

DIATOM CHECK-LIST FROM CATALONIAN COUNTRIES (EASTERN SPAIN)

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SUMMARY

This is the first comprehensive diatom check-list of the Catalan Countries (Balearic islands and eastern Iberian peninsula) covering all the previous recorded taxa from epicontinental waters till 1990. It contains a complete list of species and lower taxa set out in alphabetical order within each genus. A total of 681 species, 196 varieties and 12 forms have been accounted for. The check-list also includes the synonyms formerly in common use and the bibliographic references for each currently reported taxon.

RESUM

Catàleg de les diatomees dels Països Catalans

Aquest catàleg inclou totes les citacions florístiques de les diatomees d'aigües epicontinentals dels Països Catalans registrades a la bibliografia preexistent fins a l'any 1990. En el recull que hem efectuat s'han registrat 704 espècies, 179 varietats i 12 formes. Per a cada tàxon, hom dona totes les referències bibliogràfiques on ha estat citat, i també les seves sinònimes més rellevants.

KEY WORDS: Diatoms, E Iberian Peninsula, Balearic Islands.

MOTS CLAU: Diatomees, península Ibèrica E, illes Balears.

INTRODUCTION

The area under study covers approximately 70,000 square km and includes the following regions: Andorra, Balearic islands, Catalonia and València. These regions are named the Catalan Countries as a whole, and are located in the eastern part of the Iberian peninsula, between 1°15' long. west

4°20' long. east and 37°40' and 42°50' lat. north.

The heterogeneous geological substrate and the varying climatic conditions play an important role on these ecosystems. In this area, four different biogeographic sectors could be distinguished: alpine and sub-alpine mountains, continental plain, Mediterranean mountains and the coastal shore

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line. As a result of this varied environments, there is a wide range of epicontinental water ecosystems.

The stagnant waters are scarce, ranging from the oligotrophic alpine lakes and the karstic ones to marshy areas, saline lagoons and related brackish waters near to the Mediterranean sea. Temporary pools and swamps are abundant elsewhere, especially during the rainy periods (spring and autumn).

The running waters, as creeks, Mediterranean-regime streams and rivers are very widespread. Many of them have reservoirs, usually in the Pyrenees valleys. Their flow is irregular, increasing after rainy periods and becoming less important during summer. They run over basic or acid substrates, determining remarkable differences in water quality. In fact, this ranges from soft and hard-water to those eutrophic or saline. Moreover, many streams are polluted, mainly because of industrial and agricultural activities.

This check-list is the compilation of all previous diatom records published in the local literature. From an historic point of view, the diatom studies in the Catalonian Countries are scarce. The first important contribution to our diatom flora was performed by MARGALEF (1944-1980) who has contributed also to the limnological and oceanographical research in Spain. In recent years, many new diatom records have been reported from this area, as a consequence the number of taxa belonging to our flora has been increased, but until now there was no general ckeck-list for this group. The need of an approach to the knowledge of our diatom flora, including bibliographic information available for general use, has stimulated this study.

In this check-list the genera and the species are alphabetically indexed. The synonyms are those which have been previously in common use; they are enclosed in brackets after each species name, adopted in accordance with the International Code of Botanical Nomenclature. Moreover, extensive references for each taxon are included; these are numbered as in the reference list at the end of the paper.

According to this check-list, 704 species, 179 varieties and 12 forms are up-dated to conform the first approach to the diatom flora of the Catalonian Countries.

DIATOM CHECK-LIST

ACHNANTHES Bory, 1822

- Achnanthes altaica** (Poretzky) Cleve-Euler
64
- Achnanthes arenaria** Amossé
68
- Achnanthes austriaca** Hustedt v. **helvetica** Hustedt
(Syn.: *Achnanthes helvetica* (Kützing)
Lange-Bertalot p.p.)
10, 64
- Achnanthes biasolettiana** (Kützing) Grunow
34, 64, 68
- Achnanthes bioretti** Germain
64
- Achnanthes brevipes** Agardh
27, 30, 31, 49, 68, 69
- Achnanthes brevipes** v. **intermedia**
(Kützing) Cleve
19, 20, 26, 27, 29, 34, 68, 69
- Achnanthes cassida** Carter
(Syn.: *Achnanthes rossii* Hustedt)
10
- Achnanthes clevei** Grunow in Cleve & Grunow, 1880
57, 61, 68
- Achnanthes coarctata** (Brébisson) Grunow in Cleve & Grunow, 1880
4, 27, 30, 62
- Achnanthes coarctata** v. **elliptica** Krasske
in Hustedt, 1930
68
- Achnanthes conspicua** A. Mayer
57, 61
- Achnanthes conspicua** v. **brevistriata** Hustedt
68
- Achnanthes daonensis** Lange-Bertalot
64

Achnanthes delicatula (Kützing) Grunow
in Cleve & Grunow, 1880

(Syn.: *Achnanthidium delicatulum* Kützing)

1, 6, 7, 11, 64, 68

Achnanthes exigua Grunow in Cleve & Grunow, 1880

64, 68

Achnanthes exilis Kützing

1, 27, 28, 31, 49

Achnanthes flexella (Kützing) Brun

1, 4, 10, 7, 11, 12, 21, 22, 25, 26, 28, 30, 31, 39, 64, 68, 69

Achnanthes flexella v. **alpestris** Brun

1, 22, 29

Achnanthes fulla Carter

10

Achnanthes gibberula Grunow in Cleve & Grunow, 1880

(Syn.: *Achnanthes gibberula* v. *angustior* V. Heurck; *Achnanthes grimmei* v. *elliptica* Krasske; *Achnanthes grimmei* v. *hyalina* Hustedt; *Achnanthes thermalis* Rabh.)

1, 17, 68

Achnanthes grimmei Krasske

64

Achnanthes hietzii (Hustedt) Lange-Bertalot

(Syn.: *Cocconeis thienemannii* Hustedt)

10

Achnanthes hirta Carter

10

Achnanthes hungarica (Grunow) Grunow
in Cleve & Grunow, 1880

31, 57, 62, 68, 51

Achnanthes inflata (Kützing) Grunow

31, 33, 34, 62, 68

Achnanthes inflata v. **elata** (Leud.-Fortm.)
Hustedt

68

Achnanthes kranzii Lange-Bertalot

64

Achnanthes lanceolata (Brébisson ex

Kützing) Grunow in Cleve & Grunow,
1880

1, 4, 10, 22, 27, 28, 30, 31, 32, 34, 36, 40,
54, 55, 56, 57, 59, 61, 64, 68, 69, 52

Achnanthes lapidosa Krasske

10, 64

Achnanthes lapponica Hustedt

(Syn.: *Achnanthes giadraterrea* (Oestrup)
Müller ex Foged)

10, 57

Achnanthes lucana Carter

10

Achnanthes marginulata Grunow in Cleve
& Grunow, 1880

10, 64

Achnanthes minutissima Kützing

(Syn.: *Achnanthes linearis* (W. Smith)
Grunow; *Achnanthes affinis* Grunow; *Achnanthes minutissima* v. *cryptocephala* Grunow; *Achnanthes microcephala* (Kützing) Cleve)

1, 3, 4, 7, 10, 11, 19, 20, 21, 22, 25, 26, 27,
28, 30, 31, 32, 34, 35, 38, 40, 47, 52, 57, 58,
59, 61, 62, 68, 69, 70

Achnanthes minutissima v. **jackii** (Rabenhorst)
Lange-Bertalot & Ruppel

(Syn.: *Achnanthes subatomus* Hustedt)

10

Achnanthes oestrupii (Cleve) Hustedt

10, 29

Achnanthes pericava Carter

62

Achnanthes petersenii Hustedt

64

Achnanthes ploenensis Hustedt

68

Achnanthes ploenensis v. **gessneri** (Hustedt)
Lange-Bertalot

(Syn.: *Achnanthes gessneri* Hustedt)

64

Achnanthes pusilla Grunow in Cleve & Grunow, 1880

31, 64, 70

Achnanthes pyropa Carter

10

- Achnanthes rostrata** Oestrup
(Syn.: *Achnanthes lanceolata* v. *dubia* Grunow; *Achnanthes lanceolata* v. *rostrata* Hustedt)
4, 26, 29, 57, 59, 61, 64, 68, 69
- Achnanthes sphacelata** Carter
10
- Achnanthes subatomoides** (Hustedt) Lange-Bertalot
(Syn.: *Navicula subatomoides* Hustedt)
10, 64
- Achnanthes subsalsa** Petersen
62
- Achnanthes suchlandtii** Hustedt
(Syn.: *Cocconeis utermoehli* Hustedt)
10
- Achnanthes sylvahercynia** Lange-Bertalot
64
- Achnanthes swazi** Cholnoky
10
- Achnanthes trinodis** (W. Smith) Grunow in V. Heurck, 1880
10, 28, 31, 34
- Achnanthes tuma** Carter
10
- ACTINOPTYCHUS** Ehrenberg, 1839
- Actinoptychus undulatus** (Bailey) Ralfs
49, 68
- AMPHIPLEURA** Kützing, 1844
- Amphipleura lindheimerii** Grunow
22, 28, 29
- Amphipleura micans** (Lyngbye) Cleve
(Syn.: *Berkeleya micans* Grunow)
68
- Amphipleura micans** v. *fragilis* (Greville) Cleve
(Syn.: *Berkeleya fragilis* Greville)
68
- Amphipleura pellucida** (Kützing) Kützing
4, 19, 21, 22, 26, 30, 31, 34, 36, 47, 54, 55, 56, 57, 58, 59, 62, 64, 68, 69
- Amphipleura rutilans** (Trentepohl ex Roth) Cleve
(Syn.: *Berkeleya rutilans* (Trentepohl) Grunow)
68
- AMPHIPRORA** Ehrenberg, 1841
- Amphiprora alata** (Ehrenberg) Kützing
(Syn.: *Entomoneis alata* (Ehrenberg) Ehrenberg)
4, 9, 68
- Amphiprora duplex** Donkin
(Syn.: *Amphiprora paludosa* v. *duplex* (Donkin) Cleve)
68
- Amphiprora gigantea** Grunow v. **septentrionalis** (Grunow) Cleve
(Syn.: *Amphiprora septentrionalis* Grunow; *Amphiprora decussata* Grunow v. *septentrionalis* Grunow)
68
- Amphiprora paludosa** W. Smith
(Syn.: *Entomoneis paludosa* (W. Smith) Reimer)
19, 21, 26, 27, 30, 31, 34, 68, 69
- AMPHORA** Ehrenberg, 1840
- Amphora angusta** (Gregory) Cleve
68
- Amphora arcus** Gregory v. **sulcata** (Schmidt) Cleve
68
- Amphora arenaria** Donkin
68
- Amphora arenicola** Grunow
19, 24, 30
- Amphora binodis** Gregory
49
- Amphora binodis** v. **bigibba** Grunow ex A. Schmidt
(Syn.: *Amphora binodis* Gregory)
68
- Amphora castellata** Giffen
(Syn.: *Amphora hybrida* Grunow)
68

- Amphora cingulata** Cleve
49, 68
- Amphora coffeaeformis** (Agardh) Kützing
(Syn.: *Amphora salina* W. Smith)
5, 9, 20, 26, 27, 30, 31, 34, 64, 68, 69
- Amphora coffeaeformis** (Agardh) Kützing
v. **acutiuscula** (Kützing) Rabh
(Syn.: *Amphora acutiuscula* Kützing)
19, 20, 24, 26, 27, 30, 34, 68
- Amphora coffeaeformis** v. **aponina** (Kützing) Archibald & Schoemann
68
- Amphora communata** Grunow in V. Heurck, 1880
68
- Amphora decussata** Grunow
68
- Amphora exilissima** Giffen
68
- Amphora graeffii** Grunow ex. A. Schmidt, 1875
49
- Amphora graeffii** v. **minor** Peragallo
7, 68
- Amphora grevilleana** Gregory
37
- Amphora holsatica** Hustedt
62, 68
- Amphora hyalina** Kützing
68
- Amphora lineolata** Ehrenberg
26, 27, 30, 31, 34
- Amphora lybica** Ehrenberg
(Syn.: *Amphora ovalis* v. *affinis* (Kützing) V. Heurck ex De Toni; *Amphora ovalis* v. *lybica* (Ehrenberg) Cleve)
30, 31, 37, 57, 64, 68
- Amphora macilenta** Gregory sensu Cleve-Euler, 1953
68
- Amphora margalefii** X. Tomàs
62
- Amphora mexicana** A. Schmidt
68
- Amphora micrometra** Giffen
68
- Amphora montana** Krasske
(Syn.: *Amphora submontana* Hustedt)
22, 57, 59, 64, 68, 69
- Amphora normanii** Rabenhorst
(Syn.: *Amphora humicola* Grunow)
4, 27, 30, 57, 61, 68
- Amphora ostrearia** Brébisson ex Kützing, 1849
49
- Amphora ostrearia** v. **lineata** Cleve
68
- Amphora ovalis** (Kützing) Kützing
(Syn.: *Amphora ovalis* v. *gracilis* (Ehrenberg) V. Heurck)
1, 11, 19, 21, 22, 25, 26, 27, 28, 30, 31, 32, 34, 40, 54, 55, 59, 61, 65, 68, 70
- Amphora ovalis** v. **affinis** (Kützing) V. Heurck ex De Toni, 1891
68
- Amphora pediculus** (Kützing) Grunow ex A. Schmidt, 1875
(Syn.: *Amphora ovalis* (Kützing) Kützing v. *pediculus* (Kützing) V. Heurck; *Amphora perpusilla* Grunow)
1, 19, 22, 26, 27, 30, 31, 34, 36, 43, 50, 51, 52, 54, 55, 57, 58, 59, 61, 64, 68, 69
- Amphora staurophora** Dannfeldt
68
- Amphora veneta** Kützing
(Syn.: *Amphora gouswii* Cholnoky)
4, 6, 27, 30, 31, 37, 50, 51, 52, 57, 59, 65, 68, 69
- Amphora veneta** v. **capitata** Haworth
68
- Amphora veneta** v. **subcapitata** Kissel
68
- ANOMOEONEIS** Pfitzer, 1871
- Anomoeoneis brachysira** (Brébisson) Grunow in Cleve, 1985 v. **zellensis** (Grunow) Krammer

- (Syn.: *Anomoeoneis zellensis* (Grunow) Cleve)
28, 64
- Anomoeoneis sphaerophora** (Ehrenberg) Pfitzer
19, 25, 26, 30, 31, 50, 58, 68
- Anomoeoneis sphaerophora v. guentheri** O. Müller
68
- Anomoeoneis sphaerophora v. sculpta** (Ehrenberg) O. Müller
(Syn.: *Anomoeoneis sculpta* Ehrenberg)
30, 31, 34, 68
- Anomoeoneis vitrea** (Grunow) Ross in Patrick & Reimer, 1966
(Syn.: *Anomoeoneis exilis* (Grunow) Cleve)
10, 22, 31, 64, 68, 69
- Anomoeoneis vitrea f. lanceolata** Mayer
68
- ASTERIONELLA** Hassall, 1850
- Asterionella formosa** Hassall
9, 22, 35, 38, 63, 70
- Asterionella formosa v. acaroides** Lemmermann
9
- AULACOSEIRA** Thwaites, 1848
- Aulacoseira ambigua** (Grunow) Simonsen
(Syn.: *Melosira ambigua* (Grunow) O. Müller)
57, 68
- Aulacoseira distans** (Ehrenberg) Simonsen
(Syn.: *Melosira distans* (Ehrenberg) Kützing)
1, 10, 22, 28, 31, 32, 34, 40
- Aulacoseira distans v. nivalis** (W. Smith) Haworth
(Syn.: *Melosira distans v. nivalis* (W. Smith) Kirchner)
22, 28
- Aulacoseira granulata** (Ehrenberg) Simonsen
(Syn.: *Melosira granulata* (Ehrenberg) Ralfs)
1, 33, 36, 38, 52, 57, 59, 62, 63, 68, 69
- Aulacoseira granulata v. angustissima** (O. Müller) Simonsen
(Syn.: *Melosira granulata v. angustissima* O. Müller)
9, 57, 59, 61, 63, 68, 69
- Aulacoseira granulata v. curvata** (Grunow) Simonsen
(Syn.: *Melosira granulata f. curvata* Grunow)
57, 68
- Aulacoseira islandica** (O. Müller) Simonsen
(Syn.: *Melosira islandica* O. Müller)
22, 28, 70
- Aulacoseira italica** (Ehrenberg) Simonsen
(Syn.: *Melosira italica* (Ehrenberg) Kützing)
1, 22, 28, 34, 38, 40, 68
- Aulacoseira subactica** (O. Müller) Haworth
(Syn.: *Melosira italica v. subactica* O. Müller)
70
- BACILLARIA** Gmelin, 1788
- Bacillaria paradoxa** Gmelin in Linnaeus
(Syn.: *Bacillaria paxillifer* (O.F. Müller) Hende)
19, 27, 30, 31, 38, 57, 68
- Bacillaria paradoxa v. tumidula** Grunow
31
- BIDDULPHIA** Gray, 1831
- Biddulphia aurita** (Lyngbye) Brébisson & Godey
68
- Biddulphia laevis** Ehrenberg
31, 59, 68, 69
- Biddulphia mobiliensis** Bailey
68
- Biddulphia pulchella** Gray
30, 34

CALONEIS Cleve, 1891

Caloneis alpestris (Grunow) Cleve
7, 22, 28, 57, 68

Caloneis amphisbaena (Bory) Cleve
(Syn.: *Navicula amphisbaena* Bory)
11, 31, 57, 58, 61, 62, 68, 69

Caloneis amphisbaena v. subsalina (Don-
kin) Cleve
57, 68

Caloneis bacillum (Grunow) Cleve
10, 11, 29, 31, 34, 54, 55, 57, 58, 59, 62, 64,
68, 69

Caloneis fasciata (Lagerstedt) Cleve
10

Caloneis leptosoma (Grunow) Krammer
(Syn.: *Pinnularia leptosoma* (Grunow)
Cleve)
10

Caloneis oregonica (Ehrenberg) Patrick
(Syn.: *Caloneis formosa* (Gregory) Cleve;
Caloneis westii (W. Smith) Hendey)
68

Caloneis permagna (Bailey) Cleve
68

Caloneis tenuis (Gregory) Krammer
(Syn.: *Pinnularia gracillima* Gregory)
10, 22, 28, 29, 64

Caloneis undulata (Gregory) Krammer
(Syn.: *Pinnularia undulata* Gregory)
29, 32, 40

Caloneis ventricosa (Ehrenberg) Meister
(Syn.: *Caloneis silicula* (Ehrenberg) Cleve
sensu Krammer & Lange-Bertalot)
10, 19, 20, 21, 25, 26, 27, 28, 29, 30, 31, 32,
34, 36, 37, 43, 54, 55, 57, 61, 64, 68, 70

Caloneis ventricosa v. minuta (Grunow)
Patrick
(Syn.: *Caloneis silicua* (Ehrenberg) Cleve
v. minuta (Grunow) Cleve)
68

Caloneis ventricosa v. truncatula (Gru-
now) Meister
(Syn.: *Caloneis silicula* (Ehrenberg) Cleve
v. truncatula (Grunow) Cleve)
55

CAMPYLODISCUS Ehrenberg, 1840

Campylodiscus bicostatus W. Smith in Ro-
per, 1854
(Syn.: *Campylodiscus clypeus v. bicostata*
(W. Smith) Hustedt)
37, 68

Campylodiscus clypeus Ehrenberg
26, 30, 68

Campylodiscus echeneis Ehrenberg
19, 30, 37, 68

Campylodiscus hibernicus Ehrenberg
(Syn.: *Campylodiscus noricus v. hibernica*
(Ehrenberg) Grunow)
68

Campylodiscus noricus Ehrenberg
19, 21, 27, 28, 30, 31, 34, 54, 55, 58

Campylodiscus noricus v. ornatus Grevi-
lle
22

CERATAULUS Ehrenberg, 1844

Cerataulus radiatus (Roper) R. Ross
(Syn.: *Cerataulus smithii* Ralfs in Prit-
chard)
68

CERATONEIS Ehrenberg, 1840

Ceratoneis arcus (Ehrenberg) Kützing
(Syn.: *Ceratoneis arcus* Kützing *v. genui-*
na Holmboe)
1, 4, 10, 19, 22, 28, 31, 32, 34, 40, 54, 55,
56, 57, 59, 61, 64, 69, 70

Ceratoneis arcus v. amphioxys (Raben-
horst) Brun
1, 22, 40, 57, 61, 64, 69

Ceratoneis arcus v. linearis Holmboe
40

COCCONEIS Ehrenberg, 1838

Cocconeis disculus (Schumann) Cleve
29, 68

Cocconeis disculus v. diminuta (Pantoc-
seck) Cleve-Euler
(Syn.: *Cocconeis diminuta* Pant.)
62, 64, 68

- Cocconeis microscopica** Cholnoky
10
- Cocconeis molesta** Kützing v. **crucifera**
Grunow
68
- Cocconeis pediculus** Ehrenberg
1, 19, 20, 21, 22, 26, 27, 28, 30, 31, 34, 36,
54, 55, 56, 57, 59, 61, 62, 68, 69
- Cocconeis placentula** Ehrenberg
4, 7, 9, 10, 11, 13, 50, 19, 20, 21, 22, 24, 25,
26, 27, 28, 29, 30, 31, 32, 34, 37, 40, 47, 41,
51, 54, 55, 56, 57, 58, 59, 61, 62, 64, 65, 68,
69
- Cocconeis placentula** v. **euglypta** (Ehren-
berg) Grunow
2, 17, 62, 68, 69
- Cocconeis placentula** v. **klinorhaphis** Geit-
ler
29
- Cocconeis placentula** v. **lineata** (Ehren-
berg) V. Heurck
17, 68, 69
- Cocconeis placentula** v. **pseudolineata**
Geitler
68, 69
- Cocconeis scutellum** Ehrenberg
27, 30, 49, 68
- Cocconeis scutellun** v. **parva** (Grunow)
Cleve
68
- Cocconeis stauroneiformis** (V. Heurck)
Okuno
(Syn.: *Cocconeis scutellum* v. *stauronei-
formis* W. Smith)
68
- Cocconeis thumensis** Mayer
68
- COSCINODISCUS** Ehrenberg, 1838
- Coscinodiscus lacustris** Grunow
9, 40, 68
- Coscinodiscus lacustris** v. **hyperborea**
Grunow
68
- Coscinodiscus marginatus** Ehrenberg
30
- Coscinodiscus nitidus** Gregory
68
- Coscinodiscus radiatus** Ehrenberg
49, 68
- CYCLOPHORA** Castracane, 1878
- Cyclophora tenuis** Castracane
68
- CYCLOSTEPHANOS** Round in Theriot *et*
al., 1987
- Cyclostephanos dubius** (Fricke) Round
62, 63
- CYCLOTELLA** (Kützing) Brébisson, 1838
- Cyclotella atomus** Hustedt
13, 50, 51, 52, 57, 59, 61, 63, 64, 68, 69
- Cyclotella bodanica** Grunow in Schneider,
1878
22
- Cyclotella catena** Brun
9
- Cyclotella comensis** Grunow in V. Heurck,
1882
63, 64
- Cyclotella comta** (Ehrenberg) Kützing
1, 20, 25, 31, 32, 42, 40, 46, 47, 52, 63, 68
- Cyclotella comta** v. **oligactis** (Ehrenberg)
Grunow in V. Heurck, 1882
4, 32, 70
- Cyclotella cryptica** Reimann, Lewin & Gui-
llard
68
- Cyclotella glomerata** Bachmann
13, 19, 21, 45, 46, 47, 41, 51, 52, 65, 68
- Cyclotella iris** v. **cocconeiformis** Brun &
Heribaud
62
- Cyclotella kuetzingiana** Thwaites
1, 13, 19, 21, 25, 26, 27, 30, 31, 34, 36, 46,
51, 52, 57, 59, 63, 64, 68, 69

- Cyclotella meduanae** Germain
50, 63
- Cyclotella melosiroides** (Kirchner) Lemmermann
9, 14, 21, 45, 46, 47, 70
- Cyclotella meneghiniana** Kützing
7, 9, 10, 11, 13, 14, 19, 20, 25, 26, 27, 30, 31, 34, 36, 37, 46, 47, 41, 51, 52, 57, 58, 59, 61, 62, 63, 65, 68, 69
- Cyclotella ocellata** Pant. Fricke in A. Schmidt, 1990
(Syn.: *Cyclotella Kuetzingiana* v. *planetophora*)
13, 27, 38, 51, 52, 57, 59, 64, 68, 69
- Cyclotella parva** Kützing
40
- Cyclotella pseudostelligera** Hustedt
14, 68
- Cyclotella stelligera** Cleve & Grunow
13, 41, 65, 68
- Cyclotella striata** (Kützing) Grunow in Cleve & Grunow, 1880
19, 31, 41, 54, 55, 65, 68, 69
- CYMATOPLEURA** W. Smith, 1851 nom. cons.
- Cymatopleura elliptica** (Brébisson) W. Smith
20, 30, 31, 34, 35, 36, 57, 64, 68
- Cymatopleura solea** (Brébisson & Godey) W. Smith
(Syn.: *Cymatopleura librile* (Ehrenberg) Pant.; *Suriella solea* Brébisson)
7, 11, 15, 19, 25, 31, 34, 37, 57, 58, 59, 61, 68, 69
- CYMATOSIRA**, Grunow, 1862
- Cymatosira belgica** Grunow in V. Heurck, 1881
68
- CYMBELLA** Agardh, 1830
- Cymbella aequalis** W. Smith
(Syn.: *Cymbella obtusa* Gregory)
10, 21, 30, 40, 67, 68
- Cymbella affinis** Kützing
1, 10, 19, 20, 21, 22, 24, 25, 26, 27, 28, 30, 31, 32, 34, 36, 39, 40, 51, 52, 54, 55, 56, 57, 58, 59, 61, 64, 65, 67, 69
- Cymbella alpina** Grunow
29, 66
- Cymbella amphicephala** Nägeli ex Kützing, 1849
1, 7, 10, 19, 21, 22, 25, 26, 27, 28, 30, 31, 32, 34, 35, 36, 38, 39, 40, 64, 66
- Cymbella aspera** (Ehrenberg) Peragallo in Pelletan, 1889
(Syn.: *Cymbella gastroides* Kützing)
7, 11, 22, 25, 28, 30, 31, 32, 34, 37, 54, 55, 57, 59, 61, 64, 66
- Cymbella brehmii** Hustedt
31, 66
- Cymbella cesatti** (Rabenhorst) Grunow in A. Schmidt, 1881
10, 52, 57, 61, 64, 66, 68
- Cymbella cistula** (Ehrenberg) Kirchner
(Syn.: *Cymbella maculata* (Kützing) Brébisson & Godey)
4, 10, 11, 28, 29, 30, 31, 32, 57, 61, 66, 68
- Cymbella cistula** v. **gibbosa** Brun
68
- Cymbella cuspidata** Kützing
22, 28, 31, 32
- Cymbella cymbiformis** Agardh
19, 22, 28, 31, 34, 48, 64, 66, 68, 69
- Cymbella cymbiformis** v. **nonpunctata** Fontell
(Syn.: *Cymbella parva* (W. Smith) Cleve *sensu* Hustedt)
19, 22, 27, 28, 30, 31, 36, 52, 64, 68
- Cymbella delicatula** Kützing
10, 31, 57, 68, 69
- Cymbella ehrenbergii** Kützing
(Syn.: *Cymbella inaequalis* (Ehrenberg) Rabenhorst)
1
- Cymbella elginensis** Krammer
(Syn.: *Cymbella turgida* Gregory)
22, 32, 57
- Cymbella falaisensis** (Grunow) Krammer & Lange-Bertalot

(Syn.: *Navicula falaisensis* Grunow in V. Heurck, 1880)
43, 64

Cymbella gracilis (Ehrenberg) Kützing
7, 10, 11, 22, 25, 28, 31, 32, 40, 64

Cymbella helvetica Kützing
25, 26, 27, 28, 30, 31, 32, 34, 36, 52, 57, 59,
64, 66, 68, 69

Cymbella helvetica v. *curta* Meister
69

Cymbella helvetica v. *gracilis* Meister
19, 21, 30

Cymbella hustedtii Krasske
29, 64, 68, 69

Cymbella incerta Grunow
10, 66, 68

Cymbella lacustris (Agardh) Cleve
31, 57, 61, 68

Cymbella laevis Nägeli ex Kützing, 1849
68

Cymbella lanceolata (Ehrenberg) Kirchner
4, 19, 21, 22, 31, 34, 40, 67

Cymbella lata Grunow
64

Cymbella latens Krasske
68

Cymbella leptoceros (Ehrenberg) Kützing
19, 30, 31, 34, 52, 68

Cymbella microcephala Grunow in V. Heurck, 1880
10, 19, 20, 21, 22, 25, 26, 27, 28, 30, 31, 32,
34, 35, 36, 52, 57, 58, 61, 62, 64, 66, 68, 69

Cymbella minuta Hilse ex Rabenhorst, 1862
(Syn.: *Cymbella ventricosa* Kützing p.p.)
12, 26, 27, 28, 30, 31, 32, 36, 40, 47, 51, 52,
54, 57, 59, 61, 62, 64, 66, 68, 70

Cymbella naviculacea Grunow
64

Cymbella naviculiformis Auerswald ex Heib., 1863
10, 31, 53

Cymbella obtusiuscula Kützing
4, 57, 61, 64, 68, 69

Cymbella perpusilla Cleve
10, 19, 22, 28, 29, 31, 64, 66

Cymbella prostrata (Berkeley) Brun
1, 28, 31, 34, 40, 54, 55, 56, 57, 59, 61, 66,
68

Cymbella prostrata v. *auerswaldii* (Rabenhorst) Reimer in Patrick & Reimer, 1975
(Syn.: *Cymbella caespitosa* (Kützing) Brun. v. *auerswaldii* (Babenhorst) Cleve-Euler; *Cymbella caespitosa* (Kützing) Brun)
1, 7, 48, 57, 68

Cymbella pusilla Grunow ex A. Schmidt, 1875
9, 20, 24, 26, 30, 31, 34, 68

Cymbella silesiaca Bleisch in Rabenhorst, 1875
(Syn.: *Cymbella ventricosa* Kützing; *Cymbella ventricosa* v. *silesiaca* (Bleisch ex Rabenhorst) Cleve-Euler; *Cymbella minuta* v. *silesiaca* Bleisch)
22, 32, 34, 66

Cymbella similis Krasske
10, 22

Cymbella sinuata Gregory
10, 22, 28, 29, 32, 54, 55, 57, 59, 61, 62, 64,
66, 68, 69

Cymbella subaequalis Grunow in V. Heurck, 1880
66

Cymbella tumida (Brébisson ex Kützing) Grunow in V. Heurck, 1880
26, 31, 57, 66, 68

Cymbella tumidula Grunow ex A. Schmidt, 1875
29, 31, 32, 57, 64, 66

DENTICULA Kützing, 1844

Denticula elegans Kützing
1, 19, 22, 28, 30, 31, 32, 34, 40, 57, 68

Denticula kützingii Grunow
(Syn.: *Nitzschia denticula* Grunow in Cleve & Grunow, 1880)
57, 68

Denticula sundayensis Arch.
57, 62, 68

Denticula tenuis Kützing
1, 10, 11, 19, 20, 21, 24, 25, 26, 27, 28, 30,
31, 32, 34, 35, 36, 37, 57, 59, 64, 69

Denticula tenuis v. **crassula** (Nägeli) W. &
G.S. West
57, 61, 64, 69

Denticula tenuis v. **frigida** (Kützing) Grunow
in V. Heurck, 1881
1, 19, 30

Denticula thermalis Kützing
40

DIATOMA De Candolle, 1805

Diatoma anceps (Ehrenberg) Kirchner
1, 7, 10, 12, 29

Diatoma hyemalis (Roth) Heiberg
7, 10, 11, 22, 28, 31, 32, 40, 57, 59, 61, 64,
69, 70

Diatoma hyemalis v. **mesodon** (Ehrenberg)
Fricke
1, 12, 28, 31, 32, 34, 54, 55, 56, 57, 61, 64,
69, 70

Diatoma tenuis Agardh v. **elongatum**
Lyngbye
(Syn.: *Diatoma elongatum* (Lyngbye)
Agardh)
1, 10, 19, 28, 30, 31, 34, 36, 47, 59, 61, 68

Diatoma vulgaris Bory v. **vulgaris**
(Syn.: *Diatoma vulgaris* v. *capitulata* Grunow;
Diatoma vulgaris v. *producta* Grunow)
1, 4, 7, 11, 50, 51, 19, 20, 28, 29, 31, 32, 34,
54, 55, 56, 57, 59, 61, 64, 68, 69

Diatoma vulgaris v. **breve** Grunow
57, 68, 69

Diatoma vulgaris v. **ehrenbergii** (Kützing)
Grunow
(Syn.: *Diatoma vulgaris* v. *grandis* Grunow)
57, 69

Diatoma vulgaris v. **ovalis** (Fricke) Hustedt
57, 68, 69

DIDYMOSPHENIA M. Schmidt in A.
Schmidt, 1899 nom. cons.

Didymosphenia geminata (Lyngbye) M.
Schmidt in A. Schmidt, 1899
(Syn.: *Gomphonema geminatum* (Lyngbye)
Agardh)
30

DIPLONEIS Ehrenberg, 1840

Diploneis bombus (Ehrenberg) Ehrenberg
ex Cleve, 1894
68

Diploneis campylo-discus (Grunow) Cleve
68

Diploneis didyma (Ehrenberg) Ehrenberg
30, 68

Diploneis elliptica (Kützing) Cleve
(Syn.: *Navicula elliptica* Kützing)
1, 7, 8, 10, 11, 19, 21, 22, 25, 26, 27, 28, 30,
31, 32, 36, 37, 39, 40, 47, 57, 61, 68

Diploneis elliptica v. **ladogensis** Cleve
31, 34

Diploneis fusca (Gregory) Cleve v. **aestiva**
(Donkin) Hustedt
68

Diploneis gorjanovicii (Pant.) Hustedt
68

Diploneis interrupta (Kützing) Cleve
27, 30, 68, 70

Diploneis litoralis (Donkin) Cleve
68

Diploneis oblongella (Nägeli) Cleve-Euler
(Syn.: *Diploneis ovalis* (Hilse) Cleve v.
oblongella (Näg.) Cleve)
21, 22, 26, 27, 30, 31, 32, 34, 36, 57, 61, 62,
64, 68

Diploneis oculata (Brébisson) Cleve
30, 31, 64, 68

Diploneis ovalis (Hilse) Cleve
4, 10, 26, 27, 28, 30, 31, 34, 40, 54, 55, 62,
64, 68, 69

Diploneis parma Cleve
22, 27

- Diploneis petersenii** Hustedt
10
- Diploneis puella** (Schumann) Cleve
29, 30, 68
- Diploneis smithii** (Brébisson ex W. Smith) Cleve
(Syn.: *Navicula smithii* Brébisson)
7, 68
- Diploneis smithii** v. **pumila** (Grunow) Hustedt
(Syn.: *Diploneis ovalis* (Hilse) Cleve v. *pumila* Cleve)
19
- Diploneis smithii** v. **recta** Peragallo
68
- Diploneis smithii** v. **rhombica** Mereschkowski
68
- Diploneis splendida** (Gregory) Cleve
30
- Diploneis vetula** (A. Schmidt) Cleve
68
- Diploneis weissflogii** (A. Schmidt) Cleve
68
- DYTIUM** Bailey, 1861
- Dytilum brightwellii** (T. West) Grunow in V. Heurck, 1883
68
- ELLERBECKIA** Crawford, 1988
- Ellerbeckia arenaria** (Moore ex Ralfs) Crawford
(Syn.: *Melosira arenaria* Moore)
7, 11, 19, 25, 27, 28, 29, 30, 31, 32, 34, 54, 55, 57, 64
- EPITHEMIA** Brébisson, 1838
- Epithemia adnata** (Kützing) Brébisson
(Syn.: *Epithemia zebra* (Ehrenberg) Kützing)
4, 10, 26, 30, 31, 62, 68
- Epithemia adnata** v. **porcellus** (Kützing) Ross
(Syn.: *Epithemia zebra* (Ehrenberg) Kützing v. *porcellus* (Kützing) Grunow)
68
- Epithemia adnata** v. **saxonica** (Kützing) Patrick in Patrick & Reimer, 1975
(Syn.: *Epithemia zebra* (Ehrenberg) Kützing v. *saxonica* (Kützing) Grunow)
19, 22, 28, 31, 34, 68
- Epithemia argus** (Ehrenberg) Kützing
1, 19, 21, 26, 27, 29, 30, 31, 34, 68
- Epithemia argus** v. **alpestris** (W. Smith) Grunow
68
- Epithemia argus** v. **longicornis** (Ehrenberg) Grunow
68
- Epithemia goeppertiana** Hilse
(Syn.: *Epithemia muelleri* Fricke in A. Schmidt *et. al.*, 1904)
22, 31, 32, 40, 68
- Epithemia ocellata** (Ehrenberg) Kützing
34
- Epithemia sorex** Kützing
3, 4, 19, 20, 21, 24, 26, 30, 31, 34, 37, 54, 55, 56, 57, 62
- Epithemia turgida** (Ehrenberg) Kützing
1, 3, 4, 7, 11, 19, 21, 22, 28, 30, 34, 37, 48, 54, 55, 56, 57, 58, 61, 62
- EUNOTIA** Ehrenberg, 1837
- Eunotia arcus** Ehrenberg
1, 10, 19, 21, 22, 26, 28, 30, 31, 32, 34, 40, 53, 57, 64, 68
- Eunotia arcus** v. **bidens** Grunow in V. Heurck, 1881
57
- Eunotia arcus** v. **fallax** Hustedt
(Syn.: *Eunotia fallax* Cleve)
10, 22, 31
- Eunotia bidentula** W. Smith
32
- Eunotia bigibba** Kützing
22, 28
- Eunotia diodon** Ehrenberg
64

- Eunotia exigua** (Brébisson) Rabenhorst
10, 22, 28
- Eunotia exigua** v. **bidens** Hustedt
22
- Eunotia faba** (Ehrenberg) Grunow v. **densistriata** Oestrup
28
- Eunotia flexuosa** (Brébisson) Kützing
68
- Eunotia glacialis** Meister
(Syn.: *Eunotia gracilis* (Ehrenberg) Rabenhorst; *Eunotia valida* Hustedt)
1, 10, 22, 28, 32, 33, 40, 64
- Eunotia hexaglyphis** Ehrenberg
(Syn.: *Eunotia polyglyphis* Grunow)
22
- Eunotia incisa** Gregory
64
- Eunotia lunaris** (Ehrenberg) Grunow
1, 20, 22, 25, 28, 31, 32, 34, 40, 64
- Eunotia lunaris** v. **capitata** Grunow
21, 29
- Eunotia nymanniana** Grunow in V. Heurck, 1881
64
- Eunotia papilio** (Grunow) Hustedt in A. Schmidt, 1913 This species seems to be a doubtful record from Spain
22
- Eunotia pectinalis** (O.F. Müller) Rabenhorst
4, 10, 22, 25, 27, 28, 30, 31, 32, 40, 52, 60, 62, 64, 68, 69
- Eunotia pectinalis** v. **minor** (Kützing) Rabenhorst
10, 19, 22, 28, 31, 32, 64
- Eunotia pectinalis** v. **undulata** (Ralfs) Rabenhorst
57, 64
- Eunotia pectinalis** v. **ventricosa** (Grunow) Hustedt
40, 68
- Eunotia praerupta** Ehrenberg
10, 29, 30, 31, 32, 34, 53, 64
- Eunotia praerupta** v. **bidens** (Ehrenberg) Grunow in Cleve & Grunow, 1880
10, 32
- Eunotia praerupta** v. **inflata** Grunow in V. Heurck, 1881
10, 22
- Eunotia praerupta** v. **simplex** Manguin
22, 28
- Eunotia pseudopectinalis** Hustedt
68
- Eunotia rhomboidea** Hustedt
64
- Eunotia serra** Ehrenberg
(Syn.: *Eunotia robusta* Ralfs in Pritchard, 1861 (Ehrenberg) Nörpel)
29
- Eunotia serra** v. **tetraodon** (Ehrenberg) Nörpel
(Syn.: *Eunotia robusta* v. *tetraodon* (Ehrenberg) Ralfs)
22, 32
- Eunotia serra** v. **diadema** (Ehrenberg) Patrick
(Syn.: *Eunotia robusta* v. *diadema* (Ehrenberg) Ralfs)
10, 40
- Eunotia sudetica** O. Müller
10, 64
- Eunotia tenella** (Grunow) Hustedt
28, 29, 31, 50, 51, 53, 64
- Eunotia trinacria** Krasske
22, 32
- Eunotia veneris** (Kützing) De Toni
28, 32
- FRAGILARIA** Lyngbye, 1819
- Fragilaria atomus** Hustedt
68
- Fragilaria bicapitata** A. Mayer
10, 40
- Fragilaria brevistriata** Grunow
10, 22, 28, 29, 40, 57, 59, 61, 62, 68
- Fragilaria capucina** Desmazières
4, 7, 11, 19, 20, 25, 26, 27, 30, 31, 32, 34,

36, 38, 40, 52, 57, 59, 61, 64, 69, 70

Fragilaria capucina v. **acuta** (Ehrenberg)
Rabenhorst
1, 22, 28, 31

Fragilaria capucina v. **mesolepta** (Rabenhorst) Rabenhorst
1, 22, 31, 54, 55, 56, 57, 62

Fragilaria construens (Ehrenberg) Grunow
1, 4, 10, 22, 24, 27, 28, 30, 31, 32, 34, 37,
38, 40, 57, 59, 61, 62, 64, 68, 69

Fragilaria construens v. **binodis** (Ehrenberg) Hustedt
22, 28, 30, 31, 57, 61

Fragilaria construens v. **subrotunda** Mayer
62

Fragilaria construens v. **subsalina** Hustedt
21, 57, 62

Fragilaria construens v. **venter** (Ehrenberg) Grunow in W. Heurck, 1881
19, 57, 58, 61, 64, 68, 69

Fragilaria crotonensis Kitton
19, 30, 31, 33, 35, 38, 40, 65

Fragilaria inflata (Heid.) Hustedt
10, 31

Fragilaria leptostauron (Ehrenberg) Hustedt
(Syn.: *Fragilaria harrisonii* Grunow)
28, 29, 30, 31, 34, 35, 64

Fragilaria leptostauron v. **dubia** Grunow
58, 64, 68

Fragilaria pinnata Ehrenberg
10, 22, 32, 36, 57, 59, 61, 64, 68, 69

Fragilaria pinnata v. **intercedens** (Grunow) Hustedt
(Syn.: *Fragilaria mutabilis* (W. Smith) Grunow)
19

Fragilaria pinnata v. **lancettula** (Schumann) Hustedt
57, 68, 69

Fragilaria pseudoconstruens Marciniak
64

Fragilaria robusta (Fusey) Manguin
(Syn.: *Fragilaria pseudoconstruens* v. *bigibba* (Manguin) Marciniak)
64

Fragilaria vaucheriae (Kützing) Petersen in V. Heurck, 1881
(Syn.: *Fragilaria intermedia* Grunow; *Synedra vaucheriae* (Kützing) Kützing)
4, 10, 20, 29, 30, 31, 34, 52, 54, 55, 57, 59,
60, 61, 68, 70

Fragilaria virescens Ralfs
10, 22, 28, 31, 32, 43, 58, 60

Fragilaria virescens v. **exigua** Grunow
64

FRUSTULIA Agardh, 1824

Frustulia creuzburgensis (Krasske) Hustedt
(Syn.: *Navicula creuzburgensis* Krasske)
68

Frustulia rhomboides (Ehrenberg) De Toni
1, 10, 22, 28, 32, 40, 64

Frustulia rhomboides v. **saxonica** (Rabenhorst) De Toni
22, 28, 31, 32, 40

Frustulia spicula Amossé
64

Frustulia vulgaris (Thwaites) De Toni
10, 22, 25, 26, 28, 30, 31, 32, 34, 54, 57, 58,
61, 68, 69

Frustulia vulgaris v. **capitata** Krasske
22, 27, 31, 34, 58, 64

GOMPHOCYMBELLA O. Müller, 1905

Gomphocymbella ancyli (Cleve) Hustedt
(Syn.: *Cymbella ancyli* Cleve sensu Krammer & Lange-Bertalot)
28, 29, 31, 32, 34

GOMPHONEMA Agardh, 1824

Gomphonema acuminatum Ehrenberg
(Syn.: *Gomphonema acuminatum* v. *brebissonii* (Kützing) Cleve)
4, 8, 10, 19, 20, 21, 22, 25, 28, 29, 30, 31,
32, 34, 40, 57, 64, 66, 68

- Gomphonema acuminatum** v. **coronata** (Ehrenberg) W. Smith
22, 29, 31, 40, 54, 55, 66, 68
- Gomphonema acuminatum** v. **turris** (Ehrenberg) Cleve
22, 29, 31, 40, 54, 66, 68
- Gomphonema aestuarii** Cleve
68
- Gomphonema affine** Kützing
(Syn.: *Gomphonema lanceolatum* Ehrenberg)
19, 20, 66, 68
- Gomphonema affine** v. **insigne** (Gregory) Andrews
(Syn.: *Gomphonema insigne* Gregory sensu Krammer & Lange-Bertalot; *Gomphonema lanceolatum* Ehrenberg v. *insignis* (Gregory) Cleve)
10, 19, 20, 66, 68
- Gomphonema angustatum** (Kützing) Rabenhorst
4, 10, 31, 50, 51, 52, 53, 57, 59, 66, 68, 69
- Gomphonema angustatum** v. **producta** Grunow in V. Heurck, 1880
54, 55, 56, 57, 59, 61, 64, 66, 68, 69
- Gomphonema angustum** Agardh emend. Krammer & Lange-Bertalot
(Syn.: *Gomphonema bohemicum* Reichelt & Fricke; *Gomphonema intricatum* Kützing; *Gomphonema intricatum* v. *dichotoma* Kützing; *Gomphonema intricatum* v. *pumila* Grunow; *Gomphonema intricatum* v. *pusilla* A. Mayer; *Gomphonema intricatum* v. *vibrio* (Ehrenberg) Cleve)
10, 19, 20, 21, 25, 26, 27, 28, 30, 31, 32, 34, 36, 40, 54, 55, 56, 57, 64, 66, 68, 69
- Gomphonema apicatum** Ehrenberg
32
- Gomphonema clavatum** Ehrenberg
(Syn.: *Gomphonema longiceps* Ehrenberg v. *subclavata* Grunow i f. *gracilis* Hustedt)
4, 10, 66, 68
- Gomphonema clevei** Fricke in A. Schmidt, 1902
68
- Gomphonema gracile** Ehrenberg
10, 22, 26, 28, 30, 31, 32, 33, 40, 51, 57, 64, 66, 68, 69
- Gomphonema gracile** v. **lanceolata** (Kützing) Cleve
66, 68
- Gomphonema helveticum** Brun
32
- Gomphonema linearis** Hustedt
(Syn.: *Gomphonema angustatum* (Kützing) Rabenhorst v. *linearis* Hustedt)
40
- Gomphonema minutum** (Agardh) Agardh
(Syn.: *Licmophora minuta* Agardh; *Gomphonema curtum* Hustedt; *Gomphonema curta* (Hustedt) Lange-Bertalot p.p.)
1, 57, 59, 61, 64, 68, 69
- Gomphonema olivaceum** (Hornemann) Brébisson
(Syn.: *Gomphoneis olivacea* (Hornemann) Dawson ex Ross & Sims, 1978)
8, 10, 19, 21, 22, 24, 25, 27, 28, 30, 32, 34, 36, 37, 40, 54, 55, 56, 57, 59, 61, 66, 68
- Gomphonema olivaceum** v. **calcarea** (Cleve) Cleve
66, 68
- Gomphonema olivaceum** v. **minutissima** Hustedt
66
- Gomphonema parvulissima** Carter
10, 66
- Gomphonema parvulum** (Kützing) Kützing
10, 19, 21, 22, 27, 28, 30, 31, 34, 57, 59, 61, 66, 68
- Gomphonema parvulum** v. **micropus** (Kützing) Cleve
66
- Gomphonema parvulum** v. **subelliptica** Cleve
66
- Gomphonema rhombicum** Fricke in A. Schmidt, 1904
10, 66
- Gomphonema subtile** Ehrenberg v. **sagitta** (Schumann) Cleve
68

- Gomphonema tergestinum** (Grunow) Fricke in A. Schmidt, 1902
10, 57, 61, 66, 68, 69
- Gomphonema truncatum** Ehrenberg (Syn.: *Gomphonema constrictum* Ehrenberg)
4, 7, 10, 11, 15, 20, 22, 28, 30, 31, 32, 39, 40, 54, 55, 57, 58, 59, 61, 64, 66, 68
- Gomphonema truncatum** v. **capitatum** (Ehrenberg) Patrick in Patrick & Reimer, 1975
(Syn.: *Gomphonema constrictum* Ehrenberg v. *capitata* (Ehrenberg) V. Heurck)
19, 21, 25, 27, 28, 30, 31, 32, 52, 54, 55, 61, 66, 68, 69
- Gomphonema ventricosum** Gregory
40
- GRAMMATOPHORA** Ehrenberg, 1840
- Grammatophora angulosa** Ehrenberg
68
- Grammatophora marina** (Lyngbye) Kützing v. **marina**
68
- Grammatophora marina** (Lyngbye) Kützing v. **adriatica** Grunow
68
- GYROSIGMA** Hassall, 1845
- Gyrosigma acuminatum** (Kützing) Rabenhorst
31, 34, 37, 40, 54, 55, 57
- Gyrosigma acuminatum** v. **brebissonii** (Grunow) Cleve
19, 20, 21, 24, 26, 27, 30, 34
- Gyrosigma acuminatum** v. **gallicum** (Grunow) Cleve
19, 26, 58
- Gyrosigma attenuatum** (Kützing) Rabenhorst
1, 7, 25, 31, 34, 57, 68, 69
- Gyrosigma balticum** (Ehrenberg) Rabenhorst
30, 68
- Gyrosigma eximium** (Thwaites) Boyer (Syn.: *Gyrosigma scalproides* Rabenhorst v. *eximia* (Thwaites) Cleve)
19, 27, 30, 31, 68
- Gyrosigma fasciola** (Ehrenberg) Griff. & Henfr.
31, 34
- Gyrosigma macrum** (W. Smith) Griff. & Henfr.
9
- Gyrosigma nodiferum** (Grunow) Reimer (Syn.: *Gyrosigma spencerii* v. *nodifera* (Grunow) Cleve)
57, 69
- Gyrosigma peisonis** (Grunow) Hustedt (Syn.: *Gyrosigma wansbeckii* v. *peisonis* (Grunow) Cleve)
68
- Gyrosigma scalproides** (Rabenhorst) Cleve
34, 57, 61, 64, 69
- Gyrosigma spencerii** (Quek.) Cleve
26, 30, 31, 57, 68, 69
- Gyrosigma spencerii** v. **curvula** (Grunow) Reimer
68
- Gyrosigma strigilis** (W. Smith) Griff. & Henfr.
68
- Gyrosigma wansbeckii** (Donkin) Cleve
19, 20, 68
- HANTZSCHIA** Grunow, 1877, nom. cons.
- Hantzschia amphioxys** (Ehrenberg) Grunow in Cleve & Grunow, 1880
2, 4, 7, 11, 18, 19, 20, 22, 24, 26, 27, 30, 31, 32, 34, 43, 54, 55, 57, 58, 61, 62, 68, 69
- Hantzschia amphioxys** v. **capitata** O. Müller
68
- Hantzschia amphioxys** v. **maior** Grunow in V. Heurck, 1881
28, 54, 55
- Hantzschia amphioxys** v. **vivax** Grunow in Cleve & Grunow, 1880
22, 27, 31

- Hantzschia distinctepunctata** Hustedt in A. Schmidt *et al.*, 1921
68
- Hantzschia fenestrata** Hustedt
68
- Hantzschia marina** (Donkin) Cleve in Cleve & Grunow, 1880
(Syn.: *Hantzschia pseudomarina* Hustedt in A. Schmidt *et al.*, 1922)
68
- Hantzschia spectabilis** (Ehrenberg) Hustedt
(Syn.: *Nitzschia spectabilis* (Ehrenberg) Ralfs; *Nitzschia brebissonii* W. Smith)
1, 20, 24, 26, 27, 30, 31, 34
- Hantzschia virgata** (Roper) Grunow in Cleve & Grunow, 1880 v. **capitellata** Hustedt in A. Schmidt *et al.*, 1922
68
- Hantzschia vivax** (W. Smith) M. Peragallo in Tempere & Peragallo, 1908
(Syn.: *Nitzschia vivax* W. Smith)
68
- HYALODISCUS** Ehrenberg, 1845
- Hyalodiscus whitneyi** Ehrenberg
68
- LICMOPHORA** Agardh, 1827
- Licmophora abbreviata** Agardh
(Syn.: *Licmophora lyngbyei* (Kützing) Grunow)
68
- Licmophora debilis** (Kützing) Grunow in V. Heurck, 1881
68
- Licmophora flabellata** (Greville) Agardh
68
- Licmophora gigantea** Mereschkowsky
68
- Licmophora hyalina** (Kützing) Grunow
68
- Licmophora nubecula** (Kützing) Grunow in Schneider, 1878
68
- Licmophora remulus** Grunow
68
- LICMOSPHENIA** Mereschkowsky, 1902
- Licmosphenia schmidtii** Mereschkowsky
68
- MASTOGLOIA** Thwaites, 1856
- Mastogloia angulata** Lewis
68
- Mastogloia aquilegiae** Grunow
26, 30, 34, 67, 68
- Mastogloia baltica** Grunow in V. Heurck, 1888
67, 68
- Mastogloia braunii** Grunow
26, 30, 37, 44, 67, 68
- Mastogloia crucicula** (Grunow) Cleve
68
- Mastogloia desertorum** Voigt
68
- Mastogloia elliptica** (Agardh) Cleve ex. A. Schmidt, 1893
34, 37, 68
- Mastogloia elliptica** v. **dansei** (Thwaites) Cleve
21, 68
- Mastogloia ignorata** Hustedt
68
- Mastogloia ovalis** A. Schmidt
68
- Mastogloia ovulum** Hustedt
68
- Mastogloia paradoxa** Grunow
68
- Mastogloia pisciculus** Cleve
68
- Mastogloia pumila** (Cleve & Möller) Cleve
67, 68
- Mastogloia pusilla** Grunow
67, 68

Mastogloia pusilla v. **linearis** Oestrup
67, 68

Mastogloia recta Hustedt
68

Mastogloia robusta Hustedt
68

Mastogloia schmidtii Heid.
67, 68

Mastogloia smithii Thwaites ex W. Smith,
1856
19, 24, 30, 31, 37, 64, 67, 68

Mastogloia smithii v. **amphicephala** Grunow
in V. Heurck, 1880
21, 31, 58, 68

Mastogloia smithii v. **lacustris** Grunow
20, 21, 27, 31, 34, 64, 68

Mastogloia varians Hustedt
68

MELOSIRA Agardh, 1827, nom. cons.

Melosira dubia Kützing
9, 68

Melosira lineata (Dillwyn) Agardh
(Syn.: *Melosira juergensii* Agardh)
68

Melosira moniliformis (O.F. Müller)
Agardh
27, 30, 34

Melosira nummuloides (Dillwyn) Agardh
62, 68

Melosira roeseana Rabenhorst
10, 22, 28

Melosira roeseana v. **epidendron** Grunow
22, 31

Melosira varians Agardh
1, 2, 4, 15, 16, 19, 20, 21, 22, 27, 30, 31,
32, 34, 36, 38, 50, 51, 52, 57, 59, 61, 62, 63,
68, 69

MERIDION Agardh, 1824

Meridion circulare (Greville) C.A. Agardh
4, 7, 10, 11, 19, 22, 28, 30, 31, 32, 34, 40,
54, 55, 56, 57, 59, 61, 69, 70

Meridion circulare v. **constrictum** (Ralfs)
V. Heurck
22, 28, 31, 32

NAVICULA Bory, 1822

Navicula accomoda Hustedt
57, 59, 61, 68, 69

Navicula ammophila Grunow v. **intermedia**
Grunow
50

Navicula angusta Grunow
(Syn.: *Navicula lobeliae* Joergensen)
28

Navicula antiqua Grunow
51

Navicula arenaria Donkin
68

Navicula armata Carter
10

Navicula armoricana Amossé
(Syn.: *Navicula barbari* Hendey)
68

Navicula arvensiformis Carter
10

Navicula arvensis Hustedt
68, 69

Navicula asellus Weinhold ex Hustedt
64

Navicula atomus (Kützing) Grunow
18, 22, 31, 57, 59, 69

Navicula atomus v. **excelsa** (Krasske) Lange-Bertalot
64

Navicula atomus v. **permitis** (Hustedt)
Lange-Bertalot
(Syn.: *Navicula permitis* Hustedt)
57, 61, 68, 69

Navicula bacillum Ehrenberg
68, 69

Navicula bahusiensis (Grunow) Grunow
68

- Navicula brockmannii** Hustedt
64
- Navicula bryophila** Petersen v. **lapponica** Hustedt
10
- Navicula bulnheimii** Grunow in V. Heurck, 1880
68
- Navicula cancellata** Donkin
49, 50, 51
- Navicula cancellata** v. **subapiculata** Grunow
68
- Navicula capitata** Ehrenberg
(Syn.: *Navicula hungarica* & v. *capitata* (Ehrenberg) Cleve)
31, 57, 59, 62, 64, 68
- Navicula capitata** Ehrenberg v. **hungarica** (Grunow) Ross
(Syn.: *Navicula hungarica* v. *linearis* Oestrup)
68
- Navicula capitoradiata** Germain
(Syn.: *Navicula salinarum* Grunow v. *intermedia* Grunow; *Navicula cryptocephala* Kützing v. *intermedia* Grunow)
54, 55, 57, 59, 61, 68, 69
- Navicula cari** Ehrenberg
(Syn.: *Navicula cincta* (Ehrenberg) Kützing v. *cari* (Ehrenberg) Cleve)
10, 29, 57, 61, 64, 68, 69
- Navicula cincta** (Ehrenberg) Ralfs
(Syn.: *Navicula cari* Ehrenberg v. *cincta* (Ehrenberg) Lange-Bertalot p.p.)
4, 19, 20, 27, 30, 31, 36, 57, 59, 61, 62, 64, 68
- Navicula clamans** Hustedt
68
- Navicula clementis** Grunow
68
- Navicula cocconeiformis** Gregory ex Greville, 1855
10, 57
- Navicula cohnii** (Hilse) Lange-Bertalot
(Syn.: *Navicula mutica* Kützing v. *cohnii* (Hilse) Grunow in V. Heurck, 1880)
1, 62, 64, 68, 69
- Navicula contenta** Grunow in V. Heurck, 1885
10, 28, 57, 62, 64, 68
- Navicula contenta** f. **biceps** (Grunow) Hustedt
18, 22, 31, 43, 57, 68
- Navicula crucicula** (W. Smith) Donkin v. **cruciculoides** (Brockmann) Lange-Bertalot
(Syn.: *Navicula cruciculoides* Brockmann)
68
- Navicula cryptocephala** Kützing
(Syn.: *Navicula cryptocephala* v. *exilis* (Kützing) Grunow)
2, 4, 7, 8, 9, 10, 11, 14, 18, 19, 20, 21, 22, 25, 26, 27, 28, 30, 31, 32, 34, 36, 47, 50, 51, 52, 55, 56, 57, 58, 59, 61, 62, 64, 65, 68, 69
- Navicula cryptotenella** Lange-Bertalot
(Syn.: *Navicula radiosa* v. *tenella* (Brébisson) V. Heurck)
21, 57, 58, 62, 64, 68, 69
- Navicula cuspidata** (Kützing) Kützing
(Syn.: *Navicula cuspidata* v. *ambigua* (Ehrenberg) Cleve)
2, 19, 20, 26, 27, 30, 31, 34, 37, 47, 57, 58, 59, 61, 68, 69
- Navicula cuspidata** v. **media** Meister
21, 22, 30, 34
- Navicula decussis** Oestrup
57, 59, 61, 68
- Navicula delicatula** Cleve
68
- Navicula detenta** Hustedt
10
- Navicula difficillimoides** Hustedt
10
- Navicula digitoradiata** (Gregory) Ralfs in Pritchard, 1861
27, 30, 37, 68
- Navicula digitulus** Hustedt
64

- Navicula dilucida** Hustedt
68
- Navicula disjuncta** Hustedt
10
- Navicula elginensis** (Gregory) Ralfs
(Syn.: *Navicula anglica* Ralfs in Pritchard, 1861 & v. *minuta* Cleve; *Navicula dicephala* (Ehrenberg) W. Smith & v. *neglecta* (Kraske) Hustedt; *Navicula neglecta* Kraske)
1, 10, 19, 25, 26, 27, 28, 31, 33, 50
- Navicula exigua** (Gregory) Grunow
29, 31, 33, 47
- Navicula festiva** Kraske
10
- Navicula fluens** Hustedt
10
- Navicula forcipata** Greville
7, 49, 68
- Navicula gallica** (W. Smith) Lagerstedt
64
- Navicula gallica** (W. Smith) Lagerst. v. **perpusilla** (Grunow) Lange-Bertalot
(Syn.: *Navicula perpusilla* (Kützing) Grunow)
10, 31, 34, 62, 64
- Navicula gastrum** (Ehrenberg) Kützing
31, 34
- Navicula gibbula** Cleve
57, 61, 62, 64, 68
- Navicula goeppertiana** (Bleisch) H. L. Smith
(Syn.: *Navicula mutica* Kützing v. *goeppertiana* Grunow)
50, 51, 52, 57, 59, 61, 62, 64, 69
- Navicula gottlandica** Grunow in V. Heurck, 1880
33
- Navicula graciloides** A. Mayer
18, 43, 59, 61, 65, 68, 69
- Navicula gregaria** Donkin
10, 57, 6, 61, 62, 68, 69
- Navicula halophila** (Grunow) Cleve
emend. Krammer & Lange-Bertalot
(Syn.: *Navicula halophila* f. *robusta* Hustedt; *Navicula halophila* f. *subcapitata* Oestrup; *Navicula buderii* Hustedt)
10, 19, 20, 24, 26, 27, 30, 34, 50, 51, 52, 59, 61, 62, 64, 68
- Navicula hambergii** Hustedt
64
- Navicula hedinii** Hustedt
68
- Navicula heimansii** Van Dam & Kooyman
57
- Navicula hennedyi** W. Smith
49, 68
- Navicula humerosa** Brébisson ex W. Smith, 1856
30, 33, 68
- Navicula hustedtii** Kraske
10, 68
- Navicula hyalosirella** Hustedt
68
- Navicula ignota** Kraske
64
- Navicula insociabilis** Kraske
(Syn.: *Navicula fritschii* Lund)
50, 52, 68
- Navicula jaernefeltii** Hustedt
10
- Navicula joubaudii** Germain
(Syn.: *Navicula seminulum* v. *radiosa* Hustedt)
10, 57, 68
- Navicula kotschyi** Grunow
(Syn.: *Navicula grimmei* Kraske)
28, 30, 31, 34, 57, 61, 68
- Navicula laevisissima** Kützing
(Syn.: *Navicula bacilliformis* Grunow; *Navicula wittrockii* (Lagerheim) Temp. & Peragallo)
10, 28, 30, 68
- Navicula lanceolata** (Agardh) Ehrenberg
non sensu Kützing
11, 19, 22, 25, 26, 27, 28, 30, 31, 32, 34, 36, 37, 40, 50, 51, 57, 59, 61, 68, 69

- Navicula lange-bertalotii** Reichardt
64
- Navicula longicephala** Hustedt
62
- Navicula longicephala** v. **vilaplanii** Lange-Bertalot & Sabater
62
- Navicula lundstroemii** Cleve v. **proctata** (Grunow) Kolbe
30
- Navicula lyra** Ehrenberg
68
- Navicula marina** Ralfs in Pritchard, 1861
(Syn.: *Navicula punctulata* W. Smith non *Navicula punctulata* Ehrenberg)
68
- Navicula medioconvexa** Hustedt
10
- Navicula mediocris** Krasske
64
- Navicula menisculus** Schumann
(Syn.: *Navicula peregrina* (Ehrenberg) Kützing v. *menisculus* (Schumann) V. Heurck)
19, 22, 28, 30, 31, 32, 34, 57, 61, 68
- Navicula menisculus** v. **upsaliensis** Grunow in Cleve & Grunow, 1880
57, 61
- Navicula minima** Grunow in V. Heurck, 1880
(Syn.: *Navicula minima* Grunow v. *atomoides* (Grunow) Cleve; *Navicula tantula* Hustedt; *Navicula atomoides* Grunow in V. Heurck p.p.)
1, 10, 18, 26, 27, 30, 32, 43, 51, 57, 59, 61, 62, 64, 68, 69
- Navicula minuscula** Grunow in V. Heurck, 1880
9, 30, 51, 57, 59, 68
- Navicula minuscula** v. **muralis** (Grunow) Lange-Bertalot
(Syn.: *Navicula muralis* Grunow in V. Heurck, 1880 p.p.)
57
- Navicula modica** Hustedt
52
- Navicula mollis** (W. Smith) Cleve
68
- Navicula monoculata** Hustedt
58, 62
- Navicula monoculata** v. **omissa** (Hustedt) Lange-Bertalot
(Syn.: *Navicula omissa* Hustedt)
10
- Navicula mucicola** Hustedt
10
- Navicula mutabilis** Tomàs
68
- Navicula mutica** Kützing
22, 30, 32, 43, 50, 57, 62, 64, 68
- Navicula mutica** v. **binodis** Hustedt
31
- Navicula naumannii** Hustedt
64
- Navicula neoventricosa** Hustedt
(Syn.: *Navicula mutica* Kützing v. *ventricosa* (Kützing) Cleve & Grunow)
8, 27, 31, 68
- Navicula nivalis** Ehrenberg
(Syn.: *Navicula mutica* Kützing v. *nivalis* Hustedt)
26, 27, 30, 31, 34, 64
- Navicula normaloides** Cholnoky
68
- Navicula oblonga** (Kützing) Kützing
20, 24, 26, 27, 30, 31, 34, 37, 52, 68
- Navicula omissa** Hustedt
(Syn.: *Navicula monoculata* Hustedt v. *omissa* (Hustedt) Lange-Bertalot p.p.)
10
- Navicula ordinaria** Hustedt
(Syn.: *Navicula tenuipunctata* Hustedt)
68
- Navicula palpebralis** Brébisson ex W. Smith, 1853
68

- Navicula paramutica** Bockmann
62
- Navicula paucivstriata** Patrick
68
- Navicula pavillardii** Hustedt
68
- Navicula pelliculosa** (Brébisson ex Kützing) Hilse in Rabenhorst, 1862
10, 19, 28, 30, 31, 32, 34, 57, 59, 61, 62, 68, 69
- Navicula pennata** A. Schmidt
49, 68
- Navicula peregrina** (Ehrenberg) Kützing
30, 31, 33, 34, 62, 68
- Navicula perhyalina** Cleve
10
- Navicula perparva** Hustedt
68
- Navicula phyllepta** Kützing
(Syn.: *Navicula minuscula* Grunow v. *isriana* Grunow; *Navicula lanceolata* (Agardh) Ehrenberg v. *phyllepta* (Kützing) V. Heurck)
50, 51, 57, 59, 61, 65, 68, 69
- Navicula placentula** (Erh.) Kützing f. *lan- ceolata* Grunow
21
- Navicula placentula** f. *rostrata* (A. Mayer) Hustedt
68
- Navicula praeterita** Hustedt
64
- Navicula protracta** (Grunow) Cleve
62, 68
- Navicula protracta** f. *elliptica* (Gallik) Hus- tedt
68
- Navicula protracta** f. *subcapitata* (Wils. & Por.) Hustedt
68
- Navicula pseudoarvensis** Hustedt
10
- Navicula pseudobryophila** Hustedt
10
- Navicula pseudoincerta** Giffen
68
- Navicula pseudolanceolata** Lange-Berta- lot
68
- Navicula pseudolitoricola** Håkansson
68
- Navicula pseudoscutiformis** Hustedt
10
- Navicula pseudotuscula** Hustedt
57
- Navicula pupula** Kützing
10, 22, 25, 26, 27, 28, 29, 32, 34, 52, 57, 59, 61, 62, 64, 68, 69
- Navicula pupula** v. *bacillarioides* Gregory
31
- Navicula pupula** v. *capitata* Skovortzow & A. Meyer
57, 68
- Navicula pupula** f. *rostrata* Hustedt
68
- Navicula pupula** Kützing v. *nyassensis* (O. Müller) Lange-Bertalot p.p.
(Syn.: *Navicula nyassensis* O. Müller)
57
- Navicula pusilla** W. Smith
4, 31, 62, 68
- Navicula pusilla** v. *lundstroemii* (Cleve) Lange-Bertalot
(Syn.: *Navicula lundstroemii* Cleve in Cle- ve & Grunow, 1880)
30
- Navicula pusilla** v. *incognita* (Krasske) Lange-Bertalot
62
- Navicula pusio** Cleve
10
- Navicula pygmaea** Kützing
8, 10, 11, 50, 51, 52, 57, 58, 59, 62, 64, 68, 69

- Navicula radiosa** Kützing
4, 10, 19, 20, 21, 22, 25, 26, 27, 28, 30, 31,
32, 34, 35, 36, 37, 40, 50, 52, 57, 58, 59, 61,
64, 68, 69, 70
- Navicula ramosissima** (Agardh) Cleve
68
- Navicula recens** (Lange-Bertalot) Lange-
Bertalot
(Syn.: *Navicula cari* v. *recens* Lange-
Bertalot)
59, 64, 68, 69
- Navicula rhynchocephala** Kützing
10, 19, 21, 22, 26, 27, 30, 31, 34, 50, 64, 68
- Navicula rhynchocephala** v. **amphiceros**
(Kützing) Grunow in Cleve & Grunow,
1880
58, 68
- Navicula rhynchocephala** v. **brevis** Gru-
now
31
- Navicula rotesta** Carter
10
- Navicula rotunda** Hustedt
68
- Navicula salinarum** Grunow in Cleve &
Grunow, 1880
19, 20, 24, 30, 31, 34, 62, 68
- Navicula salinarum** f. **capitata** Schultz
62, 68
- Navicula salinarum** f. **minima** Kolbe
68
- Navicula salinicola** Hustedt
68
- Navicula saprophila** Lange-Bertalot & Bo-
nik
(Syn.: *Navicula muralis* Grunow f. *minuta*
Grunow in V. Heurck, 1880)
69
- Navicula saxophila** Bock
68
- Navicula schmassmannii** Hustedt
10, 64
- Navicula schoenfeldii** Hustedt
68
- Navicula schroeterii** Meister
(Syn.: *Navicula symmetrica* Patrick)
57, 59, 68, 69
- Navicula secura** Patrick
68
- Navicula seminuloides** Hustedt
68
- Navicula seminulum** Grunow
10, 27, 57, 59, 61, 62, 64, 68, 69
- Navicula severascens** Cholnoky
68
- Navicula schadei** Krasske
(Syn.: *Navicula globosa* Meister)
68
- Navicula slesvicensis** Grunow in V.
Heurck, 1880
68
- Navicula soehrensii** Krasske v. **musci-
cola** (Petersen) Krasske
10
- Navicula soodensis** Krasske
(Syn.: *Stauroneis laglerii* Hustedt)
68
- Navicula spicula** (Hickie) Cleve
(Syn.: *Stauroneis spicula* Hickie)
68
- Navicula stroemii** Hustedt
64
- Navicula subexilissima** Carter
10
- Navicula subhamulata** Grunow in V.
Heurck, 1880
68
- Navicula subminuscula** Manguin
(Syn.: *Navicula frugalis* Hustedt; *Navicula
demissa* Hustedt; *Navicula luzonensis* Hus-
tedt)
57, 59, 61, 62, 68, 69

- Navicula subrhynchocephala** Hustedt *sensu* Germain
62, 68
- Navicula subtilissima** Cleve
10, 28, 29, 40, 52, 64, 68
- Navicula subvasta** Hustedt
10
- Navicula suchlandtii** Hustedt
64
- Navicula tenelloides** Hustedt
64
- Navicula tenera** Hustedt
(Syn.: *Navicula dissipata* Hustedt; *Navicula auriculata* Hustedt; *Navicula insociabilis* Krasske v. *dissipatoides* Hustedt)
68
- Navicula towutiensis** Cholnoky
68
- Navicula tridentula** Krasske
62
- Navicula tripunctata** (O.F. Müller) Bory
(Syn.: *Navicula gracilis* Ehrenberg; *Navicula gracilis* v. *neglecta* (Thwaites) Grunow)
19, 20, 26, 27, 29, 30, 31, 32, 34, 40, 50, 51, 54, 56, 57, 59, 64, 68, 69, 70
- Navicula trivialis** Lange-Bertalot
(Syn.: *Navicula lanceolata sensu* Kützing, *sensu* Grunow, *non sensu* Hustedt)
57, 58, 59, 68, 69
- Navicula tuscula** Ehrenberg
27
- Navicula vanheurckii** Patrick in Patrick & Reimer, 1966
(Syn.: *Navicula rotaeana* (Rabenhorst) Grunow)
10, 28, 32, 36
- Navicula variostrata** Krasske
10
- Navicula veneta** Kützing *sensu* Krammer & Lange-Bertalot
(Syn.: *Navicula cryptocephala* v. *veneta* (Kützing) Rabenhorst)
10, 50, 57, 58, 62, 68, 69
- Navicula ventralis** Krasske
10
- Navicula viridula** (Kützing) Ehrenberg
7, 10, 11, 27, 29, 30, 31, 32, 37, 51, 52, 61, 68, 69, 70
- Navicula viridula** v. **rostellata** Cleve
(Syn.: *Navicula rostellata* Kützing; *Navicula rhynchocephala* Kützing v. *rostellata* (Kützing) Cleve & Grunow)
29, 31, 50, 57, 59, 61, 68, 69
- Navicula visitanda** Carter
10
- Navicula vitabunda** Hustedt
68
- Navicula vulpina** Kützing
21, 22, 26, 27, 28, 30, 31, 34, 55
- NEIDIUM** Pfitzer, 1871
- Neidium affine** (Ehrenberg) Pfitzer
(Syn.: *Neidium affine* v. *amphirhynchus* (Ehrenberg) Cleve)
10, 11, 32, 36, 53, 62, 68, 70
- Neidium affine** v. **media** Cleve
22
- Neidium affine** f. **minor** Cleve
22
- Neidium alpinum** Hustedt
10
- Neidium ampliatum** (Ehrenberg) Krammer
(Syn.: *Neidium iridis* v. *ampliatum* (Ehrenberg) Cleve; *Neidium iridis* v. *vernalis* Reichelt)
20, 57, 68
- Neidium binodis** (Ehrenberg) Hustedt
(Syn.: *Navicula binodis* Ehrenberg)
1, 19, 30, 31, 34, 64
- Neidium bisulcatum** (Lagerst.) Cleve
10, 64
- Neidium dubium** (Ehrenberg) Cleve
30, 31, 34, 54, 55, 57, 58, 64, 68
- Neidium dubium** v. **constricta** Hustedt
55, 57

- Neidium hercynicum** A. Mayer
64
- Neidium iridis** (Ehrenberg) Cleve
(Syn.: *Neidium iridis* v. *amphigomphus*
(Ehrenberg) A. Mayer)
10, 22, 28, 29, 30, 31, 57, 68
- Neidium lineare** Oestrup
10
- Neidium productum** (W. Smith) Cleve
27, 31
- NITZSCHIA** Hassall, 1845
- Nitzschia acicularis** (Kützing) W. Smith
10, 13, 14, 19, 20, 22, 26, 27, 28, 29, 30, 31,
34, 47, 48, 51, 52, 62, 68, 69
- Nitzschia acuminata** (W. Smith) Grunow
68
- Nitzschia acula** Hantzsh in Rabenhorst,
1862
54, 55
- Nitzschia agnita** Hustedt
10
- Nitzschia alpina** Hustedt
64
- Nitzschia amphibia** Grunow
19, 30, 31, 50, 51, 52, 57, 59, 62, 64, 68, 69
- Nitzschia amplexans** Hustedt
68
- Nitzschia angustata** (W. Smith) Grunow in
Cleve & Grunow, 1880
57, 64, 68, 69
- Nitzschia angustata** v. **acuta** Grunow
10, 68
- Nitzschia angustatula** Lange-Bertalot
64
- Nitzschia archibaldii** Lange-Bertalot
62, 64
- Nitzschia aurariae** Cholnoky
(Syn.: *Nitzschia alexandrina* (Cholnoky)
Lange-Bertalot & Simonsen; *Nitzschia ellip-*
tica Hustedt v. *alexandrina* Cholnoky)
57, 68
- Nitzschia brevissima** Grunow in V.
Heurck, 1881
(Syn.: *Nitzschia parvula* Levis)
68
- Nitzschia circumsuta** (Bailey) Grunow
30, 68
- Nitzschia clausii** Hantzsch
19, 30, 31, 50, 51
- Nitzschia closterium** (Ehrenberg) W.
Smith
(Syn.: *Nitzschia longissima* (Brébisson)
Ralfs v. *closterium* (Ehrenberg) V. Heurck)
9, 20, 26, 27, 30, 31, 34, 57, 68
- Nitzschia coarctata** Grunow in Cleve &
Möller, 1878
(Syn.: *Nitzschia punctata* v. *coarctata*
(Grunow) Hustedt)
68
- Nitzschia communis** Rabenhorst
6, 50, 21, 27, 30, 57, 51, 68
- Nitzschia commutata** Grunow in Cleve &
Grunow, 1880
57
- Nitzschia compressa** (Bailey) Boyer v.
compressa
(Syn.: *Nitzschia punctata* (W. Smith) Gru-
now)
7, 9, 19, 27, 30, 34, 68
- Nitzschia compressa** v. **balatonis** (Gru-
now) Lange-Bertalot
(Syn.: *Nitzschia balatonis* Grunow)
68
- Nitzschia constricta** (Kützing) Ralfs in Prit-
chard, 1861
(Syn.: *Nitzschia apiculata* (Gregory) Gru-
now)
9, 19, 20, 26, 27, 30, 31, 57, 58, 59, 68, 69
- Nitzschia debilis** (Arnott) Grunow in Cleve
& Grunow
(Syn.: *Nitzschia tryblionella* v. *debilis* (Ar-
nott) A. Mayer)
57, 58, 68
- Nitzschia delicatissima** Cleve
13, 50
- Nitzschia dissipata** (Kützing) Grunow

8, 10, 19, 20, 30, 31, 32, 50, 51, 52, 54, 55,
56, 57, 58, 59, 62, 68, 69

Nitzschia dissipata v. **media** (Hantzsch)
Grunow
62

Nitzschia dubia W. Smith
51, 57, 68, 69

Nitzschia elegantula Grunow in V. Heurck,
1881
(Syn.: *Nitzschia microcephala* Grunow v.
elegantula V. Heurck; *Nitzschia jugiformis*
Hustedt)
68

Nitzschia elliptica Hustedt
64, 68

Nitzschia epithemoides Grunow in Cleve
& Grunow, 1880
64, 68

Nitzschia fasciculata (Grunow) Grunow in
V. Heurck, 1881
33

Nitzschia filiformis (W. Smith) V. Heurck
18, 62, 68, 69

Nitzschia fonticola Grunow in Cleve &
Möller, 1879
(Syn.: *Nitzschia romana* (Grunow) Gru-
now in V. Heurck, 1881)
10, 50, 57, 58, 59, 62, 64, 68, 69

Nitzschia franconica Reinsch
22

Nitzschia frustulum (Kützing) Grunow in
Cleve & Grunow, 1880
(Syn.: *Nitzschia inconspicua* Grunow;
Nitzschia frustulum (Kützing) Grunow v.
perminuta Grunow; *Nitzschia frustulum*
(Kützing) Grunow v. *perminuta* Grunow f.
curta Grunow)
10, 19, 21, 30, 36, 57, 58, 59, 62, 64, 68, 69

Nitzschia fruticosa Hustedt
50, 51

Nitzschia gandersheimiensis Krasske
57, 59, 62, 69

Nitzschia gessneri Hustedt
64

Nitzschia gracilis Hantzsch
3, 10, 13, 19, 22, 27, 28, 30, 31, 34, 50, 51,
52, 54, 55, 57, 58, 59, 62, 68

Nitzschia granulata Grunow in Cleve &
Möller, 1879
68

Nitzschia hantzschiana Rabenhorst
(Syn.: *Nitzschia frustulum* (Kützing) Gru-
now v. *hantzschiana* (Rabenhorst) Grunow)
10, 19, 22, 26, 28, 31, 32, 34, 50, 52, 57, 69

Nitzschia hungarica Grunow
(Syn.: *Nitzschia hungarica* v. *linearis* Gru-
now)
3, 10, 19, 20, 27, 30, 31, 34, 52, 57, 58, 59,
68, 69

Nitzschia hybrida Grunow in Cleve & Gru-
now, 1880
19, 68

Nitzschia intermedia Hantzsch ex Cleve &
Grunow, 1880
41, 65, 68

Nitzschia lacuum Lange-Bertalot
62, 64

Nitzschia lanceolata W. Smith
68

Nitzschia lanceolata v. **minor** Grunow in
V. Heurck, 1881
68

Nitzschia lesbia Cholnoky
68

Nitzschia levidensis (W. Smith) Grunow in
V. Heurck, 1881
(Syn.: *Nitzschia tryblionella* v. *levidensis*
(W. Smith) Grunow in Cleve & Grunow,
1880)
57, 68

Nitzschia linearis (Agardh) W. Smith
3, 4, 19, 21, 22, 25, 26, 27, 28, 31, 32, 34,
36, 38, 40, 54, 55, 56, 57, 58, 59, 64, 68, 69

Nitzschia littoralis Grunow in Cleve & Gru-
now, 1880
50

Nitzschia longissima (Brébisson ex Kützing)
Grunow
41, 50, 51, 65

- Nitzschia lorenziana** Grunow in Cleve & Grunow, 1880
(Syn.: *Nitzschia lorenziana* v. *subtilis* Grunow)
31, 34, 38, 68
- Nitzschia microcephala** Grunow in Cleve & Möller, 1878
10, 34, 57, 62, 68, 69
- Nitzschia nana** Grunow in V. Heurck 1881
(Syn.: *Nitzschia ignorata* Krasske)
33, 34, 50, 51, 70
- Nitzschia navicularis** (Brébisson) Grunow in Cleve & Grunow, 1880
62, 68
- Nitzschia obtusa** W. Smith
50, 54, 55, 68
- Nitzschia ovalis** Arnott
31
- Nitzschia palea** (Kützing) W. Smith
1, 10, 13, 14, 21, 22, 25, 26, 27, 30, 31, 32, 34, 36, 37, 47, 41, 50, 52, 53, 54, 55, 56, 57, 58, 59, 64, 65, 68, 69
- Nitzschia palea** v. **debilis** (Kützing) Grunow in Cleve & Grunow, 1880
51, 57, 62, 68, 69
- Nitzschia palea** v. **tenuirostris** Grunow in V. Heurck, 1881
41, 57, 65, 68, 69
- Nitzschia paleacea** (Grunow) Grunow in V. Heurck, 1881
(Syn.: *Nitzschia subtilis* Grunow v. *paleacea* Grunow in Cleve & Grunow, 1880)
13, 19, 30, 31, 34, 50, 51, 57, 58, 68, 69
- Nitzschia perindistincta** Cholnoky
68
- Nitzschia perminuta** (Grunow) M. Peragallo
(Syn.: *Nitzschia minutula* Grunow in V. Heurck, 1881)
10, 50
- Nitzschia pseudofonticola** Hustedt
62
- Nitzschia pusilla** (Kütz.) Grunow emend. Lange-Bertalot, 1976
(Syn.: *Nitzschia kuetzingiana* Hilse; *Nitzschia kuetzingiana* Hilse v. *exilis* Grunow)
9, 10, 19, 30, 31, 50, 51, 52, 57, 58, 59, 68, 69
- Nitzschia quadrangula** (Kützing) Lange-Bertalot
68
- Nitzschia recta** Hantzsch in Rabenhorst, 1861-1879
10, 21, 31, 68, 69
- Nitzschia rosenstockii** Lange-Bertalot
68
- Nitzschia scalaris** (Ehrenberg) W. Smith
68
- Nitzschia scalpelliformis** (Grunow) Grunow
(Syn.: *Nitzschia obtusa* var. *scalpelliformis* Grunow in Cleve & Möller, 1879)
62, 68
- Nitzschia serpenticula** Cholnoky
68
- Nitzschia sigma** (Kützing) W. Smith
20, 26, 30, 37, 50, 51, 57, 62, 68
- Nitzschia sigma** v. **rigida** (Kützing) Grunow in V. Heurck, 1881
(Syn.: *Nitzschia rigida* Grunow)
30, 68
- Nitzschia sigma** v. **rigidula** Grunow in V. Heurck, 1881
(Syn.: *Nitzschia rigida* Grunow v. *rigidula* Grunow)
19, 20, 27, 30, 31, 68
- Nitzschia sigmoidea** (Nitzsch) W. Smith
3, 15, 16, 19, 20, 21, 25, 26, 30, 31, 34, 37, 38, 57, 58, 68, 69
- Nitzschia sinuata** (Thwaites) Grunow in Cleve & Grunow, 1880
10, 30, 31, 34, 57, 59, 64, 69
- Nitzschia sinuata** v. **delognei** (Grunow) Lange-Bertalot
(Syn.: *Nitzschia denticula* Grunow v. *delognei* Grunow)
57, 59, 62, 64, 68
- Nitzschia sinuata** v. **tabellaria** (Grunow) Grunow in V. Heurck, 1881

(Syn.: *Nitzschia tabellaria* (Grunow) Grunow in Cleve & Grunow, 1880)
30, 33, 34, 57, 68

Nitzschia sociabilis Hustedt
57

Nitzschia sublinearis Hustedt
43

Nitzschia subtilis (Kützing) Grunow
19, 20, 27

Nitzschia suchlandtii Hustedt
62

Nitzschia supralitorea Lange-Bertalot
62, 64, 68

Nitzschia thermaloides Hustedt
57

Nitzschia tropica Hustedt
62

Nitzschia tryblionella Hantzsch in Rabenhorst, 1860
19, 20, 27, 31, 57, 68, 69

Nitzschia tryblionella v. **victoriae** (Grunow) Grunow in Cleve & Grunow, 1880
68

Nitzschia umbonata (Ehrenberg) Lange-Bertalot
(Syn.: *Nitzschia stagnorum* Rabenhorst; *Nitzschia thermalis* Grunow)
5, 8, 19, 26, 27, 30, 31, 34, 50, 51, 57, 59, 68, 69

Nitzschia vermicularis (Kützing) Hantzsch in Rabenhorst, 1860
19, 31, 68, 69, 70

Nitzschia vidovichii (Grunow) Peragallo
68

Nitzschia vitrea Norman
20, 27, 30, 31, 34, 37, 62, 68

Nitzschia vitrea v. **salinarum** Grunow
(Syn.: *Nitzschia montanensis* Camburn)
62

PERONIA Brébisson & Arnott, 1868

Peronia fibula (Brébisson) Ross
64

PINNULARIA Ehrenberg, 1840

Pinnularia appendiculata (Agardh) Cleve
(Syn.: *Pinnularia irròrata* (Grunow) Hustedt)
10, 57, 62, 64, 68

Pinnularia borealis Ehrenberg
10, 18, 19, 22, 27, 28, 32, 34, 43, 53, 62, 64

Pinnularia cardinalis (Ehrenberg) W. Smith
7, 48

Pinnularia clevei Patrick
(Syn.: *Pinnularia esox* Ehrenberg *sensu* Cleve)
10, 19, 31

Pinnularia dactylus Ehrenberg
22, 28

Pinnularia divergens W. Smith
10, 22, 31, 32, 40, 62

Pinnularia divergentissima (Grunow) Cleve
10

Pinnularia finlandica Cleve-Euler
50

Pinnularia gentilis (Donkin) Cleve
68

Pinnularia gibba Ehrenberg
(Syn.: *Pinnularia abaujensis* (Pant.) Ross; *Pinnularia parva* (Ehrenberg) Gregory; *Pinnularia stauoptera* (Grunow) Rabenhorst)
1, 3, 4, 10, 22, 28, 30, 32, 34, 40, 53, 62, 64, 68

Pinnularia gibba v. **mesogonglya** (Ehrenberg) Hustedt
(Syn.: *Pinnularia mesogonglya* Ehrenberg)
10, 31

Pinnularia globiceps Gregory
32

Pinnularia hemiptera (Kützing) Cleve
(Syn.: *Pinnularia acuminata* W. Smith; *Pinnularia debilis* (Pant.) Cleve-Euler)
10, 22, 28, 31, 32, 64

Pinnularia intermedia (Lagerstedt) Cleve
64

- Pinnularia interrupta** W. Smith
(Syn.: *Pinnularia biceps* Gregory; *Pinnularia mesolepta* (Ehrenberg) W. Smith)
10, 19, 22, 25, 28, 31, 32, 34, 53, 57, 70
- Pinnularia lata** (Brébisson) W. Smith v. **laestriata** (Gregory) Cleve
22, 28, 32
- Pinnularia legumen** Ehrenberg
10
- Pinnularia lundii** Hustedt
(Syn.: *Pinnularia interrupta* W. Smith v. *crassior* (Grunow) Cleve)
68
- Pinnularia maior** (Kützing) Rabenhorst
8, 10, 21, 22, 25, 28, 31, 32, 40, 57, 64, 68
- Pinnularia microstauron** (Ehrenberg) Cleve
10, 22, 28, 32, 34, 37, 53, 64
- Pinnularia microstauron** (Ehrenberg) Cleve v. **brebissonii** (Kützing) Mayer
(Syn.: *Pinnularia brebissonii* (Kützing) Rabenhorst)
10, 22, 27, 30, 31, 32, 57, 68
- Pinnularia microstauron** f. **biundulata** (O. Müller) Hustedt
32
- Pinnularia mormonorum** (Grunow) Patrick in Patrick & Reimer, 1966
(Syn.: *Pinnularia brebissonii* v. *linearis* O.F. Müller f. *curta* O.F. Müller)
19
- Pinnularia neglecta** (A. Mayer) Berg.
10
- Pinnularia nobilis** (Ehrenberg) Ehrenberg
(Syn.: *Navicula nobilis* Ehrenberg)
1, 7, 10, 22, 28
- Pinnularia nodosa** (Ehrenberg) W. Smith
(Syn.: *Pinnularia pseudogracillima* A. Mayer)
10, 22, 28
- Pinnularia obscura** Krasske
53, 64
- Pinnularia parva** v. **continua** A. Mayer
31
- Pinnularia pulchra** Oestrup
(Syn.: *Pinnularia mesolepta* v. *angusta* Cleve)
10, 28, 29, 31, 32
- Pinnularia semicruciata** (Ehrenberg) A. Cleve
(Syn.: *Pinnularia viridis* v. *semicruciata* (Grunow) Cleve)
22
- Pinnularia stauroptera** v. **clevei** Meister
19, 21, 22, 28, 34
- Pinnularia stauroptera** v. **interrupta** Cleve
19, 22, 28, 31, 32
- Pinnularia stomatophora** (Grunow) Cleve
10
- Pinnularia subcapitata** Gregory
(Syn.: *Pinnularia hilseana* Janisch)
10, 22, 31, 32, 34, 64
- Pinnularia subcapitata** v. **constricta** Hustedt
22, 28
- Pinnularia subcapitata** v. **hilseana** (Garrisch) Müller
64
- Pinnularia subsolaris** (Grunow) Cleve
29, 30, 31, 32, 34
- Pinnularia undulata** Gregory
29, 32, 40
- Pinnularia viridis** (Nitzsch) Ehrenberg
1, 4, 10, 11, 19, 21, 25, 27, 28, 32, 34, 40, 48, 52, 53, 57, 58, 62, 68
- Pinnularia viridis** v. **clevei** Meister
19, 22, 31
- Pinnularia viridis** v. **elliptica** Meister
19, 22, 28
- Pinnularia viridis** v. **sudetica** (Hilse) Hustedt
31

PLAGIOTROPIS Pfitzer, 1871

Plagiotropis lepidoptera (Cleve) Reimer
(Syn.: *Amphiprora lepidoptera* Gregory;
Tropidoneis lepidoptera (Gregory) Cleve)
68

PLEUROSIGMA W. Smith, 1852

Pleurosigma angulatum (Quek.) W. Smith
30, 68

Pleurosigma angulatum v. **aestuarii** (Bré-
bisson) V. Heurck
(Syn.: *Pleurosigma aestuarii* (Brébisson)
Cleve)
68

Pleurosigma delicatulum W. Smith
68

Pleurosigma elongatum W. Smith
7, 26, 27, 30, 31, 34, 68

Pleurosigma formosum W. Smith
26, 27, 30, 31, 34

Pleurosigma salinarum (Grunow) Grunow
in Cleve & Grunow, 1880
30, 31

RHAPHONEIS Ehrenberg, 1844

Rhaphoneis surirella (Ehrenberg) Grunow
(Syn.: *Delphineis surirella* (Ehrenberg)
G.W. Andrews)
68

RHOICOSPHENIA Grunow, 1860

Rhoicosphenia abbreviata (Agardh) Lan-
ge-Bertalot
(Syn.: *Rhoicosphenia curvata* (Kützing)
Grunow; *Gomphonema abbreviatum* Agardh;
Gomphonema curvatum Kützing)
7, 11, 19, 20, 22, 26, 27, 29, 30, 31, 34, 36,
50, 51, 52, 54, 55, 56, 57, 59, 62, 66, 68, 69

Rhoicosphenia marina (W. Smith) M.
Schmidt in A. Schmidt, 1889
50, 51, 52

RHOPALODIA O.F. Müller, 1895

Rhopalodia constricta (W. Smith) Kram-
mer
(Syn.: *Rhopalodia musculus* v. *constricta*

(Brébisson) V. Heurck; *Rhopalodia gibberu-
la* v. *constricta* (W. Smith) Karsten; *Epithe-
mia constricta* W. Smith)
19, 20, 26, 27, 30, 31, 34, 37

Rhopalodia gibba (Ehrenberg) O. Müller
1, 2, 19, 20, 21, 22, 25, 26, 27, 28, 30, 31,
34, 36, 37, 40, 54, 55, 57, 58, 62, 64, 68

Rhopalodia gibba v. **minuta** Krammer
64

Rhopalodia gibba v. **parallela** (Ehrenberg)
Grunow
(Syn.: *Rhopalodia parallela* (Grunow)
O.F. Müller)
8, 10, 29, 31

Rhopalodia gibba v. **ventricosa** (Kützing)
H. & M. Peragallo
4, 31, 68

Rhopalodia gibberula (Ehrenberg) O. Mü-
ller
10, 20, 22, 26, 28, 29, 30, 31, 34, 68

Rhopalodia gibberula v. **minuta** (Hantzsch)
Rabenhorst
19, 21

Rhopalodia musculus (Kützing) O. Müller
68

SCOLIOPLEURA Grunow, 1860

Scoliopleura peisonis Grunow
68

SKELETONEMA Greville, 1865

Skeletonema costatum (Greville) Cleve
50, 51, 68

Skeletonema potamos (Weber) Hasle in
Hasle & Evensen, 1976
63

STAURONEIS Ehrenberg, 1841

Stauroneis acuta W. Smith
22, 28, 31, 62

Stauroneis amphioxys Gregory
(Syn.: *Stauroneis gregorii* Ralfs in Prit-
chard, 1861; *Stauroneis gregorii* v. *diminuta*
Grunow; *Stauroneis salina* W. Smith v. *la-
gerstedtii* Cleve)
68

- Stauroneis amphoroides** Grunow
68
- Stauroneis anceps** Ehrenberg
(Syn.: *Stauroneis anceps* v. *birostris* (Ehrenberg) Cleve)
1, 4, 10, 22, 25, 28, 30, 31, 32, 34, 53, 68
- Stauroneis anceps** v. **hyalina** M. Peragallo & Brun in Héribaud, 1893
19, 22, 28, 32
- Stauroneis kriegerii** Patrick
(Syn.: *Stauroneis pygmaea* Krieger)
10, 32
- Stauroneis legumen** (Ehrenberg) Kützing
1, 54, 55
- Stauroneis phoenicenteron** (Nitzsch) Ehrenberg
(Syn.: *Stauroneis phoenicenteron* v. *amphilepta* (Ehrenberg) Cleve)
1, 10, 19, 22, 25, 27, 28, 31, 32, 34, 54, 55, 58, 62, 64
- Stauroneis prominula** (Grunow) Hustedt
62
- Stauroneis pygmaea** Krieger
32
- Stauroneis salina** W. Smith
27, 30, 37
- Stauroneis smithii** Grunow
10, 19, 22, 27, 31, 57, 64, 68, 69
- Stauroneis wislouchii** Poretzky & Anisimowa
68
- STENOPTEROBIA** Brébisson, 1868
- Stenopterobia anceps** Brébisson
28, 33
- Stenopterobia curvula** (W. Smith) Kramer
(Syn.: *Nitzschia curvula* (Ehrenberg) W. Smith; *Nitzschia sigma* v. *curvula* (Ehrenberg) Brun)
19
- Stenopterobia delicatissima** (Lewis) Brébisson ex V. Heurck, 1896
(Syn.: *Surirella delicatissima* Lewis)
28
- STEPHANODISCUS** Ehrenberg, 1846
- Stephanodiscus hantzschii** Grunow in Cleve & Grunow, 1880
13, 41, 57, 59, 65, 67
- Stephanodiscus hantzschii** f. **tenuis** (Hustedt) Näk. & Stoermer
63, 64
- Stephanodiscus minutulus** (Kützing) Cleve & Möller
(Syn.: *Stephanodiscus astraea* v. *minutula* (Kützing) Grunow)
59, 63, 64, 68, 69
- Stephanodiscus neoastraea** Håkansson & Hickel
(Syn.: *Stephanodiscus astraea* (Ehrenberg) Grunow in Cleve & Grunow, 1880)
10, 22, 38, 57, 59, 63, 64, 68, 69
- Stephanodiscus parvus** Stoermer & Håkansson
(Syn.: *Stephanodiscus hantzschii* Grunow f. *parva* Grunow ex Cleve & Möller)
35, 63, 68
- Stephanodiscus rotula** (Kützing) Hendey
63, 155
- Stephanodiscus subsalsus** (Cleve) Hustedt
50, 51
- STRIATELLA** Agardh, 1832
- Striatella unipunctata** (Lyngbye) Agardh
68
- SURIRELLA** Turpin, 1828
- Surirella angusta** Kützing
(Syn.: *Surirella ovalis* v. *angusta* (Kützing) V. Heurck)
19, 22, 27, 28, 29, 30, 31, 32, 34, 36, 53, 59, 68, 69
- Surirella biseriata** Brébisson in Brébisson & Godey, 1836
7, 12, 40, 64, 68
- Surirella biseriata** v. **subacuminata** Grunow
22, 28
- Surirella biseriata** v. **vulgaris** Meister
(Syn.: *Surirella biseriata* f. *minor* Grunow)
21

- Surirella elegans** Ehrenberg
12, 31, 70
- Surirella fastuosa** Ehrenberg
68
- Surirella linearis** W. Smith
10, 22, 28, 30, 31, 32, 34, 40, 55, 57, 59, 70,
68, 69, 52
- Surirella linearis** v. **constricta** Grunow
10, 32, 54, 55
- Surirella linearis** v. **elliptica** O.F. Müller
19
- Surirella minuta** Brébisson in Kützing,
1849
(Syn.: *Surirella pinnata* W. Smith; *Surirella ovata* v. *pinnata* (W. Smith) Brun & v. *salina* (W. Smith) Hustedt; *Surirella salina* W. Smith)
27, 30, 31, 34, 57, 68, 69
- Surirella ovalis** Brébisson
7, 11, 20, 21, 24, 26, 27, 30, 31, 43, 57, 68
- Surirella ovata** Kützing
6, 10, 26, 27, 30, 31, 32, 34, 36, 50, 51, 54,
55, 57, 59, 68, 69, 70
- Surirella patella** Kützing v. **subtilis** Meister
19
- Surirella robusta** Ehrenberg
22, 25, 28, 32, 33, 40, 68
- Surirella spiralis** Kützing
1, 15, 19, 26, 31, 34, 40, 68
- Surirella splendida** (Ehrenberg) Kützing
(Syn.: *Surirella robusta* v. *splendida* (Ehrenberg) V. Heurck)
1; 16, 19, 25, 26, 27, 28, 31, 32, 34, 40
- Surirella striatula** Turpin
19, 27, 30, 31, 34, 37, 68, 69
- Surirella tenera** Gregory
22, 68
- Surirella tenera** v. **nervosa** A. Schmidt
68
- SYNEDRA** Ehrenberg, 1830
- Synedra actinastroides** Lemmermann
9
- Synedra acus** Kützing
1, 3, 13, 14, 19, 20, 21, 22, 26, 27, 30, 31,
35, 38, 40, 47, 57, 59, 60, 64, 68
- Synedra amphicephala** Kützing
19, 25, 27, 28, 30, 31, 32, 40, 70
- Synedra baculus** Gregory
68
- Synedra capitata** Ehrenberg
19, 20, 30, 31, 34, 68
- Synedra crystallina** (Agardh) Kützing
68
- Synedra crystallina** v. **conspicua** (Grunow) Peregallo
68
- Synedra crystallina** v. **dalmatica** (Grunow) Peregallo
68
- Synedra delicatissima** W. Smith
(Syn.: *Synedra acus* v. *delicatissima* (W. Smith) Grunow)
19, 47
- Synedra delicatissima** v. **angustissima** Grunow in V. Heurck, 1881
(Syn.: *Synedra acus* v. *angustissima* (Grunow) V. Heurck)
57, 58
- Synedra fasciculata** (Agardh) Kützing
(Syn.: *Synedra tabulata* (Agardh) Kützing; *Synedra affinis* Kützing)
9, 19, 20, 24, 26, 27, 30, 34, 40, 51, 57, 62
- Synedra filiformis** Grunow
68
- Synedra filiformis** v. **capitata** Cleve
68
- Synedra filiformis** v. **exilis** Cleve
68
- Synedra filiformis** v. **maior** Cleve
68
- Synedra fulgens** (Greville) W. Smith v. **mediterranea** Grunow
68
- Synedra gaillonii** (Bory) Ehrenberg
26, 30, 31, 34

- Synedra hartii** Cholnoky
68
- Synedra laevigata** Grunow v. **angustata**
Grunow
68
- Synedra meridionalis** Tomàs
68
- Synedra minuscula** Grunow in V. Heurck,
1881
22, 27, 28, 32
- Synedra parasitica** (W. Smith) Hustedt
(Syn.: *Fragilaria parasitica* (W. Smith)
Grunow)
10, 19, 22, 28, 57, 68, 69
- Synedra parasitica** v. **subconstricta** (Grunow)
Hustedt
22, 68
- Synedra provincialis** Grunow
68
- Synedra pulchella** Ralfs
3, 4, 20, 27, 30, 31, 34, 57, 68
- Synedra pulchella** v. **lanceolata** O'Meara
68
- Synedra rumpens** Kützing
10, 57
- Synedra rumpens** v. **familiaris** (Kützing)
Hustedt
29, 30, 34
- Synedra rumpens** v. **meneghiniana** Grunow
31, 32
- Synedra tabulata** v. **acuminata** (Grunow)
Hustedt
(Syn.: *Synedra affinis* Kützing v. *acuminata*
Grunow)
68
- Synedra tabulata** v. **fasciculata** (Agardh)
Hustedt
(Syn.: *Synedra affinis* Kützing v. *fasciculata*
(Kützing) Grunow)
21, 30, 21, 34, 43, 68
- Synedra tabulata** v. **grandis** (Meres.) Hustedt
68
- Synedra tenera** W. Smith
22
- Synedra tenuissima** (Kützing) Kützing
(Syn.: *Synedra acus* v. *radians* (Kützing)
Hustedt)
19, 20, 21, 25, 26, 27, 28, 30, 31, 32, 34, 35,
38, 62, 68
- Synedra toxoneides** Castracane
68
- Synedra ulna** (Nitzsch) Ehrenberg
1, 2, 3, 4, 7, 9, 11, 15, 16, 19, 20, 21, 22, 25,
26, 27, 28, 30, 31, 32, 34, 35, 36, 38, 39, 40,
44, 47, 50, 51, 52, 58, 59, 64, 68, 70
- Synedra ulna** v. **aequalis** (Kützing) Brun
1, 19, 30
- Synedra ulna** v. **amphirhynchus** (Ehrenberg)
Grunow
(Syn.: *Synedra ulna* v. *vitrea* (Bory ex
Kützing) V. Heurck)
1, 19, 21, 25, 30, 54, 55
- Synedra ulna** v. **danica** (Kützing) V.
Heurck
57
- Synedra ulna** v. **longissima** (W. Smith)
Brun
(Syn.: *Synedra ulna* v. *biceps* (Kützing) V.
Schoenfeld)
17, 19, 21, 30, 34, 68
- Synedra ulna** v. **notata** Grunow
19, 30
- Synedra ulna** v. **oxyrhynchus** (Kützing) V.
Heurck
40, 54, 57, 59, 68
- Synedra ulna** v. **oxyrhynchus** f. **medicontracta**
(Forti) Hustedt
68
- Synedra ulna** v. **spathulifera** (Grunow) V.
Heurck
(Syn.: *Synedra spathulifera* Grunow in V.
Heurck, 1881)
38, 68
- Synedra ulna** v. **subaequalis** Grunow
(Syn.: *Synedra ulna* (Nitzsch) Ehrenberg)
19, 20, 30

Synedra undulata Bailey
68

TABELLARIA Ehrenberg, 1840

Tabellaria binalis (Ehrenberg) Grunow in
V. Heurck, 1881
10

Tabellaria fenestrata (Lyngbye) Kützing
10, 22, 28, 70

Tabellaria flocculosa (Roth) Kützing
1, 10, 22, 28, 32, 40, 64, 70

TERPSINOE Ehrenberg, 1841

Terpsinoe musica Ehrenberg
30, 68

THALASSIONEMA Grunow, 1881

Thalassionema nitzschioides (Grunow)
Grunow
68

THALASSIOSIRA Cleve, 1873 (emend.
Hasle)

Thalassiosira pseudonana Hasle & Heindal
(Syn.: *Cyclotella nana* Hustedt)
63, 68

Thalassiosira weissflogii (Grunow) Fryxell
& Hasle
(Syn.: *Thalassiosira fluviatilis* Hustedt)
4, 10, 33, 57, 59, 65, 62, 68, 69

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