



Ministry of Environment



Republic of Iraq



Checklist of Algal Flora in Iraq

قائمة الطحالب المشخصة في العراق



Republic of Iraq



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2013

Checklist of Algal Flora in Iraq

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**Published in the Republic of Iraq
By Ministry of Environment, Baghdad.**

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This book is dedicated to
All Iraqi Scientists

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

In the Name of God Most Gracious Most Merciful

Foreword

Iraq occupies an excellent geographical position where it is found in its mountainous areas in which temperature drops to below zero, desert areas of very high temperatures and low humidity, and fresh water areas in the south. All these regions and their environmental factors gave Iraq special geographical characteristic position. Such a peculiar geographical position by Iraq led to the creation of different environments that helped considerably the diversification of the flora. This fact incited scientists to acquaint themselves with the flora of Iraq.

The significance of this study with its scientific purposes, biological dimensions and other aspects of biologic diversity is closely related to the objectives of Ministry of Environment.

As for the academic studies, this check list of algae flora in Iraq will fill a gap in this field owing to the fact that the non-vascular plants library is poor with references dealing with Iraq plants.

A total of 2647 algal taxa reported in this undergoing check list of algae in Iraq covering collections from Mesopotamia and Kurdistan Iraq.

These phycological studies performed particularly in Kurdistan Iraq and also in south of Iraq are very much appreciated.

These plants represent a source of many significant ecological roles in aquatic ecosystems in Iraq, this is a very important effort for the advancement of science in our country.

Prof. Dr. Hikmat Abbas Al Ani

Prof. Dr. M. A. Younis

Checklist of Algal Flora in Iraq

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Abstract

A total of 2647 algal taxa were reported in this undergoing check list of algae in Iraq. This check list is the fourth of the series and apply the same policy which includes almost all trustful published knowledge on algae of Iraq that includes Chlorophyceae (788), Cyanophyceae (508), Chrysophyceae (1233), Euglenophyceae(54), Charophyceae (13), Cryptophyceae (5), Pyrrophyceae (32) and Rodophyceae (13). The present checklist adds other 334 algal taxa to the previously known algae in Iraq. The present checklist will be used as trustful data base for future investigations on algae and fill up the gap that exists on the knowledge in this area about limnology and Phycology of the whole Middle East.

Introduction

Almost certainly one can regard the collections and surveys of Handel-Mezzetti in 1910 from Mesopotamia and Kurdistan along the Twin Rivers west of Tigris in Iraq as the first attempt to deal with algal study in this area. Nevertheless, result of this attempt was not published until 1942 (Kolb and Krieger, 1942).

For the best of our knowledge no any paper related to algae in Iraq did appear till 1957 when a brief preliminary study took place by (Abdin et al 1957) on algae in and around Baghdad. Therefore one can declare that the Ph.D thesis of (Al-Kaisi, 1964) from Wales U.K. on algae of Razzaza and Habbaniyah may be referred to as a pioneer comprehensive study on algae in Iraq that dealt with habitat, description and taxonomy of more than 400 species of diatom and non diatom algal taxon.

In parallel with establishment of universities and scientific institute outside Baghdad, in others parts of Iraq (Bassrah university, Sulaimaniah university, ect), and establishment of post graduate studies and research centers, phycological studies also developed particularly in Kurdistan in the north and Bassrah in the south. The research of Maulood and his colleagues including his post graduate students throughout early seventies in Kurdistan on various lotic and lentic water bodies add much more to our knowledge on

algae in Kurdistan and Iraq as a whole (Abdul Jabbar,1981; Hinton & Maulood, 1979a; Hinton & Maulood, 1979b ; Khamees,1979 ; Maulood &Hinton,1978; Maulood & Hinton,1979; Maulood,1991 ; Maulood & Raoof,2002; Shaban,1980; Al-Nimma & Maulood,1990; Raoof,2002 ; Toma, 2000, 2011, 2013 and Toma & Maulood, 2013). Activities and publications of Al-Saadi and Hadi in the south extended our knowledge on the Marshes, Gulf and Shatt Al-Arab in late seventies (Al-Handal, 1988; Al-Kaisi, 1964; Al-Saadi et al, 1979; Al-Saadi, 1989; Al-Saadi et al,1996; Hadi & Al-Saadi, 1977; Hadi et al, 1984; Hadi et al, 1989a ,b; Hinton & Maulood,1980a; Hinton & Maulood, 1982; Maulood et al, 1981 and Maulood et al, 1986). Therefore undoubtedly Maulood and Hinton, Al-Saadi and Hadi should be regarded as leaders of limnological and phycological studies in Iraq.

Since eighties of last century almost every decade, one comprehensive check list have been published respectively each of which included updated trustful information about algae in Iraq including habitat, scientific name, date of publication and authors name , all these included also the thesis (M.Sc and Ph.D) of post graduated student, however only doubtful ones were excluded in all. However there was other attempt to create check list of some restricted area in Iraq and mainly dealt with specific habitat such as (Islam and Hamed, 1985).

A huge variety and quantity of aquatic ecosystems exist in Iraq, so it's a richest one in biodiversity in the whole Middle East (Maulood and Toma 2004). The first checklist published by Hinton and Maulood (1983) when they listed 1296 species and subsequently check list published by other authors. Islam and Hamed (1985) listed 1328 species and followed by the second checklist which include (1900) species by Maulood et al. (1993). Ten years later, the first author systematically issued the third checklist in 2004 (Maulood and Toma 2004). The last efforts of Maulood added more than 412 species of algae to previous checklist and makeup the total recorded algal taxa in Iraq to reach (2312) species.

A great deal of effort was spent on algae identification during the last twenty years. Al-Saadi, Hadi, Nural-Islam and their colleagues covered the southern parts of Iraq (Al-Saadi et al. 1906; Hadi et al. 1984; Nural-Islam, 1982).

Al- Lami and Kassim and their colleagues covered aquatic systems in the West and northwest around Baghdad city (Al- Lami et al. 1998; Al- Lami and Al- Saadi, 2001; Kaisi, et al., 1997; Kassim et al. 2001). The middle region of Euphrates was covered by Hassan and his colleagues (Hassan 1997; Hassan And Al-Saadi, 1995; Hassan et al. 2007; Hassan et al. 2010a, b).

The Mesopotamian marshes took a part in algal studies, Al-Kaisi (1976) recorded 289 species of algae in rice fields, while

Maulood et al.(1979) recorded in three marshes namely Abu Suban (31 taxa of diatoms), Burkat Al- Baghdadi (35 taxa), Ashan- Hammar (24 taxa). Pankow et al. (1979) recorded a total of 129 algal taxa was identified dominated by Bacillariophyceae (72 taxa), followed by Chlorophyceae (28), Cyanophyceae (26), Euglenophyceae (2), and only one species of Chrysophyceae. Many authors worked in southern marshes in Iraq with emphasis on the dominance of diatoms and the number of identified species ranged "68 to 196" species at different localities of marshes in southern Iraq before desiccation (Maulood et al 1981, Al- Sabonchi *et al.* 1982 , Al-Zubaidi ,1985 , Al-Mousawi *et al.* , 1994).

Throughout the last ten years, many studies on algae were appeared and published lists of algae including a new record of species without referring to the check list, this unawareness let us to publish a new checklist to resolve the conflict of registration the newly recorded species in Iraq. The present checklist will reduce the existing gap of the knowledge on algae flora of Iraq.

Author citations have been made as complete as possible. The factual and typographical errors found in the previous list (Hinton & Maulood, 1983; Islam and Hamed, 1985; Maulood et al. 1993 and Maulood and Toma, 2004) have been corrected, and the annotations revised. Annotations nowadays considered to be common

knowledge have been deleted, while new comments have been necessary *e.g.* in several taxonomically complicated cases. Furthermore the list of references has been extended considerably. Such flora will be useful as baseline for future limnological studies, environmental impact assessments, and biogeography and speciation phase.

However, these investigations have covered a wide diversity of communities of algae in ponds, lakes, streams, marshes, rivers and springs .This checklist of algae in Iraq is intended to be a catalogue, in which included Chlorophyceae, Cyanophyceae, Chrysophyceae, Euglenophyceae, Dinophyceae, Cryptophyceae, Phaeophyceae and Rhodophyceae. The first attempt of gathering the various scattered publication of algae in the area done by Hinton and Maulood (1983) when they listed first check list of algae in the area that included 1296 species and subsequently the check list published by Islam and Hamed (1985) include 1328 species where ten years later the second check list published included 1900 species by Maulood et al. (1993), then after ten years after the second check list published by Maulood and Toma (2004) included 2312 species. The present check list adds (334) species.

Materials and methods

The present data were collected from previous studies that were published in scientific journals and were checked for species lists. The taxa list represented algae which found in different Iraqi aquatic systems (Figure 1). The methods of algal collection had been described in the original papers which are cited in the present work.

Results

The present check list adds (334) species. This check list consists of (2646) species of algae in Iraq. The undergoing check list is the fourth of the series and applies the same policy which includes almost all trustful published knowledge on algae of Iraq that includes Chlorophyceae (788), Cyanophyceae (508), Chrysophyceae (1233), Euglenophyceae (54), Charophyceae (13), Cryptophyceae (5), Pyrrophyceae (32) and Rhodophyceae (13). However this check list will be used as trustful data base for future investigations on algae and fill up the gap that exists on the knowledge in this area about limnology and phycology.

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

1- Cyanophyta	508	taxa (19.20%)
2- Chlorophyta	788	taxa(29.78%)
3- Charophyta	13	taxa (0.49%)
4- Euglenophyta	54	taxa (2.04%)
5- Chrysophyta	1233	taxa (46.60%)

6- Pyrrophyta	32	taxa (1.21%)
7- Rhodophyta	13	taxa (0.49%)
8- Cryptophyta	5	taxa (0.19%)

The classification followed Bold and Wynne (1985), while the nomenclature was in accordance of international approval of botanical nomenclature by Vander Leeden (1975). The references were made in accordance to the previous publication which was already used in Maulood and Toma 2004 have been used again here in addition to the recent publication. The following numbered references are placed in front of each taxon in the present checklist:

The following numbered references placed in front of each taxon in the present checklist:

1. Abdin et al. (1957)
2. Abdul-Jabbar (1981)
3. Abdul-Wahid (2008)
4. Abid-Alsahib (1991)
5. Al-Aarajy et al., 2012
6. Al Saadi et al. (1976)
7. Al- Shawei 2010
8. Al-Barzingy (1995)
9. Al-Barzingy et al. (2009)
10. Al-Ghafily (1992)
11. Al-Haideri et al. (1988)
12. Al-Hamed (1976)
13. Al-Handal (1988)
14. Al-Handal (1989)
15. Al-Handal et al. (1989)
16. Al-Handal and Abdullah(2010)
17. Al-Jobouri et al. (1987)

18. Al-Kaisi (1964)
19. Al-kaisi (1970)
20. Al-Kaisi (1974)
21. Al-Kaisi (1976)
22. Al- Kubisi (1990)
23. Al-Lami (1986)
24. Al-Lami et al. (1998)
25. Al-Lami et al. (2001)
26. Al-Mousawi and Whitton (1983)
27. Al-Mousawi et al. (1986)
28. Al-Mousawi et al. (1994)
29. Al-Mukhtar et al. (1985)
30. Al-Nimma (1982)
31. Al-Nimma and Moullood (1990)
32. Al-Saadi et al. (2000)
33. Al-Saadi et al. (1975)
34. Al-Saadi et al. (1979)
35. Al-Saadi et al. (1981)
36. Al-Saadi et al. (1989)
37. Al-Saadi et al. (1996)
38. Al-Saadi et al. (2002)
39. Al-Saboonchi et al. (1982)
40. Al-Sahaf (1976)
41. Al-Shahri (2006)
42. Al-Sheikh Hussain et al. (1989)
43. Al-Sofi (2010)
44. Al- Tamimi (2006)
45. Al-Zubaidi (1985)
46. Anon (1985 a)
47. Anon (1985 b)
48. Anon (1985 c)
49. Antoine (1977)
50. Antoine (1983 a)
51. Antoine (1983 b)
52. Antoine (1984)
53. Aziz (2004)
54. Aziz and Maulood (1999)
55. Aziz and Maulood (2002)
56. Bapper (2004)
57. Farkha & shana (2010)
58. Farkha (2006)
59. Fattah (2010)
60. Ganjo and Toma (2004)
61. Goran (2006)
62. Hadi and Al-Saadi (1977)
63. Hadi et al. (1984)
64. Hadi et al. (1989 a)
65. Hadi et al. (1989 b)
66. Hadi and Al-Zubadidi (2001)
67. Hameed (1977)
68. Hartely (1986)
69. Hassan et al.(2007)
70. Hassan et al.(2010a)
71. Hassan et al.(2010b)
72. Hinton and Maulood (1979 a)
73. Hinton and Maulood (1979 b)
74. Hinton and Maulood (1080 a)
75. Hinton and Maulood (1980 b)
76. Hinton and Maulood (1982)
77. Hinton and Maulood (1983)
78. Hirann (1973)
79. Hug et al. (1978)
80. Islam (1979)
81. Islam and Haroon (1981)
82. Islam (1982)
83. Islam and Haroon (1983)
84. Islam (1984)
85. Islam (1985)
86. Islam and Hameed (1985)
87. Islam and haroon (1985)
88. Ismail and Saadalla (1997)
89. Karim (1981)
90. Kassim (1986)
91. Kassim and Al-Saadi (2002)
92. Kassim et al. (1995)

93. Kassim et al. (1997)
94. Kassim et al. (1999)
95. Kassim et al. (2001)
96. Kassim et al. (2000)
97. Kassim et al. (2005)
98. Kell (1978)
99. Kell and Saad (1975)
100. Khamees (1979)
101. Khan et al. (1977)
102. Kolbe and Kreiger (1942)
103. Mahmood and Ahmad (1979)
104. Mahmood et al. (1977)
105. Maulood (1990)
106. Maulood and Al-Neema (1994)
107. Maulood and Aziz (1997)
108. Maulood and Aziz (2002)
109. Maulood and Ganjo (1997)
110. Maulood and Hinton (1978)
111. Maulood and Hinton (1979)
112. Maulood and Hinton (1980 a)
113. Maulood and Hinton (1980 b)
114. Maulood and Raof (2002)
115. Maulood and Sulaiman (1989)
116. Maulood et al. (1988)
117. Maulood et al (2009)
118. Maulood et al. (1979)
119. Maulood et al. (1980)
120. Maulood et al. (1981)
121. Maulood et al. (1986)
122. Maulood et al. (1993)
123. Maulood et al. (1994)
124. Maulood et al. (1989)
125. Mohammad (1965)
126. Mohammad (1980)
127. Mohammad (2007)
128. Mutiak et al. (1980)
129. Pankow et al. (1980)
130. Pankow and Huq (1979)
131. Raof (2002)
132. Rzoska (1980)
133. Saad (1978)
134. Saad and Antione (1982)
135. Saad and Antione (1983)
136. Saad and Antoine (1978)
137. Saad and Kell (1975)
138. Saadalla and Maulood (1993)
139. Sabri et al. (1989)
140. Sabri et al. (1988)
141. Salman et al. (2002)
142. Shaban (1980)
143. Sirajul-Islam et al. (1982)
144. Suliaman & Sabri (1999)
145. Suliaman & Kamel (1999)
146. Toma (2000)
147. Toma (2004)
148. Toma (2010)
149. Tynni (1988)
150. U.N.D.P. (1976)

Division : CYANOPHYTA		
1- Order: Chroococales		
1	<i>Aphanocapsa biformis</i> A. Braun	21,90,194
	<i>A. clathrata</i> West and West	25
	<i>A. delicatissima</i> West and West	18,21,61
	<i>A. elachista</i> West and West	21,89,8,41,127
	<i>A. elachista</i> var. <i>planctonica</i> G.M. Smith	76,70
	<i>A. endophytica</i> G.M. Smith	18,39,10,41,61,127
	<i>A. grevillei</i> Hass	25,41

	<i>A. koordersi</i> Storm	76,73
	<i>A. littoralis</i> Hansgirg	42,76,10
	<i>A. montana</i> Cramer	30,89,74,88, 8
	<i>A. muscicola</i> (Menegh)Wille	74
	<i>A. pulchella</i> (Carm.) Rabenhorst	19
	<i>A. pulchra</i> (Ktz.) Rabenhorst	18,21,90
	<i>A. rivularis</i> (Carm.) Rabenhorst	18,19,65
2	<i>Aphanothece bullosa</i> (Menegh .) Rabenhorst	35,81
	<i>A. castagnei</i> (Breb.) Rabenhorst	30,42,76,89,74,88,8,118
	<i>A. clathrata</i> Wets and West	19,21,42,46,47,48,11
	<i>A. gelatinosa</i> (Henn.) Lemmermann	19,76
	<i>A. microscopica</i> Naegeli	21,90
	<i>A. microspora</i> (Menegh .) Rabenhorst	21
	<i>A. nidularis</i> P. Richter	18,8,9,41,43,61
	<i>A.nidularis var endophytica</i>	61
	<i>A. pallida</i> (Ktz.)Rabenhorst	18
	<i>A. saxicola</i> Naegeli	89,8,61
	<i>A. stognina</i> (Sprengel) A. Braun	19,21,26,76,71,80
3	<i>Chlorogloea microcystoids</i> Geitler	2,89
	<i>C. fritschii</i> Wille	44
4	<i>Chondrocystes</i> sp.	42
5	<i>Chroococcus cohaerens</i> (Brébisson) Nägeli	54
	<i>C. dispersus</i> (Keissl) Lemmermann	18,19,39,116,10,93,95,131,41, 43,61,146
	<i>C. dispersus var minor</i> G..M.Smith	14, 41,43,61
	<i>C. fritschi</i>	54
	<i>C. giganteus</i> West and West	116,41, 61
	<i>C. hansgirgi</i> Schmidle	54,114
	<i>C. limneticus</i> Lemmermann	19,21,35,120,130,8, 41, 53,58,61,127
	<i>C. limneticus var. distans</i> G..M. Smith	76,10
	<i>C.limneticus var elegans</i> G.S.Smith	43, 61
	<i>C. limneticus var subsalsus</i> Lemmermann	76, 8,43
	<i>C. macrococcus</i> (Kützing)	54,131
	<i>C. minimus</i> (Keissl.) Lemmermann	110
	<i>C. minimus var crassus</i> Rao	54, 43,127

	<i>C. minor</i> (Ktz.) Naegeli	35,39,42,73,89,115,105,111,8, 95,131,9, 41,43, 53,56,58,61,127,147,148
	<i>C. minutus</i> (Ktz.) Naegeli	18,21,76,78,119,121,105,8,3,41,43,61
	<i>C. montanus</i> Hansgirg	54
	<i>C. pallidus</i> Naegeli	35,89,110,115,131,41,56
	<i>C. prescottii</i> Drout and Daily	89,105
	<i>C. schizodermaticus</i> West & G.S.West	131
	<i>C. tarius</i> A.Braun//	19,39,67,89
	<i>C. tenax</i> (Kirchn.) Hieron	35,81,115,8,131,43,56
	<i>C. turgidus</i> (Ktz.) Naegeli	19,35,42,67,81,90,120,121,105,130,143,8,25,131,41,43, 53,56,57,61
	<i>C. turgidus</i> var. <i>maximus</i> Nygaard	130
	<i>C. varians</i> A.Braun	21,90, 121
	<i>C. varius</i> A.Braun	19,35,42,76,81,89,10,41
6	<i>Coelosphaerium dubium</i> Grunow	18,41,61
	<i>C. kuetzingiana</i> Naegeli	2,18,21,8,25,41
	<i>C. naegarium</i>	138
	<i>C. naegelianum</i> Unger	44
	<i>C. pallidium</i> Lemmermann	14
7	<i>Dactylococcopsis acicularis</i> Lemmermann	41,127
	<i>D. fascicularis</i> Lemmermann	21,8,25
	<i>D. raphidioides</i> Hansgirg	47,48,41
	<i>D. smithii</i> Chadat & Chadat	70a, 127
8	<i>Entophysalis granulosa</i> Kützing	54
9	<i>Eucapsis alpina</i> Clem. and Schantz	18,8
	<i>E. alpina</i> var. <i>minor</i> Skuja	18
10	<i>Gloeocapsa aeruginosa</i> (Garm) Kuetzing	105,116,25,106, 43,61
	<i>G. calcarea</i> Tilden	89,105,8,43,61
	<i>G. compacta</i> Kuetzing	56
	<i>G. decorticans</i> (A. Br.) Richter	90,121
	<i>G. dermochroe</i> Naegeli	30,84,8
	<i>G. fusco-lutea</i> Naegeli	54,114
	<i>G. kuetzingiana</i> Naegeli	30,89,105,140,8
	<i>G. limnetica</i> (Lemm.)Holl.	46,47,48,140
	<i>G. luteofusca</i> Martens	8,54,9
	<i>G. montana</i> Kützing	54
	<i>G. nigrescens</i> Naegeli	89,115
	<i>G. pluerocapsoids</i> Novacek	8,54
	<i>G. polydermatica</i> Kutz	54,114

	<i>G. punctate</i> Naegeli	42,142,8,41,61,127,146
	<i>G. quaternaria</i> Kuetzing	89,105,8
	<i>G. raphidoiides</i>	127
	<i>G. rupestris</i> Kutz.	54,114,41,61
	<i>G. sanguinae</i> (Ag.) Kuetzing	18
	<i>G. turgida</i> (Ktz.) Holl	47,130
11	<i>Gloeotheca linearis</i> Naegeli	119
	<i>G. palea</i> (Ktz.) Rabenhorst	89
	<i>G. rhodochlamys</i> Skuja	54
	<i>G. rupestris</i> (Lung.) Bornet	76, 131
	<i>G. sameoensis</i> Wille	54
	<i>G. sameoensis</i> var . <i>major</i> Wille	54
12	<i>Gomphosphaeria aponina</i> Kuetzing	18,35,46,47,52,76,81,90,120,130,25,41, 61,127
	<i>G. aponina</i> var. <i>cordiformis</i> Wille	18,10
	<i>G. aponina</i> var. <i>delicatula</i> Virieux	18,10
	<i>G. fusca</i> (Ehr.) Naegeli	46
	<i>G. lacustris</i> Chodat	21,46,48,76,130,146
	<i>G. lacustris</i> var. <i>compacta</i> Lemmermann	18
	<i>G. mauloodianum</i>	56
13	<i>Gleocystis gigas</i> Kuetz	43
14	<i>Holopedia dieteli</i> (P.Richter)Migula	18
	<i>H. irregularis</i> Lagerhiem	18
15	<i>Johannesbaptistie pellucida</i> (Dickei)Taylor et Brout	83,90,115
16	<i>Merismopedia convolute</i> de Brebison	76,81,89,90,110,25,37,43,56
	<i>M. elegans</i> A.Braun	18,19,21,39,47,50,51,52,76,81,116, 130,135,142,8,10,25,28,38,92,93,95,91,141,41,43,127,148
	<i>M. elegans</i> var. <i>major</i> G.M.Smith	92,41
	<i>M. glauca</i> (Ehr.) Naegeli	23,30,35,46,47,48,78,81,86,90, 119,120,115,105,130,143,8,10,25, 37,92,93,94,95,14156,58,147
	<i>M. marssonii</i> Lemmermann	131,56
	<i>M. major</i> (Smith) Geitler	47
	<i>M. minima</i> Heck	42,8,53
	<i>M. punctata</i> Heyen	18,19,21,30,35,47,50,51,52, 78,81,86,89,110,119,115,105, 130,135,140,143,8,10,24,25,88,94,95,106, 3,41,43,56
	<i>M. tenussima</i> Lemmermann	18,19,21,46,47, 48,89,119, 115,130,10,122,131, 53,56,127
	<i>M. trolleri</i> Bachmann	23,81,86,119,105,131,56

17	<i>Microcystis aeruginosa</i> Kuetzing	2,18,19,21,39,46,47,76, 119,142,143,8,10,25, 122,123,131,141,43,58,127,146
	<i>M. aeruginosa f. flosoaquae</i> (Wittr.)Elenkin	46,47,51,25
	<i>M. bengalensis</i> Banerjii	54
	<i>M. chroococcoides</i> West and West	18
	<i>M. elongata</i> Desikachary	43
	<i>M. elabens</i> Breb	8,54,43
	<i>M. elachista</i> West and West	46,47,48
	<i>M. elachista var. confortata</i> (Kom.) Kom.	46,47
	<i>M. flos-aquae</i> (Wittr.) Kirchner	18,21,51,121,8
	<i>M. inserta</i> Lemmermann	18,10
	<i>M. marginate</i> (Menegh) Kuetzing	18,8,43
	<i>M. robusta</i> (Clark) Nygaard	54
	<i>M. stagnalis</i> Lemmermann	18
	<i>M. wesenbergii</i> (Kom.) Kom.	46,47
18	<i>Palmellococcus miniatus</i> (Ktz.) Chodat	42
19	<i>Pluerococcus anglusus</i> (Corda) Meneghini	143
	<i>P. minitus</i> Naegeli	143
	<i>P. vulgaris</i> Meneghini	143
20	<i>Psuedoncobyrza</i> sp.	89
21	<i>Rhabdoderma gorskii</i> Woloszynska	21
	<i>R. irregulare</i> (Naumann)Geitler	19,21,89,119,131,9,41
	<i>R. sigmoidea</i> N. Carter	18,19
	<i>R. sigmoidea fo. minor</i> Moore and Carter	23, 37
22	<i>Synechococcus aeruginosus</i> Naegeli	18,30,76,106,131,9,56
	<i>S. aqualitis</i> Sauvageau	131
	<i>S. cedrorum</i> Sauvageau	89
	<i>S. elongatus</i> Naegeli	119, 9
	<i>S. major</i> Schroeter	130
	<i>S. naegeli</i>	131
	<i>S. pevalekii</i>	131
23	<i>Synechocystis aquatilis</i> Sauvageau	18,106,41
	<i>S. pevalekii</i> Ercegevic	89
	<i>S. saline</i> Wisloush	18,21,8,106
2- Order Chamaesiphonales		

1	<i>Chamaesiphon confervicola</i> A. Braun	30,89,119,136
	<i>C. curvatus</i> Nordst.	119
	<i>C. cylindricus</i> Boye peterseon	76,41
	<i>Chamaesiphon fuscus</i> (Rostafinski) Hansgirg	54
	<i>C. incrustans</i> Grunow	120, 105
	<i>C. incrustans</i> Grunow	54
	<i>C. rostafinskii</i> Hansgirg	54
	<i>C. siderophilus</i> Starmach	119, 8
	<i>C. siderophilus var. glabra</i> C.B. Rao	119
2	<i>Chlorogloea microcystoides</i> Geitler	56
3	<i>Chlorogloea microcystoides</i> Geitler	89
4	<i>Hydrococcus rivularis</i> Kuetzing	30,76,89
5	<i>Hyella caespitosa</i> Born and Flah	89,8
6	<i>Myxosarcina burmensis</i> Skuja	90,142,8
	<i>M.amethystina</i> Copeland	56
	<i>M. spectabilis</i> Printz	89,119,8,41
7	<i>Pleurocapsa fuliginosa</i> Hauck	54
	<i>P. minor</i> Hansginosa	30,89,110,119,105,8
8	<i>Stichosiphon regularis</i> Geitler	56
9	<i>Xenococcus keneri</i> Hansgirg	89,8,56
3- Order Oscillatoriales		
1	<i>Arthrospira massarti</i> Kuffareth	10, 53
	<i>A. khannae</i> Drouet & Strickland	145
	<i>A. platensis</i> Gomont	44
	<i>A. sprilinooides</i> Slizen bergret	95
	<i>A. sp.</i>	17
2	<i>Borzia trilocularis</i> Cohn	18,3,56
3	<i>Lyngbya aerugineo-coerulea</i> (Ktz.) Gomont	15,30,90,91,8,10,25,37, 43,147
	<i>L. aestuarii</i> Lemmermann	26,30,67,76,90,140,10
	<i>L. allorgi</i> Fermy	8
	<i>L. bipunctata</i> Lemmermann	21,119,53
	<i>L. birgei</i> G.M. Smith	19,21,143,8,56
	<i>L. borgerti</i> Lemmermann	76,120,106
	<i>L. ceylanica</i> Wille	131
	<i>L. chaetomorphae</i> lynger and Deskachary	30,119,53
	<i>L. circumerata</i> West	3
	<i>L. contorta</i> Lemmermann	19,21,39,76,119,105,143,10,3
	<i>L. corbierei</i> Fremy	56
	<i>L. connectens</i> Brühl & Biswas	131

	<i>L. cryptovaginata</i> Schkorbatow	18,76,56
	<i>L. digueti</i> Gomont	30,39,110,119,140,8,10,106,61
	<i>L. epiphytica</i> Hieron	76,90,105,116,92,93,61
	<i>L. gardneri</i> (Setchell and Gardner Geitler)	30,90,119,105,8
	<i>L. gracilis</i> Rabenh.	90,8,3,56.
	<i>L. hieronymusii</i> Lemmer.	18,21,39,78,130,10
	<i>L. holdenii</i> Forti	56
	<i>L. infixa</i> Frey	119, 53
	<i>L. kashiapii</i> Ghose	30, 8
	<i>L. kuetzingii</i> Schmidle	30,76,89,119,8,43,53
	<i>L. lachneri</i> (zimm.)Geitler	30,76,89,119,105,8
	<i>L. lacustris</i> Lemmer.	1,46,47,48
	<i>L. lagerheimii</i> (Moeb.)Gomont	19,21,39,42,76,119,53
	<i>L. laxespirialis</i> Skuja	56
	<i>L. limnetica</i> Lemmer.	18,19,21,30,46,47,48,78,90,121,116,10, 37,38,92,93,95,91,141,43,56,58,57, 61,147
	<i>L. lutea</i> (Ag.) Gomont	85,43
	<i>L. major</i> Meneghini	1,18,19,21,51,89,121,143,10
	<i>L. majuscula</i> Harvey	67,90
	<i>L. martensiana</i> Meneghini	18,30,67,89,10,106,131,9,41, 43,56,61
	<i>L. mesotrica</i> Skuja	2,30,73,76,89,90,120,105,37,53
	<i>L. nigra</i> Agardh	1, 78
	<i>L. nordgardhii</i> Wille	39,76,89,119,120,41,53,127
	<i>L. palmarum</i> Martens ex Brühl & Biswas	131
	<i>L. perelegans</i> Lemmermann	76,89,8,9
	<i>L. punctata</i> Lemmermann	21
	<i>L. purpurea</i> (Hook and Hravery) Gomont	19
	<i>L. putealis</i> Montagne	51,67,8
	<i>L. rivulariarum</i> Gomont	76
	<i>L. spiralis</i> Geitler	44
	<i>L. semiplena</i> J.Agardh ex Gomonti	3
	<i>L. taylorii</i> Drouet and Strickland	10,41,61
	<i>L. truncicola</i> Ghose	76
	<i>L. versicolor</i> (Wartmann)Gomont	76,90,120,37,41,43,61
4	<i>Microcoleus acutissimus</i> Gardner	56
	<i>M. chthonoplastes</i> Thuret ex Gomont	26,42,83
	<i>M. lacustris</i> (Rabenh.)Farlow	83,89,131
	<i>M. lacustris var. minor</i> (Rao) Desikachery	76

	<i>M. paludosus</i> (Ktz.) Gomont	42,8,53,56
	<i>M. subtorulosus</i> (Breb.) Gomont	89
	<i>M. vaginatus</i> (Vauch.) Gomont	89,8,53
5	<i>Oscillatoria acuta</i> Bruhl and Biswas	8, 43,53
	<i>O. acuminatum</i> Gomont	41, 43,56
	<i>O. acutissima</i> Kufferath	17,18,19,21,89,10,41,53
	<i>O. agardhii</i> Gomont	17,30,42,50,78,89,119,115,137,10,25,122,131,3,41,56
	<i>O. amoena</i> (Ktz.) Gomont	15,78,89,110,119,8,25,3,41,43,53,56,61,147,148
	<i>O. amoena var. nongranulata</i> Ghose	89, 53
	<i>O. amphibia</i> Agardh	18,19,21,30,119,115, 140,10,25,106,53,58,61
	<i>O. amphigranulata</i> Van Goor	119,115,41
	<i>O. anguina</i> (Bory) Gomont	50,52,67,119,105,134,135,53
	<i>O. angusta</i> Koppe	19,21,89,119,131,41
	<i>O. angustissima</i> West and West	21,131,41
	<i>O. animelis</i> Agardh	143,8
	<i>O. annae</i> Van Goor	18,30,47,120,115,140
	<i>O. articulata</i> Gardner	110,122,131,41,43,59
	<i>O. borneti</i> Zukal	76,120
	<i>O. boryana</i> Bory	143,93,43
	<i>O. breviarticulata</i> Fremy	130
	<i>O. brevis</i> (Ktz.) Gomont	18,78,106,61
	<i>O. chalybea</i> Mertens	18,19,21,115,130,143, 8,10,41,43, 56,58
	<i>O. chlorina</i> Kuetz	43,53,56
	<i>O. claricentrosa</i> Gardner	76
	<i>O. cortiana</i> Meneghini	18,30
	<i>O. curviceps</i> Agardh	21,121,115,116,140,143,10,25,53,56,58,57
	<i>O. decolorata</i> G.S. West	131,56
	<i>O. foreaui</i> Fremy	105
	<i>O. framyii</i> De Joni	115, 56
	<i>O. formosa</i> Bory	15,21,89,119,10,9,41,43,56,61
	<i>O. geitlariana</i> Elinkin	42
	<i>O. geminata</i> Meneghini	18, 21
	<i>O. granulata</i> Gardner	19,21,10,43,58,61
	<i>O. gutulata</i> Van Goor	89
	<i>O. hamelii</i> Frémy	106,58
	<i>O. homogenea</i> Frémy	130
	<i>O. irrigua</i> Kuetzing	23,89,130,37,53,56
	<i>O. jatorvensis</i> Vouk	30,89,90,103,105,37,106,131,56
	<i>O. lacustris</i> (Klebahn) Geitler	17,121,130,10
	<i>O. laete-virens</i> (Crouan) Gomont	67,43, 53,56
	<i>O. lemmermanni</i> Woloszynska	18

<i>O. limnetica</i> Lemmermann	18,19,21,30,51,76,121,130,140,10,24,92,93,94,95,131,3,9,41, 53,58,57,59,148
<i>O. limosa</i> Roth Agardh	18,19,21,30,39,50,51,76,78,79,89,90,99,110,119,126,115,116,130,137,140, 5,8,10,24,95,122,3,41,43, 53,56, 61
<i>O. margaritifera</i> Ktz.	47,50,51,52,76,90,130,134,135,37,131,41
<i>O. martini</i> Fremy	43
<i>O. minima</i> Gicklhorn	1,18,19,21,73,110,10,131,41,58,57, 61, 147
<i>O. miniata</i> (Zanardini) Hauck ex Gomont	122
<i>O. mougeotii</i> Kützing ex Forti	131, 56
<i>O. nigra</i> Vaucher	17,18,19,21,42,89,110,119, 121,105,8,10,106,131,3,41,43, 53,56,61
<i>O. nigro-viridis</i> Thwaites	67,79,99,137
<i>O. obscura</i> Bruhl	43,53,56
<i>O. obtusa</i> Gardner	51
<i>O. okeni</i> Agardh	30,50,52,67,134,135,53
<i>O. ornata</i> Kützing ex Gomont	10,138,41
<i>O. ornata</i> (Ktz.) Gomont f. <i>planetonica</i> Elenkin	46,47,48,143
<i>O. perornata</i> Skuja	114,3,56
<i>O. planctonica</i> Woloszynska	18
<i>O. princeps</i> Vaucher	1,17,30,39,42,50,52,67,79,89,110,119,121,105, 116,130,137,143,8,10,25,138,9,56
<i>O. prolifica</i> (Grev.) Gomont	30,92,93,61
<i>O. proteus</i> Skuja	30,89,119,43,53,56
<i>O. pseudogeminata</i> G.Schmidle	89,119,130,8,43
<i>O. pseudogeminata</i> var. <i>unigranulata</i> Biswas	119,9
<i>O. quadripuctulata</i> Bruchl and Biswas	30,41
<i>O. raoi</i> Detoni	8,43,53
<i>O. redeki</i> van . Goor	26
<i>O. rubescens</i> de Candolle	18,89,121,8,123,3, 41,43,53
<i>O. sancta</i> (Ktz.) Gomont	21,39,46,47,76,99,119,116,137,10,25,91,56,58
<i>O. schultzi</i> Lemmermann	131
<i>O. simplicissima</i> Gomont	18,30,78,131,56
<i>O. splendida</i> Greville	18,76,99,120,116,8,41,53,56,58,147,148
<i>O. subbrevis</i> Schmidle	30,89,110,119,121,115,140,8,10,106,131,3,41,43,53,56,59, 61
<i>O. sublifformis</i> Kuetz	43,53,56
<i>O. subtilissima</i> Kützing	56
<i>O. tenuis</i> Agardh	1,18,19,21,89,99,110,119,105, 137,8,10,24,25,38,92,93,94,95,91,141, 41, 43,53,56,58,57,61,117
<i>O. tenuis</i> var. <i>major</i>	18,41
<i>O. tenuis</i> var. <i>natans</i> Gomont	18,89,131,41

	<i>O. tenuis</i> var. <i>tergestina</i> Rabenhorst	18,89,99,137,8,41,43,61
	<i>O. terebriformis</i> Agardh	30,76,89,110,119,105, 8,131,9,53,56, 59
	<i>O. willei</i> Gardner	8, 43,53
	<i>O. vizagapatensis</i> C.B.Rao	53
6	<i>Phormidium africanum</i> Lemmermann	89
	<i>P. ambiguum</i> Gomont	18,19,21,30,76,89,115,8,56,61
	<i>P. ambiguum</i> var. <i>major</i> Lemmermann	2,89
	<i>P. angustissima</i> West and West	78
	<i>P. anomala</i> C.B. Roa	89,56
	<i>P. autumnale</i> (Ag.) Gomont	89,105,8,3,53
	<i>P. calcicola</i> Gardner	2,53
	<i>P. cebennense</i> Gomont	30,76,89,8
	<i>P. corium</i> Gomont	89,105, 43,56
	<i>P. dimorphus</i> Lemm	53
	<i>P. favosum</i> (Bory) Gomont	19,78,89,41,34,53
	<i>P. formosum</i> Gomont	43
	<i>P. foveolarum</i> Gomont	89,119
	<i>P. fragile</i> Gomont	89,119,53
	<i>P. incrustatum</i> (Naeg.) Gomont	30,41
	<i>P. inundatum</i> Ktz.	18,19,21,61
	<i>P. jadinianum</i> Gomont	115,8,56
	<i>P. jenkelianum</i> G.Schmidle	30,89
	<i>P. laminosum</i> (Gom..) ex. Gomont	46,47,8
	<i>P. luciduis</i> Ktz.	89,106,43
	<i>P. molle</i> Gomont	30,78,89,110,113,120,140,8,41
	<i>P. molle</i> f. <i>tenuior</i> West and West	76,89,90,37
	<i>P. mucicola</i> Huber-pest and Naumann	18,89,119
	<i>P. mucosum</i> Gardner	30,8,106
	<i>P. pachydermaticum</i> Fermy	30,89,3,56
	<i>P. papyraceum</i> (Ag.)Gom.	78,56
	<i>P. purpurascens</i> Kuetz	53
	<i>P. retzii</i> (Ag.)Gom.	30,76,78,89,8,43,53
	<i>P. rotheanum</i> Itzigs	115
	<i>P. stagnina</i> C.B Rao	30,89,140
	<i>P. subfuscum</i> Ktz.	30,89,140,61
	<i>P. subincrustatum</i> Fritsch	30,89,8
	<i>P. tenue</i> (Menegh) Gom.	21,89,110,134, 149,25,9, 53
	<i>P. uncinatum</i> Gom.	19,78,116,8
	<i>P. valderianum</i> Gomont	106,9,56

7	<i>Raphidiopsis indica</i> Singh Rish, Naegeli	96
8	<i>Romeria gracilis</i> Koezwara	119
9	<i>Schizothrix arenari</i> (Berk.) Gom.	30
	<i>S. calcicola</i> (Ag.)Gom.	18
	<i>S. fasciculata</i> (Naeg.) Gom.	30,76,89,110,56
	<i>S. ferisii</i> Gom.	106,61
	<i>S. lacustris</i> A.Braun	19,30,8
	<i>S. lardacea</i> (Cesati)Gom	105,140,8,106
	<i>S. lateritia</i> (Ktz.) Gom.	89
	<i>S. pulvinata</i> (Ktz.)Gom.	76,89,105
	<i>S. rivularia</i> (Wolle) Drouet	19,21,30,89,140,41,61
	<i>S. tinctoria</i> Gom.	19,21,30,39,89,61
	<i>S. vaginata</i> (Naeg.)Gom.	89,105,56
10	<i>Spirulina abbreviata</i> Lemmermann	21
	<i>S. gigantea</i> Schmidle	110,115
	<i>S. gomontii</i> Gutwinski	110
	<i>S. labyrinthiformis</i> Gom.	35,56
	<i>S. laxa</i> G.M.Smith	92,93,141,41
	<i>S. laxissima</i> G.S. West	110,8
	<i>S. laxissima fo. major</i> G.S. West	8,3,53
	<i>S. major</i> Ktz.	17,19,21,23,30,42,50,51,52,76,81,89,90,99,110,120,115,105,130,137,134,135,143,8,10, 24,38,92,93,94,91,106,131,141,41,43,56,59,57,61
	<i>S. meneghiniana</i> Zanard	21,351,8,10
	<i>S. minue</i> Turpin	42
	<i>S. nordstedtii</i> Gom.	76,120,110,142,131,41
	<i>S. platensis</i> (Nordst.) Geitler	27,51
	<i>S. princeps</i> West and west	16,19,21,110,115,143,8,10, 41,53,56,61
	<i>S. subsalsa</i> Oersted	18,19,21,30,39,110,130,143,41,53
	<i>S. subtilissima</i> Ktz.	81,89,110,119,10,92,131, 9, 53,56
11	<i>Symploca</i> sp.	89,101
12	<i>Raphidiopsis subtilissima</i>	56
13	<i>Trichodesmium hildenbrandtii</i> Gom.	99
	<i>T. thibautii</i> Gom.	99
4- Order : Nostocales		
1	<i>Albrightia tortnosa</i> Copeland	56
2	<i>Ammatoides normanni</i> West and West	83
3	<i>Anabaena aequalis</i> Borge	19,21,61
	<i>A. affinias</i> Lemmermann	17,19,21,46,478,115,10,14,122
	<i>A. baltica</i> J.Schmidt	18
	<i>A. bergii</i> Ostenf.	21,99,137,140

	<i>A. catenula</i> (Ktz.) Bornet	21,26
	<i>A. catenula</i> var. <i>affinis</i> (Lemm.) Geitler	18,19,21
	<i>A. circinalis</i> Rabenhorst	19,52,121,115,136,135,41,61
	<i>A. constricta</i> (Szafer) Geitler	21,50,52,90,101,134,135,37,43,56
	<i>A. cylindrica</i> Lemmer.	26
	<i>A. felisii</i> (Meneghini) Bornet et Flahault	61
	<i>A. flos-aquae</i> (Lyngbye) Brebisson ex Bornet & Flauhault	17,19,21,48,121, 25,131
	<i>A. flos-aquae</i> var. <i>gracilis</i> Klebahn	18
	<i>A. helicoidea</i> Bernard	18
	<i>A. inaequalis</i> (Ktz.) Borne&Flahault	21,50,99,137
	<i>A. lapnoica</i> Borge	21
	<i>A. levanderi</i> Lemmermann	18,21
	<i>A. limnetica</i> G.M.Smith	19,21,51
	<i>A. macrospora</i> Klebahn	21
	<i>A. menderi</i> Huber-pestalozzi	143
	<i>A. orientalis</i> Dixit	90
	<i>A. oscillarioides</i> Bory	18
	<i>A. planctonica</i> Brunthaler	19,21,99,137,142
	<i>A. scheremetievi</i> Elenkin	18
	<i>A. solitaria</i> Klebahn	46
	<i>A. sphaerica</i> Barnet at Elahault	17,115,56
	<i>A. spiroides</i> Klebahn	1,21,39,42,121,25,61
	<i>A. spiroides</i> var. <i>crassa</i> Lemmermann	14
	<i>A. subcylindrica</i> Borge	21
	<i>A. torulosa</i> (Carm.) Lagerheim	21,99,137
	<i>A. wisconsinense</i> Prsecott	41
	<i>A. variabilis</i> Ktz.	1,50,51,99,135,145
	<i>A. viguiri</i> Denis and Fremy	18
	<i>A. zingserlingii</i> Kossinskaja	18
4	<i>Anabaenopsis</i> sp.	19,21,101
	<i>A. circularis</i> G.S. West	14
	<i>A. enlenkini</i> Miller	18, 61
	<i>A. tanganyikae</i> West	121
5	<i>Aphanizomenon flon-aquae</i> (L.)Ralfa	18,19,21,39,46, 47,48,50,99, 115,137,122,41
	<i>A. gracile</i> Lemmermann	18,46,47,49
	<i>A. kaufmanni</i> Schmidle	18
6	<i>Aulosira implex</i> Bornet	121
	<i>A. Laxa</i> O.Kirchner ex Bornet & Flahault	22

7	<i>Calothrix atricha</i> Frey	19,90
	<i>C. braunii</i> Born and Flahault	30,25,61
	<i>C. breviarticulata</i> West and west	90,110,119
	<i>C. brevissima</i> West	56
	<i>C. castellii</i> Bornet and Flahault	30,81,8
	<i>C. castellii</i> var. <i>somatipurensis</i> C.S. Rao	76
	<i>C. clavata</i> West	81
	<i>C. elenkinii</i> Kossinskaja	106,56
	<i>C. epiphytica</i> West and West	19,76,8,25
	<i>C. flusca</i> Kuetz	56
	<i>C. fusca</i> (Ktz.) Bornet and Flahault	26,30,76,90,120,8,25,147
	<i>C. marchica</i> Lemmermann	89,8
	<i>C. membranacea</i> Schmidle	5
	<i>C. parietina</i> Thuret	26,30,89,8,56
	<i>C. scytonemicola</i> Tilden	76
	<i>C. stagnalis</i> Gom.	15,21
	<i>C. stellaris</i> Bornet and Flahault	110,8
	<i>C. viguieri</i> Frémy	56
8	<i>Cyanarcus hamiformis</i> Pascher	81
9	<i>Cylindrospermum alotosporum</i> Fritsch	21
	<i>C. catenatum</i> Ralfs	19
	<i>C. majus</i> Kuetzing	19,121,61
	<i>C. minimum</i> G.S.West	19, 12, 61
	<i>C. muscicola</i> Ktz.	26,8
	<i>C. stagnale</i> (Ktz.) Bornet and Flahault	18,19,21,32,35,76,81,90,120,61
10	<i>Gloeotrichia longiarticulata</i> G.S.West	83,10
	<i>G. natans</i> (Hedwig) Rabenh.	19
	<i>G. raciborskii</i> var. <i>kashinense</i> Rao	81
	<i>G. raciborskii</i> wolosz .var. <i>longispora</i> Rao	81
11	<i>Hapalosiphon welwitschii</i> West and West	26
	<i>H. aureus</i> West & G.S.West	5
12	<i>Homoeothrix batrechospermum</i> Skuja	89
	<i>H. crustacae</i> Woronichin	89
	<i>H. fluviatilis</i> Jao	30
	<i>H. janthina</i> (Born and Flah.) Starmach	89,105,8

	<i>H. juliana</i> (Born and Flah.) Kirchner	30,76,89,105,8,61
	<i>H. margalefii</i> Kom. and Kalina	105
	<i>H. nordstedtii</i> (Born. and Flah.) Kom.&Kann	30,89,105
	<i>H. rivularis</i> (Hansg.) Kom &Kann	30,89
	<i>H. schizothricoides</i> Muzafarov	30,89,105
13	<i>Katagnymene pelagica</i> Lemmermann	99,130,137
	<i>K. spiralis</i> Lemmermann	99,137
14	<i>Microchaete</i> sp.	26
	<i>M. calothrichoides</i> Hansg	56
	<i>M. diplosiphon</i> Gomont	56
	<i>M. tenera</i> Thurt	56
15	<i>Nodularia</i> sp.	19,85,101,25,122
	<i>N. harveyana</i> (Thwaites) Thuret	26
	<i>N. spumigena</i> Martens in Jergens	39,42,10,14,56
16	<i>Nostoc carneum</i> Agardh	19
	<i>N. comminutum</i> Ktz.	14
	<i>N. commune</i> Vaucher	19,89,101,110,61
	<i>N. ellipsosporum</i> Rabenh	19,12,89,110
	<i>N. linckia</i> (Roth) Bornet and Thuret	110,89,14
	<i>N. muscorum</i> Agardh	18,19,12,110,41
	<i>N. paludosum</i> Ktz.	39,76,110,120,61
	<i>N. piscinale</i> Ktz.	121
	<i>N. planctonicum</i> Poretzky and Tshernow	21
	<i>N. punctiforme</i> (Kützing) Hariot	Al- Mousawi 2005
	<i>N. sphaericum</i> Vaucher	19,21,41,56
	<i>N. spongiaeforma</i> Agardhi	
	<i>N. verrucosum</i> Vaucher	50,89,99,119,121,137,41,56
17	<i>Plectonema indica</i> Dixit	89
	<i>P. notatum</i> Schmidle	19,21,61
	<i>P. purpureum</i> Gom.	19
	<i>P. radiosum</i> (Schiederm.) Gom.	89
	<i>P. tenue</i> Thuret	19,21,89
18	<i>Pseudoanabaena</i> Schmidle Taago	8
	<i>P. sp.</i>	47,48,123
19	<i>Raphidiopsis indica</i> Singh,R.N	94,95
	<i>R. sp.</i>	17
20	<i>Rivularia globiceps</i> G.S. West	76
	<i>R. haematites</i> (D.C.) C.A. Agardh	19,56

	<i>R. hansgirgii</i> Schmidle	34,130
21	<i>Scytonema alatum</i> (Carm.) Borzi	76
	<i>S. archangella</i> Born	56
	<i>S. chiastum</i> Geitler	76
	<i>S. cincinnatum</i> Thuret	76
	<i>S. coactile</i> Montagne	89
	<i>S. crispum</i> (Ag.) Bornet	19,120,10
	<i>S. mirabile</i> (Dillw.) Bornet	18,19,21
	<i>S. pseudopuctatum</i> Skuja	121
	<i>S. schmidtii</i> Gom.	42
22	<i>Stigonema minutum</i> Agardh	89,56
23	<i>Tolypothrix boutille</i> (Breb. Et. Desm.) Forti	114
	<i>T. distorta</i> Ktz.	19,26,120
	<i>T. distorta</i> var. <i>penicillata</i> (Ag.) Lemmer.	119
	<i>T. lanata</i> Wartmen	19
	<i>T. limbata</i> Thur.	14
	<i>T. robusta</i> Gardner	89
	<i>T. nodosa</i> Bharadus	56
	<i>T. tenuis</i> Ktz. Emend. J. Schmidt	19,21,35,81,118
24	<i>Wollea saccata</i> (Wolle) Bornet and Flah	39
5- Order : stigonematales		
1	<i>Iyengariella</i> sp.	89
2	<i>Mustigocladus</i> sp.	89
6- Order :Pleurocapsales		
1	<i>Chroococcopsis gelatinosum</i> (Geitler) Bourrely	81
Division : CHLOROPHYTA		
Class: Chlorophyceae		
1-Order : Volvocales		
1	<i>Carteria cordiformis</i> (Carter)Deising	18,21
	<i>C. klebsii</i> (P.A. Dangeard) Francé	55,131
	<i>C. multifilis</i> (Fres.)Dill	142,3
2	<i>Chlamydomonas angulosa</i> Dill	21,51
	<i>C. angulosa</i> Ehrenberg	53
	<i>C. braunii</i> Gor.	1
	<i>C. ehrenbergii</i> Gor.	1
	<i>C. epiphytica</i> G.M. Smith	18,19,21
	<i>C. globosa</i> Snow	19,39,50,51,115,131,41,43,53,56
	<i>C. mucicola</i> Schmidle	41,56
	<i>C. polypyreoideum</i> Prescott	115,25,41,56
	<i>C. pseudopertyi</i> Pascher	115,131,43

	<i>C. reinhardtii</i> Dangeard	142,43
	<i>C. salina</i> Ehernb.	42
	<i>C. snowiae</i> Printz	21,50,99,137,41,56
	<i>C. sonnii</i> Printz	21,51,41
	<i>C. sphaghnicola</i> Fritsch &Takeda	55,131,41
3	<i>Chlorogonium acus</i> Nayal	50,99,137
4	<i>Eudorina elegans</i> Ehren.	2,39,50,51,52,99,137,135,142,25,41, 43,127
5	<i>Gonium pectorale</i> Mueller	19,51,52,135,131,41
	<i>G. sociale</i> (Duj.) Warming	26
6	<i>Haematococcus lacustris</i> (Girod.)Rostaf	116
7	<i>Pandorina morum</i> (Muell.)Bory	23,26,50,51,52,121,115,116, 137,134,135,142,8,24,25,37,93,94,131,41,56,147
8	<i>Phacotus lenticularis</i> (Ehrenberg) Stein	55
9	<i>Pleodorina californica</i> Shaw	50,52,135
	<i>P. illinoisensis</i> Kofoid	55
10	<i>Pyrobotrys gracilis</i> (Korsh.)Korshicov	50, 52, 135
11	<i>Volvox africanus</i> G.S.West	99,137
	<i>V. aureus</i> Ehren.	51
	<i>V. globaror</i> (L.) Ehreng.	50,99,137
	<i>V. globosa</i> Linnaeus	19,99,137
12	<i>Dunaliella salina</i> (Dunal) Teodoresco	7
Order : Tetrasporales		
1	<i>Asterococcus</i> sp	46,47,8,10
	<i>A. limneticus</i> G.M.Smith	55,41,127
	<i>A. spinosus</i> Prescott	55
	<i>A. superbus</i> (Cienkewski) Scherffel	55, 41
2	<i>Chlamydocapsa planktonica</i> (W&W)Fott	50
	<i>C. bacillus</i> (Teiling) Fott	55
3	<i>Chlorosarcina consociata</i> (Klebs) G.M.Smith	8, 55
4	<i>Gloeocystis ampla</i> (Ktz.)Lagerheim	21,8,10
	<i>G. gigas</i> (Ktz.) Lagerheim	21,8,10
	<i>G. infusionum</i> West & G.S.West	55
	<i>G. major</i> Gerneck	116,10,61
	<i>G. vesiculosa</i> Nägeli	55
5	<i>Palmodictyon varium</i> Lemm	56
6	<i>Palmellopsis gelatinosa</i> Korsch	56
7	<i>Pseudotetracystis terristris</i>	55

8	<i>Schizochlamys gelatinosa</i> A.Braun	116,143
9	<i>Sphaerello cystis ellipsoidea</i> Ettl <i>S. schroeteri</i> Chodat	131 55,56,61
10	<i>Stylosphaeridium stipitatum</i> (Bachm)Geitler and Gimesi	18
11	<i>Tetraspora gelatinosa</i> (Vauch.) Desvaux <i>T. tubrica</i> (Foth.) Agardh	30,41 105
12	<i>Coccomyxa dispar</i> Schmidle	145
3-Order: Chlorococcales (Chlorosphaeroles : Chlorosphaeraceae)		
1	<i>Acanthosphaera zachriasi</i> Lemm.	131
2	<i>Actinastrum gracilimum</i> G.M.Smith <i>A. hantzschii</i> Lagerheim <i>A. hantzschii</i> var. <i>gracille</i> Roll. <i>A. schroeteri</i> G.E. Huber- Pestalozzi <i>A. schroeteri</i> f. <i>minor</i> West	21 18,46,51,52,134,135,24,94,41,58 51 18 18
3	<i>Ankistrodesmus acicularis</i> <i>A. angustus</i> Bernard <i>A. braunii</i> (Naeg.) Brunthaler <i>A. convolutus</i> Corda <i>A. falcatus</i> (Corda)Ralfs <i>A. falcatus</i> var. <i>acicularis</i> (A.Braun)G.S.West <i>A. falcatus</i> var. <i>mirabilis</i> G.S. West <i>A. falcatus</i> var. <i>tumidus</i> (West &west) G.S. West <i>A. fractus</i> (West & West) Brunthaler <i>A. fusiformis</i> Corda <i>A. setigera</i> Schroeder <i>A. setigera</i> var. <i>minor</i> G.S.West <i>A. spiralis</i> (Turner)Lemm. <i>A. subcapitatus</i> Korshikov	123 18,21,50,8 55 18,21,105,41,127 1,17,18,19,21,39,46,48,51,76,120,110,130,143,8,24,25,88,9 4,95,131,141,3,41,53,58,127,146 18,19,76,8,41 142, 41 76,41,53 55 105 18 18 19 8, 55
4	<i>Botryococcus braunii</i> Ktz. <i>B. protuberans</i> var. <i>minor</i> West and West <i>B. sudeticus</i> Lemm.	130,142,10,25,131,58 142,10,61 (44)
5	<i>Bracteococcus minor</i> (Chod.) Petrová	131

6	<i>Cerasterias staurastroides</i> West and West	18,38,95,131,141,127
7	<i>Characium acuminatum</i> A. Braun	21
	<i>C. ambignum</i> A. Braun	18,19,21,41
	<i>C. bebaryanum</i> Reinsch	131
	<i>C. falcatum</i> Schroed	21
	<i>C. limmeticum</i> Lemm.	19,94,41
	<i>C. obtusum</i> A. Braun	19,56
	<i>C. ornthocephalum</i> A. Braun	41,56
	<i>C. pringsheimii</i> A. Braun	30,131
	<i>C. rostratum</i> Reinhard	19
	<i>C. stiptatum</i> Wille	56
8	<i>Chlorella ellipsoidea</i> Gerneck	19,10,41,43
	<i>C. sacchoraphila</i> var. <i>ellipsoidea</i> Kruger, Gerneck	19
	<i>C. vulgaris</i> Beijerinck	18,19,21,10,24,93,94,95,92,131,141,41,43,56,58,57,146,148
9	<i>Chlorococcum humicola</i> Neag.	56,131,41,43,127
	<i>C. infusionum</i> (Schrank) Meneghini	56,43
	<i>C. sp.</i>	18,4,8
10	<i>Chodatella ciliata</i> (Lag.) Lemm.	76
	<i>C. quadrata</i> Lemm.	10
11	<i>Closteriopsis longissima</i> (Lem.) Lemm.	18,19,25,41,127
12	<i>Coelastrum astoideum</i> De Not	38,94,95,59
	<i>C. cambricum</i> Archer	18,19,21,30,57
	<i>C. microporum</i> Naeg.	18,19,21,30,35,76,120,130,8,25
	<i>C. probiscidium</i> Chan	61
	<i>C. reticulatum</i> (Dang.) Senn	18,25,95,141,58
	<i>C. reticulatum</i> var. <i>polychordum</i> Tichany	46,47
	<i>C. scabrum</i> Reinsch	18
	<i>C. sphaericum</i> Naeg	18,19,46,48,130,8
	<i>C. sphericum</i> var. <i>purvatum</i> Naeg.	48
13	<i>Coenococcus planktonicus</i> Korshicov	46
14	<i>Coenocystis plactonica</i> Korshicov	46,48
	<i>C. subcylindrica</i> Korshicov	48
15	<i>Crucigenia crucifera</i> (Wolle) Collins	21,50,51,52,135
	<i>C. fenestrata</i> Schmidle	131
	<i>C. irregularis</i> Wille	51

	<i>C. quadrata</i> Morren	18,46,48,131
	<i>C. rectangularis</i> A.Braun	28,41
	<i>C. tetrapedia</i> (Kirchn.) West & West	18,19,21,23,37,58
16	<i>Dictyosphaerium ehrenbergianum</i> Naeg.	18,46,10
	<i>D. pulchellum</i> Wood	18,19,21,35,46,47,48,50,51,52,130,134,135,10,25,94,61
	<i>D. pusillum</i> Naeg.	95
17	<i>Dimorphococcus lunatus</i> A.Braun	35,130
18	<i>Dispora crucigenioides</i> Printz	143,8
19	<i>Echinosphaerella limmnetica</i> G.M.Smith	51
20	<i>Elkatothrix lacustris</i> Korschik	48
21	<i>Eremospaera gigas</i> (Archer) Fott et.Kalina	45, 46
	<i>E. viridis</i> Debary	42, 143
22	<i>Franceia elongata</i> Rorschik	45
	<i>F. tennispina</i> Korschik	46
	<i>F. tuberculata</i> Smith	45
23	<i>Gloeotaenium loitlesbergerianum</i> Hansgirg	81
24	<i>Golenkinia paucipina</i> West & west	94,95,131
	<i>G. radiata</i> (Chod.) Wille	12,24,94,131
25	<i>Golenkiniopsis longispina</i> Korschik	46
26	<i>Hydrodictyon reticulatum</i> (L.) Lagerheim	19,21,89,110,10,41
27	<i>Kirchneriella contorta</i> (Schmidle) Bohlin	18,127
	<i>K. intermedia</i> Korschik	46,130
	<i>K. lunaris</i> (Kirchn) Moebius	19,21,130,58
	<i>K. obesa</i> G.S. West	19
	<i>K. subsolitaria</i> G.S. West	21
28	<i>Lagerheimia ciliata</i> (Lag.) Lemme.	48,76, 95,131,141
	<i>L. citrifomis</i> G.M.Smith	95,141
	<i>L. longiseta</i> (Lemmermann) Printz	141
	<i>L. marssonii</i> Lemm.	48
	<i>L. quadriseta</i> (Lemm.) G.M.Smith	46,45,94,131
	<i>L. quadriseta</i> var. <i>gracilis</i> (Play f f.) Fott.	46
	<i>L. subsalsa</i> Lemm.	46,131
	<i>L convolutus</i>	22

29	<i>Micractinium pusillum</i> Fresen	46,50,51,52,135,38,94,95,41
30	<i>Monoraphidium contractum</i> Thuret	50,100,58
31	<i>Oocystis apiculata</i> West	18
	<i>O. borgei</i> Snow	17,18,19,21,46,48,51,116,25,131,53
	<i>O. crassa</i> Wittrock	18, 35, 53
	<i>O. crassa</i> var. <i>marssoni</i> (Lemm.) Printz	46, 48
	<i>O. elliptica</i> West	17,18,19,21,51,143,10,95
	<i>O. elliptica</i> var. <i>minor</i> West	18,35,43
	<i>O. eremosphaeria</i> G.M.Smith	18, 143
	<i>O. gigas</i> Archer	18,19,142,10,53
	<i>O. gracile</i>	56
	<i>O. irregularis</i> West and West	18
	<i>O. lacustris</i> Chodat	19,21,35,46,47,48,143
	<i>O. naegelii</i> A.Braun	18
	<i>O. naegelii</i> var. <i>minutissima</i> Bernard	18
	<i>O. naegelii</i> var. <i>typica</i> f. <i>irregularis</i> petkoff	18
	<i>O. natans</i> (Lemm.) Lemmermann	18,19,10
	<i>O. novae-semiliae</i> Wille	35,46,48,10
	<i>O. pandunformis</i> West and West	131
	<i>O. parva</i> West and West	18,19,46,48,143,10,95
	<i>O. pusilla</i> Hansgirg	17,18,46,48,95,131
	<i>O. solitaria</i> Wittrock	18,19,46,47,48,51,143,56
	<i>O. solitaria</i> var. <i>major</i>	55,56
	<i>O. submarina</i> Lahgerheim	21
32	<i>Nephrocystium limneticum</i> G.M.Smith	131
33	<i>Palmella mucosa</i> Ktz.	21
34	<i>Pediastrum araneosum</i> (Racib.) Smith	143, 8
	<i>P. bidentulum</i> A.Braun	18, 143
	<i>P. biradiatum</i> Meyen	12,18,110
	<i>P. biradiatum</i> var. <i>emarginatum</i> (Ehr.)A.Braun	12, 41
	<i>P. biradiatum</i> var. <i>emarginatum</i> f. <i>convexum</i> Prescott	18
	<i>P. biviae</i> Naeg.	46,48,143
	<i>P. boryanum</i> (Turp.)Meneghini	17,18,19,21,39,46,47,50,51,52,78,99,110,121,115,132,137, 34,135,140,142,143,8,10,24,41,53,56,58,61,146,147,25,92, 93, 95,123,131,138

<i>P. boryanum</i> var. <i>forcipitatum</i> Raciborski	46
<i>P. boryanum</i> var. <i>longicorne</i>	25
<i>P. boryanum</i> var. <i>undulatum</i> Wille	18, 131
<i>P. brauni</i> Wartmann	18, 25
<i>P. clathratum</i> (Schr.) Lemm.	18, 25
<i>P. clathratum</i> var. <i>annulatum</i> Lemm.	18
<i>P. clathratum</i> var. <i>duodenarium</i> (Bail) Lemm.	18
<i>P. clathratum</i> var. <i>microporum</i> Lemm.	18
<i>P. duplex</i> Meyen	2,18,19,35,47,48,50,51,52, 99,115,130,137,134,135,140,142, 143,8,24,25,38,92,94, 95,122,123,138,141,53,56,59,127,146,147
<i>P. duplex</i> var. <i>brachylobium</i>	131
<i>P. duplex</i> var. <i>clathratum</i> (A.Braun)Lagerh.	18,19,25,41,61
<i>P. duplex</i> var. <i>ciathratum</i>	55
<i>P. duplex</i> var. <i>cohaerens</i> Bohlin	25,41
<i>P. duplex</i> var. <i>cornutum</i> Rciborski	46,48,25
<i>P. duplex</i> var. <i>gracillimum</i> West & G.S.West,	25
<i>P. duplex</i> var. <i>reticulatum</i> Lagerh.	18,19,21,142,131,41
<i>P. duplex</i> var. <i>rugulosum</i> Raciborski	18,81
<i>P. duplex</i> var. <i>rotundatum</i> Lucks	131
<i>P. glanduliferum</i> Bennet	18
<i>P. gracile</i> A.Braun	143
<i>P. integrum</i> Naeg.	30,78,110,105,140,8,24,93,94,95,59, 61
<i>P. integrum</i> var <i>quadrispira</i>	61
<i>P. integrum</i> var <i>scutum</i> (Raciborski) Raciborski	61
<i>P. kawraisky</i> Schmidle	131
<i>P. muticum</i> Ktz.	143, 61
<i>P. ovatum</i> (Eh r .)A.Braun	18
<i>P. ovatum</i> var. <i>microporum</i> Lemm.	18
<i>P. ratula</i> Ehr.	143
<i>P. sculptalu</i> Smith	61
<i>P. simplex</i> Meyen	2,12,18,19,30, 35,47,48,50,52,67,76,78,99,110,120,115, 116,130,137,134,140,142,143,24, 25,38,92,94,95,123,138,141,56,58,59,127,146,147

	<i>P. simplex</i> var. <i>clathratum</i> (Schroeder) Chodat	46
	<i>P. simplex</i> var. <i>duodenarium</i> (Bailey) Rabenh.	18,19,21,30,46,25,131,41,56
	<i>P. simplex</i> var. <i>granulatum</i> Lemm.	18
	<i>P. simplex</i> f. <i>microporum</i> Meyen	46
	<i>P. simplex</i> var. <i>radians</i> Lemm.	18,19,46
	<i>P. sturmi</i> Reinsch	34,76,78,120
	<i>P. tetras</i> (Ehr.) Ralfs	18,19,21,35,51,130,8,24,94,95,141, 41,56,59
	<i>P. tetras</i> var. <i>tetraedron</i> (Corda.) Hansgirg	18,35,81,41,53
35	<i>Planktosphaeria gelatinosa</i> G.M.Smith	18,131
36	<i>Scenedesmus abundans</i> (Kirch.) Chodat	26,30,78,116,143,92,93, 41,58,61
	<i>S. abundans</i> var. <i>brevecauda</i> G.M. Smith	55, 41
	<i>S. abundans</i> var. <i>longicauda</i> G.M.Smith	18,41,53
	<i>S. acuminatus</i> (Lag.)Chodat	17,18,19,46,48,50,51,52, 99,115,130,137,134,135,143,25, 38,93,95,141,61,127
	<i>S. acutiformis</i> Schroeder	144, 58
	<i>S. acuminatus</i> var. <i>biseriatus</i> Reinb	48,41
	<i>S. acuminatus</i> var. <i>minor</i> G.M.Smith	18,41,127
	<i>S. acuminatus</i> var. <i>platydisca</i> G.M.Smith	46
	<i>S. acus</i> Meyen	50,99
	<i>S. acutiformis</i> Schroeder	17,35,81,116
	<i>S. acutus</i> Meyen	21,30,46,48,51,76,78,105
	<i>S. alternata</i> Chodatti	18
	<i>S. arcuatus</i> Lemm.	18,19,26,81,115,93,95,131,56,58
	<i>S. arcuatus</i> var. <i>capitatus</i>	55
	<i>S. arcuatus</i> var. <i>platydiscus</i> G.M.Smith	21,35,76,81,25,41,56
	<i>S. armatus</i> Chodat	1,17,18,19,30,39,121,115,10,41
	<i>S. armatus</i> G.M.Smith	18, 23
	<i>S. apiculatus</i> (W. et..G.S. West) Chodat	48
	<i>S. balatonicus</i> Hort	18
	<i>S. bernardii</i> Smith	10
	<i>S. bijuca</i> (Turp)	92,41,148
	<i>S. bijuga</i> (Turp) Lagher.	17,18,19,21,23,35,39,81,90, 115,116,8,10,38,88,93,94,95,131,141,41,56,58,57,61

<i>S. bijuga</i> var. <i>alternan</i> (Reinsch)Borge	18,67,76,110,41
<i>S. bijuga</i> var. <i>irregularis</i> (Wille)G.M.Smith	18
<i>S. bijugatus</i> (Turp)Ktz.	46,48,62,135,8
<i>S. brasiliensis</i> Bohlin	90,28
<i>S. denticulatus</i> Laghereim	18,19
<i>S. dimorphus</i> (Turp)Ktz.	17,18,23,30,51,78,81,115,116, 143,8,24,25,28,38,92,93,94,95,91,141,41,58,61,127
<i>S. dimorphus</i> var. <i>longispina</i> Chodat	35
<i>S. disciformis</i> (Chodat) Fott and Komarek	130
<i>S. ecornis</i> (Ralfs)	46,127
<i>S. ellipticus</i> W and G.M. West	14
<i>S. falcatus</i> Chodat	18,8
<i>S. granulatus</i> West and West	21
<i>S. grassus</i>	144
<i>S. hystrix</i> Lager	53
<i>S. incrassatulus</i> Bohlin	30,90,8,41,56
<i>S. incrassatulus</i> var. <i>monanae</i> G.M.Smith	42,105
<i>S. intermedius</i> Chodat	67
<i>S. longus</i> Meyen	18,76,120,116,53
<i>S. longus</i> var <i>brevispina</i> G. M. Smith	96
<i>S. nanus</i> Chodat	18
<i>S. apoliensis</i> P.Richter	18,48,51,143
<i>S. obliquus</i> (Turp)	8,55,93,56
<i>S. orbiculare</i>	61
<i>S. ovalternus</i> Chodat var. <i>graevenitzii</i>	130
<i>S. peroratus</i>	3
<i>S. protecta</i>	61
<i>S. protuberans</i> Fritsch and Rich	78
<i>S. quadricauda</i> (Turp.) de Brebisson	17,18,19,21,23,27,30,46,48,51,52, 67,76,78,81,90,99,120,121,115,130, 137,134,135,140,143,8,10,24 ,25, 28, 37,38,92,93, 94,95,91,131,138,41,56,58, 61,127,146,147
<i>S. quadricauda</i> var. <i>longispina</i> (Chodat)G.M.Smith	18,19,51,56
<i>S. quadricauda</i> var. <i>maximus</i> West and West	18,41
<i>S. quadricauda</i> var. <i>parvus</i> G.M.Smith	76,110,41,53,61
<i>S. quadricauda</i> var. <i>quadripina</i> (Chodat) G.M.Smith	18,19,21,116,8,61

	<i>S. quadricauda</i> var. <i>westii</i> G.M.Smith	144
	<i>S. serratus</i> (Corda)Bohlin	18,76
	<i>S. sooi</i> Hort. var. <i>symmertrocaudatus</i> Hort.(?)	18
37	<i>Schroederia setigera</i> (Schroeder)Lemm.	18,35,97,41,56
38	<i>Selanastrum gracile</i> (Reinsch) korsch	19,21,99,143,8,41
	<i>S. minutum</i> Collin	41
	<i>S. westii</i> G.M.Smith	18,21
39	<i>Sorastrum spinulosum</i> Naeg.	18
40	<i>Sphaerocystis planctonica</i> (Kors.) Bourr.	46
	<i>S. schroeteris</i> Chodat	2,18,19,21,39,46,47,48,51, 116,142,143,10,25
	<i>S. sphaerocystiformis</i> (Kors.) Bourr	46, 48
41	<i>Tetraedron bifurcatum</i> (Wille.) Lagh.	19, 14
	<i>T. bipunctatum</i> (Wille)Lagh.	21
	<i>T. caudatum</i> (Corda) Hansgirg	19,42,48,78,143,8,25,38,95,131
	<i>T. cruciatum</i> (Wallich)G.S.West	21
	<i>T. duospinum</i> Ackley	116
	<i>T. enorme</i> Ralfs	127
	<i>T. hastatum</i> (Reisch)Hansg.	19
	<i>T. limneticum</i> Borge	18, 42
	<i>T. microsporum</i>	55
	<i>T. minimum</i> (A.Braun)Hansg.	17,24,42,46,48, 51,90,142,24,25, 37,38,93,94,95,91,131,14141,58,57,127
	<i>T. minutissimum</i> Korschik	48
	<i>T. muticum</i> (A.Braun)Hansg.	24,35,81,143,131,61,127
	<i>T. pentaedricum</i> West and West	143,93
	<i>T. regulare</i> Ktz.	21,51,143
	<i>T. regulare</i> var <i>torsum</i> Braun	56
	<i>T. trigonum</i> (Naeg.) Hansg.	143,93,127
	<i>T. victoriae</i> Woloszynska	18
42	<i>Tetrallantos lagerhemii</i> Teiling	131
43	<i>Trebauxia</i> sp.	12
44	<i>Treubaria setigerum</i> (Archer)G.M.Smith	142
	<i>T. aspera</i>	55
45	<i>Trochiscia reticularis</i> (Reinsch)Hansg.	18
	<i>T. zarchriasii</i> Lemm.	18

46	<i>Westella botryoides</i> (W.West) de Wildemann	18,56
47	<i>Dactylococcus infusionum</i> Naegeli	44
4-Order : Ulotrichales		
1	<i>Binuclearia</i> sp.	120,123
	<i>B. tectoorum</i> Kuetz	3
2	<i>Cylindrocapsa geminella</i> Wolle	16,19,21,89
	<i>C. geminella</i> var. <i>minor</i> Hansg.	25
	<i>C. confera</i> W.West	56
3	<i>Geminella interrupta</i> (Turp.) Lagh.	17,8,53
	<i>G. minor</i> (Naeg.) Heering	50,99,137
	<i>G. mutabilis</i> (Naeg.) Wille	89
	<i>G. ordinata</i> (West G.S.West) Heering	8,107, 53
4	<i>Gongrosira debaryana</i> Rabenh.	89, 8
	<i>G. fluminensis</i> Fritsch	105,8
	<i>G. incrustans</i> (Reinsch) Schmidle	30,89,105,8
	<i>G. lacustris</i> Brandt	110,41
	<i>G. papuasica</i> Barzi	3
5	<i>Hormidium flaccidum</i> A.Braun	26,56
	<i>H. klebsii</i> G.M.Smith	16,39,89,110,106,61
	<i>H. subtile</i> Kuetz	41,43,56
6	<i>Klebsormidium flaccidium</i> Silva	43
7	<i>Microspora amoena</i> (Ktz.)Rabenh.	89,53,61
	<i>M. amoena</i> var. <i>gracilis</i> (Wille) De Toni	107
	<i>M. crassior</i> (Hansgirg) Hazen	61
	<i>M. elegans</i> Hansg.	21,53,61
	<i>M. laefrenii</i>	107
	<i>M. floccosa</i> (Vauch.) Thuret	16,19,21,53,61
	<i>M. pachyderma</i> (Wille) Lagh.	30,76,89,110
	<i>M. quadrata</i> Hazen	21
	<i>M. stagnorum</i> (Ktz.)Lagh.	110,56
	<i>M. tumidula</i> Hazen	19,105,56
	<i>M. williana</i>	107,53,56
8	<i>Radiofilum flavescens</i> G.S.West	16,90,37
9	<i>Stichococcus bacillaris</i> Naeg.	26,41
10	<i>Ulothrix aequalis</i> Ktz.	143,41,53,61
	<i>U. cylindricum</i> Prescott	21,39,121,53,61
	<i>U. klebsi</i>	61
	<i>U. moniliformis</i> Kuetz	56
	<i>U. rorida</i> Thuret	107,56

	<i>U. pseudoflacca</i> Wille	107,3
	<i>U. subconstricta</i> G.S.West	10,107,131,53,61
	<i>U. subtilissima</i> Rabenhorst	122,107
	<i>U. tenerrima</i> (Kützing) Kützing	19,30,105,140,8,88,43,53,56
	<i>U. tenuissima</i> Ktz.	67,3,53,56,61
	<i>U. variabilis</i> (Ktz.) Kirchner	16,19,67,140,8,43,53
	<i>U. zonata</i> (Weber and Mohr.)Ktz.	1,18,19,42,,50,89,90,99,110, 115,116,137,25,131,53,56,61
11	<i>Uronema elongatum</i> Hodgetts	76,89,8,41
	<i>U. gigas</i> Vischer	56
5- Order: Ulvales		
1	<i>Enteromorpha clathrata</i> (Roth) Greville	65
	<i>E. flexuosa</i> (Wulfen ex Roth) J. Agardh subsp.flexuosa	65
	<i>E. intestinalis</i> (L.) Link	19
	<i>E. intestinalis</i> (L.) Link var .asexualis	65
	<i>E. multiramosa</i> Bliding	10
	<i>E. prolifera</i> (O.F.Muller) J. Agardh subsp. prolifera	65
	<i>E. ralfsii</i> Harvey	10
2	<i>Schizomeris leibleinii</i> Kützing	107
6- Order : Chaetophorlaes		
1	<i>Aphanochaete confervicola</i> (Nägeli ex Kützing) Rabenhorst	107
	<i>A. elegans</i>	107
	<i>A. polychaete</i> (Hansg.) Fritsch	30, 41
	<i>A. repens</i> A.Braun	76,89,110,120,18,41
2	<i>Chaetophora attenuatum</i> (Hazen) Collins	107
	<i>C. elegans</i> (Roth) Agardh	76, 120
	<i>C. incrassata</i> (Huds) Hazen	76, 120
	<i>C. pisiformis</i> (Roth) C.Agardh	107
3	<i>Chaetosphaeridium globosum</i> (Nordst.) Klebahn	30,76,90
	<i>C. soluta</i> (Breb.)Pringsheim	21, 76
4	<i>Chlorotylum cataractarum</i> Ktz.	110,56
5	<i>Cloniophora macrocladia</i> (Nordst.)Bour.var.macrocladia	86
6	<i>Coleochaete divergens</i> Pringsheim	18,21,39
	<i>C. irregularis</i> Pring.	76
	<i>C. orbicularis</i> Pring.	76,90,120,56
	<i>C. pulvinata</i> A. Braun ex Kütz	107
	<i>C. scutata</i> de Brebisson	76, 89

	<i>C. soluta</i> (de Breb.) Pring.	21,76,56
7	<i>Draparnaldia golmerata</i> (Vauch.) Agardh	76,81,120,3,53
	<i>D. mutabilis</i> (Roth) Gleditsch	30,56
	<i>D. platyzoneta</i> Hazen	76
	<i>D. plumosa</i> (Vauch.) Agardh	105,53,56,59
8	<i>Fridea toirenticola</i> Schmidle	3
9	<i>Fristchiella tuberosa</i> Lyengar	107
10	<i>Gongrosera lacutris</i> Brandt	56
11	<i>Leptosira mediana</i> Borzi	143
12	<i>Leptospiropsis torulosa</i>	107
13	<i>Protococcus viridis</i> Agardh	143,10, 93,56
14	<i>Protoderma virid</i> Kützing	107,56,147
15	<i>Stigeoclonium alternatum</i> Ktz.	19
	<i>S. attenuatum</i> (Hazen) Collins	19,21
	<i>S. curvirostrum</i> Skuja	86
	<i>S. faciculare</i> Kg. var. <i>glomerata</i> (Hazen) Islam	86
	<i>S. flagelliferum</i> Kützing	107,41,53,56
	<i>S. helveticum</i> Vischer	3
	<i>S. lubricum</i> (Dille.) Ktz.	107,53,56
	<i>S. nanum</i> (Dillw.) Ktz.	16,30,110,105, 140,8,53
	<i>S. pachydermum</i> Prescott	30,89,105
	<i>S. parvulum</i>	53
	<i>S. polymorphum</i> (Franke) Heering	19,21,89
	<i>S. stagnatile</i> (Hazen) Collins	86,105, 8
	<i>S. subsecundum</i> Ktz.	30
	<i>S. tenue</i> Ktz.	2,21,110,105,43,53
7- Order : Oedogoniales		
1	<i>Bulbochaete angulosa</i> Witter and Lundell	25
	<i>B. borealis</i> Witterrock	19
	<i>B. crassa</i> Pring.	19,21
	<i>B. elatior</i> Pringsheim	107
	<i>B. minor</i> A. Braun	43
	<i>B. mirabilis</i> Wittrock	107,56
	<i>B. nana</i> Wittrock	107
	<i>B. insignis</i> Pringsh.	14,43
	<i>B. mirabilis</i> var. <i>mirabilis</i> fo. <i>mirabilis</i> Wittr.	8
	<i>B. scrobiculata</i> (Tiff.) Tiffany	21
	<i>B. varians</i> Wittrock	107
	<i>B. varians</i> var. <i>variens</i> Wittr. & Lund	8

2	<i>Oedogonium anjgustum</i> (Hirn) Tiffany	19,21
	<i>O. areolatum</i> Lagerheim	21
	<i>O. argenteum</i> Hirn	21,39
	<i>O. autumnale</i> Wittrock	107,83
	<i>O. automnale</i> var. <i>auotmnale</i> Wittr.	8
	<i>O. boscii</i> (Le Cl) Wittrock	121
	<i>O. capilliform</i> var. <i>ostrale</i>	61
	<i>O. cardiacum</i> (Hass.)Wittrock	90,37,3
	<i>O. cardiacum</i> var. <i>cardiaum fo.minor</i>	8
	<i>O. crassum</i> (Hass.)Wittrock	39
	<i>O. crispum</i> (Hass.)Wittr.	121,53
	<i>O. crispum</i> var. <i>inflatum</i> Hirh	121
	<i>O. cryptoporum</i> Wittrock	107, 56
	<i>O. cryptoporum</i> var. <i>szechwanen</i> C.C.Jao	107
	<i>O. curvum</i> Pringsheim	107
	<i>O. echinospermum</i> A.Braun	143
	<i>O. fennicum</i> (Tiff.) Tiffany	19,56
	<i>O. gallicum</i> Hirn	19
	<i>O. globosum</i> Nordstedt	21,56
	<i>O. gracilius</i> (Wittr.) Tiffany	19,21,39
	<i>O. hirnii</i> Gutwinski	56
	<i>O. inerme</i> Hirn.	107
	<i>O. inerme</i> var. <i>mentiens</i> Hirn	8
	<i>O. intermedium</i> Wittrock	19
	<i>O. macrandrous</i>	41
	<i>O. microgonium</i> Prescott	70
	<i>O. mitratum</i> Hirn.	107,56
	<i>O. nanum</i> Wittrock	21,56
	<i>O. nannandrous</i>	41
	<i>O. orientale</i> (Skvortzov) Skvortzov	19
	<i>O. patulum</i> Tiffany	19
	<i>O. perfectum</i> (Hirn) Tidffany	21,39
	<i>O. pertri</i> Wittrock	107
	<i>O. plusiosporum</i> Wittrock	19
	<i>O. psaegmatosporum</i> Nordstedt	107
	<i>O. pisanum</i> Wittrock	56,61
	<i>O. refuscens</i> Wittr.	90,37
	<i>O. undulatum</i> (Breb.) A.Braun	1, 130
	<i>O. varians</i> Wittrock & Lundell	107

	<i>O. varians</i> var. <i>varians</i> Wittr.	8
8- Order : Sphaeropleales		
1	<i>Sphaeroplea bourrellyi</i> Islam	83
9- Order : Siphonocladales (Cladophorales)		
1	<i>Basicladia chelonum</i> (Collins) Hoffman and Tilden	85
2	<i>Cladophora callicoma</i> Ktz.	110,56
	<i>C. crispata</i> (Roth)Ktz.	19,21,39,56
	<i>C. fracta</i> (Dillw.)Ktz.	16,89,90,92,53,61
	<i>C. fracta</i> var <i>lacustris</i> (Kützing) Brand	61
	<i>C. fracta</i> var. <i>normalis</i> Rabenhorst	23,37
	<i>C. glomerata</i> (L.) Ktz.	1,2,18,19,21,27,30,39,50,52,85,89,110,105,140,10,123,131,41,43,53,56,59,61,148
	<i>C. glomerata</i> var. <i>crassior</i> Hoek	14, 3
	<i>C. insignis</i> (Ag. C.A.)Kg.	110,53
	<i>C. oligoclona</i> Ktz.(Syn.C. <i>rivularis</i> (L.) Hoek	30,76,85,110,115,56
	<i>C. profunda</i> Brandt (Syn. C. <i>aeagagraopila</i>)	107
3	<i>Lola implexa</i> (Harv.)Hamel	85
4	<i>Pithophora</i> sp.	16
	<i>P. oedogonia</i> (Mont.) Wittr.	110,115,56,61
	<i>P. rorida</i>	107
	<i>P. varia</i> Wille	110,61
5	<i>Rhizoclonium crassipellitum</i> West and West	16,30,90,115,37
	<i>R. fontanum</i> Ktz.	19,41
	<i>R. hieroglyphicum</i> (Ag.)Ktz.	2,19,21,30,89,3,61
	<i>R. hookeri</i> Kützing	107
10- Order : Chlorococcales		
1	<i>Protosiphon botryoides</i> (Ktz.) Klebahn	51,10, 131
11-Order :Caulerpales		
1	<i>Dichotomosiphon tuberosus</i> (A.Braun)Ernest	87,90,37,56
12- Order : Zygnematales		
1	<i>Actinotaenium cucurbita</i> var. <i>attenuatum</i> (G.S.West) Teiling	108
2	<i>Arthrodesmus phimus</i> Turner	78
3	<i>Closterium acerosum</i> (Schrank)Ehrenberg	19,46,87,115,143,25,59
	<i>C. acerosum</i> var. <i>elegans</i> (Schrank) Eh r .ex Ralfs	18

<i>C. acerosum</i> var. <i>elongatum</i> de Brebisson	18,46,47,48
<i>C. acerosum</i> var. <i>tumidum</i> fo. <i>haghes</i>	108
<i>C. aciculare</i> (Fuffen) West	46,47
<i>C. acutum</i> Brébisson	108
<i>C. angustatum</i> Kützing	108
<i>C. archerianum</i> Cleve	87
<i>C. contrastum</i> Kirchner	115
<i>C. cornu</i> Ehrenb. ex Ralfs	108,61
<i>C. costatum</i> Corda ex Ralfs	108,56
<i>C. cyntheca</i> De Not	56
<i>C. diana</i> e Ehrnberge	81,87,28,56
<i>C. diana</i> e var. <i>arcuatum</i> (Breb.) Rabenhorst	87,56
<i>C. diana</i> e var. <i>brevis</i> West et West	108
<i>C. eboracense</i> W.B.Turner	61
<i>C. ehrenbergii</i> Meneghini	78,87,130, 8,41,56,59,61
<i>C. exile</i> West & G.S.West	108
<i>C. gracile</i> de Brebisson	46
<i>C. incurvum</i> Breb.	8,54
<i>C. intermedium</i> Ralfs	18,56
<i>C. Kuetzingii</i> de Brebisson	50,52,130
<i>C. juncidum</i> f. <i>brevior</i> Rabenhorst	56
<i>C. lagoense</i> Nordst	56
<i>C. lanceolatum</i> Ktz.	18,21,51,76, 8,56
<i>C. lanceolatum</i> var. <i>parvum</i> West & G.S.West	108,56
<i>C. leibleinii</i> Ktz.	18,143,115, 8,25,56
<i>C. limneticum</i> Lemmer.	76
<i>C. lineatum</i> Ehrenberg	46
<i>C. littorale</i> Gay	76,78,120,61
<i>C. lunula</i> (Muell)Nitzsch	46,105
<i>C. lunula</i> var. <i>biconvexum</i> Schmidle	108,41
<i>C. lunula</i> var. <i>carinthiacum</i> G.Beck	108
<i>C. lunula</i> var. <i>intermedium</i> Gutwinski	108
<i>C. moniliferum</i> (Bory)Ehrenberg	18,50,52,87,143, 8,25,123, 3,41,59
<i>C. moniliform</i> fo. <i>subrectum</i>	108
<i>C. nviculum</i> (Breb.) Lutkem	143
<i>C. parvulum</i> Naegeli	46,24,25,3,56
<i>C. parvulum</i> var. <i>major</i>	108

	<i>C. peraserosum</i> Gay	8,54,41
	<i>C. pritchardianum</i> W.Archer	143
	<i>C. pseudolunula</i> Borge	78
	<i>C. costatum</i> Corda ex Ralfs	108,61
	<i>C. setaceum</i> Ehr. ex Ralfs Dimensions	25
	<i>C. sigmoideum</i> Lagerheim & Nordstedt	108
	<i>C. sphaericum</i> Naegli	18,19
	<i>C. strigosum</i> Breb.	78
	<i>C. striolatum</i> Ehr.	56
	<i>C. tumidulum</i> Gay	87
	<i>C. turgidum</i> Ehrenberg	110
	<i>C. venus</i> Ktz.	81, 8
	<i>C. venus</i> var. <i>crassum</i> Prescott	108
4	<i>Cosmarium abbreviatum</i> Raciborski	61
	<i>C. abruptum</i> P.Lundell	108
	<i>C. asphaerosporum</i> Nord	56
	<i>C. angulosum</i> Brébisso	61
	<i>C. auriculatum</i> Reinsch	143
	<i>C. bioculatum</i> de Brebisson	21,121,25
	<i>C. botrytis</i> Meneghinii	105
	<i>C. botrytis</i> var. <i>depressum</i> West and West	35,87
	<i>C. botrytis</i> var. <i>subtumidium</i> Wittr.	8,108
	<i>C. brauni</i> Reinch	25
	<i>C. contractum</i> Kirchner	110,95,53,56
	<i>C. contractum</i> var. <i>ellipsoideum</i> (Elf.)West and west	81
	<i>C. contractum</i> var. <i>pachydermum</i> Scott and Prescott	87
	<i>C. cucumis</i> (Corda)Ralfs	143,56
	<i>C. cyclicum</i> var. <i>mesopotamianum</i> Islam	87
	<i>C. cymatoplerum</i> Nord	41,56
	<i>C. depresum</i> (Naeg.) Lundell	81,143
	<i>C. formosulum</i> Hoff.	102,131
	<i>C. hammeri</i> Nord	56
	<i>C. klebsii</i> Gutwinski	108
	<i>C. garrolense</i> Roy and Biss.	18, 8
	<i>C. globosum</i> Bulnh.	78,61
	<i>C. globosum</i> forma <i>minor</i> Boldt	108,61
	<i>C. granatum</i> de Brebisson	17,39,46,48,110,121,115,143, 8,25

<i>C. granatum</i> var. <i>subgranatum</i> Nordstedt	110, 8
<i>C. hammeri</i> Reinsch	81,90,143,24,38,93,94,58
<i>C. hammeri</i> var. <i>schmidle</i> Groenblad and scott	87
<i>C. intermedium</i> Delponte	61
<i>C. laeve</i> Rabenhorst	30,78,87,89,105,140, 8
<i>C. leave fo. majus</i> Borge	87
<i>C. leave</i> var. <i>septentrionele</i> Wille	8,108
<i>C. libongense</i> West and West	18
<i>C. logiense</i> Biss.	18,19
<i>C. lundelii</i> Delp.	35,81,56
<i>C. margartifrum</i>	108
<i>C. margaritatum</i> (Lund.)Roy and Biss.	76,91,120,41
<i>C. melanasporum</i> Arch	56
<i>C. meneghini</i> de Brebisson	17,76,83,87,,89,120,121, 8,131,41,117
<i>C. microsphictum</i>	108
<i>C. moniliforme</i> Turpin ex Ralfs	108,56
<i>C. moniliforme</i> var <i>limneticum</i> Ralf	56
<i>C. obtusatum</i> Schmidle	143
<i>C. ocellatum</i> Gutw	56
<i>C. orbiculatum</i> var. <i>major</i> West and West	108
<i>C. pachydermum</i> P.Lundel	108
<i>C. panamense</i> Prescott.	131, 41
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<i>C. perforatum</i> Lundell	143
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<i>C. praemorsum</i> de Brebisson	110
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<i>C. pseudodoxum</i> Jao	87
<i>C. pseudonitidulum</i> Nordstedt	78
<i>C. pseudopyramidatum</i> Lundell.	143
<i>C. pseudoractum</i>	108
<i>C. puctulatum</i> de Brebisson	30,76,89,110,121,105,116, 8,25
<i>C. pygmeaum</i> Arch	8,108
<i>C. pyramidatum</i> de Brebisson	143
<i>C. quadratum</i> Ralfs	143
<i>C. quadrifarum</i> P.Lundell.	108,41

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<i>C. ralfsii</i> Brébisson in Ralfs	108
<i>C. rectangulare</i> Grun. var. hexagonum (Elf.) West & West	81
<i>C. regnellii</i> Wille	81
<i>C. regnellii</i> var. <i>chondrophorum</i> Skuja	87
<i>C. reniforme</i> (Ralfs) Archer	18,35,50,51,81,87,115,130,136,143
<i>C. retusiformis</i> (Wille) Gutwinski	19,35,81
<i>C. retusum</i> var. <i>angustatum</i> West and West	18, 19
<i>C. sexangulare</i> var. <i>minus</i> Roy and Biss. fa. <i>minima</i> Nordstedt	87,56
<i>C. speciosum</i> Lundell	87,143
<i>C. subcontratum</i>	108,56
<i>C. subcontratum</i> var. <i>ellipsoidum</i>	108
<i>C. subcostatum</i> Nordstedt	81,90,59,61
<i>C. subcostatum</i> Nordstedt fa. <i>minor</i> West & West	87,56
<i>C. subcucumis</i> Schmidle	108
<i>C. subcrenatum</i> Hantzsch in Rabenhor.	87, 8,3
<i>C. subdantcum</i> West & West	87
<i>C. subgranatum</i> (Nordst.) Lutk. var. <i>borgei</i> Kreiger	87
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<i>C. sublateriundatum</i> West & West	87
<i>C. subprotumidum</i> Nordstedt	87
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<i>C. subtumidum</i> Nordstedt	78,87
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<i>C. succisum</i> West	8,108
<i>C. taxichondriiform</i> Gutw	56
<i>C. tinctum</i> Ralfs	108,131
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<i>C. turpini</i> Brébisson	108
<i>C. turgidum</i> Brébisson ex Ralfs	61
<i>C. tyrolicum</i> var. <i>minor</i> Islam and Haroon	87

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	<i>C. undulatum</i> Corda	48,78
	<i>C. undulatum</i> var. <i>minutum</i> Wittr.	8,108
	<i>C. variolatum</i> var. <i>polygonum</i> Greloff	78
	<i>C. venustum</i> var. <i>brevius</i> Bernard	105
	<i>C. venustum</i> var. <i>minus</i> (Wille.) Kreiger and Gerloff	87
	<i>C. vexatum</i> West and West	81, 8
	<i>C. viridis</i> (Coeda) Josh	143
5	<i>Cylindrocystis</i> sp.	110
6	<i>Debarya gliptosperum</i> (Debarry) Wittrock	17
7	<i>Desmidium optogonum</i> (Breb.) Ktz.	35
	<i>D. baileyi</i> (Ralfs) de bary	35
	<i>D. baileyi</i> var. <i>baileyi</i> fo. <i>tetragonium</i> Nordstedt	35, 81
	<i>D. swartzii</i> Agardh	35,90,130,37
8	<i>Euastrum binale</i> (Turp.) Eherenberg	81
	<i>E. dubium</i> Naegeli	87,8
	<i>E. dubium</i> var. <i>ornatum</i> Woloszynska	81,56
	<i>E. evolutum</i> (Nordst.) West and West	81
	<i>E. insulara</i> (Wittr.) Roy	81,87
	<i>E. spinulosum</i> Delp.	35,130
	<i>E. spinulosum</i> var. <i>africanum</i> Nordstedt	81
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	<i>E. subtrilobatum</i> Poerster and Eckert	35
	<i>E. subtrilobatum</i> var. <i>leaveforester</i>	35
9	<i>Gonatozygon kinahanii</i> (Arch.) Rabenh.	81
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10	<i>Hyalotheca dissiliens</i> (J.E. Smith) de Brebisson	81,130
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11	<i>Mesotaenium</i> sp.	110
12	<i>Micrasterias cruxa melitensis</i> (Ehr) Hassal	130

13	<i>Mougeotia capucina</i> (Bory)Agardh	21,39,51,3,61
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	<i>M. elegantula</i> Wittrock	21,23,37,53,61
	<i>M. genuflexa</i> (Dillwyn) C.Agardh	107,56,61
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	<i>M. robusta</i> Witt	56
	<i>M. scalaris</i> Hassal	19,21,53,61
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	<i>M. viridis</i> (Ktz.) Wittrock	39,50,67,99,,137,61
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15	<i>Netrium</i> sp.	12
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16	<i>Penium rufescens</i> Cleve	78
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17	<i>Phymatodocis</i> sp.	39
18	<i>Pleurodiscus</i> sp.	110,61
19	<i>Pleurotaenium ehrenbergii</i> (Breb.) de Bary	130
	<i>P. trabecula</i> (Ehr).Naegeli	35,81,87,130
	<i>P. truncatum</i> (Breb.) Naegeli	35,81
20	<i>Roya obtusa</i> (Brébisson) West & West	108
21	<i>Sirogonium</i> sp.	17
22	<i>Sphaeroszoma</i> sp.	17
	<i>S. andertianum</i> var <i>archerii</i> Gutw	56
	<i>S. curvatum</i> var <i>spinosum</i> Prescott	56
	<i>S. granulatum</i> Roy and Biss	39
23	<i>Spirogyra aequinoctialis</i> West	41,56
	<i>S. affinis</i> (Hassall)Petit	19,61
	<i>S. aplanospora</i> Randhawa	107
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<i>S. brunea</i> Czurda.	8,107
<i>S. collinsii</i> (Lewis) Printz	107,131,41,56
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<i>S. condensata</i> (Vauch) Ktz.	145, 43
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<i>S. croasdalea</i> Blum	107
<i>S. deadaloides</i> Czurda	105,61
<i>S. decimina</i> Kutez	56,61
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<i>S. ellipospora</i> Tanseau	21,39,41
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<i>S. fluviatilis</i> Hilae	1,89,56
<i>S. fuelliborneii</i> Schmidle	56
<i>S. gallica</i> Petit	107
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<i>S. grevilleana</i> (Hassall) Kützing	56
<i>S. hyalina</i> Cleve	8,107
<i>S. inflata</i> (Vauch.)Ktz.	23, 8,53,56
<i>S. jurgensii</i> Ktz.	21,39,53,56,61
<i>S. longata</i> (Vauch.) Kuetzing	105,56
<i>S. majuscula</i> Ktz.	1,121,105
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<i>S. mirabilis</i> (Hassall) Kützing	107
<i>S. nitida</i> (Dillw.)Link	21,51,143
<i>S. nova-angliae</i> Transeau	39,110,115
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<i>S. pseduofloridana</i>	22
<i>S. porticalis</i> (Muell.)Petit	19,21,143
<i>S. reflex</i> Transeau	56
<i>S. rhizobrachiales</i> Jao	143,41,56
<i>S. rivularis</i> Hass	56
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<i>S. tenuissima</i> (Hassall) Ktz.	1, 56
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	<i>S. undulisepta</i>	8,107
	<i>S. varians</i> (Hassall)Ktz.	19
	<i>S. weberi</i> Kutz.	22. 3
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	<i>S. coroniferum</i> W.B.Turner	143
	<i>S. curvatum</i> West	143
	<i>S. dorsidentiferum</i> West and West	143
	<i>S. ellipticum</i> West	108
	<i>S. gladiusum</i> Turner	35
	<i>S. gracile</i> var. <i>nanum</i> Wille	18
	<i>S. kjelmanni</i> Wille	110
	<i>S. leptocladium</i> Nordstedt	143
	<i>S. longibrachiatum</i> West and West	143
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	<i>S. lunatum</i> Ralfs	138
	<i>S. megacanthum</i> Lundell	143
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	<i>S. paradoxum</i> Meyen	18,30,142, 8,25,143
	<i>S. pingue</i> Teiling	143
	<i>S. punctatum</i> var. <i>kjelmani</i> Wille	14,108
	<i>S. staurastroides</i>	95
	<i>S. lauphorum</i> West and West	143
	<i>S. teliferum</i> Ralfs	143
	<i>S. tetracerum</i> (ktz.) Ralfs	18,99,120,137
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25	<i>Stauroidesmus apiculatus</i> (Joshua)Toiling	35
26	<i>Tetmemorus laevis</i> (ktz.)Ralfs	78
27	<i>Xanthidium acanthophorum</i> Nordstedt	35
	<i>X. homoeacanthum</i> Schmidt	130
28	<i>Zygnema collinsianum</i> Transeau	43
	<i>Z. conspicuum</i> (hassalj) Transeau	105,56
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	<i>Z. cyanosporum</i> Cleve	19,39
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	<i>Z. globosum</i> Czurda	143
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	<i>Z. pectinatum</i> (vauch.)Agardh	121,143,41,53,56
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	<i>Z. stellinum</i> (Vaucher) C.Agardh	14,56
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	<i>C. formosa</i> Robinson	21
	<i>C. fragilis</i> Desvaux	110,53
	<i>C. glouularis</i> Thuill	14
	<i>C. shweinitzii</i> Braun	115, 131
	<i>C. vulgaris</i> Linnaeus	131,9,71,53
	<i>C. vulgaris var vulgaris fo. exelsa</i> R.D. Wood	14
2	<i>Nitella batracosperma</i> A.Braun	3
	<i>N. confervaceae</i> A. Braun	14
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	<i>E.convoluta</i> Korshikov	21,41,38
	<i>E. deses</i> Ehrenberg	110
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	<i>E. elastica</i> Prescott	19,131,53
	<i>E. elongata</i> Schewiakoff	25,122,41
	<i>E. gracilis</i> Klebs	19,21,115,116,142,25,131, 43,53, 60, 146,148
	<i>E. minuta</i> Prescott	131,41,43,59,147
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	<i>E. polymorpha</i> Dangeread	19,21,50,51,52,135,43
	<i>E. promixa</i> Dangeread	19,42,110,115,3,43
	<i>E.sanguinea</i> Ehrenberg	19
	<i>E. spirogyra</i> Ehrenberg	48,3

	<i>E. tripteris</i> Duj	25,41
	<i>E. viridis</i> (O.F.Müller) Ehrenberg	123
2	<i>Eutreptia</i> sp	99
3	<i>Lepocinalis ovum</i> (Ehrenberg) Lemmermann	131
	<i>L. playfariang</i> Defland	41
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4	<i>Phacus acuminatus</i> Stoken	50,51,52,134, 8,25,41,43
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	<i>P. birgei</i> Prescott	19
	<i>P. caudatus</i> Huebner	19,115,143,25,41,43
	<i>P. chloroplastes</i> Prescott	17,10
	<i>P. congcanda</i>	3
	<i>P. curvicauda</i> Swirnko	41
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	<i>P. longicauda</i> (Ehrenberg) Dujardin	19,21,43
	<i>P. orbicularis</i> Huebuer	19,41
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5	<i>Strombomonas of. Treubii</i> (Wol.) DeFlandre	46
6	<i>Trachelomonas acanthostoma</i> (Stokes) De Flandre	19
	<i>T. crebea</i> (kellicott) Deflandro	19,142,146
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	<i>T. euchlora</i> (Ehr.) Lemmermann	21
	<i>T. hexangulata</i> Swirenko	21
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	<i>T. hispida</i> (Perty)Stein	19,21
	<i>T. lacustris</i> Drezepolski	131
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	<i>T. pulcherrima var. minor</i> Playfair	23
	<i>T. robusta</i> Swirenko	46
	<i>T. scabra var longicollis</i> playfair	25
	<i>T. varians</i> (Lemm.) De Flandre	18,21
	<i>T. verucosa</i> (O.F.Mull.) Bergh.	48
	<i>T. volvocina</i> Ehr.	19,47
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2	<i>Centrtractus belanophorus</i> Lemm.	95, 43
3	<i>Trachychloron depauperatum</i> Pascher	43
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	<i>C. longiceps</i> (Rabenh.)Borzi	19
	<i>C. subutata</i> Borri	18
2	<i>Chlorellidiopsis separabilis</i> Pascher	131
3	<i>Chlorocloster pyreniger</i> Pascher	41
4	<i>Chlorochromonas minuta</i> Lewis	131
5	<i>Diachros simplex</i> Passcher	131
6	<i>Meringospheara spinosa</i> Prescott	131,41
7	<i>Ophiocytium capitatum</i> Folle	48
	<i>O. majus</i> Naeg	8
Order 3: Tribonematales		
1	<i>Tribonema affine</i> (G.S. west) G.S. West	19, 89,3,53,117
	<i>T. bombycinum</i> (Ag.)Derbes and Solier	89, 8,3,53,58
	<i>T. elonganus</i> Pasch	3
	<i>T. minus</i> (Wille) Hazen	26,30, 87,105,3,53,56
	<i>T. utriculosum</i> (Ktz.) Hazen	16,21,30
Order 4: Vaucheriales		
1	<i>Botrydium granulatum</i> (L.) Greville	18,19,21
2	<i>Vaucheria dichotoma</i> (L.) Agardh	83,56
	<i>V. debaryana</i> Woronia	56
	<i>V. erythrospora</i> Christenson	83
	<i>V. geminata</i> (Vauch.)de Candolle	19,21,83, 89, 8,3,41
	<i>V. glomerata</i> Blume & Wormesty	3
	<i>V. hamata</i> (Vauch) de Candolle	83
	<i>V. litorea</i> Agardh	56

	<i>V. longicaulis</i> Hoppaugh	80, 82
	<i>V. longicaulis</i> Hoppaugh var. <i>longicaulis</i> Islam	80
	<i>V. pachyderma</i> Walz	89
	<i>V. sericae</i> Lyngb	121
	<i>V. sessilis</i> (Vauch.)de Candolle	16,19,21,83, 89,121,105,161, 8,3
	<i>V. synandra</i> Woronin	83
	<i>V. terrestris</i> (Vauch.)de Candolle	89,53
	<i>V. verticillata</i> Meneghini sensu Kuetzing	82
	<i>V. woroniniana</i> Heering	82,56
3	<i>Volvochryopsis polychola</i>	131
Class: B. Chrysophyceae		
1	<i>Bicoeca ovata</i> Lemmermann	79
2	<i>Chrysamoeba belvetica</i> Reverdin	18
	<i>C. limnetica</i> Sm.	19
	<i>C. radians</i> Klebs	18,19,21
3	<i>Chrysocapsa paludosa</i> (West & G.S.West) Pascher	18
4	<i>Chrysococcus heverlensis</i> Gonn.	18
5	<i>Dictyocha speculum</i> Ehrenberg	98
6	<i>Dinobryon balticum</i> (Schuett) Lemmermann	67
	<i>D. bavaricum</i> Imhof	25
	<i>D. calyciform</i> Bachmann	19
	<i>D. cylindricum</i> Imhof	25
	<i>D. divergens</i> Imhof	48,50,51,52,67,136,135,142, 25,88,96,141,58
	<i>D. divergens</i> var <i>tuberculata</i>	25
	<i>D. sertularia</i> Ehrenberg	2,18,35,50,52,73,72,120,130,134, 135,142,8,24,25,131
	<i>D. sociale</i> Ehrenberg	46,47,48,56
	<i>D. sylandricum</i>	44
	<i>D. tabellariae</i> (Lemmermann) Pascher	96
7	<i>Mallomonas alpina</i> Pascher & Ruttner	127, 22
	<i>M. acrooides</i> Party	127
	<i>M. candata</i> Iwanoff	10
	<i>M. polycheata</i>	131
	<i>M. scaroides</i> Party	10
	<i>M. sp.</i>	46, 89,131
8	<i>Pseudokephyrion</i> sp.	2
9	<i>Pseudokephyrion</i> sp.	18,19,21,51
10	<i>Synura adamis</i> Smith	41
	<i>S. uvella</i> Ehrenberg	18,19,56

Class: C. Bacillariophyceae(Diatomaceae)		
Order: 1. centrales		
1	<i>Actinocyclus kuetzingii</i> (A.Schmidt) R.Simonsen	149
	<i>A. octonarius</i> Ehrenb.	59,149
	<i>A. subtilis</i> (Greg.)Ralfs	99
2	<i>Actinoptychus senaritus</i> (Ehr.) Ehrenberg	13,59,14
3	<i>Anaulus mediterraneus</i> Grunow	99
4	<i>Asterolumpra</i> sp.	6
5	<i>Asteromphalus</i> sp.	6
	<i>A. cleveanus</i> Grunow	13,14
	<i>A. elegans</i> Greville	13,14
	<i>A. flabellatus</i> (Breb.)Greville	13,14
	<i>A. heptactis</i> (Breb.)Ralfs in Pritchard	13
6	<i>Attheya decora</i> T. West	46,47,48,59
	<i>7-Aulecoseira ambigua</i> (Grun. In van Heurck) Simonsen	18,25,20,2
	<i>A. distans</i> Her	25
	<i>A. granulata</i> (Ehr)	25,202,94,95,91,174, 58,57,127
	<i>A. herzogii</i> Lemm.	44
	<i>A. italica</i> Her.	25
	<i>A. roseana</i> Rabenh	25,202,95
7	<i>Bacteriastrium comosum</i> Pavillard	13
	<i>B. delicatulum</i> Cleve	13,18,6,59,118
	<i>B. elegans</i> Pavil.	6
	<i>B.elongatum</i> Cleve	118
	<i>B. hyalinum</i> Laud	59
	<i>B. varians</i> Leuder	13,149
8	<i>Bellerocha</i> sp.	6
	<i>B. malleus fo. biaegulata</i> Hustedt	13
9	<i>Biddulphia alternans</i> (Bail.) van Heurck	34,50,99,239
	<i>B. aurita</i> (Lyngb.) de Brebisson	59
	<i>B. laevis</i> Ehrenbecg	34,59
	<i>B. mobiliensis</i> (Bail.) Grunow	13,6,99
	<i>B. parallella</i> Murr.	59
	<i>B. pulchella</i> Gray	13, 59
	<i>B.sinensis</i> Creville	13,6,99
10	<i>Cerataulina pelagica</i> (CL.)Hendey	13,6,99
11	<i>Cerataulus turgidus</i> (Ehr.) Ehrenberg	99
12	<i>Chactoceros affinis</i> Lauder	13,6,20,14
	<i>C. breve</i> Shuett	13, 20
	<i>C. coarctaius</i> Lauder	13,14

	<i>C. costalus</i> Pavillard	13
	<i>C. curvisetum</i> Cleve	13,6,50,99,20
	<i>C. decipiens</i> Cleve	13,6,99
	<i>C. densus</i> Cleve	6
	<i>C. denticulatum</i> Lauder	13
	<i>C. didymus</i> Ehrenberg	13
	<i>C. diversus</i> Cleve	13,6
	<i>C. lacinosus</i> Shuett	13
	<i>C. laeve</i> Leuduger-Fortmorel	13,14
	<i>C. lorenzianus</i> Grunow	13,149,20,14
	<i>C. peruvianum</i> Brightwellii	13,6,99
	<i>C. poltana</i> (Sch.)Hustedt	6
	<i>C. pseudocurvisetus</i> Mangin	13,14
	<i>C. simplex</i> Ostenf	48
	<i>C. subtilis</i> Cleve	99
	<i>C. tortissimus</i> Gran	13
	<i>C. wighamii</i> Brightwellii	202,28
13	<i>Corethron criphilum</i> Costracane	13
14	<i>Coscinodiscus asteromphalus</i> Ehrenberg	13,21,130
	<i>C. curvatulus</i> Grunow	99
	<i>C. divisus</i> Grunow	59,37
	<i>C. eccentricus</i> Ehrenberg	13,6,99
	<i>C. eccentricus</i> var. <i>fasciculata</i> Hustedt	118
	<i>C. gigas</i> var. <i>praetextus</i> Janisch ex Hustedt	13
	<i>C. granii</i> Gough	99
	<i>C. kuetzingii</i> A.Schmidt	13,149,25
	<i>C. lacustris</i> Grunow	30,46,47,48,127,135,25,95,174,58
	<i>C. marginatus</i> Ehrenberg	13,149
	<i>C. neoradiatus</i> Cleve-Euler	13
	<i>C. nodulifer</i> A. Schmidt	13,59
	<i>C. oculus-iridis</i> Ehrenberg	13,99
	<i>C. perforatus</i> Ehrenberg	13
	<i>C. perforatus</i> var. <i>pavillardi</i> (Forti)Hust	130,143
	<i>C. radiatus</i> Ehrenberg	13,6,50,99,149
	<i>C. rothii</i> (Ehr.) Grunow	99,57
	<i>C. rothii</i> var. <i>subsalsa</i> (Juhlin-Daunfelt)Hustedt	74
	<i>C. sublineatus</i> Grunow	118
15	<i>Cyclotella antiqua</i> W. Smith	18,20,21
	<i>C. atomus</i> Hustedt	23,90,20,37,58
	<i>C. bodanica</i> Eulenst	20,59,146
	<i>C. castracanei</i> Eulenstein	149
	<i>C. catenata</i> (Brun.)Bachmann	18,20,116,59
	<i>C. comensis</i> Grunow	48

	<i>C. comta</i> (Ehr.)Kuetzing	20,50,127,202,111,134,135,142,20,24,25, 92,93,94,95,91,121,123, 206,131,138,58,57,127
	<i>C. comta</i> var. <i>digactis</i> (Ehr.)Grunow	18,20,41,73
	<i>C. crassa</i> Tynni.	149
	<i>C. glomerata</i> Bachmann	18,20,21,30,116,24,94,131,56,127
	<i>C. granulata</i> Ehr	127
	<i>C. kuetzingiana</i> Thwaites	21,46,47,48,50,52,67,135,173,24,25, 88,92,93,94,95,91,131, 138,141,3,53,53
	<i>C. Kuetzingiana</i> var. <i>crucifera</i> Al-kaisi	18,20
	<i>C. Kuetzingiana</i> var. <i>genuina</i> A. Cleve	18,20
	<i>C. Kuetzingiana</i> var. <i>planetophora</i> Pricke	18,20,30,46,47,48
	<i>C. kuetzingiana</i> var. <i>radiosa</i> Pricke	18,20,30,34,73,93
	<i>C. meduanae</i> Germain	10
	<i>C. meneghiniana</i> keutzing	18,20,21,23,27,30,34,45,46,47,48,50, 51,52,63,67,73,72,78,79,90,99,102, 118,120,116,130,129,137,273,135,10,24,25, 118,120,116,130,129,137,273,135,10,24,25,28,37,102,92,93, 94,95,91,131,271,3,41,53,56,58, 57, 127
	<i>C. meneghiniana</i> var. <i>laevissima</i> (Van Goor)Hustedt	102
	<i>C. meneghiniana</i> var. <i>plana</i> Fricke	18,20,120,41
	<i>C. meneghiniana</i> var. <i>valvaire</i> kutz.	23
	<i>C. ocellata</i> Pantocsek	2,18,20,21,30,46,48,72,105,124,270,272,24, 25,38,88,92,93,94,95, 91,131,271,58,57,98,60,127,146
	<i>C. operculata</i> (Ag.)Kuetzing	18,21
	<i>C. operculata</i> var. <i>mesoleia</i> Grunow	18,20
	<i>C. operculata</i> var. <i>unipunctata</i> (Fricke)Hustedt	20,30
	<i>C. planctonica</i> Brunthaler	18,20
	<i>C. pseudostelligera</i> Hustedt	30
	<i>C. socialis</i> Schuett	18,20
	<i>C. stelligera</i> (Cl. Et Grun.)Van Heurck	20,30,45,10,24,88,94,95,2,71, 56,98,127
	<i>C. striata</i> (ktz) Grunow	17,20,23,27,34,45,52,67,90,118,124,270,25,28,37,57
	<i>C. striata</i> var. <i>bipunctata</i> Pricke	73,72
	<i>C. stylosum</i> Bright wellii	50,99,129
	<i>C. styriaca</i> Hust	44
	<i>C. substylosum</i> Archibald	279
	<i>C. substylosum</i> var. <i>mesolein</i> Grunow	279
	<i>C. vorticosa</i> A. Berg	18
	<i>C. wolterecki</i> Hustedt	18,20
	<i>24-Dactyliosolen biavianus</i> (H.Perag.) Hasle	6
	<i>D. mediterraneus</i> Peragallo	13,27
16	<i>Detonula moseleyana</i> (Castr.)Gran	13
17	<i>Ditylum brightwellii</i> (West)Grunow	6,99
	<i>D. sol</i> (Van Heurck)De Toni	13,98,27
18	<i>Endictya japonica</i> Kanaya	6

19	<i>Eucampia zodiacus</i> Ehrenberg	13,6,99,101
20	<i>Guinardia flaccida</i> (Castracane) Peragallc	13,20,118,27
21	<i>Hemiaulus hauckii</i> Gran. In Van Heorck	13,27
	<i>H. indicus</i> Karsten	13
	<i>H. membranaceus</i> Cleve	13,6
	<i>H. sinensis</i> Greville	13,6,99
22	<i>Hemidiscus cuneiformis</i> Wallich	99
	<i>H. hardmanianus</i> (Grev.) Mann	13
	<i>H. weissflogi</i> (Grun) Hustedt	13,6
	<i>H. sinensis</i> Greville	13,6,99
23	<i>Hemidiscus cuneiformis</i> Wallich	99
	<i>H. hardmanianus</i> (Grev.) Mann	13
	<i>H. weissflogi</i> (Grun) Hustedt	279
24	<i>Heterotheca inermis</i> Mann	279
25	<i>Hydrosera triquetra</i> Wallich	98
26	<i>Lauderia annulata</i> Cleve	27
	<i>L. borealis</i> Gran	13,6
27	<i>Leptocylindrus danicus</i> Cleve	13,20,99,41
	<i>L. minimus</i> Gran	13
28	<i>Lithodesmium undulatum</i> Ehrenberg	13,98
29	<i>Melosira ambigua</i> Muller	10,53,127
	<i>M. arctica</i> Her.	41
	<i>M. arenaria</i> Moore ex Ralfs	102
	<i>M. dickiei</i> Kutz.	10
	<i>M. distans</i> (Ehr.) Kuetzing	18,21,56
	<i>M. distans</i> var. <i>nivalis</i> Grunow	18
	<i>M. granulata</i> (Ehr.) Ralfs	18,21,30,39,46,47,48,50,51,52,63,78,79,102,116,130,134,135,10,24,88,92,93,122,123,106,138,3,4,153,60,146
	<i>M. granulata</i> var. <i>angustissima</i> Mueller	18,34,46,47,48,51,67,78,102,41
	<i>M. islandica</i> O. Mueller	18,60,146
	<i>M. islandica</i> var. <i>helvetica</i> O. Mueller	18,56
	<i>M. islandica</i> var. <i>typica</i> A. Cleve	18
	<i>M. italica</i> (Ehr.) Kuetzing	27,45,102,122,138,53,59
	<i>M. italica</i> var. <i>semilaevis</i> (Grunow) J. Frenguelli	279
	<i>M. italica</i> var. <i>subarctica</i> O. Mueller	46,47
	<i>M. italica</i> var. <i>tenuissima</i> (Grun.) O. Mueller	46,47,48
	<i>M. japonica</i> F. Meister	270
	<i>M. jurgensis</i> Agardhi	3,53
	<i>M. lineata</i> (Dillw.) Ag.	18,45,50,52,135
	<i>M. nummuloides</i> Dillw	41
	<i>M. nyassensis</i> O. Mueller	18
	<i>M. nyassensis</i> var. <i>victoriae</i> O. Mueller	18
	<i>M. roeseana</i> Rabenhorst	102

	<i>M. varains</i> Agardh	2,20,21,30,34,45,46,50,52,63,67,73,72,78,79,99, 100,102,111,116,124,130,129,137, 134,135,270,272,123,131,41,56, 57, 146
30	<i>Paralia sulcata</i> (Ehr.)Cleve	13,279,27
31	<i>Planktoniella sol</i> (Wall.) Schuett	13,98
32	<i>Podosira stelliger</i> (Bail.)Mann	13,99,27,3
33	<i>Rhizosolenia alata</i> Brightwell	13,20,6,118,129
	<i>R. alata f. gracillima</i> (Cl.) Grun	13
	<i>R. alata</i> Brightw.f. <i>indica</i> (perag)Gran	13,99,129
	<i>R. bergonii</i> Peragallo	13,129,279
	<i>R. calcer-avis</i> Schultze	13,6,67,99
	<i>R. castracanei</i> Peragallo	13
	<i>R. cochlea</i> Brun	13
	<i>R. cylindrus</i> Cleve	13,118
	<i>R. firma</i> Karsten	13,99
	<i>R. fragilissima</i> Bergon	13
	<i>R. hebetata</i> J.W.Bail	20,99,118
	<i>R. hebetata</i> Bail. f. <i>semispina</i> (Hensen) Gran	13,99,129
	<i>R. imbricate</i> Brightwell	13,6,99
	<i>R. longiseta</i> Zachari	46,99,137
	<i>R. robusta</i> Norm. ex Ralfs	13,6,27
	<i>R. setigera</i> Brightwellii	13,6
	<i>R. shrubsolei</i> Cleve	13,6,118
	<i>R. stolterfothii</i> H. Peragallo	13,6,99
	<i>R. styliformis</i> Brightwellii	6,99
	<i>R. temperei</i> Peragallo	99
34	<i>Schroederella delicatula</i> (Perag.) Pavill	13,99
35	<i>Skeletonema costatum</i> (Grev.) Cleve	13,6,50,99,129
36	<i>Stephanodiscus alpinus</i> Hustedt	16
	<i>S. astrea</i> (Ehr.) Grun	10,24,38,88,92, 93,94,95,91,271,58,59, 60,146
	<i>S. dubius</i> (Fricke)Hustedt	102,10,131,53
	<i>S. dubius var. radiosus</i> A. Cleve	18,102
	<i>S. hantzschii</i> Grunow	48,90,37
	<i>S. intermedia</i>	127
	<i>S. niagarae</i> (Ehr.Grun.) st.Niagarae	116
	<i>S. rotula</i> (Ktz.) Hende	2,18,30,46,47,48,50,51,99,116,137,272,27
	<i>38-Stephanopyxis melosiroides f.clava</i> A. Cleve	118
	<i>S. minuta</i> (Grun.) A. Cleve	118
	<i>S. palmeria</i> (Greville) Grun	13,6,98,129,279
37	<i>Streptothecca tamesia</i> Shrubsole	13,27
38	<i>Terpsinoe americana</i> (Bail)Ralfs	50,99,130,137
	<i>T. musica</i> Ehrenberg	50,99,130,137
39	<i>Thalassionema nitzschioides</i> Hestedt	13,6,99,137,279
	<i>T. nitzschioides var. parva</i> Heiden	279

40	<i>Thalassiosira eccentrica</i> (Ehr.) Cleve	121
	<i>T. fluviatilis</i> Hustedt	18,23,27,45,102,37
	<i>T. gravida</i> Cleve	99
	<i>T. leptopa</i> Grun	27
	<i>T. lundiana</i> Fryxell	279
	<i>T. nodulolineate</i> (Hendy) Marks Fryxell	279
	<i>T. weissflogii</i> Grunow	37
	<i>T. weissflogii</i> var. <i>valvaire</i> Grun	23
41	<i>Triceratium broeckii</i> Leuduger-Fortmorei	13,99
	<i>T. dubium</i> Brightwellii	99
	<i>T. favus</i> Ehrenberg	13,98
	<i>T. favus</i> f. <i>quadrata</i> Grunow	98
	<i>T. pentacrinus</i> (Ehr.) Wallich	13,99
	<i>T. reticulum</i> Ehrenberg	13,99
	<i>T. spinosum</i> Bailey	99
	<i>T. spinosum</i> f. <i>tetragona</i> Bailey	99
Order2: Pennales		
1	<i>Achnanthes affinis</i> Grunow	50,99,102,137,3,53
	<i>A. affinis</i> var. <i>affinis</i> Grunow	131
	<i>A. biasoletiana</i> Kutez	58
	<i>A. brevipes</i> Agardh	34,50,52,99,102,129,279
	<i>A. brevipes</i> var. <i>intermedia</i> (Ktz.) Cleve	67,90,99
	<i>A. clevei</i> Grun	102,382,93,95,91
	<i>A. coarctata</i> Grun	56
	<i>A. conspicua</i> A.Mayer	95,58,57
	<i>A. delicatula</i> (Ktz.) Grunow	90,99,137,37,53,59,127
	<i>A. exigua</i> Grun	102
	<i>A. flexella</i> var. <i>flexella</i> Kutz.	131,56
	<i>A. frigida</i> A. Cleve	18
	<i>A. gibberula</i> Grunow	28,41
	<i>A. hauckiana</i> Grunow	99,137,56
	<i>A. hauckiana</i> var. <i>rostrata</i> Schulz	131
	<i>A. haynaldii</i> Schaarschm. var. <i>borussica</i> A. Cleve	18
	<i>A. heideni</i> Schultze	18
	<i>A. hungarica</i> Grunow	45,3,53
	<i>A. lanceolata</i> (Breb.) Grunow	18,78,102,116,24,25,38,92,93, 95,91,41,53,56,57,58,59
	<i>A. lanceolata</i> var. <i>dubia</i> Grunow	
	<i>A. lanceolata</i> var. <i>elliptica</i> Cleve	73,53
	<i>A. lanceolata</i> var. <i>lanceolata</i> Mayer	18
	<i>A. lanceolata</i> var. <i>rostrate</i> (Oestrup.) Hustedt	23,27,45,63,73,72,90,102,37
	<i>A. linearis</i> (W.Smith) Grunow	18,102,59
	<i>A. linearis</i> var. <i>genuina</i> A. Cleve	18
	<i>A. linearis</i> var. <i>genuina</i> f. <i>curta</i> H.L Smith	102

	<i>A. linearis</i> var . <i>linearis</i> Grun	131
	<i>A. longipes</i> Agardh	13,27
	<i>A. marginulata</i> var . <i>marginulata</i>	131
	<i>A. microcephale</i> (Ktz.) Grunow	30,73,72,102,120,53
	<i>A. minutissima</i> Kuetzing	2,18,23,27,45,73,87,90,102,111,272, 24,25,37,38,92, 93,94, 95,91,271,56,58,57,59, 127,146
	<i>A. minutissima</i> var . <i>cryptocephala</i> Grunow	72,78,102
	<i>A. minutissima</i> var . <i>exlissima</i> Ostr.	96
	<i>A. minutissima</i> var . <i>genuina</i> Ktz.	96
	<i>A. minutissima</i> var . <i>Minutissima</i> Krasske	131
	<i>A. nathorsti</i> J. Brun	18
	<i>A. saxonica</i> Krasska	90,53,56
	<i>A. schmiditana</i> Krenner	37
2	<i>Actinella punctata</i> Lewis	51
3	<i>Amphipleura pellucida</i> (Ktz.) Kuetzing	27,39,45,72,102,118,59
	<i>A. rutilans</i> (Trent.) Cleve	50,99,102
4	<i>Amphiprora alata</i> (Ehr.) Kuetzing	13,23,27,45,50,52,67, 90,99,129,137,135,10, 28,37,271,146
	<i>A. cholnockyi</i> Van Land	129
	<i>A. gigantea</i> var . <i>descussata</i> (Grun.) Cleve	129
	<i>A. ornata</i> Bailey	22
	<i>A. paludosa</i> W. Smith	47,48,50,99,102,137,10
5	<i>Amphora coffeaeformis</i> (Ag.) Kuetzing	18,45,47,50,90,37, 38,92,94,95,91,271
	<i>A. copulata</i> (Kützing) Schoeman et Archibald	16
	<i>A. macilenta</i> Gregory	16
	<i>A. mexicana</i> A. Schmidt	16
	<i>A. coffeaeformis</i> var . <i>acutiuscula</i> (Kützing) Rabenhorst	102,3
	<i>A. coffeaeformis</i> var . <i>borealis</i> (Ktz.) Cleve	18
	<i>A. commutata</i> Grunow	47,48,99,102,130,137,24,25,94,59
	<i>A. cymbifera</i> Cleve	25
	<i>A. delicatissima</i> Krasske	90,102
	<i>A. graeffeana</i> Hendey	279
	<i>A. holsatica</i> Hust	91,41,127
	<i>A. libyca</i> Ehr. var . <i>vittat</i> A. Cleve	18
	<i>A. lineolata</i> Ehernerg	47,99,102,137,138
	<i>A. maxicana</i> A.Schmidt	130
	<i>A. maxicana</i> A.Schmidt	102
	<i>A. normanii</i> Rab.	102
	<i>A. ocellata</i> Donkin	13
	<i>A. ovalis</i> (Ktz.) Kuetzing	18,30,34,39,46,47, 1,51,67,73,72,78,90,99,100,102,116,130, 129,137,270,272,10,24, 25,37,38,92,93, 94,95, 91,271, 3,41,53,56,58,57,59,60,127,146,277, 140
	<i>A. ovalis</i> var . <i>lybica</i> Ehr . ex Kuetz.	18,90,102,37

	<i>A. ovalis</i> var. <i>ovalis</i> Kuetz.	131
	<i>A. ovalis</i> var. <i>pediculus</i> (Ktz.) Van Heurck	18,73,72,90,102,93, 3, 41
	<i>A. pediculus</i> kuetz	53, 59
	<i>A. perpusilla</i> (Grun.) Grunow	47,90,102,57
	<i>A. robusta</i> Gregory	18,279,25
	<i>A. robusta</i> var. <i>brevistriata</i> A.Cleve	18,53
	<i>A. wisei</i> Salah	53
	<i>A. veneta</i> Kuetzing	45,48,102,38,92,93,95,91,271,53,58,127
6	<i>Anomoeoneis brachysira</i> (Breb.) Grunow	18,102
	<i>A. costata</i> (Ktz.) Cleve	66
	<i>A. exilis</i> (Ktz.) Cleve	27,45,90,102,25,37,88,92,93, 95,91,141,58
	<i>A. sphaerophora</i> (Ehr.) pfitzer	18,23,45,73,72,90,102,111,130,129,25,56
	<i>A. sphaerophora</i> var. <i>guentheri</i> O. Mueller	102
7	<i>Asterionella japonica</i> Cl. And Mueller	13,20,6,50,99,118
	<i>A. formosa</i> Hass.	41, 123
8	<i>Atheya zachariasii</i> J. Brun.	97
9	<i>Bacillaria paxillifer</i> (Muell.) Hende	13,20,21,23,27,34,39,45,47,49,51, 52,63,67,72,79,90,99,102,118,116,128, 130,129,137,134,135,140,10,24,37,38, 58
	<i>B. paradox</i> Gmelin	57
10	<i>Brebissonia boeckii</i> (Ehrenberg)Grunow	102
11	<i>Caloneis alpestris</i> (Ehrenberg) Grunow	
	<i>C. alpestris</i> var. <i>alpestris</i> Grun.	131
	<i>C. amphisbaena</i> (Bory) Cleve	50,67,99,102,137,25,41,58,146
	<i>C. amphisbaena</i> var. <i>fenzlii</i> (Grunow) Cleve	46
	<i>C. amphisbaena</i> var. <i>subsalina</i> (Donken) Cleve	67,129
	<i>C. bacillum</i> (Grun.) Cleve	18,45,78,102,58,146
	<i>C. bacillum</i> (Grun.) Cleve fa <i>cunneata</i>	102
	<i>C. backmannii</i> var. <i>latisfasciata</i> A.Cleve	18
	<i>C. clavei</i> (Lagerst.) Cleve	67,72,102,91,56
	<i>C. elongata</i> Grunow	129
	<i>C. formosa</i> (Greg.) Cleve	99,38
	<i>C. hebes</i> (Ralfs)Patr.	8
	<i>C. ladogensis</i> Cleve	127
	<i>C. latuiscala</i> (Ktz.) Cleve	129
	<i>C. liber</i> (W.Smith) Cleve	149
	<i>C. limosa</i> (Kutz.) Patr.	102
	<i>C. permagna</i> (Bail.) Cleve	45,51,63,90,102,37,53
	<i>C. placentula</i> Ehrenberg	127
	<i>C. schumanniana</i> var. <i>biconstricta</i> (Grun.) Reich	34,130,129,59
	<i>C. schumanniana</i> var. <i>lancettula</i> Hustedt	18
	<i>C. silicula</i> (Ehr.) Cleve	39,102,130,120,59
	<i>C. silicula</i> var. <i>tumid</i> Hust	14
	<i>C. ventricosa</i> (Ehr.) Meister	63,73,90,102,130,92,95,91,53,26,58

	<i>C. ventricosa</i> var. <i>truncatula</i> (Grun.) Meister	18,78,102
12	<i>Campylodiscus biengulatus</i> Grev.	13,50,52,132,131
	<i>C. bicostatus</i> var. <i>arebica</i> Grunow O.E.	46
	<i>C. clypeus</i> (Ehren.) Ehr	18,23,45,47,48,50,52,63,57,99,102,3,86,87,10,25,58
	<i>C. clypeus</i> var. <i>euglypta</i> Cl.	58
	<i>C. clypeus</i> var. <i>lineata</i> Cl.	58
	<i>C. decorus</i> (Breb.)	13
	<i>C. echeneis</i> Ehrenberg	13,34,46,47,,50,67, 99,80,87,10
	<i>C. norica</i> Her.	10
	<i>C. noricus</i> Ehr.var. <i>hibernice</i> (Ehr.) Grunow	18
13	<i>Climacodium frauenfeldianum</i> Grunow	13
14	<i>Climacosphaenia moniliger</i> Ehrenberg	13,99
15	<i>Cocconeis diminuta</i> Pantocsek	102,59
	<i>C. disculus</i> (Schumann) Cleve	70,41,55,57
	<i>C. hetroidea</i> Hantzsch	99
	<i>C. klamathensis</i> var. <i>klamathensis</i> Sov.	191,41
	<i>C. naviculiformis</i> Auerswald	96
	<i>C. pediculus</i> Ehrenberg	2,39,50,67,67,73, 72,90,99,102,137,142, 25,37,38,92, 93,94,95,91,141,3,41,53,26, 59,127,146
	<i>C. pediculus</i> var. <i>baltica</i> (J.Damf.) Cleve	73
	<i>C. pellucida</i> Hantzsch	99
	<i>C. placentula</i> Ehrenberg	34,39,50,52,67,73,27,78,79,99,100,102,118,116,130,137,135, 142, 10,24,25,28,38, 22,93,94,95,91,122,106,141,121,41,53,26,57,59,127,147,148
	<i>C. placentula</i> var. <i>euglypta</i> (Ehr.) Cleve	2,23,27,30,34,45, 46,47,48,49,63,67, 73,72,90,99,100,111,118,120,130,137,24,37, 38,92,93,95, 91, 141,41
	<i>C. placentula</i> var. <i>intermedia</i> (Herib.and Perag.) Cleve	99, 137
	<i>C. placentula</i> var. <i>klinoraphis</i> Geitler	67
	<i>C. placentula</i> var. <i>lineata</i> (Ehr.) Cleve	23,45,63,78,90,73, 38,92,93,94,95,91,131,41
	<i>C. pseudomarginata</i> Gregory	99
	<i>C. rugosa</i> Sov.	41,26
	<i>C. subtilis</i> (Her.) Grun.	145
	<i>C. quarnerensis</i> (Grun.) A.Schmidt	18
16	<i>Cyclophora tenuis</i> Casteracane	99
17	<i>Cylindrotheca closterium</i> (Ehr.) Reim. and Lewis	30,99,102,137
	<i>C. gracilis</i> (Breb.) Grunow	27,45,90,37
18	<i>Cymatopleura elliptica</i> (Breb.) W.Smith	13,18,23,45,46,47,,48, 50,52,63,67,73,78,90, 99,102,130,137,135,140,25, 93,95,138,41
	<i>C. elliptica</i> var. <i>angulata</i> (Grev.) A. Cleve	18

	<i>C. elliptica</i> var. <i>hibernica</i> (W.Smith) van Heurck	18
	<i>C. elliptica</i> var. <i>nobilis</i> (Hantzsch) Hustedt	18
	<i>C. solea</i> (Breb.) W.Smith	18,27,30,34,45,46, 48,50,52,67,73,,72, 48,90,99,102,111,,118, 116,130,128,134,135,24, 25,38,92,93,94, 95,91,131,141,56,57,59,127,147
	<i>C. solea</i> var. <i>apiculata</i> (W. Smith) Ralfs	16
	<i>C. solea</i> var. <i>valaire</i> (Berb.) Smith	44
19	<i>Cymbella affinis</i> (Kuezing)	18,27,30, ,34,45,50, 51,52,63,67,72,78,90,102,111,116,124,130, 129,134,135,140,142,10 ,24,25, 37,38,92,93,94, 95,91,106,141,3,53, 56,58,57,127,146,147
	<i>C. affinis</i> var. <i>affinis</i> (Ktz.)	191
	<i>C. affinis</i> var. <i>excisa</i> (Ktz.) Grunow	2,78,142,41
	<i>C. abtusiuscula</i>	127
	<i>C. amphicephala</i> Naegeli	102,127,141,3,56,127
	<i>C. amphicephala</i> var. <i>amphicephala</i> Naegeli ex Kütz	131
	<i>C. amphicephala</i> var. <i>intermedia</i> A. Cleve	78,142
	<i>C. angustata</i> var. <i>angusta</i> W.Smith	131,58,57
	<i>C. angustata</i> var. <i>subwulffii</i> A. Cleve	72
	<i>C. aspera</i> (Ehr.) H. paragallo	45,63,79,102,130,129, 38,92,93,41,53
	<i>C. austriaca</i> Gran. in A. Sch.	79
	<i>C. austriaca</i> Grun. var. <i>prisca</i> Grunow	18
	<i>C. caespitosa</i> Kuetzing	18,10,24,94,53
	<i>C. caespitosa</i> (Ktz.) Brun. var. <i>ovata</i> Grunow	18
	<i>C. capidata</i>	59
	<i>C. cesatii</i> Grun.	10
	<i>C. cesatii</i> (Rabenhorst) Grunow	70, 71
	<i>C. cistula</i> (Ehr.) Kirchn.	18,21,34,39,45,47,50, 52,63,73,79,100,102,134,135,25,38,92, 93,94,95,91,41,53,58,57,59,127
	<i>C. cistula</i> var. <i>cistula</i> (Ehr.)	131,41,26
	<i>C. cistula</i> var. <i>maculata</i> (Kützing) Van Heurck	102,53
	<i>C. cornutum</i> (Ehr.) R .Ross.	18,46,48
	<i>C. cuspidata</i> (Kuetzing)	140
	<i>C. cuspidata</i> Ktz. var. <i>anglice</i> Lagst	73,100,110
	<i>C. cymbiformis</i> (Ktz.) Van Heurck	18,21,45,130,25,99, 102,138,142,143,10,41
	<i>C. cymbiformis</i> var. <i>cymbiformis</i> C. Agardh	131
	<i>C. cymbiformis</i> var. <i>jimboi</i> (Pant.) A.Cleve	78
	<i>C. cymbiformis</i> var. <i>multipunctata</i> (Meist.) A. Cleve	18, 73, 72
	<i>C. cymbiformis</i> var. <i>nonpunctata</i> Fontell	63, 78
	<i>C. cymbiformis</i> var. <i>unipunctata</i> A.Cleve	18
	<i>C. delicatula</i> Kutz.	10

<i>C. differta</i> (A.Cl.) Kreiger	18,30,45,72, ,78,58
<i>C. ehrenbergii</i> Kuetzing	78, 102
<i>C. florentia</i> var. <i>minor</i> A.Cleve	18
<i>C. gracilis</i> (Rabenhorst) Cleve	131,127
<i>C. helvetica</i> Kuetzing	102,129,38,57,127
<i>C. helvetica</i> var. <i>compacta</i> (Oester.) Husdetd	78
<i>C. helvetica</i> var. <i>vaszarrii</i> Pantocsek	73
<i>C. hustedtii</i> Krasske	45,78,102,53
<i>C. hustedtii</i> var. <i>hustedtii</i> Krasske	131, 41
<i>C. lacustris</i> var. <i>inflata</i> Mayer	102
<i>C. laevis</i> Naegeli	18, 102
<i>C. lanceolata</i> (Ehr.)	10,24,94,57,59
<i>C. lapponica</i> Grunow	18,21
<i>C. lata</i> Grun	26
<i>C. leptoceros</i> (Ehr.) Grunow	18,21,127
<i>C. lunata</i> W.Sm.	18
<i>C. lunata</i> var. <i>lunata</i> W.Sm.	18
<i>C. mexicanum</i> Agerdhi	116,26
<i>C. microcephale</i> Grunow	23,27,45,72,78,90, 99,102,137,24,37,92, 93,94,95,91,141,56,58,57,127
<i>C. minuta</i> var. <i>minuta</i> Itilse	131,41,59
<i>C. minuta</i> var. <i>silesiaca</i> Reim	131
<i>C. naviculiformis</i> Auersw	102,25,26
<i>C. naviculiformis</i> var. <i>naviculiformis</i> Auersw	131
<i>C. obtusa</i> Gregory	21
<i>C. obtusiucula</i> Kutz.	102,93,95,91,141,3,26,58,57
<i>C. ovalis</i> Hisle	127
<i>C. parva</i> (W. Smith) Kitchn	73,99,102,10,10,94,53, 57, 127
<i>C. perpusilla</i> A.Cl.	102
<i>C. prostrate</i> (Hrek.) Cleve	18,78,102,24,92,93,94,56,58,29,127,146
<i>C. prostrata</i> var. <i>auerswaldii</i> (Rabenh.) Reim	18, 131
<i>C. prostrata</i> var. <i>genuina</i> A. Cleve	18
<i>C. prostrata</i> var. <i>prostrata</i> Cleve	131
<i>C. prostrata</i> var. <i>robusta</i> A. Cleve	18
<i>C. pusilla</i> Grunow	18,90,99,102,137,37, 102,92,93,95,91,141,58
<i>C. reinhardtii</i> Grunow	50
<i>C. rostrata</i> A.Mayer	18
<i>C. rupicola</i> var. <i>navicula</i> (E. Grun.) A. Cleve	73, 72
<i>C. rupicala</i> var. <i>rupicola</i> Grun	131
<i>C. sinuata</i> (Gregory) Cleve	30,73,,78,100,102,111, 110,102,95,58,57,29
<i>C. sumatrensis</i> Hustedt	45
<i>C. triangulum</i> Ehr	56

	<i>C. tumida</i> (Breb.) van. Heurck	18,21,34,45,51,63,73,100, 102,50,129,142,25,102, 92,93,94,95,91,41,53,57,59,146,148
	<i>C. turgida</i> (Greg.) Cleve	18,21,27,45,50,51,63, 73,72,99,102,137,1313,41,56
	<i>C. turgida</i> var. <i>genuina</i> Grunow	18
	<i>C. turgids</i> var. <i>obtusa</i> O.Mueller	18
	<i>C. ventricosa</i> Kuetzing	18,21,30,51,63,,67, 73,72,,77,90,100,102,135 ,24,28,37,102,92, 93,94,95,131,141,3,41,53,26,58 ,57,127
	<i>C. ventricosa</i> var. <i>genuins</i> Mayer	18
	<i>C. ventricosa</i> var. <i>semicircularis</i> (Lagst.) Cleve	18,30,73,124
	<i>C. ventricosa</i> var. <i>silesiaca</i> (Bleisch) A.Cleve	18,78,92
20	<i>Denticula antillarum</i> Cleve and Grunow	149
	<i>D. elegans</i> Kuetz	110,3,53,26,58,59
	<i>D. elegans</i> var. <i>kitttoniuana</i> Grun	131
	<i>D. rain</i> Sov.	23,26,45,63,90,37
	<i>D. subtilis</i> Grunow	34
	<i>D. tenius</i> var <i>tenuis</i> Kutz.	131
21	<i>Diatoma achauathis</i>	124
	<i>D. anceps</i> Ehr Kirchner	2,18,56,59,146
	<i>D. anceps</i> var. <i>linearis</i> M.peray	30
	<i>D. elongatum</i> (Lyngb.) Agardh	2,39,50,90,99,102,83, 140,10,24,25,28,37, 102,92,93,94,95,110 3,53,58,57,127
	<i>D. elongatum</i> var. <i>minor</i> Grun	102
	<i>D. elongatum</i> var. <i>valvire</i>	23
	<i>D. hiemale</i> (Roth) Heiberg	2,30,73,78,100,14,124,140,142,25,3,41,53, 56,58,60,146,148
	<i>D. hiemala</i> var. <i>mesodon</i> (Ehr.) Grun.	131,59
	<i>D. hiemale</i> var. <i>quadratum</i> (Kutz.) H.Ross	30,102
	<i>D. tenue</i> Agardh	30,78,99,137
	<i>D. tenue</i> var. <i>elongatum</i> Lyngbye	18,23,27,45,63,90,99,102,137,37,93,106
	<i>D. vulgare</i> Bory	2,17,30,34,39,46,50, 52,63,78,72,79,99,100,102,116,124,129,137,140,142,24,25,1 02,82,92,93,94,95,123,1102,141,41,53,57,60,117,127,146,14 8
	<i>D. vulgare</i> var. <i>breve</i> Grunow	2,78,100,81,59
	<i>D. vulgare</i> var. <i>grande</i> (W. Sm.) Grunow	131
	<i>D. vulgare</i> var. <i>linearis</i> V.H.	131
	<i>D. vulgare</i> var. <i>producta</i> Grunow	34,51,59
	<i>D. vulgare</i> var <i>ovalis</i> Hist	58
	<i>D. vulgare</i> var. <i>vulgare</i>	131,41
22	<i>Diatomella bustedtii</i> Manguin	44
23	<i>Didymosphenia geminata</i> (Lyng.) M. Schmidt	44
24	<i>Diploneis antiqua</i> A.Cleve	18,21
	<i>D. bombus</i> (Ehr.) Ehr. ex Cleve	13,118,149,14
	<i>D. dalmatica</i> (Grun.) Cleve	99
	<i>D. decipiens</i> A.Cleve	18
	<i>D. decipiens</i> var. <i>typica</i> A. Cleve	18

	<i>D. didmya</i> (Ehr.) Cleve	99,137
	<i>D. diplosticta</i> (Grun.) Hustedt	99
	<i>D. domblittensis</i> (Grun.) Cleve	18,99,137
	<i>D. elliptica</i> (Ktz.) Cleve	30,47,72,102,48,10
	<i>D. elliptica</i> var. <i>elliptica</i> Kutz	131
	<i>D. gemmata</i> (Grev.) Cleve	99
	<i>D. guinardiana</i> (Brun.) Cleve	99
	<i>D. nitescens</i> (Gregory) Cleve	149
	<i>D. oblongella</i> (Naeg.) Ross	27,30,34,45,67,90, 99,102,50,137
	<i>D. ovalis</i> (Hilse) Cleve	34,45,50,90,99,102, 50,137,10,14,24,28,37,93,94,95,141, 56,127
	<i>D. pantocsekii</i> Cleve	18
	<i>D. papula</i> (A.Schmidt)Cleve	99
	<i>D. placida</i> (Schmidt) Hustedt	99
	<i>D. pseudovalis</i> Hustedt	23,63,37,102,92, 93,94,95,141
	<i>D. pseudovalis</i> var. <i>pseudovalis</i> Hust.	131
	<i>D. puella</i> (Schum.) Cleve	18,21,90,102
	<i>D. puella</i> var. <i>puella</i> (Schumann) M.Peragallo	131
	<i>D. quinardiana</i> (Brun.) Cleve	99
	<i>D. serratula</i> (Grun) Hustdt	99
	<i>D. smithii</i> (Breb.) Cleve	47,50,99,10,65,127,146
	<i>D. smithii</i> var. <i>pumila</i> (Grun.) Hustedt	34,131
	<i>D. smithii</i> var. <i>recta</i> Pragallo	47
	<i>D. suborbicularis</i> (Greg.) Cleve	99
	<i>D. subovalis</i> Cleve	99,137
	<i>D. weisstlogii</i>	129,149
25	<i>Encyonema alpinum</i> (Grunow) D.G. Mann	16
	<i>E. caespitosa</i> Kützing	16
26	<i>Entomoneis paludosa</i> Romny	44
27	<i>Epithemia argus</i> (Ehr.) Kuetzing	21,72,90,102,50,10,53
	<i>E. argus</i> var. <i>intermedia</i> (Hilse) A.Mayer	18
	<i>E. emerginata</i> Andrews	99
	<i>E.muelleri</i> Fricke	102
	<i>E. smithii</i> var. <i>smithii</i> Carruthers	131
	<i>E. sorex</i> Kuetzing	23,34,63,90,,90,102,50,37,102,95,53,56
	<i>E. sorex</i> var. <i>perundulate</i> (Ktz.) Cleve	63
	<i>E. sorex</i> var. <i>sorex</i>	131
	<i>E. turgida</i> (Ehr.) Kuetzing	45,90,102,72,100
	<i>E. turgida</i> var. <i>granulata</i> Brunthalar	67
	<i>E. zebra</i> (Ehr.) Kuetzing	18,23,27,39,45,63, 90,90,102,37,102,95, 53,58
	<i>E. zebra</i> var. <i>porcellus</i> (Ktz.) Grunow	45,63,90,50,37
	<i>E. zebra</i> var. <i>proboscidea</i> (Ktz.) Grunow	18,21
	<i>E. zebra</i> var. <i>saxonica</i> Ktz.	63,90,50, 57
28	<i>Eunotia arcus</i> Her.	96, 41,57
	<i>E. carolina</i> Patr	44

	<i>E. flexuosa</i> Kutz	73
	<i>E. formica</i> Ehrenberg	45,63
	<i>E. formica</i> var <i>intermedia</i> Gran	44
	<i>E. gracilis</i> (Ehr.) Rabenhorst	21
	<i>E. lunaris</i> (Ehr.) Grunow	45,50
	<i>E. monodon</i> Ehrenberg	16
	<i>E. parallela</i> Ehr. var. <i>pseudoparallela</i> A.Cleve	18
	<i>E. pectinalis</i> Kuetz	57
	<i>E. pectinalis</i> var. <i>undulata</i> (Ralfs) Rabenhorst	45, 3
	<i>E. praerupta</i> Ehrenberg.	63,50
	<i>E. praerupta</i> var. <i>praerupta</i> Eh r.	131
	<i>E. valida</i> Hust.	96, 57
29	<i>Fragilaria acus</i> (Kuetz.)	102,94,95,58,57,147
	<i>F. arcus</i> Ehr.	56,147
	<i>F. brevistriata</i> Grunow	18,21,39,73,90,102,14,28,37,3,41,53,56
	<i>F. brevistriata</i> var. <i>inflata</i> (Pant.) Hustedt	23,45,73,74,72,90,73,41
	<i>F. capitata</i> Ehr.	95
	<i>F. capucina</i> Desmazieres	2,18,23,39,46,51,63, 98,102,105,142,90,25,37,131, 3,41, 127,146,148
	<i>F. capucina</i> var <i>mesolepta</i> Rabb	96
	<i>F. capucina</i> var. <i>gracilis</i> (Oster.) A.Cleve	18
	<i>F. critonesis</i> Kitton	127
	<i>F. construens</i> (Ehr.) Grunow	18,21,45,51,90,99,137, 25,102,92,94,95, 3,59, 60, 127,146,147
	<i>F. construens</i> var. <i>binodis</i> (Eh r.) Grunow	18,53
	<i>F. construens</i> var. <i>penguina</i> (Grun.)	18
	<i>F. construnes</i> var. <i>subsinalia</i> Hustedt	99,137,53
	<i>F. construens</i> var. <i>venter</i> (Eh r.) Grunow	78,53
	<i>F. crotonensis</i> Kitton	30,39,46,47,48,50, 67,99,137,3,41,53,56,59,60,127,146,147
	<i>F. frangilarioides</i> (Grun.) Choln	18,21,72
	<i>F. heidenii</i> Oster .	74,66
	<i>F. intermedia</i> Grunow	37,53,56,127
	<i>F. investiens</i> (W.Smith) A.Cleve	18
	<i>F. lapponica</i> Kitton	41
	<i>F. leptostauron</i> (Ehr.) Hustedt	72,50
	<i>F. leptostuaron</i> var. <i>dubia</i> (Grunow) Husd.	47
	<i>F. pinnata</i> Ehrenberg	23,27,45,50,72,90, 99,102,102,10,131,53,57
	<i>F. pinnata</i> var. <i>pinnata</i> Ehr.	131
	<i>F. producta</i> Lager	53
	<i>F. pulchella</i> (Ralfs ex Kützing) Lange-Bertalot	102,95
	<i>F. sinuata</i> Perag	56
	<i>F. tenuicollis</i> Heiberg	39
	<i>F. ulna</i> (Nitzsch) P.Compère	25,102,94,95,141,58
	<i>F. vaucheriae</i> (Ktz.) Boye-Peters	18,42,63,73,78,90,102,111,102,92,93,95,131, 41,56,58

	<i>F. vaucheriae</i> var. <i>distana</i> (Grun.) Van Heurck	72
	<i>F. vaucheriae</i> var. <i>genuina</i> (Grun.) A.Cleve	18
	<i>F. vaucheriae</i> var. <i>parvula</i> A.Cl.	78
	<i>F. virescens</i> Ralfs	50,99,137,134,41,43,56,127
	<i>F. virescens</i> var <i>capitata</i> Ostr.	44
30	<i>Frustulia</i> Agardhi	116
	<i>F. rhomboides</i> (Ehr.) De Toni	78,41,56
	<i>F. vulgaris</i> (Thwaites) De Toni	67,73,78,100,102,81,56
	<i>F. vulgaris</i> var. <i>parva</i> A. Cleve	78,53,59
31	<i>Gephyria media</i> Arnott	149
32	<i>Gomphoneis olivaceum</i> (Horne,) P. Dawson ex Ross et Sims.	2,30,39,46,47,48,50, 63,78,90,,99,100,102,137, 90,24,37,102,94,95,133
	<i>G. herculaeana</i> (Her.) Cleve	97
	<i>G. lanceolatum</i> var <i>turris</i> (Ehr) Hust.	97
	<i>G. subtile</i>	97
33	<i>Gomphonema abbreviatum</i> C.Agardh	59,127
	<i>G. acuminatum</i> Ehrenberg	21,51,63,78,99,130,137,1102,3,41,56,127
	<i>G. acuminatum</i> var. <i>brebissoni</i> (Ktz.) Schonf	18,51,130
	<i>G. acuminatum</i> var. <i>coronata</i> (Ehr.) W.Smith	80,56,59
	<i>G. acuminatum</i> var. <i>turris</i> (Ehr.) Cleve	130
	<i>G. affine</i> Kützing	16, 56
	<i>G. angustatum</i> (Ktz.) Rabenhorst	34,50,52,67,73,72,78,100,102, 135,142,10,102,92,93,94, 95,141,3,53,58,57, 90,127,146
	<i>G. angustatum</i> var. <i>angustatum</i> Kuetz.	131
	<i>G. angustatum</i> var. <i>clinostriatum</i> A.Cleve	73
	<i>G. angustatum</i> var. <i>productum</i> Grunow	34,47,78,129,3,41,53, 56,59
	<i>G. augur</i> Ehrenberg	45,67,72
	<i>G. augur</i> var <i>guatieri</i> Van Heurck	96
	<i>G. brasilinies</i> Lyngbya	3
	<i>G. clevei</i> Fricke	30
	<i>G. constrictum</i> Ehrenberg	21,51,67,73,100, 111,130,25,102,94,95,131,41,53,56,127
	<i>G. constrictum</i> var. <i>capitata</i> (Ehr.) Grunow	34,45,63,67,72,78,111,130,142, 102,92,93,95,41,53
	<i>G.distortatum</i> var <i>parkeri</i> (Harrison) Cleve	18
	<i>G. exigue</i> Ehr	127
	<i>G. fanesis</i> Maillard	127
	<i>G. gracile</i> Ehrenberg	27,45,63,67,90,102,28,37, 56,58
	<i>G. gracilis</i> var. <i>lanceolata</i> Kutz.	41
	<i>G. gracile</i> fo. <i>turris</i> Hustedt	63
	<i>G. grunowii</i> Part.	2,18,39,47,50,67,73,78,99,100, 102, 111,129,137
	<i>G. helveticum</i> Brun.	78,90,102,130
	<i>G. herculeana</i> (Ehrenberg) Cleve	116
	<i>G. intricatum</i> Kuetzing	92,95,120,41,58,59
	<i>G. intricatum</i> var. <i>lunata</i> nov.	45

	<i>G. intricatum</i> var. <i>pulvinatum</i> (A.Braun) Grunow	73
	<i>G. intricatum</i> var. <i>pumila</i> Grunow	63,73,78,102
	<i>G. kuetzingii</i> (Grun.) Cleve	18
	<i>G. lagerheimi</i> A.Cleve	18,21,47,102,129
	<i>G. lanceolatum</i> Ehr.	25,41,56
	<i>G. lanceolatum</i> fo. <i>turris</i> (Ehrenberg e.p.) Hustedt	45,63,90,37
	<i>G. longiceps</i> Ehr.	102
	<i>G. montanum</i> Schum.	45
	<i>G. montanum</i> var. <i>acuminatum</i> Mayer	45
	<i>G. montanum</i> var. <i>medium</i> Grunow	63
	<i>G. montanum</i> var. <i>turriforme</i> Cleve	45
	<i>G. olivaceum</i> Langby	24,92,93,94,141,3,41,56,58,57,59,127
	<i>G. olivaceum</i> var. <i>balticum</i> A.Cleve	18,21
	<i>G. olivaceum</i> var. <i>calcareo</i> Cleve	48, 102
	<i>G. olivaceum</i> var. <i>minutissima</i> Hustedt	16
	<i>G. olivaceum</i> var. <i>subramosum</i> (Ktz.) Grunow	73
	<i>G. olivaceum</i> var. <i>olivaceum</i> Kutz.	131
	<i>G. olivaceum</i> var. <i>thumii</i> Fricke	102
	<i>G. parvulum</i> (Ktz.) Kuetzing	18,45,63,73,72,78,100, 102,116,142,24,38,92,93,94,95,106,41, 56,58,59,127,146
	<i>G. parvulum</i> var. <i>exilissimum</i> (Grun.) Van Heurck	18
	<i>G. parvulum</i> var. <i>micropus</i> (Ktz.) Cleve	42,78,102
	<i>G. parvulum</i> var. <i>subramosum</i> (Kg.) Grunow	73
	<i>G. septentrionalis</i> Agardhi	116
	<i>G. sphaerophorum</i> Ehr.	96, 56
	<i>G. subclavatum</i> (Grunow) Grunow	56
	<i>G. tergestinum</i> (Grun.)	141,56,58
	<i>G. turris</i> Ehrenberg	130
	<i>G. truncatum</i> var <i>capitatum</i> Ehr	56,59
	<i>G. ventricosum</i> Gregory	72
34	<i>Gomphonitzschia clevei</i> Grunow	90,98,129,37
	<i>G. ungeri</i> Grunow	52
35	<i>Gomphotheca sinensis</i> (Skyortzow) Hende and Sims	149
36	<i>Grammotophora hamulifera</i> Kuetzing	99
	<i>G. marina</i> (Lyng.) Kuetzing	13,99
	<i>G. undulata</i> Ehrenberg	99
37	<i>Gyrosigma acuminatum</i> (Ktz.) Rabenhorst	18,23,39,45,46,47,48,50,99,38,137,10,38,92, 95,141,3, 41,53,56, 58,29,127,127,148
	<i>G. acuminatum</i> var. <i>acuminatum</i> Kuetz	131
	<i>G. acuminatum</i> var. <i>brebissonii</i> (Grun.) A.Cleve	18

	<i>G. attenuatum</i> (Ktz.) Rabenhorst	18,34,48,50,51,52,63,73,90,38,134,135,37,3,53,56
	<i>G. attenuatum</i> var. <i>typicum</i> A. Cleve	18,21,90,98
	<i>G. balticum</i> (Ehr.) Cleve	13,23,63,10
	<i>G. distortum</i> (W.Smith) Griff. Et Henfr.	90,37
	<i>G. distortum</i> var. <i>parkeri</i> (Harrison)Cleve	131
	<i>G. eximium</i> (Thwa.) Bayar	90, 137
	<i>G. eximium</i> var. <i>eximium</i> Thwaltes	131
	<i>G. fasciola</i> (Eh r.) Griff et Henfr.	99, 137
	<i>G. kuetzingi</i> Grun	37, 59
	<i>G. macrum</i> (W.Smith) Griff et. Henfr.	72,118,93,95,41,53
	<i>G. nodiferum</i> (Grun.) Reim.	34,67,73,72,105
	<i>G. obscurum</i> (W.Smith) Griff. and Henfr.	45,90,37
	<i>G. peisonis</i> (Grun.) Hustedt	23,38,92,93,95,141, 58, 127
	<i>G. rectum</i> var. <i>minutum</i> (Donk.) Cleve	67
	<i>G. scalproides</i> (Rabenhorst) Cleve	2,47,67,73,38,44,59,146
	<i>G. spencerii</i> (Quek.) Griffith et Henfey	18,21,48,51,78,90,99,38,116, 137,142,93,95,141,41,58
	<i>G. spenceri</i> var. <i>nodifera</i> Grunow	34,50,52,63,38,134,135,59
	<i>G. strigilis</i> (W.Smith) Griff et. Henfr.	45,46,47,10
	<i>G. tenuirostrum</i> (Grun.) Cleve	34,45,52,67,79,90,37
	<i>G. terryannum</i> Cleve	10
	<i>G. wansbeckii</i> (Donk.) Cleve	47
38	<i>Hannaea arcus</i> (Ehr.) Patrick	30,48,38
39	<i>Hantzschia amphioxys</i> (Ehr.) Grunow	18,21,30,39,46,47,48,73,72, 78,90,99,100,38,111,130,129,137, 140,139,141,37,38,92,93, 94,95,131,141,3,53,56,58,57,146
	<i>H. amphioxys</i> var. <i>capitata</i> Mueller	18,59
	<i>H. amphioxys</i> var. <i>major</i> Grun	38,53
	<i>H. amphioxys</i> <i>prolongata</i> A.Cleve	18
	<i>H. amphioxys</i> var. <i>vivax</i> Grunow	130
	<i>H. linearis</i> (O.Muel.) A.Cleve	18, 21
	<i>H. spectabilis</i> (Ehr.) Hustedt	67
	<i>H. virgata</i> (Roper)	95
40	<i>Haslea crucigera</i> (W.Smith) Simonsen	99, 137
41	<i>Hippodonta capitata</i> (Ehrenberg) Lange-Bertalot, Metzeltin et Witkowski	16
	<i>H. hungarica</i> (Grunow) Lange-Bertalot	16
42	<i>Luticola</i> cf. <i>saxophila</i> (Bock) D.G. Mann	16
43	<i>Mastogloia apiculata</i> W.Smith	99
	<i>M. braunii</i> Grunow	23,34,45,63,67,72,90,99,38, 118,130,129,137,149,10,28,37,38,95
	<i>M. cocconiformis</i> Grunow	99
	<i>M. corsicana</i> Grunow	99

	<i>M. elliptica</i> (Ag.) Cleve	18,34,46,47,48,50,99,130, 137,10,37,127
	<i>M. elliptica</i> var. <i>dansei</i> (Thw.) Cleve	(23,34,45,47,63,72,90,118,130)
	<i>M. fimbriata</i> (Brightw.) Cleve	99
	<i>M. gilbertii</i> A.Schmidt	99
	<i>M. grunowii</i> A.Schmidt	99
	<i>M. laminaris</i> (Eh r.) Grunow	99
	<i>M. lanceolata</i> Thw. Ex W.Sm.	129
	<i>M. muradi</i> Voigt	10, 53
	<i>M. pumilla</i> (Grun.) Cleve	23,34,67
	<i>M. quinquecostata</i> Grunow	99
	<i>M. recta</i> Hustedt	10
	<i>M. smithii</i> Thw. Ex W.Sm.	23,48,50,63,99,38,120,130,137, 10,28,38,95,140,41,56, 58
	<i>M. smithii</i> var. <i>amphicephale</i> Grunow	18,34,45,47,48,63,73,90,38,129,37,131
	<i>M. smithii</i> var. <i>lacustris</i> Grunow	18,23,34,45,46,63,67,72,90,6,38,130, 120,37
	<i>M. splendida</i> (Greg.) Cleve	99
	<i>M. undulata</i> Grunow	50,99
44	<i>Meridion circulare</i> Agardh	30,39,78,38,53,56,59
	<i>M. circular</i> var <i>constricta</i> Ralf	53
45	<i>Navicula americana</i> Ehr.	73
	<i>N. amphigomphus</i> Ehrenberg	3
	<i>N. anglica</i> Ralfs	18,38,92,95,131,141,56,58
	<i>N. anglica</i> var. <i>genuina</i> Grunow	18
	<i>N. anglica</i> var. <i>laponica</i> A.Cleve	18
	<i>N. anglica</i> var. <i>subsulsa</i> (Grun)	131
	<i>N. asymbisia</i> Now.	56
	<i>N. atomus</i> (Ktz.) Grunow	63,90,37,41,57
	<i>N. bacillum</i> Ehrenberg	99,38,130,129,137,58,57
	<i>N. bicephala</i> Hus.t	56
	<i>N. brevisriata</i> (Grun.)	127
	<i>N. bryophilla</i> J.B.Petersen	59
	<i>N. buccalla</i> Nov.	27,45,90,37
	<i>N. bulnheimii</i> Grunow	38
	<i>N. canalis</i> var. <i>canalis</i> Patr.	118,41,56,146,147
	<i>N. cancellata</i> var. <i>scaldensis</i> van Huerck	149
	<i>N. capitata</i> Ehr.	39
	<i>N. capitata</i> var. <i>capitata</i> (Ehr.)	131
	<i>N. capitata</i> var. <i>hungarica</i> R.Ross	38,131
	<i>N. capsidata</i> var. <i>capsidata</i> Kutz	131
	<i>N. cari</i> Ehrenberg	34,50,51,38
	<i>N. cari</i> var. <i>cincta</i> (Ehr.) Lange-Bartalot	27,45,90,38
	<i>N. carinifera</i> Grunow	129

<i>N. cincta</i> var. <i>houfleri</i> Grunow	45
<i>N. cincta</i> (Ehr.)	37,53,127
<i>N. cocconiformis</i> Gregory	129
<i>N. converfacae</i> (Ktz.) Grunow	99
<i>N. converfacae</i> var. <i>converfacae</i> Kutz.	131
<i>N. confonacae</i> Bory	116
<i>N. contenta</i> var. <i>biceps</i> Arn.	131
<i>N. crucicula</i> (W.Smith) Donkin	34,38,81,95,58,127
<i>N. cryptocephale</i> Kuetzing	50,52,67,78,99,100,38,116,137, 87,24,25,38,92,93,94, 95,141,3,741,53,56,58,57,127,147
<i>N. cryptocephale</i> var. <i>excilis</i> (Ktz.) Grunow	78,102
<i>N. crptocephale</i> var. <i>intermedia</i> Grunow	45,63,78,90,37,93
<i>N. cryptocephale</i> Ktz. fo. <i>minuta</i> Boy-p	23,45,63,90,37,41,127
<i>N. crptocephlae</i> var. <i>veneta</i> (Ktz.) Cleve	18,21,34,51,73,78,90,100,102,819,,37, 38,92, 93,95,141,58,59
<i>N. cuspidata</i> (Ktz.) Kuetzing	18,21,27,45,63,72,102,130,25,141,41,53,56,58, 127,141
<i>N. cuspidata</i> var. <i>ambigua</i> (Ehr.) Cleve	67,78,100,102,130,129,41,59
<i>N. cuspidata</i> var. <i>genuine</i> Cleve	41
<i>N. cuspidata</i> var. <i>genuina</i> fo. <i>raticula</i> A.Cleve	18
<i>N. cuspidata</i> var. <i>heribaudii</i> Peragallo	45,72,141
<i>N. cuspidata</i> var. <i>major</i> Meist	72,25
<i>N. cymbula</i> Donk.	129
<i>N. dicephala</i> var. <i>neglecta</i> (Krasske) Hust.	102
<i>N. decussis</i> Oestrup	92,93
<i>N. dicephala</i> Ehrenberg	127
<i>N. digito-radiata</i> (Greg.) Ralfs	102,127
<i>N. distans</i> (W.Smith)	13
<i>N. dubia</i> W. Smith	16
<i>N. elegans</i> W. Smith	44
<i>N. elegantula</i> Grunow	16
<i>N. engmatica</i> Germain	127
<i>N. exigua</i> Grun	102,56
<i>N. exigua</i> var. <i>exigua</i> Greg.	131
<i>N. falaisiensis</i> Grun.	102
<i>N. faoensis</i> Grun.	129
<i>N. follis</i> (Ehr.)	25
<i>N. fraglaroides</i> Krasska	3,53
<i>N. fusca</i> Greg.	25
<i>N. fusiform</i> Grunow	25
<i>N. gastrum</i> (Ehr.) Kuetzing	50,10
<i>N. gergaria</i> var. <i>gergaria</i> Donk	131,3,53
<i>N. gibbula</i> Cleve	102,3
<i>N. gottlandica</i> Grun.	102

<i>N. gracilis</i> (Ehr.)	24,102,92,93,94, 95,141,99,58,59
<i>N. graciloides</i> A. Mayer	45,65,56
<i>N. graciloides</i> var. <i>gracilis</i> (Ehrenberg) Hustedt	23
<i>N. gregaria</i> Donkin	102
<i>N. gregaria</i> var. <i>thurholmeinsis</i> (J.Dannf.) Cleve	18,21
<i>N. grimmei</i> Krasske	78,102,127
<i>N. graschopfii</i> Hust	41
<i>N. gysingensis</i> Foged	41
<i>N. halophila</i> (Grun.) Cleve	45,67,99,102,165,10, 41,56,127
<i>N. halophila</i> var. <i>minor</i> Tuffen	45
<i>N. halophila</i> var. <i>robusta</i> fo .subcapitata Oestrup.	45
<i>N. hungarica</i> Grunow	131,56,57
<i>N. heufleri</i> Grunow	73,72,102,118
<i>N. humerosa</i> de Brebisson	99,10,41
<i>N. koiei</i> Foged	78
<i>N. inflata</i> Donk	28,65
<i>N. iridis</i> Her	25
<i>N. imbricata</i> Block	97
<i>N. laevissima</i> Kutz	56
<i>N. lanceolata</i> (Ag.) Kuetzing	18,46,47,48,73,78,102,10,24,94,53
<i>N. lanceolata</i> var. <i>genuina</i> A.Cleve	18
<i>N. laterostarata</i> Hustedt	23,27,45,90,72,100
<i>N. laterostrata</i> var. <i>laterostrata</i> Hustedt	131
<i>N. liburnuca</i> Grun.	145
<i>N. mair</i>	3
<i>N. minima</i> Grunow	87
<i>N. lyroides</i> Hendey	13,14
<i>N. menisculus</i> Schumann	78,102
<i>N. menisculus</i> var. <i>obtusa</i> Hustedt	78
<i>N. menisculus</i> var. <i>upsaliensis</i> Grunow	73,72,56
<i>N. minuscula</i> Grunow	102
<i>N. minuta</i> (Cl.) A.Cleve	18
<i>N. minuta</i> var. <i>genuina</i> A.Cleve	18
<i>N. mobiliensis</i> var. <i>minor</i> Patr.	73
<i>N. monilifera</i> Cleve	102
<i>N. muralis</i> var. <i>muralis</i> Grun	131
<i>N. mutica</i> Kuetzing	34,73,78,102,3
<i>N. mutica</i> var. <i>binodis</i> Hustedt	18,21
<i>N. mutica</i> var. <i>cohnii</i> (Hilse) Grunow	102
<i>N. mutica</i> var. <i>nivalis</i> (Ehr.) Hustedt	102,129

<i>N. mutica fo. undulata</i> (Hilse) Cleve	63,90,65,3
<i>N. mutica var. ventricosa</i> (Kutz.) Cleve et Gran	34,67
<i>N. notha</i> Wallace	41
<i>N. nyassensis</i> Muller	56
<i>N. oblonga</i> (Ktz.) Kuetzing	23,45,90,102,50,65
<i>N. paludosa</i> Husted	56
<i>N. parva</i> (Menegh.) Cleve	23,63,90,65,38,92,93,95,58
<i>N. peculiarasis var. arabica var. nov</i>	13
<i>N. pelliculosa</i> (Ktz.) Hilse	102,41
<i>N. perrotettii</i> (Grun.) Grunow	45,63,50,129
<i>N. perpusilla</i> Grun	53
<i>N. phyllepta</i> (Kuetz.)	24,94,3,53,127
<i>N. pinnularia</i> Ehr.	97
<i>N. placentula</i> (Ehr.) Grunow	45,10,57,127
<i>N. placentula var. placentula</i> Ehr	131
<i>N. placentula f. rostrata</i> (A. Mayer) Hustedt	45,50
<i>N. protracta var. subcaptita</i> (Wisl. and Por.) Hustedt	50,56,57
<i>N. psuedohaphila</i> Holonoky (32)	32
<i>N. psuedotuscula</i> Hustedt	63,38,41
<i>N. punctata var. coarctata</i>	27
<i>N. pupula</i> Kuetzing	18,30,73,100,102,111,50,131, 3,53,59,127
<i>N. pupula var. capitata</i> Skv. Et. Mayer	45,78,50,56
<i>N. pupula var. pupula</i> Kutz.	131
<i>N. pupula var. rectangularis</i> (Greg.) Grunow	45,131,56
<i>N. pusilla</i> W.Smith	10,25,141
<i>N. pygmaea</i> Kuetzing	27,34,45,50,52,73,72,99,100,102,50,129,165,50,136,3
<i>N. radiosa</i> Kuetzing	27,30,39,45,63,67,73,72,,78,90,99,100,102,50,165,25, 28,38,10,141,53, 56,58,12, 59,141
<i>N. radiosa var. cuneata</i> Cleve	131
<i>N. radiosa var. radiosa</i> Kutz	129
<i>N. radiosa var. tenella</i> (Breb.) Grunow	27,34,45,73,102,50,131,3,53
<i>N. reinhardtii</i> Grunow	102
<i>N. ramosissima</i> Ag	53
<i>N. retusa var. cancelata</i> (Donk.) R. Ross comb. Nov.	149
<i>N. rhombicula</i> Hustedt	149
<i>N. rhycocephala</i> Kuetzing	39,45,50,63,90,99,102,129,165,25,28,65,122, 3,56,58,57,59
<i>N. rhycocephala var. ampiceros</i> (Ktz.) Grunow	30
<i>N. rhycocephala var. rhycocephala</i> Kutz.	131
<i>N. rotellata</i> Kuetz	56

<i>N. salinarum</i> Grunow	30,50,52,73,78,99,102, 129,165,135,136,10
<i>N. salinarum</i> var. <i>capitata</i> Schuiz	65
<i>N. salinarum</i> var. <i>intermedia</i> Krasske	73,102
<i>N. sabinina</i> A.G.C.	44
<i>N. santaecrucis</i> (41)	41
<i>N. saxophilla</i> Bock	41
<i>N. schroeteri</i> Meister	45,102,37,141
<i>N. similis</i> Krasske	102,56
<i>N. simula</i> Patr	56
<i>N. simpler</i> Krasske	57
<i>N. sohernsis</i> (127)	127
<i>N. soodensis</i> Krabke	97
<i>N. sphaerophora</i> (Ehr .) Pfitz	18
<i>N. spicula</i> (Hickie) Cleve	23,27,41,90,102,28,58
<i>N. subhamelata</i> var. <i>subhamelata</i> Grun	131,3
<i>N. subhyalina</i> A.Cleve	18
<i>N. submolesta</i> Hust.	39
<i>N. subtilissima</i> Hus	41
<i>N. symmetrica</i> var. <i>symmetrica</i> Pat.	131
<i>N. tenera</i> Hustedt	45
<i>N. travials</i> Betalot	53
<i>N. tripunctata</i> (O.F.Muell)Bory (as <i>N. gracilis</i> Her.)	45,78,102,129,56
<i>N. tripunctata</i> var. <i>schizonemoides</i> (Van Heurck) Patr	2,30,73,72,111
<i>N. trivilis</i> Lange-Bertalat	97
<i>N. tuscula</i> Eh r.	18,21,38,93,95,141,58
<i>N. tuscula</i> var. <i>capitata</i> (Font.) A.Cleve- Euler	18
<i>N. tuscula</i> fo. <i>Obtusa</i> Hust.	102
<i>N. viridis</i> Kuetz.	25
<i>N. viridula</i> (Ktz.) Ehr	50,99,102,137,3
<i>N. viridula</i> var. <i>rostellata</i>	27,45,90,25,37
<i>N. viridula</i> var. <i>slevicensis</i> (Grun.) Cleve	78
<i>N. vitrea</i> (Oester .) Hustedt	102
<i>N. zanoni</i> Hustedt	69, 56
56- <i>Neidium affine</i> (Ehr.)Pfitz.	18,21,51,130
<i>N. binode</i> (Ehr.) Hust	97, 127
<i>N. dubium</i> (Ehr.) Cleve	100,102,129,142,59,146
<i>N. dubium</i> var <i>constricta</i> Hustedt	59
<i>N. iridis</i> (Ehr.) Cleve	45,130
<i>N. iridis</i> var. <i>ampliatum</i> (Ehr.) Cleve	102
<i>N. productum</i> (Smith)Cleve	97, 57

46	<i>Nitzschia acicularis</i> (Ktz.) W.Smith	18,21,23,27,30,45,46,47,48,73,72,100,102,129,142,24,25,37,38,88,92,94,95,123,131,138,142, 41,58,127
	<i>N. acuminata</i> (Smith) Grun.	44, 41
	<i>N. acicularis</i> W. Sm.	59,127
	<i>N. acuta</i> Hantzsch	50,58,138,59
	<i>N. amphibia</i> Grunow	23,27,34,45,50,52,63,73,72,59,100,102,111,118,120,130,134,135,24,37,38,92,94,95,142,3,53,56,57, 127
	<i>N. amphioxys</i> (Ehr.) Grun	78,59
	<i>N. angustata</i> (W.Smith) Grunow	18,21,102,38,95,142,56, 58
	<i>N. angustata var. acuta</i> Grunow	47,102
	<i>N. apiculata</i> (Greg.) Grunow	23,27,30,48,45,47,63,72,78,59,97,102,83,24,37,38,92,94,95,131,142,41,56, 58,59
	<i>N. bilobata</i> W.Smith	102
	<i>N. circumscuta</i> (Bail.) Grunow	45,63,59,98
	<i>N. clausii</i> Hantzsch	102,95,142,58
	<i>N. closterium</i> (Ehr.) W.Smith	13,27,45,50,58,102,83,10
	<i>N. cocconeiformis</i> Grunow	149,25
	<i>N. commutata</i> Grunow	50,51,102,134,10,95,3,53, 58,127
	<i>N. constricta</i> (Ktz.) Ralfs	18
	<i>N. constricta var. genuina</i> Grunow	18,21,41
	<i>N. delicatissima</i> (Cleve) Heiden	41
	<i>N. denticula</i> Grunow	30,78,102,14,56,59
	<i>N. dissipata</i> (Ktz.) Grunow	2,18,30,51,63,73,78,59,100,102,129,142,24,37,38,92,94,95,142,41,56,58,57,59,127,146
	<i>N. dissipata var. genuina</i> A.Cleve	18
	<i>N. dubia</i> W.Smith	102,81,24,92,94,53
	<i>N. elliptica</i> Herrib	56
	<i>N. fasciculata</i> (Grun.) Grunow	34,63,67,59,129,25,95,120, 41
	<i>N. filiformis</i> (W.Smith)Van Heurck	23,45,48,63,72,59,67,25,37
	<i>N. fonticola</i> Grunow	23,63,78,90,100,37
	<i>N. fonticola var. romana</i> Grun. A.Cl.	78
	<i>N. frustulum</i> (Ktz.) Grunow	23,63,78,90,102,38,92,94,95,142,41,58, 57
	<i>N. frustulum var. perminuta</i> Grunow	37
	<i>N. frustulum var. perpusilla</i> Grunow	37
	<i>N. gandersheimiensis</i> Krasske	18
	<i>N. gracilis</i> Hantzsch	18,21,23,27,45,102,45,37,38,92,95,142, 57,127
	<i>N. gracilis var. densior</i> A.Cleve	18
	<i>N. grandig</i> Kitton	129
	<i>N. granulata</i> Grunow	18,23,27,45,63,90,129,144,59
	<i>N. hantzschiana</i> Rabenhorst	18,46,127
	<i>N. hantzschiana Var. genuina</i> A.Cleve	18
	<i>N. heufleriana</i> Gran .	102
	<i>N. holsatica</i> Hustedt	102

<i>N. hungarica</i> Grunow	23,27,34,63,72,78,90,102,118,129,10,24,37,38,94,95,131,142,41,56,58,57,59,127
<i>N. hustediana</i> Salah	23,45,90,37
<i>N. hybrida</i> Grunow	50,52,102,129,135
<i>N. ignorata</i> Krasske	45,90,24,37,94,56,57
<i>N. intermedia</i> Hantzsch ex Cleve et Grun.	18,45,102,24,94,142,56,127
<i>N. kuetzingiana</i> Hilse	66
<i>N. lacunarum</i> Hustedt	131,56
<i>N. levidensis</i> Grun	56
<i>N. linearis</i> W.Smith	2,30,47,48,73,78,100,102,134,141,24,25,92,94,181,3,53,56,127,146
<i>N. lottoralis</i> Grunow	45,90,37
<i>N. longissima</i> (Breb.) Ralfs	13,23,27,39,45,10,14,25,37,95,142,58
<i>N. longissima</i> var. <i>closterium</i> (W.Smith) Heurck	13,18
<i>N. longissima</i> var. <i>reversa</i> Grunow	18,51
<i>N. lorenziana</i> Grunow	13,18,45,90,129,95,142
<i>N. lorenziana</i> var. <i>subtilis</i> Grunow	63,58
<i>N. macilenta</i> Gregory	18,21
<i>N. microcephala</i> Grunow	23,63,90,102,28,37,38,92,94,95,142,58,57
<i>N. navicularis</i> (Breb. ex Ktz.) Grun.	47,129
<i>N. niobarica</i> Grunow	149
<i>N. obtusa</i> W.Smith	18,34,45,47,50,52,90,102,21,10,24,37,102,94,95,142,41,58
<i>N. obtusa</i> var. <i>scalpelliformis</i> Grunow	34,90,102,129,37,41,59
<i>N. palea</i> (Ktz.) W.Smith	2,18,23,27,30,34,41,45,50,63,73,71,79,90,100,102,95,28,142,102,95,38,37,24,88,94,95,127,131,142,3,41,53,56,58,57,59,122,146
<i>N. paleacea</i> (Grunow)	34,45,47,102,37,53,127
<i>N. panduriformis</i> Gregory	34,129
<i>N. paradoxc</i> (Gmel.) Grun.	144
<i>N. parvula</i> W.Sm	78,102,131,56
<i>N. punctata</i> (W.Smith) Grunow	18,21,34,47,48,98,102,129,37,38,95
<i>N. punctata</i> var. <i>coarctata</i> Grunow	23,27,45,63,90,129
<i>N. pusilla</i> (Ktz.) Gruno	18,23,27,34,45,67,78,102,129,37,94,127
<i>N. ramososa</i> Buker	59
<i>N. recta</i> Hantzsch ex Rabenh.	102,129,59,127
<i>N. retusa</i> Lange-Bertalot et Bonik	102,38,95,142
<i>N. romana</i> Grunow	102,59,127
<i>N. rostellata</i> Hustedt	24,94,127
<i>N. scalaris</i> W.Smith	45,50,52,90,130,129,135,37
<i>N. seriata</i> Cleve	13,118,14,41
<i>N. sigma</i> (Ktz) W.Smith	23,34,39,45,47,50,51,90,99,129,134,21,37,41,57
<i>N. sigma</i> var. <i>major</i> Grunow	18

	<i>N. sigma var. rigida</i> (Ktz.) Grunow	18
	<i>N. sigma var. rigidula</i> Grunow	63,90,102
	<i>N. sigmoidea</i> (Ehr.) W.Smith	23,34,45,47,48,51,52,21,67,73,78,99,102,130,129,10, 137,134,87,24,25,37,94, 95,142,3,56,58,57, 59
	<i>N. sina var. rigidula</i> Grunow	102
	<i>N. sinuata</i> (Thw. Ex W.Sm.)Grun.	78,102,56
	<i>N. sinuata var. tabellaria</i> (Grun.) Grunow	102,59
	<i>N. spathulata</i> (Brebison)	13,14
	<i>N. spectabilis</i> (Ehr.) Ralfs	18,99,137,57
	<i>N. spectabilis var. genuina</i> A.Cleve	18
	<i>N. stagnorum</i> Rahb.	10,24,25,58
	<i>N. subcapitellata</i> Hustedt	70,71
	<i>N. sublinearis</i> Hustedt	78
	<i>N. subvitrea</i> Hust.	102
	<i>N. thermalis</i> Kuetzing	34,47,67,78,102
	<i>N. thermalis var. intermedia</i> Grun.	102
	<i>N. thermalis var. minor</i> Hilse	102
	<i>N. tridentula</i>	59
	<i>N. tryblionella</i> Hantzsch	18,34,45,50,52,63,72,99,102,130,134,165,134,131,24,37, 94,95,21,131,142,41
	<i>N. tryblionella</i> F. Minor	70,71
	<i>N. tryblionella var. calida</i> Grunow	102
	<i>N. tryblionella var. crassa</i> (Pant.) A.Cleve	18,21
	<i>N. tryblionella var. debilis</i> A Mayer	45,102
	<i>N. tryblionella var. levidensis</i> (W.Smith) Grunow	45,90,132
	<i>N. tryblionella var. salinarum</i> Grunow	102
	<i>N. tryblionella var. victoriae</i> (Grun.) Grunow	34,63,90,102,129
	<i>N. umbonate</i> (Ehrenberg) Lange-Bertalot	34,48,50,52,90,135,37
	<i>N. valida</i> Cleve and Grun.	149
	<i>N. vermicularis</i> (Ktz.) Hantzsch	18,21,39,48,10,14
	<i>N. viridula</i>	59
	<i>N. vitrea</i> Norman	102
47	<i>Opephora martyi</i> Heribaud	48,59,146
48	<i>Parlibellus crucicula</i> (W. Smith) Witkowski	16
49	<i>Peronia intermedium</i> Comber	41,127
	<i>P. fabula</i> Ross	53,127
50	<i>Petroneis plagiostoma</i> (Grunow) D.G. Mann	16
51	<i>Pinnularia abaujensis var rostrata</i> Patr	56
	<i>P. acorcola</i> Hustedt	10
	<i>P. acrosphaeria</i> RAbenhorst	131
	<i>P. acuminata var. acuminata</i> W.Smith	131
	<i>P. appendiculata</i> (Ag.) Cleve	45,102,53

	<i>P. appendiculata</i> var. <i>budensis</i> Grunow	102
	<i>P. biceps</i> Gregory	18,50,99,102,137
	<i>P. borealis</i> Ehrenberg	102,129,56
	<i>P. borealis</i> var. <i>lanceolata</i> Hust.	102
	<i>P. braunii</i> Grun	56
	<i>P. brevissonii</i> (Ktz.) Rabenhorst	45,63,73,78,100,102,129,90,53
	<i>P. cuneata</i> Grun.	145
	<i>P. divergens</i> Smith	44
	<i>P. divergentissima</i> var <i>brevissonii</i> (Grunow) Cleve	59
	<i>P. gentilis</i> (Donk.) Cleve	45,102
	<i>P. globiceps</i> Greg	32
	<i>P. hemiptera</i> (Ktz.) Cleve	44
	<i>P. interrupta</i> var. <i>schmidtii</i> A.Cl. f. <i>typica</i> A. Cleve	18
	<i>P. lata</i> (Breb.) W.Smith	102
	<i>P. legumen</i> (Ehrenberg) Ehrenberg	16
	<i>P. leptosoma</i> (Grun.) Cleve	78,102
	<i>P. lundii</i> Kustedt	95,58
	<i>P. macrum</i> Smith	145
	<i>P. major</i> (Ktz.) W.Smith	48,50,99,102,137
	<i>P. mesolepta</i> var. <i>mesolepta</i> Eh r.	131
	<i>P. microstauron</i> (Ehr.) Cleve	102,50,56
	<i>P. nobilis</i> (Ehrenberg) Ehrenberg	16
	<i>P. stomatophora</i> var. <i>stomatophora</i> Grun.	131,53
	<i>P. streptoraphe</i> Cleve	16
	<i>P. subcapitata</i> var. <i>hilseana</i> (Jan.)O. Mull	102
	<i>P. substomatophora</i> Hustedt	73
	<i>P. undulata</i> Gregory	99,137
	<i>P. viridis</i> (Nitzsch) Ehrenberg	50,99,130,102,137, 41,53,56
52	<i>Placoneis constans</i> (Hustedt) E.J. Fox	16
53	<i>Plagiotropis lepidoptera</i> (Gregory) Kuntze	45,90
54	<i>Pleurosigma angulatum</i> (Quek.) W.Smith	13,50,99,10,41
	<i>P. delicatulum</i> W.Smith	45,63,40,116
	<i>P. directum</i> Grun	14
	<i>P. diverse-striatum</i> Meister	129,149
	<i>P. elongatum</i> W.Smith	13,47,50,52,67,99,102,137,135
	<i>P. hippocampus</i> W.Smith	25
	<i>P. normanii</i> Ralfs in Pritchard	13,14
	<i>P. salinarum</i> Grunow	34,47,50,52,67,90,99, 135,140,37,41
55	<i>Rhabdonema adriaticum</i> Kuetzing	99
56	<i>Rhaphoenis amphiceros</i> Ehrenberg	47

57	<i>Rhoicosphenia curvata</i> (Ktz.) Grunow	2,18,23,30,34,39,45,50,51,52,63,67,73,25,47,90,99,100,102,111,130,50,129,137,142,10,24,25,38,37,94,95,122,142,3,41,53,56,58,59
	<i>R. curvata</i> var. <i>curvata</i> Kutz.	131
	<i>R. curvata</i> var. <i>genuina</i> A.Cleve	18
	<i>R. curvata</i> var. <i>marina</i> (W.Smith)Grunow	72
	<i>R. marina</i> Kuetz	127
58	<i>Rhopalodia gibba</i> (Ehr.) O.Mueller	18,23,34,39,45,46,47,48,63,67,72,90,102,70,50,129,28,37,38,95,56,59
	<i>R. gibba</i> var. <i>genuina</i> Grunow	18,21
	<i>R. gibba</i> var. <i>gibba</i> (Ehr.)	131
	<i>R. gibba</i> var. <i>ventricosa</i> (Ktz.) H.and M. Peragallo	34,63,90,102,130,129,131
	<i>R. gibberula</i> (Ehr.) O. Mueller	34,39,46,47,63,90,102,41
	<i>R. gibberula</i> var. <i>debyi</i> Pelii	102
	<i>R. gibberula</i> var. <i>producta</i> (Grun.) Cleve-Euler	78
	<i>R. musculus</i> Kuetz.	95,53
	<i>R. operculata</i> (Ag.) Hakansson	18,21,63,90,102,129
	<i>R. parallela</i> (Grun.)O.Mueller	45,129,10,41
	<i>R. parallela</i> var. <i>parallela</i> (Grun.)	131
	<i>R. rhopala</i> (Ehr) Hust.	44
59	<i>Scolioleura peisonics</i> Grunow	45,129
	<i>S. schmeideri</i> (Grun.) Cleve	129
60	<i>Stauroneis acuta</i> W. Smith	16
	<i>S. anceps</i> Ehrenberg	47,48,102,130,129,10,56
	<i>S. anceps</i> var. <i>anceps</i> (Ehr.)	131
	<i>S. anceps</i> f. <i>gracilis</i> (Ehr.) Cleve	48,131
	<i>S. fluminea</i> Patr. Freese	90
	<i>S. membranacea</i> (Cleve)Hustedt	13,14
	<i>S. parvula</i> Grunow	50,99,137
	<i>S. phoenicenteron</i> (Nitzsch) Ehrenberg	45,102,130,25
	<i>S. salina</i> W.Smith	102
	<i>S. smithii</i> Grunow	45,102,53,59
	<i>S. wislouchii</i> Anisowa	56
61	<i>Stenopterobia palagica</i> Hustedt	18
62	<i>Striatella unipunctata</i> (Lyngb.) Agardh	13
63	<i>Surirella angusta</i> Ktuezing	34,39,45,63,73,78,100,102,142,56,59,143
	<i>S. brebissoni</i> Krammer et Lange-Bertalot	16
	<i>S. biseriata</i> de Brebisson	95,58,59
	<i>S. capronii</i> de Brebisson ex. Ktz.	18,21,23,46,63,98,25,58
	<i>S. circumvallata</i> Hustedt	129
	<i>S. elegans</i> Ehr.	10
	<i>S. fastvosa</i> (Ehr.) Kuetzing	13,14

	<i>S. gemma</i> (Ehr.) Kuetzing	13,5 99,129,137
	<i>S. helvetica</i> (Brun.)	18,21,102,14
	<i>S. islandica</i> var. <i>Laponica</i>	18
	<i>S. linearis</i> W.Smith	46,102,10,59
	<i>S. linearis</i> var. <i>constricta</i> Grunow	51
	<i>S. linearis</i> var. <i>helvetica</i> (Brun) Meister	59
	<i>S. muelleri</i> de Brebisson	130
	<i>S. ovalis</i> de Brebisson	18,23,34,50,52,63,67,78,98,102,21,10,24,25,37,94,95, 131,142,3,41,56,58, 57,59,148
	<i>S. ovalis</i> var. <i>baltica</i> Schumann	41
	<i>S. ovalis</i> var. <i>brightwellii</i> (W.Smith)H. et. M. Perag.	18,53
	<i>S. ovalis</i> var. <i>maxima</i> Grun.	34,45
	<i>S. ovalis</i> var. <i>ovata</i> (Kützing) Van Heurck	18
	<i>S. ovalis</i> var. <i>salina</i> Smith	41
	<i>S. ovata</i> Ktz	13,34,59,50,51,52,63,67,73,90,99,100,102,116,165,21,10,24, 37,38,94,95,142,41, 56,59,127
	<i>S. ovata</i> var. <i>africana</i> Cholmoky	90
	<i>S. ovata</i> var. <i>pinnata</i> (W.Smith) Hustedt	78,102,41
	<i>S. pseudospiralis</i> Hust	56
	<i>S. recedens</i> A.Schmidt	149
	<i>S. robusta</i> Ehrenberg	18,21,39,46,47,111,10,25,142, 58,59
	<i>S. robusta</i> var. <i>constricta</i> (Pont.) A.Cleve	18
	<i>S. robusta</i> var. <i>splendida</i> (Ehr.) Van Heurck	18,45,63,90,37
	<i>S. robusta</i> var. <i>splendidula</i> (Eh r.) Van Heurck	18,34
	<i>S. spiralis</i> Kg.	102
	<i>S. spiralooides</i> Hustedt	18
	<i>S. striatula</i> Turpin	13,18,21,34,45,47,48,67,10,25, 41
	<i>S. suecica</i> Grunow	18,21
	<i>S. tenella</i> var. <i>pusilla</i> A.Mayer	78,90
	<i>S. tenera</i> Gregory	50,52,67,99,102,137,135,21,10
	<i>S. tenera</i> var. <i>nervosa</i> A.Schmidt	48,67,102,129
	<i>S. turgida</i> W.Sm	102
64	<i>Synedra acus</i> Kuetzing	2,18,30,46,48,50,51,52,67,73,72,99,102,120,130,137,134,135, ,10, 24,37,3,53,57,127,146, 147,148
	<i>S. acus</i> var. <i>acus</i> Kützing	18,20,142,127
	<i>S. acus</i> var. <i>angustissima</i> Grun	53,56
	<i>S. acus</i> var. <i>genuina</i> Mayer	18
	<i>S. acus</i> var. <i>radicans</i> (Kutz.)	37,41,57
	<i>S. actinastroides</i> Lemmermann	56
	<i>S. affinis</i> Kutz	37,57
	<i>S. amphicephala</i> Kuetzing	72,90,99,102,137,37,41
	<i>S. bacillaris</i> (Grun.) Hustedt	99

<i>S. capitata</i> Ehrenberg	34,45,48,50,52,63,67,73,72,99,102,130,137,134,135,10
<i>S. dicatissima</i> var. <i>delicatissima</i>	23,72,99,137
<i>S. distans</i> <i>S. fasciculata</i> (Ag.) Kuetzing	18
<i>S. fasciculata</i> (Ag.) Kuetzing	18,21,23,27,34,45,46,47,50,51,63,67,72,90,99,102,137,28, 41
<i>S. fasciculata</i> var. <i>fasciculata</i> (Ag.)	131
<i>S. fasciculata</i> var. <i>tuncata</i> Patr.	131,41
<i>S. filiformis</i> var. <i>exilis</i> Cleve- Euler.	44
<i>S. formosa</i> Hantzsch ex. Raben	99
<i>S. gaillonii</i> (Bory) Ehrenberg	99,41
<i>S. gaillonii</i> var. <i>gaillonii</i> (Bory)	131,41
<i>S. goulardii</i> Breb	44
<i>S. hennedyana</i> Gregory	99
<i>S. minuscula</i> Grun	53
<i>S. nana</i> Meister	18,21,90,131
<i>S. parasitica</i> (W.Smith) Hustedt	127
<i>S. provincialis</i> Grunow	18,99
<i>S. pulchella</i> (Ralfs) Kuetzing	18,23,50,63,90,99,100,102,137,10,37,131,41,53,127
<i>S. pulchella</i> var. <i>lanceolata</i> O.Meara	102
<i>S. pulchella</i> var. <i>pulchella</i> Ralf	131
<i>S. robusta</i> Ralfs in Pritch	99
<i>S. rumpens</i> Kg.	102,56,127
<i>S. rumpens</i> var. <i>rumpens</i> Kutz	131
<i>S. tabulata</i> var. <i>fasciculata</i> (Kützing) Grunow	131,41,53,56,127
<i>S. tenuissima</i> (Kutz.) Kutz	23,27,45,99,102,137
<i>S. ulna</i> (Nitzs.) Ehrenberg	2,13,17,18,23,27,30,34,39,45,46,47,48,50,51,52,63,67,73,72, 78,79,90,99,100,102,111,118, 141,116,124,130,129,137,,134,140,142, 10, 24,28,37,91,1221,123,131,138,3,41,53,56,58,27,127,178,277, 278
<i>S. ulna</i> var. <i>amphirynchus</i> (Eh r.) Grun.	102,131
<i>S. ulna</i> var. <i>balatonis</i> (Pant.) A.Cleve	100
<i>S. ulna</i> var. <i>balatonis</i> fo. <i>rostrata</i> (Pant.) mh.	45,63,72
<i>S. ulna</i> var. <i>biceps</i> (Kutz.)	37
<i>S. ulna</i> var. <i>chasaena</i> Thomas	131
<i>S. ulna</i> var. <i>contacta</i> Ostr	131
<i>S. ulna</i> var. <i>danica</i> (Ktz.) Van Heurck	18,21,39,72,102,102,3,53
<i>S. ulna</i> var. <i>longissima</i> (W.Smith) Brun	23,34,50,51,52,63,67,73,72,78,79,90,100,102,130,129,134,13 5
<i>S. ulna</i> var. <i>oxyryhnchus</i> (Ktz.) Van Heurck	2,39,67,99,100,102,104,131,3,41,53,59
<i>S. ulna</i> var. <i>ramesi</i> (Herib.) Hustedt	100
<i>S. ulna</i> var. <i>spathulifera</i> (Grunow) Van Heurck	50,52,67,73,99,130,134,135, 53
<i>S. ulna</i> var. <i>subaequalis</i> (Grun.)	131,41

	<i>S. ulna</i> var. <i>ulna</i> Eh r.	131
	<i>S. undulata</i> (J.W.Bail) W.Smith	102
	<i>S. vaucheriae</i> Kutz	10,53,56,59
65	<i>Tabellaria fenestrata</i> (Lyng.) Kuetzing	18,39,67,10,41
	<i>T. flocculosa</i> (Roth.) Kuetzing	67,10,131
	<i>T. quadrisepata</i> var. <i>quadrisepata</i>	131
66	<i>Thalassiothrix frauenfeldii</i> Grunow	13,19,34,99
	<i>T. longissima</i> Cleve & Grunow	13
67	<i>Trachyneis antillarum</i> Cleve	149
	<i>T. aspera</i> var. <i>intermedia</i> (Grunow) Cleve	129,149
	<i>T. debyi</i> (Leuduger- fortmorel) Cleve	129
	<i>T. debyi</i> var. <i>osculifera</i> Cleve	149
68	<i>Tropidoneis</i> sp.	47
	<i>T. lepidoneis</i> (Greg.) Cleve	13
	<i>T. lepidoptera</i> (Greg.)	14
69	<i>Tryblionella coarctata</i> (Grunow) D.G. Mann	16
	<i>T. hungarica</i> (Grunow) D.G. Mann	16
	<i>T. levidensis</i> W. Smith	16
	<i>T. littoralis</i> (Grunow) D.G. Mann	16
70	<i>Vanheurchia lewisiana</i> (Grev.) de Brebisson	129
Division Pyrrophyta		
Division: Dinophyceae		
1	<i>Bernardinium salinium</i> Anissimowa Favornichy	47
2	<i>Ceratium hirundinella</i> (Muell.) Du Jardin	2,12,18,19,46,47,48,142, 8,25,94,123,131,138,142,60,146
3	<i>Dinophysis</i> sp.	6
4	<i>Dinoflagellate cycs</i>	122
5	<i>Diplosialis acuta</i> (Apstein) En.	46,47,48
6	<i>Exuviella</i> sp	6
7	<i>Glenodinium armatum</i> Levander	19
	<i>G. borgei</i> (Lemm.) Schiller	19,61
	<i>G. cinctum</i> Ehrenberg	123
	<i>G. gymnodinium</i> Penard	19,25
	<i>G. kulczynsk</i> Schiller	41
	<i>G. penardiforme</i> (Linde.) Schiller	144
	<i>G. pulvisculus</i> (Ehr.) Stein	18
	<i>8-Glenodinium quadriden</i> Stein	24,94,41,58
	<i>G. pulvisculus</i> Stein	41
9	<i>Gonyaulax oreintalis</i> Lindem	99
10	<i>Gymnodinium fuscum</i> (Eh r.) Stein	19
11	<i>Noctiluca scintillans</i> Surirary	6
12	<i>Ornithocerus</i> sp	6
13	<i>Peridinium bipes</i> Stein	46,47,48

Checklist of Algal Flora in Iraq

	<i>P. breve</i> Paulsen	131
	<i>P. cinctum</i> (Muell.) Ehrenberg	2,19,46,50,51,52,135,140,142,24,25,93,94,95,123,131,141,41,58,60,146
	<i>P. cinctum</i> var. <i>tuberosum</i> Meunier	25,41,57
	<i>P. diabolus</i> Cleve	99,50
	<i>P. elpatiewskyi</i> (Ostenf.) Lemmermann	142
	<i>P. gatunense</i> Nygaard	131,41
	<i>P. incospicum</i> Lemm.	42
	<i>P. leonis</i> Pavil	99
	<i>P. limbatum</i> Lemm.	14
	<i>P. pusillum</i> (Penard) Lemm.	23,90,114,25,37,61
	<i>P. retiferum</i> Matz.	19,50,99
	<i>P. willei</i> Huilfeldt-Kaas	19
14	<i>Pyrophacus horologicum</i> Stein	149
15	<i>Prorocentrum micans</i> Ehr.	7
16	<i>Protoperidinum</i> sp. Ehr.	7
DIVISION: RHODOPHYTA		
1-Order: BANGIALES		
1	<i>Bangia atropurpurea</i> (Roth)Agardh	30,75,112,119,25
	<i>B. fuscopurpurea</i> (Dillow.) Lyngbye	119,3
2	<i>Compsopogon coeruleus</i> (Balb.) Mont .	34,50,52,67,72,75,89,112,119,56
	<i>C. leptocladus</i> Mont.	114
2- Order : NEMALIONALES		
1	<i>Audouinella violacea</i> (Ktz.) Hamel	30,34,35,75,81, 89,113,120, 143, 8,3,56
2	<i>Batrachospermum moniliforme</i> Roth	75, 89,112,3,56
	<i>B. vagam</i> (Roht) Agardh	35,89,143
3	<i>Lemanea</i> sp.	4
4	<i>Thorea ramossima</i> Bory	30,75,112
DIVISION: CRYPTONEMALES		
1	<i>Cryptomonas</i> sp.	23, 120
	<i>C. erosa</i> Ehre.	145, 56
2	<i>Chroomonas nordstedtii</i> Hansgirg	45, 58
3	<i>Rhodomonas lacustris</i> var. <i>nannoplanktica</i> (Skuja) Javornicky	23, 37
DIVISION: CRYCOPHTA		
1	<i>Meringosphaera spinosa</i> Prescott	70, 71

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وزارة اليقة



جمهورية العراق

٢٠١٣

قائمة الطحالب ١

المشخصة في العراق

أستاذ الدكتور نهن ام خض مولود

أستاذ الدكتور فكت مجيد حسن

أستاذ الدكتور علي عبد الزهرة اللامي

أستاذ المساعد جنان جميل توما

أستاذ عباس من قضي اسماعيل

المستخلص:

لقد تم تسجيل ما مجموعه ٢٦٤٧ من تبة تصنيفية للطحالب في هذه القائمة النعداوية للطحالب العراقية. ان هذه القائمة هي الرابعة من السلسلة التي بدأت في ١٩٨٣ لكل عقد من السنين والذي تشمل جميع ما منشور من معلومات موثوقة والخاصة بالطحالب العراقية لما مجموعه ٧٨٨ للطحالب الخض و ٥٠٨ للطحالب الخض المزرق و ١٢٣٣ للطحالب الخض الذهبية و ٥٤ للطحالب اليوغينية و ١٣ للطحالب الكاريتية و ٥ للطحالب الكريثية و ٣٢ للطحالب البراوية و ١٣ للطحالب الحمس. ان القائمة الحالية تضيف ٣٣٤ من تبة تصنيفية من الطحالب اضافة الى ما هو معروف مسبقا من الطحالب في العراق. وسوف تسعمل القائمة الحالية كقاعدة معلومات اساسية للدراسات المستقبلية عن الطحالب والتي سنملا الفراغ الموجود في المعرفة في هذه الحقل من الدراسات في علوم الحياة والطحالب في العراق ومنطقة الشرق الاوسط عموما .