

Ber. nat.-med. Verein Innsbruck	Band 83	S. 45 – 69	Innsbruck, Okt. 1996
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## **ASIB – the Culture Collection of Algae at the Botanical Institute of the University at Innsbruck (Austria) Catalogue of Strains 1996**

by

Georg Gärtner \*)

### **ASIB – Die Sammlung von Algenkulturen am Institut für Botanik der Universität Innsbruck (Österreich) Kulturenverzeichnis 1996**

**Synopsis:** Aus der über 2600 Stämme umfassenden Algensammlung am Institut für Botanik der Universität Innsbruck sind 379 Isolate (237 Arten aus 93 Gattungen) in alphabetischer Liste zusammengestellt. Ergänzende Hinweise über Herkunft, Isolator, Ökologie und Taxonomie sowie zur Identität der Stämme mit Subkulturen in anderen Kultursammlungen werden angeführt. Die Algensammlung in Innsbruck ist auf die Kultur von Boden-, Luft- und Flechtenalgen seit über 30 Jahren spezialisiert. Sämtliche Stämme stehen für wissenschaftliche Forschungen zur Verfügung.

#### **1. Introduction:**

The culture collection of algae at the University of Innsbruck (Austria) derived from a collection of soil algae started by H. PITSCHMANN and H. REISIGL in the early 1960s. The collection was expanded 1975 with W. VISCHER's culture collection from Basel (Switzerland). Today more than 2600 isolates are maintained, in this catalogue 379 strains (of 237 species and 93 genera) are included. The culture collection at Innsbruck maintains exclusively soil-, airborne and lichen algae. The cultures are presumed to be unialgal and originating from a single cell, but some of them contain bacteria. All strains are cultivated on agar slants (BBM, see BISCHOFF & BOLD 1963) under standard conditions (temperature 13° Celsius, light intensity 1300-3000 lux (maximum), cool-white fluorescent lamps on a 12/12 h L/D cycle). All cultures are available for research purpose without restrictions. To academic institutions and non-profit making investigators, the cost of each culture is 100.– ATS (Austrian Schilling), commercial organizations are charged 200.– ATS per culture plus forwarding expenses. Cultures are usually dispatched within 4 weeks of receipt of the order, using ordinary postal service. An invoice detailing the charges is sent to the recipient, payment by check, bank draft or money order is preferred. All payments should be addressed to Institut für Botanik der Universität Innsbruck, Algenkultursammlung, Sternwartestraße 15, A-6020 Innsbruck (Austria).

Explanatory notes on the list of strains: as in the previous lists (GÄRTNER 1985a, 1986) the cultures are listed alphabetically by genus and species. The strain number assigned to every isolate remains the same, regardless of any change in the nomenclature of the strain. Some names

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have been changed according to the acceptance by the scientific community. The synonyma can be found within the informations given for each strain. Nomenclature follows generally Ettl & Gärtner (1995). Other available data for each strain refer to the name of the isolator (written in capitals), date of isolation, ecology, geography and identity with strains in other collections. Strains described as "type material" have been directly derived from material, which had been used for the original description of the species (also known as authentic strain (Schlösser 1994) or type culture (Starr & Zeikus 1993). Publications with reference to the isolated strains are cited in parentheses (names of authors are written in standard letters).

#### Abbreviations of collections:

- CCAP = Culture Collection of Algae and Protozoa (Tompkins et al. 1995) c/o Institute of Freshwater Ecology, The Windermere Laboratory, Far Sawrey, Ambleside, Cumbria LA22 0LP, UK.
- ATCC = American Type Culture Collection (Daggett & Nerad 1985), c/o Rockville, Maryland 20852-1776, USA.
- SAG = Sammlung von Algenkulturen (Schlösser 1994), c/o Pflanzenphysiologisches Institut der Universität Göttingen, Nikolausberger Weg 18, D-37073 Göttingen, F.R.G.
- UTEX = Culture Collection of Algae (Starr & Zeikus 1993), c/o Department of Botany, The University of Texas at Austin, Austin, Texas 78713-7640, USA.
- ASIB = Algensammlung Innsbruck (formerly IBSG), the collection is registered as no. 505 in the World Directory of Collections of Cultures of Microorganisms (Sugawara et al. 1993).

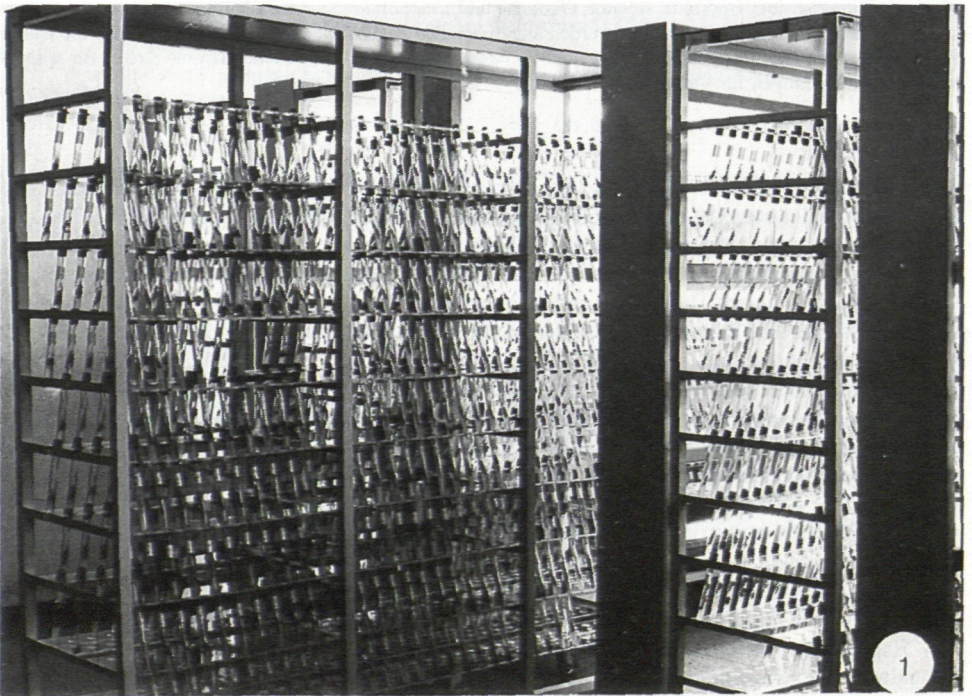


Fig. 1: Cultivation room; storage of the algal cultures in agar tubes on moveable racks.





Fig. 2: Shelves made of acryl-glass to enable light diffusion within the racks.

## 2. List of cultures:

### **Actinochloris** Korshikov

*Actinochloris terrestris* (Vischer) Ettl & Gärtner

BS 321 W. VISCHER, 1945, soil, Unterengadin (Switzerland); type material; formerly *Asterococcus terrestris* Vischer; = *Radiosphaera dissecta* (Korsh.) Starr in UTEX 460, = CCAP 3/2b = SAG 247-1b; (Vischer 1945a, Ettl & Gärtner 1988)

### **Apatococcus** Brand

*Apatococcus lobatus* (Chod.) Petersen emend. Vischer

G 177 G. GÄRTNER, 1974, bark, Innsbruck (Austria)  
S 183 K. SCHWARZ, 1975, soil, Isle of Lavsa (Jugoslavia)  
V 216 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy)

## **Borodinellopsis Dykstra**

### *Borodinellopsis texensis* Dykstra

- IB 367 R.F. DYKSTRA, 1971, soil, Mustang Island, Texas (USA); type material = UTEX 1593; (Dykstra 1971)

## **Botrydiopsis Borzi**

### *Botrydiopsis alpina* Vischer

- IB 504 W. VISCHER, 1940, soil, Switzerland; type material; = SAG 801-6 = UTEX 295; (Vischer 1945)

### *Botrydiopsis arhiza* Borzi

- IB 505 E.G. PRINGSHEIM, soil, England; = CCAP 806/2 = UTEX 87

### *Botrydiopsis callosa* Trenkwalder

- T 12 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy); type material; (Trenkwalder 1975, 1975a)  
V 182 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy)  
V 183 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy); = SAG 30.83

### *Botrydiopsis intercedens* Pascher

- BS 171 E.G. PRINGSHEIM; = SAG 806-3 = UTEX 296

### *Botrydiopsis pyrenoidosa* Trenkwalder

- T 11 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy); type material; = SAG 31.83

## **Bracteaococcus Tereg**

### *Bracteaococcus aeriis* Bischoff & Bold

- IB 498 R.M. BROWN, 1960, airborne dust, Austin, Texas (USA); type material; = UTEX 1250; (Bischoff & Bold 1963)

### *Bracteaococcus cinnabarinus* (Kol & F. Chod.) Starr

- BS 162 F. CHODAT, 1934, soil, Engadin (Switzerland); type material; formerly *Dictyococcus cinnabarinus* (Kol & F. Chod.) Vischer; = CCAP 221/2 = UTEX 56; (Kol & F. Chodat 1934, Vischer 1936)

### *Bracteaococcus cohaerens* Bischoff & Bold

- IB 499 H.W. BISCHOFF, 1959, soil, Texas (USA); type material; = UTEX 1272; (Bischoff & Bold 1963)

### *Bracteaococcus engadinensis* (Kol & F. Chod.) Starr

- BS 163 F. CHODAT, 1934, soil, Engadin (Switzerland); type material; formerly *Bracteaococcus terrestris* (Kol & F. Chodat) Starr; = CCAP 221/4 = SAG 221-4 = UTEX58; (Kol & F. Chodat 1934, Vischer 1936)  
BS 164 F. CHODAT, 1934, soil, Engadin (Switzerland); type material; formerly *Dictyococcus engadinensis*; = CCAP 221/3 = SAG 221-3 = UTEX 57; (Kol & Chodat 1934, Vischer 1936)

### *Bracteaococcus giganteus* Bischoff & Bold

- IB 500 H.W. BISCHOFF, 1960, soil, Texas (USA); type material; = UTEX 1251; (Bischoff & Bold 1963)

### *Bracteaococcus grandis* Bischoff & Bold

- IB 501 H.W. BISCHOFF, 1957, soil, Texas (USA); type material; = UTEX 1246; (Bischoff & Bold 1963)  
S 39 K. SCHWARZ, 1975, soil, Isle of Lavsa (Jugoslavia)

### *Bracteaococcus medionucleatus* Bischoff & Bold

- IB 502 H.W. BISCHOFF, 1960, soil, Texas (USA); type material; = UTEX 1244; (Bischoff & Bold 1963)

*Bracteacoccus minor* (R. Chod.) Petrova

- IB 503 R. CHODAT, since 1896 in culture (Coll. Geneva); type material; = CCAP 221/1 = SAG 221-1  
= UTEX 66; (Starr, 1955)  
S 15 K. SCHWARZ, 1975, soil, Isle of Lavsa (Jugoslavia)  
V 85 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy)

*Bracteacoccus* cf. *pseudominor* Bischoff & Bold

- T 65 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy)

**Bumilleriopsis** Printz

*Bumilleriopsis fuliformis* Vischer

- BS 360 W. VISCHER, 1943, soil, Engadin (Switzerland); type material; = CCAP 809/2 = SAG 809-2  
= UTEX 309; (Vischer 1945)

**Calothrix** Agardh

*Calothrix crustacea* Schousboe & Thuret s.l.

- S 318 K. SCHWARZ, 1975, soil, Isle of Lavsa (Jugoslavia)  
S 319 K. SCHWARZ, 1975, Isle of Lavsa (Jugoslavia)

*Calothrix parietina* (Nägeli) Thuret

- V 161 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy)

**Characium** A. Braun

*Characium astipitatum* Metting

- IB 393 B. METTING, 1980, soil, Whitman County, Washington (USA); type material; = UTEX 2250;  
(Metting 1980)

**Characiopodium** Floyd & S. Watanabe in Floyd et al.

*Characiopodium californicum* (Lee & Bold) Floyd & S. Watanabe in Floyd et al.

- IB 394 R.C. STARR, soil, Lemon Cove, California (USA); type material; formerly *Characium cali-*  
*formicum* Lee & Bold; = SAG 25.85 = UTEX 2097; (Lee & Bold 1974, Ettl & Gärtner 1995)

*Characiopodium pseudopolymorphum* (Philipose) Floyd & S. Watanabe in Floyd et al.

- IB 504 F.R. TRAINOR, soil, Georgia (USA); type material; formerly *Characium polymorphum* Train-  
or & Bold; = ATTC 30439 = SAG 209-2 = UTEX 129; (Ettl & Gärtner 1995)

**Cedercreutzella** Vischer

*Cedercreutzella savoniensis* Vischer

- BS 591 W. VISCHER, 1950, wall, Savonlinna (Finland); type material; (Vischer 1960)

**Chlamydocapsa** Fott

*Chlamydocapsa ampla* (Kützing) Fott

- IB 397 W. KOCH, 1973, bog pool, Ireland; = SAG 19.79

*Chlamydocapsa maxima* (Mainx) Ettl & Gärtner

- IB 428 F. MAINX, 1925, pond Wobern near Hirschberg (Czechoslovakia); type material; formerly  
*Gloeococcus maximus* (Mainx) Fott & Nováková; = CCAP 31/1 = SAG 31-1 = UTEX 166;  
(Fott & Nováková 1972, Ettl & Gärtner 1987)

**Chlamydomonas** Ehrenberg

*Chlamydomonas applanata* Pringsheim

- T 40 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy)

*Chlamydomonas chlorococcoides* Ettl & Schwarz

- IB 390 K. SCHWARZ, 1975, soil, Isle of Lavsa (Jugoslavia); type material; = SAG 15.82; (Ettl &  
Schwarz 1981)

- S 73 K. SCHWARZ as *C. concinna* Gerloff, 1975, Isle of Lavsa (Jugoslavia); = SAG 16.82; (Schlösser 1994)

*Chlamydomonas culleus* Ettl

- V 46 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy)

*Chlamydomonas minutissima* Korshikov

- S 87 K. SCHWARZ, 1975, soil, Isle of Lavsa (Jugoslavia)

*Chlamydomonas moewusii* Gerloff

- BS 728 E. PRINGSHEIM? "1954 from E. PRINGSHEIM, Göttingen" (Germany)

*Chlamydomonas muciola* Schmidle

- S 103 K. SCHWARZ, 1975, soil, Isle of Lavsa (Jugoslavia)

*Chlamydomonas perpusilla* Gerloff

- S 88 K. SCHWARZ, 1975, soil, Isle of Lavsa (Jugoslavia)

*Chlamydomonas peterfii* Gerloff

- V 50 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy)

*Chlamydomonas planoconvexa* Lund

- T 37 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy)

*Chlamydomonas proboscigera* Korshikov in Pascher

- G 222 G. GÄRTNER, 1974, soil Hoggar desert, Sahara (Algeria); formerly *Chlamydomonas sphaeroides* Gerloff; = SAG 4.83

*Chlamydomonas radiata* Deason & Bold

- T 41 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy)

*Chlamydomonas rapa* Ettl

- S 87 K. SCHWARZ, 1975, soil, Isle of Lavsa (Jugoslavia)

**Chlamydropodium** Ettl & Komarek

*Chlamydropodium starrii* (Fott) Ettl & Gärtner

- IB 398 R.C. STARR, 1951, dry soil, Cape Town (South Africa); type material; formerly *Characium saccatum* Filarszky; = CCAP 209/1A = SAG 16.87 = UTEX 111 (+ strain); (Ettl & Gärtner 1987)

**Chlorella** Beijerinck

*Chlorella ellipsoidea* Gerneck

- G 100 G. GÄRTNER, 1974, bark, Innsbruck (Austria); formerly *Chlorella saccharophila* var. *ellipsoidea* (Gern.) Fott & Novakova

*Chlorella* cf. *homosphaera* Skuja

- S 58 K. SCHWARZ, 1975, soil, Isle of Lavsa (Jugoslavia)

- T 84 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy)

*Chlorella* cf. *protothecoides* Krüger

- T 83 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy)

*Chlorella saccharophila* (Krüger) Migula

- V 37 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy)

- T 82 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy); formerly *Chlorella saccharophila* var. *saccharophila* Fott & Novakova

- T 81 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy); formerly *Chlorella saccharophila* var. *ellipsoidea* (Gern.) Fott & Nováková

*Chlorella vulgaris* Beijerinck

- S 51 K. SCHWARZ, 1975, soil, Isle of Lavsa (Jugoslavia)

- T 79 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy); form 1  
T 80 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy), form 2  
V 17 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy); form 1  
V 22 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy), form 2  
V 28 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy), form 3

### **Chlorellidium** Vischer & Pascher

#### *Chlorellidium tetrabotrys* Vischer & Pascher

- S 153 K. SCHWARZ, 1975, soil, Isle of Lavsa (Jugoslavia)  
S 154 K. SCHWARZ, 1975, soil, Isle of Lavsa (Jugoslavia)

### **Chloridella** Pascher

#### *Chloridella neglecta* (Pascher & Geitler) Pascher

- BS 216 W. VISCHER, 1940, soil, Unterengadin (Switzerland); = CCAP 813/1 = UTEX 431

### **Chlorocloster** Pascher

#### *Chlorocloster engadinensis* Vischer

- BS 252 W. VISCHER, 1940, soil, Unterengadin (Switzerland); type material; = CCAP 812/1 = UTEX 307; (Vischer 1945)

### **Chlorococcum** Meneghini

**A n m e r k u n g :** Nomenklatorische Änderungen siehe auch bei Gärtner & Ettl (1988), Ettl & Gärtner (1995); hier sind die Kulturen noch in Anlehnung an die Verzeichnisse SAG (Schlösser 1994) und UTEX (Starr & Zeikus 1993) aufgeführt.

#### *Chlorococcum acidum* Archibald & Bold

- IB 400 P.A. ARCHIBALD, 1970, peat bog, Elkhart, Indiana (USA); type material; = UTEX 1766 (Ettl & Gärtner 1988)

#### *Chlorococcum arenosum* Archibald & Bold

- IB 401 H.C. BOLD, 1970, soil, Port Isabel, Texas (USA); type material; = UTEX 1767; (Ettl & Gärtner 1988)

#### *Chlorococcum aureum* Archibald & Bold

- IB 402 A.M. HOFSTETTER, 1970, soil, Nashville, Tennessee (USA); type material; = UTEX 1768; (Ettl & Gärtner 1988)

#### *Chlorococcum citrifforme* Archibald & Bold

- IB 403 P.A. ARCHIBALD, 1970, peat bog, Elkhart, Indiana (USA); type material; = SAG 62.80 = UTEX 1769; (Ettl & Gärtner 1988)

#### *Chlorococcum chlorococcoides* (Kors.) Philipose

- T 48 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy); formerly *Hypomonas chlorococcoides* Korshikov

- V 48 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy); formerly *Hypomonas chlorococcoides* Korshikov

#### *Chlorococcum costatozygotum* Ettl & Gärtner

- T 51 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy); (Ettl & Gärtner 1987, 1988)

#### *Chlorococcum croceum* Archibald & Bold

- IB 404 A.M. HOFSTETTER, 1970, soil, Nashville, Tennessee (USA); type material; = UTEX 1770; (Ettl & Gärtner 1988)

#### *Chlorococcum echinozygotum* Starr

- IB 405 R.C. STARR, 1952, soil, San Marcellino, Luzon (Philippines); type material; CCAP 213/5 = SAG 213-5 = UTEX 118; (Starr 1955, Ettl & Gärtner 1988)

*Chlorococcum ellipsoideum* Deason & Bold

- IB 406 T.R. DEASON; 1957, soil, Williamson County, Texas (USA); type material; = UTEX 972; (Deason & Bold 1960)  
IB 407 H. HINDAK, peat bog, Czechoslovakia; formerly *Hypnomonas ellipsoidea* Korshikov; = UTEX 1376  
IB 408 H. ETTL, formerly *Hypnomonas chlorococcoides* Korshikov; = SAG 68.72  
IB 409 E. HEGEWALD, 1973, Laguna Huaypo, Dept. Cuzco (Peru); = strain Hegewald 1973-20 (Jülich); (Ettl & Gärtner 1988)

*Chlorococcum hypnosporum* Starr

- IB 410 R.C. STARR, soil, Bledsoe County, Tennessee (USA); type material; = CCAP 213/6 = SAG 213-6 = UTEX 119; (Starr 1955)

*Chlorococcum infusionum* (Schrank) Meneghini

- IB 411 F. MAINX, before 1939, Czechoslovakia; neotype of the genus *Chlorococcum*; = Praha A-91 = CCAP 213/2a = SAG 10.86; (Ettl & Gärtner 1987, 1988)

*Chlorococcum lacustre* Archibald & Bold

- IB 412 P.A. ARCHIBALD, 1970, peat bog, Elkhart, Indiana (USA); type material; = UTEX 1775; (Archibald & Bold 1970, Ettl & Gärtner 1988)

*Chlorococcum macrostigmatum* Starr

- IB 415 R.A. LEWIN, soil, Connecticut (USA); type material; = CCAP 213/9 = UTEX 109; (Starr 1953)

*Chlorococcum microstigmatum* Archibald & Bold

- IB 415 P.A. ARCHIBALD, 1970, soil, Elkhart, Indiana (USA); type material; = UTEX 1777; (Archibald & Bold 1970, Ettl & Gärtner 1988)

*Chlorococcum minimum* Ettl & Gärtner

- T 50 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy); type material; (Ettl & Gärtner 1987, 1988)

*Chlorococcum nivale* Archibald

- IB 416 F. HINDAK, snow detritus, Tatra Mountains (Czechoslovakia); type material; = UTEX 2225; (Archibald 1979, Ettl & Gärtner 1988)

*Chlorococcum novae-angliae* Archibald & Bold

- IB 417 P.A. ARCHIBALD, 1970, bog, Falmouth, Barnstable County, Massachusetts (USA); type material; = UTEX 1778; (Archibald & Bold 1970, Ettl & Gärtner 1988)

*Chlorococcum paludosum* Archibald & Bold

- IB 418 P.A. ARCHIBALD, 1970, peat bog, Elkhart, Indiana (USA); type material; = UTEX 1779; (Archibald & Bold 1970, Ettl & Gärtner 1988)

*Chlorococcum perplexum* Archibald & Bold

- IB 419 P.A. ARCHIBALD, 1970, peat bog, Elkhart, Indiana (USA); type material; = UTEX 1780; (Archibald & Bold 1970, Ettl & Gärtner 1988)

*Chlorococcum* cf. *perforatum* Arce & Bold

- V 170 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy)

*Chlorococcum refringens* Archibald & Bold

- IB 421 P.A. ARCHIBALD, 1970, peat bog, Elkhart, Indiana (USA); type material; = UTEX 1783; (Archibald & Bold 1970, Ettl & Gärtner 1988)

*Chlorococcum salsugineum* Archibald & Bold

- IB 422 P.A. ARCHIBALD, 1970, bog, Falmouth, Barnstable County, Massachusetts (USA); type material; = UTEX 1786; (Archibald & Bold 1970, Ettl & Gärtner 1988)

*Chlorococcum scabellum* Deason & Bold

- IB 423 T.R. DEASON, 1960, soil, Williamson County, Texas (USA); type material; = UTEX 1233; (Deason & Bold 1960)



- S 219 K. SCHWARZ, 1975, soil, Isle of Lavsa (Jugoslavia)  
S 220 K. SCHWARZ, 1975, soil, Isle of Lavsa (Jugoslavia)  
S 221 K. SCHWARZ, 1975, soil, Isle of Lavsa (Jugoslavia)

*Chlorococcum schwarzii* Ettl & Gärtner

- T 47 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy); formerly *Hypnomonas schizochlamys* Korshnikov; (Ettl & Gärtner 1988)

*Chlorococcum typicum* Archibald & Bold

- IB 424 P.A. ARCHIBALD, 1970, soil, Summit County, Ohio (USA); type material; = UTEX 1789; (Archibald & Bold 1970, Ettl & Gärtner 1988)

*Chlorococcum uliginosum* Archibald & Bold

- IB 425 P.A. ARCHIBALD, 1970, peat bog, type material; = UTEX 1790; (Archibald & Bold 1970, Ettl & Gärtner 1988)

*Chlorococcum vacuolatum* Starr

- IB 426 R.C. STARR, 1952, soil, Cape Flats (South Africa); type material; = CCAP 213/8 = SAG 213-8 = UTEX 110; (Starr 1953)

### **Chlorokybus** Geitler

*Chlorokybus atmophyticus* Geitler

- IB 505 A. RIETH, 1962, from culture, Italy; = CCAP 403/1 = SAG 48.80 = UTEX 2591; (Schlösser 1994)  
T 106 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy)  
V 202 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy)

### **Chloromonas** Gobi emend. Wille

*Chloromonas rosae* (Ettl H. & O.) Ettl

- V 204 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy)

### **Chlorosarcina** Gerneck emend. Vischer

*Chlorosarcina brevispinosa* Chantanachat & Bold

- S 166 K. SCHWARZ, 1975, soil, Isle of Lavsa (Jugoslavia)

### **Chlorosarcinopsis** Herndon

*Chlorosarcinopsis minor* (Gerneck) Herndon

- T 104 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy)

### **Cocciobotrys** R. Chodat em. Vischer

*Cocciobotrys verrucariae* Chod. emend. Vischer

- BS 175 R. CHODAT, 1913, phycobiont (*Verrucaria*); type material; (Vischer 1960)

### **Coccomyxa** Schmidle

*Coccomyxa brevis* (Vischer) Gärtner & Schragl

- BS 319 W. VISCHER, 1941, soil, Unterengadin (Switzerland); type material; formerly *Nephrodiella brevis* Vischer; = ATCC 30440 = CCAP 850/1 = SAG 850-1 = UTEX 152; (Vischer 1945, Gärtner & Schragl 1988)

*Coccomyxa* cf. *confluens* (Kütz.) Fott

- V 16 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy); formerly *Coccomyxa* cf. *dispar* Schmidle

*Coccomyxa* sp.

- T 90 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy); form 1  
T 91 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy); form 2  
T 92 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy); form 3  
V 7 G. VINATZER, 1975, Dolomites, South Tyrol (Italy); form 1

- V 9 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy); form 2  
V 11 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy); form 3

### **Coelastrella Chodat**

*Coelastrella striolata* var. *multistriata* (Trenkw.) Kalina & Puncoch.

- T 88 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy); type material; formerly *Scotiella multistriata* Trenkwalder; (Trenkwalder 1975, 1975a)

### **Coelastrum Nägeli**

*Coelastrum proboscideum* Bohlin var. *dilatatum* Vischer

- BS 13 W. VISCHER, 1924, water pond, Neudorf (Switzerland); type material; = CCAP 217/2 = SAG 217-2 = UTEX 282

*Coelastrum proboscideum* Bohlin var. *gracile* Vischer

- BS 15 W. VISCHER, 1924, water pond, Neudorf (Switzerland); type material; = ATCC 30410 = CCAP 217/3 = SAG 217-3 = UTEX 184

### **Coleochlamys Korshikov**

*Coleochlamys perforata* (Lee & Bold) Ettl & Gärtner

- IB 395 F. HINDAK, 1962, snow detritus, Belanske Tatry Mountains (Czechoslovakia); type material; formerly *Characium perforatum* Lee & Bold; = SAG 28.85 = UTEX 2104; (Lee & Bold 1974, Ettl & Gärtner 1995)

### **Cosmarium Corda**

*Cosmarium anceps* Lund

- V 231 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy)

*Cosmarium curtum* (Brebisson) Ralfs

- T 111 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy)

*Cosmarium decedens* (Reinsch) Racib.

- T 110 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy)

### **Cylindrocystis Meneghini**

*Cylindrocystis brebissonii* (Menegh.) de Bary

- V 233 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy)

*Cylindrocystis brebissonii* var. *minor* West & West

- V 234 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy)

### **Deasonia Ettl & Komarek**

*Deasonia multinucleata* (Deason & Bold) Ettl & Komarek

- IB 386 T.R. DEASON, 1960, soil, Texas (USA); type material, formerly *Neosporangiococcum multinucleatum* (Deason & Bold) Deason; = UTEX 976; (Ettl & Gärtner 1987, 1988)

*Deasonia prolifera* (Deason) Ettl & Komarek

- IB 278 A.M. HOFSTETTER, 1971, soil, Tennessee (USA); type material; formerly *Neosporangiococcum proliferum* Deason; = UTEX 1846; (Ettl & Gärtner 1987, 1988)

*Deasonia saccata* (Deason) Ettl & Komarek

- IB 276 A.M. HOFSTETTER, 1971, soil, Tennessee (USA); type material; formerly *Neosporangiococcum saccatum* Deason; = UTEX 1843; (Ettl & Gärtner 1987, 1988)

*Deasonia variabilis* (Deason) Ettl & Komarek

- IB 389 A.M. HOFSTETTER, 1976, soil, Tennessee (USA); type material; formerly *Neosporangiococcum variabile* Deason; = UTEX 2122; (Ettl & Gärtner 1987, 1988)

## **Desmococcus** Brand em. Vischer

*Desmococcus olivaceus* (Pers. ex Acharius) Laundon

- S 197 K. SCHWARZ, 1975, soil, Isle of Lavsa (Jugoslavia); formerly *Desmococcus vulgaris* Brand em. Geitler; (Ettl & Gärtner 1995)

## **Desmotetra** Deason & Floyd

*Desmotetra stigmatica* (Deason) Deason & Floyd

- S 163 K. SCHWARZ, 1975, soil, Isle of Lavsa (Jugoslavia); formerly *Chlorosarcina stigmatica* Deason; (Ettl & Gärtner 1995)  
T 105 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy); formerly *Chlorosarcina stigmatica* Deason; (Ettl & Gärtner 1995)

## **Dictyochloris** Vischer

*Dictyochloris fragrans* Vischer

- T 69 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy)  
V 179 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy)

*Dictyochloris* sp.

- T 71 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy)

## **Dictyochloropsis** Geitler

*Dictyochloropsis splendida* Geitler

- IB 508 E. TSCHERMAK-WOESS, 1975, phycobiont, Graz (Austria); = CCAP 225/1 = SAG 244.80; (Tschermak-Woess 1978)  
T 72 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy)

*Dictyochloropsis symbiontica* Tschermak-Woess

- IB 509 E. TSCHERMAK-WOESS, 1983, phycobiont, Teneriffa (Spain); type material (of var. *pauciautosporica*); = SAG 12-86; (Tschermak-Woess 1984)  
IB 510 E. TSCHERMAK-WOESS, 1981, phycobiont, New Zealand; = SAG 46.85; (Tschermak-Woess 1980)  
IB 511 E. TSCHERMAK-WOESS, 1979, phycobiont, Lunz (Austria); type material; = SAG 27.81; (Tschermak-Woess 1980)

## **Dictyococcus** Gerneck em. Vischer

*Dictyococcus schumacherensis* Metting

- IB 506 B. METTING, 1980, soil, Washington (USA); type material; = UTEX 2252; (Metting 1980)

*Dictyococcus varians* Gerneck em. Starr

- IB 507 R.C. STARR, 1951, pond, Scotland; type material; = CCAP 221/5 = SAG 221-5 = UTEX 62; (Starr 1955)

## **Diplosphaera** Bialosuknia em. Vischer

*Diplosphaera chodatii* Bialosuknia em. Vischer

- S 184 K. SCHWARZ, 1975, soil, Isle of Lavsa (Jugoslavia)  
V 219 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy)

*Diplosphaera* sp.

- V 221 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy)  
T 108 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy)

## **Elliptochloris** Tschermak-Woess

*Elliptochloris bilobata* Tschermak-Woess

- IB 512 E. TSCHERMAK-WOESS, 1978, phycobiont, Austria; type material; = SAG 245.80; (Tschermak-Woess 1980)

## **Ettlia Komárek**

### *Ettlia bilobata* (Vinatzer) Komárek

- V 141 G. Vinatzer, 1975, soil, Dolomites, South Tyrol (Italy); type material; formerly *Neochloris bilobata* Vinatzer; (Vinatzer 1975, 1975a, Ettl & Gärtner 1995)  
V 143 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy); form 1 with smaller cells  
T 58 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy)

### *Ettlia cohaerens* (Groover & Bold) Ettl & Gärtner

- IB 516 L. MILLIGER, 1965, soil, Texas (USA); type material; formerly *Neochloris cohaerens* Groover & Bold; = UTEX 1707; (Groover & Bold 1969, Ettl & Gärtner 1995)

### *Ettlia pseudoalveolaris* (Deason & Bold) Komárek

- IB 515 T.R. DEASON, 1957, soil, Texas (USA); type material; formerly *Neochloris pseudoalveolaris* Deason & Bold; = UTEX 975; (Komárek 1989, Ettl & Gärtner 1995)  
T 57 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy); formerly *Neochloris pseudoalveolaris* Deason & Bold

## **Eustigmatos Hibberd**

### *Eustigmatos vischeri* Hibberd

- BS 241 W. VISCHER, 1940, soil, Unterengadin (Switzerland); formerly *Pleurochloris commutata* Pascher; = CCAP 860/1 = SAG 860-1 = UTEX 310; (Vischer 1945, Hibberd 1981)

### *Eustigmatos magnus* (J.B. Petersen) Hibberd

- S 1 K. SCHWARZ, 1975, soil, Isle of Lavsa (Jugoslavia); formerly *Pleurochloris magna* Petersen  
S 2 K. SCHWARZ, 1975, soil, Isle of Lavsa (Jugoslavia); formerly *Pleurochloris magna* Petersen  
T 8 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy); formerly *Pleurochloris magna* Petersen  
V 1 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy); formerly *Pleurochloris magna* Petersen  
V 2 G. VINATZER, 1975, soil, Dolomites, South Tyrol I (Italy); formerly *Pleurochloris magna* Petersen

### *Eustigmatos polyphem* (Pitschmann) Hibberd

- IB 207 H. PITSCHMANN, 1969, soil, Mt. Kenya (Kenya); type material; formerly *Pleurochloris polyphem* Pitschmann; = CCAP 860/8 = SAG 38.84; (Vischer 1945, Hibberd 1981)  
IB 208 H. PITSCHMANN, 1969, soil, Mt. Kenya (Kenya); type material; formerly *Pleurochloris polyphem* Pitschmann; (Vischer 1945, Hibberd 1981)

## **Excentrochloris Pascher**

### *Excentrochloris* sp.

- V 189 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy)

## **Follicularia Millér**

### *Follicularia paradoxalis* Millér

- IB 518 H. BISCHOFF & H.C. BOLD, 1960, soil, Texas (USA); type material, formerly *Planktosphaeria maxima* Bischoff & Bold; = UTEX 1248; (Bischoff & Bold 1963, Ettl & Gärtner 1995)

## **Frittschiella Iyengar**

### *Frittschiella tuberosa* Iyengar

- IB 513 H. ANDREWS, soil, USA; = SAG 112.80

## **Gloeotilopsis Iyengar & Philipose**

### *Gloeotilopsis sterilis* Deason

- IB 429 T.R. DEASON, 1964, soil, Dauphin Island, Alabama (USA); type material; = UTEX 1704; (Deason 1969)

## **Haematococcus C.A. Agardh em. Flotow**

*Haematococcus pluvialis* Flotow em. Wille

BS 2 W. VISCHER, 1923, water reservoir, Basel (Switzerland)

## **Heterochlamydomonas Cox & Deason**

*Heterochlamydomonas inaequalis* Cox & Deason

IB 430 E.R. COX, 1969, soil, Wilson County, Tennessee (USA); type material; = SAG 4.75 = UTEX 1705

## **Heterococcus Chodat**

*Heterococcus brevicellularis* Vischer

BS 351 W. VISCHER, 1943, soil, Unterengadin (Switzerland); type material; = CCAP 835/1 = SAG 835-1 = UTEX 154; (Vischer 1945)

S 267 K. SCHWARZ, 1975, soil, Isle of Lavsa (Jugoslavia)

*Heterococcus caespitosus* Vischer

BS 116 W. VISCHER, 1934, soil, Schmieheim, Freiburg (Germany); type material; = CCAP 835/2a = SAG 835-2a = UTEX 313; (Vischer 1936)

S 271 K. SCHWARZ, 1975, soil, Isle of Lavsa (Jugoslavia)

*Heterococcus marietanii* Vischer

BS 167 W. VISCHER, 1936, spring, Montana, Wallis (Switzerland); type material; = CCAP 835/7 = SAG 835-7 = UTEX 350; (Vischer 1937)

*Heterococcus versiculosus* Pitschmann

V 111 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy)

*Heterococcus viridis* R. Chodat

BS 161 R. CHODAT, 1908, Lake Geneva; type material; formerly *Heterococcus chodatii* = CCAP 835/3 = SAG 835-3 = UTEX 346; (Vischer 1936, Ettl & Gärtner 1995)

## **Hormidiospora Vinatzer**

*Hormidiospora verrucosa* Vinatzer

V 199 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy); type material; (Vinatzer 1975, 1975a)

## **Ignatius Bold & Mac Entee**

*Ignatius tetrasporus* Bold & Mac Entee

IB 514 H.C. BOLD, 1974, soil, Pennsylvania (USA); type material; = UTEX 2012; (Bold & Mac Entee 1974)

## **Interfilum Chodat & Topali**

*Interfilum paradoxum* Chodat & Topali

T 98 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy)

## **Keratococcus Pascher**

*Keratococcus bicaudatus* (A. Braun) J.B. Petersen

T 89 H. Trenkwaldner, 1975, soil, pine forest, Brixen, South Tyrol (Italy); formerly *Ourococcus bicaudatus* (A. Braun) Groberty

## **Klebsormidium Silva, Mattox & Blackwell**

*Klebsormidium dissectum* (Gay) Ettl & Gärtner

V 103 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy); formerly *Chlorhormidium dissectum* (Gay) Farooqui; (Ettl & Gärtner 1995)

*Klebsormidium flaccidum* (Kütz.) Silva, Mattox & Blackwell

- V 100 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy); formerly *Chlorhormidium flaccidum* (Kützing) Fott  
T 95 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy); form 2; formerly *Chlorhormidium flaccidum* (Kützing) Fott  
T 96 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy); form 3; formerly *Chlorhormidium flaccidum* (Kützing) Fott  
T 97 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy); form 4; formerly *Chlorhormidium flaccidum* (Kützing) Fott

*Klebsormidium marinum* (Deason) Silva, Mattox & Blackwell

- S 206 K. SCHWARZ, 1975, soil, Isle of Lavsa (Jugoslavia); formerly *Hormidium marinum* Deason

**Leptosira Borzi**

*Leptosira obovata* Vischer

- BS 46 W. VISCHER, 1928 ?, swamp-water, Rosenau, Basel (Switzerland); type material; = CCAP 445/1 = SAG 445-1 = UTEX 319; (Vischer 1933)

**Lobosphaera Reisigl**

*Lobosphaera tirolensis* Reisigl

- S 234 K. SCHWARZ, 1975, soil, Isle of Lavsa (Jugoslavia)

**Macrochloris Korshikov**

*Macrochloris cohaerens* (Vinatzer) Ettl & Gärtner

- V 176 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy); type material; formerly *Chlorozebra cohaerens* Vinatzer; (Vinatzer 1975, 1975a, Ettl & Gärtner 1988)  
V 177 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy); type material; formerly *Chlorozebra cohaerens* Vinatzer; (Vinatzer 1975, 1975a, Ettl & Gärtner 1988)

*Macrochloris multinucleata* (Reisigl) Ettl & Gärtner

- IB 1 H. REISIGL, 1969, soil, Cho Oyu, Himalaya (Nepal); type material; formerly *Chlorozebra multinucleata* Reisigl; (Reisigl 1969, Ettl & Gärtner 1988)  
IB 3 H. REISIGL, 1969, soil, Cho Oyu, Himalaya (Nepal); type material; formerly *Chlorozebra multinucleata* Reisigl; (Reisigl 1969, Ettl & Gärtner 1988)

**Microcoleus Desmazieres**

*Microcoleus vaginatus* (Vaucher) Gomont

- V 155 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy)  
V 156 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy)

**Monodopsis Hibberd**

*Monodopsis unipapilla* (Reisigl) Santos

- IB 63 H. REISIGL, 1964, soil, Ötztaler Alps, Tyrol (Austria); formerly *Monodus unipapilla* Reisigl; type material; = SAG 8.83; (Reisigl 1964, Santos 1990)

**Muriella J.B. Petersen**

*Muriella decolor* Vischer

- BS 29 W. VISCHER, 1926, swamp water, Rosenau (Switzerland); type material; = CCAP 249/2 = SAG 249-2 = UTEX 126; (Vischer 1936)

*Muriella terrestris* J.B. Petersen

- BS 108 W. VISCHER, 1933, tuff stone, Basel (Switzerland); type material; formerly *Muriella aurantiaca* Vischer; = ATCC 30413 = CCAP 249/1 = SAG 249-1 = UTEX 36; (Vischer 1936, Ettl & Gärtner 1995)  
T 86 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy)  
V 38 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy)



*Muriella zofingiensis* (Dönz) Hindak

- IB 505 O.C. DÖNZ, 1933, soil, Switzerland; type material; formerly *Chlorella zofingiensis* Dönz;  
= ATCC 30412 = CCAP 211/14 = SAG 211-14 = UTEX 32; (Ettl & Gärtner 1995)

**Myrmecia** Printz

*Myrmecia astigmatica* Vinatzer

- V 73 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy); type material; (Vinatzer 1975,  
1975a)  
V 74 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy)  
V 75 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy)  
T 76 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy)

*Myrmecia biatorellae* (Tschermak-Woess & Plessl) J.B. Petersen

- V 76 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy)  
S 179 K. SCHWARZ, 1975, soil, Isle of Lavsa (Jugoslavia)  
T 73 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy)

*Myrmecia incisa* Reisigl

- IB 83 H. REISIGL, 1964, soil, Ötztaler Alps, Tyrol (Austria); type material; formerly *Lobococcus incisus* (Reisigl) Reisigl; (Reisigl 1964, Ettl & Gärtner 1995)

**Nautococcus** Korshikov

*Nautococcus solutus* Archibald

- IB 432 H.C. BOLD, 1972, soil, Bertram, Texas (USA); type material; = CCAP 53/2 = SAG 76.80 =  
UTEX 1793; (Archibald 1972, Ettl & Gärtner 1988)

**Neochloris** Starr

*Neochloris aquatica* Starr

- IB 433 B. NORBY, 1952, sides of a small aquarium, Indiana University, Indiana (USA); type material;  
= UTEX 138

*Neochloris gelatinosa* Herndon

- IB 517 W. HERNDON, 1952, soil, Jamaica; type material; = UTEX 754; (Herndon 1958, Ettl & Gärtner 1995)

*Neochloris wimmeri* (Rabenhorst) Archibald & Bold

- IB 434 F. MAINX, loc. unknown (Czechoslovakia); formerly *Chlorococcum wimmeri* Rabenhorst;  
= CCAP 213/4 = SAG 213-4 = UTEX 113; (Archibald & Bold 1970)

*Neochloris* sp.

- V 149 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy)

**Neosporangiococcum** Deason

*Neosporangiococcum alabamense* (Deason) Deason

- IB 368 T.R. DEASON, 1959, soil, Alabama (USA); type material; formerly *Sporangiococcum alabamense* Deason; = UTEX 960; (Deason 1959, 1976, Ettl & Gärtner 1988)

*Neosporangiococcum butyrosum* Deason & Cox

- IB 369 T.R. DEASON & E.R. COX, 1964, soil, Alabama (USA); type material; = UTEX 1840; (Deason & Cox 1971)

*Neosporangiococcum commatiforme* Deason

- IB 370 A.M. HOFSTETTER; 1966, soil, Memphis (USA); type material; = UTEX 2116; (Deason 1976)

*OcNeosporangiococcum concentricum* (Anderson & Nichols) Deason

- IB 371 NICHOLS, 1964, limestone spring (USA); type material; formerly *Sporangiococcum concentricum* Anderson & Nichols; = UTEX 1646; (Deason 1976)

*Neosporangiococcum longisporum* Deason

- IB 373 A.M. HOFSTETTER, 1966, soil, Memphis (USA); type material; = UTEX 2121; (Deason 1976)

*Neosporangiococcum macropyrenoidosum* Deason & Cox

- IB 280 T.R. DEASON & E.R. COX, 1964, soil, Tennessee (USA); type material; = UTEX 1839; (Deason & Cox 1971)

*Neosporangiococcum mahleri* Deason

- IB 374 P. MAHLER, 1963, soil, Austin (USA); type material; = UTEX 2119; (Deason 1976)

*Neosporangiococcum mobile* Deason & Cox

- IB 375 T.R. DEASON & E.R. COX, 1964, soil, Alabama (USA); type material; = UTEX 1841; (Deason & Cox 1971)

*Neosporangiococcum vacuolatum* Deason & Cox

- IB 281 T.R. DEASON & E.R. COX, 1964, soil, Tennessee (USA); type material; = UTEX 1838; (Deason & Cox 1971)

**Nostoc** Vaucher

*Nostoc commune* Vaucher

- V 157 G. VINATZER, 1975, soil, Dolomites, South Tyrol 1 (Italy); form 1  
V 159 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy); form 3  
S 322 K. SCHWARZ, 1975, soil, Isle of Lavsa (Jugoslavia)  
S 323 K. SCHWARZ, 1975, soil, Isle of Lavsa (Jugoslavia)  
S 324 K. SCHWARZ, 1975, soil, Isle of Lavsa (Jugoslavia)  
S 325 K. SCHWARZ, 1975, soil, Isle of Lavsa (Jugoslavia)  
S 326 K. SCHWARZ, 1975, soil, Isle of Lavsa (Jugoslavia)

*Nostoc* cf. *ellipsosporum* (Desmaziere) Bornet & Flahault

- S 321 K. SCHWARZ, 1975, soil, Isle of Lavsa (Jugoslavia)

*Nostoc* cf. *muscorum* Agardh

- S 320 K. SCHWARZ, 1975, soil, Isle of Lavsa (Jugoslavia)  
G 197 G. GÄRTNER, 1974, bark, Innsbruck (Austria)

*Nostoc* cf. *punctiforme* (Kütz.) Hariot

- T 3 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy)

*Nostoc* cf. *verrucosum* Vaucher

- T 4 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy)

*Nostoc* sp.

- T 5 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy)  
BS 363 W. VISCHER, 1943, soil, Switzerland

**Oscillatoria** Vaucher

*Oscillatoria* sp.

- BS 594 W. VISCHER, Finland

**Penium** de Brebisson

*Penium* cf. *silvae nigrae* Rabanus

- T 112 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy)

**Planophila** Gerneck

*Planophila laetevirens* Gerneck

- V 191 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy)

## **Plectonema** Thuret ex Gomont

### *Plectonema battersii* Gomont

- S 334 K. SCHWARZ, 1975, soil, Isle of Lavsa (Jugoslavia)  
S 335 K. SCHWARZ, 1975, soil, Isle of Lavsa (Jugoslavia)  
S 336 K. SCHWARZ, 1975, soil, Isle of Lavsa (Jugoslavia)

### *Plectonema* sp.

- T 2 H. TRENKWALDER; 1975, soil, pine forest, Brixen, South Tyrol (Italy)

## **Pleurastrum** R. Chodat

### *Pleurastrum photoheterotrophicum* Metting

- IB 519 B. METTING, 1980, soil, Washington (USA); type material; = UTEX 2249; (Metting 1980)

## **Pleurochloris** Pascher

### *Pleurochloris meiringensis* Vischer

- S 200 K. SCHWARZ, 1975, soil, Isle of Lavsa (Jugoslavia)  
T 9 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy)  
V 6 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy)

## **Prasiolopsis** Vischer

### *Prasiolopsis ramosa* Vischer

- BS 456 W. VISCHER, 1953, bark, Basel (Switzerland); type material; = SAG 26.83; (Vischer 1953)

## **Protosiphon** Klebs

### *Protosiphon botryoides* Klebs

- IB 520 A. PASCHER, mud, Czechoslovakia; = ATCC 30414 = CCAP 731/1A = SAG 731-1a = UTEX 47  
IB 521 F. MOEWUS, strain X; = CCAP 731/2 = SAG 731-2

## **Pseudendoconiopsis** Vischer

### *Pseudendoconiopsis botryoides* Vischer

- T 107 H. TRENKWALDER, 1975, soil, Dolomites, South Tyrol (Italy)

## **Pseudendoclonium** Wille

### *Pseudendoclonium* cf. *basiliense* Vischer

- V 209 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy)

## **Pseudochlorella** Lund

### *Pseudochlorella aquatica* Vischer

- BS 39 W. VISCHER, 1955, water pond, Basel (Switzerland); type material; formerly *Jaagia aquatica* Vischer; (Vischer 1955)

### *Pseudochlorella pyrenoidosa* (Zeitler) Lund

- V 212 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy)

### *Pseudochlorella* sp.

- V 214 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy)  
T 85 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy)

## **Pseudococcomyxa** Korshikov

### *Pseudococcomyxa* cf. *simplex* (Mainx) Fott

- S 46 K. SCHWARZ, 1975, soil, Isle of Lavsa (Jugoslavia); formerly *Coccomyxa* cf. *simplex* (Mainx)

## **Pseudopleurococcus** Snow emend. Vischer

*Pseudopleurococcus arthopyreniae* Vischer & Klement

BS 654 O. KLEMENT, 1952, phycobiont of *Arthopyrenia kelpii*; type material; (Vischer 1953)

## **Raphidonema** Lagerheim

*Raphidonema longiseta* Vischer

BS 97 W. VISCHER, 1933, pond, Botanical Garden Basel (Switzerland); type material; = CCAP 470/1a = SAG 470-1 = UTEX 339; (Vischer 1933)

## **Scenedesmus** Meyen

*Scenedesmus obliquus* (Turpin) Kützing

BS 8 W. VISCHER, 1923, small pond, Basel, Switzerland, formerly *S. basiliensis*; = ATCC 30434 = CCAP 276/1a = SAG 276-1 = UTEX 83; (Vischer 1926)

## **Schizothrix** Kützing

*Schizothrix calcicola* (Agardh) Gomont

V 150 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy)  
S 329 K. SCHWARZ, 1975, soil, Isle of Lavsa (Jugoslavia); form 1  
S 330 K. SCHWARZ, 1975, soil, Isle of Lavsa (Jugoslavia); form 1  
S 332 K. SCHWARZ, 1975, soil, Isle of Lavsa (Jugoslavia); form 2  
S 333 K. SCHWARZ, 1975, soil, Isle of Lavsa (Jugoslavia); form 2

*Schizothrix* cf. *heuffleri* Grun.

V 151 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy)

*Schizothrix* sp.

V 152 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy)

## **Scotiellopsis** Vinatzer

*Scotiellopsis rubescens* Vinatzer

V 195 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy); type material; (Vinatzer 1975, 1975a)

*Scotiellopsis terrestris* (Reisigl) Puncoch. & Kalina

T 87 H. TRENKWALDER; 1975, soil, pine forest, Brixen, South Tyrol (Italy); formerly *Scotiella terrestris* Reisigl; (Ettl & Gärtner 1995)

## **Spongiochloris** Starr

*Spongiochloris excentrica* Starr

IB 522 H.C. BOLD, soil, Tennessee (USA); type material; = CCAP 280/1 = SAG 280-1 = UTEX 108; (Starr 1955, Ettl & Gärtner 1995)  
S 146 K. SCHWARZ, 1975, soil, Isle of Lavsa (Jugoslavia)

*Spongiochloris gigantea* Bischoff & Bold

IB 523 H. BISCHOFF, 1960, soil, Texas (USA); type material; = UTEX 1243; (Bischoff & Bold 1963)

*Spongiochloris lamellata* Deason & Bold

IB 526 T.R. DEASON, 1958, soil, Texas (USA); type material; = UTEX 977; (Deason & Bold 1960)

*Spongiochloris llanoensis* Bischoff & Bold

IB 524 H. BISCHOFF, 1960, soil, Texas (USA); type material; = UTEX 1245; (Bischoff & Bold 1963)

*Spongiochloris minor* Chantanachat & Bold

IB 525 S. CHANTANACHAT, soil, Arizona (USA); type material; = UTEX 1184; (Chantanachat & Bold 1962)

*Spongiochloris spongiosa* (Vischer) Starr

- BS 318 W. VISCHER, 1942, soil, Unterengadin (Switzerland); type material; formerly *Asterococcus spongiosus* Vischer; = CCAP 3/1 = SAG 280-2b = UTEX 1; (Vischer 1945a)  
T 60 H. TRENKWALDER; 1975, soil, pine forest, Brixen, South Tyrol (Italy)

*Spongiochloris* sp.

- T 61 H. TRENKWALDER; 1975, soil, pine forest, Brixen, South Tyrol (Italy)  
S 143 K. SCHWARZ, 1975, soil, Isle of Lavsa (Jugoslavia)

**Spongiococcum** Deason

*Spongiococcum tetrasporum* Deason

- IB 435 T.R. DEASON, soil of a cotton field, Alabama (USA); type material; = UTEX 961; (Bischoff & Bold 1963)

**Stichococcus** Nägeli

*Stichococcus allas* Reislgl

- IB 37 H. REISIGL, 1964, soil, Ötztal valley (Austria); type material; (Reislgl 1964)

*Stichococcus bacillaris* Nägeli

- BS 1 W. VISCHER, 1923, water reservoir, Basel (Switzerland); = CCAP 379/1b = SAG 379-1b = UTEX 314  
BS 110 W. VISCHER, 1933, soil, Basel (Switzerland)  
BS 331 W. VISCHER, 1942, soil, Unterengadin (Switzerland)  
G 42 G. GÄRTNER, 1974, bark, Innsbruck (Austria)  
V 162<sup>\*</sup> G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy)  
S 202 K. SCHWARZ, 1975, soil, Isle of Lavsa (Jugoslavia), form 1  
S 204 K. SCHWARZ, 1975, soil, Isle of Lavsa (Jugoslavia), form 2  
T 100 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy), form 1  
T 101 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy), form 2  
T 102 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy), form 3

*Stichococcus minutus* Grintzesco & Peterfi

- G 145 G. GÄRTNER, 1974, bark, Innsbruck (Austria)

*Stichococcus undulatus* Vinatzer

- V 164 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy); type material; (Vinatzer 1975, 1975a)  
G 140 G. GÄRTNER, 1974, bark, Innsbruck (Austria)  
T 103 H. TRENKWALDER; 1975, soil, pine forest, Brixen, South Tyrol (Italy)

**Tetracystis** Brown & Bold

*Tetracystis aerea* Brown & Bold

- IB 322 R.M. BROWN, 1960, strain 1, air, Pampa, Texas (USA); type material; = CCAP 181/1a = SAG 89.90 = UTEX 1452; (Brown & Bold 1964)

*Tetracystis aggregata* Brown & Bold

- IB 321 R.M. BROWN, 1960, No. Pc-1, air, Austin, Texas (USA); type material; = CCAP 181/2 = SAG 90.80 = UTEX 1454; (Brown & Bold 1964)  
V 165 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy)  
T 54 H. TRENKWALDER, soil, pine forest, Brixen, South Tyrol (Italy)

*Tetracystis aptanospora* (Arce & Bold) Brown & Bold

- IB 320 G. ARCE, No. 64, soil, Havanna (Cuba); type material; formerly *Chlorococcum aptanosporum* Arce & Bold; = CCAP 181/9 = SAG 91.80 = UTEX 773; (Arce & Bold 1958, Brown & Bold 1964)

*Tetracystis illinoisensis* Brown & Bold

- IB 317 R.M. BROWN, 1962, No. R-3-3, air, Illinois (USA); type material; = CCAP 181/4 = SAG 93.80 = UTEX 1457; (Brown & Bold 1964)

*Tetracystis intermedia* (Deason & Bold) Brown & Bold

- IB 314 T.R. DEASON, No. C-1-13, soil, Texas (USA); type material; formerly *Chlorococcum intermedium* Deason & Bold; = CCAP 181/10 = SAG 94.80 = UTEX 974; (Deason & Bold 1960, Brown & Bold 1964)  
T 55 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy)

*Tetracystis isobilateralis* Brown & Bold

- IB 315 R.M. BROWN, 1960, No. A-6-2-3, soil, Texas (USA); type material; = CCAP 181/5 = SAG 95.80 = UTEX 1459; (Brown & Bold 1964)

*Tetracystis pampae* Brown & Bold

- IB 316 R.M. BROWN, 1961, soil, Texas (USA); type material; = CCAP 181/6 = SAG 96.80 = UTEX 1460; (Brown & Bold 1964)

*Tetracystis tetraspora* (Arce & Bold) Brown & Bold

- IB 324 G. ARCE, No. 59A, soil, Havanna (Cuba); type material; formerly *Chlorococcum tetrasporum* Arce & Bold; = CCAP 181/11 = SAG 98.80 = UTEX 780; (Arce & Bold 1958, Brown & Bold 1964)

*Tetracystis* cf. *tetraspora* Brown & Bold

- V 168 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy)

*Tetracystis texensis* Brown & Bold

- S 229 K. SCHWARZ, 1975, soil, Isle of Lavsa (Jugoslavia)

*Tetracystis* sp.

- T 56 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy)

**Tolypothrix** Kützing

*Tolypothrix* cf. *byssoides* (Hass.) Kirchn.

- T 1 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy)

*Tolypothrix* sp.

- V 160 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy)

**Trebouxia** Puymaly

*Trebouxia aggregata* (Archibald) Gärtner

- IB 325 A. QUISPEL, 1943, from *Xanthoria* sp., Delft (Netherlands); type material; formerly *Pseudotrebourgia aggregata* Archibald; = CCAP 219/1d = SAG 219-1d = UTEX 180; (Archibald 1975, Gärtner 1985)

*Trebouxia anticipata* Ahmadjian ex Archibald

- IB 340 V. AHMADJIAN, No. 1, from *Parmelia rufecta* (USA); type material; = CCAP 219/3 = UTEX 903; (Archibald 1975, Gärtner 1985)  
IB 341 V. AHMADJIAN, No. 2, from *Parmelia rufecta* (USA); type material; = UTEX 904; (Archibald 1975, Gärtner 1985)

*Trebouxia arboricola* Puymaly

- IB 363 from Culture Collection Delft (Netherlands); type material; formerly *Cystococcus humicola* Nägeli sensu Trebourg; = CCAP 219/1a

*Trebouxia corticola* (Archibald) Gärtner

- IB 326 V. AHMADJIAN, 1959, bark (USA); type material; formerly *Pseudotrebourgia corticola* Arch.; = UTEX 909; (Archibald 1975, Gärtner 1985)

*Trebouxia crenulata* Archibald

- IB 359 RICHARDSON; 1965, from *Xanthoria aureola* (England); type material; = CCAP 219/2; (Archibald 1975)



*Trebouxia decolorans* Ahmadjian

- IB 327 V. AHMADJIAN, from *Xanthoria parietina* (USA); type material; = UTEX 901; (Ahmadjian 1960, Archibald 1975)

*Trebouxia erici* Ahmadjian

- IB 342 V. AHMADJIAN, 1960, No. 7, from *Cladonia cristatella* (USA); type material; = UTEX 910; (Ahmadjian 1960)  
IB 343 V. AHMADJIAN, 1960, No. 7, from *Cladonia cristatella* (USA); type material; = UTEX 911; (Ahmadjian 1960)  
IB 344 V. AHMADJIAN, 1960, No. 1, from *Cladonia cristatella* (USA); type material; = UTEX 912; (Ahmadjian 1960)  
IB 364 J. MEISCH, 1981, No. M 025, from *Cladonia grayii*, Innsbruck (Austria)  
IB 365 J. MEISCH, 1981, No. M 027, from *Cladonia subulata* (Luxembourg)

*Trebouxia excentrica* Archibald

- IB 345 H. HUTCHINSON, 536, from *Stereocaulon dactylophyllum* var. *occidentale* (USA); type material; = UTEX 1714; (Archibald 1975)

*Trebouxia flava* Archibald

- IB 346 A. QUISPTEL, from *Physcia pulverulenta* (Netherlands); type material; = CCAP 219/1c = UTEX 181; (Archibald 1975)

*Trebouxia galapagensis* (Hildreth & Ahmadjian) Gärtner

- IB 333 E. KEOGH, 1971, from *Ramalina* sp. (Galapagos Islands); type material; = UTEX 2230; (Hildreth & Ahmadjian 1981, Gärtner 1985)

*Trebouxia gelatinosa* Ahmadjian ex Archibald

- IB 347 V. AHMADJIAN, 1959, No. 2, from *Parmelia caperata* (USA), type material; = UTEX 905; (Archibald 1975)  
IB 348 V. AHMADJIAN, 1959, No. 3, from *Parmelia caperata* (USA); type material; = UTEX 906; (Archibald 1975)  
IB 366 J. MEISCH, 1981, No. M 035, from *Hypogymnia physodes*, Innsbruck (Austria)

*Trebouxia gigantea* (Hildreth & Ahmadjian) Gärtner

- IB 334 R.E. SHOWMAN, 1971, from *Caloplaca cerina*, Ohio (USA); type material; formerly *Pseudotrebourgia gigantea* Hildreth & Ahmadjian; = UTEX 2231; (Hildreth & Ahmadjian 1981, Gärtner 1985)

*Trebouxia glomerata* (Warén) Ahmadjian

- IB 349 V. AHMADJIAN, 1960, No. 1, from *Stereocaulon evolutoides*, Princeton, Massachusetts (USA); type material; = UTEX 894; (Ahmadjian 1960)  
IB 350 V. AHMADJIAN, 1960, No. 2, from *Stereocaulon evolutoides*, Princeton, Massachusetts (USA); type material = UTEX 895; (Ahmadjian 1960)  
IB 351 V. AHMADJIAN, 1960, No. 1, from *Stereocaulon pileatum*, Princeton, Massachusetts (USA); type material; = UTEX 896; (Ahmadjian 1960)  
IB 352 V. AHMADJIAN, 1960, No. 8, from *Stereocaulon pileatum*, Princeton, Massachusetts (USA); type material; = UTEX 897; (Ahmadjian 1960)

*Trebouxia higginsiae* (Hildreth & Ahmadjian) Gärtner

- IB 335 E. KEOGH, 1971, from *Buellia straminea*, Bartolome (Galapagos Islands); type material; formerly *Pseudotrebourgia higginsiae* Hildreth & Ahmadjian; = UTEX 2232; (Hildreth & Ahmadjian 1981, Gärtner 1985)

*Trebouxia impressa* Ahmadjian

- IB 330 V. AHMADJIAN, 1960, from *Physcia stellaris* (USA); type material; formerly *Pseudotrebourgia impressa* (Ahmadjian) Archibald; = UTEX 892; (Ahmadjian 1960, Archibald 1975)  
IB 331 V. AHMADJIAN, 1960, from *Physcia stellaris* (USA); type material; formerly *Pseudotrebourgia impressa* (Ahmadjian) Archibald; = UTEX 893; (Ahmadjian 1960, Archibald 1975)

*Trebouxia incrustata* Ahmadjian ex Gärtner

- IB 329 V. AHMADJIAN, 1959, from *Lecanora dispersa* (USA); type material; formerly *Pseudotre-  
bouxia incrustata* (Ahmadjian) Archibald; = UTEX 784; (Archibald 1975, Gärtner-1985)

*Trebouxia irregularis* Hildreth & Ahmadjian

- IB 339 V. AHMADJIAN, 1972, from *Stereocaulon* sp., Langa River (Iceland); type material; = UTEX  
2236; (Hildreth & Ahmadjian 1981)

*Trebouxia italiana* Archibald

- IB 358 TOMASELLI; from *Xanthoria parietina* (Italy); type material; formerly *Trebouxia decolorans*  
Ahmadjian; = CCAP 219/5b; (Archibald 1975)

*Trebouxia jamesii* (Hildreth & Ahmadjian) Gärtner

- IB 336 E. KEOGH, 1975, from *Schaereria tenebrosa*, Wales (England); type material; formerly *Pseudo-  
trebouxia jamesii* Hildreth & Ahmadjian; = UTEX 2233; (Hildreth & Ahmadjian 1981, Gärt-  
ner 1985)

*Trebouxia magna* Archibald

- IB 354 V. AHMADJIAN, No. 2, from *Pilophorus acicularis* (USA); type material; = UTEX 902;  
(Archibald 1975)

*Trebouxia potteri* Ahmadjian ex Gärtner

- IB 332 V. AHMADJIAN, from *Lecanora rubina* (USA); type material; formerly *Pseudotrebouxia*  
*potteri* (Ahmadjian) Archibald; = UTEX 900; (Archibald 1975, Gärtner 1985)

*Trebouxia pyriformis* Archibald

- IB 355 H. HUTCHINSON, from *Cladonia squamosa* (USA); type material; = UTEX 1712; (Archi-  
bald 1975)

- IB 356 H. HUTCHINSON, from *Stereocaulon pileatum* (USA); type material; = UTEX 1713; (Archi-  
bald 1975)

*Trebouxia showmanii* (Hildreth & Ahmadjian) Gärtner

- IB 337 E. SHOWMAN, 1971, from *Lecanora hagenii*, Ohio (USA); type material; formerly *Pseudo-  
trebouxia showmanii* Hildreth & Ahmadjian; = UTEX 2234; (Hildreth & Ahmadjian 1981,  
Gärtner 1985)

*Trebouxia simplex* Tschermak-Woess

- IB 361 E. TSCHERMAK-WOESS, 1976, from *Chaenotheca chrysocephala*, Tyrol (Austria); type  
material; = SAG 101.80; (Tschermak-Woess 1978)

*Trebouxia usneae* (Hildreth & Ahmadjian) Gärtner

- IB 338 E. KEOGH, 1975, from *Usnea filipendula*, Maine (USA); type material; formerly *Pseudotre-  
bouxia usneae* Hildreth & Ahmadjian; = UTEX 2235; (Hildreth & Ahmadjian 1981, Gärtner  
1985)

**Trochiscia** Kützing

*Trochiscia* sp.

- S 236 K. SCHWARZ, 1975, soil, Isle of Lavsa (Jugoslavia)

**Trochisciopsis** Vinatzer

*Trochisciopsis tetraspora* Vinatzer

- V 208 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy); type material; (Vinatzer 1975,  
1975a)

- T 77 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy)

**Ulothrix** Kützing

*Ulothrix tenuissima* Kützing

- T 93 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy)

## Vischeria Pascher

### *Vischeria helvetica* (Vischer & Pascher) Hibberd

- BS 170 R. CHODAT, Genf, No. 255; formerly *Polyedriella helvetica* Vischer & Pascher; = ATCC 30425 = CCAP 861/1 = SAG 876-1 = UTEX 49; (Hibberd 1981)

### *Vischeria punctata* Vischer

- BS 266 W. VISCHER, 1941, soil, Unterengadin (Switzerland); type material; = ATCC 30441 = CCAP 887/1 = SAG 887-1 = UTEX 153; (Vischer 1945, Hibberd 1981)

- T 10 H. TRENKWALDER, 1975, soil, pine forest, Brixen, South Tyrol (Italy)

### *Vischeria stellata* (R. Chodat ex Poulton) Pascher

- BS 169 R. CHODAT, No. 185; = CCAP 887/2b = SAG 887-2 = UTEX 312; (Hibberd 1981)

## Xanthonema Silva

### *Xanthonema hormidioides* (Vischer) Silva

- BS 358 W. VISCHER, 1943, soil, Unterengadin (Switzerland); type material; formerly *Heterothrix hormidioides* Vischer; = CCAP 836/2 = UTEX 353; (Vischer 1945, Ettl & Gärtner 1995)

### *Xanthonema sessile* (Vinatzer) Ettl & Gärtner

- V 98 G. VINATZER, 1975, soil, Dolomites, South Tyrol (Italy); type material; formerly *Heterothrix sessilis* Vinatzer; (Vinatzer 1975, 1975a, Ettl & Gärtner 1995)

**Acknowledgements:** The author thanks Mag. Silvia Klein for valuable help in preparation of the manuscript.

## 3. Literature:

- AHMADJIAN, V. (1960): Some new and interesting species of *Trebouxia*, a genus of lichenized algae. — *Am. J. Bot.* **47**: 677 - 683.
- ARCE, G. & H.C. BOLD (1958): Some Chlorophyceae from Cuban soils. — *Amer. J. Bot.* **45**: 492 - 503.
- ARCHIBALD, P.A. (1970): *Pseudochlorococcum*, a new Chlorococcalean genus. — *J. Phycol.* **6**: 127 - 132.
- (1972): The genus *Nautococcus* Korschikov (Chlorophyceae, Chlorococcales). — *Phycologia* **11**: 207 - 212.
- (1975): *Trebouxia* de Puymaly (Chlorophyceae, Chlorococcales) and *Pseudotrebouxia* gen. nov. (Chlorophyceae, Chlorosarcinales). — *Phycologia* **14**: 125 - 137.
- (1979): Descriptions of new edaphic and aquatic species of *Chlorococcum* Meneghini (Chlorococcales). — *Br. phycol. J.* **14**: 305 - 312.
- ARCHIBALD, P.A. & H.C. BOLD (1970): *Phycological Studies XI. The genus Chlorococcum Meneghini.* — *Univ. Texas Publ.* **7015**: 1 - 115.
- BISCHOFF, H.W. & H.C. BOLD (1963): *Phycological Studies. IV. Some soil algae from Enchanted Rock and related algal species.* — *Univ. Texas Publ.* **6318**: 1 - 95.
- BOLD, H.C. & F.J. McENTEE (1974): *Phycological notes. III. Two new saccate unicellular Chlorophyceae.* — *J. Phycol.* **10**: 189 - 193.
- BROWN, R.M. jun. & H.C. BOLD (1964): *Phycological Studies V. Comparative studies of the algal genera Tetracystis and Chlorococcum.* — *Univ. Texas Publ.* **6417**: 1 - 213.
- CHANTANACHAT, S. & H.C. BOLD (1962): *Phycological Studies II. Some algae from arid soils.* — *Univ. Texas Publ.* **6218**: 1 - 75.
- CHODAT, R. (1913): *Monographies d'algues en culture pure.* — *Matériaux pour la flore Cryptogamique Suisse* **4**: 1 - 266.
- DAGGETT, P.M. & M.S. NERAD (Eds.) (1985): *American Type Culture Collection: Catalogue of Protists-Algae/Protozoa, 16th Ed., 50 pp.*
- DEASON, T.R. (1959): Three Chlorophyceae from Alabama soil. — *Amer. J. Bot.* **46**: 572 - 578.
- (1969): Filamentous and colonial soil algae from Dauphin Island, Alabama. — *Trans. Am. Microsc. Soc.* **88**: 240 - 246.
- (1976): The genera *Spongococcum* and *Neospongococcum* (Chlorophyceae, Chlorococcales). III. New species, biochemical characteristics and a summary key. — *Phycologia* **15**: 197 - 213.

- DEASON, T.R. & H.C. BOLD (1960): Phycological Studies I. Exploratory studies of Texas soil algae. — Univ. Texas Publ. **6022**: 1 - 72.
- DEASON, T.R. & E.R. COX (1971): The genera *Spongiococcum* and *Neospongiococcum*. II. Species of *Neospongiococcum* with labile walls. — *Phycologia* **10**: 255 - 262.
- DYKSTRA, R.F. (1971): *Borodinellopsis texensis*: gen. et spec. nov. A new alga from the Texas Gulf coast. — In: B.C. Parker & Brown, R.M. jr. (eds.): Contributions in Phycology, 1 - 8, Allen Press Inc., Lawrence.
- ETTL, H. & G. GÄRTNER (1987): Taxonomic and nomenclatural changes and descriptions of new taxa of the Tetrasporales, Chlorococcales and Gloeodendrales (Chlorophyta, Chlamydomphyceae and Chlorophyceae). — *Nova Hedwigia* **44**: 509 - 517.
- (1988): Chlorophyta II. Tetrasporales, Chlorococcales, Gloeodendrales. — In: Ettl, H., Gerloff, J., Heynig, H. & Mollenhauer, D. (eds.), Süßwasserflora von Mitteleuropa **10**, 436 pp., G.Fischer, Stuttgart.
- (1995): Syllabus der Boden-, Luft- und Flechtenalgen. — G. Fischer, Stuttgart, Jena, New York, 721 pp.
- ETTL, H. & K. SCHWARZ (1981): *Chlamydomonas chlorococcoides* nov. spec., eine neue Art mit gelapptem Chloroplast (Volvocales, Chlorophyta). — *Pl. Syst. Evol.* **138**: 115 - 120.
- FOTT, B. & M. NOVÁKOVÁ (1972): Über die Gattung *Gloeococcus* (Grünalgen, Tetrasporales). — *Arch. Protistenk.* **114**: 34 - 36.
- GÄRTNER, G. (1985): Die Gattung *Trebouxia* Puymaly (Chlorellales, Chlorophyceae). — *Arch. Hydrobiol. Suppl.* **71**, *Algol. Studies* **41**: 495 - 548.
- (1985a): The culture collection of algae at the Botanical Institute of the University at Innsbruck (Austria). — *Ber. nat.-med. Verein Innsbruck* **72**: 33 - 52.
- (1986): The culture collection of algae at the Botanical Institute of the University at Innsbruck (Austria). Additions to the collection since 1984/85. — *Ber. nat.-med. Verein Innsbruck* **73**: 17 - 21.
- GÄRTNER, G. & H. Ettl (1988): Neugliederung der Gattung *Chlorococcum* Meneghini (Chlorophyta, Chlamydomphyceae, Chlorococcales). — *Nova Hedwigia* **47**: 271 - 278.
- GÄRTNER, G. & A. SCHRAGL (1988): Zur Taxonomie von *Coccomyxa brevis* nov. comb. (Chlorophyceae, Chlorococcales), früher *Nephrodiella brevis* Vischer (Xanthophyceae, Mischococcales). — *Nova Hedwigia* **46**: 511 - 517.
- GROOVER, R.D. & H.C. BOLD (1969): Phycological Studies. VIII. The taxonomy and comparative physiology of the Chlorosarcinales and certain other edaphic algae. — *Univ. Texas Publ.* **6907**: 1 - 165.
- HERNDON, W. (1958): Some new species of Chlorococcalean algae. — *Amer. J. Bot.* **45**: 310 - 323.
- HIBBERD, D.J. (1981): Notes on the taxonomy and nomenclature of the algal class Eustigmatophyceae and Tribophyceae (synonym Xanthophyceae). — *Bot. J. Linn. Soc.* **82**: 93 - 119.
- HILDRETH, K.C. & V. AHMADJIAN (1981): A study of *Trebouxia* and *Pseudotrebouxia* isolates from different lichens. — *Lichenologist* **13**: 65 - 86.
- KOL, E. & F. CHODAT (1934): Quelques algues nouvelles des sols et de la neige du Parc National Suisse, Engadine. — *Bull. Soc. Bot. Genève* **25**: 250 - 263.
- KOMÁREK, J. (1989): Polynuclearity of vegetative cells in coccal green algae from the family Neochloridaceae. — *Arch. Protistenk.* **137**: 255 - 273.
- LEE, K.W. & H.C. BOLD (1974): Phycological Studies XII. *Characium* and some *Characium*-like algae. — *Univ. Texas Publ.* **7403**: 1 - 127.
- METTING, B. (1980): New species of green microalgae (Chlorophycophyta) from an eastern Washington silt loam. — *Phycologia* **19**: 296 - 306.
- REISIGL, H. (1964): Zur Systematik und Ökologie alpiner Bodenalgen. — *Österr. Bot. Z.* **111**: 402 - 499.
- (1969): Bodenalgen-Studien II. — *Österr. Bot. Z.* **116**: 492 - 506.
- SANTOS, L.M.A. (1990): Cytology and ultrastructure of Eustigmatophyceae. — Ph. D. Thesis, Univ. of Leeds.
- SCHLÖSSER, U.G. (1994): SAG-Sammlung von Algenkulturen at the University of Göttingen, Catalogue of Strains 1994. — *Bot. Acta* **107**: 113 - 186.
- STARR, R.C. (1953): Further studies in the genus *Chlorococcum* Menegh. — *Lloydia* **16**: 142- 148.
- (1955): A comparative study of *Chlorococcum* Meneghini and other spherical, zoospore-producing genera of the Chlorococcales. — *Indiana Univ. Publ., Sci. Ser.* **20**: 1 - 111.
- STARR, R.C. & J.A. ZEIKUS (1993): UTEX — The Culture Collection of Algae at the University of Texas at Austin. — *J. Phycol. (Suppl.)* **29**(2): 1 - 106.
- SUGAWARA, H., J. MA, S. MIYAZAKI, J. SHIMURA & Y. TAKISHIMA (Eds.) (1993): World Directory

of Collections of Cultures of Microorganisms, WFCC, RIKEN, Japan, 1148 pp.

- TOMPKINS, J., M.M. DE VILLE, J.G. DAY & M.F. TURNER (Eds.) (1995): Culture Collection of Algae and Protozoa, Catalogue of Strains 1995, Natural Environment Research Council, Ambleside, Cumbria, UK, 203 pp.
- TRENKWALDER, H. (1975): Untersuchungen zur Bodenalgengflora verschiedener Föhrenwaldtypen im Raum von Brixen (Südtirol, Italien). – Diss. phil. Fak. Univ. Innsbruck, 140 pp.
- (1975a): Neue Bodenalgeng aus Föhrenwäldern im Raum von Brixen (Südtirol, Italien). – Ber. nat.-med. Verein Innsbruck 62: 7 - 19.
- TSCHERMAK-WOESS, E. (1978): Über die Phycobionten der Sektion *Cystophora* von *Chaenotheca*, insbesondere *Dictyochloropsis splendida* und *Trebouxia simplex*, spec. nova. – Pl. Syst. Evol. 129: 185 - 208.
- (1980): *Chaenothecopsis consociata* – kein parasitischer Pilz, sondern lichenisiert mit *Dictyochloropsis symbiontica*, spec. nova. – Pl. Syst. Evol. 136: 287 - 306.
- (1984): Über die weite Verbreitung lichenisierter Sippen von *Dictyochloropsis* und die systematische Stellung von *Myrmecia reticulata* (Chlorophyta). – Pl. Syst. Evol. 147: 299 - 322.
- VINATZER, G. (1975): Untersuchungen über die Bodenalgeng in der alpinen Stufe des Pitschberges (2300 m), Südtirol. – Diss. phil. Fak. Univ. Innsbruck, 142 pp.
- (1975a): Neue Bodenalgeng aus den Dolomiten. – Pl. Syst. Evol. 123: 213 - 235.
- VISCHER, W. (1926): Études d'algologie expérimentale. – Bull. Soc. Bot. Genève, ser. 2, 18: 24 - 85.
- (1933): Über einige kritische Gattungen und die Systematik der Chaetophorales. – Beih. Bot. Centralbl. 51/1: 1 - 100.
- (1936): Über Heterokonten und heterokontenähnliche Grünalgeng (*Bumilleriopsis*, *Heterothrix*, *Heterococcus*, *Dictyococcus*, *Muriella*). – Ber. Schweiz. Bot. Ges. 45: 372 - 410.
- (1937): Über einige Heterokonten (*Heterococcus*, *Chlorellidium*) und ihren Polymorphismus. – Ber. Schweiz. Bot. Ges. 47: 225 - 250.
- (1945): Heterokonten aus alpinen Böden, speziell dem schweizerischen Nationalpark. – Ergebn. wiss. Unters. Schweiz. Nationalpark, N.F. 1: 477 - 512.
- (1945a): Über einen pilzähnlichen, autotrophen Mikroorganismus, *Chlorochytridium*, einige neue Protococcales und die systematische Bedeutung der Chloroplasten. – Verh. Naturf. Ges. Basel, 56(2): 41 - 59.
- (1953): Über primitivste Landpflanzen. – Ber. Schweiz. Bot. Ges. 63: 169 - 193.
- (1955): Über eine neue Grünalgengattung, *Jaagia* (*Chlorellopsis* Zeitler non Reis) aus der Gruppe der Chlorococcales. – Ber. Schweiz. Bot. Ges. 65: 511 - 518.
- (1960): Reproduktion und systematische Stellung einiger Rinden- und Bodenalgeng. – Schweiz. Ztschr. Hydrol. 22: 330 - 349.

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Jahr/Year: 1996

Band/Volume: [83](#)

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Artikel/Article: [ASIB - the Culture Collection of Algae at the Botanical Institute of the University at Innsbruck \(Austria\) Catalogue of Strains 1996. 45-69](#)