

Computer Code for Freshwater Life Forms of Newfoundland: Part 2 — Plants

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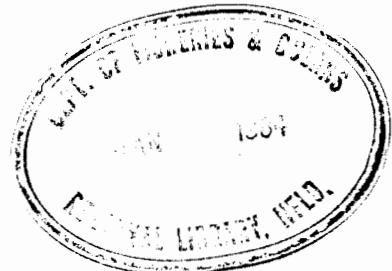
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COMPUTER CODE FOR FRESHWATER LIFE FORMS OF NEWFOUNDLAND: PART 2 - PLANTS

by

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This is the eighth Manuscript Report from
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PREFACE

This is Part 2 of two parts. The first part contains codes for animals and fish stomach content items.

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ABSTRACT

Ryan, P. M. 1983. Computer code for freshwater life forms of Newfoundland:
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A systematically structured, ten-digit, computer code for use in the study of the freshwater plants of Newfoundland was created. The code consists of two digits in each of five fields, with each field corresponding to a taxonomic rank. Nine hundred and nineteen plant taxa were assigned codes. These plant taxa consist of: 21 divisions or classes; 53 subdivisions, classes, or orders; 151 orders, suborders, or families; 241 genera; and 453 species which have been or might be recorded during freshwater investigations in Newfoundland.

Key words: freshwater plants, Newfoundland, algae, systematics, taxonomy, computer code, species code

RÉSUMÉ

Ryan, P. M. 1983. Computer code for freshwater life forms of Newfoundland:
Part 2 - Plants. Can. MS Rep. Fish. Aquat. Sci. 1729: iv + 122 p.

Un code informatique à dix chiffres systématiquement structuré a été créé pour l'étude des plantes d'eau douce de Terre-Neuve. Le code consiste en deux chiffres dans chacun des cinq domaines, chaque domaine correspondant à un rang taxonomique. Des codes ont été assignés à 919 taxons de plantes. Ces taxons de plantes comprennent: 21 divisions ou classes; 53 subdivisions, classes ou ordres; 151 ordres, sous-ordres ou familles; 241 genres; et 453 espèces qui ont été ou pourraient être répertoriées au cours de recherches sur les eaux douces à Terre-Neuve.

Mots-clés: plantes d'eau douce, Terre-Neuve, algues, systématique, taxonomie, code informatique, code d'espèce

INTRODUCTION

This publication presents a systematically structured, ten-digit, computer code for use in the study of the freshwater plants of Newfoundland. It is a companion to the animal code presented, under separate cover, as Part 1 (Ryan 1983). Its purpose is to facilitate the rapid handling and analyses of large amounts of data obtained during aquatic studies in the Province of Newfoundland by the Department of Fisheries and Oceans and other organizations or individuals.

Originally, a computer code was required to analyze large amounts of data collected from lakes and streams at the headwaters of the Northwest Gander River as part of a long-term study. Numerous computer codes for life forms had been developed but those existing codes examined were not considered acceptable for a variety of reasons. The present code was created to meet a number of criteria. The code had to: accommodate plants, animals, and fish stomach content items; have provision for the commonly used taxonomic groupings; allow for the easy sorting of data by taxonomic group; be practical for use with various levels of specimen identification; have a simple format to minimize coding errors; and have provision for extensive and rapid modification.

The code consists of two digits (00-99) in each of five fields with the identity of a plant, to a given taxonomic group, indicated by 01-99 in one or more of the five fields. This allows for the rapid sorting and analyses of data by taxonomic group and allows for a considerable addition of taxa without alteration of the systematic structure.

As the broad applicability of the code became apparent, the number of taxa assigned codes was increased with provision for: taxa from other areas of the province; taxa found outside the province; and terrestrial taxa customarily found near water. All plants found in or near the freshwaters of Newfoundland are not included in the report. However, codes are available for the inclusion of taxa as required. All taxa included may not, as yet, have been reported from Newfoundland. However, application of the code to data from outside the province is made easier by the inclusion of such taxa.

MATERIALS AND METHODS

The first field in the code for plants was used to identify the division or class, the second field the subdivision, class or order, and the third field the order, suborder, or family. The fourth and fifth fields were used to identify the genus and species, respectively. This structuring of the code, with potential for entering the class and order in either of two fields, was done to accommodate differing taxonomic schemes encountered in practice.

Plants were assigned codes starting from the non-vascular plants (slime molds, fungi, bacteria, etc.) and ranging to the vascular plants (flowering plants) with the exception of the algae. The more frequently required algae codes were obtained from near the end of the code sequence for ease of use. A systematically structured list of taxa with their corresponding codes was

prepared with spacing and unassigned codes to allow for the addition, in each copy of the report, of taxa and appropriate codes by the user, as required.

A scientific name associated with each code was entered in computer files so that data could be retrieved with associated names rather than numbers. The scientific names consist of one or two parts based on the last two coded fields and occupy a maximum of 32 characters. If a taxon is specified by digits 01-99 only in the first field (eg. plant identified only to division), only the division or class name is given. If a plant is identified beyond that level, the names corresponding to the last two fields occupied by digits 01-99 are produced. Thus, a plant identified to species has retrievable genus and species names.

As an aid to code users, all taxa, except species, were listed alphabetically with their associated codes. Thus, a user unfamiliar with order names but knowing the appropriate genus and species names could obtain most of the code for the species from the alphabetical listing of the genus and use that part of the code to obtain the full code and additional information on the taxonomic position from the systematic listing.

Systematic positions and nomenclature were obtained from a variety of sources with modification for practical application of the code. The first taxonomic separation of division or class (first field) came from Scagel et al. (1969). The second separation of subdivision, class, or order (second field) came from Scagel et al. (1969) with the addition of Sphenopsida from Fuller and Carothers (1963) and numerous algal groups from Smith (1950), Prescott (1962), and Bourrelly (1968, 1970, 1972). Further separation of plants, except algae, was based on Fassett (1957) and Britton and Brown (1970a, b, c). Further separation of algae was based on Smith (1950), Prescott (1962), Patrick and Reimer (1966, 1975), and Bourrelly (1968, 1970, 1972).

Occasionally, in the systematically structured listing of taxa, synonymous names were indicated. Only one of the synonyms was used in the list of scientific names based on the last two coded fields and the alphabetical listing of taxa.

RESULTS AND DISCUSSION

Nine hundred and nineteen taxa were included in the code for plants. These taxa consist of: 21 divisions or classes; 53 subdivisions, classes, or orders; 151 orders, suborders, or families; 241 genera; and 453 species.

Duplication of species names occurred throughout the code (eg. Anabaena flos-aquae, Aphanizomenon flos-aquae). No duplication of a genus name occurred among the plants listed. However, with both parts of the code (Part 1 - Animals, Part 2 - Plants) combined, one duplication of a genus name was encountered. Holopedium refers to H. gibberum, the zooplankter, and H. irregulare, the blue-green alga. No duplication of both genus and species names was encountered.

Plant taxa and their corresponding codes are presented in three arrangements in Appendices 1-3:

Appendix 1 - Scientific names of plants based on the last two coded fields and corresponding codes ordered by code sequence;

Appendix 2 - List of taxa other than species and corresponding codes ordered alphabetically by taxa; and,

Appendix 3 - Systematically structured list of taxa and corresponding codes ordered by code sequence.

It is certain that changes to the code will be required as more organizations and individuals make use of it and as the techniques for classifying organisms are advanced. Suggested changes should be referred to the Head, freshwater investigations, Fisheries Research Branch, Northwest Atlantic Fisheries Centre, P. O. Box 5667, St. John's, Newfoundland, A1C 5X1. Appropriate changes will be entered in each of the master copies of Appendices 1, 2, and 3. These changes may be added to individual copies of the report by users until the publication of a second edition of the report is required.

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REFERENCES

- Bourrelly, P. 1968. Les algues d'eau douce, initiation à la systématique. Tome II: Les algues jaunes et brunes; Chrysophycées, Phéophycées, Xanthophycées et Diatomées. N. Boubée et Cie., Paris: 438 p.
1970. Les algues d'eau douce, initiation à la systématique. Tome III: Les algues bleues et rouges; Les Eugléniens, Peridiniens et Cryptomonadines. N. Boubée et Cie., Paris: 512 p.
1972. Les algues d'eau douce, initiation à la systématique. Tome I: Les algues vertes. N. Boubée et Cie., Paris: 572 p.
- Britton, N. L. and Hon. A. Brown. 1970a. An illustrated flora of the northern United States and Canada. Vol. 1. 2nd ed. Dover Publ. Inc., New York: 680 p.
- 1970b. An illustrated flora of the northern United States and Canada. Vol. 2. 2nd ed. Dover Publ. Inc., New York: 735 p.
- 1970c. An illustrated flora of the northern United States and Canada. Vol. 3. 2nd ed. Dover Publ. Inc., New York: 637 p.
- Fassett, N. C. 1957. A manual of aquatic plants. Univ. Wisc. Press, Wisc.: 405 p.
- Fuller, H. J. and Z. B. Carothers. 1963. The plant world. 4th ed. Holt, Rinehart and Winston Ltd., New York: 564 p.
- Patrick, R. and C. W. Reimer. 1966. The diatoms of the United States exclusive of Alaska and Hawaii. Vol. 1. Mon. Acad. Nat. Sci. Phil. 13: 688 p.
1975. The diatoms of the United States exclusive of Alaska and Hawaii. Vol. 2, Part 1. Mon. Acad. Nat. Sci. Phil. 13: 213 p.
- Prescott, G. W. 1962. Algae of the western Great Lakes area. 2nd ed. W. C. Brown Co. Dubuque, Iowa: 977 p.
- Ryan, P. M. 1983. Computer code for freshwater life forms of Newfoundland: Part 1 - Animals. Can. MS Rep. Fish. Aquat. Sci. 1729: iv+159 p.
- Scagel, R. F., R. J. Bandoni, G. E. Rouse, W. B. Schofield, J. R. Stein, and T. M. C. Taylor. 1969. Plant diversity: an evolutionary approach. Wadsworth Publ. Co. Inc., Belmont, Calif.: 460 p.
- Smith, G. M. 1950. The fresh-water algae of the United States. 2nd ed. McGraw-Hill Book Co., New York: 719 p.

APPENDIX 1: SCIENTIFIC NAMES OF PLANTS BASED ON THE LAST TWO CODED FIELDS AND CORRESPONDING CODES ORDERED BY CODE SEQUENCE

MYXOMYCOTA	7600000000
MYXOMYCOTA MYXOMYCETES	7601000000
MYXOMYCOTA ACRAZIOMYCETES	7602000000
MYXOMYCOTA LABYRINTHULOMYCETES	7603000000
EUMYCOTA	7700000000
EUMYCOTA PHYCOMYCETES	7701000000
EUMYCOTA ASCOMYCETES	7702000000
EUMYCOTA BASIDIOMYCETES	7703000000
EUMYCOTA DEUTEROMYCETES	7704000000
SCHIZOMYCOPHYTA	7800000000
SCHIZOMYCOPHYTA SCHIZOMYCETES	7801000000
SCHIZOMYCOPHYTA MICROTATOBOTES	7802000000
BRYOPHYTA	7900000000
BRYOPHYTA HEPATICAЕ	7901000000
BRYOPHYTA ANTHOCEROTAE	7902000000
BRYOPHYTA MUSCI	7903000000
MUSCI SPHAGNIDEAE	7903010000
LYCOPHYTA	8000000000
ARTHROPHYTA	8100000000
ARTHROPHYTA SPHENOSIDA	8101000000
SPHENOSIDA EQUISETALES	8101010000
EQUISETALES EQUISETUM	8101010100
EQUISETUM FLUVIATILE	8101010101
PTEROphyta	8200000000
PTERIDOSPERMOPHYTA	8300000000
CONIFEROPHYTA	8400000000
ANTHOPHYTA	8500000000
ANTHOPHYTA DICOTYLEDONAE	8501000000
DICOTYLEDONAE CERATOPHYLLACEAE	8501010000
CERATOPHYLLACEAE CERATOPHYLLUM	8501010100
CERATOPHYLLUM DEMERSUM	8501010101
DICOTYLEDONAE CABOMBACEAE	8501020000
CABOMBACEAE BRASENIA	8501020100
BRASENIA SCHREBERI	8501020101
DICOTYLEDONAE NYMPHAEACEAE	8501030000
NYMPHAEACEAE NYMPHAEA	8501030100
NYMPHAEA ODORATA	8501030101
NYMPHAEACEAE NUPHAR	8501030200
NUPHAR VARIEGATUM	8501030201
DICOTYLEDONAE SARRACENIACEAE	8501040000
DICOTYLEDONAE DROSERACEAE	8501050000
DICOTYLEDONAE CALLITRICHACEAE	8501060000
CALLITRICHACEAE CALLITRICHE	8501060100
CALLITRICHE HETEROPHYLLA	8501060101
DICOTYLEDONAE HALORAGIDACEAE	8501070000
HALORAGIDACEAE HIPPURUS	8501070100
HALORAGIDACEAE MYRIOPHYLLUM	8501070200
DICOTYLEDONAE LENTIBULARIACEAE	8501080000
LENTIBULARIACEAE UTRICULARIA	8501080100
UTRICULARIA MACRORHIZA	8501080101

DICOTYLEDONAE LOBELIACEAE	8501090000
LOBELIACEAE LOBELIA	8501090100
LOBELIA DORTMANNA	8501090101
DICOTYLEDONAE COMPOSITAE	8501100000
COMPOSITAE ASTER	8501100100
ASTER NEMORALIS	8501100101
DICOTYLEDONAE MENYANTHACEAE	8501110000
MENYANTHACEAE MENYANTHES	8501110100
MENYANTHES TRIFOLIATA	8501110101
MENYANTHACEAE NYMPHOIDES	8501110200
ANTHOPHYTA MONOCOTYLEDONAE	8502000000
MONOCOTYLEDONAE TYPHACEAE	8502010000
TYPHACEAE TYPHA	8502010100
TYPHA LATIFOLIA	8502010101
TYPHA ANGUSTIFOLIA	8502010102
MONOCOTYLEDONAE SPARGANIACEAE	8502020000
SPARGANIACEAE SPARGANIUM	8502020100
SPARGANIUM EURYCARPUM	8502020101
SPARGANIUM ANDROCLADUM	8502020102
SPARGANIUM DIVERSIFOLIUM	8502020103
SPARGANIUM ACAULE	8502020104
SPARGANIUM ANGUSTIFOLIUM	8502020105
SPARGANIUM HYPERBOREUM	8502020106
SPARGANIUM MINIMUM	8502020107
MONOCOTYLEDONAE ZANNICHELLIACEAE	8502030000
ZANNICHELLIACEAE POTAMOGETON	8502030100
POTAMOGETON NATANS	8502030101
POTAMOGETON OAKESIANUS	8502030102
POTAMOGETON EPIHYDRUS	8502030103
POTAMOGETON ALPINUS	8502030104
POTAMOGETON PERfoliatus	8502030105
ZANNICHELLIACEAE ZANNICHELLIA	8502030200
ZANNICHELLIA PALUSTRIS	8502030201
MONOCOTYLEDONAE NAIADACEAE	8502040000
NAIADACEAE NAIAS	8502040100
NAIAS FLEXILIS	8502040101
MONOCOTYLEDONAE SCHEUCHZERIACEAE	8502050000
SCHEUCHZERIACEAE TRIGLOCHIN	8502050100
TRIGLOCHIN PALUSTRIS	8502050101
TRIGLOCHIN MARITIMA	8502050102
SCHEUCHZERIACEAE SCHEUCHZERIA	8502050200
SCHEUCHZERIA PALUSTRIS	8502050201
MONOCOTYLEDONAE ALISMACEAE	8502060000
ALISMACEAE SAGITTaria	8502060100
SAGITTaria LATIFOLIA	8502060101
SAGITTaria GRAMINEA	8502060102
MONOCOTYLEDONAE GRAMINEAE	8502070000
GRAMINEAE HOMALOCENCHRUS	8502070100
HOMALOCENCHRUS ORYZOIDES	8502070101
GRAMINEAE CALAMAGROSTIS	8502070200
CALAMAGROSTIS CANADENSIS	8502070201
GRAMINEAE CATABROSA	8502070300
CATABROSA AQUATICA	8502070301
GRAMINEAE POA	8502070400

POA TRIFLORA	8502070401
GRAMINEAE PANICULARIA	8502070500
PANICULARIA CANADENSIS	8502070501
PANICULARIA BOREALIS	8502070502
MONOCOTYLEDONAE CYPERACEAE	8502080000
CYPERACEAE ELEOCHARIS	8502080100
ELEOCHARIS PALUSTRIS	8502080101
CYPERACEAE SCIRPUS	8502080200
SCIRPUS SUBTERMINALIS	8502080201
SCIRPUS AMERICANUS	8502080202
SCIRPUS VALIDUS	8502080203
SCIRPUS OCCIDENTALIS	8502080204
SCIRPUS RUFUS	8502080205
SCIRPUS MICROCARPUS	8502080206
SCIRPUS CYPERINUS	8502080207
CYPERACEAE CAREX	8502080300
CAREX STIPATA	8502080301
CAREX ATLANTICA	8502080302
CAREX LEPTALEA	8502080303
CAREX AQUATILIS	8502080304
CAREX GYNANDRA	8502080305
CAREX CRINITA	8502080306
CAREX LACUSTRIS	8502080307
CAREX LASIOCARPA	8502080308
CAREX FLAVA	8502080309
CAREX FOLLICULATA	8502080310
CAREX RETRORSA	8502080311
CAREX HYSTRICINA	8502080312
CAREX COMOSA	8502080313
CAREX FRANKII	8502080314
CAREX INTUMESCENS	8502080315
CAREX ASA-GRAYI	8502080316
CAREX ROSTRATA	8502080317
MONOCOTYLEDONAE ARACEAE	8502090000
MONOCOTYLEDONAE LEMNACEAE	8502100000
LEMNACEAE LEMNA	8502100100
MONOCOTYLEDONAE ERIOCaulaceae	8502110000
ERIOPAULACEAE ERIOPAULON	8502110100
ERIOPAULON SEPTANGULARE	8502110101
MONOCOTYLEDONAE JUNCACEAE	8502120000
JUNCACEAE JUNCUS	8502120100
JUNCUS EFFUSUS	8502120101
JUNCUS CONGLOMERATUS	8502120102
JUNCUS FILIFORMIS	8502120103
JUNCUS BUFONIUS	8502120104
JUNCUS DUDLEYI	8502120105
JUNCUS MILITARIS	8502120106
JUNCUS ARTICULATUS	8502120107
MONOCOTYLEDONAE MELANTHACEAE	8502130000
MONOCOTYLEDONAE LILIACEAE	8502140000
MONOCOTYLEDONAE CONVALLARIACEAE	8502150000
MONOCOTYLEDONAE IRIDACEAE	8502160000

IRIDACEAE IRIS	8502160100
IRIS VERSICOLOR	8502160101
IRIS HOOKERI	8502160102
CYANOPHYTA	8600000000
CYANOPHYTA CHROOCOCCALES	8601000000
CHROOCOCCALES CHROOCOCCACEAE	8601010000
CHROOCOCCACEAE CHROOCOCCUS	8601010100
CHROOCOCCUS LIMNETICUS	8601010101
CHROOCOCCUS PRESCOTTII	8601010102
CHROOCOCCACEAE MERISMOPEDIA	8601010200
MERISMOPEDIA ELEGANS	8601010201
MERISMOPEDIA MAJOR	8601010202
MERISMOPEDIA GLAUCA	8601010203
MERISMOPEDIA TROLLERI	8601010204
MERISMOPEDIA TENUISSIMA	8601010205
MERISMOPEDIA CONVOLUTA	8601010206
CHROOCOCCACEAE GLOEOPCAPSA	8601010300
GLOEOPCAPSA MAJOR	8601010301
GLOEOPCAPSA PUNCTATA	8601010302
CHROOCOCCACEAE MICROCYSTIS	8601010400
MICROCYSTIS AERUGINOSA	8601010401
MICROCYSTIS FLOS-AQUAE	8601010402
MICROCYSTIS ROBUSTA	8601010403
CHROOCOCCACEAE APHANOCAPSA	8601010500
APHANOCAPSA ELACHISTA	8601010501
APHANOCAPSA PULCHRA	8601010502
CHROOCOCCACEAE EUCAPSIS	8601010600
EUCAPSIS ALPINA	8601010601
CHROOCOCCACEAE COELOSPHAERIUM	8601010700
COELOSPHAERIUM NAEGELIANUM	8601010701
CHROOCOCCACEAE DACTYLOCOCCOPSIS	8601010800
DACTYLOCOCCOPSIS ACICULARIS	8601010801
CHROOCOCCACEAE SYNECHOCOCCUS	8601010900
CHROOCOCCACEAE HOLOPEDIUM	8601011000
HOLOPEDIUM IRREGULARE	8601011001
CHROOCOCCACEAE APHANOTHECE	8601011100
APHANOTHECE CASTAGNEI	8601011101
APHANOTHECE NIDULANS	8601011102
APHANOTHECE ALASCENSE	8601011103
CHROOCOCCACEAE RABDODERMA	8601011200
RABDODERMA LINEARE	8601011201
RABDODERMA SIGMOIDEA	8601011202
RABDODERMA IRREGULARE	8601011203
CHROOCOCCACEAE GOMPHOSPHAERIA	8601011300
GOMPHOSPHAERIA LACISTRIS	8601011301
GOMPHOSPHAERIA APONINA	8601011302
CHROOCOCCACEAE SYNECHOCYSTIS	8601011400
SYNECHOCYSTIS AQUATILIS	8601011401
CHROOCOCCACEAE GLOEOTHECE	8601011500
CHROOCOCCACEAE ENTOPHYSALIDACEAE	8601020000
ENTOPHYSALIDACEAE PARACAPSA	8601020100
CYANOPHYTA CHAMAESIPHONALES	8602000000

CHAMAE SIPHONALES PLEUROCAPSACEAE	8602010000
PLEUROCAPSACEAE MYXOSARCINA	8602010100
PLEUROCAPSACEAE PLEUROCAPSA	8602010200
PLEUROCAPSA MINOR	8602010201
CHAMAE SIPHONALES DERMOCARPACEAE	8602020000
CHAMAE SIPHONAL CHAMAE SIPHONACEAE	8602030000
CHAMAE SIPHONACEAE CHAMAE SIPHON	8602030100
CYANOPHYTA OSCILLATORIALES	8603000000
OSCILLATORIALES OSCILLATORIACEAE	8603010000
OSCILLATORIACEAE OSCILLATORIA	8603010100
OSCILLATORIACEAE PHORMIDIUM	8603010200
OSCILLATORIACEAE TRICHODESMIUM	8603010300
TRICHODESMIUM LACUSTRE	8603010301
OSCILLATORIACEAE LYNGBYA	8603010400
LYNGBYA CONTORTA	8603010401
LYNGBYA MUCICOLA	8603010402
OSCILLATORIACEAE PSEUDANABAENA	8603010500
PSEUDANABAENA CATENATA	8603010501
OSCILLATORIALES NOSTOCACEAE	8603020000
NOSTOCACEAE NOSTOC	8603020100
NOSTOCACEAE NODULARIA	8603020200
NOSTOCACEAE ANABAENA	8603020300
ANABAENA FLOS-AQUAE	8603020301
ANABAENA LIMNETICA	8603020302
NOSTOCACEAE APHANIZOMENON	8603020400
APHANIZOMENON FLOS-AQUAE	8603020401
OSCILLATORIALES SCYTONEMATACEAE	8603030000
SCYTONEMATACEAE SCYTONEMA	8603030100
SCYTONEMATACEAE TOLYPOTHRIX	8603030200
OSCILLATORIALES STIGONEMATACEAE	8603040000
STIGONEMATACEAE STIGONEMA	8603040100
STIGONEMA OCELLATUS	8603040101
STIGONEMATACEAE HAPALOSIPHON	8603040200
HAPALOSIPHON HIBERNICUS	8603040201
OSCILLATORIALES RIVULARIACEAE	8603050000
RIVULARIACEAE CALOTHRIX	8603050100
OSCILLATORIALES MASTIGOCLADACEAE	8603060000
MASTIGOCLADACEAE MASTIGOCLADUS	8603060100
MASTIGOCLADUS LAMELLOSUS	8603060101
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CHLOROPHYCEAE VOLVOCALES	8701000000
VOLVOCALES POLYBLEPHARIDACEAE	8701010000
VOLVOCALES CHLAMYDOMONADACEAE	8701020000
CHLAMYDOMONADACEAE CHLAMYDOMONAS	8701020100
CHLAMYDOMONAS GLEOPARA	8701020101
CHLAMYDOMONAS FRIGIDA	8701020102
CHLAMYDOMONAS DINOBRYONI	8701020103
CHLAMYDOMONADACEAE POLYTOMA	8701020200
CHLAMYDOMONADACEAE CHLOROMONAS	8701020300
CHLAMYDOMONADACEAE CARTERIA	8701020400
VOLVOCALES PHACOTACEAE	8701030000
VOLVOCALES VOLVOCACEAE	8701040000

VOLVOCACEAE GONIUM	8701040100
GONIUM SOCIALE	8701040101
VOLVOCACEAE VOLVOX	8701040200
VOLVOCACEAE PANDORINA	8701040300
PANDORINA MORUM	8701040301
VOLVOCACEAE PLEODORINA	8701040400
VOLVOCACEAE EUDORINA	8701040500
EUDORINA ELEGANS	8701040501
VOLVOCALES SPONDYLOMORACEAE	8701050000
VOLVOCALES HAEMATOCOCCACEAE	8701060000
VOLVOCALES PYRAMIMONACEAE	8701070000
PYRAMIMONACEAE GYROMITUS	8701070100
CHLOROPHYCEAE TETRASPORALES	8702000000
TETRASPORALES PALMELLACEAE	8702010000
PALMELLACEAE GLOEOCYSTIS	8702010100
GLOEOCYSTIS MAJOR	8702010101
GLOEOCYSTIS AMPLA	8702010102
GLOEOCYSTIS GIGAS	8702010103
GLOEOCYSTIS VESICULOSA	8702010104
GLOEOCYSTIS APONINA	8702010105
GLOEOCYSTIS PLANCTONICA	8702010106
PALMELLACEAE PALMELLA	8702010200
PALMELLA MUCOSA	8702010201
PALMELLACEAE SPHAEROCYSTIS	8702010300
SPHAEROCYSTIS SCHROETERI	8702010301
PALMELLACEAE ASTEROCOCCUS	8702010400
ASTEROCOCCUS LIMNETICUS	8702010401
PALMELLACEAE PLANCTOCOCCUS	8702010500
PLANCTOCOCCUS ALSIUS	8702010501
PLANCTOCOCCUS GELATINOSA	8702010502
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TETRASPORACEAE TETRASPORA	8702020100
TETRASPORA LAMELLOSA	8702020101
TETRASPORA LACUSTRIS	8702020102
TETRASPORA MINIMUM	8702020103
TETRASPORALES CHLORANGIACEAE	8702030000
TETRASPORALES COCCOMYXACEAE	8702040000
COCCOMYXACEAE ELAKATOTHRIX	8702040100
ELAKATOTHRIX GELATINOSA	8702040101
CHLOROPHYCEAE ULOTRICHALES	8703000000
ULOTRICHALES ULOTRICHACEAE	8703010000
ULOTRICHACEAE ULOTHRIX	8703010100
ULOTRICHACEAE BINUCLEARIA	8703010200
BINUCLEARIA TECTORUM	8703010201
ULOTRICHALES MICROSPORACEAE	8703020000
MICROSPORACEAE MICROSPORA	8703020100
ULOTRICHALES CYLINDROCAPSACEAE	8703030000
CYLINDROCAPSACEAE CYLINDROCAPSA	8703030100
CYLINDROCAPSA GEMINELLA	8703030101
ULOTRICHALES CHAETOPHORACEAE	8703040000
CHAETOPHORACEAE THAMNIOCHAETE	8703040100
CHAETOPHORACEAE CHAETOPHORA	8703040200

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ULOTRICHALES COLEOCHAETACEAE	8703060000
COLEOCHAETACEA CHAETOSPHAERIDIUM	8703060100
CHAETOSPHAERIDIUM PRINGSHEIMII	8703060101
ULOTRICHALES TRENTEPOLIACEAE	8703070000
ULOTRICHALES SPHAEROPLEACEAE	8703080000
CHLOROPHYCEAE ULVALES	8704000000
ULVALES ULVACEAE	8704010000
ULVALES SCHIZOMERIDACEAE	8704020000
CHLOROPHYCEAE SCHIZOGONIALES	8705000000
SCHIZOGONIALES SCHIZOGONIACEAE	8705010000
CHLOROPHYCEAE OEDOGONIALES	8706000000
OEDOGONIALES OEDOGONIACEAE	8706010000
OEDOGONIACEAE BULBOCHAETE	8706010100
OEDOGONIACEAE OEDOGONIUM	8706010200
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CLADOPHORALES CLADOPHORACEAE	8707010000
CHLOROPHYCEAE CHLOROCOCCALES	8708000000
CHLOROCOCCALES CHLOROCOCCACEAE	8708010000
CHLOROCOCCALES ENDOSPHAERACEAE	8708020000
CHLOROCOCCALES MICRACTINIACEAE	8708030000
MICRACTINIACEAE GOLENKINIOSIS	8708030100
MICRACTINIACEAE GOLENKINIA	8708030200
GOLENKINIA RADIATA	8708030201
CHLOROCOCCALE DICTYOSPHAERIACEAE	8708040000
DICTYOSPHAERIACE DICTYOSPHAERIUM	8708040100
DICTYOSPHAERIUM PULCHELLUM	8708040101
DICTYOSPHAERIUM EHRENBURGIANUM	8708040102
DICTYOSPHAERIACEA DIMORPHOCOCCUS	8708040200
DIMORPHOCOCCUS LUNATUS	8708040201
DICTYOSPHAERIACEAE BOTRYOCOCCUS	8708040300
DICTYOSPHAERIACEAE BRAUNII	8708040301
CHLOROCOCCALES CHARACIACEAE	8708050000
CHARACIACEAE SCHROEDERIA	8708050100
SCHROEDERIA SETIGERA	8708050101
SCHROEDERIA JUDAYI	8708050102
CHARACIACEAE CHARACIUM	8708050200
CHARACIUM AMBIGUUM	8708050201
CHARACIUM ORNITHOCEPHALUM	8708050202
CHLOROCOCCALES PROTOSIPHONACEAE	8708060000
CHLOROCOCCALES HYDRODICTYACEAE	8708070000
HYDRODICTYACEAE PEDIASTRUM	8708070100
PEDIASTRUM BORYANUM	8708070101
PEDIASTRUM TETRAS	8708070102
PEDIASTRUM OBTUSUM	8708070103
PEDIASTRUM SIMPLEX	8708070104
CHLOROCOCCALES COELASTRACEAE	8708080000
COELASTRACEAE COELASTRUM	8708080100
COELASTRUM BRAUNII	8708080101
COELASTRUM SCABRUM	8708080102
COELASTRUM CAMBRICUM	8708080103
COELASTRUM MICROPORUM	8708080104

CHLOROCOCCALES OOCYSTACEAE	8708090000
OOCYSTACEAE OOCYSTIS	8708090100
OOCYSTIS SUBTILISSIMA	8708090101
OOCYSTIS LACISTRIS	8708090102
OOCYSTIS ELLIPTICA	8708090103
OOCYSTACEAE KIRCHNERIELLA	8708090200
KIRCHNERIELLA OBESA	8708090201
OOCYSTACEAE ANKISTRODESMUS	8708090300
ANKISTRODESMUS FALCATUS	8708090301
ANKISTRODESMUS FRACTUS	8708090302
ANKISTRODESMUS SPIRALIS	8708090303
OOCYSTACEAE WESTELLA	8708090400
WESTELLA BOTRYOIDES	8708090401
WESTELLA LINEARIS	8708090402
OOCYSTACEAE SELENASTRUM	8708090500
SELENASTRUM MINUTA	8708090501
OOCYSTACEAE QUADRIGULA	8708090600
QUADRIGULA LACISTRIS	8708090601
QUADRIGULA CLOSTEROIDES	8708090602
OOCYSTACEAE TETRAEDRON	8708090700
TETRAEDRON MINUTA	8708090701
TETRAEDRON CAUDATUM	8708090702
TETRAEDRON REGULARE	8708090703
TETRAEDRON MINIMUM	8708090704
TETRAEDRON PENTAEDRICUM	8708090705
OOCYSTACEAE SCOTIELLA	8708090800
SCOTIELLA NIVALIS	8708090801
OOCYSTACEAE CHODATELLA	8708090900
CHODATELLA QUADRISETA	8708090901
CHLOROCOCCALES SCENEDESMACEAE	8708100000
SCENEDESMACEAE SCENEDESMUS	8708100100
SCENEDESMUS BIJUGA	8708100101
SCENEDESMUS DENTICULATUS	8708100102
SCENEDESMUS QUADRICAUDA	8708100103
SCENEDESMUS ABUNDANS	8708100104
SCENEDESMUS DIMORPHUS	8708100105
SCENEDESMACEAE TETRALLANTOS	8708100200
SCENEDESMACEAE CRUCIGENIA	8708100300
CRUCIGENIA QUADRATA	8708100301
CRUCIGENIA RECTANGULARIS	8708100302
CRUCIGENIA TETRAPEDIA	8708100303
CHLOROCOCCALES RADIOCOCCACEAE	8708110000
RADIOCOCCACEAE PHACOMYXA	8708110100
PHACOMYXA SPHAGNICA	8708110101
CHLOROPHYCEAE SIPHONALES	8709000000
SIPHONALES PHYLLOSIPHONACEAE	8709010000
SIPHONALES DICHOTOMOSIPHONACEAE	8709020000
CHLOROPHYCEAE ZYGNEMATALES	8710000000
ZYGNEMATALES ZYGNEMATACEAE	8710010000
ZYGNEMATACEAE MOUGEOTIA	8710010100
ZYGNEMATACEAE SPIROGYRA	8710010200
ZYGNEMATACEAE ZYGNEMA	8710010300

ZYGNEMATALES MESOTAENIACEAE	8710020000
MESOTAENIACEAE GONATOZYGON	8710020100
GONATOZYGON MONOTAENIUM	8710020101
GONATOZYGON KIHNAHANI	8710020102
MESOTAENIACEAE CYLINDROCYSTIS	8710020201
ZYGNEMATALES DESMIDIACEAE	8710030000
DESMIDIACEAE ARTHRODESMUS	8710030100
ARTHRODESMUS TENUISSIMUS	8710030101
ARTHRODESMUS INCUS	8710030102
ARTHRODESMUS TRIANGULARIS	8710030103
ARTHRODESMUS RALFSII	8710030104
ARTHRODESMUS SUBULATUS	8710030105
ARTHRODESMUS VALIDUS	8710030106
DESMIDIACEAE COSMARIUM	8710030200
COSMARIUM PUNCTUATUM	8710030201
COSMARIUM CONTRACTUM	8710030202
COSMARIUM MARGARITATUM	8710030203
COSMARIUM BIOCULATUM	8710030204
COSMARIUM ABRUPTUM	8710030205
DESMIDIACEAE DESMIDIUM	8710030300
DESMIDIUM CYLINDRICUM	8710030301
DESMIDIUM GREVILLII	8710030302
DESMIDIUM BAILEYI	8710030303
DESMIDIACEAE EUASTRUM	8710030400
EUASTRUM DIDELTA	8710030401
EUASTRUM ANSATUM	8710030402
EUASTRUM CRASSUM	8710030403
EUASTRUM PINNATUM	8710030404
EUASTRUM VERRUCOSUM	8710030405
EUASTRUM ABRUPTUM	8710030406
EUASTRUM ELEGANS	8710030407
DESMIDIACEAE PLEUROTAENIUM	8710030500
PLEUROTAENIUM NODOSUM	8710030501
PLEUROTAENIUM NODULOSUM	8710030502
PLEUROTAENIUM CORONATUM	8710030503
PLEUROTAENIUM TRABECULA	8710030504
PLEUROTAENIUM EHRENBURGII	8710030505
PLEUROTAENIUM VERRUCOSUM	8710030506
DESMIDIACEAE BAMBUSINA	8710030600
BAMBUSINA BREBISSONII	8710030601
BAMBUSINA BARRERI	8710030602
DESMIDIACEAE SPHAEROZOSMA	8710030700
SPHAEROZOSMA EXCAVATA	8710030701
DESMIDIACEAE SONDYLOSIMUM	8710030800
SONDYLOSIMUM PLANUM	8710030801
SONDYLOSIMUM PULCHRUM	8710030802
DESMIDIACEAE XANTHIDIUM	8710030900
XANTHIDIUM ANTILOPAEUM	8710030901
XANTHIDIUM ARMATUM	8710030902
XANTHIDIUM CRISTATUM	8710030903
XANTHIDIUM PSEUDOBENGALICUM	8710030904
DESMIDIACEAE TRIPLOCERAS	8710031000

TRILOCERAS GRACILE	8710031001
TRILOCERAS VERTICULATUM	8710031002
DESMIDIACEAE MICRASTERIAS	8710031100
MICRASTERIAS LATICEPTS	8710031101
MICRASTERIAS MAHABULESHWARENSIS	8710031102
MICRASTERIAS APICULATA	8710031103
MICRASTERIAS MURICATA	8710031104
MICRASTERIAS DENTICULATA	8710031105
MICRASTERIAS FOLIACEAE	8710031106
MICRASTERIAS JOHNSONII	8710031107
MICRASTERIAS RADIATA	8710031109
MICRASTERIAS RADIOSA	8710031110
MICRASTERIAS ROTATA	8710031111
MICRASTERIAS CONFERTA	8710031112
MICRASTERIAS JENNERII	8710031113
MICRASTERIAS PAPILLIFERA	8710031114
MICRASTERIAS MUCOSA	8710031115
DESMIDIACEAE STAURASTRUM	8710031200
STAURASTRUM CURVATUM	8710031201
STAURASTRUM ANATINUM	8710031202
STAURASTRUM ANKYROIDES	8710031203
STAURASTRUM ARTISTIFERUM	8710031204
STAURASTRUM BREVISPINUM	8710031205
STAURASTRUM COMPTUM	8710031206
STAURASTRUM FURCIGERUM	8710031207
STAURASTRUM GRALLATORIUM	8710031208
STAURASTRUM JOHNSONI	8710031209
STAURASTRUM LACUSTRE	8710031210
STAURASTRUM MANFELDTII	8710031211
STAURASTRUM MUCRONATUM	8710031212
STAURASTRUM NATATOR	8710031213
STAURASTRUM OPHIURA	8710031214
STAURASTRUM PACHYRHYNCHUM	8710031215
STAURASTRUM PARADOXUM	8710031216
STAURASTRUM PENTACERUM	8710031217
STAURASTRUM MEGACANTHUM	8710031218
STAURASTRUM GLADIOSUM	8710031219
STAURASTRUM LEPTOCLADUM	8710031220
STAURASTRUM LIMNETICUM	8710031221
STAURASTRUM AVICULA	8710031222
STAURASTRUM GRANDE	8710031223
STAURASTRUM ARCTISCON	8710031224
STAURASTRUM AVERSUM	8710031225
STAURASTRUM BOREALE	8710031226
STAURASTRUM CINGULUM	8710031227
STAURASTRUM DICKIEI	8710031228
STAURASTRUM ELONGATUM	8710031229
STAURASTRUM O'MEARII	8710031230
STAURASTRUM PELAGICUM	8710031231
STAURASTRUM TETRACERUM	8710031232
STAURASTRUM GRACILE	8710031233
DESMIDIACEAE HYALOTHECA	8710031300

HYALOTHECA DISSILIENS	8710031301
HYALOTHECA QUADRIDENS	8710031302
HYALOTHECA MUCOSA	8710031303
DESMIDIACEAE CLOSTERIUM	8710031400
CLOSTERIUM SETACEUM	8710031401
CLOSTERIUM KUTZINGII	8710031402
CLOSTERIUM PARIENTANA	8710031403
DESMIDIACEAE GROENBLADIA	8710031500
GROENBLADIA NEGLECTA	8710031501
DESMIDIACEAE STAURODESMUS	8710031600
DESMIDIACEAE GYMNOZYGA	8710031700
GYMNOZYGA MONILIFORMIS	8710031701
DESMIDIACEAE PENIUM	8710031800
PENIUM OBTUSA	8710031801
DESMIDIACEAE AMSCOTTIA	8710031900
AMSCOTTIA MIRA	8710031901
CHLOROPHYCEAE CHAROPHYCEAE	8711000000
CHAROPHYCEAE CHARACEAE	8711010000
CHARACEAE CHARA	8711010100
CHARACEAE NITELLA	8711010200
CHARACEAE TOLYPELLA	8711010300
EUGLENOPHYCEAE	8800000000
EUGLENOPHYCEAE EUGLENALES	8801000000
EUGLENALES EUGLENACEAE	8801010000
EUGLENACEAE TRACHELOMONAS	8801010100
EUGLENACEAE EUGLENA	8801010200
EUGLENACEAE PHACUS	8801010300
EUGLENACEAE STROMBOMONAS	8801010400
EUGLENALES ASTASIACEAE	8801020000
EUGLENALES PERANEMACEAE	8801030000
EUGLENOPHYCEAE COLACIALES	8802000000
COLACIALES COLIACIACEAE	8802010000
COLIACIACEAE COLACIUM	8802010100
COLACIUM CALVUM	8802010101
COLACIUM VESICULOSUM	8802010102
XANTHOPHYCEAE	8900000000
XANTHOPHYCEAE RHIZOCHLORIDALES	8901000000
RHIZOCHLORIDALE STIPITOCOCCACEAE	8901010000
STIPITOCOCCACEAE RHIZOCHLORIS	8901010100
XANTHOPHYCEAE HETEROCAPSALES	8902000000
HETEROCAPSALES CHLOROSACCACEAE	8902010000
HETEROCAPSALES MALLEODENDRACEAE	8902020000
XANTHOPHYCEAE HETEROCOCCALES	8903000000
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HETEROCOCCALES GLOEOPBOTRYDIACEAE	8903020000
HETEROCOCCALES MISCHOCOCCACEAE	8903030000
HETEROCOCCALES CHARACIOPSISDACEAE	8903040000
CHARACIOPSISDACEAE CHARACIOPSIS	8903040100
CHARACIOPSISDACEAE PERONIELLA	8903040200
PERONIELLA HYALOTHECAE	8903040201
HETEROCOCCALES CHLOROPEDIACEAE	8903050000
HETEROCOCCALES CENTRITRACTACEAE	8903060000

CENTRITRACTACEA PSEUDOTETRAEDRON	8903060100
PSEUDOTETRAEDRON NEGLECTUM	8903060101
HETEROCOCCALES CHLOROTHECIACEAE	8903070000
XANTHOPHYCEAE HETEROTRICHALES	8904000000
HETEROTRICHALES TRIBONEMATAEAE	8904010000
TRIBONEMATAEAE TRIBONEMA	8904010100
HETEROTRICHALES MONOCILIACEAE	8904020000
XANTHOPHYCEAE HETEROSIPHONALES	8905000000
HETEROSIPHONALES BOTRYDIACEAE	8905010000
HETEROSIPHONALES VAUCHERIACEAE	8905020000
CHYSOPHYCEAE	9000000000
CHYSOPHYCEAE CHRYSOMONADALES	9001000000
CHRYSOMONADALES CHROMULINACEAE	9001010000
CHROMULINACEAE KEPHYRION	9001010100
KEPHYRION CINCTUM	9001010101
KEPHYRION LITTORALE	9001010102
KEPHYRION BORALE	9001010103
KEPHYRION VALKANOVII	9001010104
KEPHYRION FULVUM	9001010105
CHROMULINACEAE CHROMULINA	9001010200
CHROMULINA MINUTA	9001010201
CHROMULINA GLACIALIS	9001010202
CHROMULINACEAE BICOECA	9001010300
BICOECA MITRA	9001010301
BICOECA CYLINDRICA	9001010302
CHROMULINACEAE CHRYSOCOCCUS	9001010400
CHRYSOCOCCUS RADIAN	9001010401
CHROMULINACEAE CHRYSOPYXIS	9001010500
CHROMULINACEAE CODOMONAS	9001010600
CODOMONAS ANNULATA	9001010601
CHRYSOMONADALES MALLOMONADACEAE	9001020000
MALLOMONADACEAE CHRYSOSPHAERELLA	9001020100
CHRYSOSPHAERELLA LONGISPINA	9001020101
MALLOMONADACEAE MALLOMONAS	9001020200
MALLOMONAS LIEBNERI	9001020201
MALLOMONAS ELONGATA	9001020202
MALLOMONAS PUMILLIO	9001020203
MALLOMONAS AKROKOMONAS	9001020204
MALLOMONAS LYNCHENSIS	9001020205
MALLOMONAS TONSURATA	9001020206
MALLOMONAS PSEUDOCORONATA	9001020207
MALLOMONAS CAUDATA	9001020208
CHRYSOMONADALES SYNCRYPTACEAE	9001030000
CHRYSOMONADALES SYNURACEAE	9001040000
SYNURACEAE SYNURA	9001040100
SYNURA ADAMSII	9001040101
SYNURA CAROLINIANA	9001040102
SYNURA URELLA	9001040103
SYNURA LAPPONICA	9001040104
SYNURACEAE CHRYSODIDYMUS	9001040200
SYNURACEAE CONRADIILLA	9001040300
CHRYSOMONA COCCOLITHOPHORIDACEAE	9001050000

CHYSOMONADEALES	OCHROMONADACEAE	9001060000
OCHROMONADACEAE	OCHROMONAS	9001060100
OCHROMONAS	GLOBOSA	9001060101
OCHROMONADACEAE	CYCLONEXIS	9001060200
OCHROMONADACEAE	CHRYSOXYS	9001060300
CHRYSOXYS	MAJOR	9001060301
OCHROMONADACEAE	UROGLENA	9001060400
UROGLENA	VOLVOX	9001060401
OCHROMONADACEAE	UROGLENOPSIS	9001060500
UROGLENOPSIS	AMERICANA	9001060501
OCHROMONADACEAE	HYALOBRYON	9001060600
OCHROMONADACEAE	EPIPYXIS	9001060700
EPIPYXIS	DIPLOSTOMA	9001060701
EPIPYXIS	RAMOSA	9001060702
EPIPYXIS	UTRICULUS	9001060703
OCHROMONADACEAE	DINOBRYON	9001060800
DINOBRYON	BAVARICUM	9001060801
DINOBRYON	DIVERGENS	9001060802
DINOBRYON	SERTULARIA	9001060803
DINOBRYON	SOCIALE	9001060804
DINOBRYON	CYLINDRICUM	9001060805
DINOBRYON	BORGEI	9001060806
OCHROMONADACEAE	PSEUDOKEPHYRION	9001060900
PSEUDOKEPHYRION	PLANCTONICUM	9001060901
PSEUDOKEPHYRION	MINUTISSIMUM	9001060902
PSEUDOKEPHYRION	LATUM	9001060903
PSEUDOKEPHYRION	SKUJAE	9001060904
OCHROMONADACEAE	CHYSOLYKOS	9001061000
CHYSOLYKOS	SKUJAI	9001061001
CHYSOLYKOS	PLANCTONICUS	9001061002
OCHROMONADACEAE	CHYSOIKOS	9001061100
CHYSOIKOS	BICORNIS	9001061101
OCHROMONADACEAE	DENDROMONAS	9001061200
DENDROMONAS	CRYPTOSTYLIS	9001061201
OCHROMONADACEAE	STYLOCHYSALLIS	9001061300
STYLOCHYSALLIS	PARASITICA	9001061301
CHYSOMONADEALES	PRYMNESIACEAE	9001070000
PRYMNESIACEAE	CHYSOCHROMULINA	9001070100
CHYSOCHROMULINA	PARVA	9001070101
CHYSOPHYCEAE	RHIZOCHRYSIDALES	9002000000
RHIZOCHRYSIDAL	RHIZOCHRYSIDACEAE	9002010000
RHIZOCHRYSIDACEAE	CHYSAMOEBA	9002010100
CHYSAMOEBA	RADIANS	9002010101
RHIZOCHRYSIDACEAE	RHIZOCHRYYSIS	9002010200
RHIZOCHRYYSIS	LIMNETICA	9002010201
RHIZOCHRYSIDACEAE	BITRICHIA	9002010300
BITRICHIA	CHODATI	9002010301
RHIZOCHRYSIDACEAE	HELIOPHYYSIS	9002010400
HELIOPHYYSIS	RADIANS	9002010401
RHIZOCHRYSIDACEAE	LAGYNION	9002010500
LAGYNION	FULVUM	9002010501
LAGYNION	SCHERFFELI	9002010502

LAGYNION OBLONGATUM	9002010503
CHRYSTOPHYCEAE CHRYSOCAPSALES	9003000000
CHRYSOCAPSALES CHRYSOCAPSACEAE	9003010000
CHRYSOCAPSACEAE CHRYSOCAPSA	9003010100
CHRYSOCAPSA PLANCTONICA	9003010101
CHRYSOCAPSALES NAEGELIELLACEAE	9003020000
NAEGELIELLACEAE NAEGELIELLA	9003020100
NAEGELIELLA FLAGELLIFERA	9003020101
CHRYSOCAPSALES HYDRURACEAE	9003030000
CHRYSTOPHYCEAE CHRYSOTRICHALES	9004000000
CHRYSOTRICHALES PHAEOTHAMNIACEAE	9004010000
CHRYSTOPHYCEAE CHRYSOSPHAERALES	9005000000
CHRYSOSPHAERAL CHRYSOSPHAERACEAE	9005010000
CHRYSTOPHYCEAE MONOSIGALES	9006000000
MONOSIGALES SALPINGOECACEAE	9006010000
SALPINGOECACEAE SALPINGOeca	9006010100
SALPINGOeca FREQUENTISSIMA	9006010101
MONOSIGALES MONOSIGACEAE	9006020000
MONOSIGACEAE DESMARELLA	9006020100
DESMARELLA MONILIFORMIS	9006020101
DESMARELLA IRREGULARIS	9006020102
BACILLARIOPHYCEAE	9100000000
BACILLARIOPHYCEAE CENTRALES	9101000000
CENTRALES COSCINODISCACEAE	9101010000
COSCINODISCACEAE CYCLOTELLA	9101010100
CYCLOTELLA NANA	9101010101
CYCLOTELLA COMTA	9101010102
CYCLOTELLA MICHIGANIANA	9101010103
CYCLOTELLA BODANICA	9101010104
CYCLOTELLA KUTZINGIANA	9101010105
CYCLOTELLA MENEGHINIANA	9101010106
COSCINODISCACEAE STEPHANODISCUS	9101010200
STEPHANODISCUS ASTREA	9101010201
COSCINODISCACEAE MELOSIRA	9101010300
MELOSIRA GRANULATA	9101010301
MELOSIRA DISTANS	9101010302
MELOSIRA ITALICA	9101010303
COSCINODISCACEAE COSCINODISCUS	9101010400
COSCINODISCUS LACUSTRIS	9101010401
CENTRALES EUPODISCACEAE	9101020000
CENTRALES RHIZOSOLENIACEAE	9101030000
RHIZOSOLENIACEAE RHIZOSOLENIA	9101030100
RHIZOSOLENIA ERIENSIS	9101030101
CENTRALES CHAETOCERACEAE	9101040000
CENTRALES BIDDULPHIACEAE	9101050000
BIDDULPHIACEAE BIDDULPHIA	9101050100
CENTRALES ANAULACEAE	9101060000
BACILLARIOPHYCEAE PENNALES	9102000000
PENNALES TABELLARIACEAE	9102010000
TABELLARIACEAE TABELLARIA	9102010100
TABELLARIA FENESTRATA	9102010101
TABELLARIA FLOCCULOSA	9102010102

TABELLARIACEAE TETRACYCLUS	9102010200
TETRACYCLUS LACUSTRIS	9102010201
PENNALES MERIDIONACEAE	9102020000
MERIDIONACEAE MERIDION	9102020100
MERIDION CIRCULARE	9102020101
PENNALES DIATOMACEAE	9102030000
DIATOMACEAE OPEPHORA	9102030100
OPEPHORA PACIFICA	9102030101
DIATOMACEAE DIATOMA	9102030200
DIATOMA VULGARE	9102030201
DIATOMA ELONGATUM	9102030202
PENNALES FRAGILARIACEAE	9102040000
FRAGILARIACEAE ASTERIONELLA	9102040100
ASTERIONELLA FORMOSA	9102040101
FRAGILARIACEAE FRAGILARIA	9102040200
FRAGILARIA CAPUCINA	9102040201
FRAGILARIA CROTONENSIS	9102040202
FRAGILARIA VIRESSENS	9102040203
FRAGILARIA CONSTRUENS	9102040204
FRAGILARIA PINNATA	9102040205
FRAGILARIACEAE SYNEDRA	9102040300
SYNEDRA ACUS	9102040301
SYNEDRA RUMPENS	9102040302
SYNEDRA DELITISSIMA	9102040303
SYNEDRA FILIFORMIS	9102040304
SYNEDRA ULNA	9102040305
SYNEDRA CAPITELLATA	9102040306
SYNEDRA CAPITATA	9102040307
SYNEDRA NANA	9102040308
FRAGILARIACEAE CENTRONELLA	9102040400
CENTRONELLA REICHELI	9102040401
PENNALES EUNOTIACEAE	9102050000
EUNOTIACEAE CERATONEIS	9102050100
EUNOTIACEAE EUNOTIA	9102050200
EUNOTIA DENTICULATA	9102050201
EUNOTIA BINALE	9102050202
EUNOTIA FLEXUOSA	9102050203
EUNOTIA LUNARIS	9102050204
EUNOTIA PERPUSSILLA	9102050205
EUNOTIA PECTINALIS	9102050206
EUNOTIA PRAEMONAS	9102050207
EUNOTIA SUDETICA	9102050208
EUNOTIA CAESPITOSA	9102050209
EUNOTIA NAEGELII	9102050210
EUNOTIACEAE ACTINELLA	9102050300
ACTINELLA PUNCTATA	9102050301
EUNOTIACEAE AMPHICAMPA	9102050400
AMPHICAMPA HEMICYCLUS	9102050401
PENNALES ACHNANTHACEAE	9102060000
ACHNANTHACEAE ACHNANTHES	9102060100
ACHNANTHES DEPRESSA	9102060101
ACHNANTHES LAEVIS	9102060102

ACHNANTHES LANCEOLATA	9102060103
ACHNANTHES LINEARIS	9102060104
ACHNANTHES MICROCEPHALA	9102060105
ACHNANTHES NETICUS	9102060106
ACHNANTHACEAE COCCONEIS	9102060200
COCCONEIS PLANCENTULA	9102060201
ACHNANTHACEAE PERONIOPSIS	9102060300
PERONIOPSIS HERIBAUDII	9102060301
PENNALES NAVICULACEAE	9102070000
NAVICULACEAE NEIDIUM	9102070100
NEIDIUM AFFINE	9102070101
NAVICULACEAE GYROSIGMA	9102070200
NAVICULACEAE PINNULARIA	9102070300
PINNULARIA ARCA	9102070301
PINNULARIA MAJOR	9102070302
PINNULARIA LATA	9102070303
PINNULARIA DIVERGENS	9102070304
PINNULARIA STOMATOPHORA	9102070305
PINNULARIA ARCTICA	9102070306
NAVICULACEAE ANOMOEONEIS	9102070400
ANOMOEONEIS BRACHYSIRA	9102070401
ANOMOEONEIS SERIANS	9102070402
NAVICULACEAE AMPHIPLEURA	9102070500
AMPHIPLEURA PELLUCIDA	9102070501
NAVICULACEAE FRUSTULIA	9102070600
FRUSTULIA RHOMBOIDES	9102070601
FRUSTULIA VULGARIS	9102070603
NAVICULACEAE NAVICULA	9102070700
NAVICULA RADIOSA	9102070701
NAVICULA CRYPTOCEPHALA	9102070702
NAVICULA CUSPIDATA	9102070703
NAVICULACEAE STAURONEIS	9102070800
STAURONEIS PHENICENTERON	9102070801
STAURONEIS ANCEPTS	9102070802
NAVICULACEAE PLEUROSIGMA	9102070900
NAVICULACEAE CALONEIS	9102071000
CALONEIS LADOGENSIS	9102071001
NAVICULACEAE MASTOGLOIA	9102071100
MASTOGLOIA SMITHII	9102071101
NAVICULACEAE DIPLONEIS	9102071200
PENNALES GOMPHONEMATACEAE	9102080000
GOMPHONEMATACEAE GOMPHONEMA	9102080100
GOMPHONEMA ANGUSTATUM	9102080101
GOMPHONEMA GRACILE	9102080102
GOMPHONEMA LANCEOLATUM	9102080103
GOMPHONEMA MONTANUM	9102080104
GOMPHONEMATACEAE GOMPHONEIS	9102080200
PENNALES CYMBELLACEAE	9102090000
CYMBELLACEAE CYMBELLA	9102090100
CYMBELLA CAESPITOSA	9102090101
CYMBELLA CISTULA	9102090102
CYMBELLA EHRENBURGII	9102090103

CYMBELLA TUMIDULA	9102090104
CYMBELLA LANCEOLATA	9102090105
CYMBELLACEAE AMPHORA	9102090200
AMPHORA OVALIS	9102090201
CYMBELLACEAE EPITHEMIA	9102090300
CYMBELLACEAE RHOPALODIA	9102090400
RHOPALODIA GIBBA	9102090401
PENNALES NITZSCHIACEAE	9102100000
NITZSCHIACEAE NITZSCHIA	9102100100
NITZSCHIA ACICULARIS	9102100101
NITZSCHIA CAPITELLATA	9102100102
NITZSCHIA SIGMA	9102100103
NITZSCHIA SIGMOIDEA	9102100104
NITZSCHIA SINUATA	9102100105
NITZSCHIA VERMICULARIS	9102100106
NITZSCHIA SCALARIS	9102100107
NITZSCHIA CLOSTERIUM	9102100108
NITZSCHIACEAE HANTZSCHIA	9102100200
HANTZSCHIA AMPHIOXYS	9102100201
NITZSCHIACEAE DENTICULA	9102100300
PENNALES SURIRELLACEAE	9102110000
SURIRELLACEAE SURIRELLA	9102110100
SURIRELLA ROBUSTA	9102110101
SURIRELLACEAE CYMATOPLEURA	9102110200
CYMATOPLEURA SOLEA	9102110201
SURIRELLACEAE STENOPTEROBIA	9102110300
STENOPTEROBIA INTERMEDIA	9102110301
PHAEOPHYTA	9200000000
DINOPHYCEAE	9300000000
DINOPHYCEAE GYMNOCLADIALES	9301000000
GYMNOCLADIALES GYMNOCLADIACEAE	9301010000
GYMNOCLADIACEAE GYMNOCLADIUM	9301010100
GYMNOCLADIUM UBERRIMUM	9301010101
GYMNOCLADIUM VARIANS	9301010102
GYMNOCLADIUM ORDINATUM	9301010103
DINOPHYCEAE PERIDINIALES	9302000000
PERIDINIALES GLENODINIACEAE	9302010000
GLENODINIACEAE GLENODINIUM	9302010100
GLENODINIUM QUADRIDENTUM	9302010101
PERIDINIALES GONYAULACACEAE	9302020000
PERIDINIALES PERIDINIACEAE	9302030000
PERIDINIACEAE PERIDINIUM	9302030100
PERIDINIUM CINCTUM	9302030101
PERIDINIUM LIMBATUM	9302030102
PERIDINIUM PUSILLUM	9302030103
PERIDINIACEAE PERIDINIOPSIS	9302030200
PERIDINIALES CERATIACEAE	9302040000
CERATIACEAE CERATIUM	9302040100
CERATIUM CAROLINIANA	9302040101
CERATIUM HIRUDINELLA	9302040102
DINOPHYCEAE DINOCAPSales	9303000000
DINOCAPSales GLOEODINIACEAE	9303010000

GLOEDINIACEAE UROCOCCUS	9303010100
UROCOCCUS INSIGNIS	9303010101
DINOPHYCEAE DINOCOCCALES	9304000000
DINOCOCCALES PHYTODINIACEAE	9304010000
PHYTODINIACEAE STYLODINIUM	9304010100
STYLODINIUM GLOBOSUM	9304010101
DINOCOCCALES BLASTODINIACEAE	9304020000
CHLOROMONADOPHYCEAE	9400000000
CHLOROMONADOPHY CHLOROMONADALES	9401000000
CHLOROMONADALES CHLOROMONADACEAE	9401010000
CRYPTOPHYCEAE	9500000000
CRYPTOPHYCEAE CRYPTOMONADALES	9501000000
CRYPTOMONAD CRYPTOCHYSIDACEAE	9501010000
CRYPTOCHYSIDACEAE RHODOMONAS	9501010100
RHODOMONAS MINUTA	9501010101
CRYPTOMONADALES CRYPTOMONADACEAE	9501020000
CRYPTOMONADACEAE CRYPTOMONAS	9501020100
CRYPTOMONAS EROSA	9501020101
CRYPTOMONAS MARSSONII	9501020102
CRYPTOMONAS OVATA	9501020103
CRYPTOMONAD NEPHROSELMIDIACEAE	9501030000
CRYPTOMONAD KATHABLEPHARIDACEAE	9501040000
KATHABLEPHARIDAC KATHABLEPHARIS	9501040100
KATHABLEPHARIS OVALIS	9501040101
CRYPTOPHYCEAE CRYPTOCOCCALES	9502000000
CRYPTOCOCCALES CRYPTOCOCCACEAE	9502010000
RHODOPHYCEAE	9600000000
RHODOPHYCEAE BANGIALES	9601000000
BANGIALES GONIOTRICHACEAE	9601010000
BANGIALES BANGIACEAE	9601020000
RHODOPHYCEAE NEMALIONALES	9602000000
NEMALIONALES CHANTRANSIACEAE	9602010000
NEMALIONALES BATRACHOSPERMACEAE	9602020000
NEMALIONALES THOREACEAE	9602030000
NEMALIONALES LEMANEACEAE	9602040000
EXTRATERRESTRIALS	9900000000

APPENDIX 2: LIST OF TAXA OTHER THAN SPECIES AND CORRESPONDING
CODES ORDERED ALPHABETICALLY BY TAXA

ACHNANTHACEAE	9102060000
ACHNANTHES	9102060100
ACRASIOMYCETES	7602000000
ACTINELLA	9102050300
ALISMACEAE	8502060000
AMPHICAMPA	9102050400
AMPHIPLERA	9102070500
AMPHORA	9102090200
AMSCOTTIA	8710031900
ANABAENA	8603020300
ANAUlaceae	9101060000
ANKISTRODESMUS	8708090300
ANOMOEONEIS	9102070400
ANTHOCEROTAE	7902000000
ANTHOPHYTA	8500000000
APHANIZOMENON	8603020400
APHANOCAPSA	8601010500
APHANOTHECE	8601011100
ARACEAE	8502090000
ARTHRODESMUS	8710030100
ARTHROPHYTA	8100000000
ASCOMYCETES	7702000000
ASTASIACEAE	8801020000
ASTER	8501100100
ASTERIONELLA	9102040100
ASTEROCOCCUS	8702010400
BACILLARIOPHYCEAE	9100000000
BAMBUSINA	8710030600
BANGIACEAE	9601020000
BANGIALES	9601000000
BASIDIOMYCETES	7703000000
Batrachospermaceae	9602020000
BICOECA	9001010300
BIDDULPHIA	9101050100
BIDDULPHIACEAE	9101050000
BINUCLEARIA	8703010200
BITRICHIA	9002010300
BLASTODINIACEAE	9304020000
BOTRYDIACEAE	8905010000
BOTRYOCOCCUS	8708040300
BRASENIA	8501020100
BRYOPHYTA	7900000000
BULBOCHAETE	8706010100
CABOMBACEAE	8501020000
CALAMAGROSTIS	8502070200
CALLITRICHACEAE	8501060000
CALLITRICHES	8501060100
CALONEIS	9102071000
CALOTHRIX	8603050100
CAREX	8502080300

CARTERIA	8701020400
CATABROSA	8502070300
CENTRALES	9101000000
CENTRITRACTACEAE	8903060000
CENTRONELLA	9102040400
CERATIACEAE	9302040000
CERATIUM	9302040100
CERATONEIS	9102050100
CERATOPHYLLACEAE	8501010000
CERATOPHYLLUM	8501010100
CHAETOCERACEAE	9101040000
CHAETOPHORA	8703040200
CHAETOPHORACEAE	8703040000
CHAETOSPHAERIDIUM	8703060100
CHAMAESIPHON	8602030100
CHAMAESIPHONACEAE	8602030000
CHAMAESIPHONALES	8602000000
CHANTRANSIACEAE	9602010000
CHARA	8711010100
CHARACEAE	8711010000
CHARACIACEAE	8708050000
CHARACIOPSISIDACEAE	8903040000
CHARACIOPSIS	8903040100
CHARACIUM	8708050200
CHAROPHYCEAE	8711000000
CHLAMYDOMONADACEAE	8701020000
CHLAMYDOMONAS	8701020100
CHLORANGIACEAE	8702030000
CHLOROCOCCACEAE	8708010000
CHLOROCOCCALES	8708000000
CHLOROMONADACEAE	9401010000
CHLOROMONADALES	9401000000
CHLOROMONADOPHYCEAE	9400000000
CHLOROMONAS	8701020300
CHLOROPEDIACEAE	8903050000
CHLOROPHYCEAE	8700000000
CHLOROSACCACEAE	8902010000
CHLOROTHECIACEAE	8903070000
CHODATELLA	8708090900
CHROMULINA	9001010200
CHROMULINACEAE	9001010000
CHROOCOCCACEAE	8601010000
CHROOCOCCALES	8601000000
CHROOCOCCUS	8601010100
CHRYSAMOEBA	9002010100
CHRYSOCAPSAA	9003010100
CHRYSOCAPSACEAE	9003010000
CHYSOCAPSALES	9003000000
CHYSOCHROMULINA	9001070100
CHYSOCOCCUS	9001010400
CHYSODIDYMUS	9001040200
CHYSOIKOS	9001061100
CHYSOLYKOS	9001061000
CHYSOMONADALES	9001000000

CHRYSOPHYCEAE	9000000000
CHRYSOPYXIS	9001010500
CHRYSOSPHAERACEAE	9005010000
CHRYSOSPHAERALES	9005000000
CHRYSOSPHAERELLA	9001020100
CHRYSOTRICHALES	9004000000
CHRYSOXYS	9001060300
CLADOPHORACEAE	8707010000
CLADOPHORALES	8707000000
CLOSTERIUM	8710031400
COCCOLITHOPHORIDACEAE	9001050000
COCCOMYXACEAE	8702040000
COCCONEIS	9102060200
CODOMONAS	9001010600
COELASTRACEAE	8708080000
COELASTRUM	8708080100
COELOSPHAERIUM	8601010700
COLACIALES	8802000000
COLACIUM	8802010100
COLEOCHAETACEAE	8703060000
COLIACIACEAE	8802010000
COMPOSITAE	8501100000
CONIFEROphyta	8400000000
CONRADIELLA	9001040300
CONVALLARIACEAE	8502150000
COSCINODISCACEAE	9101010000
COSCINODISCUS	9101010400
COSMARIUM	8710030200
CRUCIGENIA	8708100300
CRYPTOCHRYSIDACEAE	9501010000
CRYPTOCOCCACEAE	9502010000
CRYPTOCOCCALES	9502000000
CRYPTOMONADACEAE	9501020000
CRYPTOMONADALES	9501000000
CRYPTOMONAS	9501020100
CRYPTOPHYCEAE	9500000000
CYANOPHYTA	8600000000
CYCLONEXIS	9001060200
CYCLOTELLA	9101010100
CYLINDROCAPSA	8703030100
CYLINDROCAPSACEAE	8703030000
CYMATOPLEURA	9102110200
CYMBELLA	9102090100
CYMBELLACEAE	9102090000
CYPERACEAE	8502080000
DACTYLOCOCCOPSIS	8601010800
DENDROMONAS	9001061200
DENTICULA	9102100300
DERMOCARPACEAE	8602020000
DESMARELLA	9006020100
DESMIDIACEAE	8710030000
DESMIDIUM	8710030300

DEUTEROMYCETES	7704000000
DIATOMA	9102030200
DIATOMACEAE	9102030000
DICHTOMOSIPHONACEAE	8709020000
DICOTYLEDONAE	8501000000
DICTYOSPHAERIACEAE	8708040000
DICTYOSPHAERIUM	8708040100
DIMORPHOCOCCUS	8708040200
DINOBRYON	9001060800
DINOCAPSALES	9303000000
DINOCOCCALES	9304000000
DINOPHYCEAE	9300000000
DIPLONEIS	9102071200
DROSERACEAE	8501050000
ELAKATOTHRIX	8702040100
ELEOCHARIS	8502080100
ENDOSPHAERACEAE	8708020000
ENTOPHYSALIDACEAE	8601020000
EPIPYXIS	9001060700
EPITHEMIA	9102090300
EQUISETALES	8101010000
EQUISETUM	8101010100
ERIOCAULACEAE	8502110000
ERIOCAULON	8502110100
EUASTRUM	8710030400
EUCAPSIS	8601010600
EUDORINA	8701040500
EUGLENA	8801010200
EUGLENACEAE	8801010000
EUGLENALES	8801000000
EUGLENOPHYCEAE	8800000000
EUMYCOTA	7700000000
EUNOTIA	9102050200
EUNOTIACEAE	9102050000
EUPODISCACEAE	9101020000
EXTRATERRESTRIALS	9900000000
FRAGILARIA	9102040200
FRAGILARIACEAE	9102040000
FRUSTULIA	9102070600
GLENODINIACEAE	9302010000
GLENODINUM	9302010100
GLOEOBOTRYDIACEAE	8903020000
GLOEOCAPSA	8601010300
GLOEOCYSTIS	8702010100
GLOEODINIACEAE	9303010000
GLOEOTHECE	8601011500
GOLENKINIA	8708030200
GOLENKINIOPSIS	8708030100
GOMPHONEIS	9102080200
GOMPHONEMA	9102080100
GOMPHONEMATACEAE	9102080000
GOMPHOSPHAERIA	8601011300

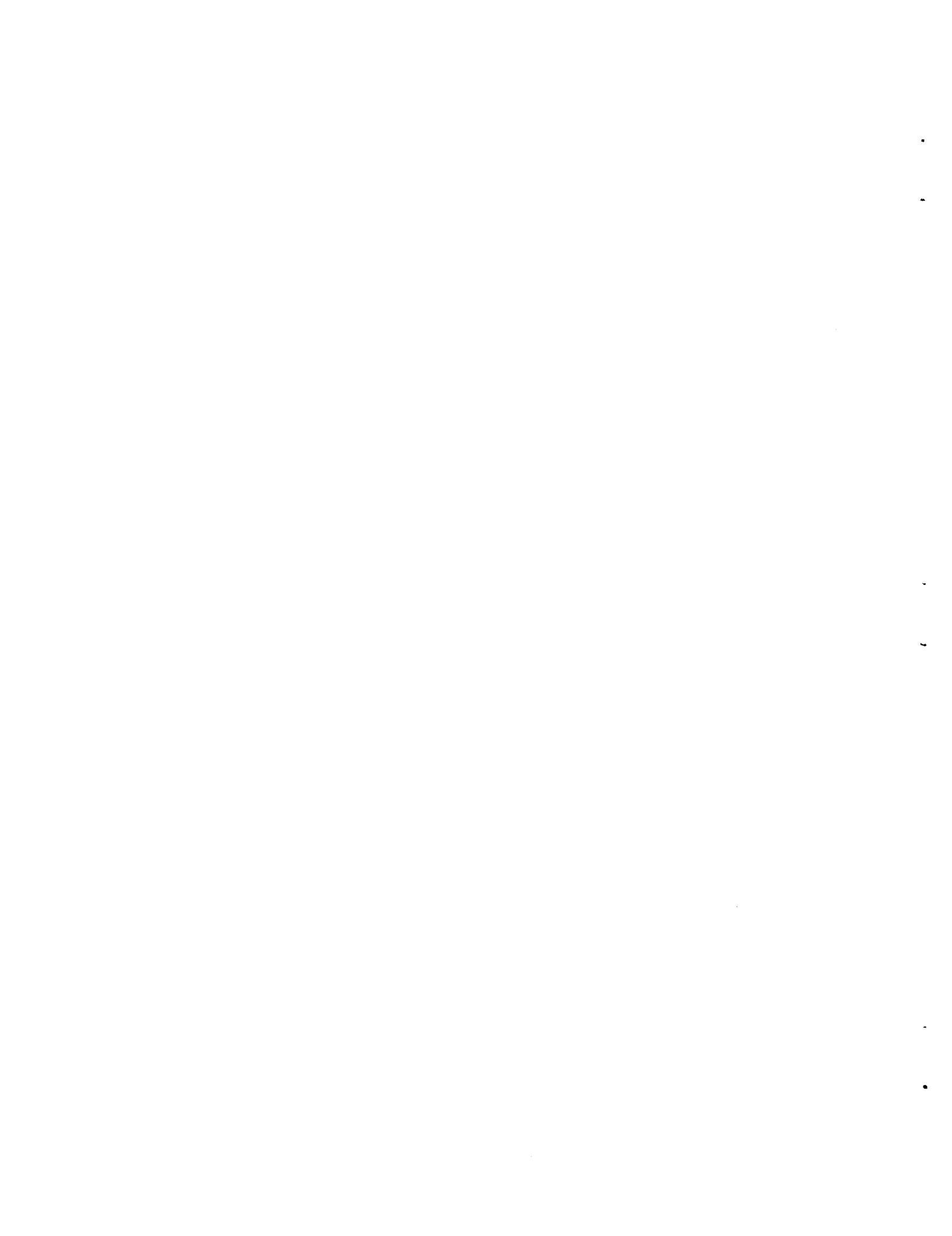
GONATOZYGON	8710020100
GONIOTRICHACEAE	9601010000
GONIUM	8701040100
GONYAULACACEAE	9302020000
GRAMINEAE	8502070000
GROENBLADIA	8710031500
GYMNOIDIACEAE	9301010000
GYMNODINIALES	9301000000
GYMNODINIUM	9301010100
GYMNOZYGA	8710031700
GYROMITUS	8701070100
GYROSIGMA	9102070200
HAEMATOCOCCACEAE	8701060000
HALORAGIDACEAE	8501070000
HANTZSCHIA	9102100200
HAPALOSIPHON	8603040200
HELIOCHRYYSIS	9002010400
HEPATICAE	7901000000
HETEROCAPSALES	8902000000
HETEROCOCCALES	8903000000
HETEROSIPHONALES	8905000000
HETEROTRICHALES	8904000000
HIPPURUS	8501070100
HOLOPEDIUM	8601011000
HOMALOCENCHRUS	8502070100
HYALOBRYON	9001060600
HYALOTHECA	8710031300
HYDRODICTYACEAE	8708070000
HYDRURACEAE	9003030000
IRIDACEAE	8502160000
IRIS	8502160100
JUNCACEAE	8502120000
JUNCUS	8502120100
KATHABLEPHARIDACEAE	9501040000
KATHABLEPHARIS	9501040100
KEPHYRION	9001010100
KIRCHNERIELLA	8708090200
LABYRINTHULOMYCETES	7603000000
LAGYNION	9002010500
LEMANEACEAE	9602040000
LEMNA	8502100100
LEMNACEAE	8502100000
LENTIBULARIACEAE	8501080000
LILIACEAE	8502140000
LOBELIA	8501090100
LOBELIACEAE	8501090000
LYCOPHYTA	8000000000
LYNGBYA	8603010400
MALLEODENDRACEAE	8902020000
MALLOMONADACEAE	9001020000
MALLOMONAS	9001020200
MASTIGOCLADACEAE	8603060000

MASTIGOCLADUS	8603060100
MASTOGLOIA	9102071100
MELANTHACEAE	8502130000
MELOSIRA	9101010300
MENYANTHACEAE	8501110000
MENYANTHES	8501110100
MERIDION	9102020100
MERIDIONACEAE	9102020000
MERISMOPEDIA	8601010200
MESOTAENIACEAE	8710020000
MICRACHTINIACEAE	8708030000
MICRASTERIAS	8710031100
MICROCYSTIS	8601010400
MICROSPORA	8703020100
MICROSPORACEAE	8703020000
MICROTATOBIOTES	7802000000
MISCHOCOCCACEAE	8903030000
MONOCILIACEAE	8904020000
MONOCOTYLEDONAE	8502000000
MONOSIGACEAE	9006020000
MONOSIGALES	9006000000
MOUGEOTIA	8710010100
MUSCI	7903000000
MYRIOPHYLLUM	8501070200
MYXOMYCETES	7601000000
MYXOMYCOTA	7600000000
MYXOSARCINA	8602010100
NAEGELIELLA	9003020100
NAEGELIELLACEAE	9003020000
NAIADACEAE	8502040000
NAIAS	8502040100
NAVICULA	9102070700
NAVICULACEAE	9102070000
NEIDIUM	9102070100
NEMALIONALES	9602000000
NEPHROSELMIDIACEAE	9501030000
NITELLA	8711010200
NITZSCHIA	9102100100
NITZSCHIACEAE	9102100000
NODULARIA	8603020200
NOSTOC	8603020100
NOSTOCACEAE	8603020000
NUPHAR	8501030200
NYMPHAEA	8501030100
NYMPHAEACEAE	8501030000
NYMPHOIDES	8501110200
OCHROMONADACEAE	9001060000
OCHROMONAS	9001060100
OEDOGONIACEAE	8706010000
OEDOGONIALES	8706000000
OEDOGONIUM	8706010200
OOCYSTACEAE	8708090000

OOCYSTIS	8708090100
OPEPHORA	9102030100
OSCILLATORIA	8603010100
OSCILLATORIACEAE	8603010000
OSCILLATORIALES	8603000000
PALMELLA	8702010200
PALMELLACEAE	8702010000
PANDORINA	8701040300
PANICULARIA	8502070500
PARACAPSA	8601020100
PEDIASTRUM	8708070100
PENIUM	8710031800
PENNALES	9102000000
PERANEMACEAE	8801030000
PERIDINIACEAE	9302030000
PERIDINIALES	9302000000
PERIDINIOSPIS	9302030200
PERIDINIUM	9302030100
PERONIELLA	8903040200
PERONIOPSIS	9102060300
PHACOMYXA	8708110100
PHACOTACEAE	8701030000
PHACUS	8801010300
PHAEOPHYTA	9200000000
PHAEOTHAMNIACEAE	9004010000
PHORMIDIUM	8603010200
PHYCOMYCETES	7701000000
PHYLLOSIPHONACEAE	8709010000
PHYTODINIACEAE	9304010000
PINNULARIA	9102070300
PLANCTOCOCCUS	8702010500
PLEODORINA	8701040400
PLEUROCAPSA	8602010200
PLEUROCAPSACEAE	8602010000
PLEUROCHLORIDACEAE	8903010000
PLEUROSIGMA	9102070900
PLEUROTAENIUM	8710030500
POA	8502070400
POLYBLEPHARIDACEAE	8701010000
POLYTOMA	8701020200
POTAMOGETON	8502030100
PROTOCOLCACEAE	8703050000
PROTOSIPHONACEAE	8708060000
PRYMNESIACEAE	9001070000
PSEUDANABAENA	8603010500
PSEUDOKEPHYRION	9001060900
PSEUDOTETRAEDRON	8903060100
PTERIDOSPERMOPHYTA	8300000000
PTERO PHYTA	8200000000
PYRAMIMONACEAE	8701070000
QUADRIGULA	8708090600
RADIOCOCCACEAE	8708110000

RHABDODERMA	8601011200
RHIZOCHLORIDALES	8901000000
RHIZOCHLORIS	8901010100
RHIZOCHRYSIDACEAE	9002010000
RHIZOCHRYSIDALES	9002000000
RHIZOCHRYYSIS	9002010200
RHIZOSOLENIA	9101030100
RHIZOSOLENIACEAE	9101030000
RHODOMONAS	9501010100
RHODOPHYCEAE	9600000000
RHOPALODIA	9102090400
RIVULARIACEAE	8603050000
SAGITTARIA	8502060100
SALPINGOECA	9006010100
SALPINGOECACEAE	9006010000
SARRACENIACEAE	8501040000
SCENEDESMACEAE	8708100000
SCENEDESMUS	8708100100
SCHEUCHZERIA	8502050200
SCHEUCHZERIACEAE	8502050000
SCHIZOGONIACEAE	8705010000
SCHIZOGONIALES	8705000000
SCHIZOMERIDACEAE	8704020000
SCHIZOMYCETES	7801000000
SCHIZOMYCOPHYTA	7800000000
SCHROEDERIA	8708050100
SCIRPUS	8502080200
SCOTIELLA	8708090800
SCYTONEMA	8603030100
SCYTONEMATACEAE	8603030000
SELENASTRUM	8708090500
SIPHONALES	8709000000
SPARGANIACEAE	8502020000
SPARGANIUM	8502020100
SPHAEROCYSTIS	8702010300
SPHAEROPLACEAE	8703080000
SPHAEROZOSMA	8710030700
SPHAGNIDEAE	7903010000
SPHENOPSIDA	8101000000
SPIROGYRA	8710010200
SPONDYLOMORACEAE	8701050000
SPONDYLOSIMUM	8710030800
STAURASTRUM	8710031200
STAURODESMUS	8710031600
STAURONEIS	9102070800
STENOPTEROBIA	9102110300
STEPHANODISCUS	9101010200
STIGONEMA	8603040100
STIGONEMATACEAE	8603040000
STIPITOCOCCACEAE	8901010000
STROMBOMONAS	8801010400
STYLOCHRYSALLIS	9001061300

STYLODINIUM	9304010100
SURISELLA	9102110100
SURIELLACEAE	9102110000
SYNCRYPTACEAE	9001030000
SYNECHOCOCCUS	8601010900
SYNECHOCYSTIS	8601011400
SYNEDRA	9102040300
SYNURA	9001040100
SYNURACEAE	9001040000
TABELLARIA	9102010100
TABELLARIACEAE	9102010000
TETRACYCLUS	9102010200
TETRAEDRON	8708090700
TETRALLANTOS	8708100200
TETRASPORA	8702020100
TETRASPORACEAE	8702020000
TETRASPORALES	8702000000
THAMNIOCHAETE	8703040100
THOREACEAE	9602030000
TOLYPELLA	8711010300
TOLYPOTHRIX	8603030200
TRACHELOMONAS	8801010100
TRENTEPOHLIACEAE	8703070000
TRIBONEMA	8904010100
TRIBONEMATACEAE	8904010000
TRICHODESMIUM	8603010300
TRIGLOCHIN	8502050100
TRIPLOCERAS	8710031000
TYPHA	8502010100
TYPHACEAE	8502010000
ULOTHRIX	8703010100
ULOTRICHACEAE	8703010000
ULOTRICHALES	8703000000
ULVACEAE	8704010000
ULVALES	8704000000
UROCOCCUS	9303010100
UROGLENA	9001060400
UROGLENOPSIS	9001060500
UTRICULARIA	8501080100
VAUCHERIACEAE	8905020000
VOLVOCACEAE	8701040000
VOLVOCALES	8701000000
VOLVOX	8701040200
WESTELLA	8708090400
XANTHIDIUM	8710030900
XANTHOPHYCEAE	8900000000
ZANNICHELLIA	8502030200
ZANNICHELLIACEAE	8502030000
ZYGNEMA	8710010300
ZYGNEMATACEAE	8710010000
ZYGNEMATALES	8710000000



APPENDIX 3: SYSTEMATICALLY STRUCTURED LIST OF TAXA AND CORRESPONDING CODES ORDERED BY CODE SEQUENCE (ONLY NUMBERS 1-99 ARE SHOWN IN THE FIELDS)

Slime Molds

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields
Myxomycota					00 00 00 00 00
Myxomycetes					76 1
Acrasiomycetes					76 2
Labyrinthulomycetes					76 3

Fungi

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields
					00 00 00 00 00
Eumycota					77
Phycomycetes					77 1
Ascomycetes					77 2
Basidiomycetes					77 3
Deuteromycetes					77 4

Bacteria and Viruses

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields 00 00 00 00 00
Schizomycophyta					78
Schizomycetes					78 1
Microtobiotes					78 2

Liverworts, Hornworts, and Mosses

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code
					Fields
Bryophyta					00 00 00 00 00
Hepaticae					79 1
Anthocerotae					79 2
Musci					79 3
Sphagnideae					79 3 1

Club Mosses and Horsetails

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code				
					Fields	00	00	00	00
Lycophyta					80				
Arthrophyta					81				
	Sphenopsida				81	1			
		Equisetales			81	1	1		
			Equisetum		81	1	1	1	
				fluviatile	81	1	1	1	1

True Ferns, Preferns and Seed Ferns

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code
					Fields
					00 00 00 00 00

Pterophyta	82
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Pteridospermophyta	83
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Conifers

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code				
					Fields				
00	00	00	00	00					
Coniferophyta					84				

Flowering Plants

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields					
					00	00	00	00	00	00
Anthophyta					85					
	Dicotyledonae				85	1				
		Ceratophyllaceae			85	1	1			
			Ceratophyllum		85	1	1	1		
			demersum		85	1	1	1	1	
		Cabombaceae			85	1	2			
			Brasenia		85	1	2	1		
			schreberi		85	1	2	1	1	
		Nymphaeaceae			85	1	3			
			Nymphaea		85	1	3	1		
			odorata*		85	1	3	1	1	
			Nuphar		85	1	3	2		
			variegatum**		85	1	3	2	1	

*white water lily

**yellow water lily

Flowering Plants

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields				
					00	00	00	00	00
		Sarraceniaceae			85	1	4		
		Droseraceae			85	1	5		
		Callitrichaceae			85	1	6		
			Callitriches		85	1	6	1	
			heterophylla		85	1	6	1	1
		Haloragidaceae			85	1	7		
			Hippurus		85	1	7	1	
			Myriophyllum		85	1	7	2	

Flowering Plants

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields					
					00	00	00	00	00	
		Lentibulariaceae	Utricularia		85	1	8			
				macrorhiza=	85	1	8	1		
				vulgaris	85	1	8	1	1	
		Lobeliaceae	Lobelia		85	1	9			
				dortmanna	85	1	9	1		
					85	1	9	1	1	
		Compositae	Aster		85	1	10			
				nemoralis	85	1	10	1		
					85	1	10	1	1	
		Menyanthaceae	Menyanthes		85	1	11			
				trifoliata	85	1	11	1		
					85	1	11	1	1	
			Nymphoides		85	1	11	2		

Flowering Plants

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields					
					00	00	00	00	00	00
	Moncotyledonae				85	2				
		Typhaceae			85	2	1			
			Typha		85	2	1	1		
				latifolia	85	2	1	1	1	
				angustifolia	85	2	1	1	1	2

Flowering Plants

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields				
					00	00	00	00	00
		Sparganiaceae			85	2	2		
			Sparganium		85	2	2	1	
				eurycarpum	85	2	2	1	1
				androcladum	85	2	2	1	2
				diversifolium	85	2	2	1	3
				acaule	85	2	2	1	4
				angustifolium	85	2	2	1	5
				hyperboreum	85	2	2	1	6
				minimum	85	2	2	1	7

Flowering Plants

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields				
					00	00	00	00	00
		Zannichelliaceae			85	2	3		
			Potamogeton		85	2	3	1	
				natans	85	2	3	1	1
				oakesianus	85	2	3	1	2
				epiphydrus	85	2	3	1	3
				alpinus	85	2	3	1	4
				perfoliatus	85	2	3	1	5
		Zannichellia			85	2	3	2	
				palustris	85	2	3	2	1
		Naiadaceae			85	2	4		
			Naias		85	2	4	1	
				flexilis	85	2	4	1	1

Flowering Plants

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code				
					Fields				
					00	00	00	00	00
		Scheuchzeriaceae			85	2	5		
			Triglochin		85	2	5	1	
				palustris	85	2	5	1	1
				maritima	85	2	5	1	2
			Scheuchzeria		85	2	5	2	
				palustris	85	2	5	2	1
		Alismaceae			85	2	6		
			Sagittaria		85	2	6	1	
				latifolia	85	2	6	1	1
				graminea	85	2	6	1	2

Flowering Plants

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields					
					00	00	00	00	00	00
		Gramineae			85	2	7			
			Homalocenchrus		85	2	7	1		
			oryzoides		85	2	7	1	1	
			Calamagrostis		85	2	7	2		
			canadensis		85	2	7	2	1	
		Catabrosa			85	2	7	3		
			aquatica		85	2	7	3	1	
		Poa			85	2	7	4		
			triflora		85	2	7	4	1	
		Panicularia=			85	2	7	5		
		Glyceria								
			canadensis		85	2	7	5	1	
			borealis		85	2	7	5	2	

Flowering Plants

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields				
					00	00	00	00	00
		Cyperaceae			85	2	8		
			Eleocharis		85	2	8	1	
				palustris	85	2	8	1	1
			Scirpus		85	2	8	2	
				subterminalis	85	2	8	2	1
				americanus	85	2	8	2	2
				validus	85	2	8	2	3
				occidentalis	85	2	8	2	4
				rufus	85	2	8	2	5
				microcarpus	85	2	8	2	6
				cyperinus	85	2	8	2	7
			Carex		85	2	8	3	
				stipata	85	2	8	3	1
				atlantica	85	2	8	3	2
				leptalea	85	2	8	3	3
				aquatilis	85	2	8	3	4
				gynandra	85	2	8	3	5
				crinita	85	2	8	3	6
				lacustris	85	2	8	3	7
				lasiocarpa	85	2	8	3	8
				flava	85	2	8	3	9
				folliculata	85	2	8	3	10
				retrorsa	85	2	8	3	11
				hystricina	85	2	8	3	12
				comosa	85	2	8	3	13
				frankii	85	2	8	3	14
				intumescens	85	2	8	3	15
				asa-grayi	85	2	8	3	16
				rostrata	85	2	8	3	17
		Araceae			85	2	9		

Flowering Plants

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields					
					00	00	00	00	00	00
	Lemnaceae				85	2	10			
			Lemna		85	2	10	1		
	Eriocaulaceae				85	2	11			
			Eriocaulon		85	2	11	1		
				septangulare	85	2	11	1	1	

Flowering Plants

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields				
					00	00	00	00	00
	Juncaceae				85	2	12		
		Juncus			85	2	12	1	
			effusus		85	2	12	1	1
			conglomeratus		85	2	12	1	2
			filiformis		85	2	12	1	3
			bufonius		85	2	12	1	4
			dudleyi		85	2	12	1	5
			militaris		85	2	12	1	6
			articulatus		85	2	12	1	7
	Melanthaceae				85	2	13		

Flowering Plants

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields					
					00	00	00	00	00	00
		Liliaceae			85	2	14			
		Convallariaceae			85	2	15			
	Iridaceae				85	2	16			
			Iris		85	2	16	1		
				versicolor	85	2	16	1	1	
				hookeri=	85	2	16	1	2	
				setosa						

Blue-Green Algae

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields					
					00	00	00	00	00	00
Cyanophyta					86					
	Chroococcales				86	1				
		Chroococcaceae			86	1	1			
			Chroococcus		86	1	1	1		
				limneticus	86	1	1	1	1	
				prescottii	86	1	1	1	2	
			Merismopedia		86	1	1	2		
				elephantulus	86	1	1	2	1	
				major	86	1	1	2	2	
				glaucha	86	1	1	2	3	
				trollieri	86	1	1	2	4	
				tenuissima	86	1	1	2	5	
				convoluta	86	1	1	2	6	
			Gloeocapsa		86	1	1	3		
				major	86	1	1	3	1	
				punctata	86	1	1	3	2	

Blue-Green Algae

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields					
					00	00	00	00	00	00
				<i>Microcystis</i> =						
				<i>Polycystis</i>	86	1	1	4		
				<i>aeruginosa</i>	86	1	1	4	1	
				<i>flos-aquae</i>	86	1	1	4	2	
				<i>robusta</i>	86	1	1	4	3	
				<i>Aphanocapsa</i>	86	1	1	5		
				<i>elachista</i>	86	1	1	5	1	
				<i>pulchra</i>	86	1	1	5	2	
				<i>Eucapsis</i>	86	1	1	6		
				<i>alpina</i>	86	1	1	6	1	
				<i>Coelosphaerium</i>	86	1	1	7		
				<i>naegelianum</i>	86	1	1	7	1	
				<i>Dactylococcopsis</i>	86	1	1	8		
				<i>acicularis</i>	86	1	1	8	1	

Blue-Green Algae

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code						
					Fields						
					00	00	00	00	00	00	
			<i>Synechococcus</i>		86	1	1	9			
			<i>Holopedium</i>		86	1	1	10			
			<i>irregulare</i>		86	1	1	10	1		
			<i>Aphanothecce</i>		86	1	1	11			
			<i>castagnei</i>		86	1	1	11	1		
			<i>nidulans</i>		86	1	1	11	2		
			<i>alascense</i>		86	1	1	11	3		
			<i>Rhabdoderma</i>		86	1	1	12			
			<i>lineare</i>		86	1	1	12	1		
			<i>sigmoidea</i>		86	1	1	12	2		
			<i>irregulare</i>		86	1	1	12	3		
			<i>Gomphosphaeria</i>		86	1	1	13			
			<i>lacustris</i>		86	1	1	13	1		
			<i>aponina</i>		86	1	1	13	2		
			<i>Synechocystis</i>		86	1	1	14			
			<i>aquatilis</i>		86	1	1	14	1		
			<i>Gloeothece</i>		86	1	1	15			

Blue-Green Algae

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields				
					00	00	00	00	00
		Entophysalidaceae			86	1	2		
			Paracapsa		86	1	2	1	
		Chamaesiphonales			86	2			
		Pleurocapsaceae			86	2	1		
			Myxosarcina		86	2	1	1	
		Pleurocapsa			86	2	1	2	
			minor		86	2	1	2	1
		Dermocarpaceae			86	2	2		
		Chamaesiphonaceae			86	2	3		
			Chamaesiphon		86	2	3	1	
Oscillatoriales	Oscillatoriaceae		Oscillatoria		86	3			
					86	3	1		
					86	3	1	1	

Blue-Green Algae

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields					
					00	00	00	00	00	
				<i>Phormidium</i>	86	3	1	2		
				<i>Trichodesmium</i>	86	3	1	3		
				<i>lacustre</i>	86	3	1	3	1	
				<i>Lyngbya</i>	86	3	1	4		
				<i>contorta</i>	86	3	1	4	1	
				<i>mucicola</i>	86	3	1	4	2	
				<i>Pseudanabaena</i>	86	3	1	5		
				<i>catenata</i>	86	3	1	5	1	
				<i>Nostocaceae</i>	86	3	2			
				<i>Nostoc</i>	86	3	2	1		
				<i>Nodularia</i>	86	3	2	2		

Blue-Green Algae

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields				
					00	00	00	00	00
			Anabaena		86	3	2	3	
				flos-aquae	86	3	2	3	1
				limnetica	86	3	2	3	2
			Aphanizomenon		86	3	2	4	
				flos-aquae	86	3	2	4	1
			Scytonemataceae		86	3	3		
			Scytonema		86	3	3	1	
				Tolypothrix	86	3	3	2	
			Stigonemataceae		86	3	4		
			Stigonema		86	3	4	1	
				ocellatus	86	3	4	1	1
			Hapalosiphon		86	3	4	2	
			hibernicus		86	3	4	2	1

Blue-Green Algae

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields				
					00	00	00	00	00
	Rivulariaceae				86	3	5		
			Calothrix		86	3	5	1	
	Mastigocladaceae				86	3	6		
		Mastigocladus			86	3	6	1	
			Lamellosus		86	3	6	1	1

Green Algae (including desmids and stoneworts)

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields					
					00	00	00	00	00	00
Chlorophyceae					87					
	Volvocales				87	1				
		Polyblepharidaceae			87	1	1			
			Chlamydomonadaceae		87	1	2			
			Chlamydomonas		87	1	2	1		
			<i>gleopara</i>		87	1	2	1	1	
			<i>frigida</i>		87	1	2	1	2	
			<i>dinobryoni</i>		87	1	2	1	3	
			Polytoma		87	1	2	2		
			Chloromonas		87	1	2	3		
			Carteria		87	1	2	4		
		Phacotaceae			87	1	3			

Green Algae (including desmids and stoneworts)

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields					
					00	00	00	00	00	00
		Volvocaceae			87	1	4			
			Gonium		87	1	4	1		
				sociale	87	1	4	1	1	
			Volvox		87	1	4	2		
			Pandorina		87	1	4	3		
				morum	87	1	4	3	1	
			Pleodorina		87	1	4	4		
			Eudorina		87	1	4	5		
				elegans	87	1	4	5	1	

Green Algae (including desmids and stoneworts)

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code				
					Fields				
					00	00	00	00	00
		Spondylomoraceae			87	1	5		
		Haematococcaceae			87	1	6		
		Pyramimonaceae	Gyromitus		87	1	7		
					87	1	7	1	
Tetrasporales	Palmellaceae	Gloeocystis	major		87	2			
			ampla		87	2	1	1	1
			gigas		87	2	1	1	3
			vesiculosa		87	2	1	1	4
			aponina		87	2	1	1	5
			planctonica		87	2	1	1	6
		Palmella	mucosa		87	2	1	2	
					87	2	1	2	1

Green Algae (including desmids and stoneworts)

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields					
					00	00	00	00	00	00
			<i>Sphaerocystis</i>		87	2	1	3		
				<i>schroeteri</i>	87	2	1	3	1	
			<i>Asterococcus</i>		87	2	1	4		
				<i>limneticus</i>	87	2	1	4	1	
			<i>Planctococcus</i>		87	2	1	5		
				<i>alsius</i>	87	2	1	5	1	
				<i>gelatinosa</i>	87	2	1	5	2	
		<i>Tetrasporaceae</i>			87	2	2			
			<i>Tetraspora</i>		87	2	2	1		
				<i>lamellosa</i>	87	2	2	1	1	
				<i>lacustris</i>	87	2	2	1	2	
				<i>minimum</i>	87	2	2	1	3	
		<i>Chlorangiaceae</i>			87	2	3			

Green Algae (including desmids and stoneworts)

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code					
					Fields					
					00	00	00	00	00	00
		Coccomyxaceae			87	2	4			
			Elakatothrix		87	2	4	1		
				gelatinosa	87	2	4	1	1	
		Ulotrichales			87	3				
			Ulotrichaceae		87	3	1			
				Ulothrix	87	3	1	1		
					87	3	1	2		
			Binuclearia		87	3	1	2		
			tectorum		87	3	1	2	1	
		Microsporaceae			87	3	2			
			Microspora		87	3	2	1		
		Cylindrocapsaceae			87	3	3			
			Cylindrocapsa		87	3	3	1		
			geminella		87	3	3	1	1	

Green Algae (including desmids and stoneworts)

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields				
					00	00	00	00	00
		Chaetophoraceae			87	3	4		
			Thamniochaete		87	3	4	1	
			Chaetophora		87	3	4	2	
		Protococcaceae			87	3	5		
		Coleochaetaceae			87	3	6		
			Chaetosphaeridium		87	3	6	1	
			pringsheimii		87	3	6	1	1
		Trentepohliaceae			87	3	7		

Green Algae (including desmids and stoneworts)

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code				
					Fields				
					00	00	00	00	00
		Sphaeropleaceae			87	3	8		
Ulvales					87	4			
		Ulvaceae			87	4	1		
		Schizomeridaceae			87	4	2		
Schizogoniales					87	5			
		Schizogoniaceae			87	5	1		

Green Algae (including desmids and stoneworts)

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code				
					Fields				
					00	00	00	00	00
Oedogoniales					87	6			
	Oedogoniaceae				87	6	1		
		Bulbochaete			87	6	1	1	
			Oedogonium		87	6	1	2	
Cladophorales					87	7			
	Cladophoraceae				87	7	1		
Chlorococcales					87	8			
	Chlorococcaceae				87	8	1		
		Endosphaeraceae			87	8	2		

Green Algae (including desmids and stoneworts)

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields				
					00	00	00	00	00
		Micractiniaceae			87	8	3		
			Golenkiniopsis		87	8	3	1	
			Golenkinia		87	8	3	2	
			radiata		87	8	3	2	1
		Dictyosphaeriaceae			87	8	4		
			Dictyosphaerium		87	8	4	1	
			pulchellum		87	8	4	1	1
			ehrenbergianum		87	8	4	1	2
			Dimorphococcus		87	8	4	2	
			lunatus		87	8	4	2	1
			Botryococcus		87	8	4	3	
			braunii		87	8	4	3	1

Green Algae (including desmids and stoneworts)

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code				
					Fields				
					00	00	00	00	00
		Characiaceae			87	8	5		
			Schroederia		87	8	5	1	
			setigera		87	8	5	1	1
			judayi		87	8	5	1	2
		Characium			87	8	5	2	
			ambiguum		87	8	5	2	1
			ornithocephalum		87	8	5	2	2
		Protosiphonaceae			87	8	6		
		Hydrodictyaceae			87	8	7		
			Pediastrum		87	8	7	1	
			boryanum		87	8	7	1	1
			tetras		87	8	7	1	2
			obtusum		87	8	7	1	3
			simplex		87	8	7	1	4

Green Algae (including desmids and stoneworts)

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields				
					00	00	00	00	00
		Coelastraceae			87	8	8		
			Coelastrum		87	8	8	1	
			braunii		87	8	8	1	1
			scabrum		87	8	8	1	2
			cambricum		87	8	8	1	3
			microporum		87	8	8	1	4
		Oocystaceae			87	8	9		
			Oocystis		87	8	9	1	
			subtilissima		87	8	9	1	1
			lacustris		87	8	9	1	2
			elliptica		87	8	9	1	3
		Kirchneriella			87	8	9	2	
			obesa		87	8	9	2	1
		Ankistrodesmus			87	8	9	3	
			falcatus		87	8	9	3	1
			fractus		87	8	9	3	2
			spiralis		87	8	9	3	3

Green Algae (including desmids and stoneworts)

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code					
					Fields					
					00	00	00	00	00	00
			<i>Westella</i>		87	8	9	4		
				<i>botryoides</i>	87	8	9	4	1	
				<i>linearis</i>	87	8	9	4	2	
			<i>Selenastrum</i>		87	8	9	5		
				<i>minuta</i>	87	8	9	5	1	
			<i>Quadrigula</i>		87	8	9	6		
			<i>Quadrigula</i>		87	8	9	6	1	
				<i>lacustris</i>	87	8	9	6	1	
				<i>closteroides</i>	87	8	9	6	2	
			<i>Tetraedron</i>		87	8	9	7		
				<i>minuta</i>	87	8	9	7	1	
				<i>caudatum</i>	87	8	9	7	2	
				<i>regulare</i>	87	8	9	7	3	
				<i>minimum</i>	87	8	9	7	4	
				<i>pentaedricum</i>	87	8	9	7	5	
			<i>Scotiella</i>		87	8	9	8		
				<i>nivalis</i>	87	8	9	8	1	

Green Algae (including desmids and stoneworts)

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields					
					00	00	00	00	00	00

Lagerheimia=

<i>Chodatella</i>	87	8	9	9
<i>quadriseta</i>	87	8	9	9
				1

Scenedesmaceae

<i>Scenedesmus</i>	87	8	10	
<i>bijuga</i>	87	8	10	1
<i>denticulatus</i>	87	8	10	1
<i>quadricauda</i>	87	8	10	2
<i>abundans</i>	87	8	10	3
<i>dimorphus</i>	87	8	10	4
	87	8	10	5

Tetraillantos

<i>Tetraillantos</i>	87	8	10	2
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Green Algae (including desmids and stoneworts)

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code					
					Fields	00	00	00	00	00
			Crucigenia		87	8	10	3		
				quadra	87	8	10	3	1	
				rectangularis	87	8	10	3	2	
				tetrapedia	87	8	10	3	3	
			Radiococcaceae		87	8	11			
				Phacomyxa	87	8	11	1		
					87	8	11	1	1	
	Siphonales		Phyllosiphonaceae		87	9				
					87	9	1			
			Dichotomosiphonaceae		87	9	2			
	Zygnematales		Zygnemataceae		87	10				
				Mougeotia	87	10	1			
					87	10	1	1		
			Spirogyra		87	10	1	2		

Green Algae (including desmids and stoneworts)

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code				
					Fields				
					00	00	00	00	00
			Zygnema		87	10	1	3	
		Mesotaeniaceae			87	10	2		
			Gonatozygon		87	10	2	1	
			monotaenium		87	10	2	1	1
			kihnahani		87	10	2	1	2
		Cylindrocystis			87	10	2	2	1

Desmids (green algae)

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code						
					Fields						
					00	00	00	00	00	00	
Desmidiaceae											
			<i>Arthrodeshmus</i>		87	10	3				
			<i>tenuissimus</i>		87	10	3	1	1		
			<i>incus</i>		87	10	3	1	2		
			<i>triangularis</i>		87	10	3	1	3		
			<i>ralfsii</i>		87	10	3	1	4		
			<i>subulatus</i>		87	10	3	1	5		
			<i>validus</i>		87	10	3	1	6		
Cosmarium											
			<i>punctatum</i>		87	10	3	2		1	
			<i>contractum</i>		87	10	3	2	2		
			<i>margaritatum</i>		87	10	3	2	3		
			<i>bioculatum</i>		87	10	3	2	4		
			<i>abruptum</i>		87	10	3	2	5		
Desmidium											
			<i>cylindricum</i>		87	10	3	3	3	1	
			<i>grevillii</i>		87	10	3	3	2		
			<i>baileyi</i>		87	10	3	3	3	3	

Desmids (green algae)

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields				
					00	00	00	00	00
			Euastrum		87	10	3	4	
			didelta		87	10	3	4	1
			ansatum		87	10	3	4	2
			crassum		87	10	3	4	3
			pinnatum		87	10	3	4	4
			verrucosum		87	10	3	4	5
			abruptum		87	10	3	4	6
			elegans		87	10	3	4	7
			Pleurotaenium		87	10	3	5	
			nodosum		87	10	3	5	1
			nodulosum		87	10	3	5	2
			coronatum		87	10	3	5	3
			trabecula		87	10	3	5	4
			ehrenbergii		87	10	3	5	5
			verrucosum		87	10	3	5	6
			Bambusina		87	10	3	6	
			brevibissonii		87	10	3	6	1
			barreri		87	10	3	6	2
			Sphaerozosma		87	10	3	7	
			excavata		87	10	3	7	1

Desmids (green algae)

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code					
					Fields	00	00	00	00	00
			<i>Spondylosium</i>		87	10	3	8		
			<i>planum</i>		87	10	3	8	1	
			<i>pulchrum</i>		87	10	3	8	2	
			<i>Xanthidium</i>		87	10	3	9		
			<i>antilopaeum</i>		87	10	3	9	1	
			<i>armatum</i>		87	10	3	9	2	
			<i>cristatum</i>		87	10	3	9	3	
			<i>pseudoben-</i> <i>galicum</i>		87	10	3	9	4	
			<i>Triploceras</i>		87	10	3	10		
			<i>gracile</i>		87	10	3	10	1	
			<i>verticulatum</i>		87	10	3	10	2	
			<i>Micrasterias</i>		87	10	3	11		
			<i>laticeps</i>		87	10	3	11	1	
			<i>mahabulesh-</i> <i>warensis</i>		87	10	3	11	2	
			<i>apiculata</i>		87	10	3	11	3	
			<i>muricata</i>		87	10	3	11	4	
			<i>denticulata</i>		87	10	3	11	5	
			<i>foliaceae</i>		87	10	3	11	6	
			<i>johsonii</i>		87	10	3	11	7	
			<i>radiata</i>		87	10	3	11	9	
			<i>radiosa</i>		87	10	3	11	10	

Desmids (green algae)

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code				
					Fields	00	00	00	00
				<i>rotata</i>	87	10	3	11	11
				<i>conferta</i>	87	10	3	11	12
				<i>jennerii</i>	87	10	3	11	13
				<i>papillifera</i>	87	10	3	11	14
				<i>mucosa</i>	87	10	3	11	15
			<i>Staurastrum</i>		87	10	3	12	
			<i>curvatum</i>		87	10	3	12	1
			<i>anatinum</i>		87	10	3	12	2
			<i>ankyroides</i>		87	10	3	12	3
			<i>artistiferum</i>		87	10	3	12	4
			<i>brevispinum</i>		87	10	3	12	5
			<i>comptum</i>		87	10	3	12	6
			<i>furcigerum</i>		87	10	3	12	7
			<i>grallatorium</i>		87	10	3	12	8
			<i>johnsoni</i>		87	10	3	12	9
			<i>lacustre</i>		87	10	3	12	10
			<i>manfeldtii</i>		87	10	3	12	11
			<i>mucronatum</i>		87	10	3	12	12
			<i>natator</i>		87	10	3	12	13
			<i>ophiura</i>		87	10	3	12	14
			<i>pachyrhynchum</i>		87	10	3	12	15
			<i>paradoxum</i>		87	10	3	12	16
			<i>pentacerum</i>		87	10	3	12	17
			<i>megacanthum</i>		87	10	3	12	18
			<i>gladiosum</i>		87	10	3	12	19
			<i>leptocladum</i>		87	10	3	12	20
			<i>limneticum</i>		87	10	3	12	21
			<i>avicula</i>		87	10	3	12	22
			<i>grande</i>		87	10	3	12	23
			<i>arctiscon</i>		87	10	3	12	24
			<i>aversum</i>		87	10	3	12	25
			<i>boreale</i>		87	10	3	12	26
			<i>cingulum</i>		87	10	3	12	27
			<i>dickiei</i>		87	10	3	12	28

Desmids (green algae)

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code					
					Fields					
					00	00	00	00	00	00
				<i>elongatum</i>	87	10	3	12	29	
				<i>o'mearii</i>	87	10	3	12	30	
				<i>pelagicum</i>	87	10	3	12	31	
				<i>tetracerum</i>	87	10	3	12	32	
				<i>gracile</i>	87	10	3	12	33	
			<i>Hyalotheca</i>		87	10	3	13		
				<i>dissiliens</i>	87	10	3	13	1	
				<i>quadridens</i>	87	10	3	13	2	
				<i>mucosa</i>	87	10	3	13	3	
			<i>Closterium</i>		87	10	3	14		
				<i>setaceum</i>	87	10	3	14	1	
				<i>kutzingii</i>	87	10	3	14	2	
				<i>parientana</i>	87	10	3	14	3	
			<i>Groenbladia</i>		87	10	3	15		
				<i>neglecta</i>	87	10	3	15	1	

Desmids (green algae)

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields					
					00	00	00	00	00	00
				<i>Staurodesmus</i>	87	10	3	16		
				<i>Gymnozyga</i>	87	10	3	17		
				<i>moniliformis</i>	87	10	3	17	1	
				<i>Penium</i>	87	10	3	18		
				<i>obtusa</i>	87	10	3	18	1	
				<i>Amscottia</i>	87	10	3	19		
				<i>mira</i>	87	10	3	19	1	

Stoneworts (green algae)

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields						
					00	00	00	00	00	00	
	Charophyceae				87	11					
		Characeae			87	11	1				
			Chara		87	11	1	1			
				Nitella					87	11	
								1	2		
				Tolypella					87	11	1
								3			

Euglenids

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields				
					00	00	00	00	00
Euglenophyceae					88				
	Euglenales				88	1			
		Euglenaceae			88	1	1		
			Trachelomonas		88	1	1	1	
				Euglena	88	1	1	2	
				Phacus	88	1	1	3	
				Strombomonas	88	1	1	4	
		Astasiaceae			88	1	2		

Euglenids

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields					
					00	00	00	00	00	00
		Peranemaceae			88	1	3			
Colaciales					88	2				
	Coliaciaceae				88	2	1			
		Colacium			88	2	1	1		
			calvum		88	2	1	1	1	
			vesiculosum		88	2	1	1	2	

Yellow-Green Algae

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields
					00 00 00 00 00
Xanthophyceae					89
	Rhizochloridales				89 1
		Stipitococcaceae			89 1 1
			Rhizochloris		89 1 1 1
Heterocapsales					89 2
		Chlorosaccaceae			89 2 1
		Malleodendraceae			89 2 2
Heteroccales					89 3
		Pleurochloridaceae			89 3 1
		Gloeobotrydiaceae			89 3 2

Yellow-Green Algae

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code					
					Fields					
					00	00	00	00	00	00
		Mischococcaceae			89	3	3			
		Characiopsidaceae			89	3	4			
			Characiopsis		89	3	4	1		
			Peroniella		89	3	4	2		
			hyalothecae		89	3	4	2	1	
		Chloropediaceae			89	3	5			
		Centritractaceae			89	3	6			
			Pseudotetraedron		89	3	6	1		
			neglectum		89	3	6	1	1	
		Chlorotheciaceae			89	3	7			

Yellow-Green Algae

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields				
					00	00	00	00	00
	Heterotrichales				89	4			
		Tribonemataceae			89	4	1		
			Tribonema		89	4	1	1	
		Monociliaceae			89	4	2		
	Heterosiphonales				89	5			
		Botrydiaceae			89	5	1		
		Vaucheriaceae			89	5	2		

Golden Algae

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields					
					00	00	00	00	00	00
Chrysophyceae					90					
	Chrysomonadales				90	1				
		Chromulinaceae	Kephyrion		90	1	1			
				cinctum	90	1	1	1	1	
				littorale	90	1	1	1	2	
				borale	90	1	1	1	3	
				valkanovii	90	1	1	1	4	
				fulvum	90	1	1	1	5	
			Chromulina		90	1	1	2		
				minuta	90	1	1	2	1	
				glacialis	90	1	1	2	2	
			Bicoeca		90	1	1	3		
				mitra	90	1	1	3	1	
				cylindrica	90	1	1	3	2	
			Chrysococcus		90	1	1	4		
				radians	90	1	1	4	1	

Golden Algae

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields					
					00	00	00	00	00	00
				<i>Chrysopyxis</i>	90	1	1	1	5	
				<i>Codomonas</i>	90	1	1	6		
				<i>annulata</i>	90	1	1	6	1	
				<i>Mallomonadaceae</i>	90	1	2			
				<i>Chrysosphaerella</i>	90	1	2	1		
				<i>longispina</i>	90	1	2	1	1	
				<i>Mallomonas</i>	90	1	2	2		
				<i>liebneri</i>	90	1	2	2	1	
				<i>elongata</i>	90	1	2	2	2	
				<i>pumillio</i>	90	1	2	2	3	
				<i>akrokomonas</i>	90	1	2	2	4	
				<i>lynchensis</i>	90	1	2	2	5	
				<i>tonsurata</i>	90	1	2	2	6	
				<i>pseudocoronata</i>	90	1	2	2	7	
				<i>caudata</i>	90	1	2	2	8	

Golden Algae

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields				
					00	00	00	00	00
		Syncryptaceae			90	1	3		
		Synuraceae			90	1	4		
			Synura		90	1	4	1	
				adamsii	90	1	4	1	1
				caroliniana	90	1	4	1	2
				urella	90	1	4	1	3
				lapponica	90	1	4	1	4
		Chrysodidymus			90	1	4	2	
		Conradiella			90	1	4	3	

Golden Algae

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code					
					Fields					
00	00	00	00	00	00	00	00	00	00	
		Coccolithophoridaceae			90	1	5			
		Ochromonadaceae			90	1	6			
			Ochromonas		90	1	6	1		
			globosa		90	1	6	1	1	
		Cyclonexis			90	1	6	2		
		Chrysoxys			90	1	6	3		
			major		90	1	6	3	1	
		Uroglena			90	1	6	4		
			volvox		90	1	6	4	1	

Golden Algae

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code					
					Fields					
					00	00	00	00	00	00
			<i>Urogljenopsis</i>		90	1	6	5		
				<i>americana</i>	90	1	6	5	1	
			<i>Hyalobryon</i>		90	1	6	6		
			<i>Epipyxis</i>		90	1	6	7		
				<i>diplostoma</i>	90	1	6	7	1	
				<i>ramosa</i>	90	1	6	7	2	
				<i>utriculus</i>	90	1	6	7	3	
			<i>Dinobryon</i>		90	1	6	8		
				<i>bavaricum</i>	90	1	6	8	1	
				<i>divergens</i>	90	1	6	8	2	
				<i>sertularia</i>	90	1	6	8	3	
				<i>sociale</i>	90	1	6	8	4	
				<i>cylindricum</i>	90	1	6	8	5	
				<i>borgei</i>	90	1	6	8	6	

Golden Algae

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields					
					00	00	00	00	00	00
			<i>Pseudokephyrion</i>		90	1	6	9		
			<i>plancticum</i>		90	1	6	9	1	
			<i>minutissimum</i>		90	1	6	9	2	
			<i>latum</i>		90	1	6	9	3	
			<i>skujae</i>		90	1	6	9	4	
			<i>Chrysolykos</i>		90	1	6	10		
			<i>skujae</i>		90	1	6	10	1	
			<i>plancticus</i>		90	1	6	10	2	
			<i>Chrysoikos</i>		90	1	6	11		
			<i>bicornis</i>		90	1	6	11	1	
			<i>Dendromonas</i>		90	1	6	12		
			<i>cryptostylis</i>		90	1	6	12	1	
			<i>Stylochrysallis</i>		90	1	6	13		
			<i>parasitica</i>		90	1	6	13	1	

Golden Algae

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code				
					Fields	00	00	00	00
		Prymnesiaceae			90	1	7		
			Chrysocromulina		90	1	7	1	
			parva		90	1	7	1	1
	Rhizochrysidales				90	2			
		Rhizochrysidaceae			90	2	1		
			Chrysamoeba		90	2	1	1	
			radians		90	2	1	1	1
		Rhizochrysis			90	2	1	2	
			limnetica		90	2	1	2	1
		Bitrichia			90	2	1	3	
			chodati		90	2	1	3	1

Golden Algae

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields				
					00	00	00	00	00
			<i>Heliochrysis</i>		90	2	1	4	
			<i>radians</i>		90	2	1	4	1
			<i>Lagynion</i>		90	2	1	5	
			<i>fulvum</i>		90	2	1	5	1
			<i>scherffeli</i>		90	2	1	5	2
			<i>oblongatum</i>		90	2	1	5	3
<i>Chrysocapsales</i>					90	3			
	<i>Chrysocapsaceae</i>				90	3	1		
		<i>Chrysocapsa</i>			90	3	1	1	
		<i>plantonica</i>			90	3	1	1	1
	<i>Naegeliellaceae</i>				90	3	2		
		<i>Naegeliella</i>			90	3	2	1	
		<i>flagellifera</i>			90	3	2	1	1

Golden Algae

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields					
					00	00	00	00	00	00
		Hydruraceae			90	3	3			
Chrysotrichales					90	4				
		Phaeothamniaceae			90	4	1			
Chrysosphaerales					90	5				
		Chrysosphaeraceae			90	5	1			
Monosigales=Choanoflagellate					90	6				
		Salpingoecaceae			90	6	1			
		Salpingoeca			90	6	1	1		
		frequentissima			90	6	1	1	1	1

Golden Algae

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields				
					00	00	00	00	00
		Monosigaceae			90	6	2		
			Desmarella		90	6	2	1	
				moniliformis	90	6	2	1	1
				irregularis	90	6	2	1	2

Diatoms

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code					
					Fields					
					00	00	00	00	00	00
Bacillariophyceae					91					
Centrales					91	1				
	Coscinodiscaceae		Cyclotella		91	1	1	1	1	
			nana		91	1	1	1	1	1
			comta		91	1	1	1	1	2
			michiganiana		91	1	1	1	1	3
			bodenica		91	1	1	1	1	4
			kutzingiana		91	1	1	1	1	5
			meneghiniana		91	1	1	1	1	6
			Stephanodiscus		91	1	1	2		
			astrea		91	1	1	2	1	
			Melosira		91	1	1	3		
			granulata		91	1	1	3	1	
			distans		91	1	1	3	2	
			italica		91	1	1	3	3	
			Coscinodiscus		91	1	1	4		
			lacustris		91	1	1	4	1	
	Eupodiscaceae				91	1	2			

Diatoms

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields				
					00	00	00	00	00
		Rhizosoleniaceae			91	1	3		
			Rhizosolenia		91	1	3	1	
			eriensis		91	1	3	1	1
		Chaetoceraceae			91	1	4		
		Biddulphiaceae			91	1	5		
			Biddulphia		91	1	5	1	
		Anaulaceae			91	1	6		

Diatoms

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields				
					00	00	00	00	00
Pennales					91	2			
	Tabellariaceae				91	2	1		
		Tabellaria			91	2	1	1	
			fenestrata		91	2	1	1	1
			flocculosa		91	2	1	1	2
		Tetracyclus			91	2	1	2	
			lacustris		91	2	1	2	1
Meridionaceae					91	2	2		
	Meridion				91	2	2	1	
		circulare			91	2	2	1	1
Diatomaceae					91	2	3		
	Opephora				91	2	3	1	
			pacifica		91	2	3	1	1
	Diatoma				91	2	3	2	
			vulgare		91	2	3	2	1
			elongatum		91	2	3	2	2

Diatoms

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields				
					00	00	00	00	00
		Fragilariaceae			91	2	4		
			Asterionella		91	2	4	1	
				formosa	91	2	4	1	1
			Fragilaria		91	2	4	2	
				capucina	91	2	4	2	1
				crotonensis	91	2	4	2	2
				virescens	91	2	4	2	3
				construens	91	2	4	2	4
				pinnata	91	2	4	2	5
		Synedra			91	2	4	3	
				acus	91	2	4	3	1
				rumpens	91	2	4	3	2
				delitissima	91	2	4	3	3
				filiformis	91	2	4	3	4
				ulna	91	2	4	3	5
				capitellata	91	2	4	3	6
				capitata	91	2	4	3	7
				nana	91	2	4	3	8
		Centronella			91	2	4	4	
				reichelti	91	2	4	4	1

Diatoms

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields					
					00	00	00	00	00	00
		Eunotiaceae			91	2	5			
			Ceratoneis		91	2	5	1		
			Eunotia		91	2	5	2		
			denticulata		91	2	5	2	1	
			binale		91	2	5	2	2	
			flexuosa		91	2	5	2	3	
			lunaris		91	2	5	2	4	
			perpussilla		91	2	5	2	5	
			pectinalis		91	2	5	2	6	
			praemonas		91	2	5	2	7	
			sudetica		91	2	5	2	8	
			caespitosa		91	2	5	2	9	
			naegelii		91	2	5	2	10	
			Actinella		91	2	5	3		
			punctata		91	2	5	3	1	

Diatoms

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields					
					00	00	00	00	00	00
			Amphicampa		91	2	5	4		
				<i>hemicyclus</i>	91	2	5	4	1	
		Achnanthaceae			91	2	6			
			Achnanthes		91	2	6	1		
				<i>depressa</i>	91	2	6	1	1	
				<i>laevis</i>	91	2	6	1	2	
				<i>lanceolata</i>	91	2	6	1	3	
				<i>linearis</i>	91	2	6	1	4	
				<i>microcephala</i>	91	2	6	1	5	
				<i>neticus</i>	91	2	6	1	6	
			Coccconeis		91	2	6	2		
				<i>placentula</i>	91	2	6	2	1	
			Peroniopsis		91	2	6	3		
				<i>heribaudii</i>	91	2	6	3	1	
		Naviculaceae			91	2	7			
			Neidium		91	2	7	1		
				<i>affine</i>	91	2	7	1	1	

Diatoms

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code				
					Fields				
					00	00	00	00	00
			Gyrosigma		91	2	7	2	
			Pinnularia		91	2	7	3	
			arca		91	2	7	3	1
			major		91	2	7	3	2
			lata		91	2	7	3	3
			divergens		91	2	7	3	4
			stomatophora		91	2	7	3	5
			arctica		91	2	7	3	6
			Anomoeoneis		91	2	7	4	
			brachysira		91	2	7	4	1
			serians		91	2	7	4	2

Diatoms

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields					
					00	00	00	00	00	
			Amphipleura		91	2	7	5		
				pellucida	91	2	7	5	1	
			Frustulia		91	2	7	6		
				rhomboides	91	2	7	6	1	
				vulgaris	91	2	7	6	3	
			Navicula		91	2	7	7		
				radiosa	91	2	7	7	1	
				cryptocephala	91	2	7	7	2	
				cuspidata	91	2	7	7	3	
			Stauroneis		91	2	7	8		
				phoenicenteron	91	2	7	8	1	
				anceps	91	2	7	8	2	

Diatoms

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code				
					Fields				
					00	00	00	00	00
			Pleurosigma		91	2	7	9	
			Caloneis		91	2	7	10	
			ladogensis		91	2	7	10	1
			Mastogloia		91	2	7	11	
			smithii		91	2	7	11	1
			Diploneis		97	2	7	12	
	Gomphonemataceae		Gomphonema		91	2	8		
			angustatum		91	2	8	1	
			gracile		91	2	8	1	2
			lanceolatum		91	2	8	1	3
			montanum		91	2	8	1	4
			Gomphoneis		91	2	8	2	

Diatoms

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields					
					00	00	00	00	00	00
		Cymbellaceae			91	2	9			
			Cymbella		91	2	9	1		
				caespitosa	91	2	9	1	1	
				cistula	91	2	9	1	2	
				ehrenbergii	91	2	9	1	3	
				tumidula	91	2	9	1	4	
				lanceolata	91	2	9	1	5	
			Amphora		91	2	9	2		
				ovalis	91	2	9	2	1	
			Epithemia		91	2	9	3		
			Rhopalodia		91	2	9	4		
				gibba	91	2	9	4	1	

Diatoms

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields				
					00	00	00	00	00
		Nitzchiaceae			91	2	10		
			Nitzschia		91	2	10	1	
				acicularis	91	2	10	1	1
				capitellata	91	2	10	1	2
				sigma	91	2	10	1	3
				sigmoidea	91	2	10	1	4
				sinuata	91	2	10	1	5
				vermicularis	91	2	10	1	6
				scalaris	91	2	10	1	7
				closterium	91	2	10	1	8
		Hantzschia			91	2	10	2	
				amphioxys	91	2	10	2	1
		Denticula			91	2	10		3
		Surirellaceae			91	2	11		
			Surirella		91	2	11	1	
				robusta	91	2	11	1	1

Diatoms

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields					
					00	00	00	00	00	00
					91	2	11	2		
					91	2	11	2	1	
					91	2	11	3		
					91	2	11	3	1	

Brown Algae

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code
					Fields
Phaeophyta					00 00 00 00 00

92

Dinoflagellates

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code				
					00	00	00	00	Fields
Dinophyceae					93				
	Gymnodiniales				93	1			
		Gymnodiniaceae			93	1	1		
			Gymnodinium		93	1	1	1	
				uberrimum	93	1	1	1	1
				varians	93	1	1	1	2
				ordinatum	93	1	1	1	3
Peridiniales					93	2			
	Glenodiniaceae				93	2	1		
		Glenodinium			93	2	1	1	
			quadridens		93	2	1	1	1
	Gonyaulacaceae				93	2	2		
Peridiniaceae					93	2	3		
		Peridinium			93	2	3	1	
			cinctum		93	2	3	1	1
			limbatum		93	2	3	1	2
			pusillum		93	2	3	1	3
	Peridiniopsis				93	2	3	2	

Dinoflagellates

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields					
					00	00	00	00	00	00
		Ceratiaceae			93	2	4			
			Ceratium		93	2	4	1		
				caroliniana	93	2	4	1	1	
				hirudinella	93	2	4	1	2	
Dinocapsales					93	3				
		Gloeodiniaceae			93	3	1			
			Urococcus		93	3	1	1		
				insignis	93	3	1	1	1	
Dinocccales					93	4				
		Phytodiniaceae			93	4	1			
			Styloodium		93	4	1	1		
				globosum	93	4	1	1	1	
		Blastodiniaceae			93	4	2			

Chloromonads

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code					
					Fields					
					00	00	00	00	00	00
					94					
Chloromonadophyceae					94					
	Chloromonadales				94	1				
		Chloromonadaceae			94	1	1			

Cryptomonads

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields				
					00	00	00	00	00
Cryptophyceae					95				
	Cryptomonadales				95	1			
		Cryptochrysidaceae			95	1	1		
			Rhodomonas		95	1	1	1	
				minuta	95	1	1	1	1
		Cryptomonadaceae			95	1	2		
			Cryptomonas		95	1	2	1	
			erosa		95	1	2	1	1
			marssonii		95	1	2	1	2
			ovata		95	1	2	1	3
		Nephroselmidiaceae			95	1	3		

Cryptomonads

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields				
					00	00	00	00	00
	Kathablepharidaceae				95	1	4		
		Kathablepharis			95	1	4	1	
			ovalis		95	1	4	1	1
Cryptococcales					95	2			
		Cryptococcaceae			95	2	1		

Red Algae

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields				
					00	00	00	00	00
Rhodophyceae					96				
	Bangiales				96	1			
		Goniotrichaceae			96	1	1		
			Bangiaceae		96	1	2		
Nemalionales					96	2			
		Chantransiaceae			96	2	1		

Red Algae

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code Fields				
					00	00	00	00	00
		Batrachospermaceae			96	2	2		
		Thoreaceae			96	2	3		
		Lemaneaceae			96	2	4		

Extraterrestrials

Division or Class	Subdivision, Class or Order	Order, Suborder or Family	Genus	Species	Code
					Fields
					00 00 00 00 00
Extraterrestrials					99