

Volume 55, No. 13, pp. 255–299, 1 fig.

September 30, 2004

Annotated Listing of Diatom Types in Rabenhorst's *Die Algen Europa's* 1848–1882, and a Consideration of Their Nomenclatural Status

J.P. Kocielek

Diatom Collection, California Academy of Sciences, 875 Howard Street,
San Francisco, CA 94103 USA; Email: pkocielek@calacademy.org

Accumulation and dissemination of diatom collections during the 19th century were a significant means for diatomists to establish new taxa and communicate with the community of fellow researchers about the diversity of diatoms through space and time. The exsiccatae sets of Van Heurck (1882–1885), Cleve and Möller (1877–1882), Tempère and Peragallo (1889–1895; 1907–1915) and H.L. Smith (1876–1888) are relatively well known, but sets were also distributed by Wartmann and Schenk (1862–1882), M'Calla (1848) and Eulenstein (1867–1869). The materials distributed included at least some processed diatoms made into permanent slides or as raw material dried onto paper or mica.

Another relatively well-known exsiccatae set, that followed more in the tradition of phycology, bryology, mycology and lichenology was distributed not as processed slides, but as raw material. This set, which included more than 2500 numbers and is known as "Die Algen Europas," was developed and distributed by Ludwig Rabenhorst (Fig. 1) between 1848 and 1882 (Rabenhorst 1848–1860, 1861–1882). Material included came from all over Europe as well as from far away places such as India, Burma, New Zealand and Honduras. The set formed the basis of numerous investigations by Rabenhorst and a wide range of collaborators, some immediately recognizable to diatomists (e.g., Grunow, Janisch, and Hilse) and others not so well known (Reinsch, Bleisch, Schwarz, and Hantzsch, after whom the genus *Hantzschia* was named). These sets were distributed widely, and may be found in herbaria across North America and the world.



FIGURE 1. Ludwig Rabenhorst. From an engraving in *Flora Europaea Algarum* (1864). Courtesy Department of Botany, National Museum of Natural History, Washington, D.C.

From these samples, Rabenhorst and colleagues observed what they believed to be new taxa. In some cases, the taxa were identified as such on the labels of the exsiccatae; in other cases, the material was the basis for separate scientific publications. In some cases in both paces, the exsiccatae and separate publications, were notices for new taxa. According to the International Code of Botanical Nomenclature (Greuter et al. 2000, Articles 32 and 42.2), distribution of exsiccatae sets satisfies the requirement of effective publication, but the sole listing of names as new taxa without illustration or description does not satisfy the requirement of valid publication. The presentation of names in the exsiccatae set of Rabenhorst was not consistent. In some cases, descriptions accompanied the listing of the new taxon. In more rare situations, illustrations were included with the labels and descriptions. Frequently, the listing of names was without descriptions or illustrations. A similar situation to the listing of names only in exsiccatae was recently described for the exsiccatae slide set of Tempère and Peragallo (Servant-Vildary et al. 2001). Recent taxonomic workers have also accessed the exsiccatae and described new taxa from the material (e.g., Krammer and Lange-Bertalot 1988; Krammer 2000).

The Diatom Herbarium of the Academy of Natural Sciences of Philadelphia (ANSP) developed a catalogue of the types contained in that collection (Mahoney and Reimer 1987, 1997). They listed taxa described from the Rabenhorst exsiccatae as types in ANSP. The approach taken to the Rabenhorst material was, apparently, to take the exsiccatae labels at face value, without consideration whether the name was validly published or not. The treatment in Mahoney and Reimer (1997) of new taxa in the Rabenhorst exsiccatae is uneven, attributing species to Rabenhorst where others are listed as the author, not indicating the place of valid publication, listing of taxa that have not been validly published as well as missing many species either validly published in the exsiccatae or elsewhere. Recently, Robert Edgar of the Farlow Herbarium has developed a website where individual packets with printed material can be accessed (<http://www.huh.harvard.edu/diatom/pubcollset.htm>).

Given the inconsistent way in which new taxa are treated in the Rabenhorst exsiccatae, and the superficial treatment in developing the type catalogue for ANSP, as well as the fact that the Rabenhorst exsiccatae contained type material for a wide range of diatom taxa, it was decided to present a detailed account of the types and new diatom names found in this interesting material. This work was also determined to be important, inasmuch as the number of catalogues of diatom types is relatively few (Mahoney and Reimer 1987, 1997; Williams 1988; Simonsen 1987; Kociolek et al. 1999; Servant-Vildary et al. 2001). This work should also facilitate a new planned catalogue of diatom species, similar to the catalogue of diatom genera published recently (Fourtanier and Kociolek 1999).

METHODS AND APPROACH

The resulting research was conducted on the Rabenhorst exsiccatae contained in the Farlow Herbarium at Harvard University. In the present publication, a listing of samples that serve as the type material for new diatom taxa is detailed. We count four new genera and 233 new taxa at the level of species or lower. This contribution is presented in four parts, as follows: Part 1 includes those names that have been published in the exsiccatae; herein they are distinguished whether they are validly or invalidly published. This should help direct students and researchers to those taxa of interest that may be new and whose names require valid publication. For each sample, the following information is provided: exsiccatae serial number, the year of its distribution, locality data, taxon name with authority, date of publication and page number, and then any notes on the publication and taxonomic comments. Part 2 is an index of taxa and the exsiccatae number referenced

to the first part for both validly and invalidly published names. Part 3 summarizes the data for each name referenced in the first two parts; the names are presented alphabetically. Lastly, in Part 4, data are provided with respect to place of publication, date, pagination, and nomenclatural status of each name.

PART 1. TYPE MATERIAL OF DIATOM NAMES IN THE RABENHORST EXSICCATAE.

Validly Published Names

Exsiccatae Number: 383

Year Distributed: 1854

Locality Information: "Wasserfalles bei Schenpfenthal in Thüringen"

Taxon: *Melosira roeseana* Rabenhorst 1853, p. 13

Taxonomic Comments: Van Landingham (1971, p. 2241) indicates "Rabenhorst 1852, #382"

Exsiccatae Number: 403

Year Distributed: 1855

Locality Information: "Grosszschocker b. Leipzig in dem grossen Steinbruche, zwischen einem *Oedogonium*. 30. Aug. 1854"

Taxon: *Synedra interrupta* Auerswald in Rabenhorst 1855

Taxonomic Comments: A brief description accompanies the exsiccatae. This is the basionym of the name *Synedra splendens* var. *interrupta* (Auerswald) Rabenhorst 1864a, p. 134 and *S. ulna* var. *interrupta* (Auerswald) M. Peragallo 1903.

Exsiccatae Number: 505

Year distributed: 1856

Locality Information: "Wassermühlen bei Bergamo"

Publication Notes: A Latin description is included with the exsiccatae. See also Rabenhorst 1864a, p. 249, and Grunow 1860, p. 565.

Taxon: *Stauroneis rotaeana* Rabenhorst 1856, p. 103, pl. XIII, fig. 7 (without a description)

Exsiccatae Number: 561

Year Distributed: 1857

Locality Information: "Mineralwassern zu Canstatt, Temp. von 16–17° Reaum"

Taxon: *Falcatella zelleri* Rabenhorst 1857a

Taxonomic Comments: A brief description is included with the exsiccatae. Van Landingham (1969, p. 1646) indicates *F. zelleri* was described in Rabenhorst (1863a, p. 40). This taxon is the basionym for *Synedra zelleri* (Rabenhorst) Rabenhorst (1864a, p. 139).

Exsiccatae Number: 561

Year Distributed: 1857

Locality Information: "Mineralwassren zu Canstatt, Temp. von 16–17° Reaum"

Taxon: *Achnanthidium thermale* Rabenhorst 1864a, p. 107

Exsiccatae Number: 604

Year Distributed: 1857

Locality Information: "In der Mergelgrube bei Peterwitz in der Nähe von Strehlen in Schlesien"

Taxon: *Cymbella helvetica* f. *silesiaca* Rabenhorst 1857a

Taxonomic Comments: A brief description is provided with the exsiccatae. Name not included in Van Landingham's *Catalogue*.

Exsiccatae Number: 611

Year Distributed: 1857

Locality Information: "Falaise"

Taxon: *Pinnularia falaiseana* Krammer 1992, p. 113

Publication Notes: Krammer (1992) indicates that H.L. Smith (1876–1888) slide 285 represents type material for this taxon.

Exsiccatae Number: 624

Year Distributed: 1857

Locality Information: "An feuchten Felsen beim Hirschenprung in Höllenthal (bei Freiburg im Br.)"

Taxon: *Gomphogramma rupestre* (Kützing) A. Braun ex Rabenhorst 1853, p. 33

Taxonomic Comments: This is a new combination of *Denticula thermale* Beta *rupestris* Kützing 1849. This does not appear to represent type material.

Exsiccatae Number: 625

Year Distributed: 1857

Locality Information: "...im Elbette ..."

Taxon: *Nitzschia stagnorum* Rabenhorst 1857a

Taxonomic Comments: A Latin description is included with the exsiccatae. This name is the basionym of *Nitzschia thermalis* var. *stagnorum* (Rabenhorst) Rabenhorst 1864a.

Exsiccatae Number: 642

Year Distributed: 1857

Locality Information: "An *Leptomitus lacteus* bei Stuttgart . . ."

Taxon: *Surirella intermedia* Rabenhorst 1857b

Taxonomic Comments: A brief description accompanies the exsiccatae. *Surirella ovata* var. *intermedia* (Rabenh) Rabenhorst 1864a, p. 57, is based on this name.

Exsiccatae Number: 682b

Year Distributed: 1858

Locality Information: "Fossés pr. Falaise. De Brébisson"

Taxon: *Pinnularia viridula* (Kützing) Rabenhorst 1853, p. 43.

Taxonomic Comments: This is a new combination of *Frustulia viridula* Kützing 1833. This does not appear to represent type material.

Exsiccatae Number: 683

Year Distributed: 1858

Locality Information: "Marais de bois, Falaise"

Taxon: *Navicula major* var. *crassa* Brébisson ex Rabenhorst 1858a

Taxonomic Comments: Van Landingham's Catalogue (1975, p. 2658) lists the basionym of this taxon as "*Pinnularia major* var. *crassa* Rabenhorst 1848–1860; Rabenhorst 1864," with the combination in *Navicula* made by M. Peragallo (1903). This name appears in the exsiccatae in *Navicula*; transfer to *Pinnularia* was effected by Rabenhorst (1864a, p. 210).

Exsiccatae Number: 687

Year Distributed: 1858

Locality Information: "... se trouve en groupes assez épais sur les conservées. Falaise."

Taxon: *Synedra aggregata* Brébisson in Rabenhorst 1858a

Publication Notes: Exsiccatae provides a description in Latin of this taxon.

Exsiccatae Number: 688

Year Distributed: 1858

Locality Information: "Dresden"

Taxon: *Himantidium dilatatum* Wigand 1860, p. 43

Exsiccatae Number: 743

Year Distributed: 1858

Locality Information: "Auf *Vaucheria clavata* in der Ober-Lössnitz bei Dresden im sogen 'Walter's Grund'"

Taxon: *Gomphonema capitatum* var. *gracile* Rabenhorst 1858b

Taxonomic Comments: A very brief description in German is included with the exsiccatae. Name not included in Van Landingham's Catalogue.

Exsiccatae Number: 761

Year Distributed: 1858

Locality Information: "Im Torfmoor am Titisee . . im badische Schwarzwalde"

Taxon: *Frustulia torfacea* A. Braun ex Rabenhorst 1853, p. 50

Taxonomic Comments: Specific epithet listed as "*torphacea*" in exsiccatae.

Exsiccatae Number: 765

Year Distributed: 1858

Locality Information: "Falaise"

Taxon: *Amphora ovalis* f. *nana* Rabenhorst 1864a, p. 92. The exsiccatae entry says "*Amphora ovalis* (Ehrbg.) Ktz."

Taxonomic Comments: The index to Rabenhorst (1864a, p. 327) indicates the name as "var. *nana*."

Exsiccatae Number: 781

Year Distributed: 1859

Locality Information: "Toofmoor bei Pohlenz, Oct. 1858"

Taxon: *Nitzschia arcus* Bulnheim 1859, p. 22

Exsiccatae Number: 801

Year Distributed: 1859

Locality Information: "Graben in Peissengrunde vor Neider-Hässlich bei Dresden"

Taxon: *Cylindrotheca* Rabenhorst 1859a

Publication Notes: This genus is described and figured in the exsiccatae.

Exsiccatae Number: 801

Year Distributed: 1859

Locality Information: "Graben in Peissengrunde vor Neider-Hässlich bei Dresden"

Taxon: *Cylindrotheca gerstenbergei* Rabenhorst 1859a

Publication Notes: This species is described and figured in the exsiccatae.

Taxonomic Comments: This is the generitype for the new genus *Cylindrotheca*.

Exsiccatae Number: 802

Year Distributed: 1859

Locality Information: "auf Elbschlamm bei Dresden"

Taxon: *Navicula reinickeana* Rabenhorst 1859a

Publication Notes: A short description is provided with the exsiccatae. See also Rabenhorst 1863a,

p. 35 for a description of this taxon.

Exsiccatae Number: 803

Year Distributed: 1859

Locality Information: "St. Gallen, in einem Brunnentrog im Klosterhof, den 15 January 1859"

Taxon: *Cymbella variabilis* Wartmann in Rabenhorst 1859a

Publication Notes: Description in German provided with the exsiccatae

Exsiccatae Number: 811

Year Distributed: 1859

Locality Information: "aus einem Feldbrunnen bei Peterwitz bei Strehlen in Schlesien"

Taxon: *Campylodiscus punctatus* Bleisch 1860, p. 29

Exsiccatae Number: 812

Year Distributed: 1859

Locality Information: "Strehlen in Schlesien, Ohlaufluss"

Taxon: *Stauropelta truncata* Rabenhorst 1853, pl. 9, fig. 12

Exsiccatae Number: 841

Year Distributed: 1859

Locality Information: "In einer Spalte des Chlorischiefers am Franzensberge in Brünn"

Taxon: *Navicula nodosa* f. *curta* Rabenhorst 1864a, p. 207

Publication Notes: This name is listed as a "variety" in the index (p. 338). Rabenhorst lists *Navicula quinquerodes* Grunow 1860 as a synonym. It appears that Rabenhorst's is a new name for Grunow's taxon.

Exsiccatae Number: 842

Year Distributed: 1859

Locality Information: "mit *Sphagnum* umgürteten Tümpfel auf dem Eulengebirge bei Reichenbach in Schlesien"

Taxon: *Pinnularia rabenhorstii* Hilse 1860b, p. 82

Taxonomic Comments: Van Landingham (1978a, p. 3302) reports the specific epithet as "*rabenhorstiana* (Hilse in Rabenhorst 1859; Hilse 1960 [sic]) M. Peragallo 1903 p. 723."

Exsiccatae Number: 847

Year Distributed: 1859

Locality Information: "Petersdorf bei Gleiwitz in Schlesien . . ." [Poland]

Taxon: *Pleurostauron acutum* (W. Smith) Rabenhorst 1859c, Plate 1, fig. B, Plate 2, fig. F

Taxonomic Comments: Rabenhorst 1864a (p. 259) indicates this is a new combination for Smith's taxon. This does not appear to represent type material.

Exsiccatae Number: 848f

Year Distributed: 1859

Locality Information: "Um Gleiwitz in Schlesien . . ." [Poland (Katowice) Gliwice]

Taxon: *Stauroneis janischii* Rabenhorst 1859b

Publication Notes: A description in German and figure are provided with the exsiccatae.

Exsiccatae Number: 943

Year Distributed: 1860

Locality Information: "Dresden, in der Oberlößnitz in Mai 1859"

Taxon: *Nitzschia hantzschiana* Rabenhorst 1860a, p. 40

Publication Notes: The exsiccatae also includes a brief description. It is also described in Grunow (1862, p. 576)

Exsiccatae Number: 944

Year Distributed: 1860

Locality Information: "in einem Bach bei Tharandt (Sachsen)"

Taxon: *Nitzschia clausii* Hantzsch 1860b, p. 40

Publication Notes: The exsiccatae also includes a brief description. Descriptions of this taxon can also be found in Grunow (1862, p. 573, 559) and Rabenhorst (1863a, p. 48).

Exsiccatae Number: 945

Year Distributed: 1860

Locality Information: "Oberlössnitz bei Dresden, in einem Wasserbassin auf Steinem im September 1859"

Taxon: *Nitzschia media* Hantzsch 1860b, p. 40

Publication Notes: The exsiccatae also includes a brief description. Grunow (1862, p. 576) also provides a description for this taxon.

Exsiccatae Number: 946

Year Distributed: 1860

Locality Information: "in einem Tümpel bei Mortizburg bei Dresden im September 1859"

Taxon: *Nitzschia gracilis* Hantzsch 1860b, p. 40

Publication Notes: The exsiccatae also includes a brief description. See Grunow (1862, p. 560, 575) for a description of this taxon.

Exsiccatae Number: 947

Year Distributed: 1860

Locality Information: "Oberlössnitz bei Dresden auf Wurzeln und Steinem in einem Wasserbassin"

Taxon: *Navicula macrogongyla* Rabenhorst 1860a, p. 40

Taxonomic Comments: The exsiccatae does not indicate the specific epithet of the new *Navicula*, but it is given in the publication.

Exsiccatae Number: 949

Year Distributed: 1860

Locality Information: "In Gräben um Dreden häufig von Gerstenberger"

Taxon: *Nitzschia communis* Rabenhorst 1860b

Publication Notes: See Grunow (1862, p. 561, 578) and Rabenhorst (1864a, p. 159) for descriptions of this taxon.

Taxonomic Comments: There is reference to an effectively published illustration, (*Hedwigia* 1860, pl. 6, fig. 3). It appears from the text of the exsiccatae that this is to be a new name for a diatom identified by Gerstenberger (in *Hedwigia*) as *Synedra frustulum* Kützing.

Exsiccatae Number: 950

Year Distributed: 1860

Locality Information: "Am Galgenberge bei Strehlen in Schlesien"

Taxon: *Nitzschia minuta* Bleisch in Rabenhorst 1860b

Taxonomic Comments: A description accompanies the exsiccatae. See also Bleisch 1863, p. 78 and Grunow 1862, p. 578.

Exsiccatae Number: 951

Year Distributed: 1860

Locality Information: "in einem einzigen Brunnen bei Strehlen an der Strasse nach Striege"

Taxon: *Pinnularia gibba* f. *curta* Bleisch in Rabenhorst 1860b

Taxonomic Comments: A brief description is provided with the exsiccatae. The exsiccatae packet lists this taxon as “*Pinnularia gibba* forma *curta*, varietas nova”. This name is not listed in Van Ladingham’s Catalogue as either a variety or a form of *P. gibba*.

Exsiccatae Number: 952

Year Distributed: 1860

Locality Information: “in einem Brunnen an der Strasse von Riegersdorf nach Strehlen”

Taxon: *Pinnularia medioconstricta* Bleisch in Rabenhorst 1860b

Publication Notes: A description is provided with the exsiccatae. See also Bleisch 1863, p. 81.

Exsiccatae Number: 953

Year Distributed: 1860

Locality Information: “in einem Graben auf dem Rüchen der Eule . . . October 1859”

Taxon: *Pinnularia hilseana* Janisch in Rabenhorst 1860b

Publication Notes: A description is provided with the exsiccatae. See also Hilse 1860b, p. 82.

Exsiccatae Number: 954

Year Distributed: 1860

Locality Information: “Ohlaufuss bei Strehlen in Schlesien unter Oscillarien; im Juli 1859”

Taxon: *Pinnularia silesiaca* Bleisch in Fresenius 1862

Publication Notes: See also Bleisch 1863, p. 81 and Bleisch in Rabenhorst 1863a, p. 38.

Taxonomic Comments: A description is lacking in the exsiccatae.

Exsiccatae Number: 958

Year Distributed: 1860

Locality Information: “im Züricher See bei der Badeanstalt”

Taxon: *Encyonema prostratum* f. *helvetica-robustior* Rabenhorst 1860b

Taxonomic Comments: The name is listed as “*Encynonema prostratum* forma *helvetica robustior*. ”

A short description is provided, and reference to a previous description and figures qualifies as a valid publication for this name. Name not included in Van Ladingham’s Catalogue.

Exsiccatae Number: 962

Year Distributed: 1860

Locality Information: “Steinbrüchen am Galgenberge bei Strehlen”

Taxon: *Stauroneis cohnii* Hilse in Rabenhorst 1860b

Taxonomic Comments: A brief description is included with the exsiccatae. See also Hilse 1860b, p. 83.

Exsiccatae Number: 963

Year Distributed: 1860

Locality Information: “in altern Steinbrüchen am Galgenberge bei Strehlen”

Taxon: *Stauroneis undulata* Hilse 1860, p. 83

Taxonomic Comments: A brief description is included with the exsiccatae.

Exsiccatae Number: 984

Year Distributed: 1860

Locality Information: “In einem Sumpfe in Kaitzer Grunde bei Dresden”

Taxon: *Nitzschia tryblionella* Hantzsch in Rabenhorst 1860c

Publication Notes: A description is included with the exsiccatae.

Exsiccatae Number: 1003

Year Distributed: 1861

Locality Information: "in einem Quellwasser bei Salem"

Taxon: *Achnanthidium jackii* Rabenhorst 1861a

Publication Notes: Latin description provided with the exsiccatae. This name is also proposed in Rabenhorst 1864a, p. 106, but the description differs significantly enough from the exsiccatae that two separate species might be described under the same name from the same material.

Exsiccatae Number: 1021b

Year Distributed: 1861

Locality Information: "[in den Mergelgruben von] Peterwitz bei Strehlen in Schlesien"

Taxon: *Epithemia goeppertia* Hilse 1860, p. 79

Publication Notes: This diatom is described in the exsiccatae under the number 1021 and listed under 1021b.

Exsiccatae Number: 1022

Year Distributed: 1861

Locality Information: "von Holmachern zur Erlangung von Trinkwasser angelegten Rinne auf dem Rücken der Eule (bei Reichenbach in Schlesien)"

Taxon: *Cyclotella hilseana* Rabenhorst 1864a, p. 33

Taxonomic Comments: This was originally listed with the exsiccatae as *Cyclotella dubia* Hilse in Rabenhorst, a name also published in Hilse 1860, p. 79. A note with the exsiccatae indicates "Ob die Pflanze gar ein neues Genus bildet, wie ich sast vermuthe, dürste wohl die Zukunft Ichren."

Exsiccatae Number: 1023

Year Distributed: 1861

Locality Information: "Pfingsten 1860 auf dem Rücken der Eule in einer Höhe von 3000 F"

Taxon: *Pinnularia sudetica* Hilse 1860, p. 82

Taxonomic Comments: This diatom is described in the exsiccatae. Van Landingham (1978a, p. 3324) lists this taxon as "*Navicula sudetica* Hilse 1861 p. 82; Hilse in Rabenhorst 1861–1879 No. 1023" and "*Pinnularia sudetica* (Hilse) M. Peragallo 1903, p. 725". Krammer (2000) designated this material as the lectotype of Hilse's taxon.

Exsiccatae Number: 1024

Year Distributed: 1861

Locality Information: "Brunnenabfluss von Katschwitz bei Strehlen"

Taxon: *Synedra campyla* Hilse 1860, p. 84

Publication Notes: A brief description is also provided with the exsiccatae.

Exsiccatae Number: 1025

Year Distributed: 1861

Locality Information: "im Ziegengrunde bei Strehlen"

Taxon: *Pinnularia ovalis* Hilse 1860, p. 82

Publication Notes: A description is also provided with the exsiccatae.

Exsiccatae Number: 1026

Year Distributed: 1861

Locality Information: "in den Mergelgruben von Gross-Lauden bei Strehlen"

Taxon: *Epithemia intermedia* Hilse 1860, p. 76

Publication Notes: A description is also provided with the exsiccatae.

Taxonomic Comments: This name is an earlier homonym of *Epithemia intermedia* Fricke 1904

Exsiccatae Number: 1041

Year Distributed: 1861

Locality Information: "Dresden, im artefischen Brunnen"

Taxon *Fragilaria mesolepta* Rabenhorst 1861b

Publication Notes: Exsiccatae provides Latin description.

Exsiccatae Number: 1045

Year Distributed: 1861

Locality Information: "in Gräben bei Canstatt"

Taxon: *Surirella suevica* Zeller in Rabenhorst 1861b

Publication Notes: Exsiccatae provides Latin and German descriptions. See Krammer & Lange-Bertalot 1987, p. 89.

Exsiccatae Number: 1046

Year Distributed: 1861

Locality Information: "Gegend von Marburg"

Taxon: *Himantidium striatum* Wigand 1860, p. 43

Exsiccatae Number: 1046

Year Distributed: 1861

Locality Information: "Gegend von Marburg"

Taxon: *Synedra arcuatum* Wigand 1860, p. 43

Taxonomic Comments: This name is an earlier homonym for *Synedra arcuatum* Cleve-Euler 1953, p. 68.

Exsiccatae Number: 1065

Year Distributed: 1861

Locality Information: "Bochla pr. Grossenhain (Saxoniae) in fossis pratorum"

Taxon: *Cymbella naviculiformis* Auerswald ex Heiberg 1863

Publication Notes: No description provided in exsiccatae.

Taxonomic Comments: See the interpretation of the nomenclature of this taxon by Reimer (pp. 31–32 in Patrick & Reimer 1975).

Exsiccatae Number: 1066

Year Distributed: 1861

Locality Information: "Um Leipzig, in der Elster und im Teiche bei Barneck"

Taxon: *Pleurosigma gracilentum* Rabenhorst 1861b

Publication Notes: A short description is provided with the exsiccatae. See also Rabenhorst 1863a, p. 617 and Rabenhorst 1864a, p. 240.

Taxonomic Comments: Van Landingham (1978a, p. 3375) lists this as "Rabenhorst 1861–1879, No. 166".

Exsiccatae Number: 1084

Year Distributed: 1861

Locality Information: "St. Gallen, in einem Brunnentrog des Zweibrücher Tobels"

Taxon: *Odontidium hiemale* f. *rotundata* Rabenhorst 1864a, p. 116

Taxonomic Comments: This taxon was listed with the exsiccatae as "*Odontidium mesodon* Kütz.

form!” Van Landingham (1978a, p. 3154) indicates the basionym of this taxon is *O. rotundatum* Rabenhorst 1853 (p. 34, plate 2, fig. 4c), although this name is used in the figure legends for plate 2, fig. 4c, the listing of this taxon name on page 34 is under *O. hyemale*. The name *O. rotundatum* Rabenhorst is a later homonym of *O. rotundatum* (Ehrenb.) Kütz. 1849.

Exsiccatae Number: 1088

Year Distributed: 1861

Locality Information: “in einem kleinen Teiche bei St. Gallen (Schweiz)”

Taxon: *Epithemia rabenhorstii* Wartmann in Rabenhorst 1861c

Publication Notes: A brief description is provided with the exsiccatae.

Taxonomic Comments: This name is not included in Van Landingham's *Catalogue*.

Exsiccatae Number: 1089

Year Distributed: 1861

Locality Information: “bei St. Gallen in einem kleinen Teiche auf Mühlegg”

Taxon: *Epithemia zebra* var. *intermedia* Wartmann in Rabenhorst 1861c

Publication Notes: A brief description is provided with the exsiccatae.

Taxonomic Comments: This name is also presented in Rabenhorst 1864a, p. 65. This name is not included in Van Landingham's *Catalogue*. It is an earlier homonym for the combination made by Hustedt (1934).

Exsiccatae Number: 1101

Year Distributed: 1861

Locality Information: “Am Elbufer im Gehege bei Dresden”

Taxon: *Pleurosigma scalproides* Rabenhorst 1861d

Publication Notes: Description and illustration provided in exsiccatae.

Exsiccatae Number: 1104

Year Distributed: 1861

Locality Information: “Elbufer im grossen Gehege bei Dresden”

Taxon: *Diatoma gracillimum* Hantzsch in Rabenhorst 1861d

Publication Notes: Description and illustration are provided in the exsiccatae.

Taxonomic Comments: The specific epithet was originally listed as “*gracillimum*”, but this should probably be considered a typographical error. Van Landingham's *Catalogue* (1969, p. 1295) lists the specific epithet as “*gracillimum*”.

Exsiccatae Number: 1106

Year Distributed: 1861

Locality Information: “Walther's Grund in der Oberlößnitz”

Taxon: *Pinnularia peracuminata* Krammer 2000

Exsiccatae Number: 1107

Year Distributed: 1861

Locality Information: “Dresden, im artefischen Brunnen”

Taxon: *Cocconeema pachycephalum* Rabenhorst 1861d

Publication Notes: Description and illustrations provided in exsiccatae. Rabenhorst (1863a, p. 616) had created the superfluous name *Cocconeema robustum* for this taxon. Krammer (2002) has recently renamed this taxon *Cymbella hantzschiana* Krammer.

Exsiccatae Number: 1114

Year Distributed: 1861

Locality Information: "Oberlößnitz bei Dresden"

Taxon: *Nitzschia tumida* Hantzsch in Rabenhorst 1861e

Publication Notes: A specimen is figured with the exsiccatae. Mahoney & Reimer (1997) indicate this species is described in Rabenhorst 1864a (p. 153).

Exsiccatae Number: 1161

Year Distributed: 1861

Locality Information: "Strehlen in Schlesien . . . Jordansmühle"

Taxon: *Pleurostaurum lineare* Hilse 1860b, p. 83

Publication Notes: A description is provided with the exsiccatae.

Exsiccatae Number: 1164

Year Distributed: 1861

Locality Information: "Im Marmorbruch zu Prieborn bei Strehlen in Schlesien"

Taxon: *Nitzschia perpusilla* Rabenhorst 1861f

Publication Notes: See also Rabenhorst 1864a, 159.

Taxonomic Comments: A brief Latin description is included with the exsiccatae. Van Landingham (1978a, p. 3096) lists this taxon occurring in exsiccatae number 1163.

Exsiccatae Number: 1166

Year Distributed: 1861

Locality Information: "in einem Graben bei Teppendorf in Schlesien"

Taxon: *Cymbella maculata* var. *major* Rabenhorst 1864a, p. 80

Taxonomic Comments: According to Rabenhorst in comments accompanying the exsiccatae, this diatom was initially identified as *Cymbella lunula* (Ehrenb.) Rabenhorst 1853, p. 23. Van Landingham (1969, p. 1210) suggests the name *Cymbella lunula* Hilse in Rabenhorst was created in this exsiccatae number, but there is no indication from the exsiccatae that this combination was made.

Exsiccatae Number: 1167

Year Distributed: 1861

Locality Information: "Aus der Eule in einer Höhe von gegen 3000 Fuss, im October 1860"

Taxon: *Eunotia minuta* Hilse 1860, p. 79

Publication Notes: A description is also provided with the exsiccatae.

Exsiccatae Number: 1183

Year Distributed: 1861

Locality Information: "im stadtischen granitnen Röhrtroge zu Strehlen in Schlesien"

Taxon: *Stauroneis goeppertia* Bleisch ex Rabenhorst 1861g

Publication Notes: A description is provided with the exsiccatae. See also Bleisch 1863, p. 81.

Exsiccatae Number: 1201

Year Distributed: 1861

Locality Information: "Dresden, Prinz Georg's Garten 1861"

Taxon: *Cymatopleura nobilis* Hantzsch 1860a, p. 36

Publication Notes: Illustrations provided with exsiccatae.

Exsiccatae Number: 1203

Year Distributed: 1861

Locality Information: "Krippengrund i.d. sächs. Schweiz"

Taxon: *Pinnularia rupestris* Hantzsch ex Rabenhorst 1861h

Publication Notes: A description is provided with the exsiccatae.

Exsiccatae Number: 1208

Year Distributed: 1861

Locality Information: "in einem Quelle beim Göthe-Häuschen auf dem Gückelhahn in Thüringer Walde"

Taxon: *Surirella thuringiacea* Hantzsch in Rabenhorst 1861h

Publication Notes: A description is provided with the exsiccatae.

Exsiccatae Number: 1246

Year Distributed: 1862

Locality Information: "in einem Bach in Höskler bei Zürich"

Taxon: *Cocconeema variabile* Cramer ex Rabenhorst 1862a

Publication Notes: A description is provided with the exsiccatae.

Exsiccatae Number: 1246

Year Distributed: 1862

Locality Information: "in einem Bach in Höskler bei Zürich"

Taxon: *Cymbella vulgata* Krammer 2002, p. 55

Exsiccatae Number: 1248

Year Distributed: 1862

Locality Information: "Mühlegg bei St. Gallen (Schweiz)"

Taxon: *Encyonema maximum* Wartmann ex Rabenhorst 1862a

Publication Notes: A description is provided with the exsiccatae.

Exsiccatae Number: 1261

Year Distributed: 1862

Locality Information: "bei Gerbersdorf in Schlesien"

Taxon: *Cymbella minuta* Hilse in Rabenhorst 1862b

Publication Notes: See also Hilse 1863, p. 66.

Taxonomic Comments: Krammer (1997, p. 54) points out the error made by Reimer (in Patrick & Reimer 1975, p. 42) about the exsiccatae number where this taxon was published.

Exsiccatae Number: 1263

Year Distributed: 1862

Locality Information: "in einem Graben bei Hussinetz bei Strehlen"

Taxon: *Pinnularia viridis* var. *coerulescens* Hilse in Rabenhorst 1862b

Publication Notes: See also Hilse 1863, p. 68.

Taxonomic Comments: A brief description is included in the exsiccatae. This name is not included in Van Landingham's Catalogue.

Exsiccatae Number: 1266

Year Distributed: 1862

Locality Information: "in einem Graben im Dorfe Hussinetz bei Strehlen"

Taxon: *Nitzschia thermalis* var. *minor* Hilse in Rabenhorst 1862b

Publication Notes: See also Hilse 1860, p. 67.

Taxonomic Comments: Van Landingham (1978a, p. 3128) indicates this taxon was published by Hilse in 1860.

Exsiccatae Number: 1267

Year Distributed: 1862

Locality Information: "in einem Graben hinter dem Walde von Dobergast bei Strehlen in Schlesien"

Taxon: *Nitzschia kuetzingiana* Hilse in Rabenhorst 1862b

Taxonomic Comments: *Nitzschia kuetzingii* Rabenhorst 1864 is the valid name for this taxon.

Exsiccatae Number: 1268

Year Distributed: 1862

Locality Information: "in einem Graben am Teiche von Hussinetz bei Strehlen"

Taxon: *Stauroneis anceps* f. *gracilis* Rabenhorst 1864a, p. 247

Exsiccatae Number: 1283

Year Distributed: 1862

Locality Information: "Dresden, in Prinz Georgs Garten"

Taxon: *Nitzschia recta* Hantzsch in Rabenhorst 1862c

Publication Notes: A brief diagnosis is provided in the exsiccatae.

Taxonomic Comments: Van Ladingham gives year of publication as "1861–1879".

Exsiccatae Number: 1283

Year Distributed: 1862

Locality Information: "Dresden, in Prinz Georgs Garten"

Taxon: *Navicula rotundata* Hantzsch in Rabenhorst 1862c

Publication Notes: A brief description is provided in the exsiccatae.

Exsiccatae Number: 1301

Year Distributed: 1862

Locality Information: "am obersten Gradirhause Sulza"

Taxon: *Homoeocladia bulnheimiana* Rabenhorst 1862d

Publication Notes: A description of this taxon is provided with the exsiccatae. The species is also described in Rabenhorst 1863a, p. 617 and Rabenhorst 1864a, p. 167.

Exsiccatae Number: 1321

Year Distributed: 1862

Locality Information: "Dresden, im artefischen Brunnen"

Taxon: *Cocconema nanum* Hantzsch in Rabenhorst 1862e

Publication Notes: A description is provided with the exsiccatae.

Exsiccatae Number: 1322

Year Distributed: 1862

Locality Information: "Strehlen bei Dresden, in einem Graben"

Taxon: *Sphenella naviculoides* Hantzsch in Rabenhorst 1862e

Publication Notes: A description is provided with the exsiccatae.

Exsiccatae Number: 1323

Year Distributed: 1862

Locality Information: "Dresden, im Abflüsse des artefischen Brunnens"

Taxon: *Synedra amphirhynchus* var. *undulata* Rabenhorst 1862e

Publication Notes: See also Rabenhorst 1864a, p. 134.

Exsiccatae Number: 1381

Year Distributed: 1862

Locality Information: "Ruisseaux et fossés. Falaise"

Taxon: *Surirella crumena* Brébisson ex Kützing 1849

Taxonomic Comments: Rabenhorst 1864a, p. 57 says No. 1381 is "specimen authen." Krammer in Krammer & Lange-Bertalot (1987, p. 96) designates this material as the lectotype for the name of the species.

Exsiccatae Number: 1385

Year Distributed: 1862

Locality Information: "Bei Leipzig"

Taxon: *Encyonema auerswaldii* Rabenhorst 1853a, p. 24

Exsiccatae Number: 1386

Year Distributed: 1862

Locality Information: "San Giuliano prope Genuam, ad sax leg. Dufour"

Taxon: *Homoeocladius dufourii* DeNotaris in DeNotaris & Baglietto 1871

Exsiccatae Number: 1403

Year Distributed: 1862

Locality Information: "Ostindische Diatomeen. Von Algen und Meeresschlamm aus dem ostindischen Archipel"

Taxon: *Climacosphenia indica* Hantzsch 1863, p. 18

Exsiccatae Number: 1403

Year Distributed: 1862

Locality Information: "Ostindische Diatomeen. Von Algen und Meeresschlamm aus dem ostindischen Archipel"

Taxon: *Synedra pulcherrima* Hantzsch 1863, p. 19

Exsiccatae Number: 1403

Year Distributed: 1862

Locality Information: "Ostindische Diatomeen. Von Algen und Meeresschlamm aus dem ostindischen Archipel"

Taxon: *Synedra formosa* Hantzsch 1863, p. 19

Exsiccatae Number: 1403

Year Distributed: 1862

Locality Information: "Ostindische Diatomeen. Von Algen und Meeresschlamm aus dem ostindischen Archipel"

Taxon: *Toxarium rostratum* Hantzsch 1863, p. 19

Exsiccatae Number: 1403

Year Distributed: 1862

Locality Information: "Ostindische Diatomeen. Von Algen und Meeresschlamm aus dem ostindischen Archipel"

Taxon: *Mastogloia interrupta* Hantzsch 1863, p. 20

Exsiccatae Number: 1403

Year Distributed: 1862

Locality Information: "Ostindische Diatomeen. Von Algen und Meeresschlamm aus dem ostindischen Archipel"

Taxon: *Nitzschia formica* Hantzsch 1863, p. 20

Taxonomic Comments: Figure legend on p. 22 says "*Tryblionella formica*", and Hantzsch indicates this species is identical with *Nitzschia tryblionella* in Rabenhorst exsiccatae 984.

Exsiccatae Number: 1403

Year Distributed: 1862

Locality Information: "Ostindische Diatomeen. Von Algen und Meeresschlamm aus dem ostindischen Archipel"

Taxon: *Eupodiscus minutus* Hantzsch 1863, p. 20

Exsiccatae Number: 1403

Year Distributed: 1862

Locality Information: "Ostindische Diatomeen. Von Algen und Meeresschlamm aus dem ostindischen Archipel"

Taxon: *Cocconeis heteroidea* Hantzsch 1863, p. 20

Exsiccatae Number: 1405

Year Distributed: 1862

Locality Information: "im Polenzthale (sächs. Schweiz)"

Taxon: *Synedra bicurvata* Biene ex Rabenhorst 1863b

Publication Notes: There is a reference to an illustration (*Nitzschia arcus* Bulnheim in *Hedwigia* II, Tafel II, fig. 1) to validate the name. This taxon was described in Rabenhorst 1864a, p. 129.

Exsiccatae Number: 1421

Year Distributed: 1863

Locality Information: "Kraussnitz bei Grossenhain in Sachsen, in einem moorigen Wiesengraben"

Taxon: *Surirella saxonica* Auerswald in Rabenhorst 1863b

Publication Notes: A Latin description is provided with the exsiccatae. See also Rabenhorst 1864a, p. 53.

Exsiccatae Number: 1441

Year Distributed: 1863

Locality Information: "aus einer Bache unweit Sennerei unterhalb Casaccio auf dem Kukmanier"

Taxon: *Cymbella elegans* Cramer 1863, p. 65

Exsiccatae Number: 1441

Year Distributed: 1863

Locality Information: "aus einer Bache unweit Sennerei unterhalb Casaccio auf dem Kukmanier"

Taxon: *Fragilaria* [*Fragillaria* in exsiccatae] *undulata* Cramer 1863, p. 65

Exsiccatae Number: 1481

Year Distributed: 1863

Locality Information: "Meeralgen von Honduras"

Taxon: *Amphitetas cruciata* Janisch & Rabenhorst 1863, p. 4

Exsiccatae Number: 1481

Year Distributed: 1863

Locality Information: "[Meeralgen] an den Küste von Honduras"

Taxon: *Campylodiscus rabenhorstianus* Janisch in Janisch & Rabenhorst 1863, p. 6
Publication Notes: This name was published earlier by Grunow (1862).

Exsiccatae Number: 1481

Year Distributed: 1863

Locality Information: “[Meeralgen] an den Küste von Honduras”

Taxon: *Amphitetras parvula* Janisch & Rabenhorst 1863, p. 4

Exsiccatae Number: 1481

Year Distributed: 1863

Locality Information: “[Meeralgen] an den Küste von Honduras”

Taxon: *Climacosphenia linearis* Janisch & Rabenhorst 1863, p. 6

Exsiccatae Number: 1481

Year Distributed: 1863

Locality Information: “[Meeralgen] an den Küste von Honduras”

Taxon: *Cocconeis kirchenpaueriana* Janisch & Rabenhorst 1863, p. 7

Exsiccatae Number: 1481

Year Distributed: 1863

Locality Information: “[Meeralgen] an den Küste von Honduras”

Taxon: *Cocconeis flexella* Janisch & Rabenhorst 1863, p. 7

Exsiccatae Number: 1481

Year Distributed: 1863

Locality Information: “[Meeralgen] an den Küste von Honduras”

Taxon: *Denticella ventricosa* Janisch & Rabenhorst 1863, p. 8

Exsiccatae Number: 1481

Year Distributed: 1863

Locality Information: “[Meeralgen] an den Küste von Honduras”

Taxon: *Navicula bleischiana* Janisch & Rabenhorst 1863, p. 9

Exsiccatae Number: 1481

Year Distributed: 1863

Locality Information: “[Meeralgen] an den Küste von Honduras”

Taxon: *Navicula janischiana* Rabenhorst in Janisch & Rabenhorst 1863, p. 10

Exsiccatae Number: 1481

Year Distributed: 1863

Locality Information: “[Meeralgen] an den Küste von Honduras”

Taxon: *Navicula marina* Janisch & Rabenhorst 1863, p. 10

Taxonomic Comments: *Non Navicula marina* Ralfs in Pritchard 1861

Exsiccatae Number: 1481

Year Distributed: 1863

Locality Information: “[Meeralgen] an den Küste von Honduras”

Taxon: *Synedra gomphonema* Janisch & Rabenhorst 1863, p. 13

Exsiccatae Number: 1481

Year Distributed: 1863

Locality Information: “[Meeralgen] an den Küste von Honduras”

Taxon: *Tessella hyalina* Janisch & Rabenhorst 1863, p. 13

Exsiccatae Number: 1489

Year Distributed: 1863

Locality Information: “Brunnen bei Weiselwitz bei Strehlen”

Taxon: *Surirella diaphana* Bleisch ex Rabenhorst 1863c

Publication Notes: Short description provided with exsiccatae. See also Bleisch 1863, p. 78 and Rabenhorst 1864a, p. 55.

Exsiccatae Number: 1492

Year Distributed: 1863

Locality Information: “Brunnen an der Mühle zu Toeppendorf bei Strehlen in Schlesien”

Taxon: *Diatoma elongatum* var. *abbreviatum* Rabenhorst 1864a, p. 122

Exsiccatae Number: 1501

Year Distributed: 1863

Locality Information: “Am einem Blumentopfe, melcher in einem Warnhause längere Zeit in einem Napfe mit Wasser gestanden”

Taxon: *Epithemia minuta* Hantzsch in Rabenhorst 1863d

Publication Notes: A description is provided with the exsiccatae.

Exsiccatae Number: 1503a

Year Distributed: 1863

Locality Information: “In einer Cisterne, . . . in dem Chloritschieferfelsen des Franzensberges in Brünn”

Taxon: *Nitzschia dubia* var. *minor* Grunow 1862, p. 568

Exsiccatae Number: 1503a

Year Distributed: 1863

Locality Information: “In einer Cisterne, . . . in dem Chloritschieferfelsen des Franzensberges in Brünn”

Taxon: *Nitzschia constricta* f. *minor* Rabenhorst 1864a, p. 153

Exsiccatae Number: 1561

Year Distributed: 1863

Locality Information: “In dem kalten reissenden Wasser der Aare bei Interlaken”

Taxon: *Synedra frigida* Zeller in Rabenhorst 1863e

Publication Notes: A description is provided with the exsiccatae.

Taxonomic Comments: This name is not included in Van Landingham’s *Catalogue*.

Exsiccatae Number: 1651

Year Distributed: 1864

Locality Information: “Am Ziegenberg bei Husiant [sic ? = Hussinetz] in Schlesien”

Taxon: *Nitzschia bleischi* Janisch in Bleisch 1863, p. 78

Publication Notes: This taxon is illustrated in the exsiccatae.

Taxonomic Comments: Van Landingham (1978a, p. 3019) gives the publication as Rabenhorst “1848–1860”.

Exsiccatae Number: 1700

Year Distributed: 1864

Locality Information: "Dresden"

Taxon: *Pinnularia parvillissima* Krammer 2000

Exsiccatae Number: 1701

Year Distributed: 1864

Locality Information: "In stagnis turfosis propre Neukirch Lusatiae superioris legit M. Rostock"

Taxon: *Cymbella cuspidata f. maxima* Rabenhorst 1864d

Publication Notes: A brief description is provided in Latin. The name was presented originally as *Cymbella cuspidata* var. *naviculiformis* f. *maxima*.

Exsiccatae Numbers: 1711 and 1712

Year Distributed: 1864

Locality Information: "An Pfählen des Hafendammes von Ostende, grüne incrustirende Ueberzüge. Juli 1861. Grunow coll."

Taxon: *Nitzschia incrustans* Grunow 1862, p. 566

Publication Notes: Krammer & Lange-Bertalot (1988, p. 246) discuss the lectotype of this taxon.

Exsiccatae Number: 1716

Year Distributed: 1864

Locality Information: "Incrustirend auf Pflanzenstengeln in Nildelta"

Taxon: *Amphora tumidula* Grunow in Rabenhorst 1864a, p. 175

Publication Notes: A Latin description accompanies the exsiccatae.

Exsiccatae Number: 1718

Year Distributed: 1864

Locality Information: "Timsah See (bittersalzhaltig) bei Ismailia, Nildelta"

Taxon: *Nitzschia schweinfurthii* Grunow in Rabenhorst 1864a, p. 175

Publication Notes: A Latin description and "nov. spec." accompany this name. This is the basionym of *Nitzschia obtusa* var. *schweinfurthii* (Grunow) Grunow in Cleve & Grunow 1880.

Exsiccatae Number: 1725

Year Distributed: 1864

Locality: Austria, "In einem kleinen See am Ufer der Donau im Prater bei Wien"

Taxon: *Surirella gracilis* (W. Smith) Grunow 1862

Publication Notes: See Krammer & Lange-Bertalot (1988, p. 189, plates 136, figures 1–4).

Exsiccatae Number: 1727

Year Distributed: 1864

Locality Information: "Insel Banka (Ostindien)"

Taxon: *Eunotia formica* var. *elongata* Grunow 1865, p. 3

Exsiccatae Number: 1727

Year Distributed: 1864

Locality Information: "Insel Banka (Ostindien)"

Taxon: *Eunotia formica* var. *genuina* Grunow 1865, p. 3

Exsiccatae Number: 1727

Year Distributed: 1864

Locality Information: "Insel Banka (Ostindien)"

Taxon: *Eunotia formica* var. *intermedia* Grunow 1865, p. 3

Exsiccatae Number: 1727

Year Distributed: 1864

Locality Information: "Insel Banka (Ostindien)"

Taxon: *Eunotia formica* var. *bigibba* Grunow 1865, p. 3

Exsiccatae Number: 1727

Year Distributed: 1864

Locality Information: "Insel Banka (Ostindien)"

Taxon: *Eunotia ventricosa* var. *elongata* Grunow 1865, p. 4

Exsiccatae Number: 1727

Year Distributed: 1864

Locality Information: "Insel Banka (Ostindien)"

Taxon: *Eunotia camelus* var. *genuina* Grunow 1865, p. 4

Exsiccatae Number: 1727

Year Distributed: 1864

Locality Information: "Insel Banka (Ostindien)"

Taxon: *Eunotia camelus* var. *didymodon* Grunow 1865, p. 4

Exsiccatae Number: 1727

Year Distributed: 1864

Locality Information: "Insel Banka (Ostindien)"

Taxon: *Eunotia camelus* var. *denticulata* Grunow 1865, p. 4

Exsiccatae Number: 1727 Year Distributed: 1864

Locality Information: "Insel Banka (Ostindien)"

Taxon: *Eunotia indica* Grunow 1865, p. 5

Exsiccatae Number: 1727

Year Distributed: 1864

Locality Information: "Insel Banka (Ostindien)"

Taxon: *Eunotia indica* var. *ventralis* Grunow 1865, p. 5

Exsiccatae Number: 1727

Year Distributed: 1864

Locality Information: "Insel Banka (Ostindien)"

Taxon: *Eunotia major* var. *sexundulata* Grunow 1865, p. 5

Exsiccatae Number: 1727

Year Distributed: 1864

Locality Information: "Insel Banka (Ostindien)"

Taxon: *Eunotia major* var. *undulata* Grunow 1865, p. 16, pl. 1, fig. 8

Exsiccatae Number: 1727

Year Distributed: 1864

Locality Information: "Insel Banka (Ostindien)"

Taxon: *Eunotia major* var. *octoundulata* Grunow 1865, p. 5, pl. 1, fig. 8

Exsiccatae Number: 1727

Year Distributed: 1864

Locality Information: "Insel Banka (Ostindien)"

Taxon: *Eunotia pectinalis* var. *undulata* f. *biundulata* Grunow 1865, p. 4, pl. 1, fig. 5a

Exsiccatae Number: 1727

Year Distributed: 1864

Locality Information: "Insel Banka (Ostindien)"

Taxon: *Eunotia pectinalis* var. *undulata* f. *quadriundulata* Grunow 1865, p. 4 , pl. 1, fig. 5b [PK confirmed]

Exsiccatae Number: 1727

Year Distributed: 1864

Locality Information: "Insel Banka (Ostindien)"

Taxon: *Eunotia pectinalis* var. *undulata* f. *octoundulata* Grunow 1865, p. 4, pl. 1, fig. 5c

Exsiccatae Number: 1727

Year Distributed: 1864

Locality Information: "Insel Banka (Ostindien)"

Taxon: *Desmogonium rabenhorstianum* Grunow 1865, p. 6

Exsiccatae Number: 1727

Year Distributed: 1864

Locality Information: "Insel Banka (Ostindien)"

Taxon: *Encyonema gerstenbergeri* Grunow 1865, p. 9

Exsiccatae Number: 1727

Year Distributed: 1864

Locality Information: "Insel Banka (Ostindien)"

Taxon: *Gomphonema turris* var. *apiculatum* Grunow 1865, p.10

Exsiccatae Number: 1765

Year Distributed: 1865

Locality Information: "In aquis frigidis prope Insbruck"

Taxon: *Odontidium alpinum* A.J. Kerner ex Rabenhorst 1865b

Publication Notes: A Latin description is provided with the exsiccatae.

Exsiccatae Number: 1802

Year Distributed: 1865

Locality Information: "im Brunnentroge des Gehöftes in Sedlitz bei Strehlen"

Taxon: *Cymbella silesiaca* Bleisch in Rabenhorst 1865c.

Publication Notes: A description is provided with the exsiccatae.

Exsiccatae Number: 1804

Year Distributed: 1865

Locality Information: "Westgalizien, Jeziorki bei Chrzanów"

Taxon: *Nitzschia schliephackeana* Grunow ex Rabenhorst 1864a, p. 324

Publication Notes: See also Rabenhorst 1866c, p. 56.

Exsiccatae Number: 1806

Year Distributed: 1865

Locality Information: "Diatomaceen-Erde, Nottingham Maryland, U.S. (Bermuda Tripel aut.)"

Taxon: *Heliopelta ehrenbergii* Eulensteine ex Rabenhorst 1865c

Publication Notes: Though no formal description is offered, reference to previous descriptions, here in the form of three previous descriptions of Ehrenberg, suffice to validate this name. The name is, however, illegitimate inasmuch as Eulensteini should have used one of Ehrenberg's epithets.

Exsiccatae Number: 1891

Year Distributed: 1866

Locality Information: "In fossis humidis sylvae Sebaldianae (Reichsforst) prope Neuhof (Norimbergae) in Franconia"

Taxon: *Nitzschia* [*Nitschia* on exsiccatae label] *franconica* Reinsch in Rabenhorst 1866a

Taxonomic Comments: A Latin description is part of the exsiccatae.

Exsiccatae Number: 1891

Year Distributed: 1866

Locality Information: "In fossis humidis sylvae Sebaldianae (Reichsforst) prope Neuhof (Norimbergae) in Franconia"

Taxon: *Nitzschia* [*Nitschia* on exsiccatae label] *franconica* var. *serpentina* Reinsch in Rabenhorst 1866a

Taxonomic Comments: A Latin description is part of the exsiccatae.

Exsiccatae Number: 1895

Year Distributed: 1866

Locality Information: "in Tuberi fluminis locis leniter fluentibus infra Rubromontum in Franc"

Taxon: *Cocconeis striolata* f. *substriolata* Reinsch in Rabenhorst 1866a

Publication Notes: A description and illustrations accompany the exsiccatae.

Exsiccatae Number: 1912

Year Distributed: 1866

Locality Information: "In per sylvis ductis fossis sempiterne humidis sylvae Sebaldianae (Reichsforst) infra 'Kalkreuth' in Franconia"

Taxon: *Melosira pfaffiana* Reinsch in Rabenhorst 1866b

Publication Notes: A Latin description and illustrations accompany the exsiccatae. See also Reinsch 1866, p. 11.

Exsiccatae Number: 1933

Year Distributed: 1866

Locality Information: "Weisengräben unter Eis bei Eibenstock"

Taxon: *Denticula quadrata* Kuntze in Rabenhorst 1866c

Publication Notes: A description is provided with the exsiccatae.

Taxonomic Comments: This name is not included in Van Landingham's *Catalogue*.

Exsiccatae Number: 1934

Year Distributed: 1866

Locality Information: "einer Bucht des salzigen See's bei Halle"

Taxon: *Amphora bulnheimii* Rabenhorst 1866c

Publication Notes: A brief diagnosis is provided with the exsiccatae.

Exsiccatae Number: 1998

Year Distributed: 1867

Locality Information: "Molér, . . . aus der Insel Mors in nördlichen Jütland"

Taxon: *Triceratium hebergianum* Grunow 1866, p. 145

Taxonomic Comments: Van Landingham (1978b, p. 4047) considers this diatom conspecific with *T. heibergii* Grunow in Van Heurck 1883.

Exsiccatae Number: 1998

Year Distributed: 1867

Locality Information: "Molér, . . . aus der Insel Mors in nördlichen Jütland"

Taxon: *Triceratium jensenianum* Grunow 1866, p. 145

Exsiccatae Number: 1998

Year Distributed: 1867

Locality Information: "Molér, . . . aus der Insel Mors in nördlichen Jütland"

Taxon: *Stephanogonia danica* Grunow 1866, p. 146

Exsiccatae Number: 1998

Year Distributed: 1867

Locality Information: "Molér, . . . aus der Insel Mors in nördlichen Jütland"

Taxon: *Sceptroneis gemmata* Grunow 1866, p. 146

Exsiccatae Number: 2000

Year Distributed: 1867

Locality Information: "von *Sargassum* aus der Rückreife von Neu-Granada"

Taxon: *Podosphenia remulus* Grunow 1867, p. 2

Exsiccatae Number: 2000

Year Distributed: 1867

Locality Information: "von *Sargassum* aus der Rückreife von Neu-Granada"

Taxon: *Asterionella bleakeleyi* var. *notata* Grunow 1867, p. 2

Exsiccatae Number: 2000

Year Distributed: 1867

Locality Information: "von *Sargassum* aus der Rückreife von Neu-Granada"

Taxon: *Synedra undosa* Grunow 1867, p. 4

Exsiccatae Number: 2000

Year Distributed: 1867

Locality Information: "von *Sargassum* aus der Rückreife von Neu-Granada"

Taxon: *Synedra cuneata* Grunow 1867, p. 5

Taxonomic Comment: *Non Synedra cuneata* Ehrenberg 1834

Exsiccatae Number: 2000

Year Distributed: 1867

Locality Information: "von *Sargassum* aus der Rückreife von Neu-Granada"

Taxon: *Striatella intermedia* Grunow 1867, p. 6

Exsiccatae Number: 2000

Year Distributed: 1867

Locality Information: "von *Sargassum* aus der Rückreife von Neu-Granada"

Taxon: *Striatella lindigiana* Grunow 1867, p. 6

Exsiccatae Number: 2000

Year Distributed: 1867

Locality Information: "von *Sargassum* aus der Rückreife von Neu-Granada"

Taxon: *Plagiodiscus* Grunow & Eulensteini in Grunow 1867, p. 8

Publication Notes: This is the original publication of the genus name *Plagiodiscus*.

Exsiccatae Number: 2000

Year Distributed: 1867

Locality Information: "von *Sargassum* aus der Rückreife von Neu-Granada"

Taxon: *Plagiodiscus nervatus* Grunow 1867, p. 8

Exsiccatae Number: 2000

Year Distributed: 1867

Locality Information: "von *Sargassum* aus der Rückreife von Neu-Granada"

Taxon: *Berkeleya fusidium* Grunow 1867, p. 17

Exsiccatae Number: 2000

Year Distributed: 1867

Locality Information: "von *Sargassum* aus der Rückreife von Neu-Granada"

Taxon: *Nitzschia affinis* f. *major* Grunow 1867, p.18

Exsiccatae Number: 2000

Year Distributed: 1867

Locality Information: "von *Sargassum* aus der Rückreife von Neu-Granada"

Taxon: *Nitzschia kolaczekii* Grunow 1867, p.18.

Publication Notes: See also Grunow 1877, p. 173.

Exsiccatae Number: 2000

Year Distributed: 1867

Locality Information: "von *Sargassum* aus der Rückreife von Neu-Granada"

Taxon: *Bacillaria tropica* Grunow 1867, p.19

Exsiccatae Number: 2000

Year Distributed: 1867

Locality Information: "von *Sargassum* aus der Rückreife von Neu-Granada"

Taxon: *Rhoicosigma* Grunow 1867, p. 19

Publication Notes: This is the original publication of the genus name *Rhoicosigma*.

Exsiccatae Number: 2000

Year Distributed: 1867

Locality Information: "von *Sargassum* aus der Rückreife von Neu-Granada"

Taxon: *Rhoicosigma reichardtianum* Grunow 1867, p.19

Taxonomic Comment: This is equivalent to *Rhoicosigma reichardtii* Grunow 1877, p. 181.

Exsiccatae Number: 2000

Year Distributed: 1867

Locality Information: "von *Sargassum* aus der Rückreife von Neu-Granada"

Taxon: *Rhoicosigma reichardtianum* var. *constrictum* Grunow 1877, p. 181.

Exsiccatae Number: 2000

Year Distributed: 1867

Locality Information: "von *Sargassum* aus der Rückreife von Neu-Granada"

Taxon: *Amphora decussata* Grunow 1867, p. 23

Exsiccatae Number: 2000

Year Distributed: 1867

Locality Information: "von *Sargassum* aus der Rückreife von Neu-Granada"

Taxon: *Amphora hemisphaerica* Grunow 1867, p. 24

Exsiccatae Number: 2000

Year Distributed: 1867

Locality Information: "von *Sargassum* aus der Rückreife von Neu-Granada"

Taxon: *Amphora cymbelloides* Grunow 1867, p. 24

Exsiccatae Number: 2000

Year Distributed: 1867

Locality Information: "von *Sargassum* aus der Rückreife von Neu-Granada"

Taxon: *Navicula reticulata* Grunow 1867, p. 26

Exsiccatae Number: 2000

Year Distributed: 1867

Locality Information: "von *Sargassum* aus der Rückreife von Neu-Granada"

Taxon: *Navicula triundulata* Grunow 1867, p. 27

Exsiccatae Number: 2000

Year Distributed: 1867

Locality Information: "von *Sargassum* aus der Rückreife von Neu-Granada"

Taxon: *Schizostauron* Grunow 1867, p. 28

Publication Notes: This is the original publication of the genus name *Schizostauron*.

Exsiccatae Number: 2000

Year Distributed: 1867

Locality Information: "von *Sargassum* aus der Rückreife von Neu-Granada"

Taxon: *Schizostauron lindigianum* Grunow 1867, p. 28

Publication Notes: See also Grunow 1877.

Exsiccatae Number: 2000

Year Distributed: 1867

Locality Information: "von *Sargassum* aus der Rückreife von Neu-Granada"

Taxon: *Licmophora gracilis* var. *borealis* Grunow 1867, p. 34

Taxonomic Comments: This name is actually a new combination for *Rhipidophora borealis* Kützing 1844 and should be presented as *Licmophora gracilis* var. *borealis* (Kützing) Grunow 1867; the Rabenhorst exsiccatae does not appear to be original Kützing material.

Exsiccatae Number: 2000

Year Distributed: 1867

Locality Information: "von *Sargassum* aus der Rückreife von Neu-Granada"

Taxon: *Isthmia lindigiana* Grunow & Eulensteini in Grunow 1867, p. 29

Exsiccatae Number: 2000

Year Distributed: 1867

Locality Information: "von *Sargassum* aus der Rückreife von Neu-Granada"

Taxon: The name was originally offered as "*Triceratium (orbiculatum* Shadbolt?) elongata" Grunow 1867, p. 31. Validly published names from this are *Triceratium elongatum* Grunow 1867 or *Triceratium orbiculatum* var. *elongatum* (Grunow) Grunow 1877

Exsiccatae Number: 2000

Year Distributed: 1867

Locality Information: "von *Sargassum* aus der Rückreife von Neu-Granada"

Taxon: *Licmophora gracilis* var. *constricta* Grunow 1867, p. 34

Exsiccatae Number: 2005

Year Distributed: 1867

Locality Information: "Dives" [= Dives-sur-Mer, in Calvados]

Taxon: *Eupodiscus roperii* Brébisson in Rabenhorst 1867

Publication Notes: A description is provided in the exsiccatae. See also Brébisson 1870, p. 41.

Taxonomic Comments: The name is proposed as "*roperii*" though the correct spelling is "*roperi*."

This a *nomen novum* for *Coscinodiscus ovalis* Roper 1858, required for its transfer to *Eupodiscus* since priority exists for *Eupodiscus ovalis* Norman 1861. The Rabenhorst material does not appear to be original material for any of these names.

Exsiccatae Number: 2012

Year Distributed: 1867

Locality Information: "Sallenelles (Calvados)"

Taxon: *Surirella ovata* var. *marina* Brébisson in Rabenhorst 1867

Publication Notes: A description is provided with the exsiccatae.

Taxonomic Comments: This name is not included in Van Landingham's *Catalogue*.

Exsiccatae Number: 2061

Year Distributed: 1868

Locality Information: "Wiesengraben bei Quartschen"

Taxon: *Cymatopleura marchica* Hermann in Rabenhorst 1868

Publication Notes: A brief description is provided wth the exsiccatae.

Taxonomic Comments: This name is not included in Van Landingham's *Catalogue*.

Exsiccatae Number: 2150

Year Distributed: 1870

Locality Information: "de la baie du M. St. Michel, près d'Avranches"

Taxon: *Amphiprora arenaria* Brébisson in Rabenhorst 1870

Publication Notes: A description is provided with the exsiccatae. Van Landingham (1967, p. 160)

gives question marks next to this name. He attributes it to Rabenhorst, but then indicates "Dec 217 according to Chase in Habirshaw (1885)" and "No. 2150 according to Mills (1934, p. 904)"; the entry actually occurs in Mills 1933, p. 129.

Exsiccatae Number: 2171

Year Distributed: 1870

Locality Information: "Hab. ad plantas submersas Galliae, prope Falaise, imprimis ad folia Sphagnorum [sic]"

Taxon: *Peronia erinacea* Brébisson & Arnott in Kitton 1868, p. 16

Taxonomic Comments: This is a *nomen novum* for *Gomphonema fibula* Brébisson ex Kützing 1849, p. 65 (=*Peronia fibula* (Brébisson ex Kützing) Ross). *Peronia erinacea* is an illegitimate name.

Exsiccatae Number: 2172

Year Distributed: 1870

Locality Information: "Hab. in aquis submarinis Galliae: Dives, Trouville"

Taxon: *Navicula humerosa* Brébisson ex Wm. Smith 1856, p. 93

Exsiccatae Number: 2222

Year Distributed: 1870

Locality Information: "Ad thermas insulae Inarimes (Ischia)"

Taxon: *Denticula elegans* f. *[gamma] valida* Pedicino 1867, p. 7

Publication Notes: No description accompanies the exsiccatae.

Exsiccatae Number: 2261

Year Distributed: 1872

Locality Information: "Meeresgrundprobe, Carral bei Valdivia"

Taxon: *Navicula seminulum* var. *fragilaroides* Grunow in Van Heurck 1880, plate 14, fig. 10

Exsiccatae Number: 2264

Year Distributed: 1872

Locality Information: "Auf Algen beim Leuchtturme von Livorno"

Taxon: *Cocconeis pseudomarginata* var. *intermedia* Grunow 1868, p. 13

Exsiccatae Number: 2264

Year Distributed: 1872

Locality Information: "Auf Algen beim Leuchtturme von Livorno"

Taxon: *Cocconeis pellucida* var. *minor* Grunow 1868, p. 13

Exsiccatae Number: 2312

Year Distributed: 1873

Locality Information: "Calcutta"

Taxon: *Nitzschia kurzeana* Rabenhorst 1873

Publication Notes: A Latin description is provided with the exsiccatae.

Taxonomic Comments: This name is not included in Van Ladingham's *Catalogue*. Reference is given to *N. kurzii* Rabenhorst ex Cleve & Möller #78.

Exsiccatae Number: 2331

Year Distributed: 1873

Locality Information: "Im Felsen am Meeresufer bei Akyab (Haupstadt der Provinz Arracan)"

Taxon: *Podosira kurzii* Zeller 1873, p. 175.

Exsiccatae Number: 2357

Year Distributed: 1873

Locality Information: "Rangoon"

Taxon: *Eunotia kurzeana* Grunow in Möller 1881

Taxonomic Comments: The entry in Rabenhorst (1873) as *Eunotia kurziana* is an invalid name because it was published without a description. Possible orthographic variant of *E. kurzeana* Grunow in Möller 1881.

Exsiccatae Number: 2380

Year Distributed: 1874

Locality Information: "Küste von Japan"

Taxon: *Licmophora divisa* f. *japanica* Rabenhorst 1874

Publication Notes: A brief description accompanies the exsiccatae.

Taxonomic Comments: This name is not included in Van Ladingham's *Catalogue*.

Exsiccatae Number: 2382

Year Distributed: 1874

Locality Information: "Salzwasser Gräben bei Kaschan (Pers. med.)"

Taxon: *Nitzschia* [*Nitzchia* on label] *parvula* f. *elongata-gracilis* Hausknecht in Rabenhorst 1874

Publication Notes: A short description is provided with the exsiccatae.

Taxonomic Comments: This name is not included in Van Lindingham's *Catalogue*.

Exsiccatae Number: 2391

Year Distributed: 1874

Locality Information: "Grundprobe von Whampoa"

Taxon: *Triceratium sinense* Schwarz 1874, p. 163

Exsiccatae Number: 2391

Year Distributed: 1874

Locality Information: "Grundprobe von Whampoa"

Taxon: *Triceratium whampoense* Schwarz 1874, p. 163

Exsiccatae Number: 2481

Year Distributed: 1877

Locality Information: "Vera Cruz (zwischen Sertularien)"

Taxon: *Navicula lobata* Schwarz in Rabenhorst 1877

Publication Notes: A Latin description and illustration are provided with the exsiccatae.

Exsiccatae Number: 2483

Year Distributed: 1877

Locality Information: "Vera Cruz"

Taxon: *Navicula splendens* Schwarz in Rabenhorst 1877

Publication Notes: A description is provided with the exsiccatae. This taxon is illustrated in the materials accompanying No. 2481.

Taxonomic Comments: This name is not listed in Van Lindingham's *Catalogue*

Exsiccatae Number: 2560

Year Distributed: 1878

Locality Information: "vom Mathuri-Pass auf Neu-Zeeland, c. 3000; hoch . . . "

Taxon: *Amphora berggrenii* Cleve 1881, p. 4

Invalidly Published Names

Exsiccatae Number: 1041

Year Distributed: 1861

Locality Information: "Dresden, im artefischen Brunnen"

Taxon: *Fragilaria hantzschiana* Gerstenberger in Rabenhorst 1861b

Publication Notes: Exsiccatae lacks a description.

Exsiccatae Number: 1249

Year Distributed: 1862

Locality Information: "Mitteloppaquelle auf dem Leiterberg im Gesenke (Mähren)"

Taxon: *Melosira distans* f. *articulis longioribus* Rabenhorst 1862a

Taxonomic Comments: Name not in Van Lindingham's *Catalogue*. No description or illustration associated with the exsiccatae. It is not clear whether Rabenhorst intended this to be a new taxon.

Exsiccatae Number: 1489

Year Distributed: 1863

Locality Information: "Brunnen bei Weisselwitz bei Strehlen"

Taxon: *Amphora abbreviata* Bleisch in Rabenhorst 1864a, p. 55

Publication Notes: No description provided or reference to previous descriptions with exsiccatae.

Van Landingham's *Catalogue* (1967, p. 187) considers this name validly published in the exsiccatae, but no description and/or illustration is provided.

Exsiccatae Number: 1700

Year Distributed: 1864

Locality Information: "Dresden"

Taxon: *Pinnularia gibba* f. *minor* Rabenhorst 1864b

Exsiccatae Number: 1727

Year Distributed: 1864

Locality Information: "Insel Banka (Ostindien)"

Taxon: *Eunotia pectinalis* var. *undulata* f. *triundulata* Grunow 1865, p. 4

Exsiccatae Number: 1727

Year Distributed: 1864

Locality Information: "Insel Banka (Ostindien)"

Taxon: *Eunotia pectinalis* var. *undulata* f. *quinqueundulata* Grunow 1865, p. 4

Exsiccatae Number: 1727

Year Distributed: 1864

Locality Information: "Insel Banka (Ostindien)"

Taxon: *Eunotia pectinalis* var. *undulata* f. *septemundulata* Grunow 1865, p. 4

Exsiccatae Number: 1727

Year Distributed: 1864

Locality Information: "Insel Banka (Ostindien)"

Taxon: *Eunotia pectinalis* var. *undulata* f. *novemundulata* Grunow 1865, p. 4

Exsiccatae Number: 1727

Year Distributed: 1864

Locality Information: "Insel Banka (Ostindien)"

Taxon: *Eunotia pectinalis* var. *undulata* f. *sexundulata* Grunow 1865, p. 4

Exsiccatae Number: 1727

Year Distributed: 1864

Locality Information: "Insel Banka (Ostindien)"

Taxon: *Gomphonema dichotomum* var. *affine* f. *minor* Grunow 1865, p. 10

Exsiccatae Number: 1954

Year Distributed: 1867

Locality Information: "In den Torfgruben von Jentendorf und Quitzdorf, Kr. Rothenburg"

Taxon: *Frustulia saxonica* f. *turfacea* Hilse

Publication Notes: No description, illustrations or reference to other descriptions are provided with the exsiccatae.

Taxonomic Comments: Van Landingham (1971, p. 1848) equates this taxon with *Frustulia turfacea* A. Braun in Rabenhorst 1853, p. 50, yet no such relationship is indicated on the label exsiccatae number 1954.

Exsiccatae Number: 2025

Year Distributed: 1867

Locality Information: "Falaise"

Taxon: *Synedra lunaris* var. *elongata* Brébisson in Rabenhorst

Taxonomic Comments: This name is not included in Van Ladingham's *Catalogue*.

Publication Notes: No description is provided in the exsiccatae.

Exsiccatae Number: 2213

Year Distributed: 1870

Locality Information: "Eisenbahn-Ausstich bei Breslau"

Taxon: *Achnanthidium lanceolatum* var. *major* Rabenhorst 1870

Publication Notes: No description accompanies the exsiccatae.

Taxonomic Comments: This name is not included in Van Ladingham's *Catalogue*.

Exsiccatae Number: 2223

Year Distributed: 1870

Locality Information: "Ad algas majores maris Neapolitani circa insulan Caprearum"

Taxon: *Cocconeis parthenopaea* N.A. Pedicino in Rabenhorst 1870.

Publication Notes: No description accompanying the exsiccatae.

Exsiccatae Number: 2234

Year Distributed: 1870

Locality Information: "An der Ems unweit Emden"

Taxon: *Berkeleya dillwynii* var. *sericeum* Eiben in Rabenhorst 1870

Publication Notes: No description accompanies the exsiccatae.

Taxonomic Comments: This name is not included in Van Ladingham's *Catalogue*.

Exsiccatae Number: 2263

Year Distributed: 1872

Locality Information: "An der Küste der Insel S. Paul in der Südsee, Expedition Novara"

Taxon: *Cocconeis grevillei* var. *minor* Grunow in Rabenhorst 1872

Publication Notes: No description accompanies the exsiccatae.

Exsiccatae Number: 2353

Year Distributed: 1873

Locality Information: "Calcutta, Balliaghatta Canal und saltlakes"

Taxon: *Nitzschia obtusa* var. *kurziana* Rabenhorst 1873

Taxonomic Comments: This name is not included in Van Ladingham's *Catalogue*.

Exsiccatae Number: 2353

Year Distributed: 1873

Locality Information: "Calcutta, Balliaghatta Canal und saltlakes"

Taxon: *Navicula calcuttensis* Grunow in Rabenhorst 1873

Exsiccatae Number: 2353

Year Distributed: 1873

Locality Information: "Calcutta, Balliaghatta Canal und saltlakes"

Taxon: *Pleurosigma kurzianum* Grunow in Rabenhorst 1873

Taxonomic Comments: This name is not included in Van Ladingham's *Catalogue*.

Exsiccatae Number: 2358

Year Distributed: 1873

Locality Information: "Rangoon-lake"

Taxon: *Nitzschia rangoonensis* Grunow

Publication Notes: No description accompanies the exsiccatae. Label is printed as 2558.

Taxonomic Comments: This name is not included in Van Landingham's *Catalogue*.

Exsiccatae Number: 2551

Year Distributed: 1878

Locality Information: "Quilly-Le-Vicomte (France) Dr. Ch. Manoury"

Taxon. *Nitzschia palea* f. *curta* Grunow

Publication Notes: Van Landingham (1978, p. 3089) indicates this name is published in Cleve &

Möller 1878, No. 124, but this name is invalidly published in that exsiccatae set because it lacks
a description.

PART 2. TAXONOMIC NAME REGISTER

(A) VALIDLY PUBLISHED NAMES

Taxon Name	Exsiccatae	Taxon Name	Exsiccatae
<i>Achnanthidium jackii</i> Rabenhorst	1003	<i>Epithemia minuta</i> Hantzsch	1501
<i>Achnanthidium lanceolatum</i> var. <i>major</i> Rabenhorst	2213	<i>Epithemia rabenhorstii</i> Wartmann	1088
<i>Achnanthidium thermale</i> Rabenhorst	561	<i>Epithemia zebra</i> var. <i>intermedia</i> Wartmann	1089
<i>Amphiprora arenaria</i> Brébisson	2150	<i>Eunotia camelus</i> var. <i>denticulata</i> Grunow	1727
<i>Amphitetas cruciata</i> Janisch & Rabenhorst	1481	<i>Eunotia camelus</i> var. <i>didymodon</i> Grunow	1727
<i>Amphitetas parvula</i> Janisch & Rabenhorst	1481	<i>Eunotia camelus</i> var. <i>genuina</i> Grunow	1727
<i>Amphora berggrenii</i> Cleve	560	<i>Eunotia formica</i> var. <i>bigibba</i> Grunow	1727
<i>Amphora bulnheimii</i> Rabenhorst	1934	<i>Eunotia formica</i> var. <i>elongata</i> Grunow	1727
<i>Amphora cymbelloides</i> Grunow	2000	<i>Eunotia formica</i> var. <i>genuina</i> Grunow	1727
<i>Amphora decussata</i> Grunow	2000	<i>Eunotia formica</i> var. <i>intermedia</i> Grunow	1727
<i>Amphora hemisphaerica</i> Grunow	2000	<i>Eunotia indica</i> Grunow	1727
<i>Amphora ovalis</i> f. <i>nana</i> Rabenhorst	765	<i>Eunotia indica</i> var. <i>ventralis</i> Grunow	1727
<i>Amphora tumidula</i> Grunow	1716	<i>Eunotia kurzeana</i> Grunow in Möller	2357
<i>Asterionella bleakeleyi</i> var. <i>notata</i> Grunow	2000	<i>Eunotia major</i> var. <i>undulata</i> Grunow	1727
<i>Bacillaria tropica</i> Grunow	2000	<i>Eunotia major</i> var. <i>sexundulata</i> Grunow	1727
<i>Berkeleya fusidium</i> Grunow	2000	<i>Eunotia major</i> var. <i>octoundulata</i> Grunow	1727
<i>Campylodiscus punctatus</i> Bleisch	811	<i>Eunotia minutula</i> Hilse	1167
<i>Campylodiscus rabenhorstianus</i> Janisch & Rabenhorst	1481	<i>Eunotia pectinalis</i> var. <i>bifundulata</i> Grunow	1727
<i>Climacosphenia indica</i> Hantzsch	1403	<i>Eunotia pectinalis</i> var. <i>undulata</i> f. <i>triundulata</i> Grunow	1727
<i>Climacosphenia linearis</i> Janisch & Rabenhorst	1481	<i>Eunotia pectinalis</i> var. <i>undulata</i> f. <i>octoundulata</i> Grunow	1727
<i>Coccneis flexella</i> Janisch & Rabenhorst	1481	<i>Eunotia ventricosa</i> var. <i>elongata</i> Grunow	1727
<i>Coccneis heteroidea</i> Hantzsch	1403	<i>Eupodiscus minutus</i> Hantzsch	1403
<i>Coccneis kirchenpaueriana</i> Janisch & Rabenhorst	1481	<i>Eupodiscus roperi</i> Brébisson	2005
<i>Coccneis pellucida</i> var. <i>minor</i> Grunow	2264	<i>Falcatella zelleri</i> Rabenhorst	561
<i>Coccneis pseudomarginata</i> var. <i>intermedia</i> Grunow	2264	<i>Fragilaria mesolepta</i> Rabenhorst	1041
<i>Coccneis striolata</i> f. <i>substriolata</i> Reinsch	1895	<i>Fragilaria undulata</i> Cramer	1441
<i>Cocconema nanum</i> Hantzsch	1321	<i>Frustulia torfacea</i> A. Braun ex Rabenhorst	761
<i>Cocconema pachycephalum</i> Rabenhorst	1107	<i>Gomphonema rupestre</i> (Kützing) A. Braun ex Rabenhorst	624
<i>Cocconema variabile</i> Cramer	1246	<i>Gomphonema capitatum</i> var. <i>gracile</i> Rabenhorst	743
<i>Cyclotella dubia</i> Hilse	1022	<i>Gomphonema turris</i> var. <i>apiculatum</i> Grunow	1727
<i>Cyclotella hilseana</i> Rabenhorst	1022	<i>Helioptela ehrenbergii</i> Eulensteine	1806
<i>Cylindrotheca</i> Rabenhorst	801	<i>Himantidium dilatatum</i> Wigand	688
<i>Cylindrotheca gerstenbergeri</i> Rabenhorst	801	<i>Himantidium striatum</i> Wigand	1046
<i>Cymatopleura marchica</i> Herrmann	2061	<i>Homeocladia bulnheimiana</i> Rabenhorst	1301
<i>Cymatopleura nobilis</i> Hantzsch	1201	<i>Homeocladia dufourii</i> DeNotaris in DeNotaris & Baglietto	1386
<i>Cymbella cuspidata</i> f. <i>maxima</i> Rabenhorst	1701	<i>Isthmia lindigiana</i> Grunow & Eulensteine	2000
<i>Cymbella elegans</i> Cramer	1441	<i>Licmophora divisa</i> f. <i>japonica</i> Rabenhorst	2380
<i>Cymbella hantzschiana</i> Krammer	1107	<i>Licmophora gracilis</i> f. <i>constricta</i> Grunow	2000
<i>Cymbella helvetica</i> f. <i>silesiaca</i> Rabenhorst	604	<i>Licmophora gracilis</i> f. <i>borealis</i> Grunow	2000
<i>Cymbella lunula</i> (Ehrenberg) Rabenhorst	1166	<i>Mastogloia interrupta</i> Hantzsch	1403
<i>Cymbella maculata</i> var. <i>major</i> Rabenhorst	1166	<i>Melosira pfaffiana</i> Reinsch	1912
<i>Cymbella minuta</i> Hilse	1261	<i>Melosira roeleana</i> Rabenhorst	383
<i>Cymbella naviculiformis</i> Auerswald ex Heiberg	1065	<i>Navicula bleischiana</i> Janisch & Rabenhorst	1481
<i>Cymbella silesiaca</i> Bleisch	1802	<i>Navicula humerosa</i> Brébisson in Wm. Smith	2172
<i>Cymbella variabilis</i> Wartmann	803	<i>Navicula janischiana</i> Rabenhorst	1481
<i>Cymbella vulgata</i> Krammer	1246	<i>Navicula lobata</i> Schwarz	2481
<i>Denticella ventricosa</i> Janisch & Rabenhorst	1481	<i>Navicula macrogongyla</i> Rabenhorst	947
<i>Denticula elegans</i> var. <i>valida</i> Pedicino	2222	<i>Navicula major</i> var. <i>crassa</i> Brébisson	683
<i>Denticula quadrata</i> Kuntze	1933	<i>Navicula marina</i> Janisch & Rabenhorst	1481
<i>Desmogonium rabenhorstianum</i> Grunow in Rabenhorst	1727	<i>Navicula nodosa</i> f. <i>curta</i> Rabenhorst	841
<i>Diatoma elongatum</i> var. <i>abbreviatum</i> Rabenhorst	1492	<i>Navicula reinickeana</i> Rabenhorst	802
<i>Diatoma gracillimum</i> Hantzsch	1104	<i>Navicula reticulata</i> Grunow	2000
<i>Encyonema auerswaldii</i> Rabenhorst	1385	<i>Navicula rotundata</i> Hantzsch	1283
<i>Encyonema gerstenbergeri</i> Grunow	1727	<i>Navicula seminulum</i> var. <i>fragilaroides</i> Grunow	2261
<i>Encyonema maximum</i> Wartmann	1248	<i>Navicula splendens</i> Schwarz	2483
<i>Encyonema prostratum</i> f. <i>helvetica-robustior</i> Rabenhorst	958	<i>Navicula triundulata</i> Grunow	2000
<i>Epithemia goeppertiana</i> Hilse	1021	<i>Nitzschia affinis</i> f. <i>major</i> Grunow	2000
<i>Epithemia intermedia</i> Hilse	1026	<i>Nitzschia arcus</i> Bulnheim	781

Taxon Name	Exsiccatae	Taxon Name	Exsiccatae
<i>Nitzschia bleischi</i> Janisch	1651	<i>Podosphenia remulus</i> Grunow	2000
<i>Nitzschia clausii</i> Hantzsch	944	<i>Rhoicosigma</i> Grunow	2000
<i>Nitzschia communis</i> Rabenhorst	949	<i>Rhoicosigma reichardtianum</i> Grunow	2000
<i>Nitzschia constricta</i> f. <i>minor</i> Rabenhorst	1503	<i>Rhoicosigma reichardtianum</i> var. <i>constrictum</i> Grunow	2000
<i>Nitzschia dubia</i> var. <i>minor</i> Grunow	1503	<i>Sceptroneis gemmata</i> Grunow	1998
<i>Nitzschia formica</i> Hantzsch	1403	<i>Schizostauros</i> Grunow	2000
<i>Nitzschia franconica</i> Reinsch	1891	<i>Schizostauros lindigianum</i> Grunow	2000
<i>Nitzschia franconica</i> var. <i>serpentina</i> Reinsch	1891	<i>Sphenella naviculoides</i> Hantzsch	1322
<i>Nitzschia gracilis</i> Hantzsch	946	<i>Stauroneis anceps</i> f. <i>gracilis</i> Rabenhorst	1268
<i>Nitzschia hantzschiana</i> Rabenhorst	943	<i>Stauroneis cohnii</i> Hilse	962
<i>Nitzschia incrassata</i> Grunow	1711 (1712)	<i>Stauroneis goeppertiae</i> Bleisch	1183
<i>Nitzschia kolaczekii</i> Grunow	2000	<i>Stauroneis janischii</i> Rabenhorst	848
<i>Nitzschia kurzeana</i> Rabenhorst	2312	<i>Stauroneis rotaeana</i> Rabenhorst	505
<i>Nitzschia kuttingiana</i> Hilse	1267	<i>Stauroneis undulata</i> Hilse	963
<i>Nitzschia media</i> Hantzsch	945	<i>Stauropelta truncata</i> Rabenhorst	812
<i>Nitzschia minuta</i> Bleisch	950	<i>Stephanogonia danica</i> Grunow	1998
<i>Nitzschia parvula</i> f. <i>elongata-gracilis</i> Hausknecht	2382	<i>Striatella intermedia</i> Grunow	2000
<i>Nitzschia perpusilla</i> Rabenhorst	1164	<i>Striatella lindigiana</i> Grunow	2000
<i>Nitzschia recta</i> Hantzsch	1283	<i>Surirella crumena</i> Brébisson ex Kutzing	1381
<i>Nitzschia schliephackeana</i> Grunow	1804	<i>Surirella diaphana</i> Bleisch	1489
<i>Nitzschia schweinfurthii</i> Grunow	1718	<i>Surirella gracilis</i> Grunow	1725
<i>Nitzschia stagnorum</i> Rabenhorst	625	<i>Surirella intermedia</i> Rabenhorst	642
<i>Nitzschia thermalis</i> var. <i>minor</i> Hilse	1266	<i>Surirella ovata</i> var. <i>intermedia</i> Rabenhorst	642
<i>Nitzschia tryblionella</i> Hantzsch	984	<i>Surirella ovata</i> var. <i>marina</i> Brébisson	2012
<i>Nitzschia tumida</i> Hantzsch	1114	<i>Surirella saxonica</i> Auerswald	1421
<i>Odontidium alpinum</i> A.J. Kerner	1765	<i>Surirella suevica</i> Zeller	1045
<i>Odontidium hiemale</i> f. <i>rotundata</i> Rabenhorst	1084	<i>Surirella thuringiacea</i> Hantzsch	1208
<i>Odontidium rotundatum</i> Rabenhorst	1084	<i>Synedra aggregata</i> Brébisson ex Rabenhorst	687
<i>Peronia erinaceae</i> Brébisson & Arnott	2171	<i>Synedra amphirhynchus</i> var. <i>undulata</i> Rabenhorst	1323
<i>Pinnularia falaiseana</i> Krammer	611	<i>Synedra arcuata</i> Wigand	1046
<i>Pinnularia gibba</i> var. <i>curta</i> Bleisch	951	<i>Synedra bicurvata</i> Biene	1405
<i>Pinnularia hilseana</i> Janisch	953	<i>Synedra campyla</i> Hilse	1024
<i>Pinnularia medioconstricta</i> Bleisch	952	<i>Synedra cuneata</i> Grunow	2000
<i>Pinnularia ovalis</i> Hilse	1025	<i>Synedra formosa</i> Hantzsch	1403
<i>Pinnularia parvillissima</i> Krammer	1700	<i>Synedra frigida</i> Zeller	1561
<i>Pinnularia peracuminata</i> Krammer	1106	<i>Synedra gomphonema</i> Janisch & Rabenhorst	1481
<i>Pinnularia rabenhorstii</i> Hilse	842	<i>Synedra interrupta</i> Auerswald	403
<i>Pinnularia rupestris</i> Hantzsch	1203	<i>Synedra pulcherrima</i> Hantzsch	1403
<i>Pinnularia silesiaca</i> Bleisch in Fresenius	954	<i>Synedra splendens</i> var. <i>interrupta</i> Rabenhorst	403
<i>Pinnularia sudetica</i> Hilse	1023	<i>Synedra undosa</i> Grunow	2000
<i>Pinnularia viridis</i> var. <i>coerulescens</i> Hilse	1263	<i>Tessella hyalina</i> Janisch & Rabenhorst	1481
<i>Pinnularia viridula</i> (Kützing) Rabenhorst	682b	<i>Toxarium rostratum</i> Hantzsch	1403
<i>Plagiodiscus</i> Grunow & Eulensteini	2000	<i>Triceratium (orbiculatum Shadbold?) elongatum</i> Grunow	2000
<i>Plagiodiscus nervatus</i> Grunow	2000	<i>Triceratium heibergianum</i> Grunow	1998
<i>Pleurosigma gracilentum</i> Rabenhorst	1066	<i>Triceratium jensenianum</i> Grunow	1998
<i>Pleurosigma scalpoides</i> Rabenhorst	1101	<i>Triceratium sinense</i> Schwarz	2391
<i>Pleurostauros lineare</i> Hilse	1161	<i>Triceratium whampoense</i> Schwarz	2391
<i>Podosira kurzii</i> Zeller	2331		

(B) INVALID NAMES

Taxon Name	Exsiccatae	Taxon Name	Exsiccatae
<i>Achnanthidium lanceolatum</i> var. <i>major</i> Rabenhorst	2213	<i>Frustulia saxonica</i> f. <i>turfacea</i> Hilse	1954
<i>Amphora abbreviata</i> Bleisch in Rabenhorst	1489	<i>Gomphonema dichotomum</i> var. <i>affine</i> f. <i>minor</i> Grunow	1727
<i>Berkeleya dillwynii</i> var. <i>sericeum</i> Eiben	2234	<i>Melosira distans</i> f. <i>articulis-longioribus</i> Rabenhorst	1249
<i>Cocconeis grevillei</i> var. <i>minor</i> Grunow	2263	<i>Navicula calcutensis</i> Grunow	2353
<i>Cocconeis parthenopaea</i> Pedicino	2223	<i>Nitzschia obtusa</i> var. <i>kurziana</i> Rabenhorst	2353
<i>Eunotia pectinalis</i> var. <i>undulata</i> f. <i>quinqeundulata</i> Grunow	1727	<i>Nitzschia palea</i> f. <i>curta</i> Grunow	2551
<i>Eunotia pectinalis</i> var. <i>undulata</i> f. <i>septemundulata</i> Grunow	1727	<i>Nitzschia rangoonensis</i> Grunow	2358
<i>Eunotia pectinalis</i> var. <i>undulata</i> f. <i>novemundulata</i> Grunow	1727	<i>Peronia erinacea</i> Brébisson & Arnott in Kitton	2171
<i>Eunotia pectinalis</i> var. <i>undulata</i> f. <i>quadriundulata</i> Grunow	1727	<i>Pinnularia gibba</i> f. <i>minor</i> Rabenhorst	1700
<i>Eunotia pectinalis</i> var. <i>undulata</i> f. <i>sexundulata</i> Grunow	1727	<i>Pleurosigma kurzianum</i> Grunow	2353
<i>Fragilaria hantzschiana</i> Gerstenberger	1041	<i>Synedra lunaris</i> var. <i>elongata</i> Brébisson	2025

PART 3. TAXONOMIC STATUS OF NAMES PRESENTED AS
NEW OR TYPIFIED IN RABENHORST EXSICCATAE

Achnanthidium jackii Rabenhorst 1861a, no. 1003. The name is also proposed in Rabenhorst 1864a, p. 106, but the description differs significantly from the exsiccatae that two separate species might be described under the same name from the same material.

Achnanthidium jackii Rabenhorst 1864a, p. 106. The name is also proposed in Rabenhorst 1861, no. 1003, but the description differs significantly from that of 1864 that two separate species might be described under the same name from the same material. Later homonym.

Achnanthidium lanceolatum var. *major* Rabenhorst 1870, no. 2213. Invalidly published name. No description.
Achnanthidium thermale Rabenhorst 1864a, p. 107.

Amphiprora arenaria Brébisson in Rabenhorst 1870, no. 2150.

Amphitetras cruciata Janisch & Rabenhorst 1863, p. 4; pl. 1, fig. 5.

Amphitetras parvula Janisch & Rabenhorst 1863, p. 4; pl. 1, fig. 4.

Amphora abbreviata Bleisch in Rabenhorst 1863c, no. 1489. Invalidly published name. No description.

Amphora berggrenii Cleve 1881, p. 4, pl. 4, fig. 3. Name (with no description) in Cleve & Möller 1878, no. 90, and in Rabenhorst 1878, no. 2560.

Amphora bulnheimii Rabenhorst 1866c, no. 1934.

Amphora cymbelloides Grunow 1867, p. 24.

Amphora decussata Grunow 1867, p. 23.

Amphora hemisphaerica Grunow 1867, p. 24.

Amphora ovalis f. *nana* Rabenhorst 1864a, p. 92. In index p. 327 as "var. *nana*".

Amphora tumidula Grunow in Rabenhorst 1864a, p. 175. Also described in no. 1716 (Rabenhorst 1864d).

Asterionella bleakeleyi var. *notata* Grunow 1867, p. 2.

Bacillaria tropica Grunow 1867, p. 19 (as *Bacillaria (paradoxa* var.? *) tropica*).

Berkeleya dillwynii var. *sericeum* Eiben in Rabenhorst 1870, no. 2234. Invalidly published name. No description.

Berkeleya fusidium Grunow 1867, p. 17.

Campylodiscus punctatus Bleisch 1860, p. 29; pl. 5, figs. 1–6.

Campylodiscus rabenhorstianus Janisch in Janisch & Rabenhorst 1863, p. 6; pl. 1, figs. 6–7. Illeg. Nom. superfluous (*C. ecclesianus* Greville and *C. fenestratus* Greville listed as synonyms).

Campylodiscus rabenhorstii Janisch ex Grunow 1862, p. 435. Also in Rabenhorst 1863a, p. 6, as *Campylodiscus rabenhorstianus* Janisch & Rabenhorst.

Climacosphenia indica Hantzsch in Rabenhorst 1863a, p. 18; pl. 5, fig. 1.

Climacosphenia linearis Janisch & Rabenhorst 1863, p. 6; pl. 2, fig. 2.

Cocconeis flexella Janisch & Rabenhorst 1863, p. 7; pl. 1, fig. 11.

Cocconeis grevillei var. *minor* Grunow ex Rabenhorst 1872, no. 2263. Invalidly published name. No description.

Cocconeis heteroidea Hantzsch in Rabenhorst 1863, p. 21; pl. 6 A, fig. 10.

Cocconeis kirchenpauperiana Janisch & Rabenhorst 1863, p. 7; pl. 1, fig. 9.

Cocconeis parthenopoea Pedicino in Rabenhorst 1870, no. 2223. Inv.

Cocconeis pellucida var. *minor* Grunow 1868, p. 13; pl. 1, fig. 7.

Cocconeis pseudomarginata var. *intermedia* Grunow 1868, p. 13; pl. 1, fig. 6.

Cocconeis striolata f. *substriolata* P. Reinsch in Rabenhorst 1866a, no. 1895. Description and illustration with exsiccatae. See also Reinsch 1866, p. 150.

Cocconema nanum Hantzsch in Rabenhorst 1862e, no. 1321.

Cocconema pachycephalum Rabenhorst 1861d, no. 1107, [4] figs.

Cocconema variabile Cramer in Rabenhorst 1862a, no. 1246.

Cyclotella dubia Hilse in Rabenhorst 1861a, no. 1022. Description also in Hilse 1860, p. 79.

Cyclotella hilseana Rabenhorst 1864a, p. 33. New name for *Cyclotella dubia* Hilse in Rabenhorst 1861.

Cylindrotheca Rabenhorst 1859a, no. 801.

Cylindrotheca gerstenbergeri Rabenhorst 1859a, no. 801.

Cymatopleura marchica Hermann in Rabenhorst 1868, no. 2061.

Cymatopleura nobilis Hantzsch 1860a, p. 36. Illustration in Rabenhorst 1861h, no. 1201.

Cymbella cuspidata f. *maxima* Rabenhorst 1864d, no. 1701.

Cymbella cuspidata f. *maxima* Rabenhorst 1868, p. 414 (as [*Cymbella cuspidata* var. *naviculiformis*] f. *maxima*). Name previously published as *Cymbella cuspidata* f. *maxima* in Rabenhorst 1864d, no. 1701.

Cymbella cuspidata var. *naviculiformis* (Auerswald in Rabenhorst) Rabenhorst 1864a, p. 78. Basionym: *Cymbella naviculiformis* Auerswald in Rabenhorst 1861b.

Cymbella elegans Cramer in Rabenhorst 1863a, p. 65.

Cymbella hantzschiana Krammer 2002, p. 47.

Cymbella helvetica f. *silesiaca* Rabenhorst 1857a, no. 604.

Cymbella lunula (Ehrenberg) Rabenhorst 1853, p. 23; pl. 7, fig. 11. Basionym: *Cocconema lunula* Ehrenberg 1843.

Cymbella maculata var. *major* Rabenhorst 1864a, p. 80. Rabenhorst cites as a synonym: "Cymbella lunula" Hilse in Rabenhorst Alg. no. 1166". Previously identified by Rabenhorst as *Cymbella lunula* (Ehr.) Rabenhorst in no. 1166 (1861).

Cymbella minuta Hilse in Rabenhorst 1862b, no. 1261.

Cymbella naviculiformis Auerswald in Rabenhorst 1861b, no. 1065. Invalidly published name. No description.

Cymbella naviculiformis Auerswald ex Heiberg 1863, p. 108; pl. 1, fig. 2.

Cymbella silesiaca Bleisch in Rabenhorst 1865c, no. 1802.

Cymbella variabilis Wartmann in Rabenhorst 1859a, no. 803.

Cymbella vulgata Krammer 2002, p. 55.

Denticella ventricosa Janisch & Rabenhorst 1863, p. 8; pl. 2, fig. 11.

Denticula elegans var. *valida* Pedicino 1867, p. 7; pl. 1, figs. 42–45.

Denticula quadrata Kuntze in Rabenhorst 1866c, no. 1933.

Desmogonium rabenhorstianum Grunow 1865, p. 6; pl. 1, fig. 1.

Diatoma elongatum var. *abbreviatum* Rabenhorst 1864a, p. 122. (= *Diatoma elongatum* v. 'gamma' Smith 1856).

Diatoma gracillimum Hantzsch in Rabenhorst 1861d, no. 1104b + figs. a–b ('gracillimum')

Encyonema auerswaldii Rabenhorst 1853, p. 24; pl. 7, *Encyonema* : fig. 2.

Encyonema gerstenbergeri Grunow 1865, p. 9; pl. 1, fig. 11.

Encyonema maximum Wartmann ex Rabenhorst 1862a, no. 1248.

Encyonema prostratum f. *helvetica-robustior* Rabenhorst 1860b, no. 958.

Epithemia goeppertiana Hilse 1860, p. 79 (Göppertiana). Also in Rabenhorst 1861, no. 1021.

Epithemia göppertiana Hilse in Rabenhorst 1861, no. 1021.

Epithemia intermedia Hilse 1860, p. 76. Also described in exsiccatae no. 1026a (Rabenhorst 1861).

Epithemia intermedia Hilse in Rabenhorst 1861, no. 1026a.

Epithemia intermedia Wartmann in Rabenhorst 1861c, no. 1089. Error cit. for *Epithemia zebra* var. *intermedia* Wartmann in Rabenhorst.

Epithemia minuta Hantzsch in Rabenhorst 1863d, no. 1501.

Epithemia rabenhorstii Wartmann in Rabenhorst 1861c, no. 1088.

Epithemia zebra var. *intermedia* Wartmann in Rabenhorst 1861c, no 1089.

Eunotia camelus var. *denticulata* Grunow 1865, p. 4; pl. 1, fig. 6d. Listed in Van Landingham's *Catalogue* (1969) as a new combination of *Himanthidium denticulatum* Brébisson in Kützing. Treated here as the name of a new species because Grunow expressed doubt (query) regarding the synonymy.

Eunotia camelus var. *didymodon* Grunow 1865, p. 4; pl. 1, fig. 6c (as *Eunotia camelus* var. 'beta' *didymodon*).

Eunotia camelus var. *genuina* Grunow 1865, p. 4; pl. 1, figs. 6a–b (as *Eunotia camelus* Ehrenb. var. 'alpha' *genuina*).

Eunotia formica var. *bigibba* Grunow 1865, p. 3; pl. 1, figs. 2f–g (as *Eunotia formica* var. 'delta' *bigibba*).

Eunotia formica var. *elongata* Grunow 1865, p. 3; pl. 1, figs. 2a–b (as *Eunotia formica* Ehr. var. 'alpha' *elongata*).

Eunotia formica var. *genuina* Grunow 1865, p. 3; pl. 1, figs. 2c–d (as *Eunotia formica* var. 'beta' *genuina*).

Eunotia formica var. *intermedia* Grunow 1865, p. 3; pl. 1, fig. 2e (as *Eunotia formica* var. 'gamma' *intermedia*).

Eunotia indica Grunow 1865, p. 5; pl. 1, figs. 7a–b.

Eunotia indica var. *ventralis* Grunow 1865, p. 5; pl. 1, fig. 7c (as *Eunotia indica* var. 'beta' *ventralis*).

Eunotia kurzeana Grunow in Möller 1881, Typ. pl. 1.2.2.

Eunotia kurziana Grunow in Rabenhorst 1873, no. 2357. Invalidly published name. No description. Probable orthographic variant of *Eunotia kurzeana* Grunow.

Eunotia kurziana Grunow in Cleve & Möller 1878, no. 129. Invalidly published name. No description.

Eunotia major var. *octoundulata* Grunow 1865, p. 5; pl. 1, fig. 8. Illustrated as *Eunotia major* var. *undulata*.

Eunotia major var. *sexundulata* Grunow 1865, p. 5. Invalidly published name. No description. See *Eunotia major* var. *undulata* Grunow 1865.

Eunotia major var. *undulata* Grunow 1865, p. 16; pl. 1, fig. 8, p. 5. Described in text p. 5 as var. *sexundulata* and var. *octundulata*.

Eunotia minuta Hilse in Rabenhorst 1861f, no. 1167.

Eunotia minuta Hilse 1860, p. 79. See also Rabenhorst 1861, no. 1167.

Eunotia pectinalis f. *biundulata* Grunow 1865, p. 4; pl. 1, fig. 5a (as *Eunotia pectinalis* var. *undulata* f. *biundulata*). Invalidly published name. No description.

Eunotia pectinalis f. *octoundulata* Grunow 1865, p. 4; pl. 1, fig. 5c (as *Eunotia pectinalis* var. *undulata* f. *octoundulata*). Invalidly published name. No description.

Eunotia pectinalis f. *quadriundulata* Grunow 1865, p. 4; pl. 1 (as *Eunotia pectinalis* var. *undulata* f. *quadriundulata*). Invalidly published name. No description.

Eunotia pectinalis f. *quinceundulata* Grunow 1865, p. 4 (as *Eunotia pectinalis* var. *undulata* f. *sexundulata*). Invalidly published name. No description.

Eunotia pectinalis f. *septemundulata* Grunow 1865, p. 4 (as *Eunotia pectinalis* var. *undulata* f. *septemundulata*). Invalidly published name. No description.

Eunotia pectinalis f. *sexundulata* Grunow 1865, p. 4 (as *Eunotia pectinalis* var. *undulata* f. *sexundulata*). Invalidly published name. No description.

Eunotia pectinalis var. *triundulata* Grunow 1865, p. 4. Invalidly published name. No description.

Eunotia ventricosa var. *elongata* Grunow 1865, p. 4; pl. 1, fig. 4.

Eupodiscus minutus Hantzsch in Rabenhorst 1863a, p. 21; pl. 6A, fig. 9.

Eupodiscus roperi Brébisson in Rabenhorst 1867, no. 2005 ('roperi'). New name for *Coscinodiscus ovalis* Roper 1858 (priority for *Eupodiscus ovalis* Norman 1861).

Eupodiscus roperi Brébisson 1870, p. 41 ('roperi'). Previously published in Rabenhorst 1867, no. 2005.

Falcatella zelleri Rabenhorst 1857a, no. 561.

Falcatella zelleri Rabenhorst 1864a, p. 139. Inv. Cited pro syn. *Synedra zelleri* Rabenhorst.

Fragilaria hantzschiana Gerstenberger in Rabenhorst 1861b, no. 1041. Inv. In syn. *Fragilaria mesolepta* Rabenhorst.

Fragilaria mesolepta Rabenhorst 1861b, no. 1041. Also in Rabenhorst 1863a, p. 30.

Fragilaria undulata Cramer 1863, p. 65; pl. 12, fig. 7.

Frustulia saxonica f. *turfacea* (A. Braun ex Rabenhorst) Rabenhorst 1864a, p. 227 (as var. in index p. 333).

Basionym: *Frustulia torfacea* A. Braun ex Rabenhorst 1853.

Frustulia saxonica f. *turfacea* Hilse ex Rabenhorst 1867, no. 1954. Invalidly published name. No description..

Perhaps this is just a citation error for *Frustulia saxonica* var. *torfacea* (Braun ex Rabenhorst) Rabenhorst 1864.

Frustulia torfacea A. Braun ex Rabenhorst 1853, p. 50; pl. 7, *Frustulia*: fig. 2. Epithet spelled “*torphacea*” in *exsiccatae* no. 761.

Gomphonogramma rupestre (Kützing) Braun in Rabenhorst 1853, p. 33, 67; pl. 9, fig. 1. Basionym: *Denticula thermalis* var. *rupestris* Kützing 1849.

Gomphonema capitatum var. *gracile* Rabenhorst 1858, no. 743.

Gomphonema dichotomum f. *minor* Grunow 1865, p. 10 (as *Gomphonema dichotomum* var. *affine* f. *minor*).

Inv. Nomen nudum.

Gomphonema turris var. *apiculatum* Grunow 1865, p. 10; pl. 2, fig. 12.

Heliopeleta ehrenbergii Eulenste in Rabenhorst 1865c, no. 1806. Illeg. *Nomen novum*. *H. metii* Ehrenb., *H. leeuwenhockii* Ehrenb. and *H. euleri* Ehrenb. given as synonyms.

Himantidium dilatatum Wigand 1860, p. 43; pl. 7, fig. 9.

Himantidium striatum Wigand 1860, p. 43; pl. 7, fig. 10–12.

Homoeocladia bulnheimiana Rabenhorst 1862d, no. 1301. Also described in Rabenhorst 1863a, p. 617 and Rabenhorst 1864a, p. 167.

Homoeocladia dufourii De Notaris in De Notaris & Baglietto 1871, Erbar. Critt. it. No. 764.

Isthmia lindigiana Grunow & Eulenste in Grunow 1867, p. 29.

Licmophora divisa f. *japonica* Rabenhorst 1874, no. 2380.

Licmophora gracilis f. *borealis* (Kützing) Grunow 1867, p. 35. Basionym: *Rhipidophora borealis* Kützing 1844.

Licmophora gracilis f. *constricta* Grunow 1867, p. 34.

Mastogloia interrupta Hantzsch in Rabenhorst 1863a, p. 20; pl. 6A, figs. 5a–b.

Melosira distans f. *articulis-longioribus* Rabenhorst 1862a, no. 1249. Invalidly published name. No illustration or description.

Melosira psaffiana Reinsch in Rabenhorst 1866b, no. 1912. Also in Reinsch 1866.

Melosira roeseana Rabenhorst 1853, p. 13; pl. 10, supplemente: fig. 5.

Melosira roeseana Rabenhorst 1854, no. 383. Description previously published.

Navicula bleischiana Janisch & Rabenhorst 1863, p. 9; pl. 2, fig. 10.

Navicula calcuttensis Grunow in Rabenhorst 1873, no. 2353. Invalidly published name. No description.

Navicula humerosa Brébisson ex W. Smith 1856, p. 93.

Navicula janischiana Rabenhorst in Janisch & Rabenhorst 1862, p. 10; pl. 2, fig. 15.

Navicula lobata Schwartz in Rabenhorst 1877, no. 2481. Description in Latin and illustration are provided.

Navicula macrogongyla Rabenhorst 1860a, p. 40; pl. 6, fig. 10.

Navicula major var. *crassa* Brébisson in Rabenhorst 1858a, no. 683. Invalidly published name. No description. Name of taxon validly published as *Pinnularia major* var. *crassa* Rabenhorst 1864a, p. 210.

Navicula marina Janisch & Rabenhorst 1863, p. 10; pl. 2, fig. 16. Illeg. Non Ralfs 1861.

Navicula nodosa f. *curta* Rabenhorst 1864a, p. 207. As ‘var.’ in index p. 338. Syn: *Navicula quinqueradiata* Grunow 1860. New name for Grunow’s taxon.

Navicula reinickeana Rabenhorst 1859a, no. 802. Brief description provided. Description also in Rabenhorst 1863a, p. 35.

- Navicula reticulata* Grunow 1867, p. 26.
- Navicula rotundata* Hantzsch in Rabenhorst 1862c, no. 1283b.
- Navicula seminulum* var. *fragilaroides* Grunow in Van Heurck 1880, pl. 14, fig. 10.
- Navicula splendens* Schwartz in Rabenhorst 1877, no. 2483. Illustration with no. 2481.
- Navicula triundulata* Grunow 1867, p. 27.
- Nitzschia affinis* f. *major* Grunow 1867, p. 18.
- Nitzschia arcus* Bulnheim 1859, p. 22; pl. 2, fig. 1.
- Nitzschia bleischii* Janisch in Bleisch 1863, p. 78.
- Nitzschia bleischii* Janisch in Rabenhorst 1864c, No. 1651.
- Nitzschia clausii* Hantzsch 1860b, p. 40; pl. 6, fig. 7. Illustration only. Brief description with exsiccatae no. 944 (1860). Description in Grunow 1862, p. 573, 559.
- Nitzschia communis* Rabenhorst 1860b, no. 949. Reference to a published illustration (*Hedwigia* II, pl. 6, fig. 3) is given. Described in Grunow 1862, p. 561, 578 and Rabenhorst 1864a, p. 159.
- Nitzschia constricta* f. *minor* Rabenhorst 1863a, p. 153.
- Nitzschia dubia* var. *minor* Grunow 1862, p. 568; pl. 28/12, figs. 24a–b.
- Nitzschia formica* Hantzsch in Rabenhorst 1863a, p. 21; pl. 6 A, fig. 8.
- Nitzschia franconica* Reinsch 1866, p. 26; pl. 1, figs. 1a, c–e. See also Rabenhorst 1866a, no. 1891.
- Nitzschia franconica* var. *serpentina* Reinsch 1866, p. 27; pl. 1, figs. 1b–c. See also Rabenhorst 1866a, no. 1891.
- Nitzschia gracilis* Hantzsch 1860b, p. 40; pl. 6, fig. 8. Illustration only. Brief description in exsiccatae no. 946. Description in Grunow 1862, p. 560, 575.
- Nitzschia hantzschiana* Rabenhorst 1860a, p. 40; pl. 6, fig. 6. Brief description in exsiccatae no. 943. Description in Grunow 1862, p. 576.
- Nitzschia hantzschiana* Rabenhorst in Grunow 1862, p. 576.
- Nitzschia incrustans* Grunow 1862, p. 566; pl. 28/12, figs. 21a–f.
- Nitzschia kolaczekii* Grunow 1867, p. 18. Spelled *kolaizeckii* in 1877.
- Nitzschia kolaizeckii* Grunow 1877, p. 173. Orth. var. of *Nitzschia kolaczekii* Grunow 1867.
- Nitzschia kuetzingiana* Hilse in Rabenhorst 1862b, no. 1267.
- Nitzschia kuetzingii* Rabenhorst 1864a, p. 160 [ref. 775]. Valid name for *Nitzschia kuetzingiana* Hilse in Rabenhorst 1862b, no. 1267.
- Nitzschia kurzeana* Rabenhorst 1873, no. 2312.
- Nitzschia media* Hantzsch 1860b, p. 40; pl. 6, fig. 9. Illustration only. Brief description in exsiccatae no. 945. Description in Grunow 1862, p. 576.
- Nitzschia minuta* Bleisch in Rabenhorst 1860b, No. 950. Description also in Bleisch 1863, p. 78 and Grunow 1862, p. 578.
- Nitzschia minuta* Bleisch 1863, p. 78.
- Nitzschia obtusa* var. *kurziana* Rabenhorst 1873, no. 2353. Invalidly published name. No description.
- Nitzschia obtusa* var. *schweinfurthii* (Grunow) Grunow in Cleve & Grunow 1880, p. 92. Basionym: *Nitzschia schweinfurthii* Grunow in Rabenhorst 1864.
- Nitzschia palea* f. *curta* Grunow ex Rabenhorst 1878, no. 2551. Invalidly published name. No description.
- Nitzschia parvula* f. *elongata-gracilis* Hausknecht in Rabenhorst 1874, no. 2382 ('*elongata gracilis*').
- Nitzschia perpusilla* Rabenhorst 1861f, no. 1164. Also in Rabenhorst 1864a, p. 159, and Hilse 1863, p. 67.
- Nitzschia perpusilla* Rabenhorst in Hilse 1863, p. 67. Previously validly published in Rabenhorst 1861f.
- Nitzschia rangoonensis* Grunow ex Rabenhorst 1873, no. 2358. Invalidly published name. No description.
- Nitzschia recta* Hantzsch ex Rabenhorst 1862c, No. 1283.
- Nitzschia schliephackeana* Grunow ex Rabenhorst 1864a, p. 324.
- Nitzschia schweinfurthii* Grunow in Rabenhorst 1864a, p. 175.
- Nitzschia stagnorum* Rabenhorst 1857a, no. 625.
- Nitzschia thermalis* var. *minor* Hilse in Rabenhorst 1862b, no. 1266. Name also in Hilse 1863, p. 67.
- Nitzschia thermalis* var. *stagnorum* (Rabenhorst) Rabenhorst 1864a, p. 154. Basionym: *Nitzschia stagnorum* Rabenhorst 1857.

Nitzschia tryblionella Hantzsch in Rabenhorst 1860c, No. 984. New name for *Tryblionella gracilis* Smith 1853 (priority for *Nitzschia gracilis* Hantzsch 1860).

Nitzschia tumida Hantzsch in Rabenhorst 1861e, No. 1114. Illustration only. Description in Rabenhorst 1864a, p. 153.

Odontidium alpigenum Kerner ex Rabenhorst 1865b, no. 1765. First appeared as *nomen nudum* in *Hedwigia* 4, p. 56 (1864).

Odontidium hiemale (hyemale) f. *rotundata* (Rabenhorst) Rabenhorst 1864a, p. 116. Basionym: *Odontidium rotundatum* Rabenhorst 1853.

Odontidium rotundatum Rabenhorst 1853, p. 34; pl. 2, fig. 4 c. Illeg. Non (Ehrenberg) Kützing 1849. The epithet appears in Rabenhorst 1853, on p. 34 (under *O. hiemale*) with an unclear status (new species of *Odonthidium* or new subdivision of *O. hiemale*?). Nevertheless, the name *Odontidium rotundatum* is definitely validly published with the illustration and plate caption.

Peronia erinacea Brébisson & Arnott ex Kitton 1868, p. 16. Illeg. *Gomphonema fibula* Brébisson ex Kützing 1849 cited as synonym. Name illegitimate, correct names for this taxon: *Gomphonema fibula* Bréb. ex Kützing, *Peronia fibula* (Bréb. ex Kützing) Ross.

Pinnularia falaiseana Krammer 1992, p. 113–114, 172; pl. 41, figs. 5–8, 10–11.

Pinnularia gibba var. *curta* Bleisch 1860, no. 951 (as *Pinnularia gibba* forma *curta*, varietas nova). Description also in Rabenhorst 1863b, p. 39 (as *Pinnularia gibba* b. *curta*).

Pinnularia gibba f. *minor* Rabenhorst 1864b, no. 1700. Invalidly published name. No description.

Pinnularia hilseana Janisch in Rabenhorst 1860b, no. 953. See also Hilse 1860, p. 82.

Pinnularia major var. *crassa* Rabenhorst 1864a, p. 210.

Pinnularia medioconstricta Rabenhorst 1860b, no. 952 ('*medio constricta*'). See also Bleisch 1863, p. 81.

Pinnularia ovalis Hilse 1860, p. 82.

Pinnularia ovalis Hilse in Rabenhorst 1861b, no. 1025.

Pinnularia parvillimima Krammer 2000, p. 95.

Pinnularia peracuminata Krammer 2000, p. 157.

Pinnularia rabenhorstii Hilse 1860, p. 82.

Pinnularia rupestris Hantzsch in Rabenhorst 1861h, no. 1203.

Pinnularia silesiaca Bleisch in Fresenius 1862, p. 68; pl. 4, figs. 25–29.

Pinnularia silesiaca Bleisch in Rabenhorst 1863a, p. 38. The exsiccatae (no. 954) does not provide a description, but refers to an illustration (*Hedwigia* II, pl. 4 figs. 3–4). See also Bleisch in Fresenius 1862.

Pinnularia sudetica Hilse 1860, p. 82.

Pinnularia sudetica Hilse in Rabenhorst 1861, no. 1023.

Pinnularia viridis var. *coerulescens* Hilse in Rabenhorst 1862b, no. 1263. Also in Hilse 1863, p. 68.

Pinnularia viridula (Kützing) Rabenhorst 1853, p. 43, 69; pl. 6, fig. 39. Basionym: *Frustulia viridula* Kützing 1833 (1834).

Plagiodiscus Grunow & Eulenste in Grunow 1867, p. 8.

Plagiodiscus nervatus Grunow 1867, p. 8.

Pleurosigma gracilentum Rabenhorst 1861b, no. 1066. Also in Rabenhorst 1863a, p. 617 and Rabenhorst 1864a, p. 240.

Pleurosigma kurzianum Grunow ex Rabenhorst 1873, no. 2353. Invalidly published name. No description.

Pleurosigma scalproides Rabenhorst 1861d, no. 1101 + fig. Also in Rabenhorst 1863a, p. 41, and Rabenhorst 1864a.

Pleurostaurum acutum (W. Smith) Rabenhorst 1859c, p. 17; pl. 1, fig. B, pl. 2, fig. F. Basionym: *Stauroneis acuta* W. Smith 1853.

Pleurostaurum lineare Hilse 1860, p. 83. Valid as the name of a new taxon. Could also be treated as a new combination of *Stauroneis linearis* Ehrenberg.

Pleurostaurum lineare Rabenhorst 1861f, no. 1161. Valid as the name of a new taxon. Could also be treated as a new combination of *Stauroneis linearis* Ehrenberg.

Pleurostaurum lineare (Ehrenberg) Rabenhorst 1863a, p. 43. Basionym: *Stauroneis linearis* Ehrenberg 1843.

Podosira kurzii Zeller 1873, p. 175 (= p. 2).

Podosphenia remulus Grunow 1867, p. 2.

Rhoicosigma Grunow 1867, p. 19.

Rhoicosigma reichardtianum Grunow 1867, p. 19.

Rhoicosigma reichardtii Grunow 1877, p. 181. Orth. var. of *Rhoicosigma reichardtianum* Grunow 1867.

Rhoicosigma reichardtii var. *constrictum* Grunow 1877, p. 181.

Sceptroneis gemmata Grunow 1866, p. 146.

Schizostauron Grunow 1867, p. 28.

Schizostauron lindigianum Grunow 1867, p. 28.

Schizostauron lindigii Grunow 1877, p. 181; pl. 195, fig. 17. Orth. var. for *Schizostauron lindigianum* Grunow 1867.

Sphenella naviculoides Hantzsch in Rabenhorst 1862, no. 1322.

Stauroneis anceps f. *gracilis* Rabenhorst 1864a, p. 247.

Stauroneis cohnii Hilse in Rabenhorst 1860b, no. 962.

Stauroneis goeppertiana Bleisch ex Rabenhorst 1861g, No. 1183. Also in Bleisch 1863, p. 81.

Stauroneis janischii Rabenhorst 1859b, No. 848f, fig. f.

Stauroneis rotaeana Rabenhorst 1856, p. 103; pl. 13, fig. 7. Illustration only. For descriptions see Grunow 1860, p. 565 and Rabenhorst 1864a, p. 249. Latin description also included in exsiccatae no. 505 (1856).

Stauroneis undulata Hilse 1860, p. 83. Brief description also in the exsiccatae Rabenhorst 1860b, no. 963.

Stauropelta truncata Rabenhorst 1853, p. 49; pl. 9, fig. 12.

Stephanogonia danica Grunow 1866, p. 146.

Striatella intermedia Grunow 1867, p. 6.

Striatella lindigiana Grunow 1867, p. 6.

Surirella crumena Brébisson ex Kützing 1849, p. 38. In same publication, cited pro syn. *Cyclotella meneghiniana* 'beta' major (p. 19).

Surirella diaphana Bleisch in Rabenhorst 1863c, no. 1489. Also in Bleisch 1863, p. 78.

Surirella gracilis (W. Smith) Grunow 1862, p. 144; pl. 7/10, fig. 11. Basionym: *Tryblionella gracilis* W. Smith 1853.

Surirella intermedia Rabenhorst 1857b, no. 642. Brief description provided. Described in Latin in Rabenhorst 1864a, p. 57 as *Surirella ovata* b. *intermedia*.

Surirella ovata var. *intermedia* (Rabenhorst) Rabenhorst 1864a, p. 57, 345 (as *Surirella ovata* b. *intermedia* on p. 57, as var. *intermedia* on p. 345). Basionym: *Surirella intermedia* Rabenhorst 1857. New combination if basionym is valid; valid name of a new taxon otherwise.

Surirella ovata var. *marina* Brébisson in Rabenhorst 1867, no. 2012.

Surirella saxonica Auerswald in Rabenhorst 1863b, no. 1421. Also described in Rabenhorst 1864a, p. 53.

Surirella suevica Zeller in Rabenhorst 1861b, no. 1045.

Surirella suevica Zeller ex Grunow in Schmidt et al. 1875, pl. 23, figs. 56–60. Name already published in Rabenhorst 1861b, no. 1045.

Surirella thuringiaeae Hantzsch in Rabenhorst 1861h, no. 1208.

Synedra aggregata Brébisson ex Rabenhorst 1858a, No. 687.

Synedra amphirhynchus var. *undulata* Rabenhorst 1862a, no. 1323. A diagnosis is provided with the exsiccatae. Also Rabenhorst 1864a, p. 134.

Synedra arcuata Wigand 1860, p. 44; pl. 7, fig. 15.

- Synedra bicurvata* Biene ex Rabenhorst 1863b, No. 1405. No description in exsiccatae, but reference to an illustration (*Hedwigia* II, pl. 2, fig. 1). Described in Rabenhorst 1864a, p. 120.
- Synedra bicurvata* Biene ex Rabenhorst 1864a, p. 120.
- Synedra campyla* Hilse 1860, p. 84.
- Synedra campyla* Hilse in Rabenhorst 1861, no. 1024a.
- Synedra cuneata* Grunow 1867, p. 5. Illeg. Non Ehrenberg 1834.
- Synedra formosa* Hantzsch in Rabenhorst 1863a, p. 19; pl. 5, fig. 3.
- Synedra frigida* Zeller in Rabenhorst 1863e, no. 1561.
- Synedra gomphonema* Janisch & Rabenhorst 1863, p. 13; pl. 2, fig. 6.
- Synedra interrupta* Auerswald in Rabenhorst 1855, No. 403.
- Synedra lunaris* var. *elongata purissima* A. de Brébisson ex Rabenhorst 1867, no. 2025. Invalidly published name. No description.
- Synedra pulcherrima* Hantzsch in Rabenhorst 1863a, p. 19; pl. 5, fig. 2.
- Synedra splendens* var. *interrupta* (Auerswald in Rabenhorst) Rabenhorst 1864a, p. 134. Basionym: *Synedra interrupta* Auerswald in Rabenhorst 1855.
- Synedra undosa* Grunow 1867, p. 4.
- Synedra zelleri* Rabenhorst 1864a, p. 139. New combination of *Falcatella zelleri*?
- Tessella (Tessela) hyalina* Janisch & Rabenhorst 1863, p. 13; pl. 2, fig. 13.
- Toxarium rostratum* Hantzsch 1863, p. 19; pl. 5, fig. 4.
- Triceratium elongatum* Grunow 1867, p. 31 (as *Triceratium (orbiculatum* var?) *elongatum*).)
- Triceratium heibergianum* Grunow 1866, p. 145.
- Triceratium jensenianum* Grunow 1866, p. 145.
- Triceratium sinense* Schwarz 1874, p. 163.
- Triceratium whampoense* Schwarz 1874, p. 163.

ACKNOWLEDGMENTS

I want to take this opportunity to thank Dr. Elizabeth Foutanier for her extensive work on the taxonomic status of taxa considered herein; also, Dr. Michele L. Aldrich who perused the entire manuscript in its penultimate typeset format. With a keen editorial eye, she uncovered both textual and formatting inconsistencies that I had missed, thus giving me an opportunity to make changes before committing the whole to print. Drs. Robert Edgar and David Williams reviewed the paper in its penultimate form and offered many suggestions for its improvement. I am indebted to both for the care they took in their reviews. And, last but not least, thanks are due Dr. J. Thomas Dutro, Jr., U.S. Geological Survey [ret.], National Museum of Natural History, Washington, D.C., who generously assisted in arranging with the Department of Botany at the Museum to make available their copy of Rabenhorst's 1864 edition of *Flora Europaea Algarum* from which I secured the copy of Rabenhorst's portrait that is reproduced here. To all of the above, my sincere thanks with the caveat that I alone take responsibility for any errors of commission or omission that still exist.

LITERATURE CITED

- BLEISCH, M. 1860. Ueber zwei *Campylodiscus* (*C. costatus*, *C. spiralis*). *Hedwigia* 2:29, pl. 5.
- BLEISCH, M. 1863. Über einige in den Jahren 1856–1862 in der Gegend von Strehlen gefundene Diatomeen. *Abhandlungen Schlesische Gesellschaft für Vaterländische Kultur, Abtheilung für Naturwissenschaften und Medicin. Breslau* 75–84.
- BRÉBISSON, A. de. 1870. Notes on some French Diatomaceae. Presented to the Club by Alph. de Brebisson, Corr. Mem. *Journal of the Quekett Microscopical Club* 2:37–43.
- BULNHEIM, O. 1859. Ueber *Nitzschia arcus* sp. n. *Hedwigia* 2:22.

- CHASE, H.H. 1885. *Habirshaw's Catalogue of the Diatomaceae*. Published by the author, Geneva, New York. 343 pp. + 11 pages of addenda.
- CLEVE, P.T. 1881. On some new and little known diatoms. *Kongliga Svenska-Vetenskaps Akademiens Handlingar* 18:1–28.
- CLEVE, P.T., AND J.D. MÖLLER. 1877–1882. *Diatoms*. Parts 1–6. [Exsiccatae] 324 slides. Uppsala.
- CLEVE-EULER, A. 1953. Die Diatomeen von Schweden und Finnland. Teil II. Araphideae, Brachyraphideae. *Kungl. Svenska Vetenskapakademiens Handlingar*, Fjärde Serien, 4(1):1–158.
- CRAMER, C. 1863. Algologische Notizen zu No. 1441 der Decaden-Rabenhorst's Algen Europas. *Hedwigia* 2:65.
- DENOTARIS, G., AND F. BAGLIETTO. 1871. Rivista Bibliographica-Ebario Crittogramico Italiano. Serie II. Genova, Maggio 1870. *Nuovo Giornale Botanico Italiano. Publicato da Odoardo Beccari*, Firenze 3: 95–96.
- EDGAR, R.K. <http://www.huh.harvard.edu/diatom/pubcollset.htm>
- EULENSTEIN, T. 1867. *Diatomacearum Species Typicae*. Century 1. [Exsiccatae] 100 slides. Stuttgart.
- FOURTANIER, E., AND J.P. KOCIOLEK. 1999. Catalogue of the diatom genera. *Diatom Research* 14:1–190.
- FRESENIUS, G. 1862. Über einige Diatomeen. *Abhandlungen Senckenbergische naturforschende Gesellschaft* 4:63–72.
- GREUTER, W., J. MCNEILL, F.R. BARRIE, H.M. BURDET, V. DEMOULIN, T.S. FILGUEIRAS, D.H. NICOLSON, P.C. SILVA, J.E. SKOG, P. TREHANE, N.J. TURLAND, AND D.L. HAWKSWORTH. 2000. *International Code of Botanical Nomenclature*. Regnum Vegetabile 138. O. Koeltz, Koenigstein. 474 pp.
- GRUNOW, A. 1860. Ueber neue oder ungenügend bekannte Algen. Erste Folge, Diatomeen, Familie Naviculaceen. *Verhandlungen der kaiserlich-königlichen zoologisch-botanischen Gesellschaft in Wien* 10:503–582, Tab. III–VII.
- GRUNOW, A. 1862. Die Österreichen Diatomaceen nebst Anschluss einiger neuen Arten von andern Lokalitäten und einer kritischen Übersicht der bisher bekannten Gattungen und Arten. Erst Folge. Epithemiae, Meridioneae, Diatomeae, Entopylele, Surirellae, Amphipleureae. Zweite Folge. Familie Nitzschieae. *Verhandlungen der kaiserlich-königlichen zoologisch-botanischen Gesellsschaft in Wien* 12:315–472, 545–588.
- GRUNOW, A. 1865. Ueber die von Herrn Gerstenberger in Rabenhorst's decadens ausgegebenen Süßwasser-Diatomeen und Desmidiae von Insel Banka, nebst Untersuchungen über die Gattungen *Ceratoneis* und *Frustulia*. Pages 1–16 in L. Rabenhorst, ed., *Beiträge zur nuaheren Kenntnis und Verbreitung der algen*. Heft 2. Eduard Kummer, Leipzig.
- GRUNOW, A. 1866. Moler aus Jutland eingesandt von Th. Jensen analysirt von A. Grunow. *Hedwigia* 5(10): 145–146.
- GRUNOW, A. 1867. Diatomeen auf *Sargassum* von Honduras, gesammelt von Lindig. *Hedwigia* 6(1–3):1–8, 17–37.
- GRUNOW, A. 1868. Beiträge zur Kenntniss der *Schizonema*-und *Berkeleya*-Arten. *Hedwigia* Dresden 7(1):1–7.
- GRUNOW, A. 1877. New Diatoms from Honduras, with notes by F. Kitton. *Monthly Microscopical Journal. London*. 18:165–186, pls. 193–196.
- HANTZSCH, C.A. 1860a. Neue Bacillarien: *Nitzschia vivax* var. *elongata*, *Cymatopleura nobilis*. *Hedwigia* 2(6):35–36, 8 figs.
- HANTZSCH, C.A. 1860b. Erklärung der Taf. VI. *Hedwigia* 2:40.
- HANTZSCH, C.A. 1863. Ueber einige Diatomaceen aus dem ostindischen Archipel. Beitrage zur Naheren Kenntniss und Verbreitung der Algen. Herausgegeben von Dr. L. Rabenhorst. Leipzig, Verlag von Eduard Kummer, Vol:Issue:1, 17–30, pls. 5–6 A.
- HEIBERG, P.A.C. 1863. *Conspectus Criticus Diatomacearum Danicam*. Wilhelm Priors, Kjobenhavn. 135 pp.
- HILSE, W. 1860. Beiträge zur Algen- und Diatomeen-Kunde Schlesiens, insbesondere Strehlens. *Jahresbericht des Akademischen Naturwissenschaftlichen Vereins zu Breslau*, Jahr 1860, 75–86.
- HUSTEDT, F. 1934. Die Diatomeenflora von Poggenpohls Moor bei Dötlingen in Oldenburg. *Abhandlung und Vorträgen der Bremen Wissenschaftlichen Gesellschaften Jahrgang* 8/9:362–403.
- JANISCH, C., AND L. RABENHORST. 1863. Ueber Meeres-Diatomeen von Honduras. Pages 1–16 in L. Rabenhorst, ed., *Beiträge zur nuaheren Kenntnis und Verbreitung der algen*, Heft 2. Eduard Kummer, Leipzig.

- KITTON, F. 1868. Description of a new genus of Diatomaceae and observations on the costae of *Pinnularia peregrina*. *Quarterly Journal of Microscopical Science*, New Series, 8:16–17.
- KOCIOLEK, J.P., A.D. MAHOOD, AND K. NUTILE. 1999. The types of the Diatom Collection of the California Academy of Sciences. Pages. 157–196 in S. Mayama, K. Idea, and I. Koizumi, eds., *Proceedings of the 14th International Diatom Symposium*. Koeltz Scientific Books, Koenigstein.
- KRAMMER, K. 1992. *Pinnularia*. Eine Monographie der europäischen Taxa. *Bibliotheca Diatomologica* 26:1–353.
- KRAMMER, K. 1997. Die cymbelloiden Diatomeen. Eine Monographie der weltweit bekannten Taxa. Teil 1. Allgemeins und *Encyonema* part. *Bibliotheca Diatomologica* 36:1–382.
- KRAMMER, K. 2000. The genus *Pinnularia*. In: H. Lange-Bertalot, ed., *The Diatoms of Europe*, Volume 1. A.R.G. Gantner, Ruggell. 703 pp.
- KRAMMER, K. 2002. *Cymbella*. In: H. Lange-Bertalot, ed., *The Diatoms of Europe*. Volume 3. A.R.G. Gantner, Ruggell. 584 pp.
- KRAMMER, K., AND H. LANGE-BERTALOT. 1987. Morphology and taxonomy of *Surirella ovalis* and related taxa. *Diatom Research* 2:77–95.
- KRAMMER, K., AND H. LANGE-BERTALOT. 1988. Bacillariophyceae. 2 Teil. Bacillariaceae, Epithemiaceae, Surirellaceae. In H. Ettl, J. Gerloff, H. Heynig, and D. Mollenhauer, eds., *Süßwasserflora von Mitteleuropa*. Gustav Fischer, Stuttgart. 596 pp.
- KÜTZING, F.T. 1849. *Species Algarum*. F.A. Brockhaus, Lipsiae. 922 pp.
- MAHONEY, R., AND C.W. REIMER. 1987. Current status of the type collection (Bacillariophyceae) in the Diatom Herbarium, The Academy of Natural Sciences of Philadelphia. *Proceedings of the Academy of Natural Sciences of Philadelphia* 139:261–305.
- MAHONEY, R., AND C.W. REIMER. 1997. Updated status of the type collection (Bacillariophyceae) of the Diatom Herbarium, The Academy of Natural Sciences of Philadelphia. *Proceedings of the Academy of Natural Sciences of Philadelphia* 147:125–192.
- M'CALLA. 1848. *Algae Hiberniae*. Volume I, numbers 1–50. Volume II, number 1–50. Dublin.
- MILLS, F.W. 1933. *An Index to the Genera and Species of the Diatomaceae and Their Synonyms*. 1816–1932. Part II. pp. 74a–148.
- MILLS, F.W. 1934. *An Index to the Genera and Species of the Diatomaceae and Their Synonyms*. 1816–1932. Part XII. pp. 841–920.
- MÖLLER, J.D. 1881. *Type slides of 400 diatoms*. Distributed with text by the author.
- PATRICK, R.M., AND C.W. REIMER. 1975. *The Diatoms of the United States*. Vol. II, Part. 1. Monograph No. 13, Academy of Natural Sciences of Philadelphia. 213 pp.
- PEDICINO, N.A. 1867. Pochi studi sulle Diatomee viventi presso alcune terme dell'isola d'Ischia. *Atti Accademia delle scienze fisiche e matematiche di Napoli* 3:20, 2 pls.
- PEDICINO, N.A. 1867. Pochi studi sulle Diatomee viventi presso alcune terme dell'Isola d'Ischia. *Rediconto delle adunanze e de'lavori della Reale Accademia delle Scienze (Fisiche e Matematiche) di Napoli* 6: 70–72.
- PERAGALLO, M. 1903. *Le Catalogue général des Diatomées*. Pp. 472–973. Clermont-Ferrand.
- PRITCHARD, A. 1861. *A History of Infusoria, Living and Fossil: Arranged According to Die Infusionstherchen of C.G. Ehrenberg; Containing Colored Engravings, Illustrative of All the Genera, and Descriptions of All the Species in that Work, with Several New Ones; to which is Appended an Account of those Recently Discovered in the Chalk Formations*. xii. Edition IV, revised and enlarged by J.T. Arlidge, W. Archer, J. Ralfs, W.C. Williamson and the author. Whittaker and Co., London. xiii + 968 pp., 40 pls.
- RABENHORST, L. 1853. *Die Süßwasser-Diatomaceen (Bacillarien) für Freunde der Mikroskopie*. Eduard Kummer, Leipzig. 72 pp., 9 pls.
- RABENHORST, L. 1855. *Die Algen Sachsens resp. Mittel-Europa's*. Decas 50–51.
- RABENHORST, L. 1856. Erklärung der Tab. XIII. *Hedwigia* 1:103.
- RABENHORST, L. 1857a. *Die Algen Sachsens resp. Mittel-Europa's*. Decas 61–62.
- RABENHORST, L. 1857b. *Die Algen Sachsens resp. Mittel-Europa's*. Decas 63–64.
- RABENHORST, L. 1858a. *Die Algen Sachsens resp. Mittel-Europa's*. Decas 69–70.
- RABENHORST, L. 1858b. *Die Algen Sachsens resp. Mittel-Europa's*. Decas 73–74.

- RABENHORST, L. 1859a. *Die Algen Sachsens resp. Mittel-Europa's.* Decas 81–82.
- RABENHORST, L. 1859b. *Die Algen Sachsens resp. Mittel-Europa's.* Decas 85–86.
- RABENHORST, L. 1859c. Erklärung der tafel I. A. Fig. B. *Pleurostatarum acutum. Hedwigia* 2:15.
- RABENHORST, L. 1860a. Erklärung der Taf. VI. *Hedwigia* 2:40.
- RABENHORST, L. 1860b. *Die Algen Sachsens resp. Mittel-Europa's.* Decas 95–96.
- RABENHORST, L. 1860c. *Die Algen Sachsens resp. Mittel-Europa's.* Decas 99–100.
- RABENHORST, L. 1861a. *Die Algen Europa's.* Decas 101–102.
- RABENHORST, L. 1861b. *Die Algen Europa's.* Decas 105–106.
- RABENHORST, L. 1861c. *Die Algen Europa's.* Decas 109–110.
- RABENHORST, L. 1861d. *Die Algen Europa's.* Decas 111–112.
- RABENHORST, L. 1861e. *Die Algen Europa's.* Decas 115–116.
- RABENHORST, L. 1861f. *Die Algen Europa's.* Decas 117–118.
- RABENHORST, L. 1861g. *Die Algen Europa's.* Decas 119–120.
- RABENHORST, L. 1861h. *Die Algen Europa's.* Decas 121–122.
- RABENHORST, L. 1862a. *Die Algen Europa's.* Decas 125–126.
- RABENHORST, L. 1862b. *Die Algen Europa's.* Decas 127–128.
- RABENHORST, L. 1862c. *Die Algen Europa's.* Decas 129–130.
- RABENHORST, L. 1862d. *Die Algen Europa's.* Decas 131–132.
- RABENHORST, L. 1862e. *Die Algen Europa's.* Decas 133–134.
- RABENHORST, L. 1863a. Diatomeen. In *Kryptogamen-Flora von Sachsen, der Ober-Lausitz, Thuringen und Nord-Bohmen, mit Berücksichtigung der benachbarten Lander.* Leipzig. 653 pp.
- RABENHORST, L. 1863b. *Die Algen Europa's.* Decas 143–144.
- RABENHORST, L. 1863c. *Die Algen Europa's.* Decas 149–150.
- RABENHORST, L. 1863d. *Die Algen Europa's.* Decas 151–152.
- RABENHORST, L. 1863e. *Die Algen Europa's.* Decas 157–158.
- RABENHORST, L. 1864a. *Flora Europea Algarum aquae dulcis et submarinae. Sectio I.* Algas diatomaceas complectens, cum figuris generum omnium xylographice impressis. Apud Eduardum Kummerum, Lipsiae. 359 pp.
- RABENHORST, L. 1864b. *Die Algen Europa's. Hedwigia* 3:175–176.
- RABENHORST, L. 1864c. *Die Algen Europa's.* Decas 165–166.
- RABENHORST, L. 1864d. *Die Algen Europa's.* Decas 170–171.
- RABENHORST, L. 1865a. *Flora Europea algarum aquae dulcis et submarinae. Sectio II.* Algas phycochromaceas complectens. Lipsiae. Apud Eduardum Kummerum. 319 pp.
- RABENHORST, L. 1865b. *Die Algen Europa's.* Decas 177–178.
- RABENHORST, L. 1865c. *Die Algen Europa's.* Decas 181–182.
- RABENHORST, L. 1866a. *Die Algen Europa's.* Decas 187–198.
- RABENHORST, L. 1866b. *Die Algen Europa's.* Decas 189–190.
- RABENHORST, L. 1866c. *Die Algen Europa's.* Decas 191–192.
- RABENHORST, L. 1866c. *Hedwigia* 5:56.
- RABENHORST, L. 1867. *Die Algen Europa's.* Decas 201–202.
- RABENHORST, L. 1868a. *Flora Europea algarum aquae dulcis et submarinae. Sectio II.* Algas phycochromaceas complectens. Lipsiae. Apud Eduardum Kummerum. 461 pp.
- RABENHORST, L. 1868b. *Die Algen Europa's.* Decas 207–208.
- RABENHORST, L. 1870. *Die Algen Europa's.* Decas 215–217.
- RABENHORST, L. 1872. *Die Algen Europa's.* Decas 227–228.
- RABENHORST, L. 1873. *Die Algen Europa's.* Decas 232–233.
- RABENHORST, G. L. 1848–1860. *Die Algen Sachsens.* Decades I–C, numbers 1–1000. Dresden, Leipzig.
- RABENHORST, G.L. 1861–1882. *Die Algen Europa's, Fortsetzung der Algen Sachsens, resp. Mitteleuropas.* Decades I–CIX, numbers 1–1600 (or 1001–2600).
- RABENHORST, L. 1874. *Die Algen Europa's.* Decas 238–239.
- RABENHORST, L. 1877. *Die Algen Europa's.* Decas 248–249.
- RABENHORST, L. 1878. *Die Algen Europa's.* Decas 250–251.

- REINSCH, P.F. 1866. Die Algenflora des mittleren Theiles von Franken (des Keupergebietes mit den angrenzenden Partien des jurassischen Gebietes) enthaltend die vom Autor bis jetzt in diesen Gebieten beobachteten Süsswasseralgen und die Diagnosen und Abbildungen von ein und funfzig vom Autor in diesem gebiete entdeckten neuen Arten und drei neuen Gattungen. *Abhandlungen der Naturhistorischen Gesellschaft zu Nürnberg*. Nürnberg 1866., Vol: 2 Issue: 2 Hafte. 238 pp., 13 pls.
- SAYRE, G. 1969. Cryptogamae exsiccatae: an annotated bibliography of published exsiccatae of algae, lichenes, hepaticae, and musci. *Memoirs of the New York Botanical Garden*, vol. 19, nos. 1–3.
- SCHUMANN, J. 1867. Die Diatomeen der Hohen Tatra. *Verhandlungen kaiserlichkönigliche zoologisch botanische Gesellschaft in Wien* 17:1–102.
- SCHWARZ, D. 1874. Grundproben aus den chinesischen Gewässern gesammelt von R. Rabenhorst. *Hedwigia* 13:161–166.
- SERVANT-VILDARY, S., E. FOURTANIER, J.P. KOCIOLEK, M. MACDONALD, AND A. MIETTE. 2001. Nomenclatural issues, types and conserved material from Tempère and Peragallo's Diatomees du Monde Entier, Edition. *Diatom Research* 16:363–398.
- SIMONSEN, R. 1987. *Atlas and Catalogue of the Diatom Types of Friedrich Hustedt*. 3 vols. J. Cramer, Berlin. 525 pp., 772 pls.
- SMITH, H.L. 1876–1888. *Species Diatomacearum Typicae*. Geneva, New York. [Exsiccatae] 750 slides.
- SMITH, W. 1856. *Synopsis of the British Diatomaceae*, vol. 2. John Van Voorst, London. 107 pp., pls. 32–60, 61–62, A–E.
- TEMPÈRE, J., AND H. PERAGALLO. 1889–1895. *Diatomées Collection*. Hy-Tribout. St. Paul. 304 pp.
- TEMPÈRE, J., AND H. PERAGALLO. 1907–1915. *Diatomées du Monde Entier*, 2nd ed. Arcachon (Gironde). 480 pp.
- VAN HEURCK, H. 1880. *Synopsis des Diatomées de Belgique*. Atlas. Ducaju & Cie., Anvers.
- VAN HEURCK, H. 1881. *Synopsis des Diatomées de Belgique*. Atlas. Ducaju & Cie., Anvers.
- VAN HEURCK, H. 1882–1885. *Types du Synopsis des Diatomées de Belgique*, Serie I–XXII.
- VAN LANDINGHAM, S.L. 1967. *Catalogue of the Fossil and Recent Genera and Species of Diatoms and Their Synonyms*. Part I. *Acanthoceras* through *Bacillaria*. J. Cramer, Lehre. Pages 1–493.
- VAN LANDINGHAM, S.L. 1969. *Catalogue of the Fossil and Recent Genera and Species of Diatoms and Their Synonyms*. Part III. *Coscinophaena* through *Fibula*. J. Cramer, Lehre. Pages 1087–1756.
- VAN LANDINGHAM, S.L. 1971. *Catalogue of the Fossil and Recent Genera and Species of Diatoms and Their Synonyms*. Part IV. *Fragilaria* through *Naunema*. J. Cramer, Lehre. Pages 1757–2385.
- VAN LANDINGHAM, S.L. 1975. *Catalogue of the Fossil and Recent Genera and Species of Diatoms and Their Synonyms*. Part V. *Navicula*. J. Cramer, Vaduz. Pages 2386–2963.
- VAN LANDINGHAM, S.L. 1978a. *Catalogue of the Fossil and Recent Genera and Species of Diatoms and Their Synonyms*. Part VI. *Neidium* through *Rhoicosigma*. J. Cramer, Vaduz. Pages 2964–3605.
- VAN LANDINGHAM, S.L. 1978b. *Catalogue of the Fossil and Recent Genera and Species of Diatoms and Their Synonyms*. Part VII. *Rhoicosphenia* through *Zygomeros*. J. Cramer, Vaduz. Pages 3606–4241.
- WARTMANN, F.B., AND B. SCHENK. 1862–1882. *Schweizerische Kryptogamen unter mitwirkung mehrer Botaniker*. Centuries I–XI, fascicles I–XVIII, numbers 1–900. Sankt Gallen (Scheitlin & Zollikofer), Hottingen.
- WIGAND, ALBERT. 1860. Bemerkungen über einige Diatomaceen. *Hedwigia* 2:41–46.
- WILLIAMS, D.M. 1988. An illustrated catalogue of the type specimens in the Greville diatom herbarium. *Bulletin of the British Museum (Natural History)*, Botany Series, 18:1–148.
- ZELLER, G. 1873. Algae collected by Mr. S. Kurz in Arracan and British Burma, determined and systematically arranged by G. Zeller. *Journal of the Asiatic Society of Bengal* 42:175–193.