

Canadian Phycological Culture Centre (CPCC) (Formerly UTCC)

List of Cultures, October 22, 2009

Notes on the List of Cultures

Explanation of Strain Data

Cultures are listed alphabetically by genus and species and the corresponding information available for each isolate is provided as follows:

CPCC number, depositor, isolator, origin and date of isolation, remarks (Rem:). In the remarks the code "A" indicates an axenic culture, "B" means the culture may contain bacteria, "L" means the culture is maintained in liquid medium; all those without an "L" in the remarks are cultured on agar. "F" means the culture currently has a fungal contaminant. Remarks may also include information on ecology, special culture requirements, toxicity, tolerance to heavy metals; a.k.a. = also known as.

Some of the cultures in CPCC are derived from cultures that are also held in the following collections and this information is noted for each culture.

Abbreviations of Contributing Culture Collections

ATCC = American Type Culture Collection, Rockville, Maryland, U.S.A.

CAUP = Culture Collection of Algae, Charles University, Praha, Czechoslovakia

CCAP = Culture Collection of Algae and Protozoa, Ambleside, Cumbria, U.K.

CCG = Chlamydomonas Genetics Center, Duke University, Durham, NC, USA

CCCM = Canadian Centre for Culture of Microorganisms, UBC, Vancouver, BC (combines NEPCC and the FCC of UBC)

CCMP = Provasoli- Guillard Center for Culture of Marine Phytoplankton, Bigelow Laboratory for Ocean Sciences, West Boothbay Harbor, Maine, USA

CRHGY = Centre de Recherche Hydrobiologie de Gif-sur-Yvette, France

IAM = Institute of Applied Microbiology, University of Tokyo, Tokyo, Japan

LCACC = Loras Culture Collection of Algae, Loras College, Dubuque, IA, USA

NEPCC = Northeast Pacific Culture Collection, UBC, Vancouver, B.C., Canada

NIVA = Norwegian Institute for Water Research, Oslo, Norway

PCC = Pasteur Collection of Cyanobacterial Strains, Institut Pasteur, Paris, France

SAG = Sammlung von Algenkulturen der Universitat Gottingen, Germany

UTEX = University of Texas Culture Collection, University of Texas at Austin, Austin, TX, U.S.A.

UWO = University of Western Ontario Culture Collection, London, Ont., Canada

UWOCC = University of Wisconsin Oshkosh Culture Collection, Oshkosh, WI, USA

The Identity of CPCC Strains

Each strain is assigned a unique number, which will never change. It is possible that a new genus and species name may, however be assigned as taxonomic studies reveal a new identity for a particular strain. The name given to the culture by the depositor is listed here and alterations are made at the request of the depositor or when publications that are accepted by the scientific community require a change in name. Please use both the CPCC number and species name when requesting cultures and in publications to ensure that the material is correctly identified.

As the CPCC does not have the resources to perform taxonomic studies on all of our strains we welcome investigators in this field to examine any of the cultures at no cost to them. Any subsequent information will be acknowledged and the species names modified accordingly.

CPCC Strains cited in Publications

Please inform us of any publications arising from the use of our cultures and where possible supply us with a reprint. The CPCC strain number and species name must be used in your publications e.g. CPCC 102 *Synechococcus leopoliensis* in order to avoid subsequent confusion over the source and identification of the material. Your co-operation in this regard is vital to CPCC as we are creating a data bank of information on the cultures in the CPCC; this information is used by the granting agencies to evaluate our proposals for continued funding.

Isolates of Algae and Cyanobacteria

Amphiprora paludosa.

- 662** Isolated by Kay Chen at UTCC, July 2005. Collected May 2005 from nearshore water in Bras D'Or Lake, Cape Breton, Nova Scotia, Canada. Remarks: grows well in f/2 with artificial sea water base at 18 C.

Amphora coffeaeformis Ag.

- 58** Dep: C. Nalewajko. Isol: D. Voltolina, M-34, Victoria, B.C. 1983. Rem: LB, marine

Anabaena flos-aquae (Lyng.) Breb.

- 64** Dep. C. Ewing 1987, Isol. C. Ewing, Lake Ontario, 1984. Rem: B; Produces microcystins and possibly low levels of anatoxin-a. Needs further testing.
67 Dep. B. Colman 1987 as UTEX 1444. Rem: A

Anabaena sphaerica Born. et Flah.

- 437** Isol. 06/97 by J. Acreman from Lake Biwa, Japan. Id. by H. Kling. Rem: LB

Anabaena spiroides Klebahn

68 Dep. B. Colman 1987 as UTEX 1552. Rem: B

Anabaena variabilis Kutz.

- 105 Dep. J. Coleman 1987 as ATCC 29413 (=UTEX 1444 *A. flos-aquae*, PCC 7937 *Nostoc* sp.). Rem: A
 342 Dep. F. Hashemi, Oct/93. Derived from CPCC 105 by F. Hashemi. Rem: A, Resistant to 100-micromole copper

Anabaena sp.

- 387 See *Nostoc* sp. Dep. J. Coleman, Feb. 1995 as PCC 7120 *Nostoc* sp. Cluster 3. Rem: A
 426 Isol. J. Acreman, Jun/96. Coll. Lake Biwa, Japan. Rem: LB
 427 Isol. J. Acreman, Jun/96. Coll. Lake Biwa, Japan. Rem: LB
 543 Deposited July 7/01 by UTEX as UTEX LB 2383 *Anabaena flos-aquae*. Isol. P. Gorham from Burton Lake, Saskatchewan, Canada and deposited in UTEX 4/84 as NRC-44h. May produce anatoxin-a (Gorham et al 1964). Also in CCAP as 1403/21. Rem: LB. Possibly *Schizothrix* sp. In CHU-10 at pH 8.5.
 544 Isol. By M. Khayatian at CPCC Dec. 2001 from a tank of *Salvinia* plants used in BIO 150 labs at University of Toronto. Rem: LB
 631 Collected by Lewis Molot from Lake 227, Experimental Lakes Area (ELA), Winnipeg, MB. Isolated January 2005 by Kay Chen at UTCC. In BBM at 20 C. (identification uncertain; possibly *Aphanizomenon schindlerii*)

Anabaenopsis sp.

- 523 Isol. by J. Acreman, Dec 2000. Coll. from Pakowki Lake (small coolie lake that dries up in summer), AB, Canada. Rem: LB

Ankistrodesmus convolutus Corda

- 309 Received 1993 from CCAP as 202/10H. Isol. Weis, New Haven, Connecticut, USA 1952. Rem: A, toxicity test organism

Ankistrodesmus falcatus (Corda) Ralfs

- 63 Dep. C. Ewing 1987. Isol. C. Ewing, Lake Ontario, Canada 1984. Rem: B
 287 Isol. J. Acreman, Boucher Lake, Sudbury, Ont., Canada, Aug 1992. Rem: LB
 288 Isol. J. Acreman, Boucher Lake, Sudbury, Ont., Canada, Aug 1992. Rem: LB
 366 Isol. J. Pawlikowski, May 1994 from Point Pelee Park, Ont., Canada. Rem: LB

Ankistrodesmus sp.

- 505 Isol. J. Acreman, July 1999 from Lake Wilcox, ON, Canada. Rem: LB
 547 Isol. M. Khayatian at CPCC, Dec 2001 from tank of *Salvinia* plants in BIO150 lab at University of Toronto. Rem: LB

Aphanocapsa conferta (W. et GS West) Komárková-Legnerová

- 595** Isolated by Andrea Kirkwood, April 1999 from pulp and paper effluent pond as PP18 from Rotorua, New Zealand

Aphanocapsa rivularis (Carmichael) Rabenhorst 1865

- 596** Isolated by Andrea Kirkwood, April 1999 from pulp and paper effluent pond as PP19 from Rotorua, New Zealand

Aphanothece flocculosa (Zalessky) Cronberg et Komárek 1994

- 597** Isolated by Andrea Kirkwood, September 1997 from pulp and paper effluent pond as PP20 from Manitoba, Canada

Arthrodesmus triangularis v. inflatus West

- 385** Isol. J. Pawlikowski, Oct. 1994 from Kakikase Lake, Ont., Canada. Rem: LB

Arthrodesmus sp.

- 348** Isol. J. Acreman from Plastic Lake, Ont., Canada, Nov/93. Rem: LB
349 Isol. J. Acreman from Plastic Lake, Ont., Canada, Nov/93. Rem: LB

Arthronema gygaxiana Casamatta et Johansen sp. nov.

- 393** Isol. D. Kelly, 07/91 as epiphyte on floating leaves of *Nuphar variegatum* in Tasso Lake, Lake of Bays Twmsp., Ont., Canada. Rem: Mercury biotransformation: 100 ppb lags growth, 200 ppb lethal at OD₆₆₅ = 0.300. Generates Hg⁰ and HgS.

Asterionella formosa Hass.

- 605** Isol. A. Gonzales, Sept. 2002 from Station 2195, Lake Ontario, Canada. Sample collected by Todd Howell. Rem: LB

Asterococcus superbis (Cienk.) Scherffel

- 363** Received 1994 from UTEX as UTEX 88. Rem: A

Bangia atro-purpurea (Roth) Ag.

- 400** Dep. R. Sheath/M.L. Vis-Chiasson as LO01-5C. Isol. M.L. Vis-Chiasson from Jordan Station, Lake Ontario, Canada 1995. Rem: LB
401 Dep. R. Sheath/M.L. Vis-Chiasson as LO05-1A. Isol. M.L. Vis-Chiasson from Selkirk State Park, Lake Ontario, USA, 1995. Rem: LB
402 Dep. R. Sheath/ M.L. Vis-Chiasson as LO11-3C. Isol. M.L. Vis-Chiasson from Whitby, Lake Ontario, Canada, 1995. Rem: LB
403 Dep. R. Sheath/M.L. Vis-Chiasson as LO12-5A. Isol. M.L. Vis-Chiasson from Oakville, Lake Ontario, Canada, 1995. Rem: LB
404 Dep. R. Sheath/M.L. Vis-Chiasson as SL03-4A. Isol. M.L. Vis-Chiasson from Prescott city park and marina, St. Lawrence R, Canada, 1995. Rem: LB
405 Dep. R. Sheath/M.L. Vis-Chiasson as LH04-2A. Isol. M.L. Vis-Chiasson from Tawas City at town hall park, Lake Huron, ON Canada, 1995. Rem: LB

- 406** Dep. R. Sheath/M.L. Vis-Chiasson as LH15-4A. Isol. M.L. Vis-Chiasson from Grand Bend, Lake Ontario, Canada, 1995. Rem: LB
- 407** Dep. R. Sheath/ M.L. Vis-Chiasson as LH16-3B. Isol. M.L. Vis-Chiasson from Goderich, Lake Huron, Canada, 1995. Rem: LB
- 408** Dep. R. Sheath/M.L. Vis-Chiasson as LE07-1C. Isol. M.L. Vis-Chiasson from Park at Bay Village, Lake Erie, Ohio, USA, 1995. Rem: LB
- 409** Dep. R. Sheath/M.L. Vis-Chiasson as LE08-2C. Isol. M.L. Vis-Chiasson from Ashtabula at Walnut Beach, Lake Erie, Ohio, USA, 1995. Rem: LB
- 410** Dep. R. Sheath/M.L. Vis-Chiasson as LE11-2C. Isol. M.L. Vis-Chiasson from Hamburg, Buffalo suburb at beach, Lake Erie, NY, USA, 1995. Rem: LB
- 411** Dep. R. Sheath/M.L. Vis-Chiasson as LM04-2C. Isol. M.L. Vis-Chiasson from White Lake channel, Lake Michigan, MI, USA, 1995. Rem: LB
- 412** Dep. R. Sheath/ M.L. Vis-Chiasson as SIM02-3A. Isol. M.L. Vis-Chiasson from Alcona waterfront park, Lake Simcoe, Ontario, Canada, 1995. Rem: LB
- 413** Dep. R. Sheath/M.L. Vis-Chiasson as SIM03-1A. Isol. M.L. Vis-Chiasson from Roch Point, Lake Simcoe, Ontario, Canada, 1995. Rem: LB

Boekelovia hooglandii Nicolai & B. Becking

- 484** Isol. W. Barclay, 15/07/84 from saline spring near the junction of Piceance Creek and the White River in NW Colorado, USA. HISTORY: Solar Energy Research Inst, Golden, CO, USA as Boeke1 > J. A. Hellebust> CPCC. Rem: medium ASW or f/2; needs ammonium; up to 42% lipid under nitrogen limitation.

Carteria olivieri G.S. West

- 183** Dep. T. Sawa 1990 as 86-0080 (= UTEX LB 1032). Rem: LB

Chaetoceros muellerii Lemmerman

- 485** Isol. at Solar Energy Research Inst, Golden, CO, USA as Ch9 > J. A. Hellebust> CPCC. Rem: medium ASW or f/2.

Chaetoceros septentrionalis Oestr.

- 48** Dep. C. Nalewajko 1987 as M-1. Isol. C. Nalewajko from Lancaster Sound, N.W.T., Canada. Rem: B, Marine.
- 50** Dep. C. Nalewajko 1987. Isol. C. Nalewajko from Lancaster Sound, N.W.T., Canada. Rem: B, Marine

Chlamydomonas acidophila Negoro

- 121** Isol./Dep. M. Twiss as SRB1 from Sudbury, Ont., Canada, Dec 1986. Rem: A
- 122** Isol./Dep. M. Twiss as SRB4 from Sudbury, Ont., Canada, Dec 1986. Rem: B
- 123** Isol./Dep. M. Twiss as Site A from Sudbury, Ont., Canada, Dec 1986. Rem: B
- 354** Received 1994 from CAUP as CAUP G204. Rem: LB, F.
- 611** Deposited Feb 2003 by Antonio Pollio, Dipartimento di Biologia vegetale, Universita Degli Studi di Napoli Federico II, Italy as #238 from acid bog in Italy
- 612** Deposited Feb 2003 by Antonio Pollio, Dipartimento di Biologia vegetale,

Universita Degli Studi di Napoli Federico II, Italy as #239 from acid soil in Italy

Chlamydomonas applanata Ettl

- 120** Dep. M. Twiss as CCAP 11/96. Isol. R. Lewin, Scotland, 1951. Rem: A; formerly known as *C. acidophila*

Chlamydomonas moewussi Gerloff

- 83** Dep. B. Colman as UTEX 96. Rem: B, minus strain

Chlamydomonas nivalis

- 528** Dep. William Thomas, Jan. 2001. Coll. Topper Thomas 1994 from snowfield at Saddlebag Lake, Tioga Pass, Sierra Mountains, CA, USA. Isol. William Thomas, 1994. Rem: LB in CHU-10 at 10 C.

Chlamydomonas reinhardtii Dang.

- 11** Dep. Y. Tarmohammed as CCG 125 mt+. Isol. G. M. Smith, Amherst. Rem: b
12 Dep. Y. Tarmohammed as CCG 400 cw-15 mt+, Isol. D.R. Davies/D. Grant. Rem: walless form. Rem: B
84 Dep. B. Colman as UTEX 89. NOT CURRENTLY AVAILABLE
243 Dep. T. Sawa as *C. reinhardtii* - minus strain. Rem: A
244 Dep. T. Sawa as *C. reinhardtii* - plus strain Rem: B
532 Dep. E. Harris, CGC, April 2001 as cc125 wild type mt+. Rem: A
533 Dep. E. Harris, CGC, Apr. 2001 as cc400 cw-15 mt-. Rem: A, non-motile

Chlamydomonas variabilis Dang.

- 110** Dep. J. Helwig as CRHGY #511/5. Rem: B, F

Chlamydomonas sp.

- 85** Dep. B. Colman as Ogren #2137A. Rem: LA
418 Isol. J. Acreman from lake near Resolute, NWT, Canada, 1995. Rem: LB

Chlorella emersonii Shihira et Krauss

- 86** Dep. B. Colman as CCAP 211/8p. Rem: A

Chlorella fusca var. *fusca* Shihira et Krauss

- 394** Dep. L. Wong 09/94 as UTEX 343. Isol. R. A. Lewin 1987; Rem: B; formerly *C. pyrenoidosa* in UTEX 1987 catalogue; related to CCAP 211/23 *C. fusca* ecotoxicity test strain

Chlorella fusca var. *vacuolata* Shihira et Krauss

- 89** Dep. B. Colman as *C. pyrenoidosa* UTEX 252. Isol. 1926 by R. Emerson as *C. pyrenoidosa* from tap water in O. Warburg's lab, Berlin, Germany. Rem; A, related to SAG 211-c, IAM C-105

Chlorella kesslerii Fott & Novakova

- 266** Dep. IAM as C-531. Isol. R. Pratt, USA, pre 1946. Rem: A. originally deposited as *C. vulgaris*. Identified as *C. kesslerii* by Kessler and Huss, 1992. Relatives: UTEX 263, CCAP 211/11h, SAG 211-11h, ATCC 11468. Used as feed for *Daphnia*.

Chlorella luteoviridis (Chod.) Oltmans

- 87** Dep. B. Colman as UTEX 24. Isol. by E. Pringsheim before 1929 as *C. vulgaris* 2. Rem: related to SAG 211-5a, CCAP 211/5a, ATCC 30546. a.k.a *C. miniata*

Chlorella miniata (Nag.) Oltmanns

- 88** Dep. B. Colman as Miyachi C-143. Isol. probably Miyachi. Rem: A

Chlorella pyrenoidosa Chick

- 89** see *C. fusca* var. *vacuolata*
90 see *C. vulgaris*
138 see *C. sorokiniana*

Chlorella saccharophila (Krug.) Migula

- 91** Dep. B. Colman 03/87 as UTEX 27. Note: UTEX 27 is now replaced by UTEX 2469, which was isolated in 1981 by B. Colman from UTEX 27. Origin of UTEX 27: isol. 1892 by W. Kruger from sap of wounded *Populus alba*, Germany. Rem: A, related to CCAP 211/9A. SAG 211-9a, ATCC 30408, CAUP H 1912
- 272** Dep. IAM as #C-211. Isol. E. Pringsheim 1939, from garden soil, W. Humble, Dorking, England. Rem: A; related to SAG 211-9b; re-identified by Kessler in 1992

Chlorella sorokiniana Shihira et Krauss

- 138** Dep. T.C. Hutchinson as UTEX 1230 *C. pyrenoidosa*. Isol: C. Sorokin from "warm local surface waters", Austin, Texas, USA and deposited in UTEX by J. Meyers as high temperature (39 °C) strain Tx 7-11-05. Rem: B,F

Chlorella vulgaris Beij.

- 90** Dep. B. Colman as *C. pyrenoidosa*; R. Emerson's quantum yield alga Rem: A, = UTEX 395
- 92** Dep. B. Colman as "Miyachi strain" Rem: B
- 111** Dep. B. Colman. Rem; B, =UTEX 259
- 139** Dep. T.C. Hutchinson as Venus 1. Isol. C. Nakatsu from mine tailings runoff, Venus Pond, Yukon, Canada 1978. Rem: B, tolerant to 20 ppm As
- 140** Dep. T.C. Hutchinson as Venus 2. Isol. C. Nakatsu from mine tailings runoff, Venus Pond, Yukon, Canada 1978. Rem: B, tolerant to 20 ppm As
- 141** Dep. T.C. Hutchinson as Venus 3. Isol. C. Nakatsu from mine tailings runoff, Venus Pond, Yukon, Canada 1978. Rem. B, tolerant to 20 ppm As
- 142** Dep. T.C. Hutchinson as Venus 4. Isol. C. Nakatsu from mine tailings runoff, Venus Pond, Yukon, Canada 1978. Rem: B, tolerant to 20 ppm As

- 143** Dep. T.C. Hutchinson as Venus 5. Isol. C. Nakatsu from mine tailings runoff, Venus Pond, Yukon, Canada 1978. Rem: B, tolerant to 20 ppm As
- 144** Dep. T.C. Hutchinson as Venus 8. Isol. C. Nakatsu from mine tailings runoff, Venus Pond, Yukon, Canada 1978. Rem: B, tolerant to 20 ppm As
- 145** Dep. T.C. Hutchinson as Venus 10. Isol. C. Nakatsu from mine tailings runoff, Venus Pond, Yukon, Canada 1978. Rem: B, tolerant to 20 ppm As
- 146** Dep. T.C. Hutchinson as Venus 11. Isol. C. Nakatsu from mine tailings runoff, Venus Pond, Yukon, Canada 1978. Rem: B, tolerant to 20 ppm As
- 147** Dep. T.C. Hutchinson as Venus 12. Isol. C. Nakatsu from mine tailings runoff, Venus Pond, Yukon, Canada 1978. Rem: B, tolerant to 20 ppm As

Chlorella sp.

- 23** Dep. C. Nalewajko as FW #14. Isol: M. O'Mahoney/B. Paul from Lake St. Nora, Ont. Canada, 1984. Rem: LB
- 247** Isol J. Acreman from artificial pond near Dorset, Ont., Canada, 08/90. Rem: LB
- 493** Isol. Steve Pollock, Feb. 1996. Coll. Brian Petri from Lake of Bays, ON, Canada. Dep. Mar. 1999. Rem: LB
- 522** Isol. by Michael Twiss, Aug 11, 1998 from Lake Erie, Station 84 (41 55 57 N, 81 39 35 E). Rem: Epi-pelagic; easily Zn limited, will use Cd to replace Zn; LB
- 560** Dep. by Brian Whitton, Sept. 01 as D0461. Collected and isolated by B. A. Whitton from Site 9008-50, USA. Collected 11/06/77 by B.A. Whitton; isolated by C. Rajendran. Medium CHU-10D with NH₄-N(7), Al, pH 3.0. Clonal but not axenic.
- 603** Deposited 2002 by J. Hellebust as "580". Rem: LB

Chlorococcum hypnosporum Starr

- 178** Dep. T. Sawa as 86W 00130. Isol: R. C. Starr as F35-1 from soil; Beldsoe Co., TN-USA. Rem: A, related to UTEX 119

Chlorococcum sp.

- 315** Isol. J. Acreman from sand dunes near Presqu'ile, Ont., Canada, Mar/93. Rem: LB
- 513** Isol. Beata Kluczyk from salt collected at salt graduation tower in Poland. Rem: B

Chroococcus sp

- 623** Isol. October 2004 by Anoja Anton at UTCC. Collected August, 2004 by J. Acreman from Craighleith Park, Lake Huron, Georgian Bay, ON

Cladophora glomerata (L.) Kutz.

- 13** Dep. L. Brown/D. Rose as University of W. Ontario local strain. Isol. from river near London, Ont., Canada Rem: LB

Cladophora sp.

- 635** Isolated by J. Acreman from Oakville area of Lake Ontario, Canada as OAKVILLE #2. Rem: LB; grows in WC and CHU-10 with Lake ON water.
- 636** Isolated by J. Acreman from Oakville area of Lake Ontario, Canada as OAKVILLE #4. Rem: LB; grows in WC and CHU-10 with Lake ON water.

- 637** Isolated by J. Acreman from Oakville area of Lake Ontario, Canada as OAKVILLE #5. Rem: LB; grows in WC and CHU-10 with Lake ON water.
- 638** Isolated by J. Acreman from Cooksville Creek area of Lake Ontario, Canada as COOKSVILLE #1. Rem: LB; grows in WC and CHU-10 with Lake ON water.

Closteriopsis longissima (Lemmermann) Lemmermann

- 608** Isolated by J. Acreman/A. Gonzales, Nov 02 from Lake Ontario, Station 2195.

Closterium sp.

- 190** Dep. T. Sawa as 86W 0160. Rem: LB
- 288** Isol. J. Acreman from Boucher Lake, Sudbury, Ont., Canada, Aug. 1992. Rem: B

Coccochloris peniocyctis (Kutz.) Drouet and Daily

- 71** Dep. B. Colman 03/87 as UTEX 1548 "new" having acquired it from UTEX in 1983. Origin as per UTEX 1978 catalogue: Fitzgerald and Gerloff; M.M. Allen 6307. Rem: LB, F

Coccomyxa simplex Mainx

- 175** Dep. M. Twiss as UTEX 274. Isol: F. Mainx from water culture, Munster, Germany. Rem: A; related to UTEX 274, CCAP 216/9B; a.k.a Stamm 2

Coccomyxa sp.

- 508** Isol. At CPCC by C. Chung, July 1999 from Boomerang Lake, near Red Lake, ON. Metal contaminated site. Identified by Volker Huss. Rem: A; grows in MAM. Tolerant to 100-micromole nickel. (formerly identified as *Chlorella* sp.)

Coelastrum sp. Naegli

- 16** Dep: C. Nalewajko as FW #2. Isol: M. O'Mahoney/B. Paul from Plastic Lake, Ont., Canada 1984. Rem: LB
- 173** Isol: J. Acreman from Plastic Lake, Ont., Canada 07/88. Rem: LB
- 606** Isolated by J. Acreman, Oct. 02 from Lake Ontario, Station 2195.
- 607** Isolated by A. Anton, Oct. 02 from Lake Ontario, Station 2195.

Coleochaete scutata Breb.

- 305** Received from UTEX as LB 2567. Isol. S. Cooke from artificial pond, Davis, CA, USA. Rem: LB

Coleochaete nitellarum Jost

- 306** Received from UTEX as LB 1261; Isol. Starr, Mass., USA. Rem: LB

Cosmarium minimum var. *subrotundatum* West and West

- 350** Isol. J. Acreman from Alice Lake, Ont., Canada, Nov/93. Rem: Resistant to at least 1 ppm Ni; Rem: LB
- 351** Isol. J. Acreman from Alice Lake, Ont., Canada, Nov/93. Rem: Resistant to at least 1 ppm Ni; Rem: LB

Cryptomonas erosa Skuja

- 446** Isol. L. Hendzel; dep. by S. Watson 10/96. Rem: LB

Cryptomonas cf. rostratiformis Skuja

- 343** Isol. R. Stemberger, Lake Michigan, MI, USA. Dep. J. Gilbert Oct/93 as *Cryptomonas erosa*. Id by Susan Watson in 2007 as *C. cf. rostratiformis*. Rem: LB

Cryptomonas sp.

- 320** Isol. J. Acreman from Chub Lake, Ont., Canada, Sept/93. Rem: LB
- 321** Isol. J. Acreman from Chub Lake, Ont., Canada, Sept/93. Rem: LB
- 322** Isol. J. Acreman from Chub Lake, Ont., Canada, Sept/93. Rem: LB
- 323** Isol. J. Acreman from Chub Lake, Ont., Canada, Sept/93. Rem: LB
- 333** Isol. J. Acreman from St. Nora Lake, Ont., Canada, Oct/93. Rem: LB
- 334** Isol. J. Acreman from St. Nora Lake, Ont., Canada, Oct/93. Rem: LB
- 335** Isol. J. Acreman from St. Nora Lake, Ont., Canada, Oct/93. Rem: LB
- 336** Isol. J. Acreman from St. Nora Lake, Ont., Canada, Oct/93. Rem: LB
- 337** Isol. J. Acreman from St. Nora Lake, Ont., Canada, Oct/93. Rem: LB
- 338** Isol. J. Acreman from St. Nora Lake, Ont., Canada, Oct/93. Rem: LB
- 339** Isol. J. Acreman from St. Nora Lake, Ont., Canada, Oct/93. Rem: LB
- 340** Isol. J. Acreman from St. Nora Lake, Ont., Canada, Oct/93. Rem: LB
- 375** Isol. J. Pawlikowski from Ruth Roy L., Killarney, Ont., Canada, Oct/94. Rem: LB
- 376** Isol. J. Pawlikowski from Ruth Roy L., Killarney, Ont., Canada, Oct/94. Rem: LB
- 377** Isol. J. Pawlikowski from Ruth Roy L., Killarney, Ont., Canada, Oct/94. Rem: LB
- 379** Isol. J. Pawlikowski from Ruth Roy L., Killarney, Ont., Canada, Oct/94. Rem: LB
- 389** Isol. J. Acreman from under-ice sample from Alice Lake, Ont., Canada, Mar/95. Rem: LB

Cyanosarcina sp.

- 598** Isolated by Andrea Kirkwood, January 1997 from pulp and paper effluent pond as PP21 from Brazil

Cyclotella sp.

- 432** Isol. J. Acreman from Lake Biwa, Japan, July/96. Rem: LB
- 433** Isol. J. Acreman from Lake Biwa, Japan, July/96. Rem: LB
- 537** Isol. A. Gonzales, July 2001 from Lake Erie, Canada. Coll. by M. Twiss. Rem: LB
- 691** Isolated July 2007 by J. Acreman from Hamilton Harbour, ON, Canada Grows in WC(ed) at 20 C

Diatoma elongatum (Lyng.) Ag.

62 Dep./Isol: C. Ewing from Lake Ontario, Canada 09/84. Rem: LB

Diatoma vulgare Bory

61 Dep./Isol: C. Ewing from Lake Ontario, Canada 09/84. Rem: LB

Diatoma sp.

414 Isol. J. Acreman from North Lake, Resolute, NWT, Canada 1995

415 Isol. J. Acreman from North Lake, Resolute, NWT, Canada 1995

416 Isol. J. Acreman from North Lake, Resolute, NWT, Canada 1995

417 Isol. J. Acreman from North Lake, Resolute, NWT, Canada 1995

Dictyosphaerium erhenbergianum Nageli

489 Dep. D. Kushner, 1998 as UTEX 75. *Collection*: L.E.R. Picken from a garden pond; Cambridge, England; *isolation*: 1940 by E.G. Pringsheim; RELATIVES: CCAP 221/1A *Dictyosphaerium pulchellum*; SAG 222-1a; ATCC 30427

Dictyosphaerium pulchellum Wood

501 Isol. M. Olaveson, 1999 from B-zone pit in northern Saskatchewan, Canada. Site high in nickel and arsenic. Dep. May 27, 1999.

Dinobryon sp.

392 Dep. C. Nalewajko as UTEX 2267. Rem: LB

Dunaliella acidophila (Kalina) Massjuk

307 Dep. by NEPCC as #721, Mar/93. Rem: Grows in pH 1, LB

Dunaliella salina (Dunal) Teodoresco

197 Dep. T. Sawa as 86W 0171. Rem: LB,F

Dunaliella tertiolecta Butcher

420 Dep. J. Hellebust as CCMP 1320 (=WHO "Dun"). Rem; marine

Dunaliella sp.

457 Isol. by J.Acreman from surface brine storage pond for industrial use (salt content of pond = 24%), May, 1998, Sarnia, ON, Canada. Collected by Clay Ferguson, Pollutech Enviroquatics Ltd., Apr. 1998

Eremosphaera viridis de Bary

127 Isol. J. Acreman/ Y. Wei from Plastic Lake, Ont. Canada 09/87. Rem: LBF

Euastrum bidentatum Naegeli var. *speciosum* (Boldt) Schmidle

368 Isol. J. Pawlikowski, July 1994 from Opeongo Lake, Algonquin Park, Ont., Canada. Rem: LB

Eudorina elegans Ehr.

- 381** Isol. T. Sawa Nov. 1994 from lake in Algonquin Park, Ont., Canada. Rem: LB

Euglena gracilis Klebs

- 95** Dep. B. Colman 1987 as UTEX 753. Isol: 1950 by E. G. Pringsheim. Rem: LA,; a.k.a Pringsheim's 25; used in bioassay of vitamin B12
- 469** Isol. M. Olaveson 08/95 from a lake with nickel mine tailings, pH 2.8, near Sudbury, ON, Canada as SG-1 (field strain). Dep. M. Olaveson 20/07/98. Rem: LB.

Euglena mutabilis Schmitz

- 132** Isol. J. Acreman from mine drainage site, Sudbury, Ont., Canada, 09/87. Rem: B
- 293** Isol. M. Olaveson, from sulphuric acid plant site on Serpent River, Ont., Canada, 1980. Rem: A
- 382** Isol. J. Acreman, Oct., 1994 from Ruth Roy Lake, Killarney, Ont., Canada. Rem: LB
- 451** Isolated by M. Olaveson from Elliott Lake, ON as EL-3. Dep. Dec 1997. Rem: A
- 452** Isolated by M. Olaveson from Lavack nickel mine site as LV-L. Dep. Dec 1997. Rem: A.
- 488** Dep. D. Kushner, 1998 as UTEX 2650. Isol. 1924 by F. Mainx as *Euglena klebsii* from pond sand; Hirschberg, Czechoslovakia. RELATIVES: CCAP 1224/9B; SAG 1224-9b.
- 645** Deposited Sept 22/03 by M. Olaveson as EM-1. Originated from UTEX 364 prior to that strain being lost at UTEX and replaced with *E. gracilis*. Isolated by F. Mainx, 1924 from Czechoslovakia, Grossteich near Hirschberg. RELATIVES: SAG 1224-9b. Rem: A
- 646** Deposited Sept 22/03 by M. Olaveson as AV-1. Coll. August 1998 from acid mine drainage from a copper mine, Avoca, Ireland. Isolated by M. Olaveson 1998.
- 647** Deposited Sept 22/03 by M. Olaveson as BZ-1. Coll. from B-Zone Pit, uranium mine, northern Saskatchewan. Isolated by M. Olaveson.
- 648** Deposited Sept 22/03 by M. Olaveson as EL-1. Collected September 1988 from acid mine drainage, Crotch Lake uranium mine tailings, Elliot Lake, Ontario. Isolated by M. Olaveson.
- 649** Deposited Sept 22/03 by M. Olaveson as EL-2. Collected from acid mine drainage, Nordic tailings, uranium mine, Elliot Lake, Ontario. Isolated by M. Olaveson.
- 650** Deposited Sept 22/03 by M. Olaveson as FB-1. Collected August 1985 from acid mine drainage, Fecunis tailings, copper/nickel mine, Onaping, ON. Isolated by M. Olaveson.
- 651** Deposited Sept 22/03 by M. Olaveson as FB-2. Collected August 1995 from acid mine drainage, Fecunis tailings, copper/nickel mine, Onaping, ON. Isolated by M. Olaveson.
- 652** Deposited Sept 22/03 by M. Olaveson as LG-1. Collected June 1997 from coal mine, Lake Lugteich, Brandenburg, Germany (GDR former East Germany). Isolated by M. Olaveson.

- 653** Deposited Sept 22/03 by M. Olaveson as LV-2. Collected August 1985 from acid mine drainage, Levack tailings, copper/nickel mine, Levack, Ontario. Isolated by M. Olaveson.
- 654** Deposited Sept 22/03 by M. Olaveson as SB-1. Collected from acid mine drainage, Quebec. Isolated by M. Olaveson.
- 655** Deposited Sept 22/03 by M. Olaveson as SM-1. Collected from acid mine drainage, Nova Scotia. Isolated by M. Olaveson.
- 656** Deposited Sept 22/03 by M. Olaveson as ST-1. Collected from acid mine drainage at tailings pipe discharge, Onaping, Ontario. Isolated by M. Olaveson.
- 657** Deposited Sept 22/03 by M. Olaveson as TM-1. Collected July 1995 from acid mine drainage, gold mine tailings, Timmins, Ontario. Isolated by M. Olaveson.
- 658** Deposited Sept 22/03 by M. Olaveson as TM-2. Collected July 1995 from acid mine drainage, gold mine tailings, Timmins, Ontario. Isolated by M. Olaveson.
- 659** Deposited Sept 22/03 by M. Olaveson as WH-1. Collected June 1999 from acid mine drainage at wheel-house, zinc/copper mine, Ear Falls, Ontario. Isolated by M. Olaveson.

Eunotia sp.

- 357** Isol. J. Pawlikowski, May/95, Point Pelee National Park, Ont., Canada. Rem: LB

Fragilaria crotenensis Kitton

- 269** Received from CCAP as 1029/8. Isol: Jaworski, 1984 from freshwater; Esthwaite Water, Cumbria, England; orig. desig. "FBA" L403. Rem: LB

Geitlerinema amphibium (Ag. ex Gom.) Anagnostidis

- 591** Isolated by Andrea Kirkwood, September 1997 from pulp and paper effluent pond as PP14 from Manitoba, Canada

Geitlerinema carotinosum (Geitler) Anagnostidis

- 586** Isolated by Andrea Kirkwood, April 1999 from pulp and paper effluent pond as PP9 from Rotorua, New Zealand

Geitlerinema sp.

- 99** Dep: J. Coleman as L/P/P. Rem: B; related to ATCC 29126 "*Geitlerinema*" sp. and PCC 7407 *Geitlerinema* Cluster 1.. Formerly listed as CPCC Lyngbya/Plectonema/Phormidium Rem: B, F
- 311** Isol. J. Acreman from sand dune near Presqu'île, Ont., Canada, March/93. Rem: B, F; clonal isolate
- 439** Isol. 09/96 by J. Acreman from effluent pond at a pulp and paper mill in Brasil. Rem: B
- 443** Isol. 11/96 by J. Acreman from reservoir in Australia. Rem: B

Gonium pectorale Muller

- 34** Dep. C. Nalewajko as #18. Rem: LB
380 Isol. T. Sawa, Nov. 1994 from lake in Algonquin Park, Ont., Canada. Rem: LB

***Gonium* sp.**

- 195** Dep. T. Sawa as 86W 0185. Rem: LB

***Haematococcus lacustris* (Girod-Chantrons) Rostaf.**

- 93** Dep. B. Colman as UTEX 16. Isol: E.G. Pringsheim from collection by F. Mainx, Czechoslovakia. Rem: LA; related to UTEX 16, SAG 34-1b, ATCC 30402, IAM C-393, CCAP 34/1b; astaxanthin (carotenoid) accumulation

***Hydrodictyon reticulatum* (L.) Laegerh.**

- 194** Dep. T. Sawa as 86W 0185. Rem: LB

***Isochrysis galbana* Parke 1949**

- 690** Deposited by CCCM as NEPCC 633. Isolated by M. Parke, 1938. Origin: Marine; fish pond, Port Erin Marine Station, Isle of Man, British Isles. (= SMBA 58, CCAP 927/1). Grows in f/2. Used in aquaculture.

***Kirchneriella* sp.**

- 609** Isolated at CPCC by A. Anton, Nov 02 from Lake Ontario, Station LV-3.

Klebsormidium rivulare

- 569** Dep. by Brian Whitton, Sept. 01 as D0547. Grows in Zn 5mg/L.

***Klebsormidium* sp.**

- 554** Dep. by Brian Whitton, Sept. 01 as D0451. Collected and isolated by B. Whitton from Copperhill, Tennessee, USA; site has following specifications: pH 3.05, metals (conc. In mg/L): Mg (92), Ca(219), MN(22), Fe(389), Zn(8.8), Cd(0.0072), Pb(0.005). Rem: medium CHU-10D with NH₄-N(7), Al, pH 3.0. Morphology in culture: filaments 7 microns wide, cells short. Not axenic.
- 555** Dep. by Brian Whitton, Sept. 01 as D0452. Collected and isolated by B. A. Whitton from Burra Burra Creek, Copperhill, Tennessee, USA. Collected 05/05/77 by B.A. Whitton; isolated by JW. Simon. medium CHU-10D with NH₄-N(7), Al, pH 3.0. Morphology in culture: long filaments. Not axenic.
- 561** Dep. by Brian Whitton, Sept. 01 as D0531. Collected and isolated by B. Whitton from Site 4006-01, Germany. Not axenic or clonal. Medium: CHU-10E + Zn (5 mg/L) (an enriched form of CHU-10D. Failed viability test in liquid nitrogen in Whitton lab.

***Leptolyngbya angustata* Casamatta et Johansen sp. nov.**

- 473** Isol. W. Vincent, 12/90 from benthic substrate of Kuparuk River, (near Toolik Lake), Alaska, USA. Id. R. Sheath, 13/05/98. Dep. W. Vincent as O-120, 19/08/98. Rem: LB; maintained 10° C. Ref: Casamatta et al., J. Phycol **41**, 421-438 (2005).

Leptolyngbya tenerrima (Kutz. ex Hansgirg) Kom. in Anagost.

- 77 Dep. B. Colman as #S.R.BROWN, Queen's University. Rem: A. formerly identified as *Phormidium molle* (Kutz.) Gom.

Lyngbya sp.

- 313 See 313 *Microcoleus acremanii*
 506 Isol. J. Acreman from brackish pond in Puerto Rico, May 1999. Rem: LB
 525 Isol. J. Acreman from Pakowki Lake (small coolie lake that dries up in summer), AB, Canada, Dec 2000. Rem: LB
 545 Isol. M. Khayatian at CPCC, Dec 2001 from tank of *Salvinia* plants at BIO 150 labs at University of Toronto. Rem: LB
 592 Isolated by Andrea Kirkwood, July 1999 as PP15 from activated sludge, AB, Canada

Mallomonas papillosa Harris & Bradley

- 449 Dep. S. Watson, 1997 as CCMP 476. Coll. freshwater, England Rem: LB

Mallomonas sp.

- 440 Dep. C. Nalewajko, 1995 as AN1-14. Coll. M. Fawley, 21 Jan 1995 from Arrowwood Lake ND, USA as under-ice sample. Rem: LB

Melosira granulata (Ehr.) Ralfs

- 396 Dep. C. Nalewajko, Nov/95. Isol. J. Pawlikowski from Buckhorn L., Ont., Canada. Rem: LB

Melosira granulata f. curvatulum (Ehr.) Ralfs

- 397 Dep. C. Nalewajko, Nov./95. Isol. from L. Biwa, Japan. Rem: LB

Melosira moniliformis (O.F. Mull.) Ag.

- 53 Dep. C. Nalewajko as M-29. Isol: C. Nalewajko from Mason Bay, N.W.T., Canada. Rem: LB; marine

Melosira sp.

- 519 Isol. Angela Gonzales, Oct 2000 from West Lake (an embayment of Lake Ontario) near Belleville, ON, Canada. Rem: LB, F

Merismopedia sp.

- 428 Isol. J. Acreman, Jun/96. Coll. Lake Biwa, Japan. Rem: LB,F
 526 Isol. A. Gonzales, Feb 2001 from Pakowki Lake (small coolie lake that dries up in summer) AB, Canada. Rem: LB; grows in BG-11 in low light at 26 C.

Mesotaenium kramstai Lemm.

- 188 Dep. T. Sawa as 86W 0260. Rem: LB

Micrasterias radiata Hassall

- 131** Isol. J. Acreman from Plastic Lake, Ont., Canada 09/87. Rem: LB
137 Isol. J. Acreman from Plastic Lake, Ont., Canada 09/87 .Rem: LB; non-clonal

Microcoleus acremanii Casamatta et Johansen sp. nov.

- 313** Isol. J. Acreman from sand dune near Presqu'île, Ont. Canada, March/93. Rem: B.
 Ref: Casamatta et al., J. Phycol **41**, 421-438 (2005).

Microcoleus antarcticus Casamatta et Johansen sp. nov.

- 474** Isol. W. Vincent, 12/90 from benthic substrate of a lake on McMurdo Ice Shelf, Antarctica (78° S, 166° E). Id. R. Sheath 13/05/98. Dep. W. Vincent and E. Tang, 19/08/98 as O-025. Rem: LB; maintained at 10° C. Ref: Casamatta et al., J. Phycol **41**, 421-438 (2005).

Microcoleus glaciei Johansen et Casamatta sp. nov.

- 475** Isol. W. Vincent, 12/90 from benthic substrate of a lake on McMurdo Ice Shelf, Antarctica (78° S, 166° E). Id. P. Broady, 1991. Dep. W. Vincent and E. Tang, 19/08/98 as O-099. Rem: LB; maintained at 10° C. Ref: Casamatta et al., J. Phycol **41**, 421-438 (2005).

Microcoleus rushforthii Johansen et Casamatta sp. nov.

- 296** Isol. J. Acreman from spring, Markham, Ont., Canada, Nov/92. Rem: LB. Ref: Casamatta et al., J. Phycol **41**, 421-438 (2005).

Microcystis aeruginosa Kutz.em. Elenkin

- 124** Isol. J. Acreman 07/87 from Heart Lake, Ont., Canada. Rem: B, non-toxic
299 Dep. E. Prepas/A. Lam as #45-2A. Isol. A. Lam from Pretzlaff Pond, Alberta, Canada, Aug 7/90. Rem: LB, Toxic strain, produces microcystin as 415 ug/g of dry weight
300 Dep. E. Prepas/A.Lam as #45-4A. Isol. A Lam from Pretzlaff Pond, Alberta, Canada, Aug.7/90. Rem: LB, Toxic strain, produces microcystin as 204 ug/g of dry weight
436 Isol. J. Acreman from Lake Biwa, Japan, July/96. Rem: LB
459 Isol. P. Gorham and A. Zehnder, Sept 27, 1954 from Little Rideau Lake, ON, Canada as NRC-1 >Jeff. Eloff > D. Parker (23/11/81)> CPCC 07/98 as UWOC #1. Rem: B; cells are coccoid and have gas vacuoles; reported as toxic by J. Eloff; toxic when studied by Gorham. (See also CPCC 468 which is an axenic strain which was reported to be derived from NRC-1 but may not be *Microcystis*. Awaiting confirmation) Equivalent to UTEX 2667. Contains fungus.
463 Isol. E.A.D. Allen and P. Gorham, 8/80 from Trampling Lake, SK, Canada as S80-93. Dep. D. Parker, July 1998 as UWOC #E3. Rem: B; produces agar-like gel; cells are bacillary, not coccoid.
464 Isol. E.A.D. Allen and P. Gorham, 8/80 from Trampling Lake, SK, Canada as S80-97. Dep. D. Parker, July 1998 as UWOC #E7. Rem: B; produces agar-like gel.

- 466** Isol. D. Parker, 8/15/82 from Lake Michigan, Green Bay, WI, USA. Dep. D. Parker, July 1998 as UWOCC # P3. Rem: B, F; gas vacuoles; coccoid cells in colonies.
- 468** Isol. A. Zehnder and P. Gorham, 27/09/54 from Little Rideau Lake, ON, Canada as NRC-1 > W.W. Carmichael (purified, 1974) > D. Parker (2/84) > CPCC as UWOCC #SS-17. Equivalents: PCC 7941; CCAP 1450/4; SAG 14.85; NIVA-CYA 31; UTEX 2386. Rem: B; cells are bacillary, not coccoid. In UTEX as non-toxic strain. May not be *Microcystis*.
- 632** Received March 2005 from UTEX as UTEX LB 2061. *isolation*: 9/48 by G.C. Gerloff from Lake Mendota; Madison, WI-USA; *deposited* in UTEX as Patterson's 1036AX (Gerloff et al. 1950); RELATIVES: CCAP 1450/1 a.k.a. *Diplocystis aeruginosa*, *Anacystis cyanea*; PCC 7005 *Microcystis* sp.; UTCC LB 73
- 633** Received March 2005 from UTEX as UTEX LB 2386. *collection*: 9/54 by A. Zehnder; Little Rideau Lake, Ontario, Canada; *isolation*: W. Carmichael; *deposition in UTEX*: 4/84 by P. Gorham as NRC-1(SS-17) nontoxic; RELATIVES: CCAP 1450/4; SAG 14.85; PCC 7941 *Microcystis aeruginosa* TYPE CULTURE; UTCC 468; NIVA CYA 31; NOTES: (Allen & Gorham 1981) . PCC lists it as toxic.

Microcystis flos-aquae Kutz. em. Elenkin

- 461** Isol. L.C. Dempsey from Fox River, Station 2, Oshkosh, WI, USA, 8/30/75. Dep. by D. Parker, July 1998 as UWOCC #C3-40. In UTEX as 2677. Rem: coccoid cells with gas vacuoles; large colonies in a copious slime layer.
- 465** Isol. D. Parker, 8/15/82 from Lake Michigan, Green Bay, WI, USA. Dep. D. Parker, July 1998 as UWOCC #N. In UTEX as 2673. Rem: B; gas vacuoles; coccoid cells in colonies

***Microcystis* sp.**

- 516** Isol. J. Acreman, Nov. 1999 from an industrial effluent pond, ON, Canada. Sample collected by C. Ferguson, Pollutech Inc. Rem: LB.
- 524** Isol. Y J. Acreman, Dec. 2000. Coll. from Pakowki Lake (small coolie lake that dries up in summer), AB, Canada. Rem; LB

***Microspora* sp.** Thuret

- 189** Dep. T. Sawa as 86W 0275. Rem: LB

***Microthamnion* sp.**

- 512** Isol. Beata Kluczyk, Dec. 1999 from salt collected at a salt graduation tower in Poland. Rem: B

Monodopsis subterranea (Petersen) Hibberd

- 116** Dep. C. Nalewajko as CCAP 848/1. Isol: 1949 by R. Lewin from wet rock in river, Marion, CT-USA; Rem: LB; related to CCAP 848/1, SAG 848-1, ATCC 30593 and UTEX 151 *Monodus subterraneus* Rem: LB

Monoraphidium braunii

- 625** Received June 8/04 from SAG collection in Germany as SAG 202 7-d. In BBM at 20 C. Axenic.

Monoraphidium contortum (Thuret) Kom.-Leg.

- 360** Isol. J. Pawlikowski, May 1994 from Point Pelee Park, Ont., Canada. Rem: LB
626 Received June 8/04 from SAG collection in Germany as SAG 4780. In BBM at 20 C. Axenic

Mougeotia sp.

- 4** Dep. P.M. Stokes as MC-41. Isol: 08/82 by P. Turner from Chub Lake, Ont., Canada. Rem: LB; Chub Lake is an acidified lake due to acid rain
134 Isol. 09/98 by J. Acreman from Plastic Lake, Ont., Canada. Rem: LB
167 Isol. 06/88 by J. Acreman from Plastic Lake, Ont., Canada. Rem: LB
168 Isol. 06/88 by J. Acreman from Plastic Lake, Ont., Canada. Rem: LB
172 Isol./ Dep. by R. Gensemer from McNearny Lake. MI-USA. Rem: LB
174 Isol. 08/88 by J. Acreman from Lake Ontario, Canada. Rem: LB
562 Dep. Brain Whitton, Sept 01 as Mougeotia D0536. Collection and isolation information are undetermined. Grown in CHU-10 pH 5.

Navicula comta

- 511** Isol. Beata Kluczyk, Dec. 1999 from salt collected from salt graduation tower, Poland. Rem: B

Navicula pelliculosa (Breb.) Hilse

- 552** Received from CCAP 26/04/02 as CCAP 1050/3c as axenic culture. Relatives: UTEX 2030. Rem: L, axenic

Navicula sp.

- 17** Dep: C. Nalewajko as FW#3. Isol: 1984 by M. O'Mahoney/ B. Paul from Plastic Lake, Ont., Canada. Rem: B
55 Dep. C. Nalewajko as M-32A. Isol: by C. Nalewajko from Mason Bay, N.W.T., Canada. Rem: B; marine
536 Isol. A. Gonzales, July 2001, from Lake Erie. Coll. by M. Twiss. Rem: B

Nitzschia palea (Kutz.) W. Smith

- 160** Dep. B. Colman/C. Rotatore as UTEX 1813. Collected 01/67 from Cedar Creek, Piscataway, NJ-USA. Isol: 01/70 M.R. Droop as axenic using antibiotics. Rem: A; used as toxicity test organism

Nitzschia sp.

- 57** Dep. C. Nalewajko as M-33. Isol: C. Nalewajko from Beaufort Sea, N.W.T., Canada. Rem: B, marine.
499 Isol. J. Acreman, Apr. 1999 from effluent pond at St. Mary's River pulp and paper mill, Sault Ste. Marie, ON, Canada. Coll. by ESG International Ltd. Rem: LB

Nostoc punctiforme (Kutz.) Hariot

- 41** Dep. C. Nalewajko as #32. Rem; B

Nostoc sp.

- 106** Dep. J. Coleman as ATCC 29411. Rem: LBF
355 Dep. M. Fiore, Nov. 1994 Isol: M. Fiore from Brasil around 1980. Rem: BF
314 Isol. J. Acreman from sand dune near Presqu'île, Ont., Canada, Mar/93. Rem: BF
387 Dep. J. Coleman, Feb. 1995 as PCC 7120 *Nostoc* sp. Cluster 3. aka *Anabaena variabilis*. Rem: A

Oocystis polymorpha Groover and Bold

- 9** Dep. P.M. Stokes as UTEX 1645. Isol: B. Richardson as contaminant from *Chlorella* culture. Rem: B
35 De. C. Nalewajko, 1987 as UTEX 80. Isol. W. Vischer, Switzerland. RELATIVES: CCAP 257/2 a.k.a. Vischer 119; SAG 257-2; ATCC 30417; Rem: B

Oscillatoria priestleyii West and West

See 476 *Phormidium lumbricale*

***Oscillatoria* sp.**

- 296** See 296 *Microcoleus acremanii* Isol. J. Acreman from spring, Markham, Ont., Canada, Nov/92. Rem: LB
393 See 393 *Arthronema gygaxiana*
486 See 487 *Phormidium* sp..
550 Isol. J. Acreman, Dec 2001. Coll. by Todd Howell from Lake Ontario, Canada

***Pandorina* sp.**

- 192** Dep. T. Sawa as 86W 0400. Rem: LB

Pediastrum tetras (Ehr.)Ralfs

- 115** Dep. C. Nalewajko as UTEX 84. Rem: LB

Pediastrum simplex? Meyen

- 431** Isol. J. Acreman from Lake Biwa, Japan, July/96. Rem: LB

***Pediastrum* sp.**

- 527** Isol. M. Khayatian, Dec 2000 from West Lake (an embayment of Lake Ontario), near Belleville, ON Canada. Rem: LB

***Pedinomonas* sp.**

- 32** Dep. C. Nalewajko as UTEX 1027. Rem: LB

Phaeodactylum tricornutum Bohlin

- 162** Collected from Plymouth, England; isolated 1910 by Allen (and E.G. Pringsheim?); Deposited in CPCC 1987 by B. Colman/ C. Rotatore as UTEX 642. RELATIVES : CCAP 1052/1a *Nitzschia closterium* f. *minutissima*; 1974 renamed by J.C. Lewin (pers. comm.);Rem: used for ecotoxicity testing. Axenic.

Phormidium animale (Ag. ex Gom.) Anag

- 578** Isolated by Andrea Kirkwood, July 2000 from pulp and paper effluent pond as PP1 from Woodland, Maine, USA

Phormidium autumnale (Ag.) Gom.

- 471** See 471 *Pseudanabaena tremula*.
579 Isolated by Andrea Kirkwood, July 2000 from pulp and paper effluent pond as PP2 from Woodland, Maine, USA

Phormidium deflexoides

- 582** Isolated by Andrea Kirkwood, June 1998 from pulp and paper effluent pond as PP5 from Lewiston, Idaho, USA
583 Isolated by Andrea Kirkwood, September 1997 from pulp and paper effluent pond as PP6 from Manitoba, Canada

Phormidium insigne

- 584** Isolated by Andrea Kirkwood, September 1996 from pulp and paper effluent pond as PP7 from Brazil

Phormidium molle (Kutz.) Gom.

- 77** See *Leptolyngbya tenerrima*.

Phormidium murrayii West and West

- 475** See **475** *Microcoleus glacei*

Phormidium lumbricale Johansen et Cassamatta sp. nov.

- 476** Isol. W. Vincent, 12/90 from substrate of a saline pond on McMurdo Ice Shelf, Antarctica (78° S, 166° E). Id. P. Broady, 1991. Dep. W. Vincent and E. Tang, 19/08/98 as O-Salt., *Oscillatoria priestleyii*. Rem: LB; maintained at 10° C in BG-11 with 5g/l of NaCl. Ref: Casamatta et al., J. Phycol **41**, 421-438 (2005).

Phormidium rimosum

- 580** Isolated by Andrea Kirkwood, July 2000 from pulp and paper effluent pond as PP3 from Woodland, Maine, USA
581 Isolated by Andrea Kirkwood, July 2000 from pulp and paper effluent pond as PP4 from Woodland, Maine, USA

Phormidium subfuscum Kutz.

- 474** See **474** *Microcoleus antarcticus*

Phormidium subproboscideum Anagnostidis & Komarek

- 470** Isol. S. Vezina 08/93 from benthic substrate of pond at Bylot Is., N. W.T., Canada (73° N, 78° W). Id. by P. Broady, 1993. Dep. 19/08/98 by W. Vincent and E. Tang as

O-151. Rem: LB; maintained at 10° C.

Phormidium tenue Gomont

- 424** Received from IAM, May/96 as IAM M-40 (= NIES 30). Isol. M. Ishikawa from rice field, Akita-city, Japan. Rem: A.
473 See 473 *Leptolyngbya angustata*

Phormidium sp.

- 487** Isol. J. A. Hellebust, 1992 from potassium mine drainage in Saskatchewan, Canada. Dep. J. Hellebust 1998 as Osc. Rem: LB; highly salt resistant. Formerly listed as *Oscillatoria* sp. Identified by Casamatta et al J. Phycol **41**, 421-438 (2005).
502 Isol. J. Acreman, 04/98 from St. Mary's Paper Mill effluent pond, St. Mary's River, Sault Ste. Marie, ON, Canada. Sample provided by J. Reid, ESG International, Guelph, ON. Rem: LB

Planktothrix rubescens (D.C. ex Gomont) Anag. & Kom.

- 506** Isol. J. Acreman, 06/99 from under-ice sample taken from Lake Wilcox, ON, Canada. Sample collected by D. Olding from a bloom producing microcystin. Possibly producing novel toxins. Rem: LB; grows best at 5-10 C in CHU-10 at pH 8.5. Possibly *Planktothrix prolifica* according to H. Kling.

Platymonas sp.

- 196** see *Tetraselmis* sp. **196**

Pinnularia sp.

- 295** Isol. J. Acreman from spring, Lemonville, Ont., Canada, Nov/92. Rem: LB

Porphyridium purpureum (Bory) Drew et Ross

- 365** Received 1994 from UTEX as UTEX 161 *Porphyridium cruentum*. Rem: A, marine, unicellular

Protosiphon botryoides (Kutz.) Klebs.

- 176** Dep. T. Sawa as 86W 0510. Rem: B

Pseudanabaena tremula Johansen et Casamatta sp. nov.

- 471** Isol. S. Vezina, 08/93 from benthic substrate of pond at Bylot Is., N. W.T. , Canada (73° N, 78° W). Id. by P. Broady, 1993. Dep. 19/08/98 by W. Vincent and E. Tang as O-152. Rem: LB; maintained at 10 C. Ref: Casamatta et al., J. Phycol **41**, 421-438 (2005).

Pseudanabaena sp.

- 593** Isolated by Andrea Kirkwood, September 1997 from pulp and paper effluent pond as PP16 from Windsor, PQ, Canada

Pseudokirchneriella subcapitata (Korshikov) Hindak

- 37** Dep. C. Nalewajko as UTEX 1648. Isol. O. Skulberg as NIVA CHL1, 1959, Norway, Akershus River Nitelva. Formerly known as *Selenastrum capricornutum*. (= CCAP 278/4, = ATCC 22662 as *Selenastrum capricornutum*. Used as a test strain for bioassays of water quality. Rem: A

Radaisia sp.

- 599** Isolated by Andrea Kirkwood, July 1999 from pulp and paper effluent pond as PP22 from Grand Prairie, Alberta, Canada

Rhodomonas minuta Skuja

- 344** Isol. R. Stemberger from L. Michigan, MI-USA, 1981. Dep. J. Gilbert, Oct/93. Rem: LB, food source for planktonic rotifers and larval stages of molluscs

Scenedesmus acutus f. *alternans* Hortobagyi

- 6** Dep. P.M. Stokes. Rem: A, derived from UTEX 72.
- 8** Dep. P.M. Stokes as UTEX 72. Rem: A
- 10** Isol. P.M. Stokes as B4 from Boucher Lake, Falconbridge, Ont., Canada, 1970. Rem: A, Cu and Ni tolerant
- 282** Isol. J. Acreman from Alice Lake, Sudbury, Ont., Canada, Jul/92. Rem: B
- 285** Isol. J. Acreman from Boucher Lake, Sudbury, Ont., Canada, Jul/92. Rem: B
- 353** Derived from CPCC 8 by D. Jin. Dep. D. Jin, Nov. 1994. Rem: B, Resistant to 5 micromole Ni

Scenedesmus denticulatus Lagerheim

- 153** Isol: J. Acreman 10/87 from Terry Lake, Ont., Canada. Rem: LB

Scenedesmus obliquus (Turp.) Kutz.

- 5** Dep. P. M. Stokes. Origin unknown. Rem: A.
- 157** Dep. C. Trick as UWO #201. Isol: from Thames River, London, Ont., Canada. Rem: LB

Scenedesmus quadricauda (Turp.) Breb.

- 158** Isol: J. Acreman 10/87 from Lake Erie at Point Pelee, Ont., Canada. Rem: LB
- 163** Dep. C. Trick as UWO #199. Rem: LB

Scenedesmus sp.

- 20** Dep. C. Nalewajko as FW #10. Isol: 1984 by M. O'Mahoney/ B. Paul from Plastic Lake, Ont., Canada. Rem: LB
- 286** Isol. J. Acreman from Boucher Lake, Sudbury, Ont., Canada, Jul/92. Rem: LB

- 297 Isol. J. Acreman from high salt seep, Toronto, Ont., Canada, Nov/92. Rem: LB
 316 Isol. J. Acreman from Plastic Lake, Ont., Canada, Sept/93. Rem: B
 317 Isol. J. Acreman from Plastic Lake, Ont., Canada, Sept/93. Rem: B
 318 Isol. J. Acreman from Plastic Lake, Ont., Canada, Sept/93. Rem: B
 319 Isol. J. Acreman from Plastic Lake, Ont., Canada, Sept/93. Rem: B
 367 Isol. J. Pawlikowski, from Opeongo L., Algonquin Park, Ont., Canada, Jul/94. Rem: LB
 423 Dep. C. Nalewajko as AN1-10. Coll. M. Fawley, 21 Jan 95 from Arrowwood Lake, ND, USA as under-ice sample. Rem: B
 531 Isol. By M. Khayatian, Feb. 2001 from West Lake (an embayment of Lake Ontario) near Belleville, ON, Canada. Rem: LB

Schizothrix calcicola (Ag.) Gom.

- 472 Isol. E. Tang, 08/95 from nearshore of Meretta Lake, Resolute, NWT, Canada (74° N, 94° W). Id. R. Sheath, 13/05/98. Dep. E. Tang 19/08/98 as E-18. Rem: LB; maintained at 10 C.

Schizothrix sp. See 543 *Anabaena* sp.

Selenastrum capricornutum Printz

- 37 See *Pseudokirchneriella subcapitata*

Selenastrum sp.

- 15 Dep. C. Nalewajko as FW #1. Isol: 1984 by M. O'Mahoney/ B. Paul from Plastic Lake, Ont., Canada. Rem: LB
 44 Dep. C. Nalewajko as #36. Rem: LB
 248 Isol: 06/90 by J. Acreman from artificial lake near Dorset, Ont., Canada. Rem: LB

Sphaerosma sp.

- 284 Isol. J. Acreman from Baby Lake, Sudbury, Ont., Canada, Jul/92. Rem: LB

Spirogyra sp.

- 169 Isol. J. Acreman 06/88 from Plastic Lake, Ont., Canada. Rem: LB

Spirulina sp.

- 695 Received August 2003 from CCCM as CCCM 7045 *Spirulina* sp. Received at CCCM as UTEX LB 2179. Collected 1972 by R.B Channell from dried-up pothole, Cumberland River, Nashville, TN, USA. Identified by F. Drouet as *Arthrospira jenneri*; deposited in UTEX by Harold C. Bold; renamed by Richard C. Starr. Freshwater species. Rem: B. Grows in BG-11 and 3N BBM. Originally accessioned as UTCC 614. This strain contained an amoeba and has now been purified and accessioned as CPCC 695.

Staurastrum arachne Ralfs

- 347 Isol. J. Acreman from Plastic Lake, Ont., Canada, Oct/93. Rem: LB

Staurastrum furcigerum Breb.

- 358** Isol. J. Pawlikowski, July 1994 from Algonquin Park, Opeongo Lake, Ont., Canada. Rem:LB

Staurastrum johnsonii West and West

- 128** Isol. J. Acreman 09/87 from Bent Shoe Lake, Ont., Canada. Rem: LB

Staurastrum orbiculare var. *ralfsii* W. and G.S. West

- 40** Dep. C. Nalewajko as UTEX 430. Isol: K. Ondracek as 4 *Cosmarium*; Czechoslovakia; identified by Cedercreutz; Rem: A; related to UTEX 430, CCAP679/2

Staurastrum cf. *sebaldi* var. *ornatum* Nordstedt

- 447** Isol. S. Watson, summer 1996 from pond on University of Calgary campus, Calgary, AB, Canada. Rem: LB

Staurastrum subpygmaceus (West) Groos.

- 386** Isol. J. Pawlikowski, Oct. 1994 from Kakakise Lake, Ont., Canada. Rem: LB

Stephanodiscus hantzschii Grunow

- 267** Received from CCAP 04/91 as CCAP 1079/4. Isol: 1983 by Jaworski from freshwater, Esthwaite Water, Cumbria, England. Rem: LB

Stichococcus baccillaris Nag.

- 177** Dep. T. Sawa as 86W 0680. Rem: A
- 563** Dep. Brian Whitton, Sept 01 as D0542. Collected 09/06/78 by P.J. Say from Site 3313-05, France. Clonal culture. Medium CHU-10E + Zn (5 mg/L). Reported by B. Whitton as viable in liquid nitrogen without cryopreservative but low survival rate.

Stichococcus sp.

- 383** Isol. J. Acreman, Oct. 1994 from Kakikase Lake, Ont., Canada. Rem: B
- 419** Isol. J. Acreman, Nov/95. Coll. as under-ice sample from North Lake, Resolute, NWT, 1995. Rem: LB
- 556** Dep. in CPCC by B.A. Whitton, Sept 01 as D0460. Collected by B.A. Whitton, isolated by C. Rajendran from Site 0127-50, England, UK. Culture clonal on 15/12/79; axenic on 25/02/80. Growth temp 15° C. Medium: CHU-10D with NH₄-N(7mg/L), Al (5 mg/L), pH 3.0.
- 557** Dep. in CPCC by B.A. Whitton, Sept 01 as D0462. Collected 11/06/77 by B.A. Whitton, isolated by J.W. Simon from Site 9008-50, USA. Medium: CHU-10D with NH₄-N(7 mg/L), Al (5mg/L), pH 3.0. Not axenic or clonal.
- 558** Dep. in CPCC by B.A. Whitton, Sept 01 as D0478. Collected 15/06/80 by B.A. Whitton, isolated by C. Rajendran from Site 9011-01, USA. Medium: CHU-10D

with NH₄-N(7 mg/L), Al (5 mg/L), pH 3.0.

- 559** Dep. in CPCC by B.A. Whitton, Sept 01 as D0479. Collected 15/03/80 by B.A. Whitton, isolated by C. Rajendran from Site 0216-15 England, UK. Culture clonal. Medium: CHU-10D with NH₄-N(7 mg/L), Al (5 m/L), pH 3.0.
- 564** Dep. in CPCC by B.A. Whitton, Sept 01 as D0544. Collected on 09/07/78 by B. A. Whitton; isolated by G. Patterson from Site 3026-01, near Decazeville, France. Site water contained Zn as 3840 mg/L and Cd 345 mg/L which is the highest ever recorded for Cd. Ref: Say and Whitton, 1982, *Annlis Limnol.* 18, 3-18. Clonal culture. Medium: CHU-10E at H 5.0 with Zn(10 mg/L), Cd (mg/L) and dimethylglutaric acid (DMG). Rem: round cells with very distinct chloroplasts sometimes aggregated into groups. Viable under liquid nitrogen.
- 604** Deposited 2002 by J. Hellebust. Rem: LB

Stigeoclonium

- 570** Dep. By Brian Whitton. Details forthcoming
- 571** Dep. By Brian Whitton. Details forthcoming

Synechococcus cedorum Sauvg.

- 79** Dep. B. Colman as UTEX LB 1191. Rem: LB

Synechococcus elongatus Nag.

- 97** Dep. K. Smith as UTEX LB 563. Rem: LB

Synechococcus leopoliensis (Racib.) Komarek

- 102** Dep. J. Coleman as UTEX 625. Collected by W. Kratz from Waller Creek, Austin, TX_USA; Isol: 1952 by M.B. Allen as axenic M2.1.1; identified by F. Drouet as *Anacystis nidulans*; renamed in 1970 by Komarek; Rem: A; related to UTEX 625; CCAP 1405/1, SAG B1402-1, ATCC 27144 *S.sp.* a.k.a? ATCC 27344 *S.sp.* a.k.a IUCC 625 phage host, PCC 6301 etc. (see UTEX catalogue for complete list)

Synechococcus sp.

- 246** Isol. 08/90 by J. Acreman from artificial pond near Dorset, Ont., Canada. Rem: LB
- 434** Isol. 07/96 by J. Acreman from Lake Biwa, Japan. Rem: LB
- 477** Isol. 08/93 by S. Vezina from pond on Bylot Island (73° N, 78° W) as P1. Id. by P. Broady 1993. Dep. W. Vincent and E. Tang, 19/08/98 as P-211. Rem: LB; DNA sequence is available.
- 478** Isol. 08/93 by S. Vezina from pond on Bylot Island (73° N, 78° W) as P2. Id. by S. Vezina 1993. Dep. W. Vincent and E. Tang, 19/08/98 as P-212. Rem: LB; DNA sequence is available.
- 479** Isol. 08/93 by S. Vezina from pond on Bylot Island (73° N, 78° W) as P3. Id. by S. Vezina 1993. Dep. W. Vincent and E. Tang, 19/08/98 as P-213. Rem: LB; DNA sequence is available.
- 480** Isol. 08/93 by S. Vezina from pond on Bylot Island (73° N, 78° W) as P4. Id. by S. Vezina 1993. Dep. W. Vincent and E. Tang, 19/08/98 as P-214. Rem: LB; DNA

sequence is available.

- 660** Deposited by George Bullerjahn May 25, 2006 as **GSL**. Derived from PCC 7942 *Synechococcus elongatus*. Collected by K. Floyd in 1973 from freshwater site in California. Bioreporter strain constructed by Osnat Gillor. Grows in BG-11 with addition of 20 ug ml⁻¹ of spectinomycin. **REMARKS:** This strain is a derivative of PCC 7942 in which a promoter fusion to the *Vibrio fischeri* luciferase genes has been engineered into the chromosome. Specifically, the nitrogen-responsive *glnA* promoter has been fused to *V. fischeri* *luxAB*. This construct allows strain KAS101 to be a luminescent biosensor (bioreporter) for bioavailable combined nitrogen in fresh water. Thus, the strain is an analytical tool for scientists to measure nitrate and ammonium availability to phytoplankton. The strain contained heterotrophic bacteria on deposition.

REFERENCES:

Gillor, O., A. Harush, O. Hadas, A.F. Post and S. Belkin. 2003. A *Synechococcus PglNA::luxAB* fusion for estimation of nitrogen bioavailability to freshwater cyanobacteria. *Appl. Env. Microbiol.* 69: 1465-1474.

- 661** Deposited by George Bullerjahn May 25, 2006 as **KAS101**. Derived from PCC 7942 *Synechococcus elongatus*. Collected by K. Floyd in 1973 from freshwater site in California. Bioreporter strain constructed by Kathryn Durham. Grows in BG-11 with addition of 20 ug ml⁻¹ each of spectinomycin and kanamycin. **REMARKS:** This strain is a derivative of PCC 7942 in which a promoter fusion to the *Vibrio fischeri* luciferase genes has been engineered into the chromosome. Specifically, the iron-responsive *isiA* promoter has been fused to *V. fischeri* *luxAB*. This construct allows strain KAS101 to be a luminescent biosensor (bioreporter) for bioavailable iron in fresh water. Thus, the strain is an analytical tool for scientists to measure iron availability to phytoplankton. The strain contained heterotrophic bacteria on deposition.

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- McKay, R.M.L., G.S. Bullerjahn, D. Porta, E.T. Brown, R.M. Sherrell, T.M. Smutka, R.W. Sterner, M.R. Twiss and S.W. Wilhelm. 2004. Consideration of the bioavailability of iron in the North American Great Lakes (review). *Aquat. Ecosyst. Health Manag.* 7: 475-490.
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- Porta, D., G.S. Bullerjahn, M.R. Twiss, S.W. Wilhelm, L. Poorvin and R.M.L. McKay. 2005. Iron bioavailability in Lake Erie (Laurentian Great Lakes) measured by means of a cyanobacterial bioreporter. *J. Great Lakes Res.* 31(supplement 2): in press.

Hassler, C.S., M.R. Twiss, R.M.L. McKay and G.S. Bullerjahn 2006. Optimization of a cyanobacterial (*Synechococcus* sp. PCC 7942) bioreporter to measure bioavailable iron. *J. Phycol.* 42: 324-335.

***Synechocystis* sp.**

- 346** Isol. C. Hauschild from Jack's Lake, Ont., Canada. Dep. F. Pick, Oct/93. Rem: LBF
- 352** Isol. J. Acreman from Plastic Lake, Ont., Canada, Nov.93. Rem: LB
- 534** Isol. By J. Acreman, Apr. 2001 from Burlington Bay, Lake Ontario, ON, Canada. Collected by S. Watson. Rem: LB

***Synedra* sp.**

- 49** Dep. C. Nalewajko as M-7. Isol. C. Nalewajko, pre-1986 from Jones Sound, N.W.T., Canada. Rem: LB

***Synura petersenii* Korshikov**

- 495** Received Feb. 199 from R. Andersen as CCMP 866. Coll. Aug 15, 1982 by R. Andersen from a shallow pond at junction of TransCanada Hwy #1 and Newfoundland Hwy 410, Newfoundland, Canada. Rem: LB

***Synura uvella* Ehr.**

- 422** Dep. C. Nalewajko 1995 as AN1-1. Coll. M. Fawley, 21 Jan 1995 from Arrowwood Lake, ND, USA as under-ice sample. Rem: LB

***Tabellaria fenestrata* (Lyngbye) Kützing**

- 601** Isolated by A. Gonzales, September 2002 from Big Pond, Bay Bulls, NF, Canada. Rem: LB
- 617** Isolated by A. Anton, November 2003 from Big Pond, Bay Bulls, NF, Canada. Rem: LB
- 618** Isolated by A. Anton, November 2003 from Big Pond, Bay Bulls, NF, Canada. Rem: LB
- 619** Isolated by J. Acreman, November 2003 from Big Pond, Bay Bulls, NF, Canada. Rem: LB

***Tabellaria flocculosa* (Roth) Kutzing.**

- 65** Isol. 11/86 by J. Acreman from Plastic Lake, Ont., Canada. Rem: LB
- 341** Isol. J. Acreman from Plastic Lake, Ont., Canada, Oct/93. Rem: LB
- 371** Isol. J. Pawlikowski, Oct. 1994 from Kakakise Lake, Ont., Canada. Rem: LB
- 372** Isol. J. Pawlikowski, Oct. 1994 from Kakakise Lake, Ont., Canada. Rem: LB

***Tabellaria* sp.**

- 166** Isol. 06/88 by J. Acreman from Plastic Lake, Ont., Canada. Rem: LB

***Tetraselmis* sp.**

196 Dep. T. Sawa as 86W 0480 *Platymonas* sp. Rem: LB

Tychonema bourellyi

594 Isolated by Andrea Kirkwood, April 1999 from pulp and paper effluent pond as PP17 from Rotorua, New Zealand

***Ulothrix* sp.**

509 Isol. C. Chung, Aug. 1999 from Boomerang Lake, near Red Lake. Metal contaminated site. Rem: B; in MAM; tolerant to 100 micromole nickel

546 Isol. By M. Khayatian at CPCC, Dec 2001 from tank of *Salvinia* plants in BIO 150 lab at University of Toronto. Rem: LB

568 Dep. by Brian Whitton.

***Uroglena* sp.**

276 Isol. 11/91 by J. Acreman as DL-1 from Dickie Lake, Ont., Canada. Rem: LB

277 Isol. 11/91 by J. Acreman as DL-2 from Dickie Lake, Ont., Canada. Rem: LB

278 Isol. 11/91 by J. Acreman as DL-4 from Dickie Lake, Ont., Canada. Rem: LB

***Urosolenia* sp.**

388 Isol. J. Acreman, March 1994 from Alice Lake, Ont., Canada. Rem: LB

***Zygonium tunetanum* Gauthier-Lievre**

136 Isol. 09/87 by J.Acreman from Plastic Lake, Ont., Canada. Rem: LB, F

Isolates of Uncertain Identity:

“ unicellular chlorophyte”

450 Isolated by A. Kirkwood from pulp and paper mill effluent pond, Windsor, ON, Canada, July 1997.

514 Isol. Beata Kluczyk Dec 1999 from salt collected at a salt graduation tower in Poland. Rem: LB

515 Isol. Beata Kluczyk Dec 1999 from salt collected at a salt graduation tower in Poland. Rem: LB

541 Isol. J. Acreman Nov. 2001 from Whitefish Bay, Lake Superior. Coll. R. McKay Jul.2001

548 Isol. J. Acreman, Dec 2001 from tank of *Salvinia* plants in BIO150 lab at University of Toronto. Rem: code name “peanut”; LB

551 Isol. J. Acreman, Dec 2001. Coll. by Todd Howell from Lake Ontario. Rem: LB

610 Isolated by J. Acreman, Nov. 02 from Lake Ontario, Station 2195.

641 CD-1 Red. Received April 2005 from George Bullerjahn. Collected May 19/04 and by George Bullerjahn from Lake Superior, Station CD1, lat 46 54.500, long 89 17.500. Isolated by Ma'moon Al_Rshaidat Jan 5/05.

"filamentous cyanobacterium"

- 74** Dep. 1988 by B. Colman as UTEX 584 *Nostoc commune*. Isol: T Gibson as 4; Scotland. Rem: Axenic. Molecular data indicates it is not *Nostoc commune*. See: Wright, Deborah, Todd Prickett, Richard Helm and Malcom Potts. 2001 Form species *Nostoc commune* (Cyanobacteria) International J. of Systematic and Evolutionary Microbiology 51: 1839-1852.
<http://ijs.sgmjournals.org/cgi/reprint/51/5/1839.pdf>
- 324** Isol. J. Acreman from St. Nora Lake, Ont., Canada, August/93
- 326** Isol. J. Acreman from St. Nora Lake, Ont., Canada, August/93
- 327** Isol. J. Acreman from Plastic Lake, Ont., Canada, August/93
- 328** Isol. J. Acreman from Plastic Lake, Ont., Canada, August/93
- 329** Isol. J. Acreman from Plastic Lake, Ont., Canada, August/93
- 330** Isol. J. Acreman from Plastic Lake, Ont., Canada, August/93
- 331** Isol. J. Acreman from Plastic Lake, Ont., Canada, August/93
- 529** Isol. J. Acreman from West Lake (an embayment of Lake Ontario), near Belleville, ON, Canada. Rem: B; dark red pigmentation

"Unicellular cyanobacterium"

- 332** Isol. J. Acreman from Plastic Lake, Ont. Canada, Sept./93
- 537** Isol. J. Acreman, July 2001 from Lake Erie, Canada. Coll. by M. Twiss. Rem: LB.
- 627.** Received August 2004 as *Microcystis aeruginosa* Strain GP1 from Harold Weger. Isolated by H. Weger from a pond in a waterfowl sanctuary in a park in Regina, SK July 2004.

Isolates of Aquatic Macrophytes***Lemna gibba* L.**

- 310** Dep. R. Roshon, May/93 as G-3. Rem: A, Ecotoxicity test organism

***Lemna minor* L.**

- 490** Isolated 1977 by E. Landolt as *L. minor* #8434. Collected by Barbara E. Giles in 1977 from Wainfleet, Stinking Barn, Niagara peninsula, ON, Canada. Deposited in CPCC Jan. 5/99 as #8434 by A. Stomp who had received it from E. Landolt. Rem: Axenic; ecotoxicity test strain.
- 491** Isolated by Perry as strain 34-62. Collected by Janet Stein 1962 from

campus of University of British Columbia, Vancouver, B.C., Canada. E. Landolt received the strain from H.L. Clark in 1968 and assigned it #7165. Deposited in CPCC Jan. 5/99 as #7165 by A. Stomp who had received it from E. Landolt. Rem: Axenic.

- 492** Isolated 1973 by E. Landolt as L. minor #7730. Collected by Brenton R. Baillie in 1973 from Elk Lake, Saanich Municipality (48° 31.5' N, 123° 23.3' W), B.C., Canada. Deposited in CPCC Jan 5/99 as #7730 by A. Stomp who had received it from E. Landolt. Rem: Axenic; ecotoxicity test strain.

Lemna trisulca L.

- 399** Dep. M. Moody, Isol. from retention pond, Saskatoon, Saskatchewan, Canada, Jul/91. Rem: LA