

## CATALOGUE OF THE STRAINS OF PLOVDIV ALGAL CULTURE COLLECTION (PACC)

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**Abstract:** This article describes the origin, way of functioning and present state of the Plovdiv Algal Culture Collection (PACC), which was established in 1963 at the Department of Botany, Paisii Hilendarsky Plovdiv University.

Totally 774 strains, belonging to 249 species of 103 genera, are maintained in this collection. The collection comprises mainly freshwater green algae (Chlorophyta, Chlorococcales), as well as other systematic groups of algae and cyanobacteria, totally belonging to seven divisions. The basic part of the strains is original, i.e. they are isolated by Bulgarian algalogists, and the remaining is received from other algae collections or from foreign algalogists. The list of Culture Collection includes all existing data about the strains. Also the nutrition media, used for cultivation and maintenance, are cited.

**Key words:** Culture collections, List of strains, Maintenance media

### **Origin, Function and Present State of the Culture Collection**

The collection of alive algae cultures was established at the Department of Botany, P. Hilendarsky Plovdiv University, by Prof. Dr. D. Vodenicharov in 1963, and it has been developed under his supervision until 1994. The Plovdiv Algal Culture Collection was established following the example of the major pioneer collections in Praha (CAP, Czech Republic), Cambridge (CCAP, United Kingdom) and Indiana (IUCC, USA). Initially, the collection was based on cultures, isolated by the employees of Botany Department. Very soon after the establishment of the collection, it was enriched with cultures from the Cambridge and Indiana collections. Based on the hard efforts of its employees, the collection fund was gradually increased. The Plovdiv Algal Culture Collection (PACC) conceded algae cultures to the Algal Culture Collection at the Bulgarian Academy of Science, Sofia (RPLA), which was established in 1966.

In 1969, the Plovdiv Algae Collection consisted of 650 strains of 55 genera, belonging to 5 divisions (VODENICHAROV et al., 1969). Since then, the active work of the collection staff has been aimed at isolating new strains, and receiving algalogically pure and clonal cultures. Based on a number of contacts and relationships with international partners and as a result of strains exchanges, in the '80<sup>ties</sup> the collection was enriched with new cultures from eleven foreign collections: Göttingen (SAG), Plön [MPI], Jülich [IBI], Paris (ALCP), Czech Republic (CCALA, CAUP) and others. In 1988/1989 the Sofia collection (RPLA) was closed and its fund was moved to Plovdiv. In this way, the Plovdiv Collection became the only centre (national bank) for conservation of algae cultures in Bulgaria. The name Plovdiv Algal Culture Collection (PACC) was accepted as a conventional international symbol of the collection. Under that name the collection exists in the list of the largest collections of alive algae (WASSER\_t al., 1989).

In 1994, a new revision of the Collection Fund was carried out. At that moment, the fund comprised 1094 strains, belonging to 306 species of 121 genera (VODENICHAROV et al.,

1995). The total number of strains from foreign collections was almost the half of the collection fund.

After 1994, the main attention was drawn toward the final completion of a catalogue of the cultures, included in collection. The species, presented by the biggest number of strains, were subject to reduction of strains (i.e. the number of strains, coming from one and the same localities, was reduced). As a result of this, at present there are maintained 774 strains (algologically pure and clonal), belonging to 249 species (of 103 genera from seven divisions). Most of the strains (more than 80%) are of freshwater green algae (Chlorophyta, Chlorococcales). They are isolated from environmentally various biotopes in different regions of Bulgaria. The foreign strains come from natural materials, isolated from almost all continents. The collection includes type cultures (i.e. cultures, used for the initial description of the species), strains of species that are bio-indicators for water trophity and saprobity, as well as toxicity test organisms. As far as the collection is a national bank for conservation of the gene fund of lower autotrophy plant species, its priorities for the future development will be directed towards isolation of strains of new species and reduction of duplicated strains of already conserved species. Also, the passportisation of the strains, included in the catalogue, which has been started already by MLADENOV & ILIEV (in press), will be brought to a completion.

The cultures from the Plovdiv collection are usually used for scientific work. On the bases of this collection fund, the morphology and taxonomy of a number of species, subject to scientific discussions (like *Monoraphidium* KOM.-LEGN., *Cosmarium* CORDA, *Spirulina* TURP. and others), were studied. In this direction were aimed also the scientific works on the strongly polymorphus genus *Scenedesmus* MEYEN, whose beginning was put by KIRYAKOV (1977). This trend was continued by MLADENOV (1997) and BELKINOVA (2001) with studies of clonal cultures. The results of these studies were summarised in three dissertations and many publications (KIRYAKOV, 1981; MLADENOV & FURNADŽIEVA, 1995, 1997, 1999; MLADENOV & BELKINOVA, 1997; BELKINOVA & MLADENOV, 2000, 2002; MLADENOV & DIMITROVA, 2001 and others). During the last several years, strains were requested by a number of foreign institutes for the purpose of different scientific studies: Germany (Forschungszentrum Jülich; Centre for Environmental Research Leipzig-Halle), Netherlands (Wageningen University), Czech republic (Institute of Microbiology, Třeboň) and Sweden (Lund University).

The Plovdiv Algal Culture Collection is also widely used in the educational process at the Paisii Hilendarsky Plovdiv University. It has been used for demonstration of a wide range of species during the lectures in plant taxonomy, plant anatomy and morphology, cytology, physiology of plants, biochemistry and microbiology. Strains from this collection were used by students for the preparation of more than 50 diploma papers.

Algal cultures from the Plovdiv Algal Culture Collection were requested and used by a number institutes and administration departments for different purposes: the Physiology of Plants Institute (BAS), Institute in Genetics (BAS), the Plovdiv Institute in Bio-Products, Institute in Freshwater Fish-farming-Plovdiv, Rupite Experimental Department at the Plant for Bandage Materials - Sandanski and others.

There are three publications, presenting the stages of development and way of functioning of the collection (VODENICHAROV et al., 1969; VODENITCHAROV et al., 1995; TENEVA et al., 2001).

## **Instructions for Ordering of Cultures**

The cultures are offered for disposal to all interested institutes, collections, and private persons from Bulgaria and abroad. The request for algae cultures should contain information about the needed species, number of strains, and research goals (in order to facilitate the appropriate strains selection). The request should be sent to the following address:

Plovdiv Algal Culture Collection (PACC),  
Department of Botany,  
Faculty of Biology,  
University of Plovdiv,  
24 Tzar Assen Str.,  
4000 Plovdiv,  
Bulgaria

The price for one strain, requested for research purposes is eight Bulgarian leva, and for commercial purposes it is 20 Bulgarian leva (with possibilities for actualisation). Subject to preliminary agreement, strains that are designated for educational and training purposes, as well as for scientific studies, are offered free of charge. The strains, required by foreign institutions and organisations for commercial works, will be paid through free Bank transfer.

Depending on the type and volume of requested cultures, the delivery time will be one to two weeks.

After the strains are received, the ordering institution(s) should send back a notification, specifying the total amount and the numbers of the received strains.

The catalogue is also offered on a disk. For more information and contacts, please e-mail to: [detbel@pu.acad.bg](mailto:detbel@pu.acad.bg) and e-mail: [rummlad@pu.acad.bg](mailto:rummlad@pu.acad.bg)

## **Maintenance of Cultures**

Unified after STEIN (1973) methods for isolation, creation and maintenance of different types of cultures have been used. The method of MLADENOV & FURNADŽIEVA (1995) won recognition and is applied for isolation of algalogical pure and clonal cultures in the collection.

The cultures are maintained in a traditional way by the method of periodic screening (sub-cultivation) in glass test tubes with suitable nutrient medium (see Maintenance Media). The screening is held in a bacteriological box once a year, usually at spring. For some of the strains, the optimum screening term is six months, and these strains are maintained only in a liquid medium.

The cultures' conservation is carried out in two ways:

- In thermostat camera at temperature of 12 °C, low light intensity (600 lux), each in two test-tubes with slanting agar (1,7 - 2%) on the appropriate solid maintenance medium (subject of screening once a year);

- At room temperature (17 - 25 °C) and scattered sun light, each in two test tubes with liquid maintenance medium (subject of screening twice a year).

## Maintenance Media:

Medium:	Abbreviation:	References:
Bold's Basal Medium	BBM	ARCHIBALD & BOLD (1970)
Göttingen (SAG) medium 1 (Basal)	G <sub>1</sub>	SCHLÖSSER (1982)
Göttingen (SAG) Medium 6 (Brackishwater)	G <sub>6</sub>	SCHLÖSSER (1982)
Göttingen (SAG) Medium 7 (Desmidiaceae)	G <sub>7</sub>	SCHLÖSSER (1982)
Göttingen (SAG) Medium 2 (Spirulina)	SG	SCHLÖSSER (1982)
Zehnder Medium	Z	ZEHENDER in STAUB (1961)
Prat	Pt	PRÁT et al. (1972) our modif.
Eddy medium	Ed	EDDY (1956)

## Explanatory Notes about the Data in the List of Strains

The catalogue comprises algae strains of seven divisions, listed as follows: Cyanobacteria, Rhodophyta, Botrydiophyta, Eustigmatophyta, Euglenophyta, Chlorophyta and Zygnemaphyta. The genera and species from each separate division are listed in alphabetic order.

The following data is given for each of the listed strains:

1. reference strain number in our collection;
2. name of the strain (genus, species, event. variety, form), given by the author of the taxon;
3. is. - isolator, year of isolation and number or other designation, given by the isolator;
4. loc. - country, locality, biotop;
5. from - acronym of the original collection, from which the strain has been received, the reference strain number in this collection, or the name of the strain's donator and original name of the strain;
6. = identity with parallel strains from other collections;
7. formerly - previously used name(s) of the strain;
8. maintenance medium - its abbreviation (see above), the form of the medium is indicated by means of an appendix to the medium abbreviation (a-agar, l-liquid, b-biphase);
9. Purity - the strains are algologically pure, clonal or axenic;
10. (+) or (-) - reproduction;
11. Ind. - indicator for saprobity or trophity;
12. type culture - the culture, originating from the type material, used for the initial description and naming of the alga.

**LIST OF SPECIES BY GENERA:  
(number of stains)**

**Cyanobacteria (Cyanoprokaryota, Cyanobacteriota)**

***Anabaena* BORY**

*Anabaena variabilis* KÜTZ. – 4 strains

*Anabaena bornetiana* COLL. - 1 strain

*Anabaena* spp. - 10 strains

***Calothrix* AG.**

*Calothrix elenkinii* KOSS.-2 strains

***Gloeocapsa* (KÜTZ.) HOLL. emend. (incl. *Chroococcus* NÄG.)**

*Gloeocapsa minor* (KÜTZ.) HOLL. - 1 strain

***Lyngbya* AG.**

*Lyngbya aerugineo-coerulea* (KÜTZ.) GOM.- 1 strain

*Lyngbya* spp.- 8 strains

***Microcoleus* DESM.**

*Microcoleus* spp.- 3 strains

***Nostoc* VAUCH.**

*Nostoc linckia* (ROTH.) BORN. et FLAH- 1 strain

*Nostoc punctiforme* (KÜTZ.) HAR.- 1 strain

*Nostoc* sp. - 1 strain

***Oscillatoria* VAUSH.**

*Oscillatoria* spp. - 3 strains

***Phormidium* KÜTZ.**

*Phormidium autumnale* (AG.) GOM.- 7 strains

*Phormidium bijugatum* KONG.- 1 strain

*Phormidium molle* (KÜTZ.) GOM.- 2 strains

*Phormidium papyraceum* (AG.) GOM.- 1 strain

*Phormidium uncinatum* (AG.) GOM.- 1 strain

*Phormidium* spp. - 13 strains

***Plectonema* THUR.**

*Plectonema nostocorum* BORN. - 1 strain

*Plectonema* spp. - 13 strains

***Pseudanabaena* LAUT.**

*Pseudanabaena catenata* LAUT.- 1 strains

*Pseudanabaena galeata* BOCH.- 1 strain

*Pseudanabaena* spp. - 2 strains

***Scytonema* AG.**

*Scytonema* spp. - 2 strains

***Spirulina* TURP.**

*Spirulina platensis* (NORDST.) GEITL.- 3 strains

***Synechococcus* NÄG.**

*Synechococcus elongatus* NÄG. -1 strain

*Synechococcus* sp. -1 strain

***Synechocystis* SAUV.**

*Synechocystis parvula* PERF. -1 strain

***Tolypothrix* KÜTZ.**

*Tolypothrix tenuis* KÜTZ. - 2 strains

*Tolypothrix* sp. - 1 strains

## **Rhodophyta (Rhodophyceae)**

### ***Porphyridium* NÄG.**

*Porphyridium aerugineum* GEITL. - 1 strain

*Porphyridium purpureum* (BORY) DREW et ROSS - 1 strain

## **Botrydiophyta (Xanthophyta, Heterokontae)**

### ***Botrydiopsis* BORZI**

*Botrydiopsis alpina* VISCH. - 2 strains

### ***Bumilleria* BORZI**

*Bumilleria sicula* BORZI - 1 strain

### ***Chloridella* PASCH.**

*Chloridella neglecta* PASCH. - 1 strain

### ***Heterothrix* PASCH.**

*Heterothrix* spp. - 2 strains

### ***Nephrodiella* PASCH.**

*Nephrodiella brevis* VISCH. - 1 strain

### ***Ophiocytium* NÄG.**

*Ophiocytium capitatum* WOLLE - 1 strain

### ***Pleurochloris* PASCH.**

*Pleurochloris magna* PETERS. - 2 strains

### ***Tribonema* DERB. et SOL.**

*Tribonema* sp. - 1 strain

## **Eustigmatophyta (Eustigmatophyceae)**

### ***Eustigmatos* HIBB.**

*Eustigmatos vischeri* HIBB. - 1 strain

## **Euglenophyta (Euglenophycophyta, Euglenophyceae)**

### ***Euglena* EHR.**

*Euglena* spp. - 2 strains

## **Chlorophyta (Chlorophycophyta, Chlorophyceae)**

### ***Actinastrum* LAG.**

*Actinastrum aciculare* PLAYF. - 1 strain

*Actinastrum hantzschii* LAG.- 1 strain

### ***Actinochloris* KORŠ.**

*Actinochloris* spp. - 2 strains

### ***Ankistrodesmus* CORDA**

*Ankistrodesmus bibraianus* (REINSCH.) KORŠ. - 1 strain

*Ankistrodesmus densus* KORŠ. - 2 strains

*Ankistrodesmus falcatus* (CORDA) RALFS - 3 strains

*Ankistrodesmus stipitatus* (CHOD.) KOM.- LEGN. - 1 strain

### ***Auxenochlorella* (SHIH. et KRAUSS) KAL. et PUNČOCH.**

*Auxenochlorella protothecoides* (KRÜG.) KAL. et PUNČOCH. - 4 strains

### ***Botryosphaerella* SILVA**

*Botryosphaerella sudetica* (LEMM.) SILVA -1 strain

### ***Bracteacoccus* TERG.**

- Bracteacoccus minor* (CHOD.) PETR. - 2 strains  
*Bracteacoccus terrestris* (CHOD. et KOL) STARR - 1 strain  
*Bracteacoccus sp.* - 1 strain
- Characium** BRAUN  
*Characium acuminatum* A. BR. - 1 strain  
*Characium polymorphum* TRAIN. et BOLD - 1 strain
- Chlamydomonas** EHR.  
*Chlamydomonas asymmetrica* KORŠ. - 2 strains  
*Chlamydomonas nivalis* WILLE - 1 strain  
*Chlamydomonas spp.* - 7 strains
- Chlorella** BEIJER.  
*Chlorella ellipsoidea* GERN. - 5 strains  
*Chlorella emersonii* SHIH. et KRAUSS - 6 strains  
*Chlorella fusca* SHIH. et KRAUSS - 6 strains  
*Chlorella homosphaera* SKUJA - 2 strains  
*Chlorella kessleri* FOTT et NOV. - 3 strains  
*Chlorella luteoviridis* CHOD. - 18 strains  
*Chlorella miniata* (NÄG.) OLTM. - 1 strain  
*Chlorella oocystoides* HIND. - 1 strain  
*Chlorella protothecoides* KRÜG. - 5 strains  
*Chlorella pyrenoidosa* CHICK - 3 strains  
*Chlorella sacchrophila* (KRÜG.) MIG. - 6 strains  
*Chlorella sorokiniana* SHIH. et KRAUSS - 1 strain  
*Chlorella variegata* BEIJER. - 1 strain  
*Chlorella vulgaris* BEIJER. - 37 strains  
*Chlorella zofingiensis* DONZ - 6 strain  
*Chlorella spp.* - 30 strains
- Chlorhormidium** FOTT  
*Chlorhormidium fluitans* (GAY) STARM. - 1 strain
- Chlorococcum** MENEGH.  
*Chlorococcum hypnosporum* STARR - 2 strains  
*Chlorococcum macrostigmatum* STARR - 1 strain  
*Chlorococcum oleofaciens* TRAIN. et BOLD - 1 strain  
*Chlorococcum vacuolatum* STARR - 1 strain  
*Chlorococcum spp.* - 51 strains
- Choricystis** (SKUJA) FOTT  
*Choricystis chodatii* (JAAG) FOTT - 6 strains  
*Choricystis komarekii* COM. - 1 strain  
*Choricystis minor* (SKUJA) FOTT - 9 strains
- Closteriopsis** LEMM.  
*Closteriopsis acicularis* (G.M. SMITH) BELCH. et SWALE - 1 strain
- Coccomyxa** SCHMIDLE  
*Coccomyxa confluens* (KÜTZ.) FOTT - 2 strains  
*Coccomyxa elongata* CHOD. et JAAG - 2 strains  
*Coccomyxa icmadophilla* JAAG - 1 strain  
*Coccomyxa peltigerae variolosae* JAAG - 1 strain  
*Coccomyxa pringsheimii* JAAG - 1 strain  
*Coccomyxa rayssiae* CHOD. et JAAG - 1 strain  
*Coccomyxa solorinae bispore* JAAG - 2 strains  
*Coccomyxa subellipsoidea* ACT. - 1 strain  
*Coccomyxa sp.* - 1 strain.
- Coelastropsis** FOTT et KAL.

*Coelastropsis costata* (KORŠ.) FOTT et KAL.- 3 strains

**Coelastrum** NÄG.

*Coelastrum astroideum* DE NOT. - 3 strains

*Coelastrum microporum* NÄG. - 28 strains

*Coelastrum proboscideum* BOHL. - 2 strain

*Coelastrum quadricellulare* BEHRE - 1 strain

*Coelastrum reticulatum* (DANG.) SENN - 2 strains

*Coelastrum spp.* - 2 strains

**Crucigeniella** LEMM.

*Crucigeniella apiculata* (LEMM.) KOM. - 1 strain

*Crucigeniella pulchra* (W. et G.S. WEST) KOM. - 1 strain

*Crucigeniella smithii* (BOURR. et MANG.) KOM. - 1 strain

**Dictyosphaerium** NÄG.

*Dictyosphaerium chlorelloides* (NAUM) KOM. et PERM. - 1 strain

*Dictyosphaerium ehrenbergianum* NÄG. - 1 strain

**Didymocystis** KORŠ.

*Didymocystis bicellularis* (CHOD.) KOM. - 2 strains

*Didymocystis planktonica* KORŠ. - 1 strain

**Dimorphococcus** A. BR.

*Dimorphococcus lunatus* A. BR. - 1 strain

**Dunaliella** TEOD.

*Dunaliella salina* TEOD. - 1 strain

**Ecdysichlamys** G.S. WEST

*Ecdysichlamys obliqua* G.S. WEST - 1 strain

**Enallax** PASCH.

*Enallax coelastroides* (BOHL.) SKUJA - 5 strains

**Eremosphaera** DE BARY

*Eremosphaera viridis* DE BARY - 2 strains

**Eutetramorus** WALT.

*Eutetramorus sp.* - 1 strain

**Glaucocystis** ITZ.

*Glaucocystis nostochinearum* ITZ. sensu KORŠ. - 1 strain

**Golenkinia** CHOD.

*Golenkinia sp.* - 1 strain

**Golenkiniopsis** KORŠ.

*Golenkiniopsis parvula* (VOR.) KORŠ.- 1 strain

**Gonium** MÜLL.

*Gonium pectorale* MÜLL.- 1 strain

**Granulocystis** HIND.

*Granulocystis verrucosa* (ROLL) HIND.- 1 strain

**Haematococcus** AG. em. FLOT.

*Haematococcus pluviatilis* FLOT. em. WILLE - 3 strains

**Hormotilopsis** TRAIN. et BOLD

*Hormotilopsis gelatinosa* TRAIN. et BOLD - 1 strain

**Hypnomonas** KORŠ.

*Hypnomonas ellipsoides* KORŠ. - 2 strains

**Kentrosphaera** BORZI

*Kentrosphaera gibberosa* VOD. et BEND. - 2 strains

*Kentrosphaera sp.* - 1 strain

**Kirchneriella** SCHMIDLE

*Kirchneriella aperta* TEIL. - 1 strain

*Kirchneriella arcuata* G.M. SMITH - 1 strain



- Kirchneriella contorta* (SCHMIDLE) BOHL. - 4 strains  
*Kirchneriella irregularis* (G.M. SMITH) KORŠ. - 3 strains  
*Kirchneriella lunaris* (KIRCHN.) MOEB. - 2 strains  
*Kirchneriella obesa* (W. WEST) SCHMIDLE - 3 strains  
*Kirchneriella rotunda* (KORŠ.) HIND. - 1 strain
- Lagerheimia** CHOD.  
*Lagerheimia subsalsa* LEMM. - 1 strain
- Micractinium** FRES.  
*Micractinium sp.* - 1 strain
- Microspora** THUR.  
*Microspora sp.* - 1 strain
- Monoraphidium** KOM.-LEGN.  
*Monoraphidium contortum* (THUR. in BRÉB.) KOM.-LEGN. - 3 strains  
*Monoraphidium convolutum* (CORDA) KOM.-LEGN. - 5 strains  
*Monoraphidium griffithii* (BERK.) KOM.-LEGN. - 5 strains  
*Monoraphidium irregulare* (G.M. SMITH) KOM.-LEGN. - 1 strain  
*Monoraphidium komarkovae* NYG. - 2 strains  
*Monoraphidium minutum* (NÄG.) KOM.-LEGN. - 3 strains  
*Monoraphidium neglectum* HEYN. et KRIEN. - 12 strains  
*Monoraphidium pseudobraunii* (BELCH. et SWALE) HEYN. - 1 strain  
*Monoraphidium pusillum* (PRINTZ) KOM.-LEGN. - 2 strains  
*Monoraphidium terrestre* (BRIST.) KRIEN. et KLEIN - 2 strains
- Muriella** BOYE-PET.  
*Muriella aurantiaca* VISCH. - 1 strain
- Neochloris** STARR  
*Neochloris alveolaris* BOLD - 1 strain  
*Neochloris aquatica* STARR - 1 strain  
*Neochloris sp.* - 1 strain
- Neosporangiococcum** DEAS.  
*Neosporangiococcum sp.* - 1 strain
- Nephrochlamys** KORŠ.  
*Nephrochlamys allanthoidea* KORŠ. - 1 strain
- Oocystis** A. BR.  
*Oocystis apiculata* W. WEST - 1 strain  
*Oocystis borgei* SNOW - 1 strain  
*Oocystis lacustris* CHOD. - 1 strain  
*Oocystis marssonii* LEMM. - 2 strains  
*Oocystis natans* (LEMM.) LEMM. - 1 strain  
*Oocystis parva* W. et G.S. WEST - 2 strains  
*Oocystis rupestris* KIRCHN. - 1 strain  
*Oocystis solitaria* WITTR. - 2 strains  
*Oocystis spp.* - 9 strains
- Pediastrum** MEYEN  
*Pediastrum boryanum* (TURP.) MENEGH. - 6 strains  
*Pediastrum duplex* MEYEN - 2 strains  
*Pediastrum kawraiskyi* SCHMIDLE - 1 strain  
*Pediastrum tetras* (EHR.) RALFS - 2 strains
- Polyedriopsis** SCHMIDLE.  
*Polyedriopsis spinulosa* (SCHMIDLE) SCHMIDLE - 2 strains
- Protosiphon** KLEBS  
*Protosiphon botryoides* (KÜTZ.) KLEBS - 2 strains
- Pseudococcomyxa** KORŠ.

*Pseudococcomyxa simplex* (MAINX) FOTT - 3 strains

***Pseudendoclonium* WILLE**

*Pseudendoclonium basiliensis* VISCH. - 1 strain

***Quadrugula* PRINTZ**

*Quadrugula closterioides* (BOHL.) PRINTZ - 1 strain

***Radiococcus* SCHMIDLE**

*Radiococcus bavaricus* (SKUJA) KOM. - 1 strain

***Raphidocelis* HIND.**

*Raphidocelis sigmoidea* HIND. - 1 strain

***Rhizoclonium* KÜTZ.**

*Rhizoclonium* sp. - 1 strain.

***Scenedesmus* MEYEN**

*Scenedesmus abundans* (KIRCHN.) CHOD. - 1 strain

*Scenedesmus aculeolatus* REINSCH - 3 strains

*Scenedesmus acuminatus* (LAG.) CHOD. - 7 strains

*Scenedesmus acutiformis* SCHRÖD. - 2 strains

*Scenedesmus acutus* MEYEN - 17 strains

*Scenedesmus armatus* CHOD. - 18 strains

*Scenedesmus bernardii* G.M. SMITH - 2 strains

*Scenedesmus bicaudatus* DEDUSS. - 1 strain

*Scenedesmus brevispina* (G.M. SMITH) CHOD. - 1 strain

*Scenedesmus communis* HEG.- 6 strains

*Scenedesmus corallinus* CHOD. - 1 strain

*Scenedesmus costatus* SCHMIDLE - 2 strains

*Scenedesmus denticulatus* LAG. - 2 strain

*Scenedesmus disciformis* (CHOD.) FOTT et KOM. - 1 strain

*Scenedesmus dispar* BRÉB. - 1 strain

*Scenedesmus ecornis* (EHR.) CHOD. - 1 strain

*Scenedesmus ellipticus* CORDA - 2 strains

*Scenedesmus falcatus* CHOD. - 3 strains

*Scenedesmus gutwinskii* CHOD. - 1 strain

*Scenedesmus incrassatulus* BOHL. - 11 strains

*Scenedesmus intermedius* CHOD. - 2 strains

*Scenedesmus maculosus* HORTOB. - 1 strain

*Scenedesmus microspina* CHOD. - 7 strains

*Scenedesmus obliquus* (TURP.) KÜTZ. - 45 strains

*Scenedesmus obtusiusculus* CHOD. - 8 strains

*Scenedesmus obtusus* MEYEN - 3 strains

*Scenedesmus opoliensis* P. RICHT - 7 strains

*Scenedesmus pannonicus* HORTOB. - 1 strain

*Scenedesmus pectinatus* MEYEN - 3 strains

*Scenedesmus pleiomorphus* HIND. - 1 strain

*Scenedesmus pseudoarmatus* HORTOB. - 3 strains

*Scenedesmus pseudobernardii* COM. et KOM. - 2 strains

*Scenedesmus pseudogranulatus* MAJS. - 1 strain

*Scenedesmus quadricauda* (TURP.) BRÉB. sensu CHOD. - 1 strain

*Scenedesmus quadrispina* CHOD. - 1 strain

*Scenedesmus regularis* SVIR. - 2 strains

*Scenedesmus serratus* (CORDA) BOHL. - 1 strain

*Scenedesmus soli* HORTOB. - 1 strain

*Scenedesmus subspicatus* CHOD. - 1 strain

*Scenedesmus velitaris* KOM. - 7 strains

- Scotiellopsis** VIN.  
*Scotiellopsis sp.* - 1 strain
- Selenastrum** REINSCH  
*Selenastrum capricornutum* PRINTZ - 2 strains
- Siderocelis** (NAUM.) FOTT  
*Siderocelis kolkwitzii* (NAUM.) FOTT - 1 strain  
*Siderocelis pseudoblonda* HIND. - 1 strain  
*Siderocelis sphaerica* HIND. - 1 strain
- Sorastrum** KÜTZ.  
*Sorastrum spinulosum* NÄG. - 1 strain
- Spongiochloris** STARR  
*Spongiochloris minor* CHANT. et BOLD - 1 strain  
*Spongiochloris sp.* - 1 strain
- Stichococcus** NÄG.  
*Stichococcus bacillaris* NÄG. - 2 strains  
*Stichococcus minutus* GRINT. et PET. - 1 strain  
*Stichococcus mirabilis* LAG. - 1 strain  
*Stichococcus sp.* - 1 strain
- Tetracystis** BR. et BOLD  
*Tetracystis tetrasporum* (ARCE et BOLD) BR. et BOLD - 1 strain  
*Tetracystis sp.* - 1 strain
- Tetraedron** KÜTZ.  
*Tetraedron caudatum* (CORDA) HANSG. - 2 strains  
*Tetraedron minimum* (A. BR.) HANSG. - 3 strains  
*Tetraedron triangulare* KORŠ. - 1 strain
- Tetradesmus** G.M. SMITH  
*Tetradesmus wisconsinensis* G.M. SMITH - 1 strain
- Tetrastrum** CHOD.  
*Tetrastrum staurogeniaeforme* (SCHRÖD.) LEMM. - 2 strains  
*Tetrastrum triangulare* (CHOD.) KOM. - 1 strain
- Trebouxia** PUYM.  
*Trebouxia erici* AHMAD. - 1 strain  
*Trebouxia sp.* - 1 strain
- Treubaria** BERN.  
*Treubaria schmidlei* (SCHRÖD.) FOTT et KOV. - 1 strain
- Trochiscia** KÜTZ.  
*Trochiscia stellata* VOD. et BEND. - 1 strain
- Westella** DE-WILD.  
*Westella botryoides* (W. WEST) DE-WILD. - 1 strain

### **Zygnemaphyta (Zygophyta, Conjugatophyceae)**

- Closterium** NITZSCH  
*Closterium sp.* - 1 strain
- Cosmarium** CORDA  
*Cosmarium laeve* RAB. - 16 strain
- Desmidium** AG.  
*Desmidium schwartzii* AG. - 1 strain
- Euastrum** EHR.  
*Euastrum verrucosum* EHR. - 1 strain
- Mesotaenium** NÄG.  
*Mesotaenium caldariorum* (LAG.) HANSG. - 1 strain

*Mesotaenium chlamydosporum* DE BARY - 1 strain  
*Mesotaenium endlicherianum* NÄG. - 1 strain  
*Mesotaenium kramstai* LEMM. - 1 strain  
***Spondylosium*** BRÉB.  
*Spondylosium pulchellum* ARCH. - 1 strain  
***Staurastrum*** MEYEN  
*Staurastrum spp.* - 4 strains  
***Teilingia*** BOURR.  
*Teilingia granulata* (ROY et BISS.) BOURR. - 1 strain  
***Zygnema*** AG.  
*Zygnema sp.* - 1 strain

**LIST OF STRAINS:**  
**Prokaryotic algae**  
**Cyanobacteria (Cyanoprokaryota, Cyanobacteriota)**

*Anabaena* BORY

*Anabaena variabilis* KÜTZ.

- \_ 5442                    **is.** Nultsch; **loc.** USA, got 21.11.1961; **from** [MPI] 1.4., 1973, Dr. Schwabe; **Z-b**
- \_ 5443                    **is.** Watanabe M-2; **loc.** Japan, got 22.5.1964 from Aisha El- Aganty; **from** [MPI] 1.5., 1973, Dr. Schwabe; **Z-b**
- \_ 5455                    **is.** Nultsch; **loc.** USA, got 21.11.1961; **from** [MPI] 1.3., 1973, Dr. Schwabe; **Z-b**
- \_ 5457                    **is.** Aisha El- Aganty; **loc.** Germany, Göttingen, soil, got 7.4.1965; **from** [MPI] 1.26., 1973, Dr. Schwabe; **Z-b**

*Anabaena bornetiana* COLL.

- \_ 8775                    **is.** Mladenov, 30.4.1989; **loc.** Bulgaria, Plovdiv, fish pond; **Z-a**

*Anabaena* spp.

- \_ 5441                    **is.** Schwabe, 11.5.1962; **loc.** Germany, Plön, [MPI], Aquarium; **from** [MPI] 1.11., 1973, Dr. Schwabe; **Z-b**
- \_ 5452                    **is.** Riese, 1964; **loc.** culture of *Gloeotrichia* sp.; **from** [MPI] 1.19., 1973, Dr. Schwabe; **Z-b**
- \_ 5456                    **is.** Schwabe, 11.5.1962; **loc.** Germany, Plön, [MPI], Aquarium; **from** [MPI] 1.7., 1973, Dr. Schwabe; **Z-b**
- \_ 5461                    **is.** Schwabe, 1962; **loc.** Germany, Plön, [MPI], Aquarium; **from** [MPI] 1.10., 1973, Dr. Schwabe; **Z-b**
- \_ 5492                    **is.** Jahnke; **loc.** Germany, Rostock, got 29.5.1967; **from** [MPI] 1.32., 1973, Dr. Schwabe; **Z-b**
- \_ 8376                    **is.** Vodeničarov, 5.7.1967; **loc.** Bulgaria, Plovdiv, fish pond; **Z-b**
- \_ 8632                    **is.** Angelieva, 12.3.1985; **loc.** Bulgaria, Plovdiv, puddle on the rocks of the hill

- Sachattepe; **Z**-b
- \_ 8725 **is.** Mladenov, 4.6.1987; **loc.** Bulgaria, lake Srebarna near Danube; **G**<sub>1</sub>-a
- \_ 8749 **is.** Mladenov, 30.9.1987; **loc.** Bulgaria, Burgas, weir Mandra; **Z**-a
- \_ 8774 **is.** Belkinova, 15.4.1989; **loc.** Bulgaria, Plovdiv, hill Bunardžica, wet rocks; **Z**-a
- Calothrix* AG.  
*Calothrix elenkinii* KOSS.  
 \_ 8656 **is.** Angelieva, 12.12.1985; **loc.** Bulgaria, Balčik, fountain on central square; **Z**-a
- \_ 8754 **is.** Angelieva, 31.5.1986; **loc.** Bulgaria, Pleven, fountain on central square; **Z**-a
- Gloeocapsa* (KÜTZ.) HOLL. emend. (incl. *Chroococcus* NÄG.)  
*Gloeocapsa minor* (KÜTZ.) HOLL.  
 \_ 8801 **is.** Belkinova, 10.9.1989; **loc.** Bulgaria, Rhodopes, river Širokolaška, on rocks; **Z**-a
- Lyngbya* AG.  
*Lyngbya aerugineo-coerulea* (KÜTZ.) GOM.  
 \_ 8601 **is.** Angelieva, 6.6. 1984; **loc.** Bulgaria, river Topolniča; **Z**-b
- Lyngbya* spp.  
 \_ 5413 **is.** Kunkel; 8.10.1967; **loc.** Canaria, Isla de Lobos, flat lagoon, wet sandy soil halophile; **from** [MPI] 16.12., 1973, Dr. Schwabe; **Z**-b
- \_ 5419 **is.** unknown, 29.9.1964; **loc.** Tanzania, crater Ngoro-Ngoro, dry soil; **from** [MPI] 16.3., 1973, Dr. Schwabe; **Z**-b
- \_ 5425 **is.** unknown, 21.10.1968; **loc.** Germany, Harz mountains, Eckernkrug, soil from a puddle; **from** [MPI] 16.9., 1973, Dr. Schwabe; **Z**-b
- \_ 5427 **is.** Schwabe, 21.10.1968; **loc.** Germany, Solling mountains, Hoher Meissner; **from** [MPI] 16.11., 1973, Dr. Schwabe; **Z**-b
- \_ 5433 **is.** unknown, 7.7.1967; **loc.** Antarctica, Marion Island; **from** [MPI] 16.5.; 1973, Dr. Schwabe; **Z**-b
- \_ 5435 **is.** Hickel, 11.12.1967; **loc.** Germany,

- Kyffhauser mountains, salt soil; **from** [MPI] 16.8.; 1973, Dr. Schwabe; **Z-b**
- \_ 5444 **is.** Wagner; **loc.** unknown, got 18.1.1968; **from** [MPI] 16.7., 1973, Dr. Schwabe; **Z-b**
- \_ 5472 **is.** Schwabe, 21.10.1968; **loc.** Germany, Sollingmountains, Hoher Meissner; **from** [MPI] 16.10., 1973, Dr. Schwabe; **Z-b**
- Microcoleus* DESM.  
*Microcoleus* spp.  
 \_ 5426 **is.** Schwabe; 21.10.1968; **loc.** Germany, Solling mountains, Hoher Meissner; **from** [MPI] 22.1., 1973, Dr. Schwabe; **Z-b**
- \_ 5434 **is.** Schwabe; 21.10.1968; **loc.** Germany, Göttingen, new Botan. Garden, soil, sterilized with tropex; **from** [MPI] 22.2., 1973, Dr. Schwabe; **Z-b**
- \_ 5533 **is.** unknown; **loc.** unknown; **from** [MPI] 510.2., 1973, Dr. Schwabe; **Z-b**
- Nostoc* VAUCH.  
*Nostoc linckia* (ROTH.) BORN. et FLAH  
 \_ 5085 **is.** Hegewald 1971-144; **loc.** Hungary, Szeged, Feher-to; **from** [IBI], Hegewald, 1977-144, 1988; **Z-b**
- Nostoc punctiforme* (KÜTZ.) HAR.  
 \_ 8646 **is.** Angelieva, 12.3.1985; **loc.** Bulgaria, Plovdiv, puddle on the rocks of the hill Sachattepe; **Z-a**
- Nostoc* sp.  
 \_ 8205 **is.** Vodeničarov; 1968; **loc.** Bulgaria, Rhodopes, Čair lake, fish pond; **BBM-a**
- Oscillatoria* VAUSH.  
*Oscillatoria* spp.  
 \_ 8167 **is.** Vodeničarov, 17.1.1968; **loc.** Bulgaria; **Z-b**
- \_ 8217 **is.** Kirjakov, 8.1968; **loc.** Bulgaria, Rhodopes, Čair swamp; **BBM-a**
- \_ 8650 **is.** Angelieva, 2.4.1986; **loc.** Bulgaria, Kuklen near Plovdiv, fountain near monastery; **Z-a**
- Phormidium* KÜTZ.  
*Phormidium autumnale* (AG.) GOM.

- \_ 5505 **is.** Schwabe, 5.8.1968; **loc.** England, Surtsey, S-crater Nr. 237; **from** [MPI] 13.40., 1973, Dr. Schwabe; **Z-b; Ind.**
- \_ 5511 **is.** Steubing, 30.11.1967; **loc.** Germany, lyophylized ampulla; **from** [MPI] 13.28., 1973, Dr. Schwabe; **Z-b; Ind.**
- \_ 5517 **is.** Sprecht, 8.12.1967; **loc.** Germany, lyophylized ampulla; **from** [MPI] 13.31., 1973, Dr. Schwabe; **Z-b; Ind.**
- \_ 5522 **is.** Schwartz-Kraepelin, 21.11.1968; **loc.** Germany, moss cultures (Nr. M16); **from** [MPI] 13.33., 1973, Dr. Schwabe; **Z-b; Ind.**
- \_ 5524 **is.** Schwabe, 6.9.1965; **loc.** Poland, Wolfsschanze; **from** [MPI] 13.26., 1973, Dr. Schwabe; **Z-b; Ind.**
- \_ 5527 **is.** Clasen; **loc.** Germany, Siegburg, weir Wahnbach, got 17.3.69; **from** [MPI] 13.39., 1973, Dr. Schwabe; **Z-b; Ind.**
- \_ 5529 **is.** Schwabe, 7.5.1968; **loc.** Germany, Solling mountains (IBP), meadow; **from** [MPI] 13.42., 1973, Dr. Schwabe; **Z-b; Ind.**
- Phormidium bijugatum* KONG.  
\_ 8602 **is.** Angelieva, 6.6.1984; **loc.** Bulgaria, river Topolnica; **Z-b**
- Phormidium molle* (KÜTZ.) GOM.  
\_ 5088 **is.** Hegewald 1982/65; **loc.** Germany, Jülich, KFA, test basin; **from** [IBI] Hegewald 1982-65, 1988, Dr. Hegewald; **Z-b; Ind.**
- \_ 8140 **is.** Vodeničarov, 22.4.1967; **loc.** Bulgaria, Peštera, swamp; **Z-b; Ind.**
- Phormidium papyraceum* (AG.) GOM.  
\_ 8600 **is.** Angelieva, 6.6.1984; **loc.** Bulgaria, river Topolnica; **Z-b.**
- Phormidium uncinatum* (AG.) GOM.  
\_ 8693 **is.** Mladenov, 5.10.1987; **loc.** Bulgaria, road puddle near river Veleka; **Z-a**
- Phormidium* spp.  
\_ 5510 **is.** Schwabe, 27.10.1967; **loc.** Germany, Heide, pool of DEA with oil remainders from crusts at the beach of a sewage; **from** [MPI]



- 13.30.,1973, Dr. Schwabe; **Z-b**
- \_ 5512 **is.** unknown; **loc.** Germany, Kl.Rhein near Niederhausen; **from** [MPI] 13.17., 1973, Dr. Schwabe; **Z-b**
- \_ 5514 **is.** Schwabe, 20.12.1967; **loc.** Germany, river Mosel, sluice Lehmen, concrete wall; **from** [MPI] 13.29., 1973, Dr. Schwabe; **Z-b**
- \_ 5515 **is.** Schwabe, 13.9.1963; **loc.** Germany, sample Ratsack 3; **from** [MPI] 13.19., 1973, Dr. Schwabe; **Z-b**
- \_ 5521 **is.** unknown, 29.3.1963; **loc.** Germany, Krotenhaut (Kl.Rhein); **from** [MPI] 13.24., 1973, Dr. Schwabe; **Z-b**
- \_ 5523 **is.** unknown, Sept. 1962; **loc.** USA, beach of Mississippi; **from** [MPI] 13.20., 1973, Dr. Schwabe; **Z-b**
- \_ 5526 **is.** Schwabe, 4.4.1966; **loc.** Germany, Hohenheim, bee-hive; **from** [MPI] 13.27., 1973, Dr. Schwabe; **Z-b**
- \_ 5530 **is.** Schwabe, 21.11.1968; **loc.** Germany, water from moss cultures; **from** [MPI] 13.38., Dr. Schwabe; **Z-b**
- \_ 5531 **is.** Schwabe, 27.10.1967; **loc.** Germany, Heide, pool of DEA with oil remainders from crusts at the beach of a sewage; **from** [MPI] 13.35., 1973, Dr. Schwabe; **Z-b**
- \_ 8187 **is.** Vodeničarov, 19.2.1968; **loc.** Bulgaria; **BBM- a**; **Z-a**
- \_ 8366 **is.** Vodeničarov, 1968; **loc.** Bulgaria, Plovdiv, fish pond; **BBM-a**
- \_ 8631 **is.** Angelieva, 21.2.1985; **loc.** Bulgaria, Plovdiv, fountain on central square; **Z-a**
- \_ 8750 **is.** Angelieva, 3.6.1987; **loc.** Bulgaria, Balčik, fountain on central square; **Z-a**

*Plectonema* THUR.

*Plectonema nostocorum* BORN.

- \_ 5476 **is.** Schwabe, 21.10.1968; **loc.** Germany, Solling mountains, Hoher Meissner; **from** [MPI] 9.26., 1973, Dr. Schwabe; **Z-b**

***Plectonema spp.***

- \_ 5474 **is.** Schwabe, 23.9.1969; **loc.** Germany, lake Stechlinsee; **from** [MPI] 9.30., 1973, Dr. Schwabe; **Z-b**
- \_ 5475 **is.** Schwabe, 19.8.1969; **loc.** England, Surtsey, soil; **from** [MPI] 9.32., 1973, Dr. Schwabe; **Z-b**
- \_ 5478 **is.** unknown; **loc.** unknown, WS 24; **from** [MPI] 9.11., 1973, Dr. Schwabe; **Z-b**
- \_ 5479 **is.** Schwabe, 14.8.1970; **loc.** England, Surtsey, soil Nr. 336; **from** [MPI] 9.34., 1973, Dr. Schwabe; **Z-b**
- \_ 5481 **is.** Schwabe, 18.2.1964; **loc.** Germany, Segeberg, soil; **from** [MPI] 9.14., 1973, Dr. Schwabe; **Z-b**
- \_ 5482 **is.** Schwabe, 7.5.1963; **loc.** Germany, Halle, soil; **from** [MPI] 9.4., 1973, Dr. Schwabe; **Z-b**
- \_ 5483 **is.** Schwabe, 18.2.1964; **loc.** Germany, Segeberg, soil; **from** [MPI] 9.2., 1973, Dr. Schwabe; **Z-b**
- \_ 5489 **is.** Schwabe, 16.8.1968; **loc.** USA, Inst. of Marine Sciences, Univ. of North Carolina, balls of algae on the beach; **from** [MPI] 9.29., 1973, Dr. Schwabe; **Z-b**
- \_ 5490 **is.** Schwabe, 29.6.1966; **loc.** Germany, Plon, [MPI], Aquarium; **from** [MPI] 9.23., 1973, Dr. Schwabe; **Z-b**
- \_ 5491 **is.** Schwabe, 17.2.1964; **loc.** Germany, flowing of from lake Kl. Boberowsee; **from** [MPI] 9.15., 1973, Dr. Schwabe; **Z-b**
- \_ 5534 **is.** Schwabe, March 1966; **loc.** China, Taiwan, balls of Nostoc; **from** [MPI] 9.24., 1973, Dr. Schwabe; **Z-b**
- \_ 5538 **is.** Schwabe, 27.8.1963; **loc.** Germany, Beatushöhle (cave); **from** [MPI] 9.17., 1973, Dr. Schwabe; **Z-b**
- \_ 8141 **is.** Vodeničarov, 22.4.1967; **loc.** Bulgaria, Peštera, swamp; **Z-b**

*Pseudanabaena* LAUT.

*Pseudanabaena catenata* LAUT.  
\_ 5432

**is.** Schwabe, 5.3.1964; **loc.** Germany, lake Gr. Ploner See; **from** [MPI] 14.4., 1973, Dr. Schwabe; **Z-b**

*Pseudanabaena galeata* BOCH.  
\_ 5411

**is.** Riese, 6.5.1964; **loc.** cultures of *Gloeotrichia* sp.

*Pseudanabaena* spp.  
\_ 5422

**is.** Jahnke; **loc.** Germany, Rostock, got 24.9.1963; **from** [MPI] 14.8., 1973, Dr. Schwabe; **Z-b**

\_ 5428

**is.** Clasen; **loc.** Germany, Siegburg, weit Wahnbach, got 16.1.1968; **from** [MPI] 14.9., 1973, Dr. Schwabe; **Z-b**

*Scytonema* AG.

*Scytonema* spp.  
\_ 5495

**is.** Kalbe; **loc.** unknown; **from** [MPI] 7.5., 1973; Dr. Schwabe; **Z-b**

\_ 5535

**is.** Kalbe, 1.6.1971; **loc.** Germany, lake Kummerower See; **from** [MPI] 7.4., 1973, Dr. Schwabe; **Z-b**

*Spirulina* TURP.

*Spirulina platensis* (NORDST.) GEITL.  
\_ 7034

**is.** Laporte, \_ M-132-2b, 1963; **loc.** Chad, natron lake, gas vesicles; **from** [RPLA] T 2, 1989; = SAG 85.79, CCALA 026; **SG-l**; **Ind.**

\_ 8846

**is.** Belkinova, 9.7.1987; **loc.** Bulgaria, Burgas, weir Mandra; **SG-l**; **Ind.**

\_ 8847

**is.** unknown; **from** [RPLA]; **SG-l**; **Ind.**

*Synechococcus* NÄG.

*Synechococcus elongatus* NÄG.  
\_ 3139

**is.** Kovrov 1972/8; **loc.** unknown; **from** CCALA; **Z-l**

*Synechococcus* sp.  
\_ 5440

**is.** unknown; **loc.** unknown; **from** [MPI] (560.509) 25.7.3., 1973, Dr. Schwabe; **Z-b**

*Synechocystis* SAUV.

*Synechocystis parvula* PERF.  
\_ 8627

**is.** Angelieva, 15.5.1985; **loc.** Bulgaria,

Belozem near Plovdiv, fountain Čirpan  
bunar; **Z**-a

*Tolypothrix* KÜTZ.

*Tolypothrix tenuis* KÜTZ.

\_ 5497

**is.** unknown; **loc.** got from Aisha El-Aganty,  
22.5.1964 from SAG; **from** [MPI] 8.2., 1973,  
Dr. Schwabe; =SAG B 1483-3; **Z**-b

\_ 8648

**is.** Kirjakov, Rhodopes, lake Smoljancko; **Z**-a

*Tolypothrix* sp.

\_ 5501

**is.** Schwabe, 19.12.1966; **loc.** Germany, Plön  
[MPI], Aquarium, from *Azolla* sp.; **from**  
[MPI] 8.7., 1973, Dr. Schwabe; **Z**-b

## Eukaryotic algae

### Rhodophyta (Rhodophyceae)

*Porphyridium* NÄG.

*Porphyridium aerugineum* GEITL.

\_ 5101

**is.** Ambard, 1968; **loc.** France, freshwater;  
**formerly** *Clastidium* sp.; **from** SAG 111.79,  
1988; **G**<sub>6</sub>-1

*Porphyridium purpureum* (BORY) DREW et ROSS

\_ 5102

**is.** Rieth 1962; **loc.** Germany, near  
Sangershausen, saltwater ditch; **from** SAG  
113.79, 1988; **G**<sub>6</sub>-1

### Botrydiophyta (Xanthophyta, Heterokontae)

*Botrydiopsis* BORZI

*Botrydiopsis alpina* VISCH.

\_ 1080 (= 3024)

**is.** Vischer \_ 232, 1940; **loc.** Switzerland,  
Unterengadin, Fuorn, soil; **from** CCAP 806-  
1; =CCALA 217; **BBM**-a

\_ 3024 (= 1080)

**is.** Vischer 1940/232; **loc.** Switzerland,  
Unterengadin, Fuorn, soil; **from** [CAP] A  
294; =SAG 806-1, CCAP 806/1, UTEX 295,  
CCALA 217; **BBM**-a

*Bumilleria* BORZI

*Bumilleria sicula* BORZI

\_ 8629

**is.** Kirjakov, 12.3.1985; **from** Bulgaria,  
Plovdiv, puddle on the rocks of the hill  
Sachattepe; **G**<sub>1</sub>-a

- Chloridella* PASCH.  
*Chloridella neglecta* PASCH.  
 1083  
 is. Vischer Nr. 216, 1940; **loc.** Switzerland, Unterengadin, soil; **from** CCAP 813/1; =UTEX 431, SAG 813-1b, CCALA 278; **G**<sub>1</sub>-a
- Heterothrix* PASCH.  
*Heterothrix* spp.  
 \_ 8142  
 is. Kirjakov, 29.5.1967; **loc.** Bulgaria, Magura cave; **BBM**-a  
 \_ 8143  
 is. Vodeničarov, 29.5.1967; **loc.** Bulgaria, Magura cave; **BBM**-a
- Nephrodiella* PASCH.  
*Nephrodiella brevis* VISCH.  
 \_ 3067  
 is. Vischer Nr. 267, 1941; **loc.** Switzerland, Unterengadin, soil; **from** [CAP] A 297; =UTEX 152; **BBM**-a
- Ophiocytium* NÄG.  
*Ophiocytium capitatum* WOLLE  
 \_ 8735  
 is. Kirjakov, 6.1.1988; **loc.** Bulgaria, Plovdiv, fish-pond; **G**<sub>1</sub>-a; cl; **Ind.**
- Pleurochloris* PASCH.  
*Pleurochloris magna* PETERS.  
 \_ 1087  
 is. Vischer; **loc.** unknown; **from** CCAP 86/2; **BBM**-a  
 \_ 3044  
 is. unknown; **loc.** unknown; **from** [CAP]
- Tribonema* DERB. et SOL.  
*Tribonema* sp.  
 \_ 8367  
 is. Vodeničarov, 1968; **loc.** Bulgaria, Rhodopes, near hut “Momčil Junak”; **BBM**-a

#### Eustigmatophyta (Eustigmatophyceae)

- Eustigmatos* HIBB.  
*Eustigmatos vischeri* HIBB.  
 \_ 1086  
 is. Vischer, Nr. 241, 1940; **loc.** Switzerland, Unterengading, soil; **from** CCAP 860/1 as *Pleurochloris communata* Vischer; **BBM**-a

#### Euglenophyta (Euglenophycophyta, Euglenophyceae)

- Euglena* EHR.  
*Euglena* spp.  
 \_ 8360  
 is. Kirjakov, 1968; **loc.** Bulgaria, Plovdiv, fish-pond; **BBM**-a

\_ 8393 **is.** Vodeničarov, 1968; **loc.** Bulgaria, Rhodopes, valley Kasamdere near Momčilovci; **BBM-a**

### Chlorophyta (Chlorophycophyta, Chlorophyceae)

#### *Actinastrum* LAG.

##### *Actinastrum aciculare* PLAYF.

\_ 8817 **is.** Mladenov, 25.7.1990; **loc.** Bulgaria, Plovdiv, fish-pond; **G<sub>1</sub>-a**; cl

##### *Actinastrum hantzschii* LAG.

\_ 8790 **is.** Belkinova, 26.10.1988; **loc.** Bulgaria, Burgas, weir Mandra; **G<sub>1</sub>-a**; cl

#### *Actinochloris* KORŠ.

##### *Actinochloris* spp.

\_ 7006 **is.** RPLA; **loc.** Bulgaria; **from** [RPLA] 10f, 1988; Tončeva; **BBM-a**

\_ 7008 **is.** RPLA; **loc.** Bulgaria; **from** [RPLA] 19 a, 1988, Tončeva; **BBM-a**

#### *Ankistrodesmus* CORDA

##### *Ankistrodesmus bibraianus* (REINSCH.) KORŠ.

\_ 6002 **is.** Paris; **loc.** France; **from** ALCP L-C 200; **G<sub>1</sub>-a**

##### *Ankistrodesmus densus* KORŠ.

\_ 8643 **is.** Kirjakov, 12.11.1985; **loc.** Bulgaria, Rhodopes, lake Smoljansko; **G<sub>1</sub>-a**

\_ 8729 **is.** Kirjakov, 10.11.1987; **loc.** Bulgaria, lake Sreb\_rna near Danube; **G<sub>1</sub>-a**; **clonal**

##### *Ankistrodesmus falcatus* (CORDA) RALFS

\_ 4001 **is.** Chodat, 1936-37; **loc.** Switzerland, Geneva; **from** CALU 1; =[CAP] A-75; **G<sub>1</sub>-a**; **Ind.**

\_ 6008 **is.** Bourrelly; **loc.** France; **from** ALCP L-C 77; **G<sub>1</sub>-a**; **Ind.**

\_ 6011 **is.** Algeus; **loc.** unknown; **from** ALCP L-C 224e; **G<sub>1</sub>-a**; **Ind.**

##### *Ankistrodesmus stipitatus* (CHOD.) KOM.- LEGN.

\_ 1088 **is.** Czurda, \_ 262, 1942; **loc.** Czech Republic, Doksy; **from** CCAP 202-5a (12.5); = UTEX 242, SAG 202-5, CALU 253; **formerly** A.

*falcatus* var. *stipitatus*; **G**<sub>1</sub>-a

***Auxenochlorella*** (SHIH. et KRAUSS) KAL. et PUNCOCH.

***Auxenochlorella protothecoides*** (KRÜG.) KAL. et PUNCOCH.

- \_ 1014 **is.** Kruger 1892; **loc.** Germany, sap from wounded *Populus alba*; **from** CCAP 211/7a as *Chlorella protothecoides* KRUGER; **BBM**-a; **type culture**
- \_ 1020 **is.** Pringsheim 1947, formerly *Chlorella protothecoides* KRUG.; **is.** Pringsheim 1947; **loc.** England, Cambridge, sap from wounded *Ulmus* sp.; **from** CCAP 211/8d as *C. pyrenoidosa* CHICK; **BBM**-a
- \_ 1026 **is.** probably Beijerinck 1903, formerly *C. variegata* BEIJ.; **loc.** ? sap from wounded *Ulmus* sp.; **from** CCAP 211/10b as *Chlorella protothecoides* KRUG.; **BBM**-a
- \_ 1027 **is.** probably Beijerinck 1903, formerly *C. variegata* BEIJ.; **loc.** ? sap from wounded *Ulmus* sp.; **from** CCAP 211-10c as *Chlorella protothecoides* KRUG.; **BBM**-a

***Botryosphaerella*** SILVA

***Botryosphaerella sudetica*** (LEMM.) SILVA

- \_ 8670 **is.** Angelieva, 12.11.1985; **loc.** Bulgaria, Rhodopes, lake Smoljansko; **G**<sub>7</sub>-a

***Bracteacoccus*** TERG.

***Bracteacoccus minor*** (CHOD.) PETR.

- \_ 3023 **is.** Chodat 1913/35; **loc.** Switzerland; **from** [CAP] A 163 as *Dictyococcus minor* CHOD.; =CAUP H 3801; **BBM**-a
- \_ 3041 (=3023) **is.** Chodat 1913/35; **loc.** Switzerland; **from** CAUP H 3801; **BBM**-a

***Bracteacoccus terrestris*** (CHOD. et KOL) STARR

- \_ 1062 **is.** Vischer Nr.163; **loc.** unknown; **from** CCAP 221/4 as *Dictyococcus terrestris* (CHOD. et KOL) VISCHER; **BBM**-a

***Bracteacoccus* sp.**

- \_ 8546 **is.** Kirjakov, 1968; **loc.** Bulgaria; **BBM**-a

***Characium*** BRAUN

***Characium acuminatum*** A. BR.

- \_ 8733 **is.** Mladenov, 14.7.1987; **loc.** Bulgaria, Rhodopes, lake Smoljansko; **Prat**-l; **clonal**

***Characium polymorphum*** TRAIN. et BOLD

- \_ 4486 **is.** Trainor Nr. FRT-3; **loc.** USA, Georgia, Lowndes County, soil; **from** CALU 486; =UTEX 129, ATCC 30 439; **type culture**
- Chlamydomonas* EHR.  
*Chlamydomonas asymmetrica* KORŠ.  
 \_ 2016 (=5120) **is.** Levin 1951; **loc.** USA, Conn., Yale, wet wall; **from** [IUCC] 450; =UTEX 450, CCAP 11/41, SAG 11-41; **BBM-a**
- \_ 5120 (=2016) **is.** Levin 1951; **loc.** USA, Conn., wet wall in Yale Preserve; **from** SAG 11-41, 1989; =CCAP 11/41, UTEX 450; **G<sub>1</sub>-a**
- Chlamydomonas nivalis* WILLE  
 \_ 2017 **is.** Lewin; from snow; **from** [IUCC] 464; =UTEX 464; **BBM-a**
- Chlamydomonas* spp.  
 \_ 8180 **is.** Vodeničarov, 13.2.1968; **loc.** Bulgaria; **BBM-a**
- \_ 8209 **is.** Vodeničarov, 1967; **loc.** Bulgaria, Plovdiv, fish-pond; **BBM-a**
- \_ 8239 **is.** Vodeničarov, 1968; **loc.** Bulgaria, Pirin mountains, lake Vasilaško; **BBM-a**
- \_ 8409 **is.** Vodeničarov, 14.9.1967; **loc.** Bulgaria, Plovdiv, street puddle; **BBM-a**
- \_ 8410 **is.** Vodeničarov, 14.9.1967; **loc.** Bulgaria, Plovdiv, street puddle; **BBM-a**
- \_ 8493 **is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a**
- \_ 8583 **is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a**
- Chlorella* BEIJER.  
*Chlorella ellipsoidea* GERN.  
 \_ 3009 **is.** Pringsheim, formerly *C. saccharophila* (KRUGER) MIGULA var. *ellipsoidea* (GERN.) FOTT et NOV.; **loc.** Holland, Delft; **from** [CAP] A 76 b; =CCAP 211/1a; **BBM-a**
- \_ 8082 **is.** Vodeničarov, 3.2.1965; **loc.** Bulgaria, Plovdiv, street pool; **BBM-a**
- \_ 8136 **is.** Vodeničarov, 22.4.1967; **loc.** Bulgaria; Peštera, swamp; **BBM-a**
- \_ 8312 **is.** Vodeničarov, 22.5.1967; **loc.** Bulgaria,



- Plovdiv, fish-pond; **BBM-a**
- \_ 8325 **is.** Vodeničarov, 22.5.1967; **loc.** Bulgaria, Plovdiv, fish-pond; **BBM-a**
- Chlorella emersonii* SHIH. et KRAUSS
- \_ 7048 **is.** unknown; **loc.** unknown; **from** [RPLA], 1988; =IAM 5400; **BBM-a**
- \_ 8096 **is.** Vodeničarov, 1965; **loc.** Bulgaria; **BBM-a**
- \_ 8118 **is.** Vodeničarov, 22.4.1967; **loc.** Bulgaria, Peštera; **BBM-a**
- \_ 8138 **is.** Vodeničarov, 22.4.1967; **loc.** Bulgaria, Peštera, swamp; **BBM-a**
- \_ 8230 **is.** Vodeničarov, 1968; **loc.** Bulgaria, Pirin mountains, lake Vasilaško; **BBM-a**
- \_ 8510 **is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a**
- Chlorella fusca* SHIH. et KRAUSS
- \_ 1017 **is.** Pringsheim; **loc.** unknown; **from** CCAP 211/8a; **BBM-a**
- \_ 1018 **is.** Emerson 1923; **loc.** USA, Philadelphia, **from** bark; formerly *C. pyrenoidosa*; from CCAP 211/b as *C. emersonii* var. *emersonii*; = UTEX 251 *C. pyrenoidosa*; **BBM-a**; TC
- \_ 1019 **is.** Emerson 1926; **loc.** Germany, Berlin-Dahlem, **from** tap water in the laboratory of O. Warburg; **formerly** *C. pyrenoidosa* var. *emersonii*; = UTEX 252 *C. pyrenoidosa*; **BBM-a**
- \_ 1037 **is.** Cornell, 11; **loc.** unknown; **from** CCAP 211/11m as *C. vulgaris*; =SAG 211-11m; **BBM-a**
- \_ 1038 **is.** Emerson; **loc.** Germany, Berlin-Dahlem; formerly *C. vulgaris*; **from** CCAP 211-11n *C. emersonii* var. *emersonii*; = SAG 211-11n; **BBM-a**
- \_ 1049 **is.** Pringsheim, material from Bean; **from** Australia, Melbourne; from CCAP 211/15 as *Chlorella* sp.; =SAG 211-15; **BBM-a**
- Chlorella homosphaera* SKUJA
- \_ 8033 **is.** Vodeničarov, 4.8.1964, Nr. 31-9; **loc.**

- Bulgaria, lake Šablensko; **BBM-a**
- \_ 8174 **is.** Vodeničarov, 9.1.1968; **loc.** Bulgaria; **BBM-a**
- Chlorella kessleri* FOTT et NOV.
- \_ 1035 **is.** R. Pratt; **loc.** unknown; **from** CCAP 211/11h *C. vulgaris*; =UTEX 263, ATCC 11468, SAG 211-11h, CALU 182; **BBM-a**
- \_ 8237 **is.** Vodeničarov, 1968; **loc.** Bulgaria, Pirin mountains, lake Vasilaško; **BBM-a**
- \_ 8396 **is.** Vodeničarov, 1968; **loc.** Bulgaria, Rhodopes, ponds near Momčilovci; **BBM-a**
- Chlorella luteoviridis* CHOD.
- \_ 1011 **is.** Beijerinck; **loc.** unknown; **from** CCAP 211/2b; =UTEX 248, SAG 211-2b; **BBM-a**
- \_ 1012 **is.** Pringsheim, before 1929; **loc.** unknown; **from** CCAP 211/5a as *C. miniata*; =UTEX 24; ATCC 30546, SAG 211-5a, CALU 194; **BBM-a**
- \_ 1013 **is.** Gaffron; **loc.** unknown; **from** CCAP 211/5b as *C. miniata*; =UTEX 490, SAG 211-5b; **BBM-a**
- \_ 1028 **is.** Pringsheim; **loc.** unknown; **from** CCAP 211-10e as *C. variegata*; **BBM-a**
- \_ 1044 (=3011) **is.** Kluyver; **loc.** unknown; **from** CCAP 211/3 as *C. luteoviridis* var. *aureoviridis*; =UTEX 22, ATCC 30406, SAG 211-3, CALU 187; **BBM-a**
- \_ 1045 **is.** Kufferath, Nr. 111, 1912; **loc.** Belgium, near Bruxelles, pool; **from** CCAP 211/4 as *C. luteoviridis* var. *lutescens*; =UTEX 23, SAG 211-4; **BBM-a**
- \_ 3002 **is.** Baslerova, leg. Pratt; **loc.** Czech republic, Piestany, Fons thermalis, Vah rivulus; **from** [CAP] A 14 as *Chlorella* sp.; =CCALA 260 *Chlorella sorokiniana*; **BBM-a**
- \_ 3011 (=1044) **is.** Kluyver; **loc.** unknown; **from** [CAP] A 78 as *C. luteoviridis* var. *aureoviridis*; = UTEX 22, CCAP 211/3, ATCC 30406, SAG 211-3, CALU 187; **BBM-a**

- \_ 3012 **is.** Pringsheim; **loc.** Holland, Delft; **from** [CAP] A 80 as *C. vulgaris* var. *luteoviridis*; **BBM-a**
- \_ 8903 **is.** unknown; **loc.** Russia; **BBM-a**
- \_ 8904 **is.** unknown; **loc.** Russia; **BBM-a**
- \_ 8059 **is.** Vodeničarov, 30.8.1963; **loc.** Bulgaria, Balčik, palace garden; **BBM-a**
- \_ 8184 **is.** Kirjakov, 19.3.1968; **loc.** Bulgaria; **BBM-a**
- \_ 8330 **is.** Kirjakov, 1968; **loc.** Plovdiv, Bulgaria, channel to the fish-ponds; **BBM-a**
- \_ 8373 **is.** Kirjakov, 9.10.1968; **loc.** Bulgaria, Varna, puddle near the beach; **BBM-a**
- \_ 8568 **is.** Kirjakov, 1968; **loc.** Bulgaria; **BBM-a**
- \_ 8570 **is.** Kirjakov, 1968; **loc.** Bulgaria; **BBM-a**
- \_ 8582 **is.** Kirjakov, 1968; **loc.** Bulgaria; **BBM-a**
- Chlorella miniata* (NÄG.) OLTM.  
\_ 8571 **is.** Kirjakov, 1968; **loc.** Bulgaria; **BBM-a**
- Chlorella oocystoides* HIND.  
\_ 8037 **is.** Kirjakov, 18.6.1964; **loc.** Bulgaria, Plovdiv, fish-pond; **BBM-a**
- Chlorella protothecoides* KRÜG.  
\_ 7020 **is.** RPLA; **loc.** Bulgaria; **from** [RPLA] 24, 1988, Tončeva; **BBM-a**
- \_ 8009 **is.** Vodeničarov, 15.8.1964; **loc.** Bulgaria, Rila mountains; **BBM-a**
- \_ 8102 **is.** Vodeničarov, 1965; **loc.** Bulgaria; **BBM-a**
- \_ 8104 **is.** Vodeničarov, 1965; **loc.** Bulgaria; **BBM-a**
- \_ 8132 **is.** Kirjakov, 1967; **loc.** Bulgaria; **BBM-a**
- Chlorella pyrenoidosa* CHICK  
\_ 1021 **is.** unknown; **loc.** unknown; **from** CCAP 211/8h; **BBM-a**; **Ind.**
- \_ 1022 **is.** unknown; **loc.** unknown; **from** CCAP 211-8g; **BBM-a**; **Ind.**

- \_ 7060 **is.** unknown; **loc.** unknown; **from** [RPLA], 1988; =IAM C-10 K; **BBM-a**; **Ind.**
- Chlorella sacchrophila* (KRÜG.) MIG.  
\_ 3015 **is.** Pringsheim; **loc.** unknown; **from** [CAP] A 83a; = IPPAS C-27, CALU 8 as *C. pyrenoidosa* CHICK; **BBM-a**
- \_ 1007 **is.** Brannon, Nr. 6, 1938; **loc.** USA, Wisconsin, Madison; **from** CCAP 211/1b as *C. ellipsoidea* GERNECK; =UTEX 246, SAG 211-1b; **BBM-a**
- \_ 1008 **is.** Rodhe Nr. 1633; **loc.** Sweden; **from** CCAP 211-1c as *C. ellipsoidea* GERNECK; =SAG 211-1c, CALU 192; **BBM-a**
- \_ 1009 **is.** Kellner, about 1951; **loc.** Germany, from culture apparatus Bot. Inst. Univ. Marburg; CCAP 211/1d as *C. ellipsoidea* GERNECK; =SAG 211-1d
- \_ 1023 **is.** Kruger 1892; **loc.** Germany, Halle/S., sap from wounded *Populus alba*; **from** CCAP 211/9a; =SAG 211-9a, CAUP H 1912; **BBM-a**; **type culture**
- \_ 1024 **is.** Pringsheim 1939; **loc.** England, West Humble, Dorking, garden basin; **from** CCAP 211/9b; =SAG 211-9b, CAUP H 1932; **BBM-a**
- Chlorella sorokiniana* SHIH. et KRAUSS  
\_ 8007 **is.** Vodeničarov, 11.7.1964; **loc.** Bulgaria, Rila mountains, lake B\_breka; **BBM-a**
- Chlorella variegata* BEIJER.  
\_ 3016 **is.** Pringsheim; **loc.** unknown; **from** [CAP] A 84 b; **BBM-a**
- Chlorella vulgaris* BEIJER.  
\_ 1033 **is.** unknown; **loc.** unknown; **from** CCAP 211/11e; **BBM-a**; **Ind.**
- \_ 1034 **is.** Pringsheim 1939; **loc.** England, Dorking from an old mushroom; **from** CCAP 211-11f; =SAG 211-11f; **BBM-a**; **Ind.**
- \_ 1039 **is.** Algeus, \_ B, 1938; **loc.** Sweden, Lund, pond in municipal park; **from** CCAP 211-11p; =SAG 211-11p; **BBM-a**; **Ind.**

- \_ 1040 **is.** Czurda; **loc.** Czech Republic, Praha; **from** CCAP 211/11g; =SAG 211-11g; **BBM-a; Ind.**
- \_ 1041 **is.** Krollpfeiffer; **from** CCAP 211-11r; =SAG 211-11r, Caup H 1988 as *Chlorella sp.*; **BBM-a; Ind.**
- \_ 1042 **is.** unknown, strain A; **loc.** unknown; **from** CCAP 211/11s; =SAG 211/11s; **BBM-a; Ind.**
- \_ 1043 **is.** Ruschmann; **loc.** Germany, near Werder, branch of river Ruhr; **from** CCAP 211/11t; =SAG 211/11t; **BBM-a; Ind.**
- \_ 1052 **is.** H.V.Witsch 1946/47; **loc.** Germany, Göttingen, basin in Bot. Garden; **from** CCAP 211-19 as *Chlorella sp.*; =SAG 211-19; **BBM-a; Ind.**
- \_ 3004 **is.** unknown, strain Greifswald/9; **loc.** unknown; **from** [CAP] A 23; =CCALA 261; **G<sub>1</sub>-a; Ind.**
- \_ 5006 **is.** Hegewald 1973/19; **loc.** Peru, Huaypo, lake; **from** [IBI] Heg. 1973-19, 1988; **BBM-a; Ind.**
- \_ 8856 **is.** Vodeničarov; **loc.** Russia, lake Baikal; **BBM-a; Ind.**
- \_ 8858 **is.** Vodeničarov; **loc.** Russia, lake Baikal; **BBM-a; Ind.**
- \_ 8866 **is.** Vodeničarov, 1973; **loc.** Russia, lake Baikal; **BBM-a; Ind.**
- \_ 8026 **is.** Vodeničarov, 1964; **loc.** Bulgaria, Rila mountains; **BBM-a; Ind.**
- \_ 8036 **is.** Vodeničarov, 19.7.1964; **loc.** Bulgaria, Plovdiv, ditch; **BBM-a; Ind.**
- \_ 8042 **is.** Vodeničarov, 2.8.1964, \_ 15-10; **loc.** Bulgaria, lake Sreb\_rna near Danube from *Ceratophyllum sp.*; **BBM-a; Ind.**
- \_ 8060 **is.** Vodeničarov, 7.6.1964; **loc.** Bulgaria, Plovdiv, street pool; **BBM-a; Ind.**
- \_ 8068 **is.** Vodeničarov, 1964; **loc.** Bulgaria, Rila

- mountains; **BBM-a; Ind.**
- \_ 8073 **is.** Vodeničarov, 1964; **loc.** Bulgaria; **BBM-a; Ind.**
- \_ 8076 **is.** Vodeničarov, 1964; **loc.** Bulgaria; **BBM-a; Ind.**
- \_ 8080 **is.** Vodeničarov, 1964; **loc.** Bulgaria; **BBM-a; Ind.**
- \_ 8121 **is.** Vodeničarov, 1967; **loc.** Bulgaria; **BBM-a; Ind.**
- \_ 8130 **is.** Kirjakov, 1967; **loc.** Bulgaria; **BBM-a; Ind.**
- \_ 8144 **is.** Kirjakov, 23.5.1967; **loc.** Bulgaria, Plovdiv; **BBM-a; Ind.**
- \_ 8170 **is.** Kirjakov, 9.1.1968; **loc.** Bulgaria; **BBM-a; Ind.**
- \_ 8269 **is.** Vodeničarov, 1968; **loc.** Bulgaria, Pirin mountains, lake Vasilaško; **BBM-a; Ind.**
- \_ 8342 **is.** Kirjakov, 14,10.1969; **loc.** Bulgaria, Plovdiv, channel to the fishpond; **BBM-a; Ind.**
- \_ 7030 **is.** Kosikov, 132-2; **loc.** Russia; **from** [RPLA], Sp K, 1988, Tončeva; = IPPAS C-1, known as *Chlorella sp.* K; = CALU 246; **BBM-a**
- \_ 3005 **is.** Emerson strain 3; **loc.** unknown; **from** [CAP], A 24 as *C. pyrenoidosa*; = IPPAS C-26, CCALA 267, CCAP 211/8h *C. emersonii* var. *emersonii*; **BBM-a**
- \_ 3006 **is.** Tamiija 105; **loc.** unknown; **from** [CAP], A 25 as *C. ellipsoidea*; = IPPAS C-31; **BBM-a**
- \_ 3014 **is.** Pringsheim; **loc.** unknown; **from** [CAP] a 82 as *C. pyrenoidosa*; = IPPAS C-2, CALU 4, CCALA 265; **BBM-a**
- \_ 3017 (=1046) **is.** Chodat \_ 45; **loc.** unknown; **from** [CAP] A 87 as *C. vulgaris* var. *viridis*; = UTEX 30, CCAP 211/12, ATCC 16 487, IPPAS C-20, CAUP H 1917 as *C. vulgaris* var. *vulgaris* f. *viridis*; **BBM-a**

- \_ 1010 **is.** Gaffron \_ 45; **loc.** unknown; **from** CCAP 211/1\_, CCALA 262; **BBM-a**
- \_ 1030 **is.** Beijerinck 1892 ?; **loc.** Holland, Delft ?; **from** CCAP 211/11b; = UTEX 259, SAG 211-11b, CALU 183, CAUP H 1955; **BBM-a**; **type culture**
- \_ 1036 **is.** Riese; **loc.** unknown; **from** CCAP 211-11k; **BBM-a**
- \_ 1046 (=3017) **is.** Chodat \_ 45; **loc.** unknown; **from** CCAP 211/12 as *C. vulgaris* var. *viridis*; = UTEX 30, ATCC 16487, SAG 211-12, CALU 184, CAUP H 1917 as *C. vulgaris* var. *vulgaris* f. *viridis*; **BBM-a**
- \_ 1053 **is.** unknown; **loc.** unknown; **from** CCAP 211/21 as *C. ovalis*; = CALU 196; **BBM-a**
- Chlorella zofingiensis* DONZ**
- \_ 1048 (=3019) **is.** Donz 1933; **loc.** Switzerland, Ramouswald near Zofingen, soil; **from** CCAP 211/14; = UTEX 32, ATCC 30 412, SAG 211-14, LABIK 842-1, CALU 190, CAUP H 6503 as *Mychonastes zofingiensis*; **BBM-a**; TC
- \_ 3019 (=1048) **is.** Donz 1933; **loc.** Switzerland, Ramouswald near Zofingen, soil; **from** [CAP] A 89; = UTEX 32, ATCC 30 412, SAG 211-14, CCAP 211/14, CAUP H 6503 as *Mychonastes zofingiensis*; **BBM-a**
- \_ 8109 **is.** Vodeničarov, 1965; **loc.** Bulgaria, Plovdiv; **BBM-a**
- \_ 8145 **is.** Vodeničarov, 23.5.1967; **loc.** Bulgaria, Plovdiv; **BBM-a**
- \_ 8474 **is.** Kirjakov, 1968; **loc.** Bulgaria; **BBM-a**
- \_ 8895 **is.** unknown; **loc.** Bulgaria, Jagodina; **BBM-a**
- Chlorella* spp.**
- \_ 1055 **is.** unknown; **loc.** unknown; **from** CCAP 211/22; **BBM-a**
- \_ 7001 **is.** RPLA; **loc.** Bulgaria; **from** [RPLA] H-11, 1988, Tončeva; **BBM-a**
- \_ 7044 **is.** unknown; **loc.** unknown; **from** [RPLA], 1988; = IAM 5107; **BBM-a**

- \_ 7031 **is.** Tončeva; **loc.** Russia, Komi, river Mezem, \_4 - +4°C; **from** [RPLA] DR-4, 1988, Tončeva; **BBM-a**
- \_ 7032 **is.** Tončeva; **loc.** Russia, Komi, river Mezem, \_4 - +4°C; **from** [RPLA] DF-4, 1988, Tončeva; **BBM-a**
- \_ 8061 **is.** Vodeničarov, 7.6.1964; **loc.** Bulgaria, Plovdiv, street pool; **BBM-a**
- \_ 8069 **is.** Vodeničarov, 29.9.1964; **loc.** Bulgaria, Plovdiv, work 1. May; **BBM-a**
- \_ 8185 **is.** Kirjakov, 25.3.1968; **loc.** Bulgaria; **BBM-a**
- \_ 8234 **is.** Vodeničarov, 1968; **loc.** Bulgaria, Bansko, channel; **BBM-a**
- \_ 8272 **is.** Vodeničarov, 1968; **loc.** Bulgaria, Pirin mountains, lake Vasilaško; **BBM-a**
- \_ 8341 **is.** Kirjakov, 1968; **loc.** Bulgaria, Plovdiv, fish-pond; **BBM-a**
- \_ 8434 **is.** Vodeničarov, 1.10.1968; **loc.** Germany; **BBM-a**
- \_ 8447 **is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a**
- \_ 8448 **is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a**
- \_ 8450 **is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a**
- \_ 8452 **is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a**
- \_ 8457 **is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a**
- \_ 8458 **is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a**
- \_ 8459 **is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a**
- \_ 8464 **is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a**
- \_ 8465 **is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a**
- \_ 8471 **is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a**
- \_ 8476 **is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a**
- \_ 8481 **is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a**



- \_ 8491 **is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a**
- \_ 8500 **is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a**
- \_ 8501 **is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a**
- \_ 8525 **is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a**
- \_ 8589 **is.**, Kirjakov, 9.11.1983; **loc.** Bulgaria, Rhodopes, river Čepelarska near Čepelare; **BBM-a**
- \_ 8592 **is.** Angelieva, 5.4.1984; **loc.** Bulgaria, Plovdiv, puddle in the rocks of the hill Sachattepe; **BBM-a**

*Chlorhormidium* FOTT

*Chlorhormidium fluitans* (GAY) STARR.

- \_ 8181 **is.** Kirjakov, 12.3.1968; **loc.** Bulgaria; **BBM-a**

*Chlorococcum* MENEGH.

*Chlorococcum hypnosporum* STARR

- \_ 2010(=3007) **is.** Bold \_ F 35-1; **loc.** USA, Tenn., Bledsoe County, soil; **from** [IUCC] 119; = UTEX 119, SAG 213-6, LABIK 904-1,2, CALU 473; **BBM-a**; **type culture**
- \_ 3007(=2010) **is.** Bold \_ F 35-1; **loc.** USA, Tenn., Bledsoe County, soil; **from** CAP A 28; = UTEX 119, SAG 213-6, LABIK 904-1,2, CALU 473, CAUP H 806; **BBM-a**; **type culture**

*Chlorococcum macrostigmatum* STARR

- \_ 2004 **is.** Starr 1953 (Lewin ?); **loc.** USA, Yale, Conn., soil; **from** [IUCC] 109; = UTEX 109, LABIK 901-1,2, CALU 471, CAUP H 81, CCALA 289; **BBM-a**; **type culture**

*Chlorococcum oleofaciens* TRAIN. et BOLD

- \_ 2003 **is.** Trainor and Bold \_ FRT-2; **loc.** USA, NY, near Duaneburg, soil; **from** [IUCC] 105, SAG 213/11, LABIK 903-2, CALU 470; **BBM-a**; **type culture**

*Chlorococcum vacuolatum* STARR

- \_ 3032 **is.** Starr 1952; **loc.** South Africa, Cape Flats, soil; **from** CAUP H 808; = CCAP 213/8, SAG 213-8, UTEX 110, LABIK 981-1, CCALA 295; **BBM-a**; **type culture**

*Chlorococcum* spp.

- \_ 8019 **is.** Vodeničarov, 2.8.1964; **loc.** Bulgaria, lake Sreb\_rna near Danube, from *Stratiotes aloides*; **BBM-a**
- \_ 8139 **is.** Vodeničarov, 22.4.1967; **loc.** Bulgaria, Peštera, swamp; **BBM-a**
- \_ 8195 **is.** Vodeničarov, 1968; **loc.** Bulgaria, Pirin mountains, lake Vasilaško; **BBM-a**
- \_ 8198 **is.** Vodeničarov, 1968; **loc.** Bulgaria, Pirin mountains, lake Vasilaško; **BBM-a**
- \_ 8220 **is.** Vodeničarov, 1968; **loc.** Bulgaria, Pirin mountains, lake Vasilaško; **BBM-a**
- \_ 8233 **is.** Vodeničarov, 1968; **loc.** Bulgaria, Pirin mountains, lake Vasilaško; **BBM-a**
- \_ 8240 **is.** Vodeničarov, 1968; **loc.** Bulgaria, Bansko, channel; **BBM-a**
- \_ 8245 **is.** Vodeničarov, 1968; **loc.** Bulgaria, Bansko, channel; **BBM-a**
- \_ 8259 **is.** Vodeničarov, 1968; **loc.** Bulgaria, Pirin mountains, lake Vasilaško; **BBM-a**
- \_ 8299 **is.** Vodeničarov, 23.7.1968; **loc.** Bulgaria, Burgas, lake Atanasovsko; **BBM-a**
- \_ 8343 **is.** Vodeničarov, 22.5.1967; **loc.** Bulgaria, Smoljan, Secemeka; **BBM-a**
- \_ 8348 **is.** Vodeničarov, 27.5.1967; **loc.** Bulgaria, Rhodopes, lake Smoljansko; **BBM-a**
- \_ 8365 **is.** Vodeničarov, 7.1967; **loc.** Bulgaria, Drjanovo; **BBM-a**
- \_ 8417 **is.** Vodeničarov, 1968; **loc.** Hungary, Heliz, shore of lake with thermal water; **G<sub>1</sub>-a**
- \_ 8421 **is.** Vodeničarov, 1968; **loc.** Hungary, Heliz, shore of lake with thermal water; **BBM-a**
- \_ 8424 **is.** Vodeničarov, 14.9.1967; **loc.** Bulgaria, Plovdiv; **BBM-a**
- \_ 8426 **is.** Vodeničarov, 15.9.1967; **loc.** Bulgaria, Plovdiv; **BBM-a**

- \_ 8427 **is.** Vodeničarov, 15.9.1967; **loc.** Bulgaria, Plovdiv, street puddle; **BBM-a**
- \_ 8429 **is.** Vodeničarov, 15.9.1967; **loc.** Bulgaria, Plovdiv, street puddle; **BBM-a**
- \_ 8430 **is.** Vodeničarov, 7.10.1968; **loc.** Bulgaria, Plovdiv, puddle in the rocks of the hill Sachattepe; **BBM-a**
- \_ 8432 **is.** RPLA; **loc.** Bulgaria; **from** [RPLA] 202; **BBM-a**
- \_ 8444 **is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a**
- \_ 8451 **is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a**
- \_ 8456 **is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a**
- \_ 8467 **is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a**
- \_ 8469 **is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a**
- \_ 8473 **is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a**
- \_ 8485 **is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a**
- \_ 8492 **is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a**
- \_ 8495 **is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a**
- \_ 8504 **is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a**
- \_ 8518 **is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a**
- \_ 8530 **is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a**
- \_ 8533 **is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a**
- \_ 8542 **is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a**
- \_ 8547 **is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a**
- \_ 8556 **is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a**
- \_ 8557 **is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a**
- \_ 8558 **is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a**
- \_ 8562 **is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a**
- \_ 8564 **is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a**

- \_ 8567 **is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a**
- \_ 8573 **is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a**
- \_ 8576 **is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a**
- \_ 8587 **is.** Kirjakov, 1.11.1983; **loc.** Bulgaria, Rhodopes, lake Smoljansko, from *Potamogeton sp.*; **BBM-a**
- \_ 8588 **is.** Kirjakov, 1.11.1983; **loc.** Bulgaria, Rhodopes, lake Smoljansko, from *Potamogeton sp.*; **BBM-a**
- \_ 8591 **is.** Kirjakov, 9.11.1983; **loc.** Bulgaria, Rhodopes, river Šepelarska near Šepelare; **BBM-a**
- \_ 8603 **is.** Kirjakov, 2.7.1984; **loc.** Bulgaria, Rhodopes, lake Smoljansko; **BBM-a**
- \_ 8701 **is.** Kirjakov, 6.6.1987; **loc.** Bulgaria, small wir near Šumen; **BBM-a**
- \_ 8879 **is.** Vodeničarov, 1973; **loc.** Russia, lake Baikal; **BBM-a**
- \_ 8881 **is.** Vodeničarov, 1973; **loc.** Russia, lake Baikal; **BBM-a**

*Choricystis* (SKUJA) FOTT

*Choricystis chodatii* (JAAG) FOTT

- \_ 3090 **is.** Chodat \_ 10, before 1909; **loc.** Switzerland, lake Geneva; **from** [CAP] A 97 as *Coccomyxa chodatii* JAAG; = SAG 216-2, CCAP 216/2, UTEX266, Coll. O. Jaag \_ 186; **BBM-a**; **type culture**
- \_ 8258 **is.** Vodeničarov, 1968; **loc.** Bulgaria, Pirin mountains, lake Vasilaško; **BBM-a**
- \_ 8265 **is.** Vodeničarov, 1968; **loc.** Bulgaria, Pirin mountains, hut Demjanica; **BBM-a**
- \_ 8289 **is.** Vodeničarov, 1968; **loc.** Bulgaria, Pirin mountains, lake Vasilaško; **BBM-a**
- \_ 8517 **is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a**
- \_ 8896 **is.** unknown; **loc.** Bulgaria, Jagodina; **BBM-a**

*Choricystis komarekii* COM.

\_ 8294 **is.** Vodeničarov, 1968; **loc.** Bulgaria, Pirin mountains, lake Vasilaško; **BBM-a**

*Choricystis minor* (SKUJA) FOTT

\_ 8168 **is.** Vodeničarov, 9.1.1968; **loc.** Bulgaria; **BBM-a**

\_ 8196 **is.** Vodeničarov, 1968; **loc.** Bulgaria, Pirin mountains, lake Vasilaško; **BBM-a**

\_ 8211 **is.** Vodeničarov, 1968; **loc.** Bulgaria, Pirin mountains, hut Demjanica; **BBM-a**

\_ 8218 **is.** Vodeničarov, 1968; **loc.** Bulgaria, Pirin mountains, hut Demjanica; **BBM-a**

\_ 8221 **is.** Vodeničarov, 1968; **loc.** Bulgaria, Pirin mountains, lake Banderiško; **BBM-a**

\_ 8298 **is.** Vodeničarov, 1968; **loc.** Bulgaria, Pirin mountains, lake Vasilaško; **BBM-a**

\_ 8372 **is.** Vodeničarov, 5.7.1967; **loc.** Bulgaria, Plovdiv, fish-pond; **BBM-a**

\_ 4395 **is.** Gromov, 1965/7; **loc.** unknown; **from** CALU 395 as *Ankistrodesmus sp.*; **G<sub>1</sub>-a**

\_ 6101 **is.** unknown; **loc.** unknown; **from** ? as *Ankistrodesmus sp.*; **BBM-a**

*Closteriopsis* LEMM.

*Closteriopsis acicularis* (G.M. SMITH) BELCH. et SWALE

\_ 5007 **is.** Hegewald 1977/126; **loc.** Germany, lake Gornitz; **from** [IBI] Heg. 1977-126; **G<sub>1</sub>-a**

*Coccomyxa* SCHMIDLE

*Coccomyxa confluens* (KÜTZ.) FOTT

\_ 8581 **is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a**

\_ 8659 **is.** Kirjakov, 8.6.1986; **loc.** Bulgaria, Rila mountains, Kostenež, sprinkled Zone near waterfall; **BBM-a**

*Coccomyxa elongata* CHOD. et JAAG

\_ 1091 (=3083) **is.** Pringsheim; **loc.** Czech Republic, from culture of *Paramaecium bursaria*; **from** CCAP 216-3a (15.6); = Coll. O. Jaag \_ 203, SAG 216-3a; **BBM-a**

\_ 3083 (=1091) **is.** Pringsheim; **loc.** Czech Republik, from

- culture of *Paramaecium bursaria*; **from** [CAP] A 98; = Coll. O. Jaag \_ 203, SAG 216-3a, CCAP 216/3a; **BBM-a**
- Coccomyxa icmadophilla* JAAG  
\_ 3082 **is.** Jaag; **loc.** Switzerland, Zürich; **from** [CAP] A100; **BBM-a**
- Coccomyxa peltigerae-variolosae* JAAG  
\_ 3086 **is.** Jaag; **loc.** Switzerland, Zürich; **from** [CAP] A100; **BBM-a**
- Coccomyxa pringsheimii* JAAG  
\_ 3089 **is.** Pringsheim; **loc.** Finland, phycobiont of lichen *Botrydina vulgaris*; **from** [CAP] A104; = SAG 216-7, CCAP 216/7, Coll. O. Jaag \_ 202; **BBM-a**; **type culture**
- Coccomyxa rayssiae* CHOD. et JAAG  
\_ 3065 **is.** Rayss; **loc.** Romania; **from** [CAP] A105; = SAG 216-8; **BBM-a**
- Coccomyxa solorinae-bispora* JAAG  
\_ 3062 **is.** Jaag \_ 142; **loc.** Switzerland, Grosser St. Bernhard, Val Sorey, phycobiont of lichen *Solorina bispora*; **from** [CAP] A108; = SAG 216-10, CCAP 216-10, UTEX 275; **BBM-a**; **type culture**
- \_ 3087 **is.** Chodat \_ 75, before 1909; **loc.** Switzerland, Grosser St. Bernhard, phycobiont of lichen *Solorina saccata*; **from** [CAP] A111; = Coll. O. Jaag \_ 189, SAG 216-12, CCAP 216/12, UTEX 277; **BBM-a**
- Coccomyxa subellipsoidea* ACT.  
\_ 3084 **is.** Jaag \_ 196; **loc.** Australia, Innsbruck, phycobiont of lichen *Botrydina vulgaris*; **from** [CAP] A112; = SAG 216-13; **BBM-a**
- Coccomyxa sp.*  
\_ 6103 **is.** unknown; **loc.** unknown; **from** ?; **BBM-a**
- Coelastropsis* FOTT et KAL.  
*Coelastropsis costata* (KORŠ.) FOTT et KAL.  
\_ 8045 **is.** Vodeničarov, 1964; **loc.** Bulgaria, Rila mountains; **BBM-a**
- \_ 8399 **is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a**
- \_ 8585 **is.** Kirjakov, 1968; **loc.** Bulgaria, Plovdiv, yard of the church “Sv. Bogorodica”, wet wall;

**BBM-a**

*Coelastrum* NÄG.

*Coelastrum astroideum* DE NOT.

\_ 7062

**is.** unknown; **loc.** unknown; **from** [RPLA] as Czech., strain H 19; **G<sub>1</sub>-a**

\_ 8763

**is.** Belkinova, 10.8.1988; **loc.** Bulgaria, Burgas, weir Mandra; **G<sub>1</sub>-a**; **clonal**

\_ 8748

**is.** Mladenov, 3.2.1988; **loc.** Bulgaria, lake Sreb\_rna near Danube; **G<sub>1</sub>-a**; **clonal**

*Coelastrum microporum* NÄG.

\_ 5010

**is.** Hegewald 1973/72; **loc.** Peru, Cuzco, Piuray lake; **from** (IBI) Heg. 1973-72, 1988; **G<sub>1</sub>-a**; **Ind.**

\_ 8877

**is.** Vodeničarov; **loc.** Russia, lake Baikal; **BBM-a**; **Ind.**

\_ 8008

**is.** Vodeničarov, 15.8.1964; **loc.** Bulgaria, Rila mountains; **BBM-a**; **Ind.**

\_ 8039

**is.** Vodeničarov, 29.9.1964; **loc.** Bulgaria, Plovdiv, wotk 1 May, on cement of a brook; **BBM-a**; **Ind.**

\_ 8040

**is.** Vodeničarov, 1964; **loc.** Bulgaria, Plovdiv; **BBM-a**; **Ind.**

\_ 8046

**is.** Vodeničarov, 1964; **loc.** Bulgaria, Rila mountains; **BBM-a**; **Ind.**

\_ 8047

**is.** Vodeničarov, 27.6.1964; **loc.** Bulgaria, Balčik; **BBM-a**; **Ind.**

\_ 8054

**is.** Vodeničarov, 1964; **loc.** Bulgaria; **BBM-a**; **Ind.**

\_ 8077

**is.** Vodeničarov, 1964; **loc.** Bulgaria; **BBM-a**; **Ind.**

\_ 8103

**is.** Vodeničarov, 1965; **loc.** Bulgaria; **BBM-a**; **Ind.**

\_ 8194

**is.** Vodeničarov, 1968; **loc.** Bulgaria, Pirin mountains, lake Banderiško; **BBM-a**; **Ind.**

\_ 8199

**is.** Vodeničarov, 1968; **loc.** Bulgaria, Pirin mountains, lake Vasilaško; **BBM-a**; **Ind.**

- \_ 8215 **is.** Vodeničarov, 1968; **loc.** Bulgaria, Pirin mountains, lake Banderiško; **BBM-a; Ind.**
- \_ 8246 **is.** Vodeničarov, 1968; **loc.** Bulgaria, Bansko, channel; **BBM-a; Ind.**
- \_ 8256 **is.** Vodeničarov, 1968; **loc.** Bulgaria, Pirin mountains, lake Vasilaško; **BBM-a; Ind.**
- \_ 8262 **is.** Vodeničarov, 1968; **loc.** Bulgaria, Pirin mountains, lake Vasilaško; **BBM-a; Ind.**
- \_ 8283 **is.** Vodeničarov, 1968; **loc.** Bulgaria, Bansko, channel; **BBM-a; Ind.**
- \_ 8291 **is.** Vodeničarov, 1968; **loc.** Bulgaria, Pirin mountains, lake Banderiško; **BBM-a; Ind.**
- \_ 8297 **is.** Vodeničarov, 1968; **loc.** Bulgaria, Pirin mountains, lake Vasilaško; **BBM-a; Ind.**
- \_ 8329 **is.** Vodeničarov, 1968; **loc.** Bulgaria, Varna, artificial basin in fronton the Aquarium; **BBM-a; Ind.**
- \_ 8431 **is.** Vodeničarov, 7.10.1968; **loc.** Bulgaria, Plovdiv, puddle in the rocks of the hill Sachattepe; **BBM-a; Ind.**
- \_ 8455 **is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a; Ind.**
- \_ 8470 **is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a; Ind.**
- \_ 8499 **is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a; Ind.**
- \_ 8609 **is.** Angelieva, 23.7.1984; **loc.** Bulgaria, Rhodopes, lake Smoljansko; **BBM-a; Ind.**
- \_ 8655 **is.** Angelieva, 20.9.1985; **loc.** Bulgaria, weir Dušanci; **G<sub>1</sub>-a; Ind.; clonal**
- \_ 8899 **is.** unknown; **loc.** Bulgaria, Jagodina; **BBM-a; Ind.**
- \_ 8900 **is.** unknown; **loc.** Bulgaria, Jagodina; **BBM-a; Ind.**
- Coelastrum proboscideum* BOHL.  
\_ 7063 **is.** unknown; **loc.** unknown; **from** [RPLA] as



- Czech. strain A 808; **G**<sub>1</sub>-a;
- \_ 3034 **is.** Rušicka 1962/61; **loc.** Czech Republic, near Doksy; **from** CAUP H 1307; **BBM**-a;
- Coelastrum quadricellulare* BEHRE  
\_ 8820 **is.** Belkinova, 8.10.1990; **loc.** Bulgaria, Burgas, sewage pool of the Naphtachemical factory with oil remainders; **G**<sub>1</sub>-a; **clonal**
- Coelastrum reticulatum* (DANG.) SENN  
\_ 8654 **is.** Angelieva, 20.9.1985; **loc.** Bulgaria, weir Dušanci; **BBM**-a; **clonal**
- \_ 8800 **is.** Mladenov, 16.2.1989; **loc.** Bulgaria, Trud near Plovdiv, fish-pond; **G**<sub>1</sub>-a; **clonal**
- Coelastrum spp.*  
\_ 7055 **is.** unknown; **loc.** unknown; **from** [RPLA] as japonense strain ja 27, 1988; **BBM**-a; **clonal**
- \_ 8531 **is.** Kirjakov, 1968; **loc.** Bulgaria; **BBM**-a;
- Crucigeniella* LEMM.  
*Crucigeniella apiculata* (LEMM.) KOM.  
\_ 8726 **is.** Mladenov, 10.11.1987; **loc.** Bulgaria, lake Sreb\_rna near Danube; **G**<sub>1</sub>-a; **clonal**
- Crucigeniella pulchra* (W. et G.S. WEST) KOM.  
\_ 8644 **is.** Angelieva, 12.11.1985; **loc.** Bulgaria, Rhodopes, lake Smoljansko; **G**<sub>1</sub>-a
- Crucigeniella smithii* (BOURR. et MANG.) KOM.  
\_ 8813 **is.** Belkinova, 25.7.1990; **loc.** Bulgaria, Plovdiv, fish-pond; **G**<sub>1</sub>-a; **clonal**
- Dictyosphaerium* NÄG.  
*Dictyosphaerium chlorelloides* (NAUM) KOM. et PERM.  
\_ 8738 **is.** Angelieva, 8.1.1988; **loc.** Bulgaria, Plovdiv, fish-pond; **G**<sub>1</sub>-a; **clonal**
- Dictyosphaerium ehrenbergianum* NÄG.  
\_ 8799 **is.** Mladenov, 14.2.1989; **loc.** Bulgaria, Trud near Plovdiv, fish-pond; **G**<sub>1</sub>-a; **clonal**; **Ind.**
- Didymocystis* KORŠ.  
*Didymocystis bicellularis* (CHOD.) KOM.  
\_ 8869 **is.** Vodeničarov, 1973; **loc.** Russia, lake Baikal; **BBM**-a
- \_ 8873 **is.** Vodeničarov, 1973; **loc.** Russia, lake Baikal; **BBM**-a

- Didymocystis planktonica* KORŠ.  
\_ 7067  
**is.** unknown; **loc.** unknown; **from** [RPLA] C 18; = CCALA 63/3; **BBM-a**
- Dimorphococcus* A. BR.  
*Dimorphococcus lunatus* A. BR.  
\_ 8794  
**is.** Mladenov, 1.10.1989; **loc.** Bulgaria, Trud near Plovdiv, fish-pond; **G<sub>1</sub>-a**; **clonal**
- Dunaliella* TEOD.  
*Dunaliella salina* TEOD.  
\_ 8619  
**is.** Tsoлова, 1963; **loc.** Bulgaria, Burgas, salterns; **from** [RPLA] V-63; = IPPAS D-213, D-233; **Ed-1**
- Ecdysichlamys* G.S. WEST  
*Ecdysichlamys obliqua* G.S. WEST  
\_ 7068  
**is.** Komárek, 1964/4; **loc.** unknown; **from** [RPLA] C 18; = CCALA Komárek 64/4; **BBM-a**
- Enallax* PASCH.  
*Enallax coelastroides* (BOHL.) SKUJA  
\_ 8044  
**is.** Vodeničarov, 1964; **loc.** Bulgaria, Rila mountains; **BBM-a**
- \_ 8505  
**is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a**
- \_ 8528  
**is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a**
- \_ 8536  
**is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a**
- \_ 8540  
**is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a**
- Eremosphaera* DE BARY  
*Eremosphaera viridis* DE BARY  
\_ 1092  
**is.** George; **loc.** Englang, Whybrow; **from** CCAP 228/1b; = UTEX 34, SAG 228-1; **BBM-a**
- \_ 8739  
**is.** Angelieva, 14.7.1987; **loc.** Bulgaria, Rhodopes, lake Smoljansko; **G<sub>7</sub>-a**; **clonal**
- Eutetramorus* WALT.  
*Eutetramorus* sp.  
\_ 8669  
**is.** Angelieva, 8.6.1986; **loc.** Bulgaria, Rila mountains, Kostenec, sprinkled zone near waterfall; **G<sub>1</sub>-a**
- Glaucocystis* ITZ.  
*Glaucocystis nostochinearum* ITZ. sensu KORŠ.

- \_ 8666 **is.** Kirjakov, 12.11.1985; **loc.** Bulgaria, Rhodopes, lake Smoljansko; **Prat-l**
- Golenkinia* CHOD.  
*Golenkinia* sp.  
 \_ 1065 **is.** unknown; **loc.** unknown; **from** CCAP 231/1a; **BBM-a**
- Golenkiniopsis* KORŠ.  
*Golenkiniopsis parvula* (VOR.) KORŠ.  
 \_ 8704 **is.** Belkinova, 3.10.1987; **loc.** Bulgaria, Burgas, weir Mandra, mouth into Black sea; **G<sub>1</sub>-a**
- Gonium* MÜLL.  
*Gonium pectorale* MÜLL.  
 \_ 8690 **is.** Belkinova, 19.6.1987; **loc.** Bulgaria, Bracigovo near Plovdiv, puddle; **G<sub>1</sub>-a; Ind.**
- Granulocystis* HIND.  
*Granulocystis verrucosa* (ROLL) HIND.  
 \_ 5109 **is.** Hegewald \_ 1977/220; **loc.** Peru, Dpto. Apurimac, Laguna Pacucha; **formerly** *Oocystis verrucosa*; **from** SAG 56.81, 1988; **G<sub>1</sub>-a**
- Haematococcus* AG. em. FLOT.  
*Haematococcus pluviatilis* FLOT. em. WILLE  
 \_ 8647 **is.** Kirjakov, 12.3.1985; **loc.** Bulgaria, Plovdiv, puddle in the rocks of the hill Sachattepe; **G<sub>1</sub>-a; Ind.**
- \_ 8694 **is.** Mladenov, 3.6.1987; **loc.** Bulgaria, Balčik, fountain on central square; **G<sub>1</sub>-a; clonal; Ind.**
- \_ 8695 **is.** Vodeničarov, 6.7.1987; **loc.** Bulgaria, Rhodopes, Momčilovci, fountain; **G<sub>1</sub>-a; clonal; Ind.**
- Hormotilopsis* TRAIN. et BOLD  
*Hormotilopsis gelatinosa* TRAIN. et BOLD  
 \_ 2002 **is.** Trainor and Bold; **loc.** unknown; **from** [IUCC] 104; = UTEX 104; **BBM-a; type culture**
- Hypnomonas* KORŠ.  
*Hypnomonas ellipsoides* KORŠ.  
 \_ 3022 **is.** Hindák; **loc.** unknown; **from** [CAP] A 159; **BBM-a**
- \_ 1067 **is.** unknown; **loc.** unknown; **from** CCAP 237-1; **BBM-a**

***Kentrosphaera* BORZI**

***Kentrosphaera gibberosa* VOD. et BEND.**

\_ 8907 **is.** Vodeničarov, 1971; **loc.** Bulgaria, Plovdiv, on wet walls among other algae; = SAG 75.80; **G<sub>1</sub>-a; type culture**

\_ 8908 **is.** Vodeničarov, 1971; **loc.** Bulgaria, Plovdiv, on wet walls among other algae; = SAG 75.80; **G<sub>1</sub>-a; type culture**

***Kentrosphaera* sp.**

\_ 1093 **is.** Starr 1951; **loc.** Scotland, near Glasgow, pond; **from** CCAP 241/1; = UTEX 100, SAG 240-1; **BBM-a**

***Kirchneriella* SCHMIDLE**

***Kirchneriella aperta* TEIL.**

\_ 8751 **is.** Mladenov, 3.5.1987; **loc.** Bulgaria, lake Sreb\_rna near Danube; **G<sub>1</sub>-a; clonal**

***Kirchneriella arcuata* G.M. SMITH**

\_ 3061 **is.** Necsoiv 1966; **loc.** Romania, Bucuresti; **from** CAUP as *K. lunaris*; **BBM-a**

***Kirchneriella contorta* (SCHMIDLE) BOHL.**

\_ 5016 **is.** Hegewald 1971/233; **loc.** Hungary, Balat, fish-pond; **from** [IBI] Hegewald 1971-233, 1988; **G<sub>1</sub>-a**

\_ 5017 **is.** Hegewald 1975/265; **loc.** Germany, Berlin, river Havel; **from** [IBI] Hegewald 1975-265, 1988; **G<sub>1</sub>-a**

\_ 8003 **is.** Vodeničarov, 2.8.1964; **loc.** Bulgaria, lake Sreb\_rna near Danube; **BBM -a**

\_ 8014 **is.** Vodeničarov, 2.8.1964; **loc.** Bulgaria, lake Sreb\_rna near Danube; **BBM -a**

***Kirchneriella irregularis* (G.M. SMITH) KORŠ.**

\_ 6015 **is.** Bourrelly; **loc.** France; **from** ALCP L-C 91 as *Kirchneriella contorta*; **G<sub>1</sub>-a**

\_ 8811 **is.** Mladenov, 25.7.1990; **loc.** Bulgaria, Plovdiv, fish-pond; **G<sub>1</sub>-a; clonal**

\_ 8639 **is.** Angelieva, 12.11.1985; **loc.** Bulgaria, Rhodopes, lake Smoljansko; **G<sub>1</sub>-a**

***Kirchneriella lunaris* (KIRCHN.) MOEB.**

\_ 1089 **is.** unknown; **loc.** unknown; **from** CCAP 243-1

- (28.5); **G<sub>1</sub>-a; Ind.**
- \_ 3031 **is.** unknown; **loc.** unknown; **from** CAUP H 606; **BBM** -a; **Ind.**
- Kirchneriella obesa* (W. WEST) SCHMIDLE  
\_ 3102 (= 4447) **is.** Pinevic; **loc.** unknown; **from** [CAP] 447; = CALU 447; **BBM**-a; **Ind.**
- \_ 8737 **is.** Mladenov, 2.1988; **loc.** Bulgaria, Popovica near Plovdiv, swamp near Marica; **G<sub>1</sub>-a; clonal; Ind.**
- \_ 8796 **is.** Mladenov, 1.10.1989; **loc.** Bulgaria, Trud near Plovdiv, fish-pond; **G<sub>1</sub>-a; clonal; Ind.**
- Kirchneriella rotunda* (KORŠ.) HIND.  
\_ 8662 **is.** Belkinova, 23.6.1987; **loc.** Bulgaria, Burgas, weir Mandra; **G<sub>1</sub>-a**
- Lagerheimia* CHOD.  
*Lagerheimia subsalsa* LEMM.  
\_ 8797 **is.** Mladenov, 13.11.1989; **loc.** Bulgaria, Lisičevo, river Topolnica; **G<sub>1</sub>-a; clonal**
- Micractinium* FRES.  
*Micractinium sp.*  
\_ 8753 **is.** Mladenov, 26.10.1987; **loc.** Bulgaria, lake Sreb\_rna near Danube; **G<sub>1</sub>-a; clonal**
- Microspora* THUR.  
*Microspora sp.*  
\_ 8279 **is.**, Vodeničarov, 1968; **loc.** Bulgaria, Pirin mountains, lake Vasilaško; **BBM**-a
- Monoraphidium* KOM.-LEGN.  
*Monoraphidium contortum* (THUR. in BRÉB.) KOM.-LEGN.  
\_ 3131 **is.** Hindák 1965/119; **loc.** Cuba, Havana, Jard. Bot. Univ., pool; **from** CCALA Hindák 65/119, 1980; = CCALA 371; **BBM**-a
- \_ 8660 **is.** Belkinova, 23.6.1987; **loc.** Bulgaria, Burgas, weir Mandra; **G<sub>1</sub>-a**
- \_ 8880 **is.** Vodeničarov, 1973; **loc.** Russia, lake Baikal; **BBM**-a
- Monoraphidium convolutum* (CORDA) KOM.-LEGN.  
\_ 3037 **is.** unknown; **loc.** unknown; **from** CAUP H 2911; **BBM**-a
- \_ 8013 **is.** Vodeničarov, 31.8.1964; **loc.** Bulgaria,

- Balčik; **BBM-a**
- \_ 8064 **is.** Vodeničarov, 2.8.1964; **loc.** Bulgaria, lake Sreb\_rna near Danube, from *Potamogeton pectinatus*; **BBM-a**
- \_ 8157 **is.** Vodeničarov, 9.1.1968; **loc.** Bulgaria; **BBM-a**
- \_ 8584 **is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM-a**
- Monoraphidium griffithii* (BERK.) KOM.-LEGN.
- \_ 3133 **is.** Komárek 1962/21; **loc.** Czech republic, Třebon, village Vlkov, fish-pond; **from** CCALA Komárek 62/21, 1980; = CCALA 375; **BBM-a**
- \_ 5018 **is.** Hegewald 1970/3; **loc.** Germany, Dortmund, pond; **from** [IBI] Hegewald 1970-3, 1988; **G<sub>1</sub>-a**
- \_ 8362 **is.** Vodeničarov, 1968; **loc.** Bulgaria, Plovdiv, fish-pond; **BBM-a**
- \_ 8848 **is.** Vodeničarov, 1973; **loc.** Russia, lake Baikal; **BBM-a**
- \_ 8849 **is.** Vodeničarov, 1973; **loc.** Russia, lake Baikal; **BBM-a**
- Monoraphidium irregulare* (G.M. SMITH) KOM.-LEGN.
- \_ 8819 **is.** Mladenov, 8.10.1990; **loc.** Bulgaria, Burgas, sewage pool of the Naphtachemical factory with oil remainders; **G<sub>1</sub>-a**; **clonal**
- Monoraphidium komarkovae* NYG.
- \_ 5019 **is.** Hegewald 1972/40; **loc.** Germany, Dortmund, pond; **from** [IBI] Hegewald 1972-40, 1988; **G<sub>1</sub>-a**
- \_ 8364 **is.** Vodeničarov, 1968; **loc.** Bulgaria, Plovdiv, fish-pond; **BBM-a**
- Monoraphidium minutum* (NÄG.) KOM.-LEGN.
- \_ 5020 **is.** Hegewald 1971/100; **loc.** Hungary, Balat, fish-pond; **from** [IBI] Hegewald 1971-100, 1988; **G<sub>1</sub>-a**
- \_ 5021 **is.** Hegewald 1976/81; **loc.** Kenia, lake Naguru; **from** [IBI] Hegewald 1971-81, 1988; **G<sub>1</sub>-a**

- \_ 8685 **is.** Mladenov, 6.1987; **loc.** Bulgaria, Plovdiv, fountain on the central square; **G<sub>1</sub>-a**
- Monoraphidium neglectum* HEYN. et KRIEN.
- \_ 3079 **is.** Baslerova; **loc.** Czech republic, Libisany, Pardubice; **from** CAP A5 as *Ankistrodesmus acicularis*; = IPPAS A-218; **BBM-a**
- \_ 3098 **is.** Gromov; **loc.** unknown; **from** CAP 226 as *Monoraphidium braunii*; **BBM-a**
- \_ 3121 **is.** Sedova; **loc.** unknown; **from** unknown 62-2-11 as *Ankistrodesmus sp.*; **BBM-a**
- \_ 3134 **is.** Hindák 1963/177; **loc.** Czech republic; **from** CCALA Hindák 63/177 as *Monoraphidium braunii*, 1980; **BBM-a**
- \_ 4033 **is.** Gromov, 1961/4; **loc.** unknown; **from** CALU 33 as *Ankistrodesmus braunii*; **G<sub>1</sub>-a**
- \_ 4080 **is.** Coll. Gusseva; **loc.** unknown; **from** CALU 80 as *Ankistrodesmus braunii*; = IBASU-A 1962; **G<sub>1</sub>-a**
- \_ 4142 **is.** Gromov 1962/19; **loc.** unknown; **from** CALU 142 as *Ankistrodesmus braunii*; **G<sub>1</sub>-a**
- \_ 4254 **is.** Baslerova; **loc.** Czech republic, Libisany near Pardubice; **from** CALU 254 as *Ankistrodesmus acicularis*; = [CAP] A-5; **G<sub>1</sub>-a**
- \_ 4375 **is.** Mordvinceva; **loc.** unknown; **from** CALU 375 as *Monoraphidium braunii*; **G<sub>1</sub>-a**
- \_ 6005 **is.** Bourrelly; **loc.** France; **from** ALCP L-C 86 as *Monoraphidium braunii*; **G<sub>1</sub>-a**
- \_ 8005 **is.** Vodeničarov, 30.7.1964; **loc.** Bulgaria, lake Pescevo Garlo near Nikopol; **BBM-a**
- \_ 8863 **is.** Vodeničarov; **loc.** Russia, lake Baikal; **BBM-a**
- Monoraphidium pseudobraunii* (BELCH. et SWALE) HEYN.
- \_ 8802 **is.** Vodeničarov, 1989; **loc.** Bulgaria, Rhodopes, hut Momčil Junak, weir on the ground; **G<sub>1</sub>-a**; **clonal**
- Monoraphidium pusillum* (PRINTZ) KOM.-LEGN.
- \_ 4437 **is.** Gromov 1965/40; **loc.** unknown; **from** CALU 137 as *Ankistrodesmus sp.*; **G<sub>1</sub>-a**

- \_ 8852 **is.** Vodeničarov, 1973; **loc.** Russia, lake Baikal; **BBM-a**
- Monoraphidium terrestre* (BRIST.) KRIEN. et KLEIN  
\_ 3046 **is.** Vischer \_ 106, 1933; **loc.** Switzerland; **formerly** *Ankistrodesmus braunii*; **from** CAUP, Gatersleben 202, 7a as *Monoraphidium braunii*; = SAG 202-7a, CCAP 202/7a, UTEX 244; **BBM-a**
- \_ 3122 **is.** Sedova; **loc.** unknown; **from** unknown 67-1-6 as *Ankistrodesmus sp.*; **BBM-a**
- Muriella* BOYE-PET.  
*Muriella aurantiaca* VISCH.  
\_ 1069 **is.** Vischer \_ 108, 1933; **loc.** Switzerland, near Basel, shaded tuff stone; **from** CCAP, 249/1; = UTEX 36, ATCC 30413, SAG 249-1, CAUP H 6004a; **BBM-a**; **type culture**
- Neochloris* STARR  
*Neochloris alveolaris* BOLD  
\_ 2029 **is.** Bold; **loc.** unknown; **from** [IUCC] 836; = UTEX 836, CALU 489; **BBM-a**; **type culture**
- Neochloris aquatica* STARR  
\_ 2011 **is.** Norby; **loc.** unknown; **from** [IUCC] 138; = UTEX 138, CCALA 387; **BBM-a**; **type culture**
- Neochloris sp.*  
\_ 8649 **is.** Kirjakov, 15.5.1985; **loc.** Bulgaria, Belosem, near Plovdiv, rice field; **BBM-a**
- Neosporangiococcum* DEAS.  
*Neosporangiococcum sp.*  
\_ 8318 **is.** Vodeničarov, 1967; **loc.** Bulgaria, Plovdiv, fish-pond; **BBM-a**
- Nephrochlamys* KORŠ.  
*Nephrochlamys allanthoidea* KORŠ.  
\_ 8706 **is.** Belkinova, 15.10.1987; **loc.** Bulgaria, lake Sreb\_rna near Danube; **G<sub>1</sub>-a**
- Oocystis* A. BR.  
*Oocystis apiculata* W. WEST  
\_ 8760 **is.** Belkinova, 8.1988; **loc.** Bulgaria, Burgas, weir Mandra; **G<sub>1</sub>-a**; **clonal**
- Oocystis borgei* SNOW  
\_ 8640 **is.** Kirjakov, 12. 11.1985; **loc.** Bulgaria,



	Rhodopes, lake Smoljansko; <b>G<sub>1</sub>-a</b>
<i>Oocystis lacustris</i> CHOD. _ 5025	<b>is.</b> Hegewald, 1973/50; <b>loc.</b> Peru, Las Salinas, pond; <b>from</b> [IBI] Hegewald 1973-50, 1988; <b>G<sub>1</sub>-a</b> ; <b>Ind.</b>
<i>Oocystis marssonii</i> LEMM. _ 5106	<b>is.</b> Beijerinck; <b>loc.</b> Holland; <b>from</b> SAG 257-1, 1988; = CCAP 257/1, UTEX 287; <b>G<sub>1</sub>-a</b>
_ 8793	<b>is.</b> Belkinova, 21.4. 1989; <b>loc.</b> Bulgaria, Burgas, weir Mandra; <b>G<sub>1</sub>-a</b> ; <b>clonal</b>
<i>Oocystis natans</i> (LEMM.) LEMM. _ 8810	<b>is.</b> Mladenov, 6.3.1990; <b>loc.</b> Bulgaria, Trud near Plovdiv, fish-pond; <b>G<sub>1</sub>-a</b> ; <b>clonal</b>
<i>Oocystis parva</i> W. et G.S. WEST _ 5107	<b>is.</b> Rehakova, _ 1961/1; <b>loc.</b> Czech republic, near Blatna, pond Radov; <b>from</b> SAG 82.80, 1988; <b>G<sub>1</sub>-a</b>
_ 5028	<b>is.</b> Hegewald 1973/115; <b>loc.</b> Peru, lake Titicaca; <b>from</b> [IBI] Hegewald 1973-115, 1988; <b>G<sub>1</sub>-a</b>
<i>Oocystis rupestris</i> KIRCHN. _ 6017	<b>is.</b> Paris; <b>loc.</b> France; <b>from</b> ALCP L-C 195; <b>G<sub>1</sub>-a</b>
<i>Oocystis solitaria</i> WITTR. _ 5108	<b>is.</b> Wurtz, _ 24; <b>loc.</b> France; <b>from</b> SAG 83.80, 1988; = CCAP 257/3, UTEX 418 as <i>O. apiculata</i> ; <b>G<sub>1</sub>-a</b>
_ 8757	<b>is.</b> Angelieva, 1986; <b>loc.</b> Bulgaria, waterfall near Karnare, sprinkled zone; <b>G<sub>1</sub>-a</b> ; <b>clonal</b>
<i>Oocystis spp.</i> _ 5110	<b>is.</b> Vischer; <b>loc.</b> unknown; <b>from</b> SAG 257-2, 1988; = CCAP 257/2, UTEX 80, ATCC 30 417; <b>G<sub>1</sub>-a</b>
_ 5111	<b>is.</b> Lewin; <b>loc.</b> unknown; <b>from</b> SAG 257-3, 1988; <b>G<sub>1</sub>-a</b>
_ 5030	<b>is.</b> Hegewald 1973/142; <b>loc.</b> Peru, San Nicolas, pond; <b>from</b> [IBI] Hegewald 1973-142, 1988; <b>G<sub>1</sub>-a</b>
_ 5036	<b>is.</b> Hegewald 1981/104; <b>loc.</b> Indonesia, Bali,

- Denpasar, pond of Museum; **from** [IBI]  
Hegewald 1981-104, 1988; **G<sub>1</sub>-a**
- \_ 7011 **is.** RPLA; **loc.** Bulgaria; **from** [RPLA] 23d,  
1988, Tončeva; **BBM-a**
- \_ 8622 **is.** Angelieva, 15.9.1984; **loc.** Bulgaria,  
Plovdiv, fountain on central square; identical  
with *Oocystis sp.*(Hindák 1984: 130); **Z-a**
- \_ 8702 **is.** Angelieva, 31.5.1986; **loc.** Bulgaria, Pleven,  
fountain; identical with *Oocystis sp.* (Hindák  
1984: 130); **Z-a; clonal**
- \_ 8742 **is.** Mladenov, 29.4.1987; **loc.** Bulgaria,  
Rhodopes, Narečenski min. Bani, fountain in  
municipal park; **G<sub>1</sub>-a; clonal**
- \_ 8743 **is.** Kirjakov, 17.8.1986; **loc.** Bulgaria,  
Rhodopes, Momčilovci-Rožen, wet rocks; **G<sub>1</sub>-  
a; clonal**

*Pediastrum* MEYEN

*Pediastrum boryanum* (TURP.) MENEHGH.

- \_ 5037 **is.** Hegewald 1973/74; **loc.** Peru, Cuzco, lake  
Piuray; **from** [IBI] Hegewald 1973-74, 1988;  
**G<sub>1</sub>-a; Ind.**
- \_ 5038 **is.** Hegewald 1976/16; **loc.** Germany, Haltern,  
Stausee; **from** [IBI] Hegewald 1976-16, 1988;  
**G<sub>1</sub>-a; Ind.**
- \_ 5039 **is.** Hesse 1971/160; **loc.** Hungary, Kunfeher-to;  
**from** [IBI] Hesse 1971-160, 1988; **G<sub>1</sub>-a; Ind.**
- \_ 8605 **is.** Kirjakov, 23.7.1984; **loc.** Bulgaria,  
Rhodopes, lake Smoljansko, from  
*Potamogeton sp.*; **G<sub>1</sub>-a (1); Ind.**
- \_ 8679 **is.** Kirjakov, 22.10.1984; **loc.** Bulgaria,  
Rhodopes, Laki, river; **G<sub>1</sub>-a (1); Ind.**
- \_ 8831 **is.** Mladenov, 25.7.1990; **loc.** Bulgaria,  
Plovdiv, fish-pond; **G<sub>1</sub>-a (1); Ind.**

*Pediastrum duplex* MEYEN

- \_ 5040 **is.** Hegewald 1974/33; **loc.** Finland,  
Saukkolahti, lake Kuusjaroi; **from** [IBI]  
Hegewald 1974-33, 1988; **G<sub>1</sub>-a; Ind.**
- \_ 5042 **is.** Hegewald 1977/83; **loc.** Germany,  
Meissendorf, fish-pond; **from** [IBI] Hegewald

- 1977-83; **G<sub>1</sub>-a; Ind.**
- Pediastrum kawraiskyi* SCHMIDLE  
\_ 5043 **is.** Hegewald 1977/151; **loc.** Germany, Steinhuder Meer; **from** [IBI] Hegewald 1977-151, 1988; = SAG 35.81; **G<sub>1</sub>-a; Ind.**
- Pediastrum tetras* (EHR.) RALFS  
\_ 5044 **is.** Hegewald 1973/116; **loc.** Peru, lake Titicaca; **from** [IBI] Hegewald 1973-116, 1988; **G<sub>1</sub>-a; Ind.**
- \_ 8653 **is.** Kirjakov, 12.11.1985; **loc.** Bulgaria, Rhodopes, lake Smoljansko; **G<sub>1</sub>-a; Ind.**
- Polyedriopsis* SCHMIDLE  
*Polyedriopsis* (SCHMIDLE) SCHMIDLE  
\_ 5047 **is.** Hegewald 1977/52; **loc.** Germany, Meissendorf, fish-pond; **from** [IBI] Hegewald 1977-52\_ 1988; **G<sub>1</sub>-a; Ind.**
- \_ 8816 **is.** Belkinova, 25.7.1990; **loc.** Bulgaria, Plovdiv, fish-pond; **G<sub>1</sub>-a; clonal; Ind.**
- Protosiphon* KLEBS  
*Protosiphon botryoides* (KÜTZ.) KLEBS  
\_ 1071 **is.** Pascher; **loc.** Czech Republic, Franzensbad, mud; **from** CCAP 731-1a; = UTEX 47, ATCC 30 414, SAG 731-1a, CCALA 421; monoecious; **BBM-a**
- \_ 1072 **is.** Cowan 1951; **loc.** USA, Yale; **from** CCAP 731-1b; = UTEX 461, SAG 731-1b; monoecious; **BBM-a**
- Pseudococcomyxa* KORŠ.  
*Pseudococcomyxa simplex* (MAINX) FOTT  
\_ 7023 **is.** RPLA; **loc.** Bulgaria; **from** [RPLA] 136, 1988, Tončeva; **BBM -a**
- \_ 8288 **is.** Vodeničarov, 1968; **loc.** Bulgaria, Pirin mountains, hut Demjanica; **BBM-a**
- \_ 8375 **is.** Vodeničarov, 5.7.1967; **loc.** Bulgaria, Plovdiv, fish-pond; **BBM-a**
- Pseudendoclonium* WILLE  
*Pseudendoclonium basiliensis* VISCH.  
\_ 8637 **is.** Kirjakov, 12.11.1985; **loc.** Bulgaria, Rhodopes, lake Smoljansko; **G<sub>1</sub>-a**
- Quadrgula* PRINTZ

- Quadrugula closterioides* (BOHL.) PRINTZ  
\_ 8795 **is.** Mladenov, 10.1988; **loc.** Bulgaria, Rhodopes, lake Smoljansko; **Prat-l**; **clonal**
- Radiococcus* SCHMIDLE  
*Radiococcus bavaricus* (SKUJA) KOM.  
\_ 8663 **is.** Angelieva, 24.4.1986; **loc.** Bulgaria, Sredna Gora, hut Buntovna, swamp; **G<sub>1</sub>** -a
- Raphidocelis* HIND.  
*Raphidocelis sigmoidea* HIND.  
\_ 8740 **is.** Mladenov, 9.1987; **loc.** Bulgaria, Stara planina mountains, river Černi Osam; **G<sub>1</sub>** -a
- Rhizoclonium* KÜTZ.  
*Rhizoclonium sp.*  
\_ 7053 **is.** unknown; **loc.** unknown; **from** [RPLA], 1988; = IAM 5179; **BBM**-a
- Scenedesmus* MEYEN  
*Scenedesmus abundans* (KIRCHN.) CHOD.  
\_ 3030 **is.** Trunkova 1956/3; **loc.** Czech Republic, Praha, artificial basin; **from** CAUP H 502; **BBM**-a
- Scenedesmus aculeolatus* REINSCH  
\_ 8024 **is.** Vodeničarov, 10.7.1964; **loc.** Bulgaria, Rila mountains, below hut Vada; **BBM**-a
- \_ 8063 **is.** Vodeničarov, 2.8.1964; **loc.** Bulgaria, lake Sreb\_rna near Danube, from *Potamogeton pectinatus*; **BBM**-a
- \_ 8715 **is.** Kirjakov, 12.11.1985; **loc.** Bulgaria, Rhodopes, lake Smoljansko; **G<sub>1</sub>** -a
- Scenedesmus acuminatus* (LAG.) CHOD.  
\_ 5112 **is.** Hegewald, \_ 1978/5; **loc.** Germany, Torfvenn near Dulmen; **from** SAG 38.81. 1988; **G<sub>1</sub>** -a; **Ind.**
- \_ 5344 **is.** Krienitz 1979/344; **loc.** Germany, Gnetsch near Kothen, pond; **from** ZIMET R-44, 1988, Dr. Krienitz; **BBM**-a; **Ind.**
- \_ 3081 **is.** unknown; **loc.** unknown; **from** [CAP] A 124, Coll. Greifswald 59; **BBM**-a; **Ind.**
- \_ 8614 **is.** RPLA; **loc.** Bulgaria; **from** [RPLA]; **BBM** -a; **Ind.**
- \_ 8784 **is.** Mladenov, 10.1989; **loc.** Bulgaria, Trud

- near Plovdiv, fish-pond; **G<sub>1</sub> –a; clonal; Ind.**
- \_ 8791 **is.** Mladenov, 15.9.1988; **loc.** Bulgaria, Plovdiv, fish-pond; **G<sub>1</sub> –a; clonal; Ind.**
- Scenedesmus acuminatus* var. *biseriatus* REINH.  
\_ 8731 **is.** Belkinova, 7.1987; **loc.** Bulgaria, Burgas, weir Mandra; **G<sub>1</sub> –a; clonal; Ind.**
- Scenedesmus acutiformis* SCHRÖD.  
\_ 3047 **is.** Algeus; **loc.** Sweden, Lund; **from** CAUP, Gatersleben 276-12 as *S. acuminatus*; = SAG 276-12, UTEX 415; **BBM–a**
- \_ 8718 **is.** Mladenov, 4.6.1987; **loc.** Bulgaria, lake Sreb\_rna near Danube; **G<sub>1</sub> –a; clonal**
- Scenedesmus acutus* MEYEN  
\_ 3107 **is.** unknown; **loc.** Poland; **from** CCALA (?) 1608 n; **BBM–a**
- \_ 3117 **is.** Andreeva; **loc.** unknown; **from** unknown 616-2 as *Scenedesmus* sp.; **BBM–a**
- \_ 5310 **is.** Krienitz 1979/310; **loc.** Germany, Kothen; **from** ZIMET R-303, 1988, Dr. Krienitz; **BBM–a**
- \_ 7005 **is.** RPLA; **loc.** Bulgaria; **from** [RPLA] 10 c, 1988, Tončeva; **BBM –a**
- \_ 7017 **is.** RPLA; **loc.** Bulgaria; **from** [RPLA] 2, 1988, Tončeva; **BBM –a**
- \_ 7019 **is.** RPLA; **loc.** Bulgaria; **from** [RPLA] 111, 1988, Tončeva; **BBM –a**
- \_ 7052 **is.** unknown; **loc.** unknown; **from** [RPLA] as *Scenedesmus* sp., 1988; = IAM 5040; **BBM –a**
- \_ 8106 **is.** Vodeničarov, 1965; **loc.** Bulgaria; **BBM –a**
- \_ 8203 **is.** Vodeničarov, 1968; **loc.** Bulgaria, Plovdiv, fish-pond; **BBM –a**
- \_ 8212 **is.** Vodeničarov; **loc.** Bulgaria, Plovdiv, fish-pond; **BBM –a**
- \_ 8307 **is.** Vodeničarov, 1967; **loc.** Bulgaria, Plovdiv, fish-pond; **BBM –a**

- \_ 8334 **is.** Vodeničarov, 1968; **loc.** Bulgaria, Plovdiv, fish-pond; **BBM** –a
- \_ 8355 **is.** Vodeničarov, 22.5.1967; **loc.** Bulgaria, Plovdiv, fish-pond; **BBM** –a
- \_ 8392 **is.** Vodeničarov, 30.6.1967; **loc.** Bulgaria, Plovdiv, fish-pond; **BBM** –a
- \_ 8611 **is.** unknown; **loc.** Czech. strain; **from** [RPLA] as Czech. strain S 15; **BBM** –a
- \_ 8792 **is.** Mladenov, 27.9.1989; **loc.** Bulgaria, Trud near Plovdiv, fish-pond; **G<sub>1</sub>** –a; **clonal**
- Scenedesmus acutus* var. *globosus* HORTOB.
- \_ 8732 **is.** Mladenov, 1987; **loc.** Bulgaria, lake Sreb\_rna near Danube; **G<sub>1</sub>** –a; **clonal**
- Scenedesmus armatus* CHOD.
- \_ 3104 **is.** Lhotsky; **loc.** Poland; **from** CCALA (?) 315 n; **BBM**–a
- \_ 5048 **is.** Bai 1971/28; **loc.** Hungary, Tihany, Belso-to, pond; **from** [IBI] Bai 1971-28, 1988; **G<sub>1</sub>**–a
- \_ 5049 **is.** Hegewald 1972/28; **loc.** Germany, Dortmund, pond; **from** [IBI] Hegewald 1972-28, 1988; **G<sub>1</sub>**–a
- \_ 5050 **is.** Hegewald 1973/316; **loc.** Peru, Dept. Ancash, Pataccocha, pond; **from** [IBI] Hegewald 1973-316, 1988; **G<sub>1</sub>**–a
- \_ 5051 **is.** Hegewald 1975/4; **loc.** India, Tirumazhichai, pond; **from** [IBI] Hegewald 1975-4, 1988; **G<sub>1</sub>**–a
- \_ 8025 **is.** Vodeničarov, 11.7.1964; **loc.** Bulgaria, Rila mountains, below lake Bliznaka; **G<sub>1</sub>**–a
- \_ 8074 **is.** Vodeničarov, 1964; **loc.** Bulgaria; **BBM**–a
- \_ 8311 **is.** Vodeničarov, 1967; **loc.** Bulgaria, Plovdiv, fish-pond; **BBM**–a
- \_ 8340 **is.** Vodeničarov, 1968; **loc.** Bulgaria, Varna, park basin in front of the aquarium; **BBM**–a; **clonal**
- \_ 8741 **is.** Belkinova, 25.2.1988; **loc.** Bulgaria, Burgas, weir Mandra; **G<sub>1</sub>**–a; **clonal**

- \_ 8798 **is.** Mladenov, 3.11.1989; **loc.** Bulgaria, river Topolnica; **G<sub>1</sub>-a**; **clonal**
- \_ 8822 **is.** Mladenov, 25.7.1990; **loc.** Bulgaria, Plovdiv, fish-pond; **G<sub>1</sub>-a**; **clonal**
- Scenedesmus armatus* var. *bicaudatus* (GUGL.) CHOD.  
\_ 5053 **is.** Hegewald 1975/14; **loc.** India, Mysore, Chamundi, pond; **from** [IBI] Hegewald 1975-14, 1988; **G<sub>1</sub>-a**
- \_ 5053 **is.** Holtmann 1977/4805; **loc.** Germany, Lehmrade, pond; **from** [IBI] Holtmann 1977-4805, 1988; **G<sub>1</sub>-a**
- Scenedesmus armatus* var. *brevicaudatus* (PET.) HEG.  
\_ 5056 **is.** Hegewald 1976/7; **loc.** Germany, Mohnetalsperre; **from** [IBI] Hegewald 1976-7, 1988; **G<sub>1</sub>-a**
- Scenedesmus armatus* var. *subalternans* G.M. SMITH  
\_ 5057 **is.** Hegewald 1973/260; **loc.** Peru, Huanuco, lake; **from** [IBI] Hegewald 1973-260, 1988; **G<sub>1</sub>-a**
- \_ 5058 **is.** Hegewald 1973/322; **loc.** USA, Bohlder, pond; **from** [IBI] Hegewald 1973-322, 1988; **G<sub>1</sub>-a**
- \_ 5059 **is.** Hegewald 1977/131; **loc.** Germany, Krummsee; **from** [IBI] Hegewald 1977-131, 1988; **G<sub>1</sub>-a**
- Scenedesmus bernardii* G.M. SMITH  
\_ 8339 **is.** Vodeničarov, 1968; **loc.** Bulgaria, Plovdiv, fish-pond; **BBM-a**
- \_ 8752 **is.** Mladenov, 1990; **loc.** Bulgaria, Plovdiv, fish-pond; **G<sub>1</sub>-a**; **clonal**
- Scenedesmus bicaudatus* DEDUSS.  
\_ 8818 **is.** Mladenov, 25.7.1990; **loc.** Bulgaria, Plovdiv, fish-pond; **G<sub>1</sub>-a**; **clonal**
- Scenedesmus brevispina* (G.M. SMITH) CHOD.  
\_ 8210 **is.** Vodeničarov, 1968; **loc.** Bulgaria, Pirin mountains, lake Vasilaško; **BBM-a**
- Scenedesmus communis* HEG.  
\_ 5061 **is.** Hegewald 1972/2; **loc.** Germany, Dortmund, pond; **from** [IBI] Hegewald 1972-

- 2, 1988; **G**<sub>1</sub>-a
- \_ 5062 **is.** Hegewald 1973/66; **loc.** Peru, Cuzco, lake Piuray; **from** [IBI] Hegewald 1973-66, 1988; **G**<sub>1</sub>-a
- \_ 5063 **is.** Hegewald 1974/35; **loc.** Finland, Saukkolahti, Kuusjarvi, lake; **from** [IBI] Hegewald 1974-35, 1988; **G**<sub>1</sub>-a
- \_ 8004 **is.** Vodeničarov, 2.8.1964; **loc.** Bulgaria, lake Sreb\_rna near Danube; **BBM**-a
- \_ 8032 **is.** Vodeničarov, 4.8.1964; **loc.** Bulgaria, Blasnica, village pond; **BBM**-a
- \_ 8890 **is.** Kirjakov; **loc.** Bulgaria; **G**<sub>1</sub>-a
- Scenedesmus corallinus* CHOD.  
\_ 8555 **is.** Kirjakov, 1968; **loc.** Bulgaria; **BBM**-a
- Scenedesmus costatus* SCHMIDLE  
\_ 8506 **is.** Kirjakov, 1968; **loc.** Bulgaria; **BBM**-a
- \_ 8604 **is.** Kirjakov, 23.7.1984; **loc.** Bulgaria, Rhodopes, lake Smoljansko; **G**<sub>1</sub>-a
- Scenedesmus denticulatus* LAG.  
\_ 8747 **is.** Belkinova, 3.1988; **loc.** Bulgaria, Trud near Plovdiv, fish-pond; **G**<sub>1</sub>-a; **clonal**; **Ind.**
- Scenedesmus denticulatus var. linearis* HANSG.  
\_ 8206 **is.** Vodeničarov, 1968; **loc.** Bulgaria, Rhodopes, near Momčilonci, fountain "Mandzukova voda"; **BBM**-a
- Scenedesmus disciformis* (CHOD.) FOTT et KOM.  
\_ 8712 **is.** Belkinova, 3.10.1987; **loc.** Bulgaria, lake Sreb\_rna near Danube; **G**<sub>1</sub>-a; **clonal**
- Scenedesmus dispar* BRÉB.  
\_ 3105 **is.** unknown; **loc.** Poland; **from** CCALA (?) 540 n; **BBM**-a
- Scenedesmus ecornis* (EHR.) CHOD.  
\_ 7065 **is.** unknown; **loc.** unknown; **from** [RPLA] C 10 as Czech. strain; **BBM**-a
- Scenedesmus ellipticus* CORDA  
\_ 8482 **is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM**-a
- \_ 8578 **is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM**-a



*Scenedesmus falcatus* CHOD.

\_ 5065

**is.** Hegewald 1978/6; **loc.** Germany, Dulmen, Torfienn, pond; **from** [IBI] Hegewald 1978-6, 1988; **G**<sub>1</sub>-a

\_ 5066

**is.** Hegewald 1982/51; **loc.** Finland, Tvarminne, lake Langshas; **from** [IBI] Hegewald 1982-51, 1988; **G**<sub>1</sub>-a

\_ 8635

**is.** Angelieva, 6.6.1984; **loc.** Bulgaria, river Topolnica; **BBM**-a; **clonal**

*Scenedesmus gutwinskii* CHOD.

\_ 8319

**is.** Kirjakov, 18.11.1968; **loc.** Bulgaria; **BBM**-a

*Scenedesmus incrassatulus* BOHL.

\_ 3140

**is.** Hindák 1963/117; **loc.** Egypt, prov. Omo-Saber, El Tahit, soil, field; **from** CCALA \_ 450; **BBM**-a (1)

\_ 5066a

**is.** Hegewald 1973/390; **loc.** Peru, Dept. Juniu, Yanayacu, lake; **from** [RPLA] G-6, 1988, Tončeva from [IBI], Hegewald 1973-390, 1988; **G**<sub>1</sub>-a

\_ 8022

**is.** Vodeničarov, 16.6.1964; **loc.** Bulgaria, Plovdiv; **BBM**-a

\_ 8041

**is.** Vodeničarov, 29.6.1964; **loc.** Bulgaria, Plovdiv; **BBM**-a

\_ 8062

**is.** Vodeničarov, 7.6.1964; **loc.** Bulgaria, Plovdiv, mount Bunardžika; **BBM**-a

\_ 8065

**is.** Vodeničarov, 1964; **loc.** Bulgaria; **BBM**-a

\_ 8179

**is.** Vodeničarov, 19.3.1968; **loc.** Bulgaria; **BBM**-a

\_ 8216

**is.** Vodeničarov, 1968; **loc.** Bulgaria, Plovdiv, fish-pond; **BBM**-a

\_ 8242

**is.** Vodeničarov, 1967; **loc.** Bulgaria, Plovdiv, fish-pond; **BBM**-a

\_ 8270

**is.** Vodeničarov, 1968; **loc.** Bulgaria, Pirin mountains, lake Vasilaško; **BBM**-a

\_ 8420

**is.** Vodeničarov, 30.10.1967; **loc.** Bulgaria, Vitosha mountains, on rocks in a brook; **G**<sub>1</sub>-a

*Scenedesmus intermedius* CHOD.

\_ 8029

**is.** Vodeničarov, 1964; **loc.** Bulgaria, Rila mountains; **BBM**-a; **clonal**

\_ 8805

**is.** Mladenov, 10.1989; **loc.** Bulgaria, Burgas weir Mandra; **G**<sub>1</sub>-a; **clonal**

*Scenedesmus maculosus* HORTOB.

\_ 8593

**is.** unknown; **loc.** Bulgaria, Plovdiv, puddle in the rocks of the hill Sachattepe; **BBM**-a

*Scenedesmus microspina* CHOD.

\_ 8072

**is.** Vodeničarov, 1964; **loc.** Bulgaria; **BBM**-a

\_ 8094

**is.** Vodeničarov, 1964; **loc.** Bulgaria; **BBM**-a

\_ 8320

**is.** Vodeničarov, 6.6.1967; **loc.** Bulgaria, Plovdiv, fish-pond; **BBM**-a

\_ 8855

**is.** Vodeničarov; **loc.** Russia, lake Baikal; **BBM**-a

\_ 8857

**is.** Vodeničarov; **loc.** Russia, lake Baikal; **BBM**-a

\_ 8874

**is.** Vodeničarov; **loc.** Russia, lake Baikal; **BBM**-a

\_ 8010

**is.** Vodeničarov, 4.8.1964, \_ 93-10; **loc.** Bulgaria, lake Šablensko; **BBM**-a

*Scenedesmus obliquus* (TURP.) KÜTZ.

\_ 3056

**is.** Lhotsky, 1966/7; **loc.** Czech Republic, Třebon, contaminant os outdoor mass culture; **from** CAUP 1966/7; = CCALA 453; **BBM**-a; **Ind.**

\_ 3059

**is.** Pringsheim 1954; **loc.** Italy, Castellamare; **from** CAUP: Gatersleben 276-3d; **BBM**-a; **Ind.**

\_ 3063

**is.** Pringsheim; **loc.** unknown; **from** [CAP] A 125; = CALU 13, CCALA 451; **BBM**-a; **Ind.**

\_ 3093

**is.** Gromov; **loc.** unknown; **from** [CAP] 155; = CALU 155; **BBM**-a; **Ind.**

\_ 3094

**is.** Gaffron D 3; **loc.** unknown; **from** [CAP] 180; = SAG 276-6, CCAP 276/6, UTEX 393, CALU 180; **BBM**-a; **Ind.**

- \_ 3095 (=3109, 5125) **is.** Pringsheim; **loc.** unknown; **formerly** *S. acutus* f. *alternans*; **from** [CAP] 181; **BBM**-a; **Ind.**
- \_ 3100 **is.** Gromov; **loc.** unknown; **from** [CAP] 424; **BBM**-a; **Ind.**
- \_ 3108 **is.** Kalko 1959; **loc.** Hungary, Tihany; **from** CCALA (?) 5618; **BBM**-a; **Ind.**
- \_ 3109 (=3095, 5125) **is.** Pringsheim; **loc.** unknown; **formerly** *S. acutus* f. *alternans*; **from** CCALA (?) 276-3a; **BBM**-a; **Ind.**
- \_ 3111 **is.** Lhotsky; **loc.** unknown; **BBM**-a; **Ind.**
- \_ 3112 **is.** unknown; **loc.** unknown; **BBM**-a; **Ind.**
- \_ 3113 **is.** Lhotsky; **loc.** unknown; **BBM**-a; **Ind.**
- \_ 3114 **is.** unknown; **loc.** Russia, Irkutsk; **from** unknown 1-2 as *Scenedesmus* sp.; **BBM**-a; **Ind.**
- \_ 3115 **is.** Andreeva; **loc.** unknown; **from** unknown 76-3, 79-2 as *Scenedesmus* sp.; **BBM**-a; **Ind.**
- \_ 3116 **is.** Andreeva; **loc.** unknown; **from** unknown 293 as *Scenedesmus* sp.; **BBM**-a; **Ind.**
- \_ 5067 **is.** Hegewald 1971/8; **loc.** Hungary, Balat; fish-pond; **from** [IBI] Hegewald 1971-8, 1988; **G**<sub>1</sub>-a; **Ind.**
- \_ 5071 **is.** Payer 1971/11; **loc.** Thailand, Khao Yai pond; **from** [IBI] Payer 1971-11, 1988; **G**<sub>1</sub>-a; **Ind.**
- \_ 5113 **is.** Algeus 1939; **loc.** Sweden, Lund; **from** SAG 276-3b, 1988; **G**<sub>1</sub>-a; **Ind.**
- \_ 5114 **is.** Tamiya, \_ Sm 32; **loc.** Japan; **formerly** *Scenedesmus* sp.; **from** SAG 276-20, 1988; **G**<sub>1</sub>-a; **Ind.**
- \_ 7003 **is.** RPLA; **loc.** Bulgaria; **from** [RPLA] 3c, 1988, Tončeva; **BBM**-a; **Ind.**
- \_ 7009 **is.** RPLA, 1976; **loc.** Bulgaria; **from** [RPLA] 19e, 1988, Tončeva; **BBM**-a; **Ind.**
- \_ 7021 **is.** RPLA; **loc.** Bulgaria; **from** [RPLA] 50,

- 1988, Tončeva; **BBM**-a; **Ind.**
- \_ 7026 **is.** RPLA; **loc.** Bulgaria; **from** [RPLA] 169, 1988, Tončeva; **BBM**-a; **Ind.**
- \_ 8006 **is.** Vodeničarov, 30.7.1964; **loc.** Bulgaria, lake Pescevo Garlo near Nikopol; **BBM**-a; **Ind.**
- \_ 8020 **is.** Vodeničarov, 16.6.1964; **loc.** Bulgaria, Plovdiv; **BBM**-a; **Ind.**
- \_ 8027 **is.** Vodeničarov, 1964; **loc.** Bulgaria, Rila mountains; **BBM**-a; **Ind.**
- \_ 8034 **is.** Vodeničarov, 2.8.1964, \_ 39-9; **loc.** Bulgaria, lake Sreb\_rna near Danube; **BBM**-a; **Ind.**
- \_ 8043 **is.** Vodeničarov, 2.8.1964; **loc.** Bulgaria, lake Sreb\_rna near Danube; **BBM**-a; **Ind.**
- \_ 8048 **is.** Vodeničarov, 16.6.1964; **loc.** Bulgaria, Plovdiv; **BBM**-a; **Ind.**
- \_ 8116 **is.** Vodeničarov, 1967; **loc.** Bulgaria, Plovdiv, basin in town park; **BBM**-a; **Ind.**
- \_ 8202 **is.** Vodeničarov, 1968; **loc.** Bulgaria, Pirin mountains, lake Vasilaško; **BBM**-a; **clonal**; **Ind.**
- \_ 8248 **is.** Vodeničarov, 1968; **loc.** Bulgaria, Pirin mountains, lake Vasilaško; **BBM**-a; **Ind.**
- \_ 8251 **is.** Vodeničarov, 1968; **loc.** Bulgaria, Pirin mountains, lake Vasilaško; **BBM**-a; **Ind.**
- \_ 8271 **is.** Vodeničarov, 1968; **loc.** Bulgaria, Plovdiv, fish-pond; **BBM**-a; **Ind.**
- \_ 8347 **is.** Vodeničarov, 6.6.1967; **loc.** Bulgaria, Plovdiv, fish-pond; **BBM**-a; **Ind.**
- \_ 8352 **is.** Vodeničarov, 9.10.1968; **loc.** Bulgaria, Varna, park basin in front of the Aquarium; **BBM**-a; **Ind.**
- \_ 8377 **is.** Vodeničarov, 9.10.1968; **loc.** Bulgaria, Varna, park basin in front of the Aquarium; **BBM**-a; **Ind.**
- \_ 8389 **is.** Kirjakov, 7.1968; **loc.** Bulgaria, Rhodopes,

- fountain “Šaernata voda” near Slavejno;  
**BBM–a; Ind.**
- \_ 8418 **is.** Vodeničarov, 7.10.1968; **loc.** Bulgaria, Plovdiv, fountain in the Ethnographic museum; **BBM–a; Ind.**
- \_ 8475 **is.** Vodeničarov, 1968; **loc.** Bulgaria, **BBM–a; Ind.**
- \_ 8483 **is.** Vodeničarov, 1968; **loc.** Bulgaria, **BBM–a; Ind.**
- \_ 8503 **is.** Vodeničarov, 1968; **loc.** Bulgaria, **BBM–a; Ind.**
- \_ 8554 **is.** Vodeničarov, 1968; **loc.** Bulgaria, **BBM–a; Ind.**
- \_ 8610 **is.** RPLA; **loc.** Bulgaria, mass culture of algae, Rupite, 1984; **from** [RPLA]; **BBM–a; Ind.**
- \_ 8871 **is.** Vodeničarov, 1973; **loc.** USSR, lake Baikal; **BBM–a; Ind.**
- Scenedesmus obtusiusculus* CHOD.
- \_ 3106 **is.** unknown; **loc.** Poland; **from** CCALA 1082 n; **BBM–a**
- \_ 7002 **is.** RPLA; **loc.** Bulgaria; **from** [RPLA] 2d, 1988, Tončeva; **BBM–a**
- \_ 7015 **is.** RPLA; **loc.** Bulgaria; **from** [RPLA] 10/2, 1988, Tončeva; **BBM–a**
- \_ 7066 **is.** unknown; **loc.** unknown; **from** [RPLA] C 17 as Czech. strain; **BBM–a**
- \_ 8088 **is.** Vodeničarov, 1964; **loc.** Bulgaria, **BBM–a**
- \_ 8321 **is.** Kirjakov, 27.5.1967; **loc.** Bulgaria, Smoljan, fish-pond; **BBM–a**
- \_ 8569 **is.** Vodeničarov, 1968; **loc.** Bulgaria, **BBM–a**
- \_ 8853 **is.** Vodeničarov; **loc.** Russia, lake Baikal; **BBM–a**
- Scenedesmus obtusus* MEYEN
- \_ 3080 **is.** Czurda-Denk; **loc.** unknown; **from** [CAP] A 371 as *S. bijugatus*; = IPPAS S-306, CALU 12; **BBM–a**

- \_ 5072 **is.** Hegewald 1975/257; **loc.** Germany, Berlin, river Havel; **from** [IBI] Hegewald 1975-257, 1988; **G<sub>1</sub>-a**
- \_ 8812 **is.** Belkinova 25.7.1990; **loc.** Bulgaria, Plovdiv, fish-pond; **G<sub>1</sub>-a**
- Scenedesmus opoliensis* P. RICHT
- \_ 5073 **is.** Hegewald 1971/125; **loc.** Hungary, Szeged, Feher-to, fish-pond; **from** [IBI] Hegewald 1971-125, 1988; **G<sub>1</sub>-a**; **Ind.**
- \_ 5074 **is.** Hegewald 1973/235; **loc.** Peru, Iquitos, Quistococha, fish-pond; **from** [IBI] Hegewald 1973-323, 1988; **G<sub>1</sub>-a**; **Ind.**
- \_ 5075 **is.** Hegewald 1973/323; **loc.** USA, Boulder, pond; **from** [IBI] Hegewald 1973-323, 1988; **G<sub>1</sub>-a**; **Ind.**
- \_ 5076 **is.** Hegewald 1974/16; **loc.** Germany, Hagen, Ischelandteich; **from** [IBI] Hegewald 1974-16, 1988; **G<sub>1</sub>-a**; **Ind.**
- \_ 8814 **is.** Belkinova, 1.11.1989; **loc.** Bulgaria, Burgas, weir Mandra; **G<sub>1</sub>-a**; **clonal**; **Ind.**
- Scenedesmus opoliensis var. mononensis* CHOD.
- \_ 5380 **is.** Krienitz 1979/380; **loc.** Germany, Gnetsch near Kothen, pond; **from** ZIMET R-53, 1988, Dr. Krienitz; **BBM-a**
- \_ 8686 **is.** Belkinova, 13.7.1987; **loc.** Bulgaria, Burgas, weir Mandra; **G<sub>1</sub>-a**
- Scenedesmus pannonicus* HORTOB.
- \_ 8833 **is.** Belkinova, 25.7.1990; **loc.** Bulgaria, Plovdiv, fish-pond; **G<sub>1</sub>-a**
- Scenedesmus pectinatus* MEYEN
- \_ 8783 **is.** Mladenov, 10.1987; **loc.** Bulgaria, Trud near Plovdiv, fish-pond; **G<sub>1</sub>-a**; **clonal**
- \_ 8823 **is.** Mladenov, 27.7.1990; **loc.** Bulgaria, Plovdiv, fish-pond; **G<sub>1</sub>-a**; **clonal**
- \_ 5091 **is.** Hegewald; **loc.** Hungary; **from** Hegewald, \_ Hg 98-3; **BBM-l**
- Scenedesmus pleiomorphus* HIND.
- \_ 8830 **is.** Belkinova, 25.7.1990; **loc.** Bulgaria,

Plovdiv, fish-pond; **G**<sub>1</sub>-a

*Scenedesmus pseudoarmatus* HORTOB.

\_ 8804

**is.** Mladenov, 12.1989; **loc.** Bulgaria, Trud near Plovdiv, fish-pond; **G**<sub>1</sub>-a; **clonal**

\_ 8887

**is.** Mladenov; **loc.** Bulgaria; **G**<sub>1</sub>-a

\_ 8888

**is.** Mladenov; **loc.** Bulgaria; **G**<sub>1</sub>-a

*Scenedesmus pseudobernardii* (G.M.SMITH) COM. et KOM.

\_ 5391

**is.** Krienitz 1980/391; **loc.** Germany, river Elbe near Aken; **from** ZIMET R-391, 1990, Dr. Krienitz; **BBM**-a

*Scenedesmus pseudobernardii* f. *globosus* (HORTOB.) KRIEN.

\_ 5340

**is.** Krienitz 1980/340; **loc.** Germany, Gnetsch near Kothen, Kiesgrube; **from** ZIMET R-411, 1990, Dr. Krienitz; **BBM**-a

*Scenedesmus pseudogranulatus* MAJS.

\_ 8829

**is.** Belkinova, 25.7.1990; **loc.** Bulgaria, Plovdiv, fish-pond; **G**<sub>1</sub>-a

*Scenedesmus quadricauda* (TURP.) BRÉB. sensu CHOD.

\_ 7064

**is.** strain Greifswald 15; **loc.** Germany, Greifswald; **from** [RPLA] C 1; = CAUP H 522, IPPAS S-313, CCALA 463; **BBM**-a

*Scenedesmus quadrispina* CHOD.

\_ 3060

**is.** unknown; **loc.** unknown; **from** CAUP Gatersleben 276-4a as *S. quadricauda*; **BBM**-a

*Scenedesmus regularis* SVIR.

\_ 5089

**is.** Hegewald; **loc.** Hungary; **from** Hegewald, \_ Hg 98-2; **BBM**-1

\_ 5090

**is.** Hegewald; **loc.** Ukrajna; **from** Hegewald, \_ Hg 98-12; **BBM**-1

*Scenedesmus serratus* (CORDA) BOHL.

\_ 8803

**is.** Mladenov, 10.1989; **loc.** Bulgaria, Rhodopes, lake Smoljansko; **Prat**-1; **clonal**

*Scenedesmus soli* HORTOB.

\_ 8031

**is.** Vodeničarov, 20.7.1964; **loc.** Bulgaria, Plovdiv, street pool; **BBM**-a; **clonal**

*Scenedesmus subspicatus* CHOD.

\_ 8016

**is.** Vodeničarov, 2.8.1964; **loc.** Bulgaria, lake Sreb\_rna near Danube, from *Stratiotes aloides*; **BBM**-a

<i>Scenedesmus velitaris</i> KOM.	
_ 8001	<b>is.</b> Vodeničarov, 2.8.1964; <b>loc.</b> Bulgaria, lake Sreb_rna near Danube, from <i>Potamogeton pectinatus</i> ; <b>BBM</b> –a
_ 8872	<b>is.</b> Vodeničarov, 1973; <b>loc.</b> Russia, lake Baikal; <b>BBM</b> –a
_ 3110	<b>is.</b> strain Greifswald 15; <b>loc.</b> Germany, Greifswald; <b>from</b> CCALA 463 as <i>S. quadricauda</i> ; = IPPAS S-313, CAUP H 522; <b>BBM</b> –a
_ 8250	<b>is.</b> Vodeničarov, 30.6.1967; <b>loc.</b> Bulgaria, Plovdiv, fish-pond; <b>BBM</b> –a
_ 8875	<b>is.</b> Vodeničarov; <b>loc.</b> Russia, lake Baikal; <b>BBM</b> –a
_ 8891	<b>is.</b> Kirjakov; <b>loc.</b> Bulgaria; <b>G</b> <sub>1</sub> –a
_ 8892	<b>is.</b> Kirjakov; <b>loc.</b> Bulgaria; <b>G</b> <sub>1</sub> –a
<i>Scotiellopsis</i> VIN.	
<i>Scotiellopsis</i> sp.	
_ 4350	<b>is.</b> Hindák; <b>loc.</b> unknown; <b>from</b> CALU 350 as <i>Scotiella nivalis</i> (from Coll. Fott T3-45); = IPPAS H-247; <b>G</b> <sub>1</sub> –a
<i>Selenastrum</i> REINSCH	
<i>Selenastrum capricornutum</i> PRINTZ	
_ 3138	<b>is.</b> Skulberg 1959/1; <b>loc.</b> Norway, Akershus, Nitelva; <b>from</b> CCALA 433, 1985; = SAG 61.81, CALU 784, CCALA 433 as <i>Raphidocelis subcapitata</i> ; <b>G</b> <sub>1</sub> –a; <b>test organism for toxicity bioassays</b>
_ 8886	<b>is.</b> unknown; <b>loc.</b> unknown; = NIVA OHL 1/280384; <b>G</b> <sub>1</sub> –a; <b>test organism for toxicity bioassays</b>
<i>Siderocelis</i> (NAUM.) FOTT	
<i>Siderocelis kolkwitzii</i> (NAUM.) FOTT	
_ 8548	<b>is.</b> Vodeničarov, 1968; <b>loc.</b> Bulgaria; <b>BBM</b> –a
<i>Siderocelis pseudoblonga</i> HIND.	
_ 8228	<b>is.</b> Vodeničarov, 1968; <b>loc.</b> Bulgaria, Pirin mountains, lake Vasilaško; <b>BBM</b> –a
<i>Siderocelis sphaerica</i> HIND.	
_ 7013	<b>is.</b> RPLA; <b>loc.</b> Bulgaria; from [RPLA] 98d,



1988, Tončeva; **BBM**-a

*Sorastrum* KÜTZ.

*Sorastrum spinulosum* NÄG.  
\_ 8714

**is.** Mladenov, 3.11.1987; **loc.** Bulgaria, lake Sreb\_rna near Danube; **G**<sub>1</sub>-a; **clonal**

*Spongiochloris* STARR

*Spongiochloris minor* CHANT. et BOLD  
\_ 8626

**is.** Angelieva, 15.5.1985; **loc.** Bulgaria, Belozem near Plovdiv, rice field; **BBM**-a

*Spongiochloris sp.*  
\_ 8078

**is.** Vodeničarov, 26.10.1964; **loc.** Bulgaria, Stara Zagora, lake; **BBM**-a

*Stichococcus* NÄG.

*Stichococcus bacillaris* NÄG.  
\_ 3076

**is.** Vischer; **loc.** Switzerland, Basel; **from** [CAP] A 143; = SAG 379-1b; **BBM**-a

\_ 8668

**is.** Angelieva, 1.4.1986; **loc.** Bulgaria, Rhodopes; **G**<sub>1</sub>-a

*Stichococcus minutus* GRINT. et PET.  
\_ 8898

**is.** unknown; **loc.** Bulgaria, Jagodina; **BBM** -a

*Stichococcus mirabilis* LAG.  
\_ 8860

**is.** Vodeničarov; **loc.** Russia, lake Baikal; **BBM**-a

*Stichococcus sp.*  
\_ 8854

**is.** Vodeničarov; **loc.** Russia, lake Baikal; **BBM**-a

*Tetracystis* BR. et BOLD

*Tetracystis tetrasporum* (ARCE et BOLD) BR. et BOLD  
\_ 2025

**is.** Arce \_ 59 A; **loc.** Cuba, near Havanna, soil; **from** [IUCC] 780 as *Chlorococcum tetrasporum*; = UTEX 780, SAG 98.80, CCAP 181/11; **BBM**-a; **type culture**

*Tetracystis sp.*  
\_ 8586

**is.** Vodeničarov, 1968; **loc.** Bulgaria; **BBM**-a

*Tetraedron* KÜTZ.

*Tetraedron caudatum* (CORDA) HANSG.  
\_ 5079

**is.** Hegewald 1977/239; **loc.** Hungary, Biri-to, pond; **from** [IBI] Hegewald 1977-239, 1988; **G**<sub>1</sub>-a; **Ind.**

\_ 8744

**is.** Belkinova, 24.2.1988; **loc.** Bulgaria,

- Burgas, weir Mandra; **G<sub>1</sub>-a; clonal; Ind.**
- Tetraedron minimum* (A. BR.) HANSG.  
 \_ 5081 **is.** Hegewald 1973/82; **loc.** Peru, Andahuaylas, lake Pacucha; **from** [IBI] Hegewald 1973-82, 1988; **G<sub>1</sub>-a**
- \_ 8641 **is.** Kirjakov, 20.9.1985; **loc.** Bulgaria, weir Dušanci; **BBM-a**
- \_ 8720 **is.** Mladenov, 4.6.1987; **loc.** Bulgaria, lake Sreb\_rna near Danube; **G<sub>1</sub>-a; clonal**
- Tetraedron triangulare* KORŠ.  
 \_ 8721 **is.** Mladenov, 4.6.1987; **loc.** Bulgaria, lake Sreb\_rna near Danube; **G<sub>1</sub>-a; clonal**
- Tetradesmus* G.M. SMITH  
*Tetradesmus wisconsinensis* G.M. SMITH  
 \_ 8652 **is.** Kirjakov, 24.4.1986; **loc.** Bulgaria, Sredna Gora, hut Buntovna, swamp; **BBM-a; clonal**
- Tetrastrum* CHOD.  
*Tetrastrum staurogeniaeforme* (SCHRÖD.) LEMM.  
 \_ 5084 **is.** Hegewald 1977/152; **loc.** Germany, Steinhuder Meer; **from** [IBI] Hegewald 1977-152, 1988; **G<sub>1</sub>-a; Ind.**
- \_ 8828 **is.** Belkinova, 25.7.1990; **loc.** Bulgaria, Plovdiv, fish-pond; **G<sub>1</sub>-a, l; Ind.**
- Tetrastrum triangulare* (CHOD.) KOM.  
 \_ 8713 **is.** Belkinova, 8.10.1987; **loc.** Bulgaria, Burgas, weir Mandra; **G<sub>1</sub>-a; Ind.**
- Trebouxia* PUYM.  
*Trebouxia erici* AHMAD.  
 \_ 2037 **is.** Ahmadjan from *Cladonia cristatella*; **loc.** unknown; **from** [IUCC] 910; = UTEX 910; **BBM-a**
- Trebouxia* sp.  
 \_ 2006 **is.** Castle; **loc.** from *Cladonia cristatella*; **from** [IUCC] 115; = UTEX 115; **BBM-a**
- Treubaria* BERN.  
*Treubaria schmidlei* (SCHRÖD.) FOTT et KOV.  
 \_ 8788 **is.** Belkinova, 26.10.1987; **loc.** Bulgaria, Burgas, weir Mandra; **G<sub>1</sub>-a; clonal**
- Trochiscia* KÜTZ.  
*Trochiscia stellata* VOD. et BEND.

\_ 8906 **is.** Vodeničarov, 1971; **loc.** Bulgaria, Rhodopes, Devin region, Čair lakes, in puddles with *Sphagnum*; = SAG 103.80; **G**<sub>1</sub>-a; **type culture**

*Westella* DE-WILD.

*Westella botryoides* (W. WEST) DE-WILD.

\_ 8786 **is.** Mladenov, 21.11.1988; **loc.** Bulgaria, Rhodopes, lake Smoljansko; **G**<sub>1</sub>-a; **clonal**; **Ind.**

### Zygnemaphyta (Zygophyta, Conjugatophyceae)

*Closterium* NITZSCH

*Closterium* sp.

\_ 8756 **is.** Mladenov, 11.1.1988; **loc.** Bulgaria, Trud near Plovdiv, fish-pond; **G**<sub>1</sub>-l; **clonal**

*Cosmarium* CORDA

*Cosmarium laeve* RAB.

- \_ 8633/3 **is.** Angelieva, 29.9.1985; **loc.** Bulgaria, Plovdiv, fountain in municipal park; **Z**-(a) l; **clonal**, (-) strain
- \_ 8657/2 **is.** Angelieva, 7.9.1986; **loc.** Bulgaria, Stara planina mountains, reservation Steneto; **Z**-(a) l; **clonal**, not mating
- \_ 8657/3 **is.** Angelieva, 7.9.1986; **loc.** Bulgaria, Stara planina mountains, reservation Steneto; **Z**-(a) l; **clonal**, not mating
- \_ 8657/4 **is.** Angelieva, 7.9.1986; **loc.** Bulgaria, Stara planina mountains, reservation Steneto; **Z**-(a) l; **clonal**, not mating
- \_ 8657/6 **is.** Angelieva, 7.9.1986; **loc.** Bulgaria, Stara planina mountains, reservation Steneto; **Z**-(a) l; **clonal**, not mating
- \_ 8657/7 **is.** Angelieva, 7.9.1986; **loc.** Bulgaria, Stara planina mountains, reservation Steneto; **Z**-(a) l; **clonal**, not mating
- \_ 8699/2 **is.** Angelieva, 4.10.1987; **loc.** Bulgaria, Slivenski min. Bani, fountain; **Z**-(a) l; **clonal**, (-) strain
- \_ 8699/10 **is.** Angelieva, 23.9.1988; **loc.** Bulgaria, Slivenski min. Bani, fountain; **Z**-(a) l; **clonal**,

- not mating, with smaller cells
- \_ 8700/7 **is.** Angelieva, 10.10.1987; **loc.** Bulgaria, Plovdiv, singing fountain; **Z**-(a) l; **clonal**, (-) strain
- \_ 8765/3 **is.** Angelieva, 2.9.1988; **loc.** Roumania, Arad, fountain on central square; **Z**-(a) l; **clonal**, (-) strain
- \_ 8765/4 **is.** Angelieva, 2.9.1988; **loc.** Roumania, Arad, fountain on central square; **Z**-(a) l; **clonal**, (-) strain
- \_ 8766/1 **is.** Angelieva, 23.8.1988; **loc.** Hungary, Szekszard, fountain on central square; **Z**-(a) l; **clonal**, (+) strain
- \_ 8766/2 **is.** Angelieva, 23.8.1988; **loc.** Hungary, Szekszard, fountain on central square; **Z**-(a) l; **clonal**, not mating
- \_ 8766/3 **is.** Angelieva, 23.8.1988; **loc.** Hungary, Szekszard, fountain on central square; **Z**-(a) l; **clonal**, not mating
- \_ 8766/4 **is.** Angelieva, 23.8.1988; **loc.** Hungary, Szekszard, fountain on central square; **Z**-(a) l; **clonal**, not mating
- \_ 8766/6 **is.** Angelieva, 23.8.1988; **loc.** Hungary, Szekszard, fountain on central square; **Z**-(a) l; **clonal**, not mating

*Desmidium* AG.

*Desmidium schwartzii* AG.

- \_ 8842 **is.** Kirjakov, 31.7.1993; **loc.** Bulgaria, Rhodopes, lake Smoljansko; **G**<sub>1</sub>-l

*Euastrum* EHR.

*Euastrum verrucosum* var. *reductum* NORDST.

- \_ 8844 **is.** Mladenov, 26.8.1992; **loc.** Bulgaria, Rhodopes, hut Momčil junak, lake; **Prat**-l

*Mesotaenium* NÄG.

*Mesotaenium caldariorum* (LAG.) HANSG.

- \_ 4010 **is.** Czurda-Denk 1924; **loc.** Czech Republic, Klobouky near Brno; **from** CALU 10; = [CAP] A-225, CAUP K 101; **G**<sub>1</sub>-a

*Mesotaenium chlamydosporum* DE BARY

- \_ 7007 **is.** RPLA; **loc.** Bulgaria; **from** [RPLA]13 e,

1988, Tončeva; **BBM**-a

*Mesotaenium endlicherianum* NÄGELI

\_ 8724

**is.** Mladenov, 17.8.1987; **loc.** Bulgaria, Rhodopes, road Momčilovci-Rožen, wet rocks; **G<sub>1</sub>**-a; **clonal**

*Mesotaenium kramstai* LEMM.

\_ 8282

**is.** Vodeničarov, 11.11.1968; **loc.** Bulgaria; **BBM**-a

*Spondylosium* BRÉB.

*Spondylosium pulchellum* ARCH.

\_ 8665

**is.** Angelieva, 12.11.1985; **loc.** Bulgaria, Rhodopes, lake Smoljansko; **Prat**-l

*Staurastrum* MEYEN

*Staurastrum* spp.

\_ 8681/1

**is.** Angelieva, 12.11.1985; **loc.** Bulgaria, Rhodopes, lake Smoljansko; **Prat**-l; **clonal**

\_ 8681/2

**is.** Angelieva, 12.11.1985; **loc.** Bulgaria, Rhodopes, lake Smoljansko; **Prat**-l; **clonal**

\_ 8682

**is.** Angelieva, 12.11.1985; **loc.** Bulgaria, Rhodopes, lake Smoljansko; **Prat**-l; **clonal**

\_ 8683

**is.** Angelieva, 12.11.1985; **loc.** Bulgaria, Rhodopes, lake Smoljansko; **Prat**-l; **clonal**

*Teilingia* BOURR.

*Teilingia granulata* (ROY et BISS.) BOURR.

\_ 8845

**is.** Belkinova, 26.8.1992; **loc.** Bulgaria, Rhodopes, hut Momčil junak, lake; **G<sub>1</sub>**-l

*Zygnema* AG.

*Zygnema* sp.

\_ 8758

**is.** Belkinova, 29.2.1988; **loc.** Bulgaria, near Burgas, puddle near river Fakijska; **G<sub>1</sub>**-b ( 1 )

## Acronyms of Algal Culture Collections, Listed in the Catalogue

ALCP - L'Algothèque, Laboratoire de Cryptogamie, Musée National d'Historie Naturelle, 12 Rue de Buffon, 75005 Paris, France

(synonymous designations: Cult. Coll. Paris; Paris)

[CAP] - Culture Collection of Autotrophic Organisms, Inst. of Experimental Botany of ČSAV, Viničná 5, 2844 Praha 2, Czech Republic

(synonymous designations: Cult. Coll. ČSAV Praha; Praha-Ac.)

Note: closed in 1970, most of strains transferred to CCALA

CALU - Collection of Algae Strains, Laboratory of Microbiology, Biol. Inst. Sankt Peterburg University, Oranienbaumskoe shosse 2, Stary Petergoff, Sankt Peterburg 198904, Russia

CAUP - Culture Collection of Algae, Department of Botany, Faculty of Natural Science, Charles University, Benátská 2, 12801, Praha 2, Czech Republic

CCALA - Collection of Autotrophic Organisms, Czech Republic central collection of algal strains, Dept. of Hydrobotany, Inst. of Botany ČSAV, Dukelská 145, 37982 Třebon, Czech Republic

(synonymous designations: BUSCAV; CAO; LAO)

CCAP - Culture Centre of Algae and Protozoa, Unst. of Terrestrial Ecology, 36 Storey's Way, Cambridge, CB3 0DT, United Kingdom

(synonymous designations: Cult. Coll. Cambridge; Camb.)

Note: from 1986 renamed in Culture Collection of Algae and Protozoa (acronym CCAP); freshwater algae located at Freshwater Biological Association, The Ferry House, Ambleside, Cumbria LA22 0LP; marine algae located at Scottish Marine Biological Association at Oban, Scotland

[IBI] - KFA, Institut für Biotechnologie, Institut 3, Postfach 1913, D-5170, Jülich 1, Germany

[IUCC] - Culture Collection of Algae at Indiana University, Bloomington, USA

(synonymous designations: Cult. Coll. Bloom.)

Note: during 1976-77 transferred to UTEX-see below

[MPI] - Max-Planck Institut für Limnologie, Abteilung Microbenökologie, Postfach 165, D-2330 Plön, Germany

[RPLA] - Research and Production Laboratory of Algology Bulgarian Academy of Sciences, Acad. Bonchev Str. B1 23, Sofia, Bulgaria

Note: closed in 1988-89, most of strains transferred to PACC

SAG - Sammlug von Algenkulturen, Pflanzenphysiologisches Institut, Universität Göttingen, Nikolausbergerweg 18, D-3400, Germany

ZIMET - Zentralinstitut für Microbiologie und Experimentelle Therapie d. DAW, Limnologische Außenstelle Stechlinsee, D-1431 Neuglobsow, Germany

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## КАТАЛОГ НА ЩАМОВЕТЕ НА ПЛОВДИВСКАТА АЛГОЛОГИЧНА КОЛЕКЦИЯ (РАСС)

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(Резюме)*

Описани са произхода, функционирането и сегашното състояние на Пловдивската алгологична колекция (РАСС), създадена през 1963 г. към катедра Ботаника при ПУ “Паисий Хилендарски”. Понастоящем тя е единствен център (национална банка) за съхраняване на водораслови култури в България.

В колекцията се съхраняват 774 щама, които се отнасят към 249 вида от 103 рода. Тя включва предимно сладководни зелени водорасли (Chlorophyta, Chlorococcales), но също и други систематични групи водорасли и цианобактерии от общо 7 отдела. Повечето щамове са оригинални, т.е. изолирани от сътрудници на колекцията от разнообразни в екологично отношение биотопи на България. Останалите са получени от други водораслови колекции или чуждестранни алголози с местонаходища от природни материали на почти всички континенти. Много от щамовете са на видове биоиндикатори за трофност и сапробност на водите, тест-организми за токсичност, както и типови култури (култури от материала, използван при описанието на вида). Списъкът на културите включва всички налични данни за щамовете. Цитирани са и използваните за култивиране, и съхранение хранителни среди.

Колекцията обслужва преди всичко научно-изследователската работа и учебния процес към катедра Ботаника и други катедри на Биологически факултет към ПУ “П. Хилендарски”. Водораслови култури са изисквани и предоставяни за различни цели на редица институти и ведомства у нас, и в чужбина.