 000294]. Orthographical variant. See *Biddulphia laevis* Ehrenberg 1843, p. 368, 410 (ref. 000294).
- Biddulphia litigiosa* Van Heurck 1909, p. 40; pl. 10, fig. 141 [ref. 000898]. In legend as *Biddulphia punctata* var. *subaurita* H.V.H.
- Biddulphia lóczyi* Pantocsek 1889, p. 86; pl. 15, fig. 255 [ref. 001033].
- Biddulphia longaeva* Long, Fuge & Smith 1946, p. 101; pl. 15, fig. 11 [ref. 000616].
- Biddulphia longicornis* Skvortzow 1931, p. 110; pl. 2, fig. 16 (as *Biddulphia longicornis* Greville) [ref. 001526]. Probable error for *Biddulphia longicruris* Greville 1859.
- Biddulphia longicruris* Greville 1859, p. 163; pl. 8, fig. 10 [ref. 000972].
- Biddulphia longicruris* var. *hyalina* (Schröder) Cupp 1943, p. 157-161; fig. 111, B1-B3 [ref. 001161]. Basionym: *Biddulphia hyalina* Schröder 1906.
- Biddulphia longicruris* var. *japonica* Grunow in Van Heurck 1882, pl. 100, fig. 7 [ref. 001036].
- Biddulphia longicruris* var. *leptoceros* Grunow in Van Heurck 1882, pl. 101, fig. 1 [ref. 001036].
- Biddulphia longispina* Grunow in Van Heurck 1882, pl. 102, fig. 6 [ref. 001036].
- Biddulphia luminosa* (Tempère & Brun in Brun & Tempère) Mann 1907, p. 305; pl. 46, fig. 5 [ref. 000631]. Basionym: *Triceratium luminosum* Tempère & Brun in Brun & Tempère 1889.
- Biddulphia lunaris* ‘Auctorum’ according to Mills 1933, p. 293 [ref. 006140]. *Invalid*. No reference given. Name not accepted by Mills. Accepted synonym: *Eunotogramma laeve* Grunow.
- Biddulphia lunata* Ehrenberg 1844, p. 77 [ref. 002694]. Illustration in Ehrenberg 1854, pl. 18, fig. 53 (ref. 000966).
- Biddulphia macdonaldii* Norman in Pritchard 1861, p. 849; pl. 8, fig. 23 [ref. 001063].
- Biddulphia madagascarensis* (Grunow in Van Heurck) Mann 1925, p. 42 [ref. 000632]. Basionym: *Triceratium madagascarensis* Grunow in Van Heurck 1883.
- Biddulphia mammosa* Greville 1866, p. 7; pl. 2, fig. 16 [ref. 000423].
- Biddulphia manca* Janisch in Schmidt et al. 1888, pl. 121, fig. 4 [ref. 012464].
- Biddulphia media* H. Peragallo in Tempère & Peragallo 1909, p. 116; No. 213-214 [ref. 001065]. *Invalid*. Nomen nudum.
- Biddulphia mediterraneensis* ‘Grunow’ Mills 1933, p. 293 [ref. 006140]. *Invalid*. Not a valid combination of *Anaulus mediterraneus* Grunow in Van Heurck 1882 (combination not accepted by Mills). Accepted synonym: *Anaulus mediterraneus* Grunow in Van Heurck 1882.
- Biddulphia membranacea* Cleve 1878, p. 20; pl. 5, fig. 33 [ref. 000221].
- Biddulphia minima* Schiller in Hustedt 1930, p. 856; fig. 509 [ref. 000503].
- Biddulphia minuta* (Greville) Andrews 1988, p. 16; pl. 5, fig. 5, 6 [ref. 004331]. Basionym: *Amphitetras minuta* Greville 1861. [according to ANSP].
- Biddulphia minutissima* Greville 1866, p. 437; pl. 6, fig. 14 [ref. 000421].
- Biddulphia miraculosa* Brun in Schmidt et al. 1892, pl. 172, fig. 10 [ref. 012470].
- Biddulphia mobiliensis* (J.W. Bailey) Grunow in Van Heurck 1882, pl. 101, fig. 4-6 [ref. 001036]. Basionym: *Zygoceros mo-*

- biliensis* J.W. Bailey 1851.
- Biddulphia mobiliensis* var. *major* Meunier 1915, p. 25; pl. 10, figs. 4-6 ('*mobiliensis*') [ref. 000659]. [according to INA].
- Biddulphia mobiliensis* var. *minor* Meunier 1915, p. 25; pl. 10, figs. 7, 8 ('*mobiliensis*') [ref. 000659]. [according to INA].
- Biddulphia mobiliensis* var. *nicobarica* 'Grunow in Van Heurck' according to Mills 1933, p. 294 [ref. 006140]. *Invalid*. Error of Mills for *Triceratium (Biddulphia) moronense* Grev. var. *nicobarica* Grun. Not accepted by Mills. Not a valid new combination of Grunow's name.
- Biddulphia mobiliensis* sensu Gran 1908, p. 106; fig. 138 (as *Biddulphia mobiliensis* (Bail.) Grun) [ref. 000389]. Not intended by Gran as the name of a new species.
- Biddulphia moholensis* Schrader 1974, p. 534; fig. 4 (3-4) [ref. 003246].
- Biddulphia mollis* Mann 1937, p. 28; pl. 3, fig. 3-5 [ref. 000634].
- Biddulphia montereyi* (Brightwell) Mereschowsky 1901, p. 515 (as *Biddulphia (Triceratium) montereyi*) [ref. 002083]. Basionym: *Triceratium montereyi* Brightwell 1853.
- Biddulphia moronensis* Cleve 1881, p. 23; pl. 4, fig. 56 [ref. 000222].
- Biddulphia moronensis* (Greville) T.V. Desikachary 1989, p. 15 (expl. pl. 72, fig. 2) [ref. 006022]. Basionym: *Triceratium moronense* Greville 1865. *Invalid*. cited in synonymy. Err. cit. pro *Triceratium moronense* Greville 1883.
- Biddulphia moronensis* var. *nicobarica* Grunow in Van Heurck 1883, pl. 110, fig. 6 (as *Triceratium (Biddulphia) moronense* Grev. var. *nicobarica* Grun.) [ref. 001037]. *Invalid*. Combination validly published by Van Heurck 1883 under *Triceratium*. Combination under *Biddulphia* expressed in synonymy, but not validated by Desikachary 1989, p. 15 (ref. 006022).
- Biddulphia multicornis* Grunow in Van Heurck 1882, pl. 102, fig. 7 [ref. 001036].
- Biddulphia multicornis* var. *templum* Brun in Schmidt et al. 1892, pl. 173, fig. 13, 14 [ref. 012470].
- Biddulphia murrayana* Hendey 1939, p. 11; pl. 1, fig. 1 [ref. 000476].
- Biddulphia mythica* Tsumura 1969, p. 2-3; pl. 1, fig. 1-2, pl. 2, fig. 1-2, pl. 4, fig. 9 [ref. 005666].
- Biddulphia nankoorensis* 'Grunow in Van Heurck' M. Peragallo 1897, p. 139 [ref. 012539]. *Invalid*. Not accepted by M. Peragallo ("*Triceratium nankoorensis* Gr." is listed as the accepted synonym). Not a valid combination of *Triceratium nankoorensis* Grunow in Van Heurck 1883.
- Biddulphia neogradensis* (Pantocsek) F.W. Mills 1933, p. 294 [ref. 006140]. Basionym: *Odontella neogradensis* Pantocsek 1886. Valid new combination.
- Biddulphia nervata* Boyer 1922, p. 4; pl. 2, fig. 1 [ref. 000154].
- Biddulphia nitida* Greville 1865, p. 52; pl. 5, fig. 11 [ref. 000982].
- Biddulphia nobilis* Brun in Brun & Tempère 1889, p. 27; pl. 5, fig. 11 [ref. 000185].
- Biddulphia nobilis* (Witt) E. Jørgensen 1905, p. 200 [ref. 000546]. Basionym: *Triceratium nobile* Witt 1885. *Illegitimate*. Non Brun 1889.
- Biddulphia nobilis* (Greville) Brockmann 1928, p. 172; pl. 3, fig. 10 [ref. 001113]. Basionym: *Amphitetras nobilis* Greville 1865. *Illegitimate*. Non Brun 1889.
- Biddulphia nobilis* (Grev.) Brockman var. *pentagona* Brockmann 1928, p. 172; pl. 3, figs. 6, 9, 11, 15 [ref. 001113].
- Biddulphia novaezealandiae* Wise 1952, p. 406; pl. 20, fig. 2 ('*novae-zealandiae*') [ref. 001566].
- Biddulphia oamaruensis* Grove & Sturt 1886, p. 325; pl. 18, fig. 10 [ref. 000426].
- Biddulphia obliquata* (J.E. Smith) Gray 1821, p. 294 [ref. 000390]. Basionym: *Conferva obliquata* J.E. Smith 1790-1814.
- Biddulphia obliquata* var. *longa* Gray 1821, p. 294 (as *Biddulphia obliquata*  $\beta$  *longa*) [ref. 000390].
- Biddulphia obliquata* var. *tenuior* (Agardh) Brébisson 1838, p. 12 [ref. 000161]. Basionym: *Isthmia obliquata* var. *tenuior* Agardh 1832.
- Biddulphia obtusa* (Kützing) Ralfs in Pritchard 1861, p. 848 [ref. 001063]. Basionym: *Odontella obtusa* Kützing 1844.
- Biddulphia obtusa* (Kütz.) Ralfs f. *anthropomorpha* (Van Heurck) Heiden in Heiden & Kolbe 1928, p. 541; pl. 13 (43), fig. 191 (as *Biddulphia obtusa* Grun. var. *anthropomorpha*) [ref. 000473]. Basionym: *Biddulphia anthropomorpha* Van Heurck 1909.
- Biddulphia obtusa* (Kütz.) Ralfs var. *spinosa* Tempère & Brun in Brun & Tempère 1889, p. 69 (as *Biddulphia obtusa* Ralfs var. *spinosa*) [ref. 000185].
- Biddulphia obtusa* (Kütz.) Ralfs var. *wigandi* Rabenhorst 1864, p. 312 [ref. 000775]. Based on *Odontella biddulphioides* Wigand 1860.
- Biddulphia obtusa* (Kützing) Grunow 1867, p. 23 [ref. 000432]. Basionym: *Odontella obtusa* Kützing 1844. Isonym. Combination published earlier by Ralfs in Pritchard 1861.
- Biddulphia obtusa* (Ehrenberg) Boyer 1900, p. 721 adnot. [ref. 000151]. Basionym: *Triceratium obtusum* Ehrenberg 1844. *Illegitimate*. Non (Kützing) Ralfs in Pritchard 1861.
- Biddulphia occidentalis* (L.W. Bailey) Wolle 1890, pl. 64, fig. 11 (as *Biddulphia (Zygoceros) occidentalis* L.W. Bailey) [ref. 000916]. Basionym: *Zygoceros occidentalis* J.W. Bailey in L.W. Bailey 1862. *Invalid*. Not valid as a new combination since *Zygoceros occidentalis* J.W. Bailey in L.W. Bailey 1862 is invalid (not accepted by Bailey). Still invalid in Wolle 1890 (not accepted): "probably a small variety of *Z. mobiliensis*".

- Biddulphia orbiculata* (Shadbolt) Boyer 1900, p. 709 [ref. 000151]. Basionym: *Triceratium orbiculatum* Shadbolt 1854.
- Biddulphia ornata* (Shadbolt) Castracane 1886, p. 105 [ref. 000193]. Basionym: *Amphitetras ornata* Shadbolt 1854.
- Biddulphia ornata* (Shadbolt) Boyer 1927, p. 136 [ref. 000155]. Basionym: *Amphitetras ornata* Shadbolt 1854. Isonym. Combination previously published by Castracane (1886).
- Biddulphia ornata* var. *hirsuta* Castracane 1886, p. 105; pl. 23, fig. 9 [ref. 000193].
- Biddulphia ornata* f. *tetragona parva* (Grunow) Boyer 1927, p. 136 [ref. 000155]. Basionym: *Triceratium ornatum* f. *tetragona parva* Grunow in Schmidt et al. 1886.
- Biddulphia ottomuelleri* Van Heurck 1909, p. 40; pl. 10, fig. 138, 142 [ref. 000898].
- Biddulphia ottomuelleri* var. *cruciata* (Petit) M. Peragallo 1921, p. 73 [ref. 000737]. Basionym: *Biddulphia cruciata* Petit 1908.
- Biddulphia ottomuelleri* var. *rotunda* Van Heurck 1909, p. 41; pl. 11, fig. 174, 175 [ref. 000898].
- Biddulphia ovalis* (Schmidt in Schmidt et al.) Boyer 1900, p. 712 [ref. 000151]. Basionym: *Cerataulus ovalis* Schmidt in Schmidt et al. 1888.
- Biddulphia pacifica* (Grunow in Schmidt et al.) Mann 1907, p. 306 [ref. 000631]. Basionym: *Cerataulus pacificus* Grunow in Schmidt et al. 1888.
- Biddulphia palpebralis* Forti in Tempère & Peragallo 1914, p. 451, No. 926-929 [ref. 001070]. *Invalid*. Nomen nudum.
- Biddulphia pantocsekites* VanLandingham 1968, p. 542 [ref. 006294]. *Illegitimate*. New name for *Biddulphia japonica* Pantocsek 1892 (non Castracane 1886). Superfluous name: substitute name, *Biddulphia jimboi* Pantocsek 1903, already exists.
- Biddulphia papillata* (Grove & Sturt) Mann 1907, p. 306 [ref. 000631]. Basionym: *Triceratium papillatum* Grove & Sturt 1887.
- Biddulphia paradoxa* Petit 1908, p. 3; pl. 1, fig. 7 [ref. 000753].
- Biddulphia parallela* ‘Ehrenberg’ Grunow in Van Heurck 1883, pl. 111, fig. 1-5 (as “*Triceratium (Biddulphia) parallelum* (Ehr.)”) [ref. 001037]. *Invalid*. Not a valid new combination of *Amphitetras parallela* Ehrenberg 1840. Combination *Biddulphia parallela* (Ehrenberg) listed by Mills 1933, p. 296 (ref. 006140) but not validated (not accepted). Non *Biddulphia parallela* Castracane 1886.
- Biddulphia parallela* (Ehrenberg) var. *sparsa* Van Heurck 1883, pl. 111, fig. 1 (as *Tr. (Biddulphia?) parallelum* var. *sparsa*) [ref. 001037]. *Invalid*. Validly published by Van Heurck 1883 as *Triceratium parallelum* var. *sparsa* Grunow in Van Heurck. Not valid under *Biddulphia*.
- Biddulphia parallela* Castracane 1886, p. 103; pl. 23, fig. 10,11, pl. 26, fig. 7 [ref. 000193].
- Biddulphia parvula* (Janisch & Rabenhorst) Boyer 1900, p. 725 [ref. 000151]. Basionym: *Amphitetras parvula* Janisch & Rabenhorst 1863.
- Biddulphia patagoniana* Frenguelli 1906, p. 225; fig. 5-6 [ref. 001018].
- Biddulphia patagonica* Ehrenberg 1854, p. 299 [ref. 000300]. *Invalid*. Nomen nudum.
- Biddulphia patera* Barker & Meakin 1949, p. 301-302; pl. 37, fig. 4 [ref. 000133].
- Biddulphia pedalis* Grove & Sturt 1887, p. 74; pl. 6, fig. 22 [ref. 000988].
- Biddulphia pelagica* Schröder 1908, p. 619; fig. 4a-c [ref. 001505].
- Biddulphia pellucida* Castracane 1886, p. 103; pl. 26, fig. 5 [ref. 000193].
- Biddulphia penitens* Hanna & Grant 1926, p. 132; pl. 14, fig. 4, 5 [ref. 000012].
- Biddulphia pentacrinus* (Ehrenberg) Boyer 1900, p. 717 [ref. 000151]. Basionym: *Amphipentas pentacrinus* Ehrenberg 1840.
- Biddulphia peragalli* (Brun in Schmidt et al.) Van Heurck 1909, p. 41 [ref. 000898]. Basionym: *Triceratium peragallii* Brun in Schmidt et al. 1891. *Illegitimate*. Non *Biddulphia peragalloi* Leuduger-Fortmorel 1898.
- Biddulphia peragalli* Brun (Van Heurck) var. *subrotundata* (Brun in Schmidt et al.) F.W. Mills 1933, p. 297 [ref. 006141]. Basionym: *Triceratium peragalli* var. *subrotunda* Brun in Schmidt et al. 1891.
- Biddulphia peragalloi* Leuduger-Fortmorel 1898, p. 34; pl. 7, fig. 3 [ref. 000608].
- Biddulphia permagna* Pantocsek 1889, p. 86; pl. 25, fig. 372 [ref. 001033].
- Biddulphia permagna* (Janisch) Van Heurck 1909, p. 41 [ref. 000898]. Basionym: *Triceratium permagnum* Janisch 1888. *Invalid*. Refers to the invalid *Triceratium permagnum* Janisch 1888. Does not validate Janisch’s name (no description or illustration are provided by Van Heurck). Non Pantocsek 1889.
- Biddulphia perplexa* Long, Fuge & Smith 1946, p. 101; pl. 15, fig. 5 [ref. 000616].
- Biddulphia perpussilla* J.W. Bailey Collection according to Chase 1885, p. 65 [ref. 001049]. *Invalid?* Nomen nudum according to De Toni 1894, p. 878 (ref. 000951).
- Biddulphia peruviana* Grunow in Van Heurck 1882, pl. 101, fig. 2, 3 (as *B. (tumida* Roper var.?) *peruviana* Grun.) [ref. 001036].
- Biddulphia petitiiana* (Leuduger-Fortmorel) Mann 1925, p. 43 [ref. 000632]. Basionym: *Triceratium petitianum* Leuduger-Fortmorel 1898.
- Biddulphia petiti* (Leuduger-Fortmorel) Mann 1925, p. 43 [ref. 000632]. Basionym: *Cerataulus petiti* Leuduger-Fortmorel

- 1892.
- Biddulphia petroli* Hanna 1927, p. 110; pl. 19, fig. 7 [ref. 000007].
- Biddulphia phallus* Leuduger-Fortmorel 1898, p. 28; pl. 5, fig. 11 [ref. 000608].
- Biddulphia picturatum* (Greville) Taylor 1970, p. 172 [ref. 008885]. Basionym: *Triceratium picturatum* Greville 1866.
- Biddulphia plana* Schmidt in Schmidt et al. 1888, pl. 121, fig. 7 [ref. 012464].
- Biddulphia plicata* Grunow in Van Heurck 1883, pl. 113, fig. 10 (as *Triceratium (Biddulphia) plicatum* Grun.) [ref. 001037].  
Invalid. Validly published as *Triceratium plicatum* Grunow. Name "*Biddulphia plicata*" listed but not validated (not accepted) by Mills 1933, p. 298 (ref. 006141).
- Biddulphia podagrosa* Greville 1866, p. 82; pl. 9, fig. 17 [ref. 000984].
- Biddulphia polyacanthos* Brun 1891, p. 12; pl. 12, fig. 8 [ref. 000176].
- Biddulphia polymera* (Ehrenberg) Ralfs in Pritchard 1861, p. 848 [ref. 001063]. Basionym: *Denticella polymera* Ehrenberg 1844.
- Biddulphia polymorpha* (Montagne) Wolle 1890, pl. 97, fig. 5, 11 (as *Biddulphia (Cerataulus) polymorphus*) [ref. 000916].  
Basionym: *Isthmia polymorpha* Montagne 1840. Cites Van Heurck 1883, pl. 104, fig. 3, 4 (ref. 001037) (*Cerataulus polymorphus* [(Montagne)] Van Heurck 1883). Also cites "Odontella polymorphus Ehrenberg, *Biddulphia laevis* W. S."
- Biddulphia polymorpha* (Montagne) Wolle var. *petiti* (Leuduger-Fortmorel) F.W. Mills 1933, p. 298 [ref. 006141]. Basionym: *Cerataulus petiti* Leuduger-Fortmorel 1892.
- Biddulphia polymorpha* L. Manguin 1914, p. 477; fig. 1-4 [ref. 001363]. *Illegitimate*. Superfluous name: includes *B. ottomuelleri*, *B. anthropomorpha*, *B. punctata*, *B. translucida*, ect.. Also in L. Manguin 1915, p. 23 (ref. 001364). Non (Grunow in Van Heurck) Wolle 1890.
- Biddulphia polymorpha* Manguin var. *anthropomorpha* (Van Heurck) M. Peragallo 1924, p. 23 [ref. 000738]. Basionym: *Biddulphia anthropomorpha* Van Heurck 1909.
- Biddulphia polymorpha* Manguin var. *belgicae* (M. Peragallo) M. Peragallo 1924, p. 23 [ref. 000738]. Basionym: *Biddulphia belgicae* M. Peragallo 1921.
- Biddulphia polymorpha* Manguin var. *cruciata* (Petit) M. Peragallo 1924, p. 23 [ref. 000738]. Basionym: *Biddulphia cruciata* Petit 1908.
- Biddulphia polymorpha* Manguin f. *lata* (M. Peragallo) M. Peragallo 1924, p. 23 (as *Biddulphia polymorpha* var. *belgicae* f. *lata*) [ref. 000738]. Basionym: *Biddulphia belgicae* var. *lata* M. Peragallo 1921.
- Biddulphia polymorpha* Manguin f. *ottomuellerii* (Van Heurck) M. Peragallo 1924, p. 23 [ref. 000738]. Basionym: *Biddulphia ottomuellerii* Van Heurck 1909.
- Biddulphia polymorpha* Manguin f. *rotunda* (Van Heurck) M. Peragallo 1924, p. 23 (as *Biddulphia polymorpha* var. *Otto Müllerii* f. *rotunda*) [ref. 000738]. Basionym: *Biddulphia ottomuellerii* var. *rotunda* Van Heurck 1909.
- Biddulphia polymorpha* Manguin var. *vanheurckii* (M. Peragallo) M. Peragallo 1924, p. 23 [ref. 000738]. Basionym: *Biddulphia vanheurckii* M. Peragallo 1921.
- Biddulphia polymorpha* (Montagne) Mann 1925, p. 10F [ref. 000633]. Basionym: *Isthmia polymorpha* Montagne 1840.  
Isonym: See (Montagne) Wolle 1890. Non L. Manguin 1914.
- Biddulphia primordialis* Brun 1891, p. 12; pl. 13, fig. 9; pl. 14, fig. 9 [ref. 000176].
- Biddulphia primordialis* var. *inermis* Brun in Schmidt et al. 1892, pl. 172, fig. 5 [ref. 012470].
- Biddulphia primordialis* Long, Fuge & Smith 1946, p. 101; pl. 17, fig. 19 [ref. 000616].
- Biddulphia pulchella* S.F. Gray 1821, p. 294 [ref. 000390]. *Illegitimate*. New name for *Conferva biddulphiana* J.E. Smith 1807. Unwarrented change of epithet (*Biddulphia biddulphiana* is not a tautonym).
- Biddulphia pulchella* sensu Möller 1892, p. 47; (Tafel 6)/12-13 (as *Biddulphia pulchella* Gray) [ref. 001392]. Figs. 13, and 10 (?) listed by Forti 1913, p. 1601 (ref. 000342) in synonymy of *Biddulphia fortiana* Forti 1913.
- Biddulphia pulchella* f. *bifasciata* (Wigand) Rabenhorst 1864, p. 310 (as *Biddulphia pulchella* b. *trilocularis* \* *bifasciata*) [ref. 000775]. Basionym: *Biddulphia bifasciata* Wigand 1860.
- Biddulphia pulchella* var. *elliptica* Ichikawa in Ichikawa, Fuji & Bachmann 1964, p. 52; pl. 6, fig. 48a-b [ref. 000538].
- Biddulphia pulchella* var. *grundleri* (A. Schmidt) Cleve 1901, p. 31 [ref. 001146]. Basionym: *Biddulphia gruendleri* Schmidt in Schmidt et al. 1888. [according to INA].
- Biddulphia pulchella* var. *major* Castracane 1886, p. 102; pl. 23, fig. 6 [ref. 000193].
- Biddulphia pulchella* var. *moronensis* Forti in Tempère & Peragallo 1914, p. 451, No. 926-929 [ref. 001070]. *Invalid*.  
Nomen nudum.
- Biddulphia pulchella* f. *quinquelocularis* according to Mills 1933, p. 299 [ref. 006141]. Mills notes: "(Diatoma interstitiale, and D. liberum Ag.)".
- Biddulphia pulchella* var. *quinquelocularis* (Kützing) Rabenhorst 1864, p. 310 [ref. 000775]. Basionym: *Biddulphia quinquelocularis* Kützing 1844.
- Biddulphia pulchella* var. *septemlocularis* (Kützing) Rabenhorst 1864, p. 310 [ref. 000775]. Basionym: *Biddulphia septemlocularis* Kützing 1844.
- Biddulphia pulchella* f. *transversa* (Wigand) Rabenhorst 1864, p. 310 (as *Biddulphia pulchella* b. *quinquelocularis* \* *trans-*

- versa*) [ref. 000775]. Basionym: *Biddulphia transversa* Wigand 1860.
- Biddulphia pulchella*** var. ***trilocularis*** (Kützing) Rabenhorst 1864, p. 310 [ref. 000775]. Basionym: *Biddulphia trilocularis* Kützing 1844.
- Biddulphia pulchella*** f. ***unifasciata*** (Wigand) Rabenhorst 1864, p. 310 (as *Biddulphia pulchella* b. *trilocularis* \* *unifasciata*) [ref. 000775]. Basionym: *Biddulphia unifasciata* Wigand 1860.
- Biddulphia pulverulenta*** Mann 1937, p. 29; pl. 6, fig. 11-13 [ref. 000634].
- Biddulphia pumila*** Castracane 1886, p. 103; pl. 23, fig. 12 [ref. 000193].
- Biddulphia punctata*** Greville 1864, p. 83; pl. 11, fig. 10 [ref. 000979].
- Biddulphia punctata*** Greville var. ***belgicae*** M. Peragallo 1921, p. 73 [ref. 000737]. Refers to illustration in Van Heurck 1909, p. 41, pl. 10, fig. 134, 135 (*B. punctata* var.?) (ref. 000898).
- Biddulphia punctata*** Greville var. ***cretacea*** Brun 1896, pl. 22, fig. 14 (as *Biddulphia (punctata* Grev.) var. *cretacea* J. Brun) [ref. 000183]. *Invalid*. Validly published as *Biddulphia cretacea* Brun 1896. See *Biddulphia punctata* var. *cretacea* (Brun) M. Peragallo 1897 (valid).
- Biddulphia punctata*** Greville var. ***cretacea*** (Brun) M. Peragallo 1897, p. 141 [ref. 012539]. Basionym: *Biddulphia cretacea* Brun 1896. Citation error for *Biddulphia (punctata* Grev.) var. *cretacea* J. Brun 1896. Accepted by Peragallo. We treat it as a valid new combination.
- Biddulphia punctata*** Greville var. ***subaurita*** Van Heurck 1909, pl. 10, fig. 141 [ref. 000898]. *Invalid?* Name in legend only; described on p. 40 as *Biddulphia litigiosa*.
- Biddulphia punctata*** Greville var. ***subtriundulata*** Van Heurck 1909, p. 41; pl. 10, fig. 139, 140 [ref. 000898].
- Biddulphia punctata*** Greville? var. ***anthropomorpha*** ‘Van Heurck’ according to Mills 1933, p. 298 [ref. 006141]. *Invalid*. Err. cit. for *Biddulphia anthropomorpha* Van Heurck 1909. Not a valid new combination of Van Heurck’s name: not accepted by Mills (lower case print), and cited pro syn.
- Biddulphia punctata*** (Brightwell) Van Heurck 1896, p. 466, 469; fig. 206 (as *Biddulphia (Amphipentas) punctata* Brightw.) [ref. 000897]. Basionym: *Triceratium punctatum* Brightwell 1856. *Illegitimate*. Non Greville 1864.
- Biddulphia punctata*** (Bright.) Van Heurck f. ***pentagona*** Grunow in Van Heurck 1883, pl. 109, fig. 6 (as *Triceratium (Biddulphia) punctatum* Brightwell forma *5-gona*) [ref. 001037]. *Invalid*. Validly published as *Triceratium punctatum* f. *pentagona* Grunow in Van Heurck 1883, or *Triceratium punctatum* f. *pentagona* Grunow in Schmidt 1885, pl. 81, fig. 7 (ref. 012457).
- Biddulphia punctata*** (Bright.) Van Heurck f. ***tetragona minuta*** Grunow in Van Heurck 1883, pl. 109, fig. 9 (as *Triceratium (Biddulphia) punctatum* Brightwell forma *4-gona minuta*) [ref. 001037]. *Invalid*. Not validly published under *Biddulphia*.
- Biddulphia punctata*** (Bright.) Van Heurck f. ***trigona minuta*** Grunow in Van Heurck 1883, pl. 109, fig. 10 (as *Triceratium (Biddulphia) punctatum* Brightwell forma *3-gona minuta*) [ref. 001037]. *Invalid*. Not validly published under *Biddulphia*.
- Biddulphia punctata*** Grove & Sturt ex Brun 1896, caption for pl. 22, fig. 14 [ref. 000183]. *Illegitimate*. Brun notes in the caption for *Biddulphia (punctata* Grev.) var. *cretacea* J. Brun 1896: “non Bid. punctata Gr. et St. qui a les alvéoles mêlées d’épines et la zone connective cannelée”. Non Greville 1864.
- Biddulphia pustulata*** Brun 1891, p. 13; pl. 13, fig. 10 [ref. 000176].
- Biddulphia pygmaea*** Mann 1925, p. 44 [ref. 000632]. New name for *Triceratium pulchellum* Grunow in Schmidt 1886 (priority for *Biddulphia pulchella* Gray 1821).
- Biddulphia quadrans*** Boyer 1922, p. 4; pl. 1, fig. 5 [ref. 000154].
- Biddulphia quadricornis*** (Grunow in Van Heurck) Wolle 1890, pl. 64, fig. 8, 9 [ref. 000916]. Basionym: *Zygoceros quadricornis* Grunow in Van Heurck 1883.
- Biddulphia quadricornis*** (Grunow) Boyer 1900, p. 713 [ref. 000151]. Basionym: *Zygoceros quadricornis* Grunow in Van Heurck 1883. Isonym: See *B. quadricornis* (Grunow in Van Heurck) Wolle 1890.
- Biddulphia quinquelocularis*** Kützing 1844, p. 138; pl. 19, fig. 1 [ref. 000595]. New name for *Diatoma biddulphianum* Agardh 1817 (= *Conferva biddulphiana* J.E. Smith, Engl. Bot. Tab. 1762, 1807).
- Biddulphia radialis*** Andrews 1986, p. 510-511; pl. 4, fig. 8-9, pl. 10, fig. 1 [ref. 003360].
- Biddulphia radiata*** (W. Smith) Roper 1859, p. 19; pl. 2, fig. 27-29 [ref. 001491]. Basionym: *Eupodiscus radiatus* W. Smith 1853.
- Biddulphia radiata*** (Brightwell) Grunow in Van Heurck 1883, pl. 112, fig. 8 (as *Triceratium (Biddulphia) radiatum* Bright.) [ref. 001037]. Basionym: *Triceratium radiatum* Brightwell 1856. *Invalid*. Combination under *Biddulphia* listed (with error on fig. number) but not validated (not accepted) by Mills 1933, p. 300 (ref. 006141).
- Biddulphia radiopunctata*** ‘Mann’ according to Mills 1933, p. 300 (“*radio-punctata*”) [ref. 006141]. *Invalid*. Mills suggests that Mann 1925, p. 42, published the combination *Biddulphia “radiopunctata”* (sic) (A. Schmidt) Mann. This is an error: Mann only suggested a resemblance between T. “*radio-punctatum* Schmidt” (error for *T. radiato-punctatum* Schmidt 1886) and his new species *Biddulphia madagascarensis*, but did not publish the combination. Combination not accepted by Mills.
- Biddulphia radiosoreticulata (radioso-reticulata)*** Grunow in Van Heurck 1883, pl. 112, fig. 5 (as *Triceratium (Biddulphia) radiosoreticulatum* Grun.) [ref. 001037]. *Invalid*. Validly published as *Triceratium radiosoreticulatum*. Combination

- under *Biddulphia* listed (with error on fig. number) but not validated (not accepted) by Mills 1933, p. 300 (ref. 006141).
- Biddulphia regia* (M. Schultze) Ostenfeld 1908, p. 7; textfig. 3 [ref. 001436]. Basionym: *Denticella regia* M. Schultze 1859.
- Biddulphia regia* f. *tropica* Ostenfeld 1909, p. 364; text-fig. 2 (p. 365) [ref. 001437].
- Biddulphia regina* W. Smith 1856, p. 50; pl. 46, fig. 323 [ref. 001007].
- Biddulphia regina* var. *polygibba* Pantocsek 1886, p. 50; pl. 30, fig. 302 [ref. 000714].
- Biddulphia repleta* (Greville) Grunow in Van Heurck 1883, pl. 110, fig. 7 (as *Triceratium (Biddulphia) repletum* Grev. var. *balearica* Grun.) [ref. 001037]. Basionym: *Triceratium repletum* Greville 1866. *Invalid*. Combination “implied” according to VanLandingham 1968, p. 551 (ref. 006294). Combination invalid in Van Heurck and not validated by VanLandingham (not accepted).
- Biddulphia repleta* var. *balearica* Grunow in Van Heurck 1883, pl. 110, fig. 7 (as *Triceratium (Biddulphia) repletum* Grev. var. *balearica* Grun.) [ref. 001037]. *Invalid*. Validly published as *Triceratium repletum* var. *balearica* Grun. Combination under *Biddulphia* listed by Mills 1933, p. 301 (ref. 006141) but not validated (not accepted).
- Biddulphia reticulata* Roper 1859, p. 14; pl. 2, fig. 13, 14, 15 [ref. 001491].
- Biddulphia reticulata* var. *beta* Roper 1859, p. 14; pl. 2, fig. 16, 17 (as *Biddulphia reticulata* var.  $\beta$ ) [ref. 001491]. *Invalid*. Improper epithet.
- Biddulphia reticulata* var. *dubia* (Brightwell) Cleve 1883, p. 503 [ref. 000224]. Basionym: *Triceratium dubium* Brightwell 1859. Cleve in this same paper (p. 503) also transfers Brightwell’s taxon to *Biddulphia dubia* (Brightwell) Cleve. Both names are validly published by Cleve 1883.
- Biddulphia reticulata* var. *inermis* Castracane 1886, p. 102; pl. 26, fig. 9 [ref. 000193].
- Biddulphia reticulata* var. *rawsonii* Wood 1961, p. 702; pl. 57, fig. 9 [ref. 008951].
- Biddulphia reticulata* var. *rhombica* Mereschkowsky 1902, p. 151 (17) [ref. 000649]. Name first appeared as nomen nudum in Mereschkowsky 1901, p. 516 (ref. 002083). Mereschkowsky 1902 refers to an illustration in Schmidt’s Atlas (1882) pl. 78, fig. 24-25 (ref. 012456) named *Triceratium bicornis* Cleve.
- Biddulphia reticulata* var. *subspinosa* Schmidt in Schmidt et al. 1885, pl. 84, fig. 9 (as *Biddulphia reticulata* Roper, forma *trigona*, var. *subspinosa*) [ref. 012457].
- Biddulphia reticulata* f. *triangularis* Grunow in Cleve & Möller 1882, No. 284 [ref. 001979]. *Invalid*. Nomen nudum.
- Biddulphia reticulata* var. *trigona* Grunow in Van Heurck 1882, pl. 102, fig. 3 [ref. 001036].
- Biddulphia reticulata* f. *trigona* Schmidt in Schmidt et al. 1885, pl. 85, fig. 8 [ref. 012457]. Non Grunow in Van Heurck 1882? Possibly a new combination of *Biddulphia reticulata* var. *trigona* Grunow in Van Heurck 1882 (from comparison of figures).
- Biddulphia reticulata* f. *trigona* (Grunow) Grove & Sturt 1887, p. 74 [ref. 000988]. Basionym: *Biddulphia reticulata* var. *trigona* Grunow in Van Heurck 1882.
- Biddulphia reticulata* var. *trigona* (Schmidt in Schmidt et al.) Tempère & Peragallo 1911, p. 294, No. 590-591 [ref. 001067]. Basionym: *Biddulphia reticulata* f. *trigona* Schmidt in Schmidt et al. 1885. New combination of *Biddulphia reticulata* f. *trigona* Schmidt 1885? or citation of *Biddulphia reticulata* var. *trigona* Grunow in Van Heurck 1882? Ambiguous as no authors are cited.
- Biddulphia reticulata* var. *typica* Cleve-Euler 1951, p. 119; fig. 256 a-b (as *Biddulphia reticulata*  $\alpha$  *typica* mh.) [ref. 000255]. Seems to exclude the type of *Biddulphia reticulata* Roper (?). Cleve-Euler cites *Biddulphia reticulata* Roper [sensu] Grunow in Van Heurck 1882, pl. 102, fig. 1-2 (ref. 001036). Rank implied, not clearly indicated.
- Biddulphia reticulum* (Ehrenberg) Boyer 1900, p. 724 [ref. 000151]. Basionym: *Triceratium reticulum* Ehrenberg 1844.
- Biddulphia retiformis* Mann 1925, p. 45; pl. 10, fig. 6 [ref. 000632]. In legend misprinted “retiforms”.
- Biddulphia reversa* Grove & Sturt 1887, p. 134, pl. 14, fig. 62 (as *Biddulphia (Cerataulus?) reversa*) [ref. 000989].
- Biddulphia rhombus* (Ehrenberg) W. Smith in Roper 1854, p. 76 [ref. 000793]. Basionym: *Zygoceros rhombus* Ehrenberg 1840. Also in W. Smith 1856, p. 49; pl. 45, fig. 320, pl. 61, fig. 320 (ref. 001007).
- Biddulphia rhombus* var. *atlantica* Frenguelli 1930, p. 305; pl. 6, fig. 1-2 (as *Biddulphia (Denticella) rhombus* var. *atlantica*) [ref. 000354].
- Biddulphia rhombus* var. *fossilis* Brun in Brun et al. 1890, expl. pl. 4, fig. 3 [ref. 000883]. As “*Biddulphia rhombus* var. *fossilis* f. *trigona*” in text p. 22, and “*Biddulphia rhombus* var. *fossilis*” n. v. in fig. caption. Both names are validly published by Brun et al. 1890.
- Biddulphia rhombus* f. *major* Tempère & Peragallo 1915, p. 19 (Table des Espèces) (as *Biddulphia rhombus* var. *fossilis* f. *major*) [ref. 001071]. *Invalid*. Nomen nudum.
- Biddulphia rhombus* var. *tetragona* A. Schmidt in Schmidt et al. 1890, pl. 151, fig. 11, 12 [ref. 012467].
- Biddulphia rhombus* f. *tetragona* (Schmidt in Schmidt et al.) Hustedt 1930, p. 843 [ref. 000503]. Basionym: *Biddulphia rhombus* var. *tetragona* A. Schmidt in Schmidt et al. 1890.
- Biddulphia rhombus* var. *trigona* Cleve in Van Heurck 1882, pl. 99, fig. 2 [ref. 001036]. “*Triceratium striolatum* Ehr., *Tr. membranaceum* Brightwell and *Tr. biddulphia* Heiberg” are cited in synonymy.
- Biddulphia rhombus* f. *trigona* Brun in Brun et al. 1890, p. 22; pl. 4, fig. 3 [ref. 000883]. *Illegitimate*. As “*Biddulphia rhombus* var. *fossilis* f. *trigona*” in text and “*Biddulphia rhombus* var. *fossilis*. n. v.” in fig. caption. Both names are validly

- published by Brun et al. 1890. Non Cleve in Van Heurck 1882.
- Biddulphia rhombus* f. *trigona*** (Cleve in Van Heurck) Hustedt 1930, p. 843 [ref. 000503]. Basionym: *Biddulphia rhombus* var. *trigona* Cleve in Van Heurck 1882.
- Biddulphia rhombus* var. *typica*** Cleve-Euler 1951, p. 118; fig. 254a-b, d (as *Biddulphia rhombus* α *typica*) [ref. 000255]. Cleve-Euler cites *Zygoceros* [*rhombus*] Ehrenberg. Rank implied, not clearly indicated.
- Biddulphia riedyi*** Hanna & Grant 1926, p. 132; pl. 14, fig. 6 [ref. 000012].
- Biddulphia rigida*** Schmidt in Schmidt et al. 1888, pl. 120, fig. 1, 2 [ref. 012463].
- Biddulphia rigida* var. *scandica*** Cleve-Euler in Cleve-Euler & Hessland 1947, p. 176; pl. 12, fig. 53 [ref. 001983].
- Biddulphia robertsiana*** (Greville) Boyer 1900, p. 707 [ref. 000151]. Basionym: *Triceratium robertsianum* Greville 1866. Basionym(s) cited by Boyer: “*Triceratium robertsianum* Grev., M.M.J. (1863), 231, Pl. 9, fig. 9 (?); ib. (1886), Pl. 2, fig. 22”. *T. robertsianum* Greville 1863 and *T. robertsianum* Greville 1866 were described by Greville as two different species. They do, however share some morphological similarities. We take the 1866 species name as the basionym of *Biddulphia robertsiana* since Boyer placed a query on the other one.
- Biddulphia robertsiana* f. *inermis*** (Schmidt in Schmidt et al.) F.W. Mills 1933, p. 302 [ref. 006141]. Basionym: *Triceratium robertsianum* f. *inermis* Schmidt in Schmidt et al. 1885. Citation error for *Triceratium robertsianum* f. *inermis* Schmidt? or deliberate new combination? The combination is accepted by Mills and we treat it as valid.
- Biddulphia robertsiana* var. *macracantha*** (Grunow in Schmidt) F.W. Mills 1933, p. 303 [ref. 006141]. Basionym: *Triceratium robertsianum* var. *macracantha* Grunow in Schmidt et al. 1885. Appears to be a deliberate new combination.
- Biddulphia robusta*** Pantocsek 1889, p. 86; pl. 12, fig. 203, 205 [ref. 001033].
- Biddulphia roperiana*** Greville 1859, p. 163; pl. 8, fig. 11-13 [ref. 000972].
- Biddulphia roperiana* var. *3-gona*** Brun & Tempère 1889, p. 69 [ref. 000185]. *Invalid*. Nomen nudum.
- Biddulphia roperiana* var. *coronata*** Mereschkowsky 1902, p. 151 (17) [ref. 000649].
- Biddulphia roperiana* f. *discigera*** (Grunow in Van Heurck) Frenguelli 1930, p. 307; pl. 6, fig. 9 (as *Biddulphia* (*Odontella*) *roperiana* f. *discigera*) [ref. 000354]. Basionym: *Biddulphia discigera* Grunow in Van Heurck 1883.
- Biddulphia roperiana* var. *mollis*** Mann 1905, pl. 23, fig. 1 [ref. 000630].
- Biddulphia roperiana* f. *obtusa*** (Kützing) Frenguelli 1930, p. 307; pl. 6, fig. 10 [ref. 000354]. Basionym: *Odontella obtusa* Kützing 1844. Not obvious in Frenguelli 1930, if this is the valid name of a new taxon (description included on p. 307) or a new combination. Frenguelli 1938, p. 322 (ref. 001209), indicates that it is a new combination.
- Biddulphia roperiana* var. *obtusa*** (Kützing) Frenguelli 1938, p. 322 [ref. 001209]. Basionym: *Odontella obtusa* Kützing 1844.
- Biddulphia rossica*** Pantocsek 1889, p. 86; pl. 20, fig. 316 [ref. 001033]. *Invalid*. Typographical error for “*Biddulphia russica*”. Illustrated as *Biddulphia russica* on pl. 20, fig. 316. Treated as *Keratophora russica* in text and plate of 2nd edition (1903).
- Biddulphia rostrata*** Hustedt 1939, p. 591; fig. 5-7 [ref. 000514].
- Biddulphia rostrata* var. *alata*** Proschkina-Lavrenko 1961, p. 36; pl. 1, fig. 7-9, pl. 2, fig. 10-15 [ref. 000762].
- Biddulphia rotunda*** M. Peragallo in Tempère & Peragallo 1908, p. 66, No. 121 (as *Biddulphia rotunda* M. Per. (*Roperiana* var.?)) [ref. 001064].
- Biddulphia rotundata*** Janisch 1888, pl. 21, fig. 21 [ref. 000541]. *Invalid*. Unpublished manuscript.
- Biddulphia rudis*** Mann 1925, p. 45; pl. 10, fig. 7 [ref. 000632].
- Biddulphia russica*** Pantocsek 1889, p. 86; pl. 20, fig. 316 [ref. 001033]. Misprinted “*rossica*” in text p. 86. Spelled “*russica*” in plate caption. Treated as *Keratophora russica* in text and plate of 2nd edition (1903).
- Biddulphia rustica*** (Mann) Boyer 1927, p. 133 [ref. 000155]. Basionym: *Trigonium rusticum* Mann 1907.
- Biddulphia ruthenica*** Witt 1885, p. 158 (22); pl. 9, fig. 9, 10 [ref. 000915].
- Biddulphia sanpedroana*** Mereschkowsky 1901, p. 515; pl. 4, fig. 27 (as *Biddulphia* (*Triceratium*) *sanpedroana*) [ref. 002083].
- Biddulphia sansibarica*** A. Schmidt in Schmidt et al. 1888, pl. 122, fig. 10-12 [ref. 012464]. Original spelling “*sansibarica*” changed to “*zanzibarica*” by De Toni 1894, p. 886 (ref. 000951).
- Biddulphia saratoviana*** Pantocsek 1889, p. 87; pl. 16, fig. 276 [ref. 001033]. Renamed *Hemiaulus gurowii* Pantocsek in 2nd edition (1903) p. 83, pl. 16, fig. 276 (ref. 002331). Illustrated as *Hemiaulus grunowii* in Pantocsek 1892, pl. 32, fig. 460 (ref. 001034). Described as *H. gurowii* in Pantocsek 1905, p. 57 (ref. 001445).
- Biddulphia schmidtii*** (Janisch in Schmidt et al.) Mann 1925, p. 46 [ref. 000632]. Basionym: *Triceratium schmidtii* Janisch in Schmidt et al. 1885.
- Biddulphia schmidtii* var. *pustulata*** ‘Schmidt in Schmidt et al.’ VanLandingham 1968, p. 555 [ref. 006294]. *Invalid*. Citation error for “*Triceratium Schmidtii* var. *pustulata* A. Schmidt 1885”. Combination under *Biddulphia* not accepted by VanLandingham (lower case print). Combination listed, but invalid, in Mills 1933, p. 303 (ref. 006141).
- Biddulphia schroederiana*** Schussnig 1915, p. 396; fig. 12, 13 (‘*schröderiana*’) [ref. 001517].
- Biddulphia scitula*** Mann 1925, p. 46 (as *Biddulphia scitula* (A. Schmidt) Mann, new name) [ref. 000632]. New name for *Triceratium scitulum* f. *quadrata* A. Schmidt 1885.

- Biddulphia sculpta* (Shadbolt) Van Heurck 1885, p. 208 [ref. 001040]. Basionym: *Triceratium sculptum* Shadbolt 1854. Combination under *Biddulphia* valid in Van Heurck 1885. Combination had previously appeared as “*Triceratium (Biddulphia) sculptum*” in Van Heurck 1883, pl. 109, fig. 7-8 (ref. 001037) but was not validly published under *Biddulphia*.
- Biddulphia sculpta* var. *petropolitana* Grunow in Van Heurck 1883, pl. 111, fig. 8 (as *Triceratium (Biddulphia) sculptum* Shadbolt var.? *petropolitana*) [ref. 001037]. *Invalid*. Validly published by Van Heurck 1883 as *Triceratium sculptum* var. *petropolitana*. Combination under *Biddulphia* listed by Mills 1935, p. 1654 (ref. 006153) but invalid (not accepted/pro syn.).
- Biddulphia scutellum* Mann 1907, p. 309; pl. 47, fig. 3 [ref. 000631].
- Biddulphia scutum* Bone & Gosden 1967, p. 268; fig. 2 [ref. 003503].
- Biddulphia secedens* (Schmidt in Schmidt et al.) Mann 1925, p. 46 [ref. 000632]. Basionym: *Triceratium secedens* Schmidt in Schmidt et al. 1888.
- Biddulphia semicircularis* (Brightwell) Boyer 1900, p. 726 [ref. 000151]. Basionym: *Triceratium semicirculare* Brightwell 1853.
- Biddulphia semicircularis* var. *asburyana* Boyer 1898, p. 469; pl. 24, fig. 3 [ref. 004337].
- Biddulphia sentum* (Witt in Schmidt et al.) Van Heurck 1909, p. 41 [ref. 000898]. Basionym: *Triceratium sentum* Witt in Schmidt et al. 1890.
- Biddulphia separanda* Janisch in Schmidt et al. 1888, pl. 141, fig. 27 [ref. 012466].
- Biddulphia septemlocularis* Kützing 1844, p. 138; pl. 19, fig. 2 [ref. 000595].
- Biddulphia seticulosa* Grunow in Van Heurck 1882, pl. 101, fig. 7, 8 [ref. 001036].
- Biddulphia setigera* (J.W. Bailey) Mann 1907, p. 309 [ref. 000631]. Basionym: *Triceratium setigerum* J.W. Bailey 1854.
- Biddulphia seychellensis* Grunow in Van Heurck 1883, pl. 110, fig. 1 (as *Triceratium (Biddulphia) seychellense* Gr.) [ref. 001037]. *Invalid*. Validly published as *Triceratium seychellense*. Combination under *Biddulphia* validated by Mills 1933.
- Biddulphia seychellensis* (Grunow in Van Heurck) F.W. Mills 1883, p. 304 [ref. 001037]. Basionym: *Triceratium seychellense* Grunow in Van Heurck 1883. Citation error for *Triceratium (Biddulphia) seychellense* Grunow in Van Heurck. Name accepted by Mills.
- Biddulphia shadboltiana* (Greville) Mann 1907, p. 310 [ref. 000631]. Basionym: *Triceratium shadboltianum* Greville 1862.
- Biddulphia schulzei* Boyer 1898, p. 470; pl. 24, fig. 7, 8 [ref. 004337].
- Biddulphia simplex* Mereschkowsky 1901, p. 516; pl. 4, fig. 28-30 [ref. 002083].
- Biddulphia sinensis* Greville 1866, p. 81; pl. 9, fig. 16 (as *Biddulphia chinensis*) [ref. 000984]. Orthographic variation (or standardisation) for *Biddulphia chinensis* Greville 1866. Apparently first introduced by De Toni 1894, p. 884 (*Denticella sinensis*) (ref. 000951).
- Biddulphia sinuata* Greville 1865, p. 49; pl. 5, fig. 10 [ref. 000982].
- Biddulphia smithii* (Ralfs in Pritchard) Van Heurck 1885, p. 207 [ref. 001040]. Basionym: *Cerataulus smithii* Ralfs in Pritchard 1861.
- Biddulphia sparsopunctata* Hajós in Hajós & Stradner 1975, p. 930; pl. 5, fig. 8, 9 [ref. 003209].
- Biddulphia spicata* Boyer 1922, p. 4; pl. 2, fig. 3 [ref. 000154].
- Biddulphia spinosa* Greville 1865, p. 6; pl. 1, fig. 3 [ref. 000420].
- Biddulphia spinosa* (J.W. Bailey) Boyer 1900, p. 703 [ref. 000151]. Basionym: *Triceratium spinosum* J.W. Bailey 1844.
- Biddulphia spinosa* var. *hillabyana* Brun 1896, pl. 22, fig. 13 [ref. 000183].
- Biddulphia spinulosa* (Grunow in Schmidt et al.) Mann 1925, p. 46 [ref. 000632]. Basionym: *Triceratium spinulosum* Grunow in Schmidt et al. 1885.
- Biddulphia stipitata* (J. E. Smith) Gray 1821, p. 294 [ref. 000390]. Basionym: *Conferva stipitata* J.E. Smith 1790-1814. Basionym published in 1813.
- Biddulphia stokesiana* (Greville) Mann 1925, p. 46 [ref. 000632]. Basionym: *Triceratium stokesianum* Greville 1866.
- Biddulphia striata* Karsten 1905, p. 122; pl. 17, fig. 2, 3a-b [ref. 000559].
- Biddulphia striolata* ‘Ehrenberg’ according to Chase 1907, p. 119 [ref. 002211]. Chase notes: “Ehr., H.L. Sm. Sp. T. No: Floegel, Baltic”. No more information was found.
- Biddulphia sturtii* Wise 1952, p. 406; pl. 20, fig. 6 [ref. 001566]. Based on *Kittonia virgata* sensu Grove & Sturt 1887, p. 75, pl. 6, fig. 23 (ref. 000988).
- Biddulphia subaequa* (Kützing) Ralfs in Pritchard 1861, p. 848 [ref. 001063]. Basionym: *Odontella subaequa* Kützing 1844.
- Biddulphia subaequa* (Kütz.) Ralfs var. *baltica* Grunow in Van Heurck 1882, pl. 100, fig. 5, 6 [ref. 001036].
- Biddulphia subaequa* Schmidt in Schmidt et al. 1888, pl. 141, fig. 11 [ref. 012466]. As: “Nach Grunow *Bidd. (Odontella) subaequa* K.?” Non (Kützing) Ralfs in Pritchard 1861.
- Biddulphia subjuncta* Mann 1907, p. 311; pl. 46, fig. 4 [ref. 000631].
- Biddulphia sublaevis* Grunow in Van Heurck 1882, pl. 100, fig. 8 [ref. 001036].
- Biddulphia suborbicularis* Grunow in Van Heurck 1882, pl. 100, fig. 15, 16 [ref. 001036].
- Biddulphia suborbicularis* var. *arctica* Østrup 1897, p. 343; pl. 2, fig. 14 [ref. 000700]. [according to VLC].



- Biddulphia suborbiculata* Long, Fuge & Smith 1946, p. 101; pl. 15, fig. 6 [ref. 000616].
- Biddulphia subquadrata* Boyer 1922, p. 4; pl. 1, fig. 8 [ref. 000154].
- Biddulphia subrotundata* (Schmidt in Schmidt et al.) Boyer 1900, p. 720 [ref. 000151]. Basionym: *Triceratium subrotundatum* Schmidt in Schmidt et al. 1886.
- Biddulphia subsalsa* Lemmermann 1907, p. 364; pl. 6, fig. 1, 8 [ref. 001345].
- Biddulphia surirella* (Ehrenberg) Rabenhorst 1864, p. 311 [ref. 000775]. Basionym: *Zygoceros surirella* Ehrenberg 1840.
- Biddulphia surirella* (Ehrenberg) Ralfs in Pritchard according to Mills 1933, p. 307 [ref. 006141]. Citation error for *Zygoceros surirella* (Ehr.) Ralfs in Pritchard 1861. Combination *Biddulphia surirella* published by Rabenhorst 1864.
- Biddulphia suspecta* M. Peragallo 1924, p. 23; pl. 1, fig. 11 [ref. 000738].
- Biddulphia suzuensis* Ichikawa in Ichikawa, Fuji & Bachmann 1964, p. 53; pl. 6, fig. 49a, b [ref. 000538].
- Biddulphia szurdokpuespoekiensis* Hajós 1968, p. 134; pl. 37, fig. 1 [ref. 002445].
- Biddulphia tabellaria* (Brightwell) Boyer 1900, p. 718 ('*tabellarium*') [ref. 000151]. Basionym: *Triceratium tabellarium* Brightwell 1856.
- Biddulphia tabellariaeformis* Forti in Tempère & Peragallo 1912, p. 330, No. 673-675 [ref. 001068]. *Invalid*. Nomen nudum. Also invalid in Forti 1912, p. 81 (ref. 000341). Validated by Forti 1913, p. 1603 (ref. 000342).
- Biddulphia tabellariaeformis* Forti 1913, p. 1603; pl. 8, fig. 2-4, 21-23 [ref. 000342]. Previously invalid in Tempère & Peragallo 1912, p. 330, no. 673-675 (ref. 001068) and Forti 1912, p. 81 (ref. 000341). Valid by Forti 1913.
- Biddulphia tahitiensis* Ricard 1975, p. 203-204; pl. 3, fig. 39 [ref. 008711]. As "*tahitianum*" on p. 226 (expl. pl.).
- Biddulphia temperei* (Brun) Mann 1925, p. 46 [ref. 000632]. Basionym: *Triceratium temperei* Brun in Brun, Bergon et al. 1890.
- Biddulphia tenera* Grove & Sturt 1887, p. 134; pl. 14, fig. 56, 57 [ref. 000989].
- Biddulphia tenera* Strelnikova 1974, p. 92-93; tabl. 38, fig. 9, 10 [ref. 000058]. *Illegitimate*. Non Grove & Sturt 1887.
- Biddulphia tentaculifera* Cleve 1881, p. 23; pl. 5, fig. 67 [ref. 000222].
- Biddulphia tenuicornis* Greville 1865, p. 51; pl. 6, fig. 17 [ref. 000982].
- Biddulphia tenuis* L.W. Bailey 1862, p. 335, fig. 25 [ref. 000125]. *Invalid*. L.W. Bailey notes: "n. sp.?". Name first appeared as nomen nudum in L.W. Bailey 1861, p. 166 (ref. 007053). Previously unpublished as *Denticella tenuis* J.W. Bailey. Not accepted by L.W. Bailey as a new species (see p. 336).
- Biddulphia tessellata* (Greville) Boyer 1900, p. 723 [ref. 000151]. Basionym: *Triceratium tessellatum* Greville 1861.
- Biddulphia testudo* (Brun in Brun & Tempère) Boyer 1900, p. 726 [ref. 000151]. Basionym: *Tabulina testudo* Brun in Brun & Tempère 1889.
- Biddulphia thumii* (Schmidt in Schmidt et al.) Boyer 1900, p. 712 [ref. 000151]. Basionym: *Cerataulus thumii* Schmidt in Schmidt et al. 1888.
- Biddulphia titiana* Grunow in Van Heurck 1883, pl. 95Bis, fig. 7-9 (as *Biddulphia* ? (*Janischia*?) *titiana* Grunow.) [ref. 001037]. Hustedt 1930, p. 855 suggests that this is a new combination of *Cerataulus titianus* Grunow 1863. The synonymy, however, is not suggested by Grunow in Van Heurck 1883, and not by comparison of illustrations.
- Biddulphia tortura* Hendey & Sims 1984, p. 67-69; pl. 1, fig. B, pl. 6, fig. 16-22 [ref. 003188].
- Biddulphia translucida* Van Heurck 1909, p. 42; pl. 10, fig. 154, 146 [ref. 000898]. As "*Biddulphia translucida* H.V.H. (*B. Kemnae*)" in plate caption.
- Biddulphia transversa* Wigand 1860, p. 45; pl. 7, fig. 18 [ref. 001562].
- Biddulphia tridens* (Ehrenberg) Ehrenberg 1840, p. 205 [ref. 000293]. Basionym: *Denticella tridens* Ehrenberg 1839.
- Biddulphia tridens* f. *aerodynamica* (Jurilj) VanLandingham 1968, p. 562 [ref. 006294]. Basionym: *Biddulphia tuomeyi* f. *aerodynamica* Jurilj 1957. Deliberate new combination.
- Biddulphia tridens* f. *bispina* (Jurilj) VanLandingham 1968, p. 562 [ref. 006294]. Basionym: *Biddulphia tuomeyi* f. *bispina* Jurilj 1957. Deliberate new combination.
- Biddulphia tridens* var. *boryana* (Pantocsek) VanLandingham 1968, p. 562 [ref. 006294]. Basionym: *Biddulphia tuomeyi* var. *boryana* Pantocsek 1889. Deliberate new combination.
- Biddulphia tridens* var. *contorta* (Forti) VanLandingham 1968, p. 562 [ref. 006294]. Basionym: *Biddulphia tuomeyi* var. *contorta* Forti 1913. Deliberate new combination.
- Biddulphia tridens* var. *distenta* (Forti) VanLandingham 1968, p. 562 [ref. 006294]. Basionym: *Biddulphia tuomeyi* var. *distenta* Forti 1913. Deliberate new combination.
- Biddulphia tridens* var. *hungarica* (Pantocsek) VanLandingham 1968, p. 562 [ref. 006294]. Basionym: *Biddulphia tuomeyi* var. *hungarica* Pantocsek 1889. Deliberate new combination.
- Biddulphia tridentata* Ehrenberg 1854, p. 8, pl. XVIII: figs. 52 a-c; pl. XXI: figs. 24 a-d [ref. 000966]. Ehrenberg (expl. pl. XXI: figs. 24 a-d) cites as synonym *Denticella tridens* Ehrenberg 1839. Name previously appeared as nomen nudum in Ehrenberg 1843, p. 328 (ref. 294), as *B. tridentula* (and nomen nudum) in Ehrenberg 1843 p. 368 (ref. 000294) and as nomen nudum in Ehrenberg 1844, p. 69 (ref. 006694). Valid in Ehrenberg 1854 (ref. 000966).
- Biddulphia tridentata* Ehrenberg var. *andesitica* Pantocsek 1889, p. 87 [ref. 001033].
- Biddulphia tridentata* Ehrenberg f. *minor* Pantocsek 1889, pl. 21, fig. 326 (as *Biddulphia tridentata* Ehrbg. f. *minor*) [ref.

- 001033]. Described on p. 87 as *Biddulphia tridentata* var. *andesitica* f. *minor*.
- Biddulphia tridentata* Ehrenberg f. *minor* Pantocsek 1889, p. 87; pl. 21, fig. 326 (as *Biddulphia tridentata* E. var. *andesitica* f. *minor*) [ref. 001033]. Illustrated as *Biddulphia tridentata* f. *minor*.
- Biddulphia tridentata* Weisse 1854, p. 243; pl. 3, fig. 36 [ref. 000907]. Non Ehrenberg 1854.
- Biddulphia tridentata* 'Weisse' according to Hustedt 1930, p. 896 [ref. 000502]. *Invalid*. In Syn. *Eunotogramma weissei* Ehrenberg. Hustedt cites "*Biddulphia tridentata* Weisse 1854, pl. 1, fig. 22 (ref. 000907)". *B. tridentata* was, however, illustrated by Weisse on pl. 3, fig. 36, while the specimen on pl. 1, fig. 22 was labeled "*Triceratium?*".
- Biddulphia tridentula* Ehrenberg 1843, p. 368 [ref. 000294]. *Invalid*. Nomen nudum. Listed as *B. tridentata* (and also nomen nudum) on p. 328. Valid name for this taxon is *Biddulphia tridentata* Ehrenberg 1854 (ref. 000966) (= *Denticella tridens* Ehrenberg 1839?).
- Biddulphia triloba* Sheshukova-Poretskaya, V.S. 1967, p. 217; pl. 35, fig. 1, pl. 36, fig. 1 [ref. 006198].
- Biddulphia trilocularis* Kützing 1844, p. 138; pl. 29, fig. 89 [ref. 000595]. New name for *Denticella biddulphia* Ehrenberg 1843.
- Biddulphia trinacria* L.W. Bailey 1862, p. 338; pl. 7, fig. 34, 35 [ref. 000125]. *Invalid*. L.W. Bailey notes "n. sp.?". Not accepted by L.W. Bailey (see p. 338, 336).
- Biddulphia tripartita* Grunow in Van Heurck 1883, pl. 110, fig. 8 (as *Triceratium (Biddulphia) tripartitum* Grunow) [ref. 001037]. *Invalid*. Validly published as *Triceratium tripartitum*. Combination under *Biddulphia* listed by Mills 1933, p. 309 (ref. 006141), and VanLandingham 1968, p. 563 (ref. 006294) but not validated by these authors (not accepted).
- Biddulphia tripos* (Cleve) Mann 1925, p. 46 [ref. 000632]. Basionym: *Triceratium tripos* Cleve 1881.
- Biddulphia trisinua* Mann 1925, p. 47; pl. 10, fig. 8-9 [ref. 000632].
- Biddulphia trisulca* (J.W. Bailey ex Ralfs in Pritchard) Boyer 1900, p. 719 [ref. 000151]. Basionym: *Triceratium trisulcum* J.W. Bailey ex Ralfs in Pritchard 1861.
- Biddulphia tschestnovii* Pantocsek 1892, pl. 23, fig. 338 [ref. 001034]. Description in Pantocsek 1905, p. 22 (ref. 001445) as *Biddulphia tschestnowii* Pant.
- Biddulphia tubulosa* Brun 1891, p. 13; pl. 12, fig. 9 [ref. 000176].
- Biddulphia tumescens* (Castracane) Mann 1925, p. 47 [ref. 000632]. Basionym: *Triceratium tumescens* Castracane 1886.
- Biddulphia tumida* (Ehrenberg) Roper 1859, p. 15; pl. 2, fig. 19 [ref. 001491]. Basionym: *Denticella tumida* Ehrenberg 1844.
- Biddulphia tumida* var. *peruviana* Grunow in Van Heurck 1882, pl. 101, fig. 2, 3 (as *B. (tumida* Roper var.?) *peruviana* Grun.) [ref. 001036]. *Invalid*. Validly published as *B. peruviana*. Combination as a trinomial validated by Mills 1933, p. 309 (ref. 006141).
- Biddulphia tumida* var. *peruviana* (Grunow in Van Heurck) F.W. Mills 1933, p. 309 [ref. 006141]. Basionym: *Biddulphia peruviana* Grunow in Van Heurck 1882.
- Biddulphia tuomeyi* (J.W. Bailey) Roper 1859, p. 8; pl. 1, fig. 1, 2 ('*tuomeyii*') [ref. 001491]. Basionym: *Zygoceros tuomeyi* J.W. Bailey 1844. Synonyms cited by Roper: *Zygoceros tuomeyii* Bailey 1844, *Denticella tridens* Ehrenberg 1839, and more.
- Biddulphia tuomeyi* var. *aeocenica* Krotov in Krotov & Schibkova 1959, p. 121; fig. 3: 5 [ref. 002492].
- Biddulphia tuomeyi* f. *aerodynamica* Jurilj 1957, p. 45; pl. 8, fig. 3 [ref. 000553].
- Biddulphia tuomeyi* var. *andesitica* (Pantocsek) F.W. Mills 1933, p. 310 [ref. 006141]. Basionym: *Biddulphia tridentata* Ehrenberg var. *andesitica* Pantocsek 1889. Citation error for *Biddulphia tridentata* v. *andesitica* Pant.? or intended new combination? The combination is nevertheless accepted by Mills and we consider it valid.
- Biddulphia tuomeyi* f. *bispina* Jurilj 1957, p. 45; pl. 9, fig. 3 [ref. 000553].
- Biddulphia tuomeyi* var. *boryana* Pantocsek 1889, p. 87 [ref. 001033]. Illustration in Pantocsek 1892, pl. 11, fig. 185 (ref. 001034). Redescribed in Pantocsek 1905, p. 22-23 (ref. 001445).
- Biddulphia tuomeyi* var. *breviceps* Grunow in Schmidt et al. Schmidt 1888, caption for pl. 118, fig. 13-18 [ref. 012463]. *Invalid*. In syn. *A. tridentata* Ehrenberg.
- Biddulphia tuomeyi* f. *capucina* (A. Schmidt) Jurilj 1957, p. 45 [ref. 000553]. Basionym: *Biddulphia capuzina* Schmidt in Schmidt et al. 1888.
- Biddulphia tuomeyi* var. *centrospinosa* Forti in Tempère & Peragallo 1909, p. 196, No. 367-369 [ref. 001065]. *Invalid*. Nomen nudum; also invalid in Forti 1910, p. 1307 (ref. 000337). Validly published by Forti 1913, p. 1606 (ref. 000342).
- Biddulphia tuomeyi* var. *centrospinosa* Forti 1913, p. 1606; pl. 8, fig. 7, 9 [ref. 000342]. Previously invalid in Tempère & Peragallo 1909, p. 196 (ref. 001065) and Forti 1910, p. 1308 (ref. 000337). Validated in Forti 1913.
- Biddulphia tuomeyi* var. *charkoviana* Jousé in Proschkina-Lavrenko 1949, p. 174; pl. 59, fig. 6 [ref. 002554].
- Biddulphia tuomeyi* var. *contorta* Forti 1913, p. 1608, pl. 8, fig. 11, 18, 19 [ref. 000342]. First appeared as nomen nudum in Forti 1912, p. 82 (ref. 000341).
- Biddulphia tuomeyi* f. *cretacea* Jousé 1951, p. 50; pl. 2, fig. 4 [ref. 002056].
- Biddulphia tuomeyi* var. *distenta* Forti 1913, p. 1607 (73); pl. 8, fig. 8, 16 [ref. 000342].
- Biddulphia tuomeyi* f. *elongata* Pantocsek 1886, p. 51; pl. 30, fig. 311 [ref. 000714].
- Biddulphia tuomeyi* var. *elongata* (Pantocsek) Forti 1910, p. 1308 [ref. 000337]. Basionym: *Biddulphia tuomeyi* f. *elongata*

- Pantocsek 1886.
- Biddulphia tuomeyi* var. *ensifera* Truan y Luard & Witt 1888, p. 12; pl. 3, fig. 21 [ref. 000889].
- Biddulphia tuomeyi* var. *gibbicornis* Forti in Tempère & Peragallo 1914, p. 477, No. 993-995 [ref. 001070]. *Invalid*. Nomen nudum.
- Biddulphia tuomeyi* var. *globiceps* Grunow in Schmidt et al. 1888, pl. 120, fig. 3 [ref. 012463]. *Invalid*. Name not accepted by Schmidt (“Ich möchte diese Form zu *B. tridentata* ziehen”).
- Biddulphia tuomeyi* var. *hungarica* Pantocsek 1889, p. 87; pl. 18, fig. 290, pl. 19, fig. 301, 303 [ref. 001033].
- Biddulphia tuomeyi* f. *margaritifera* (Shadbolt) Forti 1913, p. 1609 (75); pl. 8, fig. 12, 13, 15, 17 (as *Biddulphia tuomeyi* var. *contorta* f. *margaritifera* (Shad.) n. comb.) [ref. 000342]. Basionym: *Denticella margaritifera* Shadbolt 1854.
- Biddulphia tuomeyi* f. *margaritifera* (Shadbolt) Forti in Tempère & Peragallo 1914, p. 451, No. 926-929 [ref. 001070]. Basionym: *Denticella margaritifera* Shadbolt 1854. Isonym. Combination published by Forti 1913, p. 1609 (ref. 000342). Listed as “var. *margaritifera*” on p. 480 (no. 999-1000).
- Biddulphia tuomeyi* var. *margaritifera* (Shadbolt) Forti in Tempère & Peragallo 1914, p. 480; no. 999-1000 [ref. 001070]. Basionym: *Denticella margaritifera* Shadbolt 1854. Listed as “f. *margaritifera*” on p. 451, no. 926-929.
- Biddulphia tuomeyi* var. *media* Forti in Tempère & Peragallo 1909, p. 196, No. 367-369 [ref. 001065]. *Invalid*. Nomen nudum; also invalid in Forti 1910, p. 1308 (ref. 000337). Validly published by Forti 1913, p. 1605 (ref. 000342).
- Biddulphia tuomeyi* var. *media* Forti 1913, p. 1605; pl. 8, fig. 6, 10 [ref. 000342]. Previously invalid in Tempère & Peragallo 1909, p. 196 (ref. 001065) and Forti 1910, p. 1308 (ref. 000337). Validly published by Forti 1913, p. 1605 (ref. 000342).
- Biddulphia tuomeyi* f. *minor* (Pantocsek) F.W. Mills 1933, p. 310 (as *Biddulphia tuomeyi* var. *andesitica* f. *minor*) [ref. 006141]. Basionym: *Biddulphia tridentata* Ehrenberg f. *minor* Pantocsek 1889. Citation error for *Biddulphia tridentata* v. *andesitica* f. *minor* Pant.? or intended new combination? The combination is nevertheless accepted by Mills and we consider it valid.
- Biddulphia tuomeyi* var. *pacifica* Castracane 1886, p. 106; pl. 30, fig. 6 [ref. 000193]. Illustration only.
- Biddulphia tuomeyi* f. *rigida* (A. Schmidt) Jurilj 1957, p. 44 [ref. 000553]. Basionym: *Biddulphia rigida* Schmidt in Schmidt et al. 1888.
- Biddulphia tuomeyi* var. *tridentata* (Ehrenberg) Jousé in Proshkina-Lavrenko 1949, p. 174; pl. 67, fig. 2a-b [ref. 002554]. Basionym: *Biddulphia tridentata* Ehrenberg 1854.
- Biddulphia tuomeyi* f. *tridentata* (Ehrenberg) Jurilj 1957, p. 45 [ref. 000553]. Basionym: *Biddulphia tridentata* Ehrenberg 1854.
- Biddulphia turgida* (Ehrenberg) W. Smith in Okeden 1855, p. 28 [ref. 006532]. Basionym: *Denticella turgida* Ehrenberg 1840. Also in W. Smith 1856, p. 50; pl. 62, fig. 384 (ref. 001007).
- Biddulphia turgida* (Ehrenberg) Ralfs in Pritchard 1861, p. 849 [ref. 001063]. Basionym: *Denticella turgida* Ehrenberg 1840. Isonym: See *Biddulphia turgida* (Ehrenberg) W. Smith 1856.
- Biddulphia turrigera* Mann 1925, p. 47; pl. 11, fig. 1, 2 [ref. 000632].
- Biddulphia uncinata* ‘Schmidt in Schmidt et al.’ Mills 1933, p. 311 [ref. 006141]. *Invalid*. Combination not accepted by Mills (lower case print). Intended combination of *Triceratium uncinatum* Schmidt in Schmidt et al. 1886, or citation error?
- Biddulphia undulata* Long, Fuge & Smith 1946, p. 102; pl. 15, fig. 9 [ref. 000616].
- Biddulphia undulosa* Mann 1925, p. 48; pl. 11, fig. 3 [ref. 000632].
- Biddulphia unifasciata* Wigand 1860, p. 45; pl. 7, fig. 19 [ref. 001562].
- Biddulphia ursina* Ehrenberg 1844, p. 200 [ref. 001184].
- Biddulphia vanheurckii* M. Peragallo 1921, p. 73 (‘*Van Heurckii*’) [ref. 000737]. Refers to illustration in Van Heurck 1909, p. 40, pl. 10, fig. 143 (*B. obtusa* var.? valve supérieure) (ref. 000898).
- Biddulphia vanheurckii* f. *spinosa* M. Peragallo 1921, p. 74 [ref. 000737]. Refers to illustration in Van Heurck 1909, pl. 10, fig. 143 (*B. obtusa* var.? valve inférieure) (ref. 000898).
- Biddulphia varians* (Lauder) Lebour 1930, p. 182 [ref. 001337]. Basionym: *Bacteriastrum varians* Lauder 1864.
- Biddulphia vasta* Pantocsek 1889, p. 87; pl. 22, fig. 338 [ref. 001033].
- Biddulphia venosa* Grunow in Van Heurck 1883, pl. 113, fig. 3 (as *Triceratium (Biddulphia) venosum* Brightwell var.) [ref. 001037]. *Invalid*. Combination *Biddulphia venosa* listed but not validated (not accepted) by M. Peragallo 1897, p. 145 (ref. 012539) or Mills 1933, p. 311 (ref. 006141).
- Biddulphia venulosa* Barker & Meakin 1949, p. 302; pl. 37, fig. 5 [ref. 000133].
- Biddulphia verrucosa* Boyer 1898, p. 468; pl. 24, fig. 5 [ref. 004337].
- Biddulphia vesiculosa* (Agardh) Kützing 1833, p. 610 [ref. 000594]. Basionym: *Diatoma vesiculosum* Agardh 1824.
- Biddulphia vesiculosa* (Agardh) Boyer 1900, p. 716 [ref. 000151]. Basionym: *Diatoma vesiculosum* Agardh 1824. Isonym: Combination had been published earlier by Kützing 1833.
- Biddulphia virgata* Grove & Sturt 1886, p. 325; pl. 18, fig. 11 [ref. 000426].
- Biddulphia vitrea* Brun 1891, p. 13; pl. 19, fig. 10 [ref. 000176].
- Biddulphia vittata* Grove & Sturt 1887, p. 134; pl. 11, fig. 19-20 [ref. 000989].

- Biddulphia voigtii* Meister 1932, p. 18-19; pl. 4, fig. 30 [ref. 000644].
- Biddulphia weissei* (Grunow in Schmidt et al.) E. Jørgensen 1905, p. 201 [ref. 000546]. Basionym: *Triceratium weissii* Grunow in Schmidt et al. 1886.
- Biddulphia weissflogii* Grunow in Van Heurck 1882, pl. 100, figs. 1, 2 (as *B. weissflogii* Grun.) [ref. 001036]. Although there is no mention of Janisch, it appears from a comparison of illustrations that Grunow's name is synonymous with the unpublished *Biddulphia weissflogii* Janisch 1888, pl. 21, fig. 1-15 (ref. 000541), and the published *Biddulphia weissflogii* Janisch in Schmidt et al. 1888 (ref. 012466).
- Biddulphia weissflogii* Janisch 1888, pl. 21, fig. 10-15 [ref. 000541]. Unpublished manuscript. See *Biddulphia weissflogii* Janisch in Schmidt et al. 1888, pl. 141, fig. 20 (ref. 012466). See also *Biddulphia weissflogii* Grunow in Van Heurck 1882, pl. 100, figs. 1, 2 (ref. 001036). It appears (from comparison of illustrations) that the name was previously validly published by Grunow in Van Heurck 1882, apparently for the same taxon.
- Biddulphia weissflogii* Janisch in Schmidt et al. 1888, pl. 141, fig. 20 (Typ. Form) [ref. 012466]. Also pl. 141, fig. 12-19 (?). Appears to be synonymous with *B. weissflogii* Grunow in Van Heurck 1882.
- Biddulphia weissflogii* f. *aestiva* Heiden in Heiden & Kolbe 1928, p. 540 [ref. 000473]. New name for *Biddulphia striata* Karsten 1905.
- Biddulphia weissflogii* f. *aestiva* Frenguelli 1943, p. 253 [ref. 001213]. New name for *Biddulphia striata* Karsten 1905.
- Biddulphia weissflogii* f. *hiberna* Heiden in Heiden & Kolbe 1928, p. 539 [ref. 000473]. *Invalid*. No description. Illustration is cited from Schmidt's Atlas pl. 141 (1888), figs. 13-22 (ref. 012466), and from Van Heurck 1909 (ref. 000898).
- Biddulphia weissflogii* f. *hiberna* Frenguelli 1943, p. 253 [ref. 001213]. *Invalid?* Description? Synonym: *Biddulphia weissflogii* Janisch 1888 (invalid).
- Biddulphia weissii* (Grunow in Schmidt et al.) Van Heurck 1909, p. 42 (as *B. (Tric.) Weissii* Grun.) [ref. 000898]. Basionym: *Triceratium weissii* Grunow in Schmidt et al. 1886. Isonym: See *Biddulphia weissei* (Grunow in Schmidt et al.) Jørgensen 1905.
- Biddulphia woolmanii* Kain & Schultze 1889, p. 74; pl. 89, fig. 3 [ref. 000554].
- Biddulphia zanzibarica* A. Schmidt 1894, pl. 122, fig. 10-12 ('*sansibarica*') [ref. 000951]. Orthographic variant (or correction?) for *Biddulphia sansibarica* A. Schmidt 1888, first introduced by De Toni 1894, p. 886 (ref. 000951).

**BIDDULPHIOPSIS H.A. von Stosch & R. Simonsen 1984, p. 12 [ref. 003150]**

T: *Biddulphiopsis titiana* (A. Grunow) H.A. von Stosch & R. Simonsen 1984  
(= *Cerataulus titianus* A. Grunow 1863)

- Biddulphiopsis membranacea* (Cleve) von Stosch & Simonsen 1984, p. 15-19; fig. 36-84 [ref. 003150]. Basionym: *Biddulphia membranacea* Cleve 1878.
- Biddulphiopsis titiana* (Grunow) von Stosch & Simonsen 1984, p. 12-15; fig. 1-35 [ref. 003150]. Basionym: *Cerataulus titianus* Grunow 1863.
- Biddulphiopsis titiana* var. *arlyniana* Mahoney 1990, p. 106; pl. 1-3 (= figs. 1-23) [ref. 004879].

**BIFIBULATIA H. Takano 1983, p. 15 [ref. 003193]**

T: *Bifibulatia holsatica* (J.G. Helmcke & W. Krieger) H. Takano 1983  
(= *Rhopalodia holsatica* J.G. Helmcke & W. Krieger 1954)

- Bifibulatia holsatica* (Helmcke & Krieger) Takano 1983, p. 15-16; fig. 2, 11-18 [ref. 003193]. Basionym: *Rhopalodia holsatica* Krieger 1954.

**BILINGUA R. Gersonde & D.M. Harwood 1990, p. 371 [ref. 006383]**

T: *Bilingua rossii* R. Gersonde & D.M. Harwood 1990

- Bilingua rossii* Gersonde & Harwood 1990, p. 371-372; pl. 17, fig. 9, pl. 18, fig. 5-7, 9 [ref. 006383].

**BIPALLA Z.I. Gleser 1992, p. 57 [ref. 006385]**

T: *Bipalla oamaruensis* (Grove & Sturt) Z.I. Gleser 1990  
(= *Paralia oamaruensis* Grove & Sturt 1887)

- Bipalla oamaruensis* (Grove & Sturt) Gleser in Gleser, Makarova, Moisseeva & Nikolaev 1992, p. 58; pl. 52, fig. 1-7 [ref. 006385]. Basionym: *Melosira oamaruensis* Grove & Sturt 1887. [according to ANSP].

**BIREMIS** D.G. Mann & E.J. Cox in F.E. Round, R.M. Crawford & D.G. Mann 1990, p. 664 [ref. 003245]T: *Biremis ambigua* (P.T. Cleve) D.G. Mann in F.E. Round, R.M. Crawford & D.G. Mann 1990  
(= *Pinnularia ambigua* P.T. Cleve 1895)

- Biremis ambigua* (Cleve) Mann in Round, Crawford & Mann 1990, p. 664 [ref. 003245]. Basionym: *Pinnularia ambigua* Cleve 1895.
- Biremis artificiosa* (Heiden) Simonsen 1992, p. 60 [ref. 006194]. Basionym: *Navicula artificiosa* Heiden in Heiden & Kolbe 1928.
- Biremis baculus* (Hustedt) Mann in Round, Crawford & Mann 1990, p. 664 [ref. 003245]. Basionym: *Mastogloia baculus* Hustedt 1933.
- Biremis circumtexta* (Meister ex Hustedt) H. Lange-Bertalot & A. Witkowski in A. Witkowski, H. Lange-Bertalot & D. Metzeltin 2000, p. 158 [ref. 009017]. Basionym: *Navicula circumtexta* Meister ex Hustedt in A. Schmidt et al. 1934.
- Biremis clarensis* W. Vyverman, K. Sabbe & R. Vyverman 1997, p. 97, 99; fig. 22-27, 48-50, 52-54 [ref. 008935].
- Biremis digitus* (A. Schmidt) Mann in Round, Crawford & Mann 1990, p. 664 [ref. 003245]. Basionym: *Amphora digitus* Schmidt in Schmidt et al. 1875.
- Biremis fritschii* (Salah) Mann in Round, Crawford & Mann 1990, p. 664 [ref. 003245]. Basionym: *Pinnularia fritschii* Salah 1953.
- Biremis hartzi* W. Vyverman, K. Sabbe & R. Vyverman 1997, p. 94-96; fig. 11-12, 33-40 [ref. 008935].
- Biremis kriegieriana* (Krasske) Lange-Bertalot in Lange-Bertalot, Külbs, Lauser, Norpel-Schempp & Willmann 1996, p. 166-167 [ref. 008470]. Basionym: *Pinnularia kriegieriana* Krasske 1943.
- Biremis leawuliana* W. Vyverman, K. Sabbe & R. Vyverman 1997, p. 96-97; fig. 13-17, 41-45 [ref. 008935].
- Biremis lucens* (Hustedt) Sabbe, Witkowski & Vyverman 1995, p. 380; fig. 4-19, 20-24, 27-29, 36-37 [ref. 008746]. Basionym: *Navicula lucens* Hustedt 1942.
- Biremis motschii* (Meister) H. Lange-Bertalot in Werum & Lange-Bertalot 2004, p. 13 (list), p. 346 (caption for pl. 80), p. 407 (index) [ref. 012889]. Basionym: *Navicula motschii* Meister 1912. *Invalid*. Place of publication of basionym not cited.
- Biremis osbornei* W. Vyverman, K. Sabbe & R. Vyverman 1997, p. 97; fig. 18-21, 46, 47, 51 ('*osbornii*') [ref. 008935].
- Biremis ridicula* (Giffen) Mann in Round, Crawford & Mann 1990, p. 664 [ref. 003245]. Basionym: *Amphora ridicula* Giffen 1976.
- Biremis schwabei* (Krasske) Lange-Bertalot in Lange-Bertalot, Külbs, Lauser, Norpel-Schempp & Willmann 1996, p. 170 [ref. 008470]. Basionym: *Pinnularia schwabei* Krasske 1939.
- Biremis solitaria* (Cleve) A. Witkowski, H. Lange-Bertalot & D. Metzeltin 2000, p. 159 [ref. 009017]. Basionym: *Navicula solitaria* Cleve 1896.
- Biremis tasmanica* W. Vyverman, K. Sabbe & R. Vyverman 1997, p. 92; fig. 1-10, 28-32 [ref. 008935].
- Biremis undulata* (P. Schulz) M.B. Edlund, N.A. Andresen & N. Soninkhisig 2001, p. 303 [ref. 009403]. Basionym: *Caloneis baltica* var. *undulata* Schulz 1926.
- Biremis zachariasii* (Reichelt) M.B. Edlund, N.A. Andresen & N. Soninkhisig 2001, p. 303 [ref. 009403]. Basionym: *Navicula zachariasii* Reichelt 1903.

**BITURRICULA** S. Komura 1999, p. 22 [ref. 009340]T: *Biturricula unca* S. Komura 1999*Biturricula unca* S. Komura 1999, p. 22; fig. 11-13, 96-112, Text-fig. 2 [ref. 009340].**BLEAKELEYA** F.E. Round in F.E. Round, R.M. Crawford & D.G. Mann 1990, p. 664 [ref. 003245]T: *Bleakeleya notata* (A. Grunow) F.E. Round in F.E. Round, R.M. Crawford & D.G. Mann 1990  
(= *Asterionella bleakeleyi* var. *notata* A. Grunow 1867)*Bleakeleya notata* (Grunow) Round in Round, Crawford & Mann 1990, p. 664-665 [ref. 003245]. Basionym: *Asterionella bleakeleyi* var. *notata* Grunow 1867.**BOGOROVIA** A.P. Jousé 1974, p. 350 [ref. 003194]T: *Bogorovia veniamini* A.P. Jousé 1974

- Bogorovia barronii* Yanagisawa 1995, p. 31; pl. 4, fig. 11-14, pl. 5, fig. 3-5 [ref. 008963].
- Bogorovia curvata* Yanagisawa 1995, p. 37; pl. 4, fig. 38-40 [ref. 008963].
- Bogorovia cypriata* Gardette 1978, p. 761-767; pl. 1, fig. 1-12 [ref. 004208].
- Bogorovia gombosii* (Desikachary) Yanagisawa 1995, p. 27; pl. 4, fig. 1-2, pl. 5, fig. 1-2 [ref. 008963]. Basionym: *Rossiel-*

*la gombosi* Desikachary in Desikachary et al. 1984.

***Bogorovia lancettula*** (Schrader) Yanagisawa 1995, p. 34, 36; pl. 4, fig. 22-28, 34-35 [ref. 008963]. Basionym: *Cussia lancettula* Schrader 1974.

***Bogorovia mediopunctata*** (Hajós) Jousé 1976, p. 1233 [ref. 008379]. Basionym: *Rhaphoneis mediopunctata* Hajós 1968.

***Bogorovia moholensis*** (Schrader) Jousé 1976, p. 1233 [ref. 008379]. Basionym: *Cussia moholensis* Schrader 1974.

***Bogorovia paleacea*** (Grunow) Jousé 1976, p. 1233; fig. 5, 6 (*'paleaceus'*) [ref. 008379]. Basionym: *Stoschia paleacea* Grunow in Van Heurck 1883. *Invalid*. Basionym not cited.

***Bogorovia paleacea* var. *elongata*** Barron 1981, p. 528; pl. 4, fig. 11, 12 [ref. 003449]. Technically invalid since *Bogorovia paleacea* (Grunow) Jousé 1976 is invalid. The name of this taxon is perhaps validly published as *Rossiella elongata* Desikachary in Desikachary, Latha, & Ranjitha Devi 1984 (as an intended new combination of Barron's name) (not seen), as they probably gave direct references to Barron's description, and figures (both figures are from the type sample).

***Bogorovia praepaleacea*** (Schrader) Jousé 1976, p. 1233 (*'praepaleaceus'*) [ref. 008379]. Basionym: *Coscinodiscus praepaleaceus* Schrader 1973.

***Bogorovia puncticulata*** Yanagisawa 1995, p. 32-33; pl. 4, fig. 15-20, 32-33, pl. 12, fig. 1-5, pl. 13, fig. 1-11 [ref. 008963].

***Bogorovia rostrata*** Yanagisawa 1995, p. 34; pl. 4, fig. 21 [ref. 008963].

***Bogorovia sparsipunctata*** Hendey 1981, p. 99-100; fig. 22 [ref. 004402].

***Bogorovia tatsunokuchiensis*** (Koizumi) Jousé 1976, p. 1233 [ref. 008379]. Basionym: *Rhaphoneis tatsunokuchiensis* Koizumi 1972.

***Bogorovia veniamini*** Jousé 1974, p. 351; pl. 4, fig. 1-3 [ref. 003194]. The only type indication is "core 5996/8". All 3 specimens illustrated seem to be from the same sample. Probably valid. Considered invalid by Yanagisawa 1995 (ref. 008963) who "validated" it and designated illustration on "pl. 4, fig. 1" as the lectotype.

***Bogorovia veniamini*** Jousé ex Yanagisawa 1995, p. 29, figs. 4:3-10; 8:1-9 [ref. 008963]. *Bogorovia veniamini* Jousé 1973 was probably not invalid.

***BOLEWSKIA* B. Kwiecinska & J. Sieminska 2000, p. 4 [ref. 010748]**

T: *Bolewskia reymanownae* Kwiecinska & Sieminska 2000

*Bolewskia reymanownae* B. Kwiecinska & J. Sieminska 2000, p. 4; 2 figs. [ref. 010748].

***BOTELLUS* F. Schütt 1900, p. 517 [ref. 001513]**

T: *Botellus marinus* Schütt 1900

*Botellus marinus* Schütt 1900, p. 517; pl. 12, fig. 41, 44 [ref. 001513]. [according to INA].

***BRACHYBACULITES* J. Grüss 1928, p. 514 [ref. 006653]**

T: *Brachybaculites semelnodatus* J. Grüss 1928

*Brachybaculites semelnodatus* Grüss 1928, p. 514; text-fig. 30 (p. 512) [ref. 006653].

***BRACHYSIRA* F.T. Kützing 1836, p. [3], no. 153 [ref. 003207]**

T: *Brachysira aponina* Kützing 1836

***Brachysira acutirhomboides*** H. Lange-Bertalot & G. Moser 1994, p. 10-11; pl. 25, fig. 1-4 [ref. 006662].

***Brachysira acutissima*** G. Moser, H. Lange-Bertalot & D. Metzeltin 1998, p. 91; pl. 39, figs. 20-23 [ref. 007020].

***Brachysira amoena*** H. Lange-Bertalot in H. Lange-Bertalot & G. Moser 1994, p. 11; pl. 37, fig. 10-14 [ref. 006662].

***Brachysira angusta*** H. Lange-Bertalot & G. Moser 1994, p. 12-13; pl. 27, fig. 1-8, pl. 28, fig. 6-7 (as *Brachysira angusta* (Maillard) Lange-Bertalot & Moser nov. stat.) [ref. 006662]. Intended combination of *Anomoeoneis neocaledonica* var. *angusta* Maillard (invalid name). Lange-Bertalot & Moser's entry results in the publication of the valid name of a new species.

***Brachysira angustior*** (Moser, Lange-Bertalot & Metzeltin) D. Metzeltin & H. Lange-Bertalot 2007, p. 43 [ref. 012938]. Basionym: *Brachysira australofollis* var. *angustior* G. Moser, H. Lange-Bertalot & D. Metzeltin 1998.

***Brachysira apiculata*** (Boyer) H. Lange-Bertalot & G. Moser 1994, p. 13-14; pl. 23, fig. 1-7 [ref. 006662]. Basionym: *Anomoeoneis serians* var. *apiculata* Boyer 1927.

***Brachysira aponina*** Kützing 1836, p. [3] [ref. 003207].

***Brachysira archibaldii*** M. Coste & M. Ricard 1982, p. 284-285; pl. 3, fig. 5-6, pl. 7, fig. 2, pl. 8, fig. 12 (*'Brachysera'*) [ref. 008143].

***Brachysira archibaldii* var. *crassistriata*** H. Lange-Bertalot in H. Lange-Bertalot & G. Moser 1994, p. 16; pl. 32, fig. 15-20 [ref. 006662].

- Brachysira arctoborealis* A.P. Wolfe & H.J. Kling 2001, p. 252; fig. 27-40, 42-47 [ref. 009471].
- Brachysira atacamae* (Hustedt) Mann in Round, Crawford & Mann 1990, p. 665 [ref. 003245]. Basionym: *Navicula atacamae* Hustedt 1927.
- Brachysira australofollis* H. Lange-Bertalot & G. Moser 1994, p. 17; pl. 20, fig. 4-15, pl. 21, fig. 4 [ref. 006662].
- Brachysira australofollis* var. *angustior* G. Moser, H. Lange-Bertalot & D. Metzeltin 1998, p. 92; pl. 36, figs. 1-4 [ref. 007020].
- Brachysira babuschka* G. Moser, H. Lange-Bertalot & D. Metzeltin 1998, p. 93; pl. 39, figs. 1-8 [ref. 007020].
- Brachysira bacillifer* H. Lange-Bertalot & G. Moser 1994, p. 18-19; pl. 24, fig. 8-10 (as *Brachysira bacillifer* (Maillard) Lange-Bertalot & Moser nov. comb., nov. stat.) [ref. 006662]. Based on the (alleged) invalid name *Anomoeoneis seri-ans* var. *bacillifer* Maillard 1978 (perhaps valid). Validly published by Lange-Bertalot & Moser as either name of a new taxon (if Maillard's name is invalid), or as a new combination (if Maillard's name is valid). Reference to Maillard 1978, p. 154 (ref. 008536) is given for a Latin diagnosis.
- Brachysira blancheana* H. Lange-Bertalot & G. Moser 1994, p. 19; pl. 30, fig. 10-11 (as *Brachysira blancheana* (Maillard) Lange-Bertalot & Moser nov. comb.) [ref. 006662]. Based on the invalid name *Gomphonema blancheanum* Maillard 1978 (no type). *Brachysira blancheana* is validly published by Lange-Bertalot & Moser as the name of a new taxon. Reference to Maillard 1978, p. 165 (ref. 008536) is given for a Latin diagnosis.
- Brachysira bouletiana* G. Moser, H. Lange-Bertalot & D. Metzeltin 1998, p. 94; pl. 35, figs. 4-6 [ref. 007020].
- Brachysira brebissonii* R. Ross in Hartley 1986, p. 607 [ref. 002355]. New name for *Navicula brachysira* Brébisson ex Rabenhorst 1853 (= ? *Navicula aponina* var. *brachysira* Kützing 1849).
- Brachysira brebissonii* subsp. *superba* H. Lange-Bertalot & G. Moser 1994, p. 22-23; pl. 24, fig. 5-7 [ref. 006662].
- Brachysira brebissonii* f. *thermalis* (Grunow in Van Heurck) R. Ross in Hartley 1986, p. 607 [ref. 002355]. Basionym: *Navicula seri-ans* var. *thermalis* Grunow in Van Heurck 1880.
- Brachysira calcicola* H. Lange-Bertalot in H. Lange-Bertalot & G. Moser 1994, p. 23; pl. 41, fig. 19-33 [ref. 006662].
- Brachysira calcicola* subsp. *pfisteri* H. Lange-Bertalot & M. Werum in Werum & Lange-Bertalot 2004, p. 127; pl. 52, fig. 9-27 [ref. 012889].
- Brachysira calligraphica* H. Lange-Bertalot in H. Lange-Bertalot & G. Moser 1994, p. 24-25; pl. 1, fig. 1-2, pl. 37, fig. 1-9 [ref. 006662]. See emend. description in Metzeltin & Lange-Bertalot 1998, p. 22 (ref. 007051).
- Brachysira charlesreimeri* D. Metzeltin & H. Lange-Bertalot 2007, p. 43; pl. 167, fig. 1-4 [ref. 012938].
- Brachysira charlesreimeri* f. *undulata* (Hustedt) D. Metzeltin & H. Lange-Bertalot 2007, p. 43 [ref. 012938]. Basionym: *Anomoeoneis seri-ans* f. *undulata* Hustedt 1959.
- Brachysira complanata* (Grunow) Kuntze 1891, p. 886 [ref. 001330]. Basionym: *Amphora complanata* Grunow 1867. [according to INA].
- Brachysira constricta* (Ehrenberg) Kuntze 1891, p. 886 [ref. 001330]. Basionym: *Amphiprora constricta* Ehrenberg 1843. [according to INA].
- Brachysira coraliana* G. Metzeltin & H. Lange-Bertalot 1998, p. 23; pl. 103, fig. 9-14 [ref. 007051].
- Brachysira cymbelliformis* D. Metzeltin & H. Lange-Bertalot 2007, p. 44; pl. 175, fig. 1-13 [ref. 012938].
- Brachysira delicatissima* D. Metzeltin & H. Lange-Bertalot 2007, p. 45; pl. 178; fig. 1-7 [ref. 012938].
- Brachysira dumbeana* H. Lange-Bertalot & G. Moser 1994, p. 25-26; pl. 27, fig. 13-15 (as *Brachysira dumbeana* (Maillard) Lange-Bertalot & Moser nov. comb.) [ref. 006662]. Based on the invalid name *Anomoeoneis dumbeana* Maillard 1978 (no type). *Brachysira dumbeana* is validly published by Lange-Bertalot & Moser as the name of a new taxon. Reference to Maillard 1978, p. 153 (ref. 008536) is given for a Latin diagnosis.
- Brachysira elliptica* D. Metzeltin & H. Lange-Bertalot 2007, p. 46; pl. 174, fig. 13-16, pl. 177, fig. 4 [ref. 012938].
- Brachysira estonarium* A. Witkowski, H. Lange-Bertalot & D. Metzeltin 2000, p. 160, 423; pl. 143, fig. 1-4 [ref. 009017].
- Brachysira exilis* (Kützing) Round & Mann 1981, p. 227 [ref. 006882]. Basionym: *Navicula exilis* Kützing 1844.
- Brachysira exilis* var. *tenuis* M. Coste & M. Ricard 1982, p. 284; pl. 3, fig. 4 [ref. 008143].
- Brachysira feickertiae* H. Lange-Bertalot & G. Moser in G. Moser, A. Steindorf & H. Lange-Bertalot 1995, p. 48; fig. 10/7-10, 14-19 [ref. 008613]. There is no Latin diagnosis, but cite *Caloneis silicula* var. *blancheana* R. Maillard 1979, p. 158, fig. 4: 8, 9a, 10 (ref. 008536) where a Latin diagnosis is published. The same description in Maillard is cited by Lange-Bertalot & Moser in Moser et al. 1995 for both *Brachysira feickertiae* and *Brachysira venter*.
- Brachysira follis* (Ehrenberg) R. Ross in Hartley 1986, p. 607 [ref. 002355]. Basionym: *Navicula follis* Ehrenberg 1838.
- Brachysira formidulosa* 'Cholnoky' H. Lange-Bertalot & G. Moser 1994, p. 27-28 [ref. 006662]. *Invalid*. Intended new combination of *Anomoeoneis formidulosa* Cholnoky 1959 (invalid). Also invalid as the name of a new taxon (type not indicated, no Latin diagnosis).
- Brachysira fossilis* (Reimer) H. Lange-Bertalot & G. Moser 1994, p. 28 [ref. 006662]. Basionym: *Anomoeoneis follis* var. *fossilis* Reimer 1961.
- Brachysira frenguelli* (Manguin) H. Lange-Bertalot & G. Moser 1994, p. 28 [ref. 006662]. Basionym: *Anomoeoneis frenguelli* Manguin in Bourrelly & Manguin 1952.
- Brachysira frenguelli* (Manguin) D. Metzeltin & H. Lange-Bertalot 2007, p. 47 [ref. 012938]. Basionym: *Anomoeoneis*

- frenquellii* Manguin in Bourrelly & Manguin 1952. Isonym: combination previously published (Lange-Bertalot & Moser 1994).
- Brachysira garrensis*** (Lange-Bertalot & Krammer) H. Lange-Bertalot in H. Lange-Bertalot & G. Moser 1994, p. 29; pl. 19, fig. 7, pl. 47, fig. 14-29 [ref. 006662]. Basionym: *Anomoeoneis garrensis* Lange-Bertalot & Krammer in Krammer & Lange-Bertalot 1985.
- Brachysira gomphonemoides*** H. Lange-Bertalot & G. Moser 1994, p. 29-30; pl. 29, fig. 1-5 (as *Brachysira gomphonemoides* (Maillard) Lange-Bertalot & Moser nov. comb.) [ref. 006662]. Based on the invalid name *Anomoeoneis gomphonemoides* Maillard 1978 (no type). *Brachysira gomphomeoides* is validly published by Lange-Bertalot & Moser 1994 as the name of a new taxon. Refer to a Latin diagnosis in Maillard 1978, p. 153 (ref. 008536).
- Brachysira gravida*** H.A. Shayler & P.A. Siver 2004, p. 401; fig. 1-22 [ref. 012619].
- Brachysira grevillei*** (Agardh) Kuntze 1891, p. 886 [ref. 001330]. Basionym: *Schizonema grevillei* Agardh 1830. [according to INA].
- Brachysira guttiformis*** G. Moser, H. Lange-Bertalot & D. Metzeltin 1998, p. 95; pl. 36, figs. 5-7 [ref. 007020].
- Brachysira hamulifera*** (Grunow) Kuntze 1891, p. 886 [ref. 001330]. Basionym: *Navicula hamulifera* Grunow in Cleve & Grunow 1880. [according to INA].
- Brachysira hanna*** (Reimer) H. Lange-Bertalot & G. Moser 1994, p. 30-31 [ref. 006662]. Basionym: *Anomoeoneis follis* var. *hanna* Reimer 1961.
- Brachysira hedyklingiae*** D. Metzeltin & H. Lange-Bertalot 2007, p. 48; pl. 174, fig. 9-12 [ref. 012938].
- Brachysira hofmanniae*** H. Lange-Bertalot in H. Lange-Bertalot & G. Moser 1994, p. 31-32; pl. 8, fig. 1-18, pl. 9, fig. 1-3 [ref. 006662].
- Brachysira inamoena*** G. Metzeltin & H. Lange-Bertalot 1998, p. 24; pl. 104, fig. 6-9 [ref. 007051].
- Brachysira incognita*** Moser & Lange-Bertalot in H. Lange-Bertalot & G. Moser 1994, p. 32; pl. 25, fig. 9 [ref. 006662]. *Invalid*. "Manuscriptnamen". Name later validated by G. Moser, H. Lange-Bertalot & D. Metzeltin 1998 (ref. 007020).
- Brachysira incognita*** G. Moser, H. Lange-Bertalot & D. Metzeltin 1998, p. 96; pl. 39, fig. 16-19 [ref. 007020].
- Brachysira inflata*** H. Lange-Bertalot in H. Lange-Bertalot & G. Moser 1994, p. 32-33; pl. 25, fig. 5-8 [ref. 006662].
- Brachysira insolita*** H. Lange-Bertalot & G. Moser 1994, p. 33-34; pl. 29, fig. 19-20 [ref. 006662]. *Invalid*. "Manuskriptnamen".
- Brachysira insulsa*** G. Metzeltin & H. Lange-Bertalot 1998, p. 24-25; pl. 107, fig. 1-4 [ref. 007051].
- Brachysira intermedia*** (Østrup) H. Lange-Bertalot in H. Lange-Bertalot & G. Moser 1994, p. 34-35; pl. 48, fig. 1-7 [ref. 006662]. Basionym: *Anomoeoneis intermedia* Østrup 1910.
- Brachysira irawanae*** (Podzorski & Håkansson) H. Lange-Bertalot & A.C. Podzorski in H. Lange-Bertalot & G. Moser 1994, p. 35; pl. 31, fig. 1-10 [ref. 006662]. Basionym: *Anomoeoneis irawanae* Podzorski & Håkansson 1987.
- Brachysira irawanoides*** H. Lange-Bertalot & G. Moser 1994, p. 36; pl. 30, fig. 12-16 [ref. 006662].
- Brachysira jankae*** D. Metzeltin & H. Lange-Bertalot 2007, p. 48-49; pl. 165, fig. 5-8 [ref. 012938].
- Brachysira julio*** H. Lange-Bertalot in H. Lange-Bertalot & G. Moser 1994, p. 37; pl. 40, fig. 1-9 [ref. 006662].
- Brachysira krammeri*** H. Lange-Bertalot in H. Lange-Bertalot & G. Moser 1994, p. 37-39; pl. 16, fig. 8-17, pl. 22, fig. 4-6 [ref. 006662].
- Brachysira kuntzei*** (Reichel) G. Metzeltin & H. Lange-Bertalot 1998, p. 25; pl. 106, fig. 8-10, pl. 107, fig. 16-17 [ref. 007051]. Basionym: *Navicula kuntzei* Reichelt in Kuntze 1898.
- Brachysira labrata*** H. Lange-Bertalot in G. Moser, A. Steindorf & H. Lange-Bertalot 1995, p. 50; pl. 10, fig. 1-6 [ref. 008613]. Based on *Caloneis dumbeana* Maillard 1978 (invalid fide Moser et al. 1998). *Brachysira labrata* validly published by H. Lange-Bertalot in Moser et al. 1995 as the name of a new taxon. A Latin description (for *C. dumbeana*) is cited from Maillard 1978, p. 158 (ref. 008536), and a type is designated.
- Brachysira lange-bertalotii*** G. Metzeltin in G. Metzeltin & H. Lange-Bertalot 1998, p. 25-26; pl. 103, fig. 5-8, pl. 106, fig. 6-7 [ref. 007051].
- Brachysira lecohui*** H. Lange-Bertalot in H. Lange-Bertalot & G. Moser 1994, p. 39-40; pl. 15, fig. 8-13, pl. 22, fig. 2-3, pl. 40, fig. 14 [ref. 006662].
- Brachysira lehmanniae*** H. Lange-Bertalot & G. Moser 1994, p. 40-41; pl. 39, fig. 13-17 [ref. 006662].
- Brachysira liliana*** H. Lange-Bertalot in H. Lange-Bertalot & G. Moser 1994, p. 41-42; pl. 10, fig. 1-12 [ref. 006662].
- Brachysira linearilanceolata*** D. Metzeltin & H. Lange-Bertalot 2007, p. 49; pl. 173, fig. 2-7, pl. 177, fig. 1 [ref. 012938].
- Brachysira longirostris*** (Hustedt) Mann in Round, Crawford & Mann 1990, p. 665 [ref. 003245]. Basionym: *Anomoeoneis longirostris* Hustedt 1942.
- Brachysira macroserians*** G. Metzeltin & H. Lange-Bertalot 1998, p. 26; pl. 103, fig. 1-4 [ref. 007051].
- Brachysira maillardii*** H. Lange-Bertalot & G. Moser 1994, p. 43-44; pl. 29, fig. 11-17 [ref. 006662]. *Gomphonema dumbeana* Maillard 1978 (invalid name) and its varieties are cited as synonym.
- Brachysira manfredii*** H. Lange-Bertalot in H. Lange-Bertalot & G. Moser 1994, p. 44-45; pl. 32, fig. 6-14, pl. 48, fig. 8-9 [ref. 006662].
- Brachysira manoylovae*** D. Metzeltin & H. Lange-Bertalot 2007, p. 50; pl. 171, fig. 20-25 [ref. 012938].



- Brachysira metzeltinii* H. Lange-Bertalot in H. Lange-Bertalot & G. Moser 1994, p. 45-46; pl. 17, fig. 1-6, pl. 18, fig. 5-6, pl. 40, fig. 14 [ref. 006662].
- Brachysira microcephala* (Kützing) P. Compère 1986, p. 26, 28; fig. 94 [ref. 008136]. Basionym: *Achnantheidium microcephalum* Kützing 1844. [according to ANSP].
- Brachysira microclava* H. Lange-Bertalot & G. Moser 1994, p. 46-47; pl. 30, fig. 1-9 [ref. 006662].
- Brachysira microserians* G. Metzeltin & H. Lange-Bertalot 1998, p. 27; pl. 102, fig. 1-5, 10-11 [ref. 007051].
- Brachysira minor* (Krasske) H. Lange-Bertalot in H. Lange-Bertalot & G. Moser 1994, p. 47; pl. 47, fig. 1-8 [ref. 006662]. Basionym: *Anomoeoneis minor* Krasske 1939.
- Brachysira nanoclava* G. Moser, H. Lange-Bertalot & D. Metzeltin 1998, p. 97; pl. 37, figs. 16-22 [ref. 007020].
- Brachysira neglectissima* H. Lange-Bertalot in Werum & Lange-Bertalot 2004, p. 128; pl. 53, fig. 1-13, pl. 54, fig. 1-6 [ref. 012889].
- Brachysira neoacuta* H. Lange-Bertalot in H. Lange-Bertalot & G. Moser 1994, p. 48-49; pl. 14, fig. 9-10, pl. 15, fig. 1-7, pl. 18, fig. 3-4 [ref. 006662].
- Brachysira neocaledonica* R. Le Cohu 1985, p. 4; fig. 39-40 (*Brachysera*) [ref. 008479]. *Invalid*. Intended new combination of *Anomoeoneis neocaledonica* Maillard 1978 (invalid) (ref. 008536). Valid name for this taxon: *Brachysira neocaledonica* Lange-Bertalot & Moser 1994 (ref. 006662).
- Brachysira neocaledonica* H. Lange-Bertalot & G. Moser 1994, p. 50-51; pl. 27, fig. 9-12 (as *Brachysira neocaledonica* (Maillard) Lange-Bertalot & Moser nov. comb.) [ref. 006662]. Basionym: *Anomoeoneis neocaledonica* Maillard 1978. Intended new combination of *Anomoeoneis neocaledonica* Maillard 1978 (invalid). *Brachysira neocaledonica* Lange-Bertalot & Moser 1994 is validly published as the name of a new taxon. Lange-Bertalot & Moser 1994 designate a type, and cite a Latin diagnosis from Maillard 1978, p. 153 (ref. 008536).
- Brachysira neocaledonica* var. *angusta* R. Le Cohu 1985, p. 4; fig. 6-7 (*Brachysera*) [ref. 008479]. *Invalid*. Intended new combination of *Anomoeoneis neocaledonica* var. *angusta* Maillard 1978 (invalid).
- Brachysira neoexilis* H. Lange-Bertalot in H. Lange-Bertalot & G. Moser 1994, p. 51-54; pl. 5, fig. 1-35, pl. 6, fig. 1-6, pl. 17, fig. 7-11, pl. 32, fig. 27-30, pl. 46, fig. 19-27 [ref. 006662].
- Brachysira nubigena* H. Lange-Bertalot in H. Lange-Bertalot & G. Moser 1994, p. 54-55; pl. 38, fig. 1-4, pl. 39, fig. 7-12 [ref. 006662].
- Brachysira obesa* H. Lange-Bertalot & G. Moser in G. Moser, A. Steindorf & H. Lange-Bertalot 1995, p. 53; pl. 8, fig. 14-16 [ref. 008613]. Based on *Caloneis obesa* Maillard 1978 (invalid fide Moser et al. 1998). *Brachysira obesa* is validly published by Moser et al. 1998 as the name of a new taxon. Maillard 1978, p. 158 (ref. 008536) is cited for a Latin diagnosis, and a type is designated.
- Brachysira ocalensis* H.A. Shayler & P.A. Siver 2004, p. 325; fig. 83-100 [ref. 012777].
- Brachysira palustris* (Maillard) G. Moser, A. Steindorf & H. Lange-Bertalot 1995, p. 53-54; pl. 6, fig. 10-12 [ref. 008613]. Basionym: *Anomoeoneis palustris* Maillard 1978. *Invalid*. Name not accepted by its authors.
- Brachysira plicata* (Ehrenberg) Kuntze 1891, p. 886 [ref. 001330]. Basionym: *Navicula plicata* Ehrenberg 1858. [according to INA]. Basionym invalid. Alternate valid basionym: *Libellus plicatus* 'Ehrenberg' De Toni 1890, p. 971 (ref. 001990) or *Libellus plicatus* 'Ehrenberg' De Toni 1891, p. 202 (ref. 000271).
- Brachysira potapovae* D. Metzeltin & H. Lange-Bertalot 2007, p. 51; pl. 174, fig. 20-24 [ref. 012938].
- Brachysira procera* H. Lange-Bertalot & G. Moser 1994, p. 55-57; pl. 7, fig. 8-26, pl. 9, fig. 4-6, pl. 32, fig. 21-26 [ref. 006662].
- Brachysira pseudoacuta* H. Lange-Bertalot in H. Lange-Bertalot & G. Moser 1994, p. 57-58; pl. 16, fig. 1-7, pl. 18, fig. 1-2 [ref. 006662].
- Brachysira pseudoexilis* H. Lange-Bertalot & G. Moser 1994, p. 58; pl. 17, fig. 12-26, pl. 19, fig. 1-6 [ref. 006662]. *Invalid*. "Manuscriptnamen".
- Brachysira pulchra* H. Lange-Bertalot in H. Lange-Bertalot & G. Moser 1994, p. 58-59; pl. 39, fig. 1-6 [ref. 006662].
- Brachysira pumila* G. Metzeltin & H. Lange-Bertalot 1998, p. 28; pl. 102, fig. 13-17 [ref. 007051].
- Brachysira rhombica* (Gregory) Kuntze 1891, p. 886 [ref. 001330]. Basionym: *Navicula rhombica* Gregory 1855. [according to INA].
- Brachysira rhombica* D. Metzeltin & H. Lange-Bertalot 2007, p. 52; pl. 175, fig. 14-20; pl. 177, fig. 5 [ref. 012938]. *Invalid*. Type not clearly indicated (implied).
- Brachysira rhomboides* (Hustedt) Mann in Round, Crawford & Mann 1990, p. 665 [ref. 003245]. Basionym: *Anomoeoneis rhomboides* Hustedt 1942.
- Brachysira rostrata* (Krasske) G. Metzeltin & H. Lange-Bertalot 1998, p. 28-29; pl. 101, fig. 1-7 [ref. 007051]. Basionym: *Anomoeoneis serians* var. *rostrata* Krasske 1948.
- Brachysira ruckiae* D. Metzeltin & H. Lange-Bertalot 2007, p. 53; pl. 174, fig. 5-8, pl. 177, fig. 2 [ref. 012938].
- Brachysira rumrichiae* H. Lange-Bertalot in H. Lange-Bertalot & G. Moser 1994, p. 59-60; pl. 26, fig. 1-7 [ref. 006662].
- Brachysira ruppeliana* G. Moser, H. Lange-Bertalot & D. Metzeltin 1998, p. 98; pl. 38, figs. 1-3; pl. 39, figs. 12-15 [ref. 007020].

- Brachysira santoriniensis* H. Lange-Bertalot & G. Moser 1994, p. 8, 15 [ref. 006662]. *Invalid*. Cited under *Brachysira aponina* Kützing. Manuscript name?
- Brachysira seippii* H. Lange-Bertalot & G. Moser 1994, p. 60-61; pl. 29, fig. 6-10 [ref. 006662].
- Brachysira serians* (Brébisson) Round & Mann 1981, p. 227 [ref. 006882]. Basionym: *Frustulia serians* Brébisson 1838. Combination validly published although the basionym is cited as “*Navicula serians* Brébisson in Kützing 1844, p. 92”.
- Brachysira serians* var. *acuta* (Hustedt) W. Vyverman 1991, p. 49; pl. 36, fig. 3 a-d, pl. 132, fig. D [ref. 006268]. Basionym: *Anomoeoneis serians* var. *acuta* Hustedt 1937.
- Brachysira serians* var. *acuta* (Hustedt) Hamilton in Hamilton, Poulin, Charles & Angell 1992, p. 29 [ref. 003248]. Basionym: *Anomoeoneis serians* var. *acuta* Hustedt 1937. Isonym: Combination previously published by W. Vyverman 1991.
- Brachysira serians* var. *rostrata* (Krasske) H. Lange-Bertalot & G. Moser 1994, p. 62-63; pl. 35, fig. 4-6 [ref. 006662]. Basionym: *Anomoeoneis serians* var. *rostrata* Krasske 1948.
- Brachysira serians* f. *undulata* (Hustedt) H. Lange-Bertalot & G. Moser 1994, p. 62 [ref. 006662]. Basionym: *Anomoeoneis serians* f. *undulata* Hustedt 1959.
- Brachysira silvicola* H. Lange-Bertalot in H. Lange-Bertalot & G. Moser 1994, p. 63-64; pl. 27, fig. 16-23, pl. 28, fig. 1-5 [ref. 006662].
- Brachysira simplex* H. Lange-Bertalot in H. Lange-Bertalot & G. Moser 1994, p. 64-65; pl. 40, fig. 10-13 [ref. 006662].
- Brachysira sinaiensis* H. Lange-Bertalot in Werum & Lange-Bertalot 2004, p. 129; pl. 55, fig. 25-30 [ref. 012889].
- Brachysira spectabilis* (Manguin) H. Lange-Bertalot & G. Moser 1994, p. 65 [ref. 006662]. Basionym: *Anomoeoneis spectabilis* Manguin 1942.
- Brachysira speluncola* H. Lange-Bertalot in H. Lange-Bertalot & G. Moser 1994, p. 66; pl. 21, fig. 5-6, pl. 22, fig. 1; pl. 23, fig. 8-15 [ref. 006662].
- Brachysira spicula* G. Moser, H. Lange-Bertalot & D. Metzeltin 1998, p. 99; pl. 37, figs. 10-15 [ref. 007020].
- Brachysira starmuehlneri* (Maillard) G. Moser, A. Steindorf & H. Lange-Bertalot 1995, p. 55; pl. 8, fig. 13 [ref. 008613]. Basionym: *Anomoeoneis starmuehlneri* Maillard 1978. *Invalid*. Name not accepted by its authors. Name validated by Moser et al. 1998.
- Brachysira starmuehlneri* G. Moser, H. Lange-Bertalot & D. Metzeltin 1998, p. 100 (as *Brachysira starmuehlneri* (Maillard) nov. comb.) [ref. 007020]. Based on *Anomoeoneis starmuehlneri* Maillard 1978 (invalid fide Moser et al. 1998). *Brachysira starmuehlneri* validly published by Moser et al. 1998 as the name of a new taxon. Maillard 1978, p. 154 (ref. 008536) is cited for a Latin diagnosis, and a type is designated.
- Brachysira staurophora* M.G.M. Souza & P. Compère 1999, p. 358, fig. 1-6 [ref. 009372]. [according to INA]. Also in de Souza and Compère 1999, p. 115 (ref. 010640), but invalidly published (no Latin diagnosis and no designated type).
- Brachysira steindorfiana* G. Moser, H. Lange-Bertalot & D. Metzeltin 1998, p. 101; pl. 37, figs. 1-4 [ref. 007020].
- Brachysira steinitziae* G. Metzeltin & H. Lange-Bertalot 1998, p. 29; pl. 102, fig. 18-22, pl. 108, fig. 7 [ref. 007051].
- Brachysira styriaca* (Grunow in Van Heurck) R. Ross in Hartley 1986, p. 607 [ref. 002355]. Basionym: *Navicula styriaca* Grunow in Van Heurck 1880.
- Brachysira sublinearis* G. Metzeltin & H. Lange-Bertalot 1998, p. 29-30; pl. 107, fig. 15, pl. 108, fig. 5-6 [ref. 007051].
- Brachysira subrostrata* H. Lange-Bertalot in H. Lange-Bertalot & G. Moser 1994, p. 68-69; pl. 35, fig. 7-11, pl. 36, fig. 9 [ref. 006662].
- Brachysira superba* (H. Lange-Bertalot & G. Moser) G. Moser, H. Lange-Bertalot & D. Metzeltin 1998, p. 102 [ref. 007020]. Basionym: *Brachysira brebissonii* subsp. *superba* H. Lange-Bertalot & G. Moser 1994.
- Brachysira superserians* D. Metzeltin & H. Lange-Bertalot 2007, p. 54, pl. 165, fig. 1-3 [ref. 012938].
- Brachysira supriniana* G. Moser, H. Lange-Bertalot & D. Metzeltin 1998, p. 103; pl. 39, figs. 9-11; pl. 40 [ref. 007020].
- Brachysira tenuiserians* H. Lange-Bertalot in H. Lange-Bertalot & G. Moser 1994, p. 69-70; pl. 14, fig. 5-8 [ref. 006662].
- Brachysira trinodis* H. Lange-Bertalot & G. Moser 1994, p. 70-71; pl. 24, fig. 1-4 [ref. 006662].
- Brachysira venter* H. Lange-Bertalot & G. Moser in G. Moser, A. Steindorf & H. Lange-Bertalot 1995, p. 55; pl. 10, fig. 11-13 [ref. 008613]. *Invalid?* There is no Latin diagnosis, but cites *Caloneis silicula* var. *blancheana* R. Maillard 1979, pro parte, p. 158, fig. 4: 9d, (?)c (ref. 008536) where a Latin diagnosis is published. The same description in Maillard is cited by Lange-Bertalot & Moser in Moser et al. 1995 for both *Brachysira feickertiae* and *Brachysira venter*.
- Brachysira vitrea* (Grunow) R. Ross in Hartley 1986, p. 607 [ref. 002355]. Basionym: *Gomphonema vitreum* Grunow 1878.
- Brachysira vitrea* f. *lanceolata* (Mayer) F.R. Schoeman & R.E.M. Archibald 1988, p. 230; fig. 55-61 [ref. 008772]. Basionym: *Anomoeoneis exilis* var. *lanceolata* Mayer 1919. *Invalid*. Place of publication of basionym not cited.
- Brachysira vixapiculata* D. Metzeltin & H. Lange-Bertalot 2007, p. 55; pl. 170, fig. 1-2 [ref. 012938]. Also cites Lange-Bertalot & Moser 1994, figs 23:2-7 (ref. 006662).
- Brachysira wolfei* D. Metzeltin & H. Lange-Bertalot 2007, p. 56; pl. 173, fig. 16-20 [ref. 012938].
- Brachysira wygaschii* H. Lange-Bertalot in H. Lange-Bertalot & G. Moser 1994, p. 72-73; pl. 2, fig. 3-6, pl. 13, fig. 1-11 [ref. 006662].
- Brachysira zellensis* (Grunow) Round & Mann 1981, p. 227 [ref. 006882]. Basionym: *Navicula zellensis* Grunow 1860.

*Brachysira zellensis* f. *difficilis* (Grunow in Van Heurck) P.B. Hamilton in Hamilton, Poulin, Charles & Angell 1992, p. 29 [ref. 003248]. Basionym: *Navicula difficilis* Grunow in Van Heurck 1880.

**BRANDINIA L.F. Fernandes in Fernandes, Procopiak & Portinho 2007, p. 47 [ref. 012911]**

T: *Brandinia mosimanniae* L.F. Fernandes & L.K. Procopiak 2007

*Brandinia mosimanniae* L.F. Fernandes & L.K. Procopiak in Fernandes, Procopiak & Portinho 2007, p. 47; fig. 1-6, 11-28 [ref. 012911]. Monotypic. Fragilariaceae. T: *Brandinia mosimanniae* L.F. Fernandes & L.K. Procopiak 2007.

**BRASILIELLA C. Zimmermann S.J. 1918, p. 91 [ref. 000936]**

T: *Brasiliella helix* C. Zimmermann 1918

*Brasiliella helix* Zimmermann 1918, p. 91, 92; pl. 3, fig. 13-16 [ref. 000936].

**BRASSIEREA M.K. Hein & B.M. Winsborough 1999 1999, p. 275 [ref. 009342]**

T: *Brassierea vivens* M.K. Hein & B.M. Winsborough 1999

*Brassierea vivens* M.K. Hein & B.M. Winsborough 1999, p. 275; fig. 3-24 [ref. 009342].

**BREBISSONIA A. Grunow 1860, p. 512 [ref. 000427]**

T: *Brebissonia boeckii* (C.G. Ehrenberg 1838) O'Meara 1875

(= *Cocconema boeckii* Ehrenberg 1838)

Name conserved vs. *Brebissonia* Spach 1835 (see ICBN 1956, p. 200, ref. 006916).

Preconservation lectotypification of the genus with *B. boeckii* was proposed in Taxon 1:95-97. July 1952 (ref. 006922).

*Brebissonia boeckii* (Ehrenberg) Grunow 1860, p. 512 [ref. 000427]. Basionym: *Cocconema boeckii* Ehrenberg 1835. *In-valid*. Epithet not definitely associated with the genus name (Art. 33.1).

*Brebissonia boeckii* (Ehrenberg) O'Meara 1875, p. 338 [ref. 000694]. Basionym: *Cocconema boeckii* Ehrenberg 1835.

*Brebissonia boeckii* sensu Pantocsek 1902, p. 25; pl. 16, fig. 333 [ref. 000716].

*Brebissonia boeckii* var. *minor* Cleve 1894, p. 125 [ref. 000232].

*Brebissonia boeckii* f. *rostrata* Schulz 1926, p. 220; fig. 119 ('*Boeckii*') [ref. 000812].

*Brebissonia interposita* (Lewis) Kuntze 1898, p. 398 [ref. 001332]. Basionym: *Navicula interposita* Lewis 1865.

*Brebissonia lanceolata* (Agardh) Mahoney & Reimer 1986, p. 184; fig. 1-18 [ref. 006650]. Basionym: *Gomphonema lanceolatum* Agardh 1831.

*Brebissonia lewisiana* (Greville) Kuntze 1898, p. 398 [ref. 001332]. Basionym: *Navicula lewisiana* Greville 1863.

*Brebissonia nordstedtii* Gutwinski & Chmielewski 1906, p. 7; fig. 3a-c [ref. 001250]. [according to VLC].

*Brebissonia palmerii* Boyer 1916, p. 80; pl. 17, fig. 8 [ref. 000152].

*Brebissonia rhomboides* (Ehrenberg) Kuntze 1898, p. 398 ('*rhombodes*') [ref. 001332]. Basionym: *Navicula rhomboides* Ehrenberg 1843.

*Brebissonia staurophora* Karsten 1899, p. 96; fig. 119 [ref. 000558].

*Brebissonia styriaca* (Grunow in Van Heurck) Kuntze 1898, p. 398 [ref. 001332]. Basionym: *Navicula styriaca* Grunow in Van Heurck 1880.

*Brebissonia vulgaris* (Thwaites) Kuntze 1898, p. 398 [ref. 001332]. Basionym: *Schizonema vulgare* Thwaites 1848.

*Brebissonia weissflogii* Grunow in Cleve 1878, p. 7; pl. 1, fig. 9 [ref. 000221].

**BREVISIRA K. Krammer 2001, p. 19 [ref. 009458]**

T: *Brevisira arentii* (Kolbe) K. Krammer 2001

(= *Cyclotella arentii* Kolbe 1948)

*Brevisira arentii* (R.W. Kolbe) K. Krammer 2001, p. 19 [ref. 009458]. Basionym: *Cyclotella arentii* Kolbe 1948.

**BRIGGERA R. Ross & P.A. Sims 1985, p. 291 [ref. 003152]**

T: *Briggenera ornithocephala* (R.K. Greville) R. Ross & P.A. Sims 1985

(= *Hemiaulus ornithocephalus* R.K. Greville 1865)

*Briggenera affixa* (Ross) Ross & Sims 1985, p. 306-307; pl. 8, fig. 1-6, pl. 9, fig. 1-6 [ref. 003152]. Basionym: *Hemiaulus affixus* Ross 1971.

*Briggenera bonei* Ross & Sims 1985, p. 312-313; pl. 13, fig. 1-8. pl. 31, fig. 8 [ref. 003152].

- Briggera capitata* (Greville) Ross & Sims 1985, p. 303-304; pl. 6, fig. 1-9 [ref. 003152]. Basionym: *Hemiaulus capitatus* Greville 1865.
- Briggera caverna* (Brun) Ross & Sims 1985, 309; pl. 31, fig. 5 a, b [ref. 003152]. Basionym: *Hemiaulus caverna* Brun 1891.
- Briggera haitensis* (Ross) Ross & Sims 1985, p. 313-314; pl. 14, fig. 5-8, pl. 31, fig. 9 [ref. 003152]. Basionym: *Hemiaulus haitensis* Ross 1971.
- Briggera includens* (Grunow) Ross & Sims 1985, p. 294-295; pl. 1, fig. 1-9 [ref. 003152]. Basionym: *Hemiaulus includens* Grunow 1884. Includes *H. payeri* Grunow 1884 and *H. latus* A. Schmidt 1889.
- Briggera monoligata* Ross & Sims 1985, p. 302-303; pl. 4, fig. 1-6, pl. 5, fig. 1-7 [ref. 003152].
- Briggera morenoensis* Ross & Sims 1985, p. 299-300; pl. 2, fig. 1-9, pl. 31, fig. 1 [ref. 003152].
- Briggera novocastrensis* (Ross) Ross & Sims 1985, p. 314-315; pl. 14, fig. 1-4, pl. 31, fig. 10 [ref. 003152]. Basionym: *Hemiaulus novocastrensis* Ross 1971.
- Briggera ornithocephala* (Greville) Ross & Sims 1985, p. 309-310; pl. 10, fig. 1-8 [ref. 003152]. Basionym: *Hemiaulus ornithocephalus* Greville 1865. Includes *Biddulphia virgata* Grove & Sturt 1886.
- Briggera ornithocephala* subsp. *atlantica* Ross & Sims 1985, p. 310-311; pl. 11, fig. 1-7, pl. 12, fig. 1-7, pl. 31, fig. 6-7 [ref. 003152].
- Briggera paratethyos* Ross & Sims 1985, p. 315-316; pl. 15, fig. 1-6, pl. 32, fig. 1, 2 [ref. 003152].
- Briggera robusta* Ross & Sims 1985, p. 306-309; pl. 31, fig. 4 [ref. 003152].
- Briggera siberica* (Grunow) Ross & Sims 1985, p. 300-301; pl. 3, fig. 1-7 [ref. 003152]. Basionym: *Hemiaulus sibericus* Grunow 1884.
- Briggera vema* Ross & Sims 1985, p. 305-306; pl. 7, fig. 1-9, pl. 31, fig. 3 [ref. 003152].

**BRIGHTWELLIA J. Ralfs in A. Pritchard 1861, p. 940 [ref. 001063]**

T: *Brightwellia coronata* (T. Brightwell) J. Ralfs in A. Pritchard 1861  
(= *Craspedodiscus coronatus* T. Brightwell 1860)

- Brightwellia brightwellioides* (Pantocsek) Ichikawa 1971, p. 13; pl. 2, fig. 15 a, b, text fig. 3, 1 (as *Brightwellia* aff. *brightwellioides* (Pant.) comb. nov.) [ref. 004510]. Basionym: *Coscinodiscus asteromphalus* var. *brightwellioides* Grunow 1884. *Invalid*. Invalid as the name of a new taxon (Type not indicated). Invalid as a new combination: place of publication of basionym not cited.
- Brightwellia coronata* (Brightwell) Ralfs in Pritchard 1861, p. 940 [ref. 001063]. Basionym: *Craspedodiscus coronatus* Brightwell 1860.
- Brightwellia coronata* var. *radians* Rattray 1890, p. 631 (183); pl. 3, fig. 14 [ref. 001485].
- Brightwellia elaborata* Greville 1861, p. 73; pl. 9, fig. 1 [ref. 000975].
- Brightwellia excellens* Rattray 1890, p. 630 (182); pl. 3, fig. 16 [ref. 001485].
- Brightwellia hillabyana* Boyer 1922, p. 5; pl. 1, fig. 2 [ref. 000154].
- Brightwellia hyperborea* Grunow in Van Heurck 1883, pl. 128, fig. 8 [ref. 001037].
- Brightwellia imperfecta* Jousé in Gleser & Jousé 1974, p. 56; pl. 2, fig. 5-7 [ref. 008269].
- Brightwellia johnsonii* Ralfs ex Greville 1866, p. 4; pl. 1, fig. 11 [ref. 000423].
- Brightwellia mirabilis* Brun in Brun & Tempère 1889, p. 27; pl. 8, fig. 1 [ref. 000185].
- Brightwellia murrayi* Castracane 1886, p. 138; pl. 10, fig. 2 [ref. 000193].
- Brightwellia pulchra* Grunow in Van Heurck 1883, pl. 128, fig. 9 [ref. 001037].
- Brightwellia russica* Pantocsek 1889, p. 115; pl. 27, fig. 389 [ref. 001033].
- Brightwellia spiralis* Gleser in Sheshukova-Poretskaya & Gleser 1964, p. 82; pl. 2, fig. 3 [ref. 001498].
- Brightwellia splendida* (Greville) Rattray 1890, p. 629 (181) [ref. 001485]. Basionym: *Heterodictyon splendidum* Greville 1863.

**BROCKMANNIELLA G.R. Hasle, H.A. von Stosch & E.E. Syvertsen 1983, p. 34 [ref. 003148]**

T: *Brockmanniella brockmannii* (F. Hustedt) G.R. Hasle, H.A. von Stosch & E.E. Syvertsen 1983  
(= *Plagiogramma brockmannii* F. Hustedt 1939)

- Brockmanniella brockmannii* (Hustedt) Hasle, von Stosch & Syvertsen 1983, p. 35-38; text fig. 5, fig. 132-155 [ref. 003148]. Basionym: *Plagiogramma brockmannii* Hustedt 1939.

**BRUNIA J. Tempère ex G.B. De Toni 1894, p. 1162, 1193 [ref. 000951]**

LT: *Brunia japonica* Tempère ex De Toni 1894  
Type designated by Ross in Farr et al. 1979, p. 241 (ref. 006663).

Later homonym of *Brunia* Linnaeus 1753, and *Brunia* Lamarck 1785 (nom. cons.). Synonym (substitute name): *Neobrunia* O. Kuntze, 1894 (ref. 002494).

*Brunia* first appeared in Tempère in Brun et al. 1890, p. 21 (ref. 000883), but was invalid for lacking a description of the genus.

***Brunia californica*** Terry 1895, p. 52-53, 88 [ref. 001533]. [according to VLC].

***Brunia japonica*** Tempère in Brun et al. 1890, p. 21; pl. 4, fig. 4, 4b [ref. 000883]. *Invalid*. Predates the valid publication of the genus name.

***Brunia japonica*** Tempère ex De Toni 1894, p. 1193 [ref. 000951]. Previously invalid in Brun et al. 1890, p. 21; pl. 4, fig. 4, 4b (ref. 000883).

***Brunia mirabilis*** (J. Brun) Tempère in Brun et al. 1890, p. 22 [ref. 000883]. Basionym: *Brightwellia mirabilis* Brun in Brun & Tempère 1889. *Invalid*. Predates the valid publication of the genus name.

***Brunia mirabilis*** (Brun) Tempère ex De Toni 1894, p. 1193 [ref. 000951]. Basionym: *Brightwellia mirabilis* Brun in Brun & Tempère 1889. Previously invalid in Brun et al. 1890, p. 22 (ref. 000883).

**BRUNIELLA H. Van Heurck 1896, p. 519 [ref. 000897]**

T: *Bruniella coronalis* (J. Brun) H. Van Heurck 1896

(= *Cotyledon coronalis* J. Brun 1891)

Invalid (not accepted). Van Heurck notes: “As to the curious form which Mr. Brun calls *Cotyledon coronalis* it requires further examination, and may constitute a new genus, *Bruniella* H.V.H., in which may also perhaps be included his *C. circularis*.” This refers to the paper on *Cotyledon* in Brun 1891 (ref. 000176).

***Bruniella circularis*** (Brun) Van Heurck 1896, p. 519 [ref. 000897]. Basionym: *Cotyledon circularis* Brun 1891. *Invalid*. Epithet not definitely associated with the generic name, neither on p. 519, nor in index p. 545, and genus name invalid.

***Bruniella coronalis*** (Brun) Van Heurck 1896, p. 519 [ref. 000897]. Basionym: *Cotyledon coronalis* Brun 1891. *Invalid*. Epithet not definitely associated with the generic name, neither on p. 519, nor in index p. 546, and genus name invalid.

***Bruniella coronalis*** (Brun) F.W. Mills 1933, p. 314 [ref. 006141]. Basionym: *Cotyledon coronalis* Brun 1891. *Invalid*. Mills credits Van Heurck for this combination. Combination accepted by Mills, but still invalid because the genus name “*Bruniella*” is invalid.

**BRUNIOPSIS G. Karsten in A. Engler & K. Prantl 1928, p. 218 [ref. 000560]**

T: *Bruniopsis japonica* (Tempère) Karsten 1928

(= *Brunia japonica* Tempère in Brun et al. 1890)

Superfluous substitute name for *Brunia* J. Tempère ex G.B. De Toni 1894, non Linnaeus 1753, nec Lamarck 1785 (nom. cons.).

Synonym: *Neobrunia* O. Kuntze (1894).

***Bruniopsis japonica*** (Tempère) Karsten 1928, p. 218; fig. 232 [ref. 000560]. Basionym: *Brunia japonica* Tempère in Brun et al. 1890.

***Bruniopsis mirabilis*** (Brun in Brun & Tempère) Karsten according to VanLandingham 1968, p. 572 [ref. 006294]. *Invalid*. This alleged combination of *Brightwellia mirabilis* Brun in Brun & Tempère 1889 was not validly published by Karsten 1928, p. 218 (ref. 000560) (VanLandingham notes: “implied”), nor was it validly published by VanLandingham (not accepted).