

RESEARCH PAPER

Updated checklist of freshwater algal flora of Kurdistan region of Iraq

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ABSTRACT:

An updated checklist of 1812 taxa of freshwater algae is provided for the Kurdistan region of Iraq. The list comprises 426 Cyanophyta, 13 Rhodophyta, 87 Euglenophyta, 9 Cryptophyta, 18 Dinophyta, 13 Chrysophyta, 44 Xanthophyta, 643 Bascillariophyta and 559 Chlorophyta, representing 471 new additions to the last checklist of Kurdistan.

KEY WORDS: Checklist, Freshwater Algae, Kurdistan Region of Iraq.

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1.INTRODUCTION :

The Iraqi Kurdistan region is located in the northern part of Iraq. It consists of four governorates, Erbil (the region's capital), Sulaimaniyah, Halabja and Duhok (Fadhil, 2012). The Kurdistan region is located in a semiarid climate zone, a mountainous region, cold winter and dry summer. The area is affected by the Mediterranean climatologically system, so its precipitation occurs during the winter and spring seasons (Mamlesi, 2010). Kurdistan is characterized by the existence of many rivers, streams, springs, and ground water sources. In addition, there are lakes and reservoirs such as Dokan, Derbandikhan and Dohuk (Hameed, 2013). Algae are an important component of aquatic ecosystems like springs, streams, rivers, ponds, and lakes, because they reflect the health of those through their distribution, abundance, and productivity (Stevenson *et al.*, 1996).

The first observation of algae which carried out in north west of Iraq including apart of Kurdistan, that had been collected by (Handel- Mazzeti, 1910), and then after the samples were identified and classified by (Kolbe and Krieger, 1942), and published in 1945. (Maulood *et al.* 2013) published the checklist of algal flora in Iraq and Aziz (2011) was the first to compile a checklist of algae in Kurdistan, based on all the research available then, he reported atotal of 1341 species in the *Checklist of algae in Iraqi Kurdistan region*. Since then, the checklist of algal species in the Kurdistan has not been updated. While many new taxa have been recorded. The aim of this paper is to present an update of the algal list in Kurdistan.

Material and methods:

The checklist was prepared by compiling all the available literature on the freshwater algae in the Kurdistan region of Iraq. The arrangement of the phyla follows that of *The Freshwater Algal Flora of the British Isles* (John *et al.*, 2011). The previous checklist published by Aziz (2011) was taken as a baseline but the taxonomical categories have been updated according to John *et al.* (2011), Komarek and Anagnostidis (2005). References

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used in this checklist are placed in front of each taxon as follows.

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43. Sofi, (2008).
44. Yasin, (2019).
45. Zewayee, (2011).
46. Al-Naqshbandy and Aziz, (2020).
47. Toma and Aziz, (2021a).
48. Toma and Aziz, (2021b).
49. Toma and Aziz, (2021c).
50. Toma and Aziz, (2021d).
51. Toma and Maulood, (2013).

Checklist

The group of the algae are arranged in the following sequence:

1. Cyanophyta: 426 taxa (23.50%)
2. Rhodophyta: 13 taxa (0.72%)
3. Euglenophyta: 87 taxa (4.80%)
4. Cryptophyta: 9 taxa (0.49%)
5. Dinophyta: 18 taxa (0.99%)
6. Chrysophyta: 13 taxa (0.72%)
7. Xanthophyta: 44 taxa (2.43%)
8. Bascillariophyta: 643 taxa (35.49%)
9. Chlorophyta: 559 taxa (30.85%)

| | List of Algal Taxa | References |
|---|---|------------------|
| | Division : Cyanophyta | |
| | Class: Cyanophyceae | |
| | Order: Chroococales | |
| 1 | <i>Aphanocapsa</i> Naeg, 1849 | |
| | <i>A. biformis</i> A. Braun syn: <i>A. nvularis</i> (Garm) A. Braun | 12, 13, 31 |
| | <i>A. crassa</i> (Ghost.) | 24 |
| | <i>A. delicatissima</i> West and West | 44, 51 |
| | <i>A. elachista</i> W. and W. | 12, 13, 31, 30 |
| | <i>A. elachista</i> var. <i>planctonica</i> G. M. Sm. | 12, 21, 51 |
| | <i>A. endophytica</i> G. M. Sm. | 5, 12, 8, 31, 34 |
| | <i>A. litoralis</i> Hansgirg. | 39, 51 |
| | <i>A. musicola</i> (Menegh) Wille. | 34, 51 |
| 2 | <i>Aphanothece</i> Naeg, 1849 | |
| | <i>A. clathrata</i> West | 39, 44 |
| | <i>A. costagnii</i> (Breb) Rabenh. | 12, 8, 34, 51 |
| | <i>A. microscopica</i> Naeg. | 7, 31 |
| | <i>A. microspora</i> (Menegh.) Rabanh | 24 |

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|---|--|------------------------------|
| | <i>A. nidulans</i> var. <i>endophytica</i> West and West | 25, 51 |
| | <i>A. nidulris</i> Richter | 5, 12, 36, 6 |
| | <i>A. pallida</i> (Kuetz) Rabenh. | 22, 13, 31 |
| | <i>A. saxicola</i> Naeg. | 5, 12, 13, 31, 51 |
| 3 | <i>Chroococcus</i> Naeg, 1847 | |
| | <i>C. cohaerens</i> (Breb) Naeg. | 12 |
| | <i>C. disperses</i> (Keissler) Lemmermann | 42, 51 |
| | <i>C. hansgirgri</i> Schmidle | 12, 51 |
| | <i>C. limneticus</i> Lemm | 5, 21, 13, 51 |
| | <i>C. limneticus</i> var. <i>carneus</i> Chod. | 12, 51 |
| | <i>C. limneticus</i> var. <i>elegans</i> Gm.Smith | 43, 51 |
| | <i>C. limneticus</i> var. <i>disfans</i> G. M. Sm. | 12 |
| | <i>C. macrococcus</i> (Kuetz) Rabenh | 12 |
| | <i>C. minimus</i> var. <i>crassius</i> Rao. | 12, 21, 36 |
| | <i>C. minor</i> (Kuetz) Naeg. | 8, 12, 13, 27, 31, 34, 6, 51 |
| | <i>C. minutus</i> (Kuetz) Naeg. | 8, 12, 21, 13, 38, 51 |
| | <i>C. montanus</i> Hansg. | 12 |
| | <i>C. palidiis</i> Naeg. | 12, 31, 36 |
| | <i>C. tenax</i> (Kirehn) Hieron. | 5, 12, 51 |
| | <i>C. schizodermaticus</i> West | 4 |
| | <i>C. solitaries</i> Eichler | 31 |
| | <i>C. turgidus</i> (Kuetz) Naeg | 5, 12, 13, 34, 21, 51 |
| | <i>C. turgidus</i> var. <i>maximus</i> Nygaard. | 12, 21 |
| 4 | <i>Coelosphaerium</i> Naeg. 1849 | |
| | <i>C. dubium</i> Grunow | 51 |
| | <i>C. Kuetzingiana</i> Naeg. | 1, 5, 12, 51 |
| | <i>C. naegelianum</i> Unger | 39, 44 |
| 5 | <i>Dactylococcopsis</i> Komerek 1983 | |
| | <i>D. acicularis</i> Lemm. | 18 |
| | <i>D. fascicularis</i> lemn | 5, 51 |
| 6 | <i>Eucapsis</i> Clements and shantz. 1909 | |
| | <i>E. alpina</i> Cl. and Schutz | 5, 51 |
| | <i>E. carpatica</i> Komarek and Hindak. | 42 |
| 7 | <i>Gloeocapsa</i> Kuetzing 1843 | |
| | <i>G. aeruginosa</i> Kuetzing | 31, 51 |
| | <i>G. alpina</i> (Naeg.) Brand | 16 |
| | <i>G. calcarea</i> Tilden. | 12, 21, 13, 14, 5, 31, 34 |
| | <i>G. compacta</i> Kuetz | 39, 51 |
| | <i>G. decorticans</i> (A.Braun) Richter. | 12, 21 |
| | <i>G. gelatinosa</i> Kuetz | 51 |
| | <i>G. luteofusca</i> Nov. | 5, 6, 51 |
| | <i>G. KuetZingiana</i> Naeg | 12, 21, 8, 31, 34, 51 |
| | <i>G. montana</i> Kuetz. | 12,13 |
| | <i>G. pleurocapsoids</i> Novacek | 51 |
| | <i>G. polydermatica</i> Kutz | 51 |
| | <i>G. punctate</i> Naegeli | 51 |
| | <i>G. quaternaria</i> Kuetzing | 51 |
| | <i>G. rupestris</i> Kutz | 51 |
| | <i>G. sanguinea</i> (Agardh) Kuetz | 39 |
| 8 | <i>Gongrosira</i> Kuetzing, 1843 | |
| | <i>G. nigreueas</i> Naeg. | 12, 31 |
| | <i>G. plewocapsoids</i> (Breb) Nov. | 5, 12 |
| | <i>G. polydermatic</i> Kuetz. | 12, 21 |
| | <i>G. punctata</i> Naeg. | 12, 31 |
| | <i>G. quaternaria</i> (Breb.) Kuetz. | 12, 5, 31, 34 |
| | <i>G. rupestris</i> (Lungby) Bronet. | 12 |
| 9 | <i>Gloeothece</i> Naegeli, 1849. | |

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| | <i>G. linearis</i> Naeg. | 12, 13, 38 |
| | <i>G. palea</i> (Kuetz) Rabnh. | 31 |
| | <i>G. rhodochlymas</i> Skuja. | 12 |
| | <i>G. rupestris</i> (Lyngby) Bomet. | 12 |
| | <i>G. samoensis</i> var. <i>major</i> Wille. | 12 |
| 10 | <i>Gomphospheacteria</i> Kuetz, 1834. | |
| | <i>G. aponina</i> Kuetz. | 12, 31, 51 |
| 11 | <i>Marssoniella</i> Lemmermann 1900 | |
| | <i>M. elegans</i> Lemmermann | 47 |
| 12 | <i>Merismopedia</i> Meyen, 1839. | |
| | <i>M. convolute</i> Breb. | 31, 51 |
| | <i>M. elegans</i> A. Braun. | 12, 21, 51 |
| | <i>M. elongate</i> Nov. | 45 |
| | <i>M. glauca</i> (Ehr) Naeg. | 5, 12, 13, 38, 51 |
| | <i>M. marsoni</i> lemm. | 4, 51 |
| | <i>M. minima</i> Beck | 3, 51 |
| | <i>M. minimus</i> Deck | 5 |
| | <i>M. punctata</i> Meven. | 5, 12, 8, 51 |
| | <i>M. tenussima</i> Lemin. | 12, 13, 10, 34, 51 |
| | <i>M. trolleri</i> Bachm. | 12, 34, 51 |
| | <i>M. sp.</i> | 12 |
| 13 | <i>Johannesbaptistia</i> De Toni 1934. | |
| | <i>J. pellucidan</i> (Dickie) Taylor | 24, 42 |
| 14 | <i>Microcystis</i> Kuetzing, 1846. | |
| | <i>M. aeruginosa</i> Naeg. | 12, 51 |
| | <i>M. begatensis</i> Baneji. | 12 |
| | <i>M. elabens</i> (Breb) Kuetz. | 5, 12, 13, 51 |
| | <i>M. elongata</i> Nov | 51 |
| | <i>M. flosa-aqua</i> (Wittr) Kirchn. | 5, 12, 21, 51 |
| | <i>M. incerta</i> Lemm | 44 |
| | <i>M. marginata</i> (Menegh) Kuetz. | 12, 51 |
| | <i>M. robusta</i> (dark) Nygaard. | 12 |
| 15 | <i>Synechococcus</i> Naegegli, 1848. | |
| | <i>S. aeruginosus</i> Naeg. | 8, 12, 6, 51 |
| | <i>S. cedrorum</i> Sauvageau | 31 |
| | <i>S. elongatus</i> Naeg. | 6, 12, 38, 51 |
| 16 | <i>Rhobdoderma</i> Schridle, 1900 | |
| | <i>R. irrigulare</i> (Nauniman) Geitler | 6, 51 |
| 17 | <i>Synechocystis</i> Sauvageau, 1892. | |
| | <i>S. aquatis</i> Sauvag. | 12, 4 |
| | <i>S. pevalekii</i> Ercegovic | 31 |
| | <i>S. sp.</i> | 21 |
| 18 | <i>Komvophoron</i> Anagn. and Kom. 1988. | |
| | <i>K. constrictum</i> Anagn. and Kom. | 3 |
| 19 | <i>Chlorogloea</i> Wille, 1990 | |
| | <i>C. microcystoides</i> Geitler. | 27, 28, 31, 51 |
| 20 | <i>Entophysalis</i> Kuetz, 1843. | |
| | <i>E. granulosa</i> Kuetz. | 5, 12 |
| | Order: Chamaesiphonales | |
| 1 | <i>Chamaesiphon</i> (A. Braun) Gumow, 1865. | |
| | <i>C. confervicola</i> A. Braun. | 8, 12, 31, 38 |
| | <i>C. curvatus</i> Nordstd. | 12, 38, 51 |
| | <i>C. incrustans</i> Gumow | 34 |
| | <i>C. incrustans</i> var. <i>glabra</i> Rao | 34 |
| | <i>C. siderophilus</i> Stramach. | 12, 21, 38, 51 |

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| 2 | <i>Dermocarpa</i> Kuetz | |
| | <i>D. sp.</i> | 31 |
| 3 | <i>Hydrococcus</i> Kutzing 1833. | |
| | <i>H. rivularis</i> Kutzing 1833. | 8, 31 |
| 4 | <i>Hyella</i> Born and Flahault, 1888 | |
| | <i>H. caespitosa</i> Bomet and Flah | 12, 31, 51 |
| 5 | <i>Glaucospira</i> G. Lagerheim, 1892. | |
| | <i>G. agilissima</i> Lag. syn: <i>Spirulina agilissima</i> Lag. | 20 |
| | <i>G. laxissima</i> G.S.West syn.: <i>Spirulina laxissima f.major</i> Des | 20 |
| | <i>G. sp1.</i> syn: <i>Spirulina abbreviata</i> Lemm. ex Kleb 1895 and Lemm 1895. | 20 |
| | <i>G. sp.2.</i> syn: <i>Spirulina corakiana</i> Play. | 20 |
| | <i>G. sp.3.</i> syn: <i>Sprulina nodosa</i> Schem | 20 |
| | <i>G. sp4.</i> syn: <i>Spirulina stagnicola</i> | 20 |
| | <i>G. sp.5.</i> syn: <i>Spirulina subtilissima</i> Quetz. | 20 |
| | <i>G. sp.6.</i> syn: <i>Sirulina magnifica</i> Cop. | 20 |
| | <i>G. sp7.</i> syn: <i>Spilurina baltica</i> Mart. . | 20 |
| 6 | <i>Myxosarcina</i> Printz. 1921. | |
| | <i>M. amathystina</i> Skuja | 51 |
| | <i>M. burmensis</i> Skuja. | 12,13, 51 |
| | <i>M. revularis</i> Geitler. | 12, 13 |
| | <i>M. spectabilis</i> Geitler. | 5, 12, 31, 30, 51 |
| | <i>M. sp.</i> | 30 |
| 7 | <i>Pleurocapsa</i> Thuret, 1885. | |
| | <i>P. fuliginosa</i> Hauck. | 5, 12 |
| | <i>P. minor</i> Hansg. and Geitler. | 5, 8, 12, 31, 36, 38, 34, 51 |
| | <i>P. sp.</i> | 5 |
| 8 | <i>Xenococcus</i> Thuret, 1875. | |
| | <i>X. keneri</i> Hansg. | 5, 12, 31, 51 |
| | Order: Oscillatoriales | |
| 1 | <i>Arthrospira</i> Stizenberger, 1832. | |
| | <i>A. fusiformis</i> after Hindak, 1985 | 24 |
| | <i>A.massarti</i> Kuffareth | 51 |
| | <i>A. sprilineides</i> slizen and Bergret | 2 |
| | <i>A. jeneri</i> (Kuetz.) Stizen. 1852 | 16 |
| | <i>A. sp.</i> | 27 |
| 2 | <i>Boriza</i> Cohn, 1883 | |
| | <i>B. trilocularis</i> Cohn. | 12, 51 |
| 3 | <i>Homoeothrix</i> (Tliuret) Kirchner, 1898. | |
| | <i>H. caespitosa</i> (Rabenh.) Kirchn. | 12 |
| | <i>H. crasticea</i> Woro. | 31 |
| | <i>H. fusca</i> Starmach 1934 | 16 |
| | <i>H. janthina</i> Bornet and Flah syn: <i>Amphithrix Janthiana</i> | 5, 12, 31, 34, 51 |
| | <i>H. juliana</i> Bom and Flah | 5, 8, 31, 34, 51 |
| | <i>H. margaletii</i> Kom. and Kalina | 31 |
| | <i>H. nordstedtii</i> Bom and Flah | 8, 31, 34 |
| | <i>H. rivularis</i> fHansk) Kamt Kann | 8, 31 |
| | <i>H. schizorichoides</i> Muzafaror | 8, 31, 34 |
| | <i>H. sp.</i> | 12 |
| 4 | <i>Lyngbya</i> Agardh, 1892. | 12 |
| | <i>L. aerugineo - corulea</i> (Kuetz) Gomont | 8, 12, 31, 30, 51 |
| | <i>L. aestuarii</i> (Meret) Liebm. | 8, 12, 31 |
| | <i>L. allorgii</i> Fremy. | 5, 12, 51 |
| | <i>L. anomala</i> Desikachary 1959. | 42 |

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| | <i>L. baculum</i> Gomont | 12,13 |
| | <i>L. bergi</i> G.M Smith | 5, 51 |
| | <i>L. bipunctata</i> Lemrn. | 12, 38, 51 |
| | <i>L. borgerti</i> Lemm. | 12, 13 |
| | <i>L. ceylanica</i> Wille | 4 |
| | <i>L. chaetomorpha</i> Lyngar and Desik. | 8, 12, 38, 51 |
| | <i>L. conectens</i> (Bron) Biswas. | 4,12 |
| | <i>L. contorta</i> Lemm. | 12, 38, 51 |
| | <i>L. digueti</i> Gomont | 5, 8, 36, 38, 51 |
| | <i>L. epiphytica</i> Hieron | 31, 34, 51 |
| | <i>L. gardneri</i> (Setchell and Gardner) Geitler | 5, 8, 31, 38, 34, 51 |
| | <i>L. gracillia</i> Meneg | 5, 31, 51 |
| | <i>L. hojdenii</i> Gomont | 51 |
| | <i>L. lachneri</i> Zimm | 5, 8, 31, 38, 51 |
| | <i>L. infixia</i> Fremy. | 12, 13, 38, 51 |
| | <i>L. kashiapii</i> Ghose | 5, 51 |
| | <i>L. kuetzingii</i> Schmidle | 8, 12, 13, 12, 31, 38, 51 |
| | <i>L. largerhemii</i> (Mobeus) Gomont. | 12, 38 |
| | <i>L. laxespiraliis</i> Skuja | 12, 51 |
| | <i>L. limnetica</i> Lenim. | 8, 12, 51 |
| | <i>L. lutea</i> (Ag.) Gomont. | 5, 12, 51 |
| | <i>L. major</i> Menegh. | 12, 31 |
| | <i>L. majuscula</i> Harvey | 3 |
| | <i>L. martenisiana</i> Menegh. | 12, 8, 31, 6, 51 |
| | <i>L. mesotricha</i> Skuja. | 8, 12, 21, 13, 31, 34, 51 |
| | <i>L. nordgardhii</i> Wille. syn: <i>L. epiphytica</i> Wille | 12,13, 36, 38, 51 |
| | <i>L. palmarum</i> Martens Bruchl et. beswas | 4 |
| | <i>L. perelegans</i> Lemm | 5, 6, 31, 51 |
| | <i>L. putealis</i> Mont ex Gomont | 5, 51 |
| | <i>L. semiplena</i> Wille | 51 |
| | <i>L. taylorii</i> Drouet and Strickland | 51 |
| | <i>L. truncicola</i> Ghose. | 12 |
| | <i>L. versicolor</i> (wartmann) Gomont. | 12, 51 |
| 5 | <i>Microcoleus</i> Desmazieres, 1832 | |
| | <i>M. acutissimus</i> Gardner | 51 |
| | <i>M. lacustris</i> (Rabenh) Farlow. | 12, 31 |
| | <i>M. paludosus</i> (Kuetz) Gomont. | 5, 12, 51 |
| | <i>M. vaginiatus</i> (Vauch) Gomont. | 5, 12, 31, 51 |
| 6 | <i>Oscillatoria</i> Vaucher, 1892. | |
| | <i>O. acuta</i> Bruhl and Biswas. | 5, 12, 21, 51 |
| | <i>O. acutissima</i> Kufferath. | 5, 12, 51 |
| | <i>O. agardhii</i> Gomont | 8, 12, 21,13, 31,36, 38, 51 |
| | <i>O. amoena</i> (Kuetz) Gomont. | 5, 12, 51 |
| | <i>O. amoena</i> var. <i>nongranulata</i> Gomont | 12, 31, 36, 38, 51 |
| | <i>O. amphibia</i> Agardh | 8, 12, 38, 51 |
| | <i>O. amphigranulata</i> Bruhl and Biswas | 12, 38, 51 |
| | <i>O. animalis</i> (Ag) Gomont | 5, 38, 51 |
| | <i>O. anguina</i> (Bory) Gomont. | 12, 14, 38, 34, 51 |
| | <i>O. angusta</i> Koppe | 38 |
| | <i>O. angustissima</i> W and G. S. W. | 12 |
| | <i>O. articulata</i> Gardner. | 12, 28, 51 |
| | <i>O. brevis</i> (Kuetz) Gomont | 3, 51 |
| | <i>O. chalybea</i> Martens. | 5, 12, 13, 21, 51 |
| | <i>O. chlorina</i> (Fremy) Kuetz. | 12, 21, 51 |
| | <i>O. curviceps</i> Ag. | 12, 21, 51 |

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| | <i>O. decolorata</i> West | 4, 51 |
| | <i>O. foreaui</i> Fremy. | 12, 34 |
| | <i>O. formosa</i> Bory. | 12, 13, 21, 51 |
| | <i>O. gutulata</i> Van Gor | 31 |
| | <i>O. homogenea</i> Fremy de-Toni. | 12 |
| | <i>O. irrigue</i> Kuetz | 31 |
| | <i>O. jatorvensis</i> Vouk. | 8, 31, 36, 34 |
| | <i>O. laete-virens</i> (Grouan) Gomont. | 12 |
| | <i>O. laete - virens</i> var. <i>minimus</i> Biswas. | 12 |
| | <i>O. leavitta</i> Buell 1938. | 18 |
| | <i>O. meslinii</i> (Fremy),after Claus. | 42 |
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| | <i>Ph. caudatus</i> V. and <i>R. ovalis</i> Przep. | 12 |
| | <i>Ph. circumflexus</i> Pochmann | 49 |
| | <i>Ph. curvicauda</i> Svirenko. | 42 |
| | <i>Ph. dangeardii</i> Lemmermann | 49 |
| | <i>Ph. helicoides</i> Pochmann | 16 |
| | <i>Ph. lemmeninannii</i> (Swir) Skrortzow. | 12 |
| | <i>Ph. longicauda</i> Ehr. Dujardin. | 12, 21 |
| | <i>Ph. orbicularis</i> (Ehr.) Danger | 14 |
| | <i>Ph. peteloti</i> M.Lefevre | 49 |
| | <i>Ph. pleuronectes</i> (Muell.) Dujardin | 3, 39 |
| | <i>Ph. pseudoswreako</i> (Fresco, Ehernb) Dujardin. | 12, 4 |
| | <i>Ph. pyrum</i> (Ehrenb.) Stein | 18 |
| | <i>ph. triqueter</i> (Ehrenb) Dujardin. | 4 |
| 5 | <i>Trachelomonas</i> Ehrenberg, 1833. | |
| | <i>T. abrupta</i> (Swir) Deflandre | 12 |
| | <i>T. acanthostoma</i> A.Stokes | 44 |
| | <i>T. armata</i> (Her.) F.Stein | 16 |
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| | <i>T. volvocina</i> Ehrenberg. | 24 |
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| | <i>T. volvocina</i> var. <i>derephora</i> W.Conardo | 49 |
| 6 | <i>Astasia</i> Dujardin 1842. | |
| | <i>A. curvata</i> Klebs | 3, 17 |
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| 1 | <i>Anisonema</i> Dujardin. | |
| | <i>A. acinus</i> . Dujardin. | 17 |
| 2 | <i>Petalomonas</i> F.Stein 1859. | |
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| | <i>P. mediocanella</i> var. <i>disomata</i> | 49 |
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| 2 | <i>Heteronema</i> Dujardin 1841. | |
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| 3 | <i>Peranema</i> Dujardin 1841. | |
| | <i>P. sacculus</i> Christen | 49 |
| | <i>P. trichophorum</i> (Ehr.) F. Stein. | 3, 17 |
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| 1 | <i>Eutreptia</i> Perty 1852. | |
| | <i>E. viridis</i> Ehrenberg | 49 |
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| | Class: Cryptophyceae | |
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| | <i>C. paramaecium</i> Ehrenberg | 17, 19, 44 |
| 2 | <i>Cryptomonas</i> Ehrenberg | |
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| | <i>C. ovata</i> Ehrenberg | 19 |
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| 3 | <i>Protochrysis</i> Pascher | |
| | <i>P. phaeophycearum</i> Pasch. | 12 |
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| | Class: Dinophyceae | |
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| | <i>T. sanguinea</i> Moestrup, Hansen, Daugbjerg, Flaim & D'andrea | 19 |
| 2 | <i>Woloszynskia</i> R.H.Thompson 1950 | |
| | <i>W. tenuissima</i> R.H.Thompson | 47 |
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| 1 | <i>Ceratium</i> Schrank | |
| | <i>C. Furcoides</i> (Levander) Langhans | 16 |
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| | <i>G. inversum</i> Nygaard | 47 |
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| | <i>G. quadridens</i> (stein) Schiller | 25 |
| 2 | <i>Peridinium</i> Ehrenbergh | |
| | <i>P. cinctum</i> (Muell.) Ehr. | 1, 4,41 |
| | <i>P. elpatiewskii</i> Ostenf | 41 |
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| | <i>p. incospicum</i> Lemm | 24 |
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| 1 | <i>Hemidinium</i> Stein | |
| | <i>H. nasatum</i> Stein | 12 |

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| | Class: Chrysophyceae | |
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| 1 | <i>Dinobryon</i> Ehrenberg, 1835. | |
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| 2 | <i>Epipyxis</i> Ehrenberg 1838. | |
| | <i>E. utriculus</i> Ehrenberg 1838. | 3 |
| 3 | <i>Kephyrion</i> Pascher, 1911. | |
| | <i>K. sp.</i> | 12 |
| 4 | <i>Psendokephyrion</i> Pascher, 1913. | |
| | <i>P. undulatum</i> (G.A.Klebs)Pascher | 16 |
| | <i>P. sp.</i> | 12 |
| | <i>P. sp.</i> | 2, 12 |
| 5 | <i>Synuroopsis j. schiller</i> 1929. | |
| | <i>S. janei</i> (Bourrelly) Wujek | 18 |
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| 1 | <i>Hydrurus</i> Agardli, 1824. | |
| | <i>H. foetidus</i> (Vill) Trev. | 12 |
| | Class: Synurophyceae | |
| | Order: Synurales | |
| 1 | <i>Mallomonas</i> Perty 1851. | |
| | <i>M. caudata</i> Ivanov | 14 |
| | <i>M. polycheata</i> Ehr. | 4 |
| | <i>M. sp.</i> | |
| 2 | <i>Synura</i> Ehrenberg, 1839. | |
| | <i>S. ovella</i> Ehr. | 12 |
| | Division: Xanthophyta (Tribophyta) | |
| | Class: Xanthophyceae (Heterokontae) | |
| | Order: Mischococcales | |
| 1 | <i>Botrydiopsis</i> Borzi 1895 | |
| | <i>B. Arrhiza</i> Borzi 1895 | 39, 43 |
| 2 | <i>Characiopsis</i> Borzi 1895. | |
| | <i>C. acuta</i> (A. Braun) Borzi 1895 | 39 |
| 3 | <i>Mischococcus</i> Naeg.1849. | |
| | <i>M. confervicola</i> Naeg. | 3, 17 |
| 4 | <i>Chlorochromonas</i> Lewis 1913. | |
| | <i>C. minuta</i> Lewis. | 4 |
| 5 | <i>Diachros</i> Pascher 1939. | |
| | <i>D. simplex</i> Paschar. | 4 |
| 6 | <i>Meringospharea</i> (Lohmann) Pascher 1932. | |
| | <i>M. spinosa</i> proscot. | 4 |
| 7 | <i>Tetragoniella</i> Pascher 1930. | |
| | <i>T. sp.</i> | 4 |
| 8 | <i>Ophiocytium</i> Naegeli, 1849. | |
| | <i>O. arbusculum</i> (A.Braun) Rab. | 3 |
| | <i>O. bicuspidatum</i> (Borye) Lamm. | 42 |
| | <i>O. capitatum</i> Wolle1887. | 24, 44 |
| | <i>O. capitatum</i> var. <i>longispinum</i> | 24 |
| | <i>O. cochleare</i> (Eichw.) A.Braun | 16 |
| | <i>O. desertum</i> Printz. | 3, 17 |
| | <i>O. majus</i> Naeg. | 5, 12 |
| | <i>O. parvulum</i> (Perty) A. Braun. | 12, 21 |
| 9 | <i>Perone</i> Pascher, 1932. | |
| | <i>P. dimorpha</i> Pasch | 12 |

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| 10 | <i>Pleurogaster</i> Pasch, 1977. | 12 |
| | <i>P. oocytoides</i> Presco. | 12 |
| | Order: Botrydiales | |
| 1 | <i>Tetraedriella</i> Pascher 1930 | |
| | <i>T. polychloris</i> Skuja | 47 |
| | Order: Tribonematales | |
| 1 | <i>Bumilleria</i> Borzi, 1888. | |
| | <i>B. sicula</i> Brozi. | 12 |
| | <i>B. sp.</i> | 5 |
| 2 | <i>Tribonema</i> Derbes and Solier, 1856. | |
| | <i>T. affine</i> G.S.W. | 12, 31 |
| | <i>T. bombycinum</i> Derbers and Solier | 5, 12, 31, 21 |
| | <i>T. crassum</i> Pasch. | 12 |
| | <i>T. elegans</i> Pasch. | 12 |
| | <i>T. minus</i> (Klebs) Hazen. | 5, 31, 36 |
| | <i>T. subtilissimum</i> Pasch. | 12 |
| | <i>T. udothricoides</i> Pasch | 12 |
| | <i>T. viride</i> pascher | 3, 44 |
| | <i>T. utriculosum</i> (Kuetz) Hazen. | 8 |
| | <i>T. vulgare</i> Pasch. | 12 |
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| 1 | <i>Dictomosiphone</i> Ernst, 1902. | |
| | <i>D. tuberosus</i> (A. Braun) Ernest. | 12 |
| 2 | <i>Vaucheria</i> de Candolle, 1801 | |
| | <i>V. amphibia</i> Randhawa. | 12, 31 |
| | <i>V. arechavelata</i> Magnus and Wille. | 12 |
| | <i>V. compacta</i> (Collins) Collins. | 12, 21 |
| | <i>V. cruciata</i> (Vauch.) de Candolle. | 17 |
| | <i>V. debaryana</i> Worania | 2 |
| | <i>V. geminata</i> (Vauch) de Cand. | 5, 12, 31 |
| | <i>V. litorea</i> Ag. | 12 |
| | <i>V. geminata</i> var. <i>longistipita</i> Chapman. | 5, 12 |
| | <i>V. ornithocephala</i> Ag. | 12 |
| | <i>V. pachyderma</i> Walz | 31 |
| | <i>V. sessilis</i> (Vauch) de-Cand. | 5, 12, 31, 34 |
| | <i>V. subrecharaleta</i> Kuetz. | 12 |
| | <i>V. terrestris</i> Vauch de-Cand. | 12, 31 |
| | Division: Bacilariophyta (Diatoms) | |
| | Order: Eupodiscales | |
| 1 | <i>Aulacoseira</i> Agardh, 1824 | |
| | <i>A. ambigua</i> (Grunow) Simonsen | 24 |
| | <i>A. islandica</i> var. <i>typical</i> A. Clav | 24 |
| | <i>A. varians</i> ngardh. | |
| 2 | <i>Cosinoediscus</i> Ehrenbreg em Rattray, 1890. | |
| | <i>C. ecentricus</i> Ehr. | 11, 31 |
| | <i>C. ecentricus</i> var. <i>fasciculata</i> Hustedt | 31 |
| | <i>C. lacustris</i> Grun. | 12, 8 |
| 3 | <i>Cyclotella</i> (Kuetzing) de-Brebisson, 1838. | |
| | <i>C. atomus</i> Hustedt. | 12 |
| | <i>C. bodanica</i> Eul. | 41 |
| | <i>C. comta</i> (Ehr)Kuctz | 4 |
| | <i>C. glomerata</i> Bachmann | 4 |
| | <i>C. kuetzingiana</i> Thwait. | 4, 8, 27, 27, 31, 32, 33 |
| | <i>C. meneghiniana</i> Kuetz. | 4, 12, 13 |
| | <i>C. ocellata</i> Pant. | 1, 4, 8, 34, 41 |
| | <i>C. operculata</i> var. <i>unipunctata</i> (Fricke) Hustedt. | 8 |
| | <i>C. stelligera</i> (Grun.) Van Heurck | 39 |

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| | <i>C. stelligera</i> var. <i>Heurck</i> (Grun.). | 24 |
| | <i>C. striata</i> var. <i>bipunctata</i> Fricke | 27, 28 |
| 4 | <i>Melosira</i> Agardh, 1824. | |
| | <i>M. ambigua</i> Mueller. | 12 |
| | <i>M. arenaria</i> Moor. | 33 |
| | <i>M. dickiei</i> (Thwait) Kuetz. | 12 |
| | <i>M. distans</i> (Ehr) Kuetz | 12 |
| | <i>M. granulata</i> (Ehr.) Ralfs. | 8, 12, 13, 26, 30, 33 |
| | <i>M. granulata</i> var. <i>angustissima</i> Mueller | 27, 29 |
| | <i>M. italica</i> (Ehr) Grun. | 29 |
| | <i>M. jurgensii</i> Ag. | 12 |
| | <i>M. roeseana</i> Rabenh | 7, 25, 29 |
| | <i>M. varians</i> Ehr. | 12 |
| 5 | <i>Stephanodiscus</i> Ehrenberg, 1845. | |
| | <i>S. dubius</i> (Fricke) Hustedt. | 4, 33 |
| | <i>S. hantzschii</i> (Grun.) | 24 |
| | <i>S. rotula</i> (Kuetz) Heady | 8, 41 |
| 6 | <i>Thallossiosira</i> . Cleve, 1837 | |
| | <i>T. weissflogii</i> Grum. | 12 |
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| 1 | <i>Ceratoneis</i> Her. 1840 | |
| | <i>C. arcus</i> (Ehr) Kutz. | 24 |
| 2 | <i>Diatoma</i> de-Canddole, 1805. | |
| | <i>D. anceps</i> (Ehr) Kirchen. | 12 |
| | <i>D. anceps</i> var. <i>linearis</i> Perag. | 8, 12, 30, 32, 37, 41 |
| | <i>D. heimale</i> (Lyngbye) Heib. | 8, 12, 13, 30 |
| | <i>D. hiemale</i> var. <i>mesodon</i> (Ehr) Grum. | 4, 12, 13, 21 |
| | <i>D. hiemale</i> var. <i>quadratum</i> (Kuetz) Ross. | 8, 12, 13, 33 |
| | <i>D. elongatum</i> (lyngbye) (Ag) | 12, 33 |
| | <i>D. elongatum</i> var. <i>tennis</i> (Ag) Kuetz. | 12, 21 |
| | <i>D. moniliformis</i> (Kutzing) | 18 |
| | <i>D. tenue</i> Ag syn: <i>D. elongatum</i> var. <i>tenue</i> Mg. Sv. Bot. | 12, 33 |
| | <i>D. tenue</i> var. <i>elongatum</i> Lyngby. Ag | 12, 33 |
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| | <i>D. vulgare</i> var. <i>breve</i> Grun Bory. | 8, 12, 13, 32, 33, 40 |
| | <i>D. vulgare</i> var. <i>grandi</i> (W.Sm) Grum | 4 |
| | <i>D. vulgare</i> var. <i>linearis</i> (V.H) Grun. | 12, 21, 32 |
| | <i>D. vulgare</i> var. <i>linearis</i> Gmn. | 4, 12 |
| | <i>D. vulgare</i> var. <i>producta</i> (G.W.Sm.) Grun. | 12 |
| | <i>D. vulgare</i> var. <i>vulgare</i> Grun. | 12 |
| | <i>D. vulgare</i> var. <i>producta</i> Grun. | 12, 21 |
| 3 | <i>Meridian</i> Agardh, 1824. | |
| | <i>M. circular</i> Ag. | 12, 13 |
| | <i>M. circular</i> var. <i>constricta</i> (Ralfs) van Heurck. | 12 |
| 4 | <i>Fragilaria</i> Lyngbye, 1819. | |
| | <i>F. acuminata</i> Grnow | 24 |
| | <i>F. alpestris</i> Krasska | 24 |
| | <i>F. bristiata</i> Grun. | 12, 13 |
| | <i>F. brevistiata</i> var. <i>inflalat</i> Pant Hust. | 12 |
| | <i>F. capitata</i> Ehr. | 39 |
| | <i>F. capucina</i> Desmaz. | 12, 13 |
| | <i>F. capucina</i> var. <i>mesolepta</i> Rabh. | 12 |
| | <i>F. capucina</i> var. <i>vaucheriae</i> (Kuetz.) | 39 |
| | <i>F. capucina</i> Hustedt. | 12, 13 |

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| | <i>F. construnes</i> (Ehr.) Grunow | 24, 42 |
| | <i>F. consruence</i> (Ehr) Grun | 12 |
| | <i>F. consuence</i> var. <i>astiada</i> (Ehr) Grun. | 12, 13 |
| | <i>F. consuence</i> binodis (Ehr) Grun. | 12 |
| | <i>F. construens</i> var. <i>exigua</i> (W. Sm.) Schultz. | 12, 13 |
| | <i>F. construens</i> var. <i>javanca</i> Hasted. | 12 |
| | <i>F. construens</i> var. <i>sabsaline</i> Hust. | 12, 21, 30 |
| | <i>F. construens</i> var. <i>venter</i> (Ehr) Grun. | 12 |
| | <i>F. construens</i> var. <i>non</i> | 12 |
| | <i>F. crotonensis</i> Kitt. | 8, 12, 21, 40 |
| | <i>F. fragilarioides</i> (Grun) Chain. | 29 |
| | <i>F. heidenii</i> Oestr. | 28, 37 |
| | <i>F. leptostauron</i> (Ehr) Hustedt | 29 |
| | <i>F. intermedia</i> Grun . | 12, 13 |
| | <i>F. intermedia</i> var. <i>littoralis</i> Grun. | 12, 21 |
| | <i>F. pinnata</i> Ehrinberg | 24, 42 |
| | <i>F. pinnata</i> var. <i>pinata</i> Ehr. | 4, 12, 21, 33 |
| | <i>F. producta</i> Lagerst. | 12, 40 |
| | <i>F. tenuicollis</i> Heiberg | 24 |
| | <i>F. ulna</i> (Nitzschi.). | 24 |
| | <i>F. vauchria</i> (Kuetz) Boye-Peters | 30, 33, 37 |
| | <i>F. vauchria</i> var. <i>parvula</i> | 30 |
| | <i>F. virescens</i> Ralfs. | 12 |
| | <i>F. virescens</i> var. <i>capitata</i> Krassk. | 12, 21 |
| 5 | <i>Clymphodesmis</i> Greville, 1862. | |
| | <i>G. rhombica</i> (Cl.) Simonsen. | 12 |
| 6 | <i>Hannaea</i> , Ehrenberg 1841. | |
| | <i>H. arcus</i> (Ehr) syn: <i>Ceratonies arcus</i> (Ehr) Kuetz. | 8, 12, 21, 33 |
| | <i>H. arcus</i> var. <i>linearis</i> Holm | 11 |
| | <i>H. arcus</i> var. <i>amphioxys</i> (Rabh)Patr | 8, 12, 13, 30, 32, 33, 37, 41 |
| | <i>H. gracilis</i> var. <i>anglica</i> (Kuetz) Perage. | 12 |
| 7 | <i>Synedra</i> Ehrenberg, 1832. | |
| | <i>S. acus</i> Kuetz. | 8, 12, 21, 29, 33 |
| | <i>S. acus</i> var. <i>angustissima</i> Kuetz. | 12, 13 |
| | <i>S. capitata</i> Ehr. | 12 |
| | <i>S. capitala</i> (Ag) Kuetz. | 12 |
| | <i>S. crystalina</i> (Ag) Kuetz. | 12 |
| | <i>S. fasciculate</i> var. <i>fasciculate</i> (Ag) Kuetz. | 4, 12, 13, 33 |
| | <i>S. fasciculata</i> var. <i>truncata</i> (Grev)Patr. | 4 |
| | <i>S. gaillonii</i> var. <i>gaillonii</i> (Bory.Ehr) | 4 |
| | <i>S. hennedyane</i> Greg. | 12 |
| | <i>S. minusculus</i> Grun. | 12 |
| | <i>S. minuscula</i> Grun. | 26 |
| | <i>S. parasitica</i> W. Sm. | 12 |
| | <i>S. pulchella</i> Kuetz. | 26 |
| | <i>S. pulchella</i> var. <i>pulchella</i> (Ralfs) Kuetz. | 12, 13, 32, 33, 40 |
| | <i>S. rumpens</i> var. <i>rumpens</i> Kuetz. | 4, 12, 13, 21, 33 |
| | <i>S. rumpens</i> var. <i>fragioides</i> Grun. | 12 |
| | <i>S. tabulata</i> (Ag) Kuetz syn: <i>S. affinis</i> (Ag) Kuetz. | 12 |
| | <i>S. tabulata</i> var. <i>fasciculate</i> (Kuetz) Grun. | 4, 12, 21 |
| | <i>S. ulna</i> (Nitzs.) Ehr | 39, 42 |
| | <i>S. ulna</i> var. <i>ulna</i> (Nitzsch) Ehr. | 8, 12, 30, 32, 33, 37, 41, 40 |
| | <i>S. ulna</i> var. <i>aequalis</i> (Kuetz) Ehr. | 12 |
| | <i>S. unla</i> var. <i>amphirhyncus</i> (Ehr) Grun. | 12, 33 |

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| | <i>S. unla</i> var. <i>bicipes</i> (Kuetz) Schoenf. | 12, 13 |
| | <i>S. unla</i> var. <i>cpitata</i> syn: <i>S. capitata</i> Ehr. | 12, 13, 29 |
| | <i>S. unla</i> var. <i>contracta</i> Oester. | 4, 12, 29, 32 |
| | <i>S. unla</i> var. <i>chaseana</i> | 4 |
| | <i>S. unla</i> var. <i>danica</i> (Kuetz) Grun. | 12, 33 |
| | <i>S. unla</i> var. <i>impressa</i> Hustd | 11 |
| | <i>S. unla</i> var. <i>longissima</i> G.W.Sm. Grun. | 30, 32, 33 |
| | <i>S. unla</i> var. <i>oxyrhynchus</i> (Kuetz) van Hurck. | 12, 21, 32, 33 |
| | <i>S. unla</i> var. <i>oxyrhynchus fo mediocontracta</i> (Forty) Hust. | 12, 13 |
| | <i>S. unla</i> var. <i>ramesi</i> (Herib) Hustedt. | 32 |
| | <i>S. unla</i> var. <i>spathulifera</i> (Grun) van Heurck. | 11 |
| | <i>S. unla</i> var. <i>subaequalis</i> (Grun) van Heurck. | 12, 40 |
| | <i>S. undulata</i> (Rai) W. Sm. | 33 |
| | <i>S. utermobli</i> Hustedt. | 12 |
| | <i>S. vaucheria</i> (Kuetz) Peter. | 12, 13, 21 |
| | <i>S. vaucheria</i> var. <i>capitellata</i> Grun. | 12, 13, 21 |
| 8 | <i>Ulnaria</i> (Kuetz.) Compère 2001 | |
| | <i>U. ulna</i> (Kutzing) syn: (<i>Fragilaria ulna</i> Nitzcha) Lang - Beratol. | 24 |
| | Order : Eunotiales | |
| 1 | <i>Eunotia</i> Ehrenberg, 1837. | |
| | <i>E. arcus</i> Ehr. | 24 |
| | <i>E. arcus</i> var. <i>curta</i> (Grun) Shoenf. | 12,13, 21 |
| | <i>E. curvata</i> var. <i>curvata</i> (Kuetz)Lagerst | 40 |
| | <i>E. faba</i> (Ehr) Grun. | 12, 21 |
| | <i>E. fallax</i> var. <i>gracillima</i> Krassk | 11 |
| | <i>E. flexuosa</i> Breb syn: <i>E. Lunar</i> (Ehr) Grun. | 29 |
| | <i>E. lunar</i> var. <i>subarcauta</i> (Naegl) Grun. | 12 |
| | <i>E. lunar</i> var. <i>elongata</i> .A.Mayer | 11 |
| | <i>E. major</i> W. Smith Rabh | 13 |
| | <i>E. monodon</i> var. <i>major</i> (W.Sm.) Rabh | 12 |
| | <i>E. pectinalis</i> var. <i>minor</i> (Kuetz) Rabh. | 12 |
| | <i>E. pectinalis</i> var. <i>undulata</i> (Kuetz) Ehr. | 12, 13 |
| | <i>E. pectinalis</i> var. <i>ventricosa</i> Grun. | 12, 13 |
| | <i>E. serpentina</i> Ehr. | 12 |
| | <i>E. soleirolii</i> (Kuetz) Rabh. | 12 |
| | <i>E. techrischna</i> Muell. | 12 |
| | <i>E. vanheurckii</i> Patr. | 12 |
| 2 | <i>Actnella</i> Lewis, 1864. | |
| | <i>A. brasiliensis</i> Grun. | 12 |
| | Order: Achnanthales | |
| 1 | <i>Achnanthes</i> Bory, 1822. | |
| | <i>A. affinis</i> Grun. | 26 |
| | <i>A. affinis</i> var. <i>affinis</i> Grun. | 12, 13, 21, 40 |
| | <i>A. amphicephala</i> Hustedt. | 12,13,27, 37 |
| | <i>A. brevipes</i> Ag. | 21, 33 |
| | <i>A. brevipes</i> var. <i>intermedia</i> (Kuetz) Cl. | 12, 21, 33 |
| | <i>A. clevei</i> Grun. | 12, 29, 33 |
| | <i>A. coarctata</i> Breb. | 12, 13 |
| | <i>A. delicatula</i> Kuetz. | 4, 12,13 |
| | <i>A. exigua</i> Grun | 33 |
| | <i>A. flexella</i> var. <i>flexella</i> (Kuetz) Grun syn: <i>A. eucoomes</i> . Cl. | 12, 33 |
| | <i>A. hauckiana</i> Grun. | 12 |
| | <i>A. hungarica</i> Grun. | 12,13 |
| | <i>A. haukiana</i> var. <i>rostrata</i> (Schulz) | 4 |

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| | <i>A. impexa</i> Lay – Bertalot | 24 |
| | <i>A. jackii</i> Rabn. | 24 |
| | <i>A. lanceolata</i> (Breb) Kuetz. | 30, 33 |
| | <i>A. lanceolata</i> var. <i>dubia</i> Grun. | 12 |
| | <i>A. lanceolata</i> var. <i>elliptica</i> Cl. | 12, 13, 21 |
| | <i>A. lanceolata</i> var. <i>rostrata</i> (Oester) Hust. | 5, 27, 33 |
| | <i>A. lapponica</i> (Hustedt) Hustedt. | 12, 21 |
| | <i>A. linearis</i> var. <i>linearis</i> (W.Sm)Graun | 4 |
| | <i>A. linearis</i> var. <i>pusilla</i> Grun. | 12 |
| | <i>A.marginulata</i> Hustedt | 24 |
| | <i>A. microcephala</i> (Kuetz.) Grunow | 8, 12,13, 33 |
| | <i>A. minutissima</i> Kuetz. | 12, 30, 33,37, 41 |
| | <i>A. ploenensis</i> Husted. | 12 |
| | <i>A. saxonica</i> Krassk. | 12 |
| | <i>A. schmidtiana</i> Krenn. | 29 |
| 2 | <i>Cocconeis</i> Ehrenberg 1838. | |
| | <i>C. diminnta</i> Pant. | 12, 13, 21,33 |
| | <i>C. disculus</i> Schumann. | 11 |
| | <i>C. pediculus</i> Ehr. | 12, 30, 33, 41 |
| | <i>C. pediculus</i> var. <i>baltica</i> (J. Damf) Cl. | 2, 12, 13, 21 |
| | <i>C. placentula</i> Ehr. | 12 , 27, 30, 32, 41 |
| | <i>C. plecmnda</i> var. <i>euglypta</i> (Ehr.) Cl. | 8, 12,13, 21,32,37 |
| | <i>C. plecentula</i> var. <i>lineata</i> (Ehr.) Cl. | 12,13, 21, 30 |
| | <i>C. klinoraphis</i> Geitlen. | 12 |
| | <i>C. silicula</i> (Ehr.) Cleve | 39 |
| 3 | <i>Perorua</i> Brebisson et Arnott, 1868. | |
| | <i>P. fibula</i> (Breb, Amott.) Ross. | 12, 13 |
| | <i>P. heribaudi</i> (Brun) Perag. | 12, 13 |
| | <i>P. intermediam</i> (Braun) Parag. | 12 |
| 4 | <i>Rhoicosphenia</i> Grunnow, 1860. | |
| | <i>R. curvata</i> (Ktz.) Grun | 24, 26 |
| | <i>R. curvata</i> var. <i>curvata</i> (Kuetz) Grun. | 8, 12,13 , 32, 37, 40, 41 |
| | <i>R. curvata</i> var. <i>genuina</i> A.Cl. | 12,13, 32 |
| | <i>R. marina</i> (W.Sm.) A. Schmidt. | 12 |
| | Order: Naviculales | |
| 1 | <i>Amphipleura</i> Kuetzing, 1849. | |
| | <i>A. pellucida</i> (Kuetz.) Kuetz. | 33 |
| 2 | <i>Anomoeoneis</i> Pfitzer, 1871. | |
| | <i>A. sphaerophora</i> (Ehr.) Pfitzer. | 21, 27, 33, 37 |
| | <i>A. sphaerophora</i> var. <i>sculpta</i> Muell. | 12, 13, 33, 37 |
| 3 | <i>Colonies</i> Cleve, 1894. | |
| | <i>C. alpestris</i> var. <i>alpestris</i> (Grun)Cl. | 4 |
| | <i>C. amphisbaena</i> (Bory) Cl. | 33 |
| | <i>C. bacillum</i> (Gmn) Cl. | 30, 33 |
| | <i>C. clevei</i> (Lager) Cl. | 33 |
| | <i>C. limosa</i> (Kuetz) Patr. | 33 |
| | <i>C. permagna</i> (Bail) Cl. | 33 |
| | <i>C. ventricosa</i> (Ehr) Meister. | 12,13, 21,33 |
| | <i>C. ventricosa</i> var. <i>minuta</i> Grun. | |
| | <i>C. ventricosa</i> var. <i>truncatula</i> (Grun) Meister. | 12, 30, 33 |
| 4 | <i>Diploneis</i> Ehrenberg 1849. | |
| | <i>D. elliptica</i> Kuetz | 26 |
| | <i>D. elliptica</i> var. <i>elliptica</i> (Kuetz) Cl. | 4, 8, 12,13, 33 |
| | <i>D. oblongeila</i> (Naeg ex. Kuetz.) Ross. | 8, 33 |
| | <i>D. ovalis</i> (Hilse) Cl. | 12,13, 33 |

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| | <i>D. pseudovalis</i> var. <i>pseudovalis</i> Hust | 4 |
| | <i>D. puella</i> (Schumann) Cleve. | 24 |
| | <i>D. papulla</i> var. <i>papulla</i> (Schum)Cl. | 24 |
| | <i>D. smithii</i> (Breb) Cl. | 12, 21 |
| | <i>D. smithi</i> var. <i>pumila</i> (Grun)Hust | 4 |
| 5 | <i>Frustulia</i> Rabenhorst, 1853. | |
| | <i>F. rhomboides</i> (Ehr) de. Toni. | 12,13 , 21 |
| | <i>F. rhomboides</i> var. <i>saxonica</i> de. Toni fo. <i>capitata</i> (Mayer) Hustedt. | 12 |
| | <i>F. vulgaris</i> (Thwaitde) De-Toni. | 12, 13, 30, 32, 33 |
| | <i>F. vulgaris</i> var. <i>capitata</i> Krassk. | 12 |
| | <i>F. vulgaris</i> var. <i>elliptica</i> Hustedt. | 12 |
| | <i>F. vulgaris</i> var. <i>parva</i> Cl. | 12, 21, 30 |
| 6 | <i>Gyrosigma</i> Hassal, 1895. | |
| | <i>G. acuminatum</i> (Kuetz.) Rabh. | 12, 13, 21,33 |
| | <i>G. attenuatum</i> (Kuetz.) Rabh. | 12, 33 |
| | <i>G. attenuatum</i> var. <i>typicium</i> Cl. | 12,13 |
| | <i>G. kuetzingii</i> (Grun) Cl. | 12,13 |
| | <i>G. macrum</i> G.W. Sm. | 29 |
| | <i>G. scalproides</i> (Rabh.) Cl. | 33, 41 |
| | <i>G. spencerii</i> (G.W.Sm.) Cl. | 12,13, 30, 33, 41 |
| | <i>G. nodiferum</i> (Grun) G.S. West. | 34 |
| | <i>G. spencyrii</i> var. <i>nodifera</i> (Grun) Cl. | 30, 33, 41 |
| 7 | <i>Mastogloia</i> Thwaites ex G.W. Smith, 1856. | |
| | <i>M. amphicephala</i> Grun. | 12, 13 |
| | <i>M. apiculata</i> G.W.Sm. | 12, 13 |
| | <i>M. braunii</i> Grun. | 12,13, 33 |
| | <i>M. exiqua</i> (Lewis) Grun. | 12 |
| | <i>M. muradii</i> Voigt. | 12 |
| | <i>M. pusila</i> var. <i>subcapitata</i> Hustedt. | 12 |
| | <i>M. smithii</i> Thwaites | 26 |
| | <i>M. smithii</i> var. <i>smithii</i> (Thwait) G.W.Sm. | 12, 33, 40 |
| | <i>M. smithii</i> var. <i>amphicephala</i> Grun. | 12, 33 |
| 8 | <i>Navicula</i> Bory, 1824. | |
| | <i>N. accompoda</i> Hustedt. | 12 |
| | <i>N. anglica</i> Ralfs. | 12 |
| | <i>N. anglica</i> var. <i>laponica</i> Cl. | 1, 12 |
| | <i>N. angusta</i> Grun syn: <i>N. cincta</i> var <i>angusfa</i> (Grun) Cl. | 12 |
| | <i>N. atums</i> (Kuetz) Grun. | 12 |
| | <i>N. bacillum</i> Ehr. | 12, 21 |
| | <i>N. basilloides</i> Hustedt. | 12 |
| | <i>N. brekkaensis</i> var. <i>andegarensis</i> Germ. | 12 |
| | <i>N. canalis</i> var. <i>canalis</i> Patr | 4 |
| | <i>N. caspidata</i> var. <i>hyngiirica</i> Grun | 12, 33 |
| | <i>N. caspidata</i> var. <i>caspidata</i> Ehr | 4 |
| | <i>N. caspidata</i> var. <i>Hungarica</i> (Grun)Ross | 4 |
| | <i>N. cari</i> Ehr. | 12,13, 33 |
| | <i>N. cincta</i> (Ehr) Kuetz syn: <i>Pinmdaria cincta</i> (Ehr) Mikro | 12,13 |
| | <i>N. cincta</i> var. <i>heufleri</i> Grun. | 12, 21 |
| | <i>N. confervacea</i> (Kuetz) Grun. | 1, 12, 13 |
| | <i>N. contenta</i> Grun. | 1, 12 |
| | <i>N. contenta</i> var. <i>biceps</i> (Arn)V.H | 4 |
| | <i>N. conferevacea</i> var. <i>conferevacea</i> (Kuetz)Grun | 4 |
| | <i>N. crucicula</i> G.W(Sm.) Donrin | 1, 33 |
| | <i>N. cryptocephala</i> Kuetz. | 12,13, 21, 30, 32, 33 |

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| <i>N. cryptocephala</i> var. <i>exilis</i> (Kuetz) Grun. | 12, 30, 33 |
| <i>N. cryptocephala</i> var. <i>intermedia</i> Grun. | 1, 12, 30 |
| <i>N. cryptocephala</i> fo. <i>minuta</i> Peter. | 12, 30, 33 |
| <i>N. cryptocephala</i> var. <i>veneta</i> . (Kuetz) Cl. | 1, 12, 30 |
| <i>N. cuspidata</i> (Kuetz) Kuetz. | 12, 30, 33 |
| <i>N. cuspidata</i> var. <i>ambigua</i> (Ehr.) Cl. | 1, 12, 30 |
| <i>N. cuspidata heribaudii</i> Perag. | 12, 30, 33 |
| <i>N. cuspidata</i> var. <i>dissipuloa</i> Kuetz. | 1, 12, 30 |
| <i>N. deciphala</i> (Ehr) W. Sm. | 12, 30, 33 |
| <i>N. engmatica</i> Germain | 42 |
| <i>N. exigua</i> var. <i>exigua</i> Grun | 1, 12, 30 |
| <i>N. falaisiensis</i> Grun | 12, 30, 33 |
| <i>N. decussis</i> Oster. | 1, 12, 30 |
| <i>N. digitoradiata</i> (Gregory) A.Smidt | 24 |
| <i>N. difficillima</i> Hustedt 1950 | 24 |
| <i>N. rostellata</i> Kutzing 1844. | 24 |
| <i>N. insociabilis</i> Krassk syn: <i>N. stendrilla</i> Germ. | 12, 30, 33 |
| <i>N. fragilariodes</i> Krassk.. | 1, 12, 30 |
| <i>N. fritschii</i> Lund syn: <i>N. insociabilis</i> Krassk. | 12, 30, 33 |
| <i>N. gastrum</i> (Ehr) Kuetz. | 1, 12, 30 |
| <i>N. gibbula</i> Cl. | 12, 30, 33 |
| <i>N. globulifra</i> Husted . | 1, 12, 30 |
| <i>N. goppertiana</i> (Bleisch) Grun. | 12, 30, 33 |
| <i>N. gothlandica</i> Grun. | 1, 12, 30 |
| <i>N. gracilis</i> Ehr syn: <i>N. trypunctata</i> (Meull) Bory . | 12, 30, 33 |
| <i>N. graciloides</i> A. mayer syn: <i>N. Mayeri</i> (Oestr) Cl. | 1, 12, 30 |
| <i>N. gregali</i> Chohnoky | 24 |
| <i>N.gregaria</i> Donkin. | 24, 26 |
| <i>N. gregaria</i> var. <i>gregaria</i> Donkin. | 12, 30, 33 |
| <i>N. laterostrata</i> var. <i>laterostrata</i> Hupt | 1, 12, 30 |
| <i>N. halophila</i> (Grun) Cl. | 12, 30, 33 |
| <i>N. halophila</i> var. <i>robusta</i> fo. <i>Subcapitata</i> Oester. | 1, 12, 30 |
| <i>N. hustedtii</i> Krassk. | 12, 30, 33 |
| <i>N. insociabilis</i> Krassk syn: <i>N. stendrilla</i> Germ | 1, 12, 30 |
| <i>N. jurnefeiti</i> Hustedt. | 12, 30, 33 |
| <i>N. kociei</i> Foged. | 1, 12, 30 |
| <i>N. lanceolata</i> (Ag) Kuetz syn: <i>N. avencea</i> (Breb) Krassk | 12, 13, 30 ,33 |
| <i>N. minima</i> Germ. | 12 |
| <i>N. menisculus</i> Schum. | 12, 21 |
| <i>N. menisculus</i> var. <i>upsaliensis</i> Grun. | 12, 21 |
| <i>N. mobiliensis</i> var. <i>minor</i> Boy. | 12 |
| <i>N. muralis</i> var. <i>muralis</i> Grun | 4 |
| <i>N. mutica</i> Kuetz. | 12, 13 |
| <i>N. mulica</i> var. <i>ventncosa</i> Kuetz. | 12 |
| <i>N. mutica</i> var. <i>ovalis</i> Hustedt syn: <i>N. nivalis</i> Ehr. | 12 |
| <i>N. riventncosa</i> Hustedt. | 1, 12 |
| <i>N. odiosa</i> Wala. | 12 |
| <i>N. oppugnata</i> Husted. | 12, 21 |
| <i>N. parva</i> (Menegh) Cl.-Muell. | 12 |
| <i>N. perpusilla</i> | 23 |
| <i>N. phyllepta</i> Kuetz. | 12 |
| <i>N. plecentula</i> fb. <i>rostatata</i> (A. Mayer) Hustedt. | 12 |
| <i>N. plecenta</i> var. <i>plecenta</i> Ehr | 4 |
| <i>N. pupula</i> Kuetz. | 26 |
| <i>N. pupula</i> var. <i>rectangularis</i> (Greg)Grun | 4 |

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| | <i>N. protracta</i> Grun. | 12 |
| | <i>N. pupula</i> var. <i>pupula</i> Kuetz. | 4, 8, 12, 13, 21,32, 33, 37 |
| | <i>N. pupula</i> var. <i>capitata</i> Skr. and A. Meyer. | 12, 13, 21 |
| | <i>N. pupula</i> var. <i>rostrata</i> Hustedt. | 12 |
| | <i>N. pygmaea</i> Kuetz. | 1, 12, 32,33 |
| | <i>N. pseudoscutiformis</i> Hustedt. | 12 |
| | <i>N. pseudotuscula</i> Hustedt. | 12 |
| | <i>N. pseudolanceolata</i> Longe-Bertalot. | 12 |
| | <i>N. pseodonivalis</i> Brock. | 12 |
| | <i>N. radiosa</i> Kuetz. | 26 |
| | <i>N. radiosa</i> var. <i>radiosa</i> Kuetz. | 4, 8, 12, 21, 30, 32, 33 |
| | <i>N. radiosa</i> var. <i>tenella</i> (Breb.) | 12 |
| | <i>N. radiosa</i> var. <i>tenella</i> Kuetz. | 12, 33 |
| | <i>N. reinhardtii</i> Grun. | 12, 33 |
| | <i>N. rhycocephala</i> Kuetz. | 42 |
| | <i>N. rhyncocephala</i> var. <i>rhyncocephala</i> Kuetz. | 4, 12, 13, 33 |
| | <i>N. rhyncocephala</i> var. <i>amphiceros</i> Kuetz. | 8, 30, 33 |
| | <i>Navicula rostellata</i> Kutzing | 18 |
| | <i>N. salinarum</i> Grun. | 30 |
| | <i>N. schroeteri</i> Meister. | 33 |
| | <i>N. seminulum</i> Grun. | 12 |
| | <i>N. seminulum</i> var. <i>radiosa</i> Hustedt. | 12 |
| | <i>N. similis</i> Krassk. | 12, 13, 21 |
| | <i>N. soehernsis</i> var. <i>musciicola</i> (Boye) Peter. | 12 |
| | <i>N. subhamulata</i> var. <i>subhamulata</i> . Grun. | 1, 4, 12 |
| | <i>N. subrhyncocephala</i> Hustedt. | 12 |
| | <i>N. subtilissima</i> Cl. | 12 |
| | <i>N. tripunctata</i> (Muell) Bory | 39 |
| | <i>N. tripunctata</i> var. <i>schizonemoides</i> (Vanlterurck) Pater. | 1, 30, 33, 39 |
| | <i>N. trivialis</i> | 12, 21, 32, 33, 41 |
| | <i>N. variostrata</i> Krassk. | 29 |
| | <i>N. viridula</i> (Kuetz) Ehr. | 13, 21, 29 |
| | <i>N. viridula</i> var. <i>rostellata</i> Kuetz. | 12, 13, 32, 33, 41 |
| | <i>N. viridula</i> var. <i>slevicensis</i> (Grun) Cl. | 12 |
| | <i>N. vitera</i> (Oestr). Hustedt. | 12 |
| 9 | <i>Nedium</i> Pfitzer, 1871. | |
| | <i>N. affine</i> (Ehr) Cl. | 12, 21, 32, 33, 41 |
| | <i>N. affine</i> var. <i>amphirhynchus</i> (Ehr) Cl. | 12 |
| | <i>N. binode</i> (Ehr) Hustedt | 12, 13, 21 |
| | <i>N. dubium</i> (Ehr) Cl. | 12, 13, 32, 33, 41 |
| | <i>N. dubium</i> var. <i>constrictum</i> Hustedt. | 12 |
| | <i>N. gracile</i> fo. <i>aquales</i> Hustedt. | 12 |
| | <i>N. iridis</i> (Ehr) Cl. | 12, 13, 33 |
| | <i>N. iridis</i> var. <i>amohigomphns</i> (Ehr) Mayer. | 12 |
| | <i>N. iridis</i> var. <i>ampliatum</i> (Ehr) Cl. | 12, 33 |
| | <i>N. productum</i> (G.W. Sm.) Ehr. | 1, 12, 13, 21 |
| 10 | <i>Pennularia</i> Ehrenberg, 1843. | |
| | <i>P. acuminata</i> var. <i>acuminata</i> W.Sm | 4 |
| | <i>P. acuminata</i> var. <i>hiela</i> Wskii (Herb) pevag | 4 |
| | <i>P. appendiculata</i> (Ag) Cl. | 12, 21 |
| | <i>P. brannnii</i> var. <i>amphicephala</i> (Mayer) Hustedt | 12 |
| | <i>P. biceps</i> Grey. | 12, 13, 21, 33 |
| | <i>P. borealis</i> var. <i>lanceolata</i> Hust. | 21, 33 |
| | <i>P. brebissonii</i> (Kuetz) Rabh. | 12, 13, 21,30, 32, 33, 41 |

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| | <i>P. dactylus</i> Ehr. | 12 |
| | <i>P. divergens</i> Ehr. | 12 |
| | <i>P. gibba</i> var. <i>Parva</i> Ehr | 24 |
| | <i>P. late</i> (Breb) W. Sm. | 1, 12, 33 |
| | <i>P. latriaensis</i> Foged. | 12 |
| | <i>P. leptosoma</i> (Grun) Cl. | 12, 13, 30, 33 |
| | <i>P. lundii</i> Hustedt. | 12 |
| | <i>P. microstanron</i> (Ehr) Cl. | 12, 33 |
| | <i>P. mesolepta</i> var. <i>mesolepta</i> (Ehr) W. Sm. | 4, 12 |
| | <i>P. stomatophora</i> (Grun). | 12 |
| | <i>P. subcapitata</i> Ehr | 42 |
| | <i>P. subcapitata</i> var. <i>hilseana</i> (Jan.) (Muell) | 12, 13 |
| | <i>P. superba</i> (Oesetr) Cl.. | 12, 21 |
| | <i>p. stomatophora</i> var. <i>stomatophora</i> (Grun)Cl. | 4 |
| | <i>P. undulata</i> Greg. | 1, 12, 33 |
| | <i>P. viridis</i> (Nitzsch) Ehr. | 12, 13, 33 |
| | <i>P. sp.</i> | 12 |
| 11 | <i>Stauronies</i> Ehrenberg, 1843. | |
| | <i>S. agreslis</i> Peter. | 12 |
| | <i>S. anceps</i> (Ehr.). | 24 |
| | <i>S. ancep</i> var. <i>ancep</i> Ehr. | 4, 12, 13 |
| | <i>S. anceps</i> var. <i>gracilis</i> Rabh | 4 |
| | <i>S. gregorii</i> Ralf | 24 |
| | <i>S. legleri</i> Nov .Spec. | 24 |
| | <i>S. lequmen</i> Ehr. | 12 |
| | <i>S. pachycephala</i> Kuetz. | 1, 12 |
| | <i>S. pallustris</i> Hustedt. | 12 |
| | <i>S. phonicenteron</i> (Nitzsch) Ehr. | 1, 12 |
| | <i>S. phoemcentron fo. gracilis</i> Ehr.- | 12 |
| | <i>S. pseodosubtusoides</i> Grun. | 12 |
| | <i>S. pygmae</i> Krieg. | 12, 21, 33 |
| | <i>S. smithi</i> Grun. | 1, 12, 13, 21,33 |
| | <i>S. smithi</i> var. <i>borgi</i> (Manguin) Hustedt. | 12, 13 |
| | <i>S. thermicola</i> Hustedt. | 24 |
| 12 | <i>Didmosphenia</i> Schmidt 1899. | |
| | <i>D. geminata</i> (Lyngbye) W.M. Schmidt | 18 |
| 13 | <i>Gomphoneis</i> Cleve, 1894. | 8, 30, 32, 33, 41 |
| | <i>G. olivacea</i> (Lyhghy) Bawson. | 12 |
| 14 | <i>Gomphocymbella</i> O. Muller, 1905. | |
| | <i>G. ancylis</i> (Cl) Hustedt. | 1, 12 |
| | <i>G. sp.</i> | 12 |
| | <i>G. sp.</i> | 12 |
| 15 | <i>Gomphonema</i> Ehrenberg, 1831. | |
| | <i>G. acumintum</i> Ehr. | 12, 13, 30, 32 |
| | <i>G. acuminatum</i> var. <i>brebissoml</i> (Kuetz) Schonf. | 12, 13 |
| | <i>G. acuminatum</i> var. <i>elongatum</i> (W.Smith)Carr | 12 |
| | <i>G. angustatum</i> (Kuetz) Rabh. | 12, 21 |
| | <i>G. angustatum</i> var. <i>brebissonii</i> (Kuetz) Schonf. | 1, 12, 13, 21 |
| | <i>G. angustatum</i> var. <i>citera</i> (Hohnand Hellerm)Part. | 12 |
| | <i>G. angusfatum</i> var. <i>produnctum</i> Grum. | 12, 13, 30 |
| | <i>G. brasiliniese</i> Lvngbe | 12, 29 |
| | <i>G. clevei</i> Frick. | 8, 12, 13 |
| | <i>G. consector</i> Honn and Hellerm. | 12 |
| | <i>G. constrictum</i> Ehr | 12, 21, 32, 37 |
| | <i>G. constrictum</i> var. <i>capitatum</i> (Ehe) Cl. | 12, 30, 33, 37, 41 |

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| | <i>G. fanensis</i> Maill. | 12, 21 |
| | <i>G. gracils</i> Ehr. | 12, 13 |
| | <i>G. helveticum</i> Grun, | 12, 30, 33 |
| | <i>G. intractum</i> Kuetz. | 12, 13, 21 |
| | <i>G. intractum</i> var. <i>lunata</i> Kuetz | 12, 21 |
| | <i>G. intractum</i> var. <i>pumilum</i> Grun. | 12, 21 |
| | <i>G. lanceolatum</i> Ehr. | 12, 13 |
| | <i>G. lanceolatum</i> var. <i>insignis</i> . Ehr | 33 |
| | <i>G. longiceps</i> Ehr. Syn: <i>G. subclavatum</i> Grun. | 12, 13 |
| | <i>G. micropus</i> (Kuetzing) | 18 |
| | <i>G. montanum</i> var. <i>subclavatum</i> Grun. | 12, 13 |
| | <i>G. olivaceum</i> (Hememann) de Breb. | 12, 21 |
| | <i>G. olivaceum</i> var. <i>calcareum</i> de Breb. | 11 |
| | <i>G. olivaceoides</i> var. <i>olivaceoides</i> Hustedt. | 4, 12 |
| | <i>G. olivaceoides</i> var. <i>densestriata</i> Foged. | 12 |
| | <i>G. parvulum</i> (Kuetz.) Kuetz. | 12, 13, 21,30, 32, 33, 41 |
| | <i>G. parvulum</i> var. <i>micropus</i> (Kuetz.) Cl. | 30, 33 |
| | <i>G. sbicula</i> Hustedt. | 12, 21 |
| | <i>G. subculvatum</i> var. <i>maxicamim</i> (Grun) Peter. | 12, 21 |
| | <i>G. subtile</i> var. <i>sagitta</i> Ehr. | 12 |
| | <i>G. tergistinum</i> (Grun) Frick. | 12 |
| | <i>G. tenellum</i> Kuetz. | 12 |
| | <i>G. truncatum</i> var <i>capitatum</i> Ehr | 42 |
| | <i>G. undulatum</i> (Grun) Frick. | 12 |
| 16 | <i>Amphora</i> Ehrenberg, 1840. | |
| | <i>A. bullatoides</i> Honn and Hellerm. | 24 |
| | <i>A. coffeiformis</i> (Agardh.) Kuetzing | 24 |
| | <i>A. delicatissima</i> Krassk | 21, 33 |
| | <i>A. fontinalis</i> Hustedt. | 12 |
| | <i>A. laneolata</i> Ehr. | 33 |
| | <i>A. montana</i> Krassk. | 33 |
| | <i>A. normami</i> Rabh. | 33 |
| | <i>A. ornate</i> Bailey. | 24 |
| | <i>A. ovalis</i> (Kuetz) Kuetz. | 8, 12,13, 21, 30, 33 , 41 |
| | <i>A. ovalis</i> var. <i>affinis</i> (Kuetz) van Heurek. | 12, 13 |
| | <i>A. ovalis</i> var. <i>lybica</i> (Eh) Kuetz. | 12, 13 |
| | <i>A. ovalis</i> var. <i>pediculus</i> (Kuetz) van Heurck. | 12, 27, 33 |
| | <i>A. pediculus</i> | 23 |
| | <i>A. perpusilla</i> (Grun) Crunow. | 12, 33 |
| | <i>A. veneta</i> Kuetz. | 12, 13, 21, 33 |
| | <i>A. sp.</i> Comutata Grun | 12 |
| | <i>A. sp.</i> | 12 |
| 17 | <i>Cymbella</i> Agardh, 1830. | |
| | <i>C. aequalis</i> G.W. Sm. | 12 |
| | <i>C. affinis</i> kuetzing. | 24, 26, 39 |
| | <i>C. affinis</i> var. <i>offinis</i> Kuetz. | 4, 8, 12 , 27, 30, 33, 37, 41 |
| | <i>C. affinis</i> var. <i>excisa</i> (Kuetz) Grun. | 12, 13, 30, 41 |
| | <i>C. angustata</i> var. <i>angustata</i> (W. Sm)Cl. | 4 |
| | <i>C. amphicephala</i> Naeg. | 24 |
| | <i>C. amphicephala</i> var. <i>amphicephala</i> Naeg. | 12, 33 |
| | <i>C. amphicephala</i> var. <i>hercynica</i> Schmiedt. | 12 |
| | <i>C. intermedia</i> Cl. | 12 |
| | <i>C. aqualis</i> W. Sm | 30, 33 |
| | <i>C. aspera</i> (Ehr) Perag. | 12 |

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| | <i>C. austriaca</i> Gran | 24, 30 |
| | <i>C. caespitosa</i> (Kuetz) Grun. | 12, 13, 21 |
| | <i>C. cesatii</i> (Ehr) Kirchn. | 12, 21 |
| | <i>C. cistula</i> (Ehr.) H.Paragallow. | 24, 26 |
| | <i>C. cistula</i> var. <i>cistula</i> (Ehr) Kirchn, | 4, 12, 30, 33 |
| | <i>C. cistula</i> var. <i>maculata</i> (Kuetz) Van. Heurck. | 12, 33 |
| | <i>C. compacta</i> Cl. (Ehr) syn: <i>C. curta</i> Meister. | 12 |
| | <i>C. cuspidata</i> Kuetz (Kuetz). | 12, 29, 33, 41 |
| | <i>C. cuspidata</i> var. <i>anglica</i> Lagerst. | 12, 13, 32, 37 |
| | <i>C. cymbiformis</i> Agardh. | 24 |
| | <i>C. cymbiformis</i> var. <i>cymbiformis</i> (Kuetz) van Heurek.. | 4, 12, 13, 29, 33,41 |
| | <i>C. delicatula</i> Kuetz. | 12, 21 |
| | <i>C. differta</i> (Cl.) Krieg. | 8, 12, 30, 33 |
| | <i>C. excise</i> Kützing | 18 |
| | <i>C. gracilis</i> (Rabh) Cl. syn: <i>C. lunata</i> G.W. Sm. | 1, 12, 13 |
| | <i>C. helvetice</i> Kuetz. | 12, 21, 33 |
| | <i>C. hievetica</i> var. <i>compacta</i> (Oester.) Hustedt. | 30 |
| | <i>C. helvetica</i> var. <i>curta</i> Meister syn: <i>C. compacta</i> | 12 |
| | <i>C. hustedtii</i> Krasske. | 26 |
| | <i>C. hustedtii</i> var. <i>hustedtii</i> Krassk. | 4, 33 |
| | <i>C. hungarica</i> (Grun) Punt | 13 |
| | <i>C. hybrida</i> (Grun) Cl. | 12 |
| | <i>C. lacustris</i> (Ag) Cl. var. <i>inflata</i> Mayer | 33 |
| | <i>C. lunata</i> var. <i>lunata</i> W.Sm | 4 |
| | <i>C. laevi</i> Naeg. | 33 |
| | <i>C. lanceolata</i> (Ehr.) van Huerck. | 12 |
| | <i>C. leptoceros</i> (Ehr.) Grun. | 12, 33 |
| | <i>C. leptoceros</i> var. <i>linearis</i> (Ehr) Grun. | |
| | <i>C. mexicanum</i> Agerdhi. | 42 |
| | <i>C. microcephala</i> Grun. | 29, 30, 33 |
| | <i>C. minata</i> var. <i>minata</i> Itlis ex Rabh | 4 |
| | <i>C. minata</i> var. <i>silesiaca</i> (Ble, Rabh)Reim.Comb | 4 |
| | <i>C. minuta</i> fo. <i>lafens</i> (Krassk) Reim syn: <i>C. latens</i> Krassk | |
| | <i>C. ventricosa</i> var. <i>sileciaca</i> (Bleisch) Cl. | 12 |
| | <i>C. navicniiformis</i> Auenv. | 12 |
| | <i>C. neocistula</i> (Ehr.) Kirchner. | 24 |
| | <i>C. norvegica</i> Grun. | 12 |
| | <i>C. obtusiuscida</i> (Kuetz) Grun. | 12 |
| | <i>C. parva</i> (W.Sm.) Kirchn. | 12, 13, 30, 33 |
| | <i>C. parva</i> var. <i>minuta</i> A.Cleve. | 24 |
| | <i>C. perpusilla</i> A.Cl. | 24 |
| | <i>C. prostrate</i> var. <i>prostrate</i> (Berk) Cl. | 4, 12, 13, 33 |
| | <i>C. prostrata</i> var. <i>auersv'aldif</i> (Rabh) Riem. | 12, 13, 29 |
| | <i>C. pusila</i> Grun. | 12, 13, 33 |
| | <i>C. reinhardtii</i> Grun. | 39 |
| | <i>C. semicircular</i> Lagerst. | 12, 13, 33 |
| | <i>C. sinuate</i> (Greg) Cl. | 8, 12, 13, 30, 32, 33, 37 |
| | <i>C. tumida</i> (Breb.) van Heurck. | 12, 13, 32, 33, 41 |
| | <i>C. tumidula</i> Grun. | 12, 13, 21 |
| | <i>C. turgida</i> (Greg.) Cl. | 12, 13, 29, 33 |
| | <i>C.ventricosa</i> (Kuetz) Bascid. | 8, 12, 13, 21, 30, 32, 33 |
| | <i>C. ventricosa</i> var. <i>semicircularis</i> Blesich. | 1, 8, 12, 41 |
| | <i>C. venlricosa</i> var. <i>sileciaca</i> (Bleisch). | 12, 30 |
| | <i>C. sp.</i> | 12 |
| 18 | <i>Encyonema</i> Kützing 1849. | |

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| | <i>E. caespitosa</i> Kuetz. | 39 |
| | <i>E. silesiacum</i> Rabenhorst. | 18 |
| | <i>E. ventricosum</i> Kuetz | 26 |
| | Order Epithemiales | |
| 1 | <i>Denitricula</i> Kuetz, Bacil, 1844. | |
| | <i>D. elegans</i> Kuetz. | 12, 13, 21 |
| | <i>D. lauta</i> J.W.Bail. | 12 |
| | <i>D. elegans</i> var. <i>kittoniana</i> (Grun)Det | 4 |
| | <i>D. kuetzingii</i> Grunow | 24 |
| | <i>D. pelagica</i> var. <i>intermedia</i> Hustedt. | 12, 21 |
| | <i>D. tenuis</i> Kutz | 42 |
| | <i>D. tenuis</i> var. <i>tenuis</i> Kuetz | 4 |
| | <i>D. tenuis</i> var. <i>crassula</i> (Naeg, Kuetz) W and G.S.W. | 12, 13 |
| | <i>D. thermalis</i> Kuetz. | 12 |
| 2 | <i>Epithema de</i> - Brebisson ex Kuetzing, 1844. | |
| | <i>E. argus</i> (Kuetz) Ehr. | 12, 29, 33 |
| | <i>E. sorex</i> var. <i>sorex</i> Kuetz. | 4, 12, 13, 21,33 |
| | <i>E. turgida</i> (Ehr.) Kuetz. | 12, 13, 33 |
| | <i>E. zebra</i> (Ehr) Kuetz. | 12, 13, 21,33 |
| | <i>E. zebra</i> var. <i>saxonica</i> (Kuetz) Grun. | 12, 21 |
| 3 | <i>Rhopalodia</i> O.Mueller, 1838. | |
| | <i>R. gibba</i> (Ehr.) Mueller | 33 |
| | <i>R. gibba</i> var. <i>ventricosa</i> (Kuetz) H. and M. Perag. | 12, 21, 29, 33 |
| | <i>R. musculus</i> kuetz | 23 |
| | <i>R. parallela</i> var. <i>parallela</i> (Grun) Mueller. | 4, 12, 33 |
| | Order Bacillariales | |
| 1 | <i>Bacillaria</i> J.F.Gmelin, 1788. | |
| | <i>B. paradoxa</i> Gmelin. | 24 |
| | <i>B. paxillifer</i> (Muell) Hendey syn: <i>B. paraloxa</i> Gmel. | 12, 30 |
| 2 | <i>Tryblionella</i> Grunow 1880. | |
| | <i>T. angustata</i> W.Smith 1853 | 24 |
| | <i>T. calida</i> Grunow. | 24 |
| 3 | <i>Hantzschia</i> Grunow, 1877. | |
| | <i>H. amphioxus</i> (Ehr) Grun. | 8, 12, 30, 32, 33, 37, 41 |
| | <i>H. amphioxus</i> var. <i>major</i> Grun. | 12, 33 |
| | <i>H. amphioxus</i> var. <i>vivax</i> (Hantzch) Grun. | 12 |
| 4 | <i>Nitzschia</i> Hassal, 1845. | |
| | <i>N. acicularis</i> W.Sm. | 8, 12, 32, 33, 41 |
| | <i>N. amphibia</i> Grun. | 12, 21, 32, 33 |
| | <i>N. angustata</i> (W.Smith) Grunow 1880 | 26 |
| | <i>N. angustata</i> var. <i>acuta</i> Grun. | 12, 13, 33 |
| | <i>N. apiculata</i> (Greg) Grun. | 8, 12, 13, 30, 33 |
| | <i>N. archibaldii</i> Lany- Bertalot. | 24 |
| | <i>N. clausii</i> Hantzsh. | 12, 33 |
| | <i>N. closterium</i> (Ehr.)W.Smith. | 24 |
| | <i>N. communis</i> Rabh. | 12, 33 |
| | <i>N. commutata</i> Grun. | 12, 33 |
| | <i>N. denticula</i> Grun. | 8, 12, 21, 30, 33 |
| | <i>N. dissipata</i> (Kuetz) Grun. | 8, 12, 13, 21, 30, 32, 33, 41 |
| | <i>N. dissipata</i> fo. <i>Moewansis</i> Foged. | 12, 21 |
| | <i>N. dubia</i> W.Sm. | 12, 13, 33 |
| | <i>N. dubia</i> var. <i>latestriata</i> (Oester) W.Sm. | 1, 12 |
| | <i>N. fasciculata</i> Grun. | 12, 30 |
| | <i>N. filiformis</i> (W.Sm.) Hustedt. | 12, 30 |

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| | <i>N. fonticola</i> Grun syn: <i>N. romana</i> Grun. | 12 |
| | <i>N. frustulum</i> (Kuetz) Rabh. | 12, 29 |
| | <i>N. frustulum</i> var. <i>subsalsina</i> Hustedt. | 12, 30, 33 |
| | <i>N. fruticosa</i> var. <i>ligeriensis</i> Germ. | 12 |
| | <i>N. gracilis</i> Hantzsch. | 12, 21, 33 |
| | <i>N. hantzshiana</i> Rabh. | 12, 21 |
| | <i>N. henfleriana</i> Grim. | 12, 33 |
| | <i>N. holsajica</i> Grun. | 5, 33 |
| | <i>N. hungarica</i> Grun. | 12, 13, 21,30, 33 |
| | <i>N. inconspica</i> Grun. | 12 |
| | <i>N. intermedia</i> Hantzsch. | 12,13, 33 |
| | <i>N. linearis</i> G.W.Sm. | 8, 12,30, 32, 33, 41 |
| | <i>N. lacunarum</i> Grun | 4 |
| | <i>N. imcrocephala</i> Grun. | 12, 21, 33 |
| | <i>N. immta</i> Bleisch. | 12 |
| | <i>N. macilenta</i> Gregory | 39 |
| | <i>N. minutula</i> Grun. | 12 |
| | <i>N. obtusa</i> Grun. | 21 |
| | <i>N. obtusa</i> var. <i>scalpieliformis</i> Grun. | 24 |
| | <i>N. palea</i> (Kuetz) G.W.Sm. | 8, 12 ,30, 32, 33, 41 |
| | <i>N. palea</i> var. <i>debilis</i> (Kuetz) Grun. | 12 |
| | <i>N. palea</i> var. <i>tenwrostris</i> Grun. | 12, 13, 21 |
| | <i>N. paleacea</i> Grun. | 12, 33 |
| | <i>N. parvula</i> (Lewis) G.W.Sm. | 12,13, 30, 33 |
| | <i>N. pusila</i> (Kuetz) Grun syn: <i>N. kuetzingiana</i> Hilse. | 12, 13, 21,30, 33 |
| | <i>N. recta</i> Hantzsch. | 12, 21, 33 |
| | <i>N. recta</i> var. <i>robusta</i> Hustedt. | 12 |
| | <i>N. reversa</i> W.Smith | 18 |
| | <i>N. romana</i> Grunow. | 24, 42 |
| | <i>N. Salinicola</i> Aleem and Hust. | 42 |
| | <i>N. sigma</i> (Kuetz) G.W.Sm. | 12, 33 |
| | <i>N. sigmoidea</i> (Ehr) G.W.Sm. | 12, 13, 30, 33 |
| | <i>N. similis</i> Hustedt. | 12 |
| | <i>N. sinuata</i> W.Sm. | 1, 12, 33 |
| | <i>N. stagnorum</i> Rabh | 12 |
| | <i>N. subcapitellata</i> Hustedt. | 12 |
| | <i>N. sublinearis</i> Hustedt. | 12, 30 |
| | <i>N. subtubicola</i> Grun. | 12 |
| | <i>N. ferestris</i> (Peter) Hustedt. | 12 |
| | <i>N. tryblionella</i> var. <i>levidensis</i> (W.Sm.) | 12 |
| | <i>N. tryblionella</i> var. <i>debilis</i> (Amott) Mayer. | 1, 12, 21 |
| | <i>N. thermalis</i> Ehr. syn: <i>TV. umbonata</i> Grun. | 12, 33 |
| | <i>N. umbonata</i> (Ehr) Lang-Bertalot. | 12 |
| | <i>N. vermicularis</i> (Kuetz) Grun. | 12 |
| | <i>N. vitrea</i> Norman. | 12, 13, 33 |
| | <i>N. sp.</i> | 12 |
| | Order Surirellales | |
| 1 | <i>Campylodiscus</i> Ehrenberg, 1840. | |
| | <i>C. decorus</i> Breb. | 12, 13 |
| | <i>C. fragilis</i> Skvortz. | 12 |
| | <i>C. norica</i> var. <i>hibernica</i> (Ehr) Grun. | 12, 33 |
| | <i>C. splense</i> Ehr. | 12, 33 |
| 2 | <i>Cymatopleura</i> G.W.Smith, 1851. | |
| | <i>C. elliptica</i> (Breb) G.W.Sm. | 12, 21 |
| | <i>C. elliptica</i> var. <i>hibernica</i> (W.Sm.) van Heurck. | 12 |

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| | <i>C. Solea</i> (Breb) G.W.Sm. syn: <i>C librila</i> Ehr. | 12, 21 |
| 3 | <i>Surirella</i> Burpin, 1828. | |
| | <i>S. angustata</i> Kuetz. | 12, 30, 32, 33 |
| | <i>S. angustiformis</i> Hustedt. | 12 |
| | <i>S. astridae</i> Hustedt. | 12 |
| | <i>S. biseriata</i> Breb. | 12 |
| | <i>S. carponii</i> Breb. | 12, 21 |
| | <i>S. helvetica</i> Brim. | 33 |
| | <i>S. elegans</i> Ehr. | 12 |
| | <i>S. fasciculata</i> . Mueller. | 12 |
| | <i>S. linearis</i> G.W.Sm. | 12 |
| | <i>S. linearis</i> var. <i>helvetica</i> (Brun) Meister | 12, 13 |
| | <i>S. moelleriana</i> Grun. | 12 |
| | <i>S. ovalis</i> Breb. | 12,13, 30, 33 |
| | <i>S. ovata</i> Kuetz. | 12, 13 |
| | <i>S. ovata</i> var. <i>crumena</i> G.W. Sm. | 12 |
| | <i>S. ovata</i> var. <i>apiculata</i> G.W.Sm. | 12, 32, 33 |
| | <i>S. ovata</i> var. <i>pinnata</i> G.W.Sm. | 12, 32 |
| | <i>S. robusta</i> Ehr. | 12, 37 |
| | <i>S. robusta</i> var. <i>spledula</i> (Ehr) van Heurk. | 12, 33 |
| | <i>S. spirales</i> Kuetz. | 12, 21, 33 |
| | <i>S. subsalsa</i> G.W.Sm. | 12 |
| | <i>S. spiroloides</i> Hustedt. | 12, 21 |
| | <i>S. tenuissima</i> Hustedt. | 12 |
| | <i>S. tenera</i> Greg. | 12, 13, 21, 33 |
| | <i>S. tenera</i> var. <i>nervosa</i> A.Schmidt. | 12, 13 |
| | <i>S. sp.</i> | 12 |
| | Division : Chlorophyta | |
| | Class : Chlorophyceae | |
| | Order: Tetrasporales | |
| 1 | <i>Asterococcus</i> Seherffel, 1908. | |
| | <i>A. sp.</i> | 5 |
| 2 | <i>Chaetochloris</i> Pascher and Korshikov, 1932 | |
| | <i>C. depauperata</i> Pascher | 50 |
| 3 | <i>Gloeocystis</i> Naeg.1849. | |
| | <i>G. ampla</i> (Kuetz.) Lagerheim | 3, 42 |
| | <i>G. braunii</i> Kutzing after Smith. | 24 |
| | <i>G. infusinum</i> (Skrank) W. and W | 12 |
| | <i>G. gigas</i> Kuetz | 5, 12, 21 |
| | <i>G. vesiculosa</i> Naeg. | 12 |
| 4 | <i>Palmodictyon</i> Kuetz. 1845. | |
| | <i>P. varium</i> (Naeg.) Lemm. | 3 |
| 5 | <i>Sphaerocystis</i> Chodaf, 1897 | |
| | <i>S. schroeteri</i> Chod | 12 |
| | <i>S. ellipsodia</i> Chod | 4 |
| | <i>S. planktonica</i> (Korshikov) Bourr. | 16 |
| | <i>S. sp.</i> | 5 |
| 6 | <i>Chlamydocapsa</i> Skuja, 1948. | |
| | <i>C. bacillus</i> (Teling) Fott. | 12 |
| | <i>C. planktonica</i> W. and W. | 12 |
| 7 | <i>Chlorosarcina</i> Gemeck, 1907. | |
| | <i>C. consociata</i> (Kleb) G.M.Sm. | 5, 12 |
| 8 | <i>Chlorophysema</i> Pascher 1927 | |
| | <i>C. ampliata</i> Skuja | 50 |

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| | <i>C. melosirae</i> Fott | 50 |
| | <i>C. inertis</i> (Kors) Pascher | 50 |
| 9 | <i>Stylosphaeridium</i> Geitler and Gimesi, 1925. | |
| | <i>S. stipitatum</i> (Bachmann) Geitler et Gimesi | 50 |
| 10 | <i>Pseudotetracystis</i> Arneson, 1973. | |
| | <i>P. terristris</i> Ameson. | 12 |
| 11 | <i>Tetraspora</i> Link, 1809 | |
| | <i>T. gelatinosa</i> (Vauch) Desraux | 8 |
| | <i>T. lacustris</i> Lemm. | 16 |
| | <i>T. tubrica</i> (Rath) Agardli | 31 |
| 12 | <i>Urococcus</i> Kuetzing | |
| | <i>U. insignis</i> (Hass) Kuetz. | 12 |
| | Order : Volvocales | |
| 1 | <i>Carteria</i> Diesing, 1866. | |
| | <i>C. multifilis</i> (Fres.) Dili | 41 |
| | <i>C. klebsii</i> (P. A. Dangeard) Francé | 5, 12, 39 |
| 2 | <i>Chlamydomonas</i> Ehrenberg, 1833. | |
| | <i>C. angulosa</i> O.Dill | 3, 23, 44 |
| | <i>C. aulata</i> Pascher | 50 |
| | <i>C. bolyaiana</i> Kol | 50 |
| | <i>C. globosa</i> Snow. | 26, 39 |
| | <i>C. nivalis</i> (Bau) Wille | 21 |
| | <i>C. polyaiena</i> (Borzy) Gomont | 21 |
| | <i>C. polypyreoideum</i> Prescott. | 12, 42 |
| | <i>C. pseudoperty</i> Pasch. | 12 |
| | <i>C. sanguinea</i> Lagerheim | 50 |
| | <i>C. sphagnicola</i> Fritch and Takea. | 12 |
| | <i>C. reinhardtii</i> Dongeard | 41 |
| | <i>C. yellowstonesis</i> Kol | 50 |
| 3 | <i>Pectodictyon</i> Taft 1945 | |
| | <i>P. cubicum</i> | 16, 19 |
| 4 | <i>Phacotus</i> Perty, 1852. | |
| | <i>P. lenticularis</i> (Ehr) Stein | 27 |
| 5 | <i>Haematococcus</i> (C.Agardh) Flotow 1844. | |
| | <i>H. pluvialis</i> (Flotow) Wille | 16 |
| | <i>H. lacustris</i> (Girod) Rostaf. | 24 |
| 6 | <i>Eudorina</i> Ehrenberg.1932. | |
| | <i>E. cylindrica</i> Korshikov | 42 |
| | <i>E. elegans</i> Ehr | 12, 41 |
| 7 | <i>Nautocapsa</i> (Czosnowski) H.et O.Ettl 195 | |
| | <i>N. neustophila</i> (Czosnowski) H.et O.Ettl | 50 |
| 8 | <i>Panodorina</i> Bory,1824. | |
| | <i>P. morum</i> (Muell) Bory. | 5, 12, 41 |
| 9 | <i>Pleudorina</i> Show, 1891 | |
| | <i>P. illinoesinsis</i> Kofoid. | 12 |
| 10 | <i>Protosiphon</i> (Kützing) Klebs 1896 | |
| | <i>Protosiphon botryoides</i> (Kützing) Klebs | 50 |
| | Order : Chlorococcales | |
| 1 | <i>Chlorococcum</i> Menegh 1842. | |
| | <i>C. humicol</i> Naeg W.and W | 4 |
| | <i>C. infusionum</i> (Schrank) Menegh | 3 |
| | <i>C. minutum</i> (R.C.Starr 1955) . | 16 |
| 2 | <i>Radiosphaera</i> J.W.Snow1918. | |
| | <i>R. dissecta</i> (Korshikov) Starr | 50 |
| | Order: Sphaeropleales | |
| 1 | <i>Ankyra</i> Fott 1957 | |

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| | <i>A. judayi</i> (G.M.Smith) Fott | 50 |
| 2 | <i>Chlorochytrium</i> Cohn, F. (1872). | |
| | <i>Chlorochytrium facciolae</i> (Borzi) Bristol | 50 |
| 3 | <i>Golenkinia</i> Chodat 1894 | |
| | <i>G. paucipina</i> West and West | 7 |
| | <i>G. radiata</i> (Chodat) Wille | 4 |
| 4 | <i>Characium</i> Braun 1849. | |
| | <i>C. acuminatum</i> A. Braun | 12 |
| | <i>C. ambignum</i> Hemman. | 42 |
| | <i>C. cylindricum</i> A. Braun in Kutzing | 50 |
| | <i>C. pringsheimii</i> Braun. | 8, 39 |
| | <i>C. saccatum</i> Filarsky 1914 | 50 |
| | <i>C. sieboldii</i> A.Braun 1855 | 50 |
| 5 | <i>Chlorolobion</i> Korshikov, A.A.1953 | |
| | <i>Chl. obtusum</i> Korschi | 50 |
| 6 | <i>Nautococcus</i> Korshikov 1926 | |
| | <i>Nautococcus mammilatus</i> Korshikov | 50 |
| 7 | <i>Pediastrum</i> Meyen. 1829. | |
| | <i>P. boryanum</i> (Turp) Menegh. | 5, 12, 21, 30, 36, 41, 40 |
| | <i>P. boryanum</i> var. <i>longicorne</i> | 42 |
| | <i>P. biradiatum</i> Meyen | 36 |
| | <i>P. duplex</i> Meyen | 1, 41, 12 |
| | <i>P. duplex</i> var. <i>reticulatum</i> Lagerh. | 5, 12, 21, 41 |
| | <i>P. duplex</i> var. <i>rotundatum</i> Lucks. | 4 |
| | <i>P. integrum</i> Naeg. | 5, 8, 30, 34, 36, 12 |
| | <i>P. integrum</i> var. <i>priva</i> Printz | 50 |
| | <i>P. kawraisky</i> .Shmidt | 4 |
| | <i>P. muticum</i> Kuetz. | 12, 21 |
| | <i>P. obtusum</i> (Lucks) | 45 |
| | <i>P. sculptatum</i> Smith | 25 |
| | <i>P. simplex</i> Meyen | 1, 5, 7, 8, 12, 13, 30, 36, 41 |
| | <i>P. simplex</i> var. <i>duodenarium</i> (Bail) Raben | 8 |
| | <i>P. simplex</i> May var. <i>echinulatum</i> Witter | 24 |
| | <i>P. tetriskyas</i> (Ehr.) Ralfs | 5, 21 |
| | <i>P. tetras</i> var. <i>tetraedon</i> (Corda) Rabenh | 21 |
| 8 | <i>Pseudokirchneriella</i> (Korshikov) F.Hindák 1990 | |
| | <i>P. subcapitata</i> (Korshikov) F.Hindák | 50 |
| 9 | <i>Quadrigula</i> Printz 1915. | |
| | <i>Q. closterioides</i> (Bohlin) Printz 1915. | 18, 24 |
| 10 | <i>Sorastrum</i> Kutzing 1845. | |
| | <i>S. americanum</i> (Bohlin) Schmidle. | 42 |
| 11 | <i>Ankistrodesmus</i> Corda, 1838, emRalfs, 1849. | |
| | <i>A. convolutis</i> Corda. | 12, 34 |
| | <i>A. falcatus</i> (Corda) Ralfs. | 4, 5 |
| | <i>A. falcatus</i> var. <i>mirabilis</i> W. | 12, 41 |
| | <i>A. falcedus</i> var. <i>acicularis</i> | 5 |
| | <i>A. fusiformis</i> Corda | 5 |
| | <i>A. spiralis</i> (Turner) Lemm. | 3, 39 |
| | <i>A. setigerus</i> Schord. | 14 |
| | <i>A. subcabitatus</i> Korshikov. | 5 |
| 12 | <i>Hydrodicton</i> Roth, 1800 | |
| | <i>H. reticulatum</i> (L.) Lager | 31, 36 |
| 13 | <i>Cerasterias</i> Reinsch,1866. | |
| | <i>C. dictyospharium</i> | 4 |

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| 14 | <i>Staurastroedes sp.</i> | 4 |
| 15 | <i>Kirchneriella</i> Schmidle 1893. | |
| | <i>K. obesa</i> (West) Schmidle | 3 |
| 16 | <i>Monoraphidium</i> Kom. -Legn. 1969. | |
| | <i>M. contortum</i> (Thur.) | 3 |
| | <i>M. komarkovae</i> Nygaard | 50 |
| 17 | <i>Planktosphaeria</i> Smtih | |
| | <i>P. gelatinosa</i> G.M.Smith | 4 |
| 18 | <i>Selenastrum</i> Reinsch. 1867. | |
| | <i>S. gracile</i> (Reinsch) Korsh. | 5 |
| 19 | <i>Radiococcus</i> Schmidle, 1902. | |
| | <i>R. nimbatus</i> (Wildeman) Schmidle | 19 |
| 20 | <i>Actinastrum</i> Lager. 1882 | |
| | <i>A. hantzschii</i> Lager | 44 |
| 21 | <i>Coelastrum</i> Nageli 1849. | |
| | <i>C. astroideum</i> De Notaris. | 39, 42, 44 |
| | <i>C. microporum</i> Nacg | 5 |
| | <i>C. probiscidium</i> Chan 1974 | 25 |
| | <i>C. reticulatum</i> (Dangeard). | 39 |
| | <i>C. fenestrate</i> lemm | 4 |
| | <i>C. quadrata</i> Merr | 4 |
| 22 | <i>Dimorphococcus lunatus</i> A. Braun 1855 | |
| | <i>D. lunatus</i> A. Braun. | 42 |
| 23 | <i>Scenedesmus</i> Meyen 1829. | |
| | <i>S. abundans</i> var. <i>brevicauda</i> -G.M.Smith. | 8, 30 |
| | <i>S. acuminatus</i> (Lag) Chodat | 24, 42 |
| | <i>S. acutiformis</i> Schröder 1897 | 24, 39 |
| | <i>S. acunus</i> Meyen | 8, 30, 34 |
| | <i>S. arcuatus</i> var. <i>capitatus</i> Smith | 39 |
| | <i>S. arcuatus</i> var. <i>platydisca</i> G. M. Smith. | 21 |
| | <i>S. armatus</i> Chost | 8 |
| | <i>S. bernardii</i> G.M.Smith 1916 syn: <i>S. acuminatus</i> var <i>bernardii</i> (G.M.Smith) Dedusenko | 50 |
| | <i>S. bijuga</i> (Turp.)Lager | 29, 39, 44 |
| | <i>S. bijuga</i> var. <i>alternans</i> (Reinsch) Hansgrig. | 12, 13, 21, 36 |
| | <i>S. bijusatus</i> (Trup) Kuetz. | 5, 36 |
| | <i>S. circumfusus</i> Hortobagy | 50 |
| | <i>S. costatus</i> Schmidle | 50 |
| | <i>S. dimorphus</i> (Turp) Kuetz. 1833 | 8, 30 |
| | <i>S. ellipticus</i> West and West | 39 |
| | <i>S. hystrix</i> Lagerhein 1882. | |
| | <i>S. incrassatulus</i> (Bohlin) 1897. | 8, 31 |
| | <i>S. incrassatulus</i> var. <i>mononae</i> G. M. Smith. | 34 |
| | <i>S. longus</i> Meyen | 5, 12,13 |
| | <i>S. obliquus</i> (Turp) Kuetz.1833. | 5, 12,13 |
| | <i>S. obtusus</i> Meyen | 50 |
| | <i>S. opoliensis</i> p.Richter | 44 |
| | <i>S. planctonica</i> (Korshikov) Fott 1973 syn: <i>Didymocystis planctonica</i> Korshikov | 50 |
| | <i>S. planktosphaera</i> | 5, 12 |
| | <i>S. quadricauda</i> var. <i>maximus</i> West and West | 39, 42, 44 |
| | <i>S. quadricauda</i> var. <i>parvus</i> G.W. Smith. | 5, 12,13,44 |
| | <i>S. raciborskii</i> Woloszynska | 50 |
| | <i>S. schroeteri</i> Huber – peztalozzi 1936 Chodat | 41 |
| | <i>S. serratus</i> (Corda) Bohlin. 1901. | 12, 13 |
| | <i>S. sp</i> Meyen | 50 |

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| 24 | <i>Desmodesmus</i> Chodat. E. Heg 1999. | |
| | <i>D. aculeolatus</i> (Reinsch) Tsarenko | 24 |
| | <i>D. armatus</i> Chodat. | 3, 42 |
| | <i>D. armatus</i> var. <i>bicaudatus</i> Chodat | 24 |
| | <i>D. brasiliensis</i> Bohlin. | 42, 44 |
| | <i>D. grahneisii</i> (Heynig) E. Hege | 44 |
| | <i>D. opoliensis</i> var. <i>mononensis</i> Chodat | 24 |
| 25 | <i>Tetradismus</i> G.M.Smith 1913 | |
| | <i>T. wisconsinense</i> G.M.Smith | 50 |
| 26 | <i>Tetrallantos</i> Teiling, 1916. | |
| | <i>Tetrallantos lagerhemii</i> Teil. | 4 |
| 27 | <i>Tetrastrum</i> Chodat 1895. | |
| | <i>T. triangulare</i> (Chodat) Kom. | 17 |
| 28 | <i>Tetraedron</i> Kuetz., 1845. | |
| | <i>T. coudatum</i> (Corda) Hansg | 5 |
| | <i>T. caudatum</i> var. <i>longispinum</i> Lemmermann | 50 |
| | <i>T. enorme</i> Ralfs | 42 |
| | <i>T. minimum</i> (Braun) Hansg | 39 |
| 29 | <i>Westella</i> de Wildemann. 1897 | |
| | <i>W. sp.</i> | 5 |
| | Order: Klebsormmidiales | |
| 1 | <i>Klebsormidium</i> P.C.Silva, Mattox 1972 | |
| | <i>Kl. dissectum</i> P.C.Silva | 50 |
| | Order: Chlorellales | |
| 1 | <i>Chlorella</i> Beyerinck 1890. | |
| | <i>C. ellipsoidea</i> Gerneck | 42 |
| | <i>C. vulgaris</i> Beyer. | 3, 44 |
| | <i>C. sp.</i> | 5, 12, 21 |
| 2 | <i>Closteriopsis</i> Lemmermann, 1899. | |
| | <i>C. acicularis</i> (G.M.Smith) J.H.Belcher et Swale | 50 |
| | <i>C. longissima</i> (Lemmermann) Lemmermann 1899. | 26 |
| 3 | <i>Eremosphaera</i> De Bary, 1858. | |
| | <i>E. viridis</i> Bary. | 19 |
| 4 | <i>Franceia</i> lemmermann 1898. | |
| | <i>F. ovalis</i> (france) lemmermann. | 42 |
| 5 | <i>Golenkiniopsis</i> Korshikov 1953 | 50 |
| | <i>Golenkiniopsis chlorelloides</i> (J.W.G.Lund) Fott | |
| 6 | <i>Lagerheimia ciliat</i> (lag) Hob. | |
| | <i>L. quadriseta</i> (Lemm)G.M.Smith | 4 |
| | <i>L. subsalsa</i> Lemm | 4 |
| 7 | <i>Nephrocytium</i> Naeg. 1849. | |
| | <i>N. agardhianum</i> Naeg. | 17 |
| | <i>N. limnetium</i> G.M.Smith | 4 |
| | <i>N. lunatum</i> West 1892 | 26 |
| | <i>N. obesum</i> West and West. | 42 |
| 8 | <i>Oocystis</i> Naeg, 1845. | |
| | <i>O. borgei</i> Snow. | 12, 13 |
| | <i>O. crassa</i> Wittr and Nordst. | 12 |
| | <i>O. elliptica</i> W. | 12 |
| | <i>O. eremosphaeria</i> G.M. Sm. | 12 |
| | <i>O. gigas</i> Archer. | 12, 13, 41 |
| | <i>O. marssonii</i> Lemm | 44 |
| | <i>O. pusila</i> Hansg. | 12, 13 |
| | <i>O. solitllaria</i> Witt | 21 |
| 9 | <i>Trochiscia</i> Kuetzing, 1845. | |

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| | <i>T. aspera</i> (Reinsch) Hansg. | 12 |
| | <i>T. minimum</i> (A. Braun) Hansg | 4 |
| | <i>T. planktosphaena gelatinosa</i> G.M. Sm. | 21 |
| | <i>T. thelesphaera</i> ap'iina Pasch | 21 |
| | <i>T. muticum</i> A.Braun (hansg) | 4 |
| | <i>T. trigonum</i> Naeg Hansg | 4 |
| | Order: Trebouxiales | |
| 1 | <i>Botryococcus</i> Kuetz. 1849. | |
| | <i>B. braunii</i> Kuetz. | 41 |
| | <i>B. minor</i> | 4 |
| | <i>B. protuberans</i> var. <i>minor</i> (W. & W) Sm. | 41 |
| 2 | <i>Dispora</i> Printz, 1914. | |
| | <i>D. crucigenoid</i> Printz | 5 |
| 3 | <i>Myrmecia</i> G.M.Smith 1933 | |
| | <i>M. aquatic</i> G.M.Smith | 50 |
| | Order: Oedogoniales | |
| 1 | <i>Bulbochaete</i> Agardh, 1817. | |
| | <i>B. angulosa</i> Wittr. | 5, 12, 21 |
| | <i>B. hiloensis</i> Nordst | 12 |
| | <i>B. elatior</i> Pringsh. | 12 |
| | <i>B. mirabilis</i> (Wittr) Him. | 5, 12, 13 |
| | <i>B. nanna</i> Wittr. | 3, 12, 44 |
| | <i>B. praereticulata</i> Jao. | 42 |
| | <i>B. scorbiculata</i> Tiffany. | 12, 13 |
| | <i>B. varians</i> var. <i>subsimpler</i> Wittr and Him. | 5, 12 |
| 2 | <i>Oedogonium</i> Link, 1820. | |
| | <i>O. angustum</i> (Him) Tiffany. | 12 |
| | <i>O. autumnale</i> Witter. | 3, 5, 12, 26 |
| | <i>O. cardiacum</i> var. <i>minor</i> Roth. | 5, 12 |
| | <i>O. crassum</i> (Hass.) Wittrock. | 24 |
| | <i>O. crispum</i> (Hass.)Kuetz. | 3, 5, 12, 13, 26 |
| | <i>O. curvum</i> var. <i>major</i> de-Lac. | 12 |
| | <i>O. cryptoporum</i> Him. | 12 |
| | <i>O. cryptoporum</i> var. <i>szechwanese</i> Jao. | 12 |
| | <i>O. epiphyticum</i> Trans Tiffany | 11 |
| | <i>O. gelatinosum</i> Kam. | 18, 24 |
| | <i>O. globosum</i> Nordst. | 12 |
| | <i>O. gracilis</i> (Wittr.)Tiff | 3, 24, 39 |
| | <i>O. inclusum</i> Hirn. | 19 |
| | <i>O. inerme</i> var. <i>mntiens</i> . Him. | 5, 12 |
| | <i>O. landsboroughii</i> (Hass.) Wittrock | 42 |
| | <i>O. longatum</i> Kuetzing | 42 |
| | <i>O. mexicanum</i> Hirn. | 42, 16 |
| | <i>O. mitratum</i> Him. | 12 |
| | <i>O. oelandicum</i> var. <i>oelandicum</i> Hirn 1900. | 24 |
| | <i>O. plusiosporum</i> Witrock. | 12 |
| | <i>O. patulum</i> var. <i>minus</i> Pandey. | 12, 13 |
| | <i>O. petri</i> (Wittr) Him. | 12 |
| | <i>O. pisanum</i> Wittrock | 2 |
| | <i>O. porrectum</i> Nordst. and Hirn | 16 |
| | <i>O. rothii</i> (Le. Cl.) Pringsh. | 12 |
| | <i>O. spurim</i> Tiffany 1937 | 18 |
| | <i>O. varians</i> (Wittr and Lund) Him. | 5, 12 |
| | Order : Chaetophorales, Microsporales, Ulotrichales | |
| 1 | <i>Aphanochaete</i> A. Braun, 1851. | |
| | <i>A. confervicola</i> var. <i>major</i> Tupa. | 12, 13 |

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| | <i>A. elegans</i> Tupa. | 12, 13 |
| | <i>A. polychaete</i> (Hansg) Fritsch. | 8, 12 |
| | <i>A. repens</i> A. Braun. | 5, 10, 36 |
| | <i>A. sp.</i> | 12 |
| 2 | <i>Chaetophora</i> Schrank.1780. | |
| | <i>C. elegans</i> Roth Agardh | 12, 40 |
| | <i>C. attenuatum</i> Hazen. | 12 |
| | <i>C. pisiformis</i> (Roth) Ag. | 12 |
| 3 | <i>Leptosira</i> Borzi 1883. | |
| | <i>L. mediana</i> Borzi | 3 |
| 4 | <i>Cloniophora</i> Tiffany, 1843. | |
| | <i>C. macrocladia</i> (Nordst) Bour. | 12 |
| | <i>C. macrocladia</i> var. <i>macrocladia</i> (Nordst)Bouk | 12, 40 |
| 5 | <i>Draparnaldia</i> Bory, 1808. | |
| | <i>D. glomerata</i> (Vauch) Ag. | 12 |
| | <i>D. mutabilis</i> (Roth) Cedergren. | 8 |
| | <i>D. plumosa</i> (Vauch) Ag. | 12, 34 |
| 6 | <i>Elakatothrix</i> Wille 1898. | |
| | <i>E. gelatinosa</i> kuctz | 43 |
| 7 | <i>Fristchiella</i> (Bomet and Flahault), Gomont, 1895. | |
| | <i>F. tuberosa</i> Lyengar. | 12 |
| 8 | <i>Gonogrosira</i> Kuetzizig, 1843. | |
| | <i>G. debari'ana</i> RabeiA. | 12, 13, 31 |
| | <i>G. incrastanus</i> (Reinch) Schmidle | 5 |
| | <i>G. influmensis</i> (Reinch) Sclmiidle | 5 |
| | <i>G. lacustris</i> Rabenh. | 36 |
| | <i>G. papuasica</i> (Borzi)Tupa | 2 |
| | <i>G. sp.</i> | 12 |
| 9 | <i>Liptospiropsis</i> Jao, 1940. | |
| | <i>L. lorulosa</i> Jao. | 12 |
| 10 | <i>Protoderma</i> Kuetzing, 1843. | |
| | <i>P. Frequens</i> (Butcher) Printz. | 17 |
| | <i>P. virid</i> Ag. | 12 |
| 11 | <i>Stigeoclomum</i> Kuetzing, 1843. | |
| | <i>S. helveticum</i> Vischer | 2 |
| | <i>S. flagelliferim</i> Kuetz. | 12, 26 |
| | <i>S. lubricum</i> (Dillw) Kuetz. | 12 |
| | <i>S. nanum</i> Kuetz | 8, 12, 36 |
| | <i>S. pachydermum</i> Pres. | 8, 31, 34 |
| | <i>S. subsecundum</i> Kuetz. | 8, 12 |
| | <i>S. stagnatile</i> (Hazen) Collins | 5, 34 |
| | <i>S. tenue</i> (Ag.) Kuetz. | 5, 12, 13, 36, 34 |
| | <i>S. variable</i> (Naeg) Islam. | 12 |
| 12 | <i>Protococcus</i> Agardh, 1824 syn: <i>Pleurococcus</i> , Meneghim, 1837. | |
| | <i>P. viridis</i> Ag. | 12, 21 |
| 13 | <i>Cylindrocapsa</i> Reinsch, 1867. | |
| | <i>C. conferta</i> W. and W | 12, 21 |
| | <i>C. geminella</i> irolle. | 5, 12, 31 |
| 14 | <i>Microspora</i> Thuret. 1850. | |
| | <i>M. amoena</i> (Kuetz) Rabenh. | 12,13, 31 |
| | <i>M. amonea</i> var. <i>gracilis</i> de-Toni (Willi). | 12, 13 |
| | <i>M. crassier</i> Hazer 1902 | 25 |
| | <i>M. elegans</i> Hans. | 12 |
| | <i>M. floccosa</i> Vaucher. | 12 |

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| | <i>M. loefgrenii</i> (Nordst) Lagerh | 40, 42 |
| | <i>M. quadrata</i> Hazen. | 12 |
| | <i>M. pachyderma</i> (Wille) Lager | 8, 31, 36 |
| | <i>M. stagnorum</i> Kuetz | 36 |
| | <i>M. tumidula</i> Hazen | 12, 34 |
| | <i>M. willeana</i> (G. M. Sm.) Wille. | 12, 13, 21 |
| 15 | <i>Geminella</i> Turpin. 1828. | |
| | <i>G. ellipsoidia</i> (Pres.) G. M. Sm. | 21 |
| | <i>G. interrupta</i> Lagerh. | 12 |
| | <i>G. minor</i> (Naeg) Heeving. | 12 |
| | <i>G. mutabilis</i> (Naeg) Wille. | 31 |
| | <i>G. ornata</i> WandW. | 5, 12 |
| | <i>G. pulchra</i> Turpin | 50 |
| 16 | <i>Ulothrix</i> Kutzing 1833. | |
| | <i>Ulothrix idiospora</i> G.S. West. | 45 |
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| | <i>U. cylindricum</i> prescott | 12 |
| | <i>U. pseudo-Flacca</i> , Wille. | 12 |
| | <i>U. pseudoflacca</i> var. <i>salina</i> Chapman. | 12 |
| | <i>U. rorida</i> Thuret. | 12, 21 |
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| | <i>U. tenuissima</i> Kuetz. | 29, 13 |
| | <i>U. variabilis</i> (Kuetz) Kirchn. | 5 |
| | <i>U. zonata</i> (Weber and Mohr.) Kuetz. | 12, 13, 31, 36, 21 |
| 17 | <i>Uronema</i> Lagerheim, 1887. | |
| | <i>U. elongatum</i> Hodgetts. | 5, 31 |
| 18 | <i>Hormedium</i> Kuetz. 1843. | |
| | <i>H. flaccidum</i> Kuetz. | 39 |
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| 1 | <i>Basciadia</i> Tilden, 1930. | |
| | <i>B. ramulosa</i> Ducker. | 12 |
| 2 | <i>Cladophora</i> Kuetzing, 1843. | |
| | <i>C. calcicola</i> Kuatz | 36 |
| | <i>C. fracta</i> (Dillw.) Kuetz. | 3 |
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| | <i>P. rovida</i> | 14 |
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| 1 | <i>Trentepohlia</i> Martius 1817. | |
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| 1 | <i>Actinotaenium</i> (Naeg) Teiling, 1954. | |
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| | <i>Cl. acerosum</i> (Schr.) Ehr. | 3, 12, 24 |
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| | <i>Cl. acutum</i> var. <i>linea</i> (Perty) West | 44 |
| | <i>Cl. cornu</i> (Ehr.) Ex Ralfs | 12, 44 |
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| | <i>Cl. diana</i> Ehr. | 12, 30, 42 |
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| | <i>Cl. idiosporum</i> West et G.S.West | 48 |
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| | <i>Cl. littorale</i> Gay syn: <i>Siliqua</i> W. and G.S.W. | 12, 30 |
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| | <i>Cl. lunula</i> var. <i>carnithiacum</i> Beck - Mannag. | 12 |
| | <i>Cl. lunula</i> var. <i>intermedium</i> Gutw. | 12 |
| | <i>Cl. momliferum</i> (Bory) Ehr. | 5, 12, 21, 13 |
| | <i>Cl. parvulum</i> Naeg. | 12, 21, 13 |
| | <i>Cl. parvulum</i> var. <i>major</i> G.S.W. | 12 |
| | <i>Cl. peracerasum</i> Gay. | 5, 12 |
| | <i>Cl. praelongum</i> var. <i>brevius</i> (N.)W. K. | 16 |
| | <i>Cl. pseudolanula</i> Borge. | 30 |
| | <i>Cl. rostratum</i> Ehr. | 12 |
| | <i>Cl. setaceum</i> (Ehr.) ex Ralfs | 44 |
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| | <i>Cl. strigosum</i> de Breb | 30 |
| | <i>Cl. Striolatum</i> Ehr. | 45 |
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| 3 | <i>Cosmarium</i> Corda, 1834. | |
| | <i>C. abbreviatum</i> var. <i>planktonicum</i> Racib. | 45 |
| | <i>C. abryptam</i> Lund. | 12 |
| | <i>C. amoenum</i> Brebisson in Ralfs | 48 |
| | <i>C. anceps</i> var. <i>crispulua</i> (Nordst) Krieger and Gerloff | 48 |
| | <i>C. angulosum</i> var. <i>concinnum</i> West and G.S. West | 48 |
| | <i>C. binum</i> Nordst | 48 |
| | <i>C. bioculatum</i> Breb. | 24 |
| | <i>C. bolti</i> wille | 11 |
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| | <i>C. contractum</i> var. <i>ellipsoideum</i> (Elfr) Wand G.S.W. | 36 |
| | <i>C. contractum</i> var. <i>rotundatum</i> O.Borge | 48 |
| | <i>C. costatum</i> Nordstd. | 21 |
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| | <i>C. cucurbita</i> Breb | 48 |
| | <i>C. cymatoplerum</i> Nord. | 42 |
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| | <i>C. exiguum</i> Archr. | 45 |
| | <i>C. formasulum</i> Lund | 8 |
| | <i>C. globosum</i> Bulnh. | 12, 13, 30, 34 |
| | <i>C. garolense</i> Roy and Biss | 5 |
| | <i>C. granatum</i> de Breb | 36 |
| | <i>C. granatum</i> var. <i>subgranatum</i> (Nordst) | 36 |
| | <i>C. impressulum</i> Elfving | 48 |
| | <i>C. globosum</i> Bulnh | 12 |
| | <i>C. globosum</i> var. <i>minor</i> Boldt. | 11 |
| | <i>C. klebsii</i> Gluw. | 12, 13 |
| | <i>C. laeve</i> Rabenh. | 5, 8, 12, 21 |
| | <i>C. laeve</i> var. <i>septentrionale</i> Wille. | 5, 12 |
| | <i>C. lundelli</i> var. <i>ellipticum</i> W. | 5 |
| | <i>C. margaritiferum</i> Menegh. | 12 |
| | <i>C. optusatum</i> schmidle | 5, 31 |
| | <i>C. pericymatium</i> Nordstedt | 58 |
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| | <i>C. meneghinii</i> Dc brebisson | 4 |
| | <i>C. nitrdum</i> Dc Toni | 11 |
| | <i>C. ocillatum</i> Gutw. | 3 |
| | <i>C. orbiculatum</i> Ralfs. | 12, 13 |
| | <i>C. pachydermum</i> P. Lundell. | 44 |
| | <i>C. Panamense</i> Lund | 4 |
| | <i>C. punctulatum</i> var. <i>subpunctulatum</i> (Nordstedt) Borgesen | 48 |
| | <i>C. portianum</i> Arch. | 12, 21 |
| | <i>C. praemorsum</i> de Breb | 36 |
| | <i>C. pseudaractoum</i> Nordst. | 12 |
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| | <i>C. punctilatum</i> Borge. | 5,8, 12, 31, 36, 34 |

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| | <i>C. quadrifarium</i> Lund. | 12 |
| | <i>C. quadrifarium</i> fo. <i>polysticha</i> Lund. | 12 |
| | <i>C. quainarium</i> Lund. | 12 |
| | <i>C. ralfsii</i> Brebisson in Ralfs. | 3 |
| | <i>C. rectangular</i> var. <i>hexagonum</i> (Elf) w and w | 5 |
| | <i>C. reniforme</i> (Ralfs) Archer. | 3, 39, 44 |
| | <i>C. retangular</i> fo. <i>minima</i> Nordst. | 5 |
| | <i>C. sexnotatam</i> Gutw. | 18 |
| | <i>C. sexnotatum</i> var <i>Tristriatum</i> Smith | 24 |
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| | <i>C. subcontratum</i> Nordst. | 5, 12 |
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| | <i>C. subcucumis</i> Schmidle. | 12 |
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| 4 | <i>Euastrum</i> Ralfs 1848. | |
| | <i>E. dobiun</i> Naeg | 14 |
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| 5 | <i>Penium</i> Breb. Ex Ralf. | |
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| 6 | <i>Staurastrum</i> Meyen, 1829. | |
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| | <i>S. orbicular</i> var. <i>ralfsii</i> W and G.S West | 24 |
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| 10 | <i>Roya</i> West. and G.S.West, 1896. | |
| | <i>R. abtusa</i> (Breb) Kuetz. | 12 |
| 11 | <i>Debarya</i> Wittrock 1872 | |
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| 12 | <i>Mougeotia</i> Agardh, 1824. | |
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| | <i>M. laetevirens</i> (A.Braun) Wittrock | 48 |
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| 13 | <i>Mougeotiopsis</i> Palla, 1804. | |
| | <i>M. calospora</i> Palla. | 12 |
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| | <i>S. maravillosa</i> Transeau. | 12 |
| | <i>S. pellucida</i> (Hassall) Kutzing | 18 |
| | <i>S. majuscula</i> Ktz | 42 |
| | <i>S. maravillosa</i> Transeau | 24 |
| | <i>S. mirabilis</i> (Hass) Kuetz. | 12 |
| | <i>S. micropunctata</i> Transeau | 42 |
| | <i>S. manoramae</i> Rand. | 24 |
| | <i>S. nitida</i> (Dillw.)Link | 42 |
| | <i>S. paradoxum</i> (Boy) Biss | 41 |
| | <i>S. porticalis</i> (Muell) Petit. | 24 |
| | <i>S. pratensis</i> Transeau | 42 |
| | <i>S. protecta</i> Wood | 25 |
| | <i>S. pseudoneglecta</i> Czurda | 24 |
| | <i>S. pseudoreticulata</i> Krieger | 24 |
| | <i>S. rectangularis</i> Trans. | 45 |
| | <i>S. rivularis</i> (Hass.) Rabenhorst | 24 |
| | <i>S. shantungensis</i> Li 1936 | 24 |
| | <i>S. subreticulata</i> Fritsch | 18 |
| | <i>S. rhizobrachiales</i> Jao. | 5, 12 |
| | <i>S. singularis</i> Nordst. | 5, 12 |
| | <i>S. spreeiana</i> Rabenh. | 5, 12 |
| | <i>S. stectica</i> Wille | 25 |
| | <i>S. sulcata</i> Blum | 25 |
| | <i>S. tenuissima</i> (Hassall) Kuetz | 3 |
| | <i>S. turfosa</i> Gay. | 18 |
| | <i>S. undulisepta</i> Randhawa. | 5, 12 |
| | <i>S. varians</i> (Hassall) Kuetz | 3, 42 |
| | <i>S. weberi</i> Kützing | 26 |
| | <i>S. sp.</i> | 12 |
| 15 | <i>Zygnema</i> Agardh, 1824. | |
| | <i>Z. conspicuum</i> (Hassall) Trans | 34 |
| | <i>Z. collinsianum</i> Trans | 26 |
| | <i>Z. czurdae</i> Randhawa | 5, 12 |
| | <i>Z. extenua</i> Jao | 24 |
| | <i>Z. gigantum</i> Randhawa. | 12 |
| | <i>Z. leiospermum</i> de Bary. | 12 |
| | <i>Z. pectinatum</i> (Vauch) Ag. | 5, 12 |
| | <i>Z. sphaericum</i> Mirsa. | 42 |
| | <i>Z. stagnale</i> (Hass) Kuetz. | 12 |
| | <i>Z. sterile</i> Trans | 12 |
| | <i>Z. tenue</i> Kuetz. | 12 |
| | <i>Z. vaucherii</i> var. <i>stagnalte</i> (Hass) Kirch. | 12 |
| | Order: Charales | |
| 1 | <i>Chara</i> Valliant. 1719. | |
| | <i>C. canescens</i> Lois- de-Slong | 12, 36 |
| | <i>C. contraria</i> A.Braun ex Kuetz. | 12 |
| | <i>C. excelsa</i> Allen. | 12, 36 |
| | <i>C. fragilis</i> Desvaux. | 36 |
| | <i>C. schweinitzii</i> Braun | 4 |
| | <i>C. vulgaris</i> Linn. | 12, 21, 36 |
| | <i>C. vulgaris</i> var. <i>vulgaris</i> fo <i>excelsa</i> R.D Wood | 12 |
| | <i>C. globularis</i> Thail | 12 |
| 2 | <i>Nitella</i> Agardh 1824. | |
| | <i>N. batracosperma</i> (Reichenb)A.Braun | 2 |

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