

A CHECKLIST AND CLASSIFICATION OF LIVING DINOFLAGELLATES (DINOFLAGELLATA, ALVEOLATA)

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ABSTRACT. A checklist and classification of the extant dinoflagellates are given. Dinokaryotic dinoflagellates (including Noctilucales) comprised 2,294 species belonging to 238 genera. Dinoflagellates *sensu lato* (Ellobiopsea, Oxyrrhea, Syndinea and Dinokaryota) comprised 2,377 species belonging to 259 genera. The nomenclature of several taxa has been corrected according to the International Code of Botanical Nomenclature. When gene sequences were available, the species were classified following the Small and Large SubUnit rDNA (SSU and LSU rDNA) phylogenies. No taxonomical innovations are proposed herein. However, the checklist revealed that taxa distantly related to the type species of their genera would need to be placed in a new or another known genus. At present, the most extended molecular markers are unable to elucidate the interrelations between the classical orders, and the available sequences of other markers are still insufficient. The classification of the dinoflagellates remains unresolved, especially at the order level.

Keywords: alveolates, biodiversity inventory, Dinophyceae, Dinophyta, parasitic phytoplankton, systematics.

Inventario y clasificación de especies de dinoflagelados actuales (Dinoflagellata, Alveolata)

RESUMEN. Se presentan un inventario y una clasificación de las especies de dinoflagelados actuales. Los dinoflagelados dinocarios (incluyendo los Noctilucales) están formados por 2,294 especies pertenecientes a 238 géneros. Los dinoflagelados en un sentido amplio (Ellobiopsea, Oxyrrhea, Syndinea y Dinokaryota) comprenden un total de 2,377 especies distribuidas en 259 géneros. La nomenclatura de algunos taxones se ha corregido siguiendo las reglas del Código Internacional de Nomenclatura Botánica. Cuando hay secuencias disponibles, la clasificación de las especies propuesta ha seguido las filogenias moleculares de los marcadores de los ARNs de la subunidades pequeña y grande del ribosoma (SSU y LSU rADN, respectivamente). Aunque no se propone ninguna novedad taxonómica, se evidencia la necesidad de numerosos cambios. Numerosas especies cuyas secuencias están disponibles aparecen muy alejadas en las filogenias moleculares de la especie tipo de su género, lo que requerirá su transferencia a otro género conocido o el establecimiento de un nuevo género. Actualmente con los marcadores moleculares más extendidos no es posible aclarar las relaciones entre los órdenes de los esquemas taxonómicos clásicos y las secuencias disponibles de otros genes es aun insuficiente. La clasificación, muy especialmente a nivel de orden, está aún lejos de poder ser resuelta.

Palabras clave: alveolados, inventario de biodiversidad, Dinophyceae, Dinophyta, fitoplancton parásito, sistemática.

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INTRODUCTION

Dinoflagellates constitute one of the main groups of marine and freshwater protists. Schiller (1931-1937) provided a description of all the species, both marine and freshwater, known at that time. Sournia (1986) gave descriptions and illustrations of the marine genera, excluding information at the species level. Gómez (2005) listed the species of marine free-living dinoflagellates. Freshwater dinoflagellates have been compiled by Bourrelly (1970) and Popovský & Pfister (1990). Since the monograph of Chatton (1920), a few studies have revised the parasitic dinoflagellates (Cachon, 1964; Cachon & Cachon, 1987; Shields, 1994). At present, no study is able to respond to the total number of species of dinoflagellates.

Fensome *et al.* (1993) proposed a unified classification of living and fossil dinoflagellates,

using tabulation as the primary guide to relationships. These authors also provide a summary of the earlier classifications. The classification of the dinoflagellates is being continuously subjected to changes according to new findings, especially with the advances in molecular phylogeny. Saunders *et al.* (1997) reported the first major revision of the dinoflagellate molecular phylogeny. Most of the short-branched SSU rDNA sequences were dispersed in clades with low bootstrap support that Saunders *et al.* (1997) named the Gymnodinales-Peridinales-Prorocentrales complex. At that time, these sequences failed to resolve the relationships of most of classical orders (Gymnodinales, Peridinales, Prorocentrales) to one another. Since then, the number of sequences has increased, although biased towards photosynthetic species, usually much easier to culture, and common coastal species found near the specialized

laboratories. At present, sequences of many species are lacking and the molecular phylogenies did not resolve the relationships between the higher ranks. The classical orders (Peridinales, Gymnodinales, Prorocentrales) appear to be polyphyletic in the SSU and LSU rDNA phylogenies (Saldarriaga *et al.*, 2004; Moestrup & Daugbjerg, 2007), and even orders such as Dinophysales (Gómez *et al.*, 2012).

The earlier molecular phylogenies revealed the apicomplexan parasites as the closer relatives of dinoflagellates (Gajadhar *et al.*, 1991). The dinokaryon is a distinctive character of the dinoflagellate core, while basal dinoflagellates show intermediate morphological and ultrastructural characters that make difficult to establish a clear cut between the Dinokaryota and Apicomplexa. A recent study suggested that perkinsid parasites should be considered as an independent phylum (Zhang *et al.*, 2011). The exclusion of Perkinsozoa, restricted to 10 species of 2 genera, has a little influence on the total account of dinoflagellate species. Environmental molecular surveys of SSU rRNA genes revealed the existence of novel alveolate sequences indicating two large and diverse clades close to the Dinokaryota that were initially named Marine Alveolate Groups I and II (López-García *et al.*, 2001). Subsequently, it has been shown that these groups corresponded to parasitic dinoflagellates previously placed within the order Syndiniales based on several morphologically characterized representatives for which SSU rDNA sequences were available (Skovgaard *et al.*, 2005; Harada *et al.*, 2007). The phagotrophic free-living flagellate *Oxyrrhis* (Saldarriaga *et al.*, 2003) and the ellobiopsid parasites (Silberman *et al.*, 2004; Gómez *et al.*, 2009) constituted other morphologically characterized clades of basal dinoflagellates.

This study provides a checklist of all the described dinoflagellate species updated to December 2011. When sequences are available, the species were organized in agreement between the clades observed in the phylogenetical trees and classical ranks taxonomical schemes (genera, family, order, etc.). This is not a simple task because the topology of the trees varied with the type of molecular marker, the taxa sampling, sequence length, or methods for the construction of the phylogenetical trees. Any classification is unavoidably associated with discrepancies among authors.

MATERIAL AND METHODS

This study is based on literature records of dinoflagellates. The primary source was the checklist by Gómez (2005) updated with the taxonomical innovations, and numerous er-

rors have been corrected. The checklist was completed with the freshwater species. Major sources were Schiller (1931-1937), Bourrelly (1970) and Popovský & Pfister (1991), and for parasitic dinoflagellates: Chatton (1920), Cachon & Cachon (1987) and Shields (1994). The checklist was completed and updated with the recent literature.

The species names with their nomenclatural authorities and the year of the description were arranged alphabetically within the genus. Genera were ordered alphabetically within each family. The authorities of each genus and species were spelled according to the International Plant Names Index. These name spellings were also used for the places of publication of the suprageneric ranks (family, order and class). The International Code of Zoological Nomenclature (I.C.Z.N.) and the International Code of Botanical Nomenclature (I.C.B.N.) have been applied for basal dinoflagellates and Dinokaryota, respectively. This explained slight differences in some species names. For example, the epithets dedicated to Édouard Chatton were spelled '*chattoni*' and '*chattonii*' for basal dinoflagellates and dinokaryotes, respectively.

It is often difficult to decide what species should be considered valid. Gómez (2005) labeled with an asterisk (*) the species of very doubtful validity that were not considered for species counting. These insufficiently known taxa were mainly constituted by species with too poor original descriptions, for example, some unarmoured dinoflagellates described from fixed material in the earlier literature with excessively simple line drawings. These 'literature ghosts' have been considered valid despite they may correspond to species that were further described with more detailed descriptions. Several studies of freshwater species reported a high number of new species (i.e., Schiller, 1955; Bauestier, 1957; Skvortsov, 1968). These species are considered valid, although they need to be re-investigated because they may correspond to life stages of other known species. Four species (*Protoceratium*, *Oxytoxum breve*) that were described lacking any illustration have been listed, although excluded of the species counting. Species names cited in the literature, although never formally described, have been excluded. Despite the species are invalid, several of these species names have been cited and labeled as '*nomen nudum*' (*nom. nud.*). The aim is to alert of the possible homonymy when describing a new species using the same name. There are several homonyms (i.e., *Gymnodinium excavatum*, *G. hyalinum*, *G. irregulare*, *G. oceanicum*, etc.), that need a specific study before to propose an

alternative name. The molecular phylogenies show species which sequences that are distantly related to the type species of its genus. These species are candidates to the transfer into another known genus or the erection of a new genus. This requires specialized studies, and in order to solve this situation, these taxa have been placed under a genus named 'Genus of ...' or 'Family of ...'. For a group of species, the oldest species was used to name the genus (i.e., genus of *Protoperdinium depressum*). The group of species containing the type species was labeled '*sensu stricto*' (s.s.). The group of the other congeneric species distantly related in the molecular phylogenies was labeled '*sensu lato*' (s.l.).

In contrast to genera and species, suprageneric names do not have parenthetical authors (McNeill *et al.* 2006, ICBN: Art. 49.2). The first place of publication of these suprageneric names are cited with the author name(s) and year of publication. The choice of the suprageneric names was based on the priority rule. The problem is that the first name available for a family/order may be considered invalid. In the earlier studies, these suprageneric names were described by using a zoological terminology, and often using ranks such as tribes that are not considered in the International Code of Botanical Nomenclature. A discussion of numerous cases can be found in Fensome *et al.* (1993). The genus *Pyrocystis* has been placed in the order Pyrocystales Apstein (Sournia, 1986). The molecular phylogenies showed that *Pyrocystis* constitutes a truly member of the order Gonyaulacales. If valid, Pyrocystales Apstein 1909 should have the priority versus Gonyaulacales F.J.R. Taylor 1980. Some order names such as Phytodinales, Dinotrichales or Dinococcales, and the derived families are difficult to use because molecular data of the type species were not available. Even, when the sequence is available, we have to be cautious because in some cases the species identity cannot be verified. The sequences may be incorrectly attributed to a given species, or even it may not correspond to a dinoflagellate (i.e. *Exuviaella pusilla* #DQ388459). The type of the order Suessiales is a fossil species. Consequently, it will be difficult to obtain any gene sequence to verify the relationship with the extant species that have been placed in that order.

This study does not propose any taxonomical innovations. The only nomenclatural modifications are a few epithets with wrong gender termination that have been corrected (McNeill *et al.* 2006, ICBN: Art. 60.11, Recom. 60C.1, Art. 32.7).

RESULTS

The dinoflagellate species have been organized in the classification summarized in the Table 1 (Appendix). Dinokaryotic dinoflagellates (including Noctilucales) comprised 2,294 species belonging to 238 genera. Dinoflagellates *sensu lato* comprised 2,377 species belonging to 259 genera (Table 2, Appendix).

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APPENDIX

Table 1. Classification of extant dinoflagellates from class to genus. Abbreviations: p.p. - *pro parte*; s.s. - *sensu stricto*; s.l. - *sensu lato*.

Infraregnum Alveolata, Phylum Dinoflagellata

Class Ellobiopsea / Ellobiophyceae

Order Thalassomycetales

Ellobiopsidae / Thalassomycetaceae: *Ellobiocystis*, *Ellobiopsis*,
Parallobiopsis, *Rhizellobiopsis*, *Thalassomyces*

Class Oxyrrhea

Order Oxyrrhida / Oxyrrhinales

Oxyrrhinaceae: *Oxyrrhis*

Class of *Pronoctiluca*, incertae sedis

Protodiniferaceae: *Pronoctiluca*

Class of *Duboscquella* (Marine Alveolate Group I)

Order Duboscquodinida / Duboscquellales

Duboscquellaceae: *Dogelodinium*, *Duboscquella*, *Ichthyodinium*,
Keppenodinium

Class Syndinea (Marine Alveolate Group II)

Order Syndiniales

Syndiniaceae: *Actinodinium*, *Caryotoma*, *Merodinium*, *Syndinium*

Coccidinidae / Coccidiniaceae: *Coccidinium*

Family of *Hematodinium*: *Hematodinium*

Sphaeriparaceae: *Atlanticellodinium*, *Sphaeripara*

Amoebophryidae / Amoebophryaceae: *Amoebophrya*

Class Noctiluca / Noctiluciphyceae (Dinokaryota)

Order Noctilucales

Noctilucaceae: *Noctiluca*, *Spatulodinium*

Kofoidiaceae: *Kofoidiinium*, *Pomatodinium*

Leptodiscaceae: *Abedinium*, *Cachonodinium*, *Craspedotella*, *Leptodiscus*, *Petalodinium*,
Scaphodinium

Class Dinoflagellata / Dinophyceae (Dinokaryota)

Order Haplozoidea / Haplozoonales

Haplozoonaceae: *Haplozoon*

Table 1. Continued.

Order Dinotrichales

Crypthecodiniaceae: *Crypthecodinium*Dinotrichaceae: *Dinotrix*, *Durinskia*, *Galeidinium*, *Gymnodinium* p.p. *Kryptoperidinium*, *Peridiniopsis* p.p., *Peridinium quinquecorne*

Order Dinococcales

Phytodiniaceae: *Baldinia*, *Borghiella*, *Cystodinium*, *Dinamoebidium*, *Dinastridium*, *Dinoclonium*, *Dinococcus*, *Hypnodinium*, *Manchudinium*, *Phytodinium*, *Prosoaulax*, *Sphaerodinium*, *Tetradinium*Symbiodiniaceae: *Aureodinium*, *Biecheleria*, *Pelagodinium*, *Biecheleriopsis*, *Piscinodinium*, *Polarella*, *Protodinium*, *Symbiodinium*

Order of Akashiwo

Family of Akashiwo: *Akashiwo*

Order Brachidiniales

Brachidiaceae: *Asterodinium*, *Brachidinium*, *Gynogonadinium*, *Karenia*, *Karlodinium*, *Microceratium*, *Pseliodinium*, *Takayama*, *Torodinium*

Order Gymnodiniales s.s.

Chytridiaceae: *Chytridinium*, *Dissodinium*, *Myxodinium*, *Schizochytridinium*, *Syltadinium*Gymnodiniaceae: *Barrufeta*, *Gymnodinium* s.s., *Gyrodiniellum*, *Lepidodinium*, *Paragymnodinium*, *Pheopolykrikos*, *Polykrikos*, *Spiniferodinium*Warnowiaceae: *Erythrospidinium*, *Greuetodinium*, *Nematodinium*, *Nematopsides*, *Proterothropsis*, *Warnowia*

Order Gymnodiniales s.l.

Family of *Gyrodinium dorsum*: *Gymnodinium* p.p., *Gyrodinium* p.p.Family of *Togula*: *Togula*Family of *Apicoporus*: *Apicoporus*Family of *Amphidinium*: *Amphidinium* s.s., *Schillingia*, *Trochodinium*Family of *Balechina*: *Balechina*Family of *Cochlodinium*: *Cochlodinium* s.s., *Cochlodinium* s.l.Family of *Gyrodinium* s.s.: *Ceratodinium*, *Gyrodinium* s.s., *Plectodinium*, *Sclerodinium*Family of *Moestrupia*: *Moestrupia*

Order Ptychodiscales

Family Ptychodiscaceae: *Ptychodiscus*

Order Thoracosphaerales

Calciodinellaceae: *Calciodinellum*, *Calcigonellum*, *Duboscquodinium*, *Pernambugia*, *Scrippsiella* s.s., *Tintinnophagus*

Table 1. Continued.

Oodiniaceae / Thoracosphaeraceae: *Amyloodinium*, *Cachonella*, *Chalubinskia*, *Chimonodinium*, *Crepidodinium*, *Cryptoperidiniopsis*, *Cystodinedria*, *Haidadinium*, *Leonella*, *Luciella*, *Oodinioides*, *Oodinium*, *Parvodinium*, *Paulsenella*, *Peridinium* p.p., *Pfiesteria*, *Protoodinium*, *Pseudopfiesteria*, *Staszicella*, *Stoeckeria*, *Stylodinium*, *Thoracosphaera*, *Tyrannodinium*

Glenodiniaceae: *Dinosphaera*, *Glenodiniopsis*, *Glenodinium*, *Glochidinium*, *Gloeodinium*, *Hemidinium*, *Kansodinium*, *Lophodinium*, *Nephrodinium*, *Palatinus*, *Peridiniopsis* s.s., *Thompsodinium*

Order Peridiniales s.s.

Peridiniaceae: *Bagredinium*, *Peridinium* s.s.

Order Peridiniales s.l.

Heterocapsaceae: *Heterocapsa*

Podolampadaceae: *Blepharocysta*, *Gaarderiella*, *Lessardia*, *Lissodinium*, *Mysticella*, *Podolampas*, *Roscoffia*

Amphidiniopsidaceae: *Amphidiniopsis*, *Archaeoperidinium*, *Herdmania*, *Thecadinium dragescoi*

Protoperidiniaceae: *Protoperidinium* s.s.

Diplopsaliaceae: *Boreadinium*, *Diplopelta*, *Diplopsalis*, *Diplopsalopsis*, *Dissodium*, *Gotoius*, *Lebouraia*, *Oblea*, *Preperidinium*, *Protoperidinium depressum*-group

Heterodiniaceae: *Dolichodinium*, *Heterodinium*

Family of *Enciculifera*: *Enciculifera*, *Pentapharsodinium*

Oxytoxaceae: *Oxytoxum*

Family of *Corythodinium*: *Corythodinium*

Amphidomataceae: *Amphidoma* s.s.

Cladopyxidaceae: *Cladopyxis*, *Micracanthodinium*, *Palaeophalacroma*

Endodiniaceae: *Endodinium*

Family of *Amphidoma caudata*: *Amphidoma caudata*, *Azadinium*

Order Peridiniales incertae sedis: *Adenoides*, *Archaeosphaerodiniopsis*, *Bysmatrum*, *Cabra*, *Peridiniella*, *Planodinium*, *Pseudothecadinium*, *Rhinodinium*, *Sabulodinium*, *Thecadiniopsis*, *Vulcanodinium*

Uncertain order

Tovelliaceae: *Bernardinium*, *Esoptrodinium*, *Jadwigia*, *Katodinium*, *Opisthoaulax*, *Tovellia*

Woloszynskiaceae: *Woloszynskia*

Uncertain order

Apodiniaceae: *Apodinium*, *Parapodinium*

Table 1. Continued.

Order Actiniscales

Actiniscaceae: *Actiniscus*Dicroerismataceae: *Dicroerisma*

Order Amphilothes

Amphilothaceae: *Achradina*, *Amphilothus*

Order Prorocentrales

Haplodiniaceae: *Haplodinium*Prorocentraceae: *Exuviaella*, *Mesoporos*, *Prorocentrum* s.s.Family of *Prorocentrum panamense*: Genus of *Prorocentrum panamense*Family of *Plagiodinium*: *Plagiodinium*

Order Dinophysales

Amphisoleniaceae: *Amphisolenia*, *Triposolenia*Oxyphysaceae: *Dinofurcula*, *Latifascia*, *Phalacroma* s.s., *Proheteroschisma*Dinophysaceae: *Citharistes*, *Dinophysis hastata*-group, *Dinophysis* s.s., *Histioneis*, *Histiophysis*, *Metadinophysis*, *Metaphalacroma*, *Ornithocercus*, *Parahistioneis*Family of *Pseudophalacroma*: *Pseudophalacroma*Family of *Sinophysis*: *Sinophysis*

Order Blastodinales

Blastodiniaceae: *Blastodinium*

Order Gonyaulacales / Pyrocystales

Thecadiniaceae: *Thecadinium*Protoceratidaceae: *Ceratocorys*, *Protoceratium*, *Schuetziella*Ceratiaceae: *Ceratium*, *Neoceratium*

Goniodomataceae

Subfamily of *Goniodoma*: *Gambierdiscus*, *Goniodoma*Subfamily of *Ostreopsis*: *Alexandrium*, *Centrodinium*, *Coolia*, *Ostreopsis*, *Pachydinium*, *Pyrodinium*Gonyaulacaceae: *Gonyaulax*, *Spiraulax*Pyrocystaceae: *Fragilidium*, *Pyrocystis*, *Pyrophacus*Family of *Amylax*: *Amylax*, *Lingulodinium*Order Gonyaulacales incertae sedis: *Amphidiniella*, *Halostylodinium*, *Pileidinium*Dinoflagellata incertae sedis: *Berghiella*, *Ceratoperidinium*, *Pyramidodinium*, *Pseudoactiniscus*, *Thaumatodinium*

Table 2. Checklist of extant dinoflagellates.

Kingdom Chromalveolata, Infrakingdom Alveolata Cavalier-Smith 1991

Phylum Myzozoa Cavalier-Smith & E.E. Chao 2004, Phylum Dinoflagellata / Dinozoa Cavalier-Smith 1981

Class Ellobiopsea A.R. Loeb. 1970 / Ellobiophyceae A.R. Loeb. 1970

Order Thalassomycetales A.R. Loeb. 1970

Family Thalassomycetaceae Niezab. 1913 / Ellobiopsidae Coutière 1911

1 **Ellobiopsis** Caullery 1910 -type *E. chattoni*

1 *Ellobiopsis chattoni* Caullery 1910

2 *Ellobiopsis elongata* Steuer 1932

3 *Ellobiopsis fagei* Hovasse 1951

2 **Ellobiocystis** Coutière 1911 -type *E. caridarum* (7 species)

4 *Ellobiocystis caridarum* (Coutière 1911) Coutière 1911 (= *Ellobiopsis caridarum* Coutière)

5 *Ellobiocystis catenatus* Coutière 1911 (= ? *E. caridarum* Coutière)

6 *Ellobiocystis filicollus* Coutière 1911 (= ? *E. caridarum* Coutière)

7 *Ellobiocystis mysidarum* Coutière 1911

8 *Ellobiocystis tenuis* Coutière 1911 (= ? *E. caridarum* Coutière)

9 *Ellobiocystis tuberosus* Coutière 1911 (= ? *E. caridarum* Coutière)

10 *Ellobiocystis villosus* Coutière 1911 (= ? *E. caridarum* Coutière)

3 **Parallobiopsis** Collin 1913

11 *Parallobiopsis coutieri* Collin 1913

4 **Rhizellobiopsis** Hovasse 1926

12 *Rhizellobiopsis eupraxiae* (I. Zachs 1922) Hovasse 1926 (= *Ellobiopsis eupraxiae* I. Zachs)

5 **Thalassomyces** Niezab. 1913 (= *Staphylocystis* Coutière 1911, *Amallocystis* Fage 1936) -type *T. spiczakovi* (12 species)

13 *Thalassomyces albatrossi* B.L. Wing 1975

14 *Thalassomyces boschmai* (Nouvel 1954) Boschma 1959 (= *Amallocystis boschmai* Nouvel)

15 *Thalassomyces californiensis* S.B. Collard 1966

16 *Thalassomyces capillosus* (Fage 1936) Boschma 1959 (= *Amallocystis capillosus* Fage)

17 *Thalassomyces fagei* (Boschma 1948) Boschma 1959 (= *Amallocystis fagei* Boschma)

18 *Thalassomyces fasciatus* (Fage 1936) Boschma 1959 (= *Amallocystis fasciatus* Fage)

19 *Thalassomyces marsupi* J.E. Kane 1963

20 *Thalassomyces niezabitoski* (Hoenigman 1960) Vader 1973 (= *Amallocystis niezabitoski* Hoenigman)

21 *Thalassomyces nouveli* (Hoenigman 1954) Boschma 1959 (= *Amallocystis nouveli* Hoenigman)

Thalassomyces racemosus (Coutière 1911) Boschma 1959 (= *Ellobiopsis racemosa* Coutière, *Staphylocystis racemosa* Coutière, *Thalassomyces batei* Niezabitoski 1973, *Thalassomyces racemosus* (Coutière) P. Bergan 1952)

23 *Thalassomyces spiczakovi* Niezab. 1913

24 *Thalassomyces umbellatus* (Boschma 1949) Boschma 1959 (= *Amallocystis umbellatus* Boschma)

Class Oxyrrhea Cavalier-Smith 1987

Order Oxyrrhida / Oxyrrhinales Sournia 1984

Oxyrrhinaceae Sournia 1984

6 **Oxyrrhis** Dujard. 1841 -type *O. marina*

25 *Oxyrrhis marina* Dujard. 1841 (= *O. maritima* Meel 1969)

26 *Oxyrrhis tentaculifera* W. Conrad 1939

Class of Pronoctiluca, incertae sedis

Order of Pronoctiluca

Protodiniaceae Kof. & Swezy 1921 (= Pronoctilucaceae M. Lebour 1925)

7 **Pronoctiluca** Fabre-Dom. 1889 (= *Pelagorhynchus* Pavill. 1917, *Protodini* Kof. & Swezy 1921) -type *P. pelagica*

Table 2. Continued.

- 27 *Pronoctiluca acuta* (Lohmann 1912) J. Schiller 1933 (= *Rhynchomonas acuta* Lohmann 1912, *R. curvata* Lohmann 1921)
- 28 *Pronoctiluca pelagica* Fabre-Dom. 1889 (= *R. marina* Lohmann 1902, *Pelagorhynchus marinus* Pavill. 1917, =? *P. spinifera*)
- 29 *Pronoctiluca rostrata* F.J.R. Taylor 1976
- 30 *Pronoctiluca spinifera* (Lohmann 1920) J. Schiller 1933 (= *Protodiniifer tentaculata* Kof. & Swezy 1921, *Pronoctiluca tentaculata* (Kof. & Swezy) Pavill. 1922, ? *P. pelagica* Fabre-Dom. 1889)

Superclass Syndina Cavalier-Smith**Class of Duboscquella** (=Marine Alveolate Group I)**Order of Duboscquella** / Duboscquellales / Duboscquodina Cachon & Cachon-Enjumet 1987**Duboscquellaceae** Chatton 1920 ex A.R. Loeb. 1970 / Duboscquellidae Cachon & Cachon-Enjumet 1987

- 8 **Dogelodinium** Loeb. & A.R. Loeb. 1966 (= *Collinella* Cachon 1964)
- 31 *Dogelodinium ovoides* (Cachon 1964) Loeb. & A.R. Loeb. 1966 (= *Collinella ovoides* Cachon)
- 9 **Duboscquella** Chatton 1920 -type *D. tintinnicola* (8 species)
- 32 *Duboscquella anisospora* Chatton in Grassé 1952 (=? *D. tintinnicola* (Lohmann 1908) Chatton 1920)
- 33 *Duboscquella aspida* Cachon 1964 (=? *D. tintinnicola* (Lohmann 1908) Chatton 1920)
- 34 *Duboscquella cachoni* D.W. Coats 1988
- 35 *Duboscquella caryophaga* Cachon 1964
- 36 *Duboscquella cnemata* Cachon 1964 (=? *D. tintinnicola* (Lohmann 1908) Chatton 1920)
- 37 *Duboscquella melo* Cachon 1964
- 38 *Duboscquella nucleocola* Cachon 1964
- 39 *Duboscquella tintinnicola* (Lohmann 1908) Chatton 1920 (= *Gymnodinium tintinnicola* Lohmann)
- 10 **Ichthyodinium** Hollande & Cachon 1953
- 40 *Ichthyodinium chabelardi* Hollande & Cachon 1953 (= *Perkinsoide chabelardi* Gestal & al. 2006)
- 11 **Keppenodinium** Loeb. & A.R. Loeb. 1966 (= *Hollandella* Cachon 1964) -type *K. mycetoides*
- 41 *Keppenodinium lobatum* (Cachon 1964) Sournia, Cachon & Cachon-Enjumet 1975 (= *Hollandella lobata* Cachon)
- 42 *Keppenodinium mycetoides* (Cachon 1964) Loeb. & A.R. Loeb. 1966
- 43 *Kleppenodinium piriforme* (Cachon 1964) Sournia, Cachon & Cachon-Enjumet 1975 (= *Hollandella piriformis* Cachon)

Superclass Syndina Cavalier-Smith**Class Syndinea** Chatton 1920, Syndiniophyceae A.R. Loeb. 1976 (Marine Alveolate Group II)**Syndiniales** A.R. Loeb. 1976 (=? Coccidinales Chatton & Biecheler 1934)**Syndiniaceae** Chatton 1920

- 12 **Merodinium** Chatton 1923 (= *Syndinium* Chatton 1910) -type *M. brandti* (11 species)
- 44 *Merodinium astutum* Chatton 1923 (= *Syndinium astutum* Chatton)
- 45 *Merodinium belari* Hollande & Cachon-Enjumet 1953 (= *Syndinium belari* (Hollande & Cachon-Enjumet) Hollande & Cachon-Enjumet 1955, ? *M. vernale* (Hovasse 1924) Chatton in Grassé 1952)
- 46 *Merodinium borgerti* (Hollande, Cachon-Enjumet & Manciet 1953) Hovasse & E.M. Brown 1954 (= *Syndinium borgerti* Hollande, Cachon-Enjumet & Manciet)
- 47 *Merodinium brandti* (Hovasse 1923) Chatton 1923 (= *Syndinium brandti* Hovasse 1923)
- 48 *Merodinium breve* Hovasse & E.M. Brown 1954 (= *Syndinium breve* Hovasse & E.M. Brown 1955)
- 49 *Merodinium chattoni* Hovasse & E.M. Brown 1954 (= *Syndinium chattoni* Hovasse & E.M. Brown 1955)
- 50 *Merodinium dolosum* Chatton 1923 (= *Syndinium dolosum* Chatton)
- 51 *Merodinium globiforme* Hollande & Cachon-Enjumet 1953
- 52 *Merodinium insidiosum* Chatton 1923 (= *Syndinium insidiosum* Chatton)
- 53 *Merodinium mendax* Chatton 1923 (= *Syndinium mendax* Chatton 1923)
- 54 *Merodinium vernale* (Hovasse 1924) Chatton in Grassé 1952 (= *S. vernale* Hovasse, ? *M. belari* Hollande & Cachon-Enjumet 1953)
- 13 **Syndinium** Chatton 1910 (= *Atelodinium* Chatton 1920, *Synhemidinium* Chatton 1952) -type. *S. turbo* (10 species)

Table 2. Continued.

- 55 *Syndinium allognosticum* R. Weill 1935
 56 *Syndinium caryophagum* Cachon-Enjumet 1961
 57 *Syndinium corycae* Chatton 1938 in Grassé 1952 (= *S. corycae* Chatton 1922, *Cochlosyndinium corycae* Chatton in Grassé 1952)
 58 *Syndinium gammari* J.F. Manier, A. Fize & H. Grizel 1971
 59 *Syndinium globiforme* Hollande & Cachon-Enjumet 1953.
 Syndinium gracile Hollande & Cachon-Enjumet 1953 (nom. nud.).
 Syndinium microscorum Chatton 1938 (nom. nud.)
 60 *Syndinium oikopleurae* Hollande & Fenaux 1975
 61 *Syndinium turbo* Chatton 1910 (= *S. rostratum* Chatton 1938, *Synhemidinium rostratum* Chatton 1952, *S. minutum* Chatton in Grassé 1952).
 Subgenus *Solenodinium* Chatton (1923) Chatton in Grassé 1952 -type *S. fallax*
 62 *Solenidinium densum* Hovasse & E.M. Brown 1954
 63 *Solenodinium fallax* (Chatton 1923) Chatton 1938 (= *Merodinium fallax* Chatton)
 64 *Solenodinium leptotaemia* Hovasse & E.M. Brown 1954
 14 ***Hematodinium*** Chatton & R. Poisson 1930 -type *H. perez*
 65 *Hematodinium australis* D.A. Hudson & J.D. Shields 1994
 66 *Hematodinium perez* Chatton & R. Poisson 1930
- Coccidiniaceae** / Coccidinidae Chatton & Biecheler 1934
 15 ***Coccidinium*** Chatton & Biecheler 1934 -type *C. duboscqui*
 67 *Coccidinium duboscqui* Chatton & Biecheler 1934
 68 *Coccidinium legeri* Chatton & Biecheler 1934
 69 *Coccidinium mesnili* Chatton & Biecheler 1936
 70 *Coccidinium punctatum* Chatton & Biecheler 1936
- Sphaeriparaceae** A.R. Loeb. 1970
 16 ***Atlanticellodinium*** Cachon & Cachon-Enjumet 1965
 71 *Atlanticellodinium tregoubouffi* Cachon & Cachon-Enjumet 1965
 17 ***Sphaeripara*** Poche 1911 (= *Lohmannia* Neresh. 1903, *Lohmannella* Neresh. 1904, *Neresheimeria* Übel 1912) -type *S. catenata*
 72 *Sphaeripara catenata* (Neresh. 1903) Loeb. & A.R. Loeb. 1966 (= *Lohmannia catenata* Neresh.)
 73 *Sphaeripara paradoxa* (Neresh. 1904) A.R. Loeb. 1967 (= *Lohmannella paradoxa* Neresh.)
- Amoebophryidae** / Amoebophryaceae Cachon 1964 ex A.R. Loeb. 1970
 18 ***Actinodinium*** Chatton & Hovasse 1937
 74 *Actinodinium apsteini* Chatton & Hovasse 1937
 75 *Actinodinium paradoxum* (M. Rose & Cachon 1951) Hollande & Cachon-Enjumet 1953 (= *Diplomorpha paradoxa* M. Rose & Cachon)
 19 ***Amoebophrya*** Koeppen 1894 -type *A. stycholonchae* (7 species)
 76 *Amoebophrya acanthometrae* Koeppen 1894
 77 *Amoebophrya cerati* (Koeppen 1899) Cachon 1964 (= *Hyalosaccus cerati* Koeppen)
 78 *Amoebophrya grassei* Cachon 1964
 79 *Amoebophrya leptodisci* Cachon 1964
 80 *Amoebophrya rosei* Cachon 1964
 81 *Amoebophrya sticholonchae* Koeppen 1894
 82 *Amoebophrya tintinni* Cachon 1964
 20 ***Caryotoma*** Hollande 1953
 83 *Caryotoma bernardi* Hollande 1953
- Superclass Dinokaryota** Cavalier-Smith 1993

Table 2. Continued.

- Class Noctiluciphyceae** Fensome & al. 1993/Noctilucophyceae, Phylum Noctilucae Haeckel 1866, Class Noctilucae, Cystoflagellata
- Noctilucales** Haeckel 1894
- Noctilucaceae** Kent 1881
- 21 **Noctiluca** Suriray ex Lam. 1816
 - 84 *Noctiluca scintillans* (Macartney 1810) Kof. 1920 (= *Noctiluca miliaris* Suriray ex Lam. 1816)
 - 22 **Spatulodinium** Cachon & Cachon-Enjumet 1968
 - Spatulodinium pseudonociluca* (C.H.G. Pouchet 1885) Cachon & Cachon-Enjumet ex Loeb. & A.R. Loeb.
 - 85 1969 (= *Gymnodinium pseudonociluca* C.H.G. Pouchet, *G. fulgens* Kof. & Swezy 1921, *G. lebouriae* Pavill., *G. pyrocystis* Jørg. 1912)
- Kofoidiaceae** F.J.R. Taylor 1976
- 23 **Cymbodinium** Cachon & Cachon-Enjumet 1967
 - 86 *Cymbodinium elegans* Cachon & Cachon-Enjumet 1967
 - 24 **Kofoidinium** Pavill. 1928 -type *K. velelloides*
 - 87 *Kofoidinium arcticum* Bursa 1964
 - 88 *Kofoidinium pavillardii* Cachon & Cachon-Enjumet 1967 (= *K. lebouriae* (Pavill. 1921) F.J.R. Taylor 1976)
 - 89 *Kofoidinium splendens* Cachon & Cachon-Enjumet 1967
 - 90 *Kofoidinium velelloides* Pavill. 1928
 - 25 **Pomatodinium** Cachon & Cachon-Enjumet 1966
 - 91 *Pomatodinium impatiens* Cachon & Cachon-Enjumet 1966
- Leptodiscaceae** Kof. 1905
- 26 **Abedinium** Loeb. & A.R. Loeb. 1966 (= *Leptophyllus* Cachon & Cachon-Enjumet 1964)
 - 92 *Abedinium dasypus* (Cachon & Cachon-Enjumet 1964) Loeb. & A.R. Loeb. 1966 (= *Leptophyllus dasypus* Cachon & Cachon-Enjumet)
 - 27 **Cachonodinium** A.R. Loeb. 1980 (= *Leptodinium* Cachon & Cachon-Enjumet 1969)
 - 93 *Cachonodinium caudatum* (Cachon & Cachon-Enjumet 1969) A.R. Loeb. 1980 (= *Leptodinium caudatum* Cachon & Cachon-Enjumet)
 - 28 **Craspedotella** Kof. 1905
 - 94 *Craspedotella pileolus* Kof. 1905
 - 29 **Leptodiscus** Hertwig 1877 (= *Pratjetella* Lohmann 1920, = *Clippeodinium* Pascher 1917)
 - 95 *Leptodiscus medusoides* Hertwig 1877 (= *Pratjetella medusoides* (Hertwig) Loeb. & A.R. Loeb. 1966, = *Clippeodinium medusa* Pascher 1917)
 - 30 **Petalodinium** Cachon & Cachon-Enjumet 1969
 - 96 *Petalodinium porcelio* Cachon & Cachon-Enjumet 1969
 - 31 **Scaphodinium** Margalef 1963 (= *Leptospathium* Cachon & Cachon-Enjumet 1964)
 - 97 *Scaphodinium mirabile* Margalef 1963 (= *Leptospathium navicula* Cachon & Cachon-Enjumet 1964)
- Dinoflagellata** Buetschli 1885, Dinophyceae (Buetschli 1885) Pascher 1914, Dinophyceae West & Fritch 1927, Class Peridinea
- Order Haplozoidea** Poche 1913
- Haplozoonaceae** Chatton 1920
- 32 **Haplozoon** Dogiel 1906 -type *H. armatum* (14 species)
 - 98 *Haplozoon ariciae* Dogiel 1910
 - 99 *Haplozoon armatum* Dogiel 1906
 - 100 *Haplozoon axiothellae* A.E. Siebert 1973
 - 101 *Haplozoon clymenellae* (G.N. Calk. 1915) Chatton 1920 (= *Microtaeniella clymenellae* G.N. Calk. 1915)
 - 102 *Haplozoon clymenidis* Dogiel & Mikelsson 1923
 - 103 *Haplozoon delicatulum* Dogiel 1910
 - 104 *Haplozoon dogieli* W. Shumway 1924
 - 105 *Haplozoon inerme* Cachon 1964

Table 2. Continued.

- 106 *Haplozoon lineare* Dogiel 1907
 107 *Haplozoon macrostylum* Dogiel 1910
 108 *Haplozoon obscurum* Dogiel 1910
 109 *Haplozoon praxillellae* S. Rueckert & B.S. Leander 2008
 110 *Haplozoon tuberculatum* Dogiel & Mikelsson 1923
 111 *Haplozoon villosus* Dogiel & Mikelsson 1923
- Order Dinotrichales** Pascher 1914
- Crypthecodiniaceae** Biecheler 1938 ex Chatton 1952
- 33 ***Crypthecodinium*** Biecheler 1938 -type *C. setense*
Crypthecodinium cohnii (Seligo 1886) Chatton in Grassé 1952 (= *Glenodinium cohnii* Seligo in Cohn 1887,
 112 *Gyrodinium cohnii* (Seligo) J. Schiller 1933, *Gymnodinium fucorum* Küster 1908, *Gyrodinium fucorum* (Küster) Kof. & Swezy 1921)
 113 *Crypthecodinium setense* Biecheler 1938
- Dinotrichaceae** Pascher 1914
- 114 *Gymnodinium quadrilobatum* T. Horig. & Pienaar 1994
 115 *Gymnodinium variabile* Herdman 1924
 116 *Peridiniopsis armebeensis* L. Ten-Hage. P.K. Da & Couté 2007
 117 *Peridiniopsis corillionii* Leitao, Ten-Hage, G. Mascarell & Couté 2001
 118 *Peridiniopsis kevei* I. Grigorszky & Vasas 1997
 119 *Peridiniopsis niei* G.X. Liu & Z.Y. Hue 2008
 120 *Peridiniopsis penardii* (Lemmerm. 1900) Bourr. 1968 (= *P. andrzejowskii* Wolosz. 1920, *P. durandii* S. Rodríguez, Couté, Ten-Hage & G. Mascarell 1999, *Glenodinium penardii* Lemmerm., *Peridinium cinctum* Penard 1891)
 121 *Peridiniopsis rhomboides* Krakhmalny 2002 (= *P. kevei* I. Grigorszky & Vasas, ?*P. corillionii* Leitao & al. 2001)
 122 *Peridiniopsis sphaeroidea* (Christen 1958) Bourr. 1968 (= *Peridinium sphaeroideum* Christen)
 123 *Peridinium quinquecorne* T.H. Abé 1927 (= *Protoperidinium quinquecorne* (T.H. Abé) Balech 1974)
 34 ***Dinotrix*** Pascher 1914
 124 *Dinotrix paradoxa* Pascher 1914
 35 ***Durinskia*** Carty & E.R. Cox 1986 (= *Glenodinium* Ehrenb., *Peridinium* Ehrenb.) type -*D. baltica*
Durinskia baltica (Levander 1894) Carty & E.R. Cox 1986 (= *P. balticum* (Levander) Lemmerm. 1900, *Glenodinium*
 125 *cinctum* Levander 1892, *G. balticum* Levander 1894, *P. dybowskii* Wolosz. 1916, *G. dybowskii* (Wolosz.) Er. Lindem. 1925, *Peridiniopsis balticum* (Levander) Bourr. 1968)
 126 *Durinskia capensis* Pienaar, H. Sakai & T. Horig. 2007
 127 *Durinskia occulata* (F. Stein 1883) Gert Hansen & Flaim 2007 (= *Glenodinium occulatum* F. Stein)
 36 ***Galeidinium*** M. Tamura & T. Horig. 2005
 128 *Galeidinium rugatum* M. Tamura & T. Horig. 2005
 37 ***Kryptoperidinium*** Er. Lindem. 1924 (= *Peridinium* Ehrenb. ?*Phyllodinium* W. Conrad 1926)
 129 *Kryptoperidinium foliaceum* (F. Stein 1883) Er. Lindem. 1924 (= *Glenodinium foliaceum* F. Stein, *Peridinium umbo* L.S. Sjöstedt 1924, ?*Peridinium cuneatum* Goor 1925, ?*Phyllodinium scutellaris* W. Conrad 1926)
- Order Dinococcales** Pascher 1914 (incl. Phytodinales T. Christ. 1962 ex Loeb. 1970, Suessiales Fensome & al. 1993, Baseridae Özdikmen 2009)
- Phytodiniaceae** Klebs 1912 (incl. Dinococcaceae Fott 1960, Hemidiniaceae Bourr. 1970, Borghiellaceae Moestrup, K.C.R. Lindberg & Daugbjerg 2009)
- 38 ***Baldinia*** Gert Hansen & Daugbjerg 2007 (= *Glenodinium* Ehrenb.) -type *B. anauniensis*
 130 *Baldinia anauniensis* Gert Hansen & Daugbjerg 2007 (= *Glenodinium sanguineum* Marchesoni 1941 sensu Baldi)
 131 *Baldinia bernardiensis* (Chodat & Zehnder 1924) Moestrup, K.C.R. Lindberg & Daugbjerg 2009 (= *G. bernardiense* Chodat & Zehnder)
 39 ***Borghiella*** Moestrup, Gert Hansen & Daugbjerg 2008 (non *Borghiella* Kof. & J.R. Michener 1911) -type *B. dodgei*
 132 *Borghiella dodgei* Moestrup, Gert Hansen & Daugbjerg 2008

Table 2. Continued.

- 133 *Borghiella tenuissima* (Lauterborn 1894) Moestrup, Gert Hansen & Daugbjerg 2008 (= *Gymnodinium tenuissimum* Lauterborn, *Woloszynskia tenuissima* (Lauterborn) R.H. Thomps. 1951, ? *Gymnodinium lens* Fott 1957)
- Woloszynskia pascheri* (Suchl. 1916) Stosch 1973 (= *Glen. pascheri* Suchl., *Glen. polonicum* Wolosz. 1916, *Gymnodinium hiemale* Wolosz. 1917, *Gym. tatricum* Wolosz. 1919, *Gym. mirum* Utermöhl 1923, *Gym. veris* Er. Lindem. 1925, *Gyr. silvaticum* Er. Lindem. 1925, *Gym. undulatum* Wolosz. 1925, *Gym. hiemale* Skvorcov 1927, *Gyr. nivale* Er. Lindem. 1929, *Gym. skvortzovii* J. Schiller 1933, *Gym. inversum* Nyggard 1949, *Dinastridium verrucosum* Baumeister 1957, *Glen. muraticum* Skuja 1964, *Gyrodinium pascheri* (Suchl.) J. Schiller 1933)
- 134 *Cystodinium* G.A. Klebs 1912 (= *Gymnocystodinium* Baumeister 1957) -type *C. cornifax* (15 species)
- 135 *Cystodinium acerosum* R.H. Thomps. 1984
- 136 *Cystodinium achroum* Baumeister 1957
- 137 *Cystodinium bataviense* Klebs 1912 (= ? *C. lunare* Pascher 1927, ? *Dinococcus oedogonii* (P. Richter 1897) Fott 1960)
- 138 *Cystodinium bisetosum* (Er. Lindem. 1928) Hub.-Pest. 1950 (= *Gymnodinium bisetosum* Er. Lindem.)
- 139 *Cystodinium closterium* Pascher 1927 (= *Cystodinium closterium* var. *crassa* Bourr. 1961)
- Cystodinium cornifax* (A.J. Schill. 1891) G.A. Klebs 1912 (= *Glenodinium cornifax* A.J. Schill., *C. iners* Geitler 1928, *Cystodinedria iners* (Geitler 1928) Pascher 1944, *C. steinii* Klebs 1912, *C. schilleri* Baumeister 1957, *C. unicorn* Klebs 1912, *C. steinii* var. *tenuirostris* Wolosz. 1919, *C. steinii* var. *dimidio-minor* Baumeister 1957, *Gymnocystodinium iners* (Geitler) Baumeister 1957, *Gymnocyst. unicorn* (Klebs) Baumeister 1958)
- 140 *Cystodinium dirhamphos* Baumeister 1957
- 141 *Cystodinium grabensei* Baumeister 1957
- 142 *Cystodinium guttatum* Baumeister 1957
- 143 *Cystodinium heterorhamphos* Baumeister 1957
- 144 *Cystodinium interspersum* Baumeister 1957
- 145 *Cystodinium novaculosum* (Baumeister 1939) Hub.-Pest. 1950 (= *Gymnodinium novaculosum* Baumeister)
- 146 *Cystodinium pallidulum* Baumeister 1957
- 147 *Cystodinium papilionaceus* Baumeister 1957
- Cystodinium phaseolus* Pascher 1928 (= *C. conchaeforme* Baumeister 1963, *C. hyalinum* Pascher 1944, *C. minimum* Pascher 1944, *C. dominii* Fott 1933, *C. dimorphe* (Baumeister) Hub.-Pest. 1950, *Gymnocyst. dimorphe* (Baumeister) Baumeister 1957, *Dinorbiculus dimorphus* (Baumeister) Baumeister 1968)
- 148 *Dinastridium armata* (Baumeister 1957) Bourr. 1970 (= *Bourrellyella armata* Baumeister)
- 149 *Dinamoebidium* Pascher 1916 (= *Dinamoeba* Pascher 1916) -type *D. varians*
- 150 *Dinamoebidium coloradense* Bursa 1970
- 151 *Dinamoebidium hyperboreum* Bursa 1970
- 152 *Dinamoebidium varians* (Pascher 1916) Pascher 1916 (= *Dinamoeba varians* Pascher)
- 153 *Dinoclonium* Pascher 1927
- 154 *Dinoclonium conradii* Pascher 1927
- 155 *Dinococcus* Fott 1960 (= *Cystodinium* G.A. Klebs 1912, *Raciborskia* Wolosz. 1919) -type *D. bicornis*
- 156 *Dinococcus africanum* Bourr. 1961
- Dinococcus bicornis* (Wolosz. 1919) Fott 1960 (= *Raciborskia bicornis* Wolosz., *Cystodinium bicorn* (Wolosz.) Hub.-Pest. 1950)
- 157 *Dinococcus incus* (Pascher 1932) Fott 1960 (= *Raciborskia incus* Pascher)
- 158 *Dinococcus oedogonii* (P. Richter 1897) Fott 1960 (= *R. oedogonii* (P. Richter) Pascher 1943, *Rhizophyidium oedogonii* P. Richter, *Cystodinium brevipes* Geitler, ? *C. bataviense* Klebs 1912)
- 159 *Filodinium* Cachon & Cachon-Enjumet 1968
- 160 *Filodinium hovassei* Cachon & Cachon-Enjumet 1968
- 161 *Hypnodinium* G.A. Klebs 1912 -type *H. sphaericum*
- 162 *Hypnodinium asiaticum* Skvortzov 1958
- 163 *Hypnodinium lefevrei* Bourr. 1987
- 164 *Hypnodinium sphaericum* G.A. Klebs 1912
- 165 *Manchudinium* Skvortzov 1972 (= *Pentadinium* Skvortzov 1968)

Table 2. Continued.

- 163 *Manchudinium sinicum* (Skvortzov 1968) Skvortzov 1972
- 47 **Phytodinium** G.A. Klebs 1912
- 164 *Phytodinium simplex* G.A. Klebs 1912 (= *Phytodinium globosum* Pascher 1927, *Phytodinium aureum* Starmach 1963)
- 48 **Prosoaulax** Calado & Moestrup 2005 (= *Amphidinium* Clap. & J. Lachm. 1859) -type *P. lacustris*
Prosoaulax lacustris (F. Stein 1883) Calado & Moestrup 2005 (= *Amphidinium lacustre* F. Stein 1883, *A. elenkinii* Skvortzov 1925, *A. eucephalum* J. Schiller 1955, *A. gyrinum* T.M. Harris 1940, *A. inconstans* J. Schiller 1955, *A. larvale* Er. Lindem. 1928, *A. sauerzopfii* J. Schiller 1955, *A. luteum* Skuja 1939, *A. tenagodes* T.M. Harris 1940, *A. lacustriforme* J. Schiller 1928, *A. hyalinum* Entz 1930, *A. tatarae* Wolosz. 1936, *A. inconstans* J. Schiller 1955, *A. turicense* Hub.-Pest. 1959, *A. skujae* Christen 1958, *A. schroderi* J. Schiller 1928, *Gym. stagnale* J. Schiller 1955)
- 165 *Prosoaulax multiplex* (J. Schiller 1955) Calado & Moestrup 2005 (= *Amphidinium multiplex* J. Schiller, *Amphidinium lohammarii* Skuja 1956, *A. vorax* J. Schiller 1955)
- 166 *Prosoaulax viridis* (J. Schiller 1955) Calado & Moestrup 2005 (= *Amphidinium viride* J. Schiller)
- 49 **Sphaerodinium** Wolosz. 1915 (non *Sphaerodinium* T.H. Abé 1927) -type *S. polonicum* (5 species)
- 168 *Sphaerodinium javanicum* Wolosz. 1930 (= *S. cinctum* var. *javanicum* (Wolosz.) Hub.-Pest. 1950)
- 169 *Sphaerodinium limneticum* Wolosz. 1915 (= *S. cinctum* var. *limneticum* (Wolosz.) Hub.-Pest. 1950)
- 170 *Sphaerodinium polonicum* Wolosz. 1915 (= *S. cinctum* var. *polonicum* (Wolosz.) Hub.-Pest. 1950, *S. polonicum* var. *tatrica* Wolosz. 1916)
- 171 *Sphaerodinium cracoviense* Wolosz. 1915 (= ? *S. cinctum* (Ehrenb. 1836) Wolosz. 1917)
- 172 *Sphaerodinium fimbriatum* R.H. Thoms. 1951
- 50 **Tetradinium** G.A. Klebs 1912 (non *Tetradinium* Vavrdová 1973) -type *T. javanicum* (5 species)
- 173 *Tetradinium chiastosporum* T.M. Harris 1940 (= *T. chiastosporum* var. *armatum* Wawrik 1981)
- 174 *Tetradinium intermedium* Geitler 1928 (= *T. intermedium* var. *longipes* Thérézien 1985)
- 175 *Tetradinium javanicum* G.A. Klebs 1912
- 176 *Tetradinium minus* Pascher 1927
- 177 *Tetradinium simplex* Prescott 1949
- Symbiodiniaceae** Fensome & al. 1993 (?Zooxanthellaceae)
- 178 *Gymnodinium varians* Maskell 1887 (= *G. minimum* G.A. Klebs 1912)
- 179 *Gyrodinium zeta* J. Larsen 1996
- 51 **Aureodinium** J.D. Dodge 1967
- 180 *Aureodinium pigmentosum* J.D. Dodge 1967 (= *Gymnodinium pigmentosum* (J.D. Dodge) A.R. Loeb. 1970)
- 52 **Biecheleria** Moestrup, K.C.R. Lindberg & Daugbjerg 2009 (= *Gymnodinium* F. Stein 1883, *Woloszynskia* R.H. Thoms. 1951) -type *B. pseudopalustris*
- 181 *Biecheleria baltica* Moestrup, K.C.R. Lindberg & Daugbjerg 2009
- 182 *Biecheleria halophila* (Biecheler 1952) Moestrup, K.C.R. Lindberg & Daugbjerg 2009 (= *Gymnodinium halophilum* Biecheler, *Woloszynskia halophila* (Biecheler) Elbr. & A. Kremp 2005)
- 183 *Biecheleria natalensis* (T. Horig. & Pienaar 1994) Moestrup 2009 (= *Gymnodinium natalense* T. Horig. & Pienaar)
- 184 *Biecheleria pseudopalustris* (J. Schiller 1932) Moestrup, K.C.R. Lindberg & Daugbjerg 2009 (= *G. pseudopalustris* J. Schiller 1932, *W. pseudopalustris* (J. Schiller) Kisselev 1954 ex Elbr. 2005, *G. palustre* A.J. Schill. forma Wolosz. 1918, *W. pseudopalustris* (Wolosz. 1917) Kisselev 1954, ? *G. excavatum* Nygaard 1954)
- 185 *Woloszynskia cincta* Siano, Montresor & Zingone 2009
- 186 *Woloszynskia cestocoetes* (R.H. Thoms. 1947) R.H. Thoms. 1951 (= *Gymnodinium cestocoetes* R.H. Thoms.)
- 53 **Biecheleriopsis** Moestrup, K.C.R. Lindberg & Daugbjerg 2009
- 187 *Biecheleriopsis adriatica* Moestrup, K.C.R. Lindberg & Daugbjerg 2009 (= *Gymnodinium corii* J. Schiller 1928)
- 54 **Piscinoodinium** J. Lom 1981 -type *P. limneticum*
- 188 *Piscinoodinium pillulare* (Schäp. 1954) J. Lom 1981 (= *Oodinium pillularis* Schäp.)
- 189 *Piscinoodinium limneticum* (D.L. Jacobs 1946) J. Lom 1981 (= *Oodinium limneticum* D.L. Jacobs)
- 55 **Polarella** Montresor, Procaccini & Stoecker 1999
- 190 *Polarella glacialis* Montresor, Procaccini & Stoecker 1999
- 56 **Pelagodinium** Siano, Montresor, Probert & de Vargas 2010

Table 2. Continued.

- 191 *Pelagodinium bei* (Spero 1987) Siano, Montresor, Probert & de Vargas 2010 (= *Gymnodinium bei* Spero) ('*beii*')
 57 **Protodinium** Lohmann 1908 -type *P. simplex*
 192 *Gymnodinium pygmaeum* M. Lebour 1925
 193 *Protodinium neapolitanum* J. Schiller 1928
 194 *Protodinium oestianum* Braarud 1935
 195 *Protodinium simplex* Lohmann 1908 (= *Gymnodinium simplex* (Lohmann 1908) Kof. & Swezy 1921, non *G. simplex* P.A. Dangeard 1939)
 58 **Symbiodinium** Freud. 1962 -type *S. microadriaticum* (15 species)
 196 *Symbiodinium bermudense* R.K. Trench 1993
 197 *Symbiodinium californicum* LaJeunesse & R.K. Trench 2000
 198 *Symbiodinium cariborum* R.K. Trench 1993
 199 *Symbiodinium corculorum* R.K. Trench 1993
 200 *Symbiodinium fittii* B.K. Baillie, C.A. Belda-Baillie & T. Maruyama 2000 '*fitti*'
 201 *Symbiodinium goreau* R.K. Trench & R.J. Blank 1987 ex R.K. Trench 2000
 202 *Symbiodinium kawagutii* R.K. Trench & R.J. Blank 1987 ex R.K. Trench 2000
 203 *Symbiodinium linucheae* (R.K. Trench & L.V. Thinh 1995) LaJeunesse 2001 (= *Gymnodinium linucheae* R.K. Trench & L.V. Thinh)
 204 *Symbiodinium meandrinae* R.K. Trench 1993
 205 *Symbiodinium microadriaticum* Freud. 1962 (= *Gymnodinium microadriaticum* (Freud.) D.L. Taylor 1971, *Zooxanthella microadriatica* (Freud.) A.R. Loebel. & J.L. Sherley 1979)
 206 *Symbiodinium muscatinei* LaJeunesse & R.K. Trench 2000
 207 *Symbiodinium natans* Gert Hansen & Daugbjerg 2009
 208 *Symbiodinium pilosum* R.K. Trench & R.J. Blank 1987 ex R.K. Trench 2000
 209 *Symbiodinium pulchrorum* R.K. Trench 1993
 210 *Symbiodinium tridacnorum* Hollande & Carré 1975

Order of Akashiwo**Family of Akashiwo**

- 59 **Akashiwo** Gert Hansen & Moestrup 2000
 211 *Akashiwo sanguinea* (Hirasaka 1924) Gert Hansen & Moestrup 2000 (= *Gymnodinium sanguineum* Hirasaka, *Gymnodinium splendens* M. Lebour 1925, *G. nelsonii* G.W. Martin 1929)

Order Brachidinales A.R. Loebel. 1982 ex Sournia 1984**Brachidiaceae** Sournia 1972 (incl. Kareniaceae Bergholtz & al. 2006)

- 212 *Cochlodinium convolutum* Kof. & Swezy 1921
 60 **Asterodinium** Sournia 1972 (= *Brachidinium* F.J.R. Taylor 1963) -type *A. gracile*
 213 *Asterodinium gracile* Sournia 1972
 214 *Asterodinium libanum* Abboud-Abi Saab 1989
 215 *Asterodinium spinosum* Sournia 1972
 61 **Brachidinium** F.J.R. Taylor 1963 (= *Karenia* Gert Hansen & Moestrup 2000, non *Bacchidinium* R.J. Davey 1979) -type *B. capitatum*
 216 *Brachidinium brevipes* Sournia 1972
 217 *Brachidinium capitatum* F.J.R. Taylor 1963
 218 *Brachidinium catenatum* F.J.R. Taylor 1967
 219 *Brachidinium taylorii* Sournia 1972
 62 **Gynogonadinium** F. Gómez 2007
 220 *Gynogonadinium aequatoriale* F. Gómez 2007
 63 **Karenia** Gert Hansen & Moestrup 2000 (= *Brachidinium* F.J.R. Taylor 1963, non *Karenia* Wei & Zhang) -type *K. brevis* (13 species)
 221 *Karenia asterichroma* de Salas, Bolch & Hallegr. 2004

Table 2. Continued.

- 222 *Karenia bicuneiformis* L. Botes, S.D. Sym & G.C. Pitcher 2003
- 223 *Karenia bidigitata* A.J. Haywood & Steid. 2004
- 224 *Karenia brevis* (C.C. Davis 1948) Gert Hansen & Moestrup 2000 (= *G. brevis* C.C. Davis, *Ptychodiscus brevis* (C.C. Davis) Steid. 1979)
- 225 *Karenia brevisulcata* (F.H. Chang 1999) Gert Hansen & Moestrup 2000 (= *G. brevisulcatum* F.H. Chang)
- 226 *Karenia concordia* F.H. Chang & K.G. Ryan 2004 (= *K. mikimotoi*)
- 227 *Karenia cristata* L. Botes, S.D. Sym & G.C. Pitcher 2003
- 228 *Karenia digitata* Z.B. Yang, H. Takayama, Matsuoka & I.J. Hodgkiss 2000 (= *Karlodinium decipiens* de Salas & Laza-Martínez 2008)
- 229 *Karenia longicanalis* Z.B. Yang, I.J. Hodgkiss & Gert Hansen 2001
- 230 *Karenia mikimotoi* (Miyake & Kominami ex H. Oda 1935) Gert Hansen & Moestrup 2000 (= *G. nagasakiense* H. Takayama & Adachi 1984)
- 231 *Karenia papilionacea* A.J. Haywood & Steid. 2004
- 232 *Karenia selliformis* A.J. Haywood, Steid. & L. MacKenzie 2004
- 233 *Karenia umbella* de Salas, Bolch & Hallegr. 2004
- 64 ***Karlodinium*** J. Larsen 2000 -type *K. micrum* (10 species)
- 234 *Gymnodinium amphityplum* J. Larsen 1994
- 235 *Gymnodinium pumilum* J. Larsen 1994
- 236 *Gyrodinium estuariale* Hulburt 1957
- 237 *Karlodinium antarcticum* de Salas 2008
- 238 *Karlodinium armiger* T. Bergholtz, Daugbjerg & Moestrup 2006
- 239 *Karlodinium australe* de Salas, Bolch & Hallegr. 2005
- 240 *Karlodinium ballatinum* de Salas 2008
- 241 *Karlodinium conicum* de Salas 2008
- 242 *Karlodinium corrugatum* de Salas 2008
- 243 *Karlodinium corsicum* (Paulmier 1995) Siano & Zingone 2009 (= *Gyrodinium corsicum* Paulmier)
- 244 *Karlodinium decipiens* de Salas & Laza-Martínez 2008 (= *Karenia digitata* Yang & al. 2000)
- Karlodinium veneficum* (D. Ballant. 1956) J. Larsen 2000 (= *K. micrum* (B. Leadb. & J.D. Dodge 1966) J. Larsen 2000, *Gym. veneficum* D. Ballant., *Wolosz. micra* B. Leadb. & J.D. Dodge, *Gyr. galatheanum* (Braarud 1957) F.J.R. Taylor 1992, *Gym. micrum* (B. Leadb. & J.D. Dodge) A.R. Loeb. 1970)
- 245 2000, *Gym. veneficum* D. Ballant., *Wolosz. micra* B. Leadb. & J.D. Dodge, *Gyr. galatheanum* (Braarud 1957) F.J.R. Taylor 1992, *Gym. micrum* (B. Leadb. & J.D. Dodge) A.R. Loeb. 1970)
- 246 *Karlodinium vitiligo* (D. Ballant. 1956) J. Larsen 2000 (= *Gymnodinium vitiligo* D. Ballant., ?*K. veneficum* (D. Ballant.) J. Larsen)
- 65 ***Microceratium*** Sournia 1972 (= *Brachidinium* F.J.R. Taylor 1963)
- 247 *Microceratium orstomii* Sournia 1972
- 66 ***Pavillardia*** Kof. & Swezy 1921
- 248 *Pavillardia tentaculifera* Kof. & Swezy 1921
- 67 ***Pselodinium*** Sournia 1972
- Pselodinium vaubanii* Sournia 1972 (= *Gymnodinium fusus* F. Schütt 1896, *Gyrodinium falcatum* Kof. & Swezy 1921, *Gyrodinium sugashimanii* Cachon, H. Sato, Cachon-Enjume & S. Sato 1989, *Gyrodinium caudatum* Kof. & Swezy 1921)
- 68 ***Takayama*** de Salas, Bolch, L. Botes & Hallegr. 2003 -type *T. tasmanica* (6 species)
- 250 *Gyrodinium impendens* J. Larsen 1996
- 251 *Takayama acrotracha* (J. Larsen 1996) de Salas, Bolch & Hallegr. 2003 (= *Gyrodinium acrotrachum* J. Larsen)
- 252 *Takayama cladochroma* (J. Larsen 1996) de Salas, Bolch & Hallegr. 2003 (= *Gyrodinium cladochroma* J. Larsen)
- 253 *Takayama helix* de Salas, Bolch, L. Botes & Hallegr. 2003
- 254 *Takayama pulchella* (J. Larsen 1994) de Salas, Bolch & Hallegr. 2003 (= *Gymnodinium pulchellum* J. Larsen)
- 255 *Takayama tasmanica* de Salas, Bolch & Hallegr. 2003
- 256 *Takayama tuberculata* de Salas 2008

Table 2. Continued.

- 69 **Torodinium** Kof. & Swezy 1921 -type *T. teredo*
- 257 *Torodinium robustum* Kof. & Swezy 1921 (= *Gymnodinium teredo* F. Schütt 1895 partim)
- 258 *Torodinium teredo* (C.H.G. Pouchet 1885) Kof. & Swezy 1921 (= *Gym. teredo* C.H.G. Pouchet, *T. robustum* Kof. & Swezy 1921 partim)
- Order Gymnodiniales** Lemmerm. 1910
- Gymnodiniales** sensu stricto
- Chytriodiniaceae** Cachon & Cachon-Enjumet 1968
- 70 **Chytriodinium** Chatton 1912 -type *C. roseum*
- 259 *Chytriodinium affine* (Dogiel 1906) Chatton 1912 (= *Gymnodinium affine* Dogiel)
- 260 *Chytriodinium parasiticum* (Dogiel 1906) Chatton 1912 (= *Gymnodinium parasiticum* Dogiel)
- 261 *Chytriodinium roseum* (Dogiel 1906) Chatton 1912 (= *Gymnodinium roseum* Dogiel, non *Gymnodinium roseum* Lohmann 1908)
- 71 **Dissodinium** G.A. Klebs 1916 (= *Diplodinium* G.A. Klebs 1912, *Sporodinium* Gönnert 1936) -type *D. pseudolunula*
- 262 *Dissodinium pseudocalani* (Gönnert 1936) Drebes ex Elbr. & Drebes 1978 (= *Sporodinium pseudocalani* Gönnert)
- 263 *Dissodinium pseudolunula* E.V. Swift 1973 (= *Pyrocystis margalefii* G. Léger 1973, *Gym. bicornis* Kof. & Swezy 1921, *D. bicornis* (Kof. & Swezy) F.J.R. Taylor 1976)
- 72 **Myxodinium** Cachon, Cachon-Enjumet & Bouquaheux 1969
- 264 *Myxodinium pipiens* Cachon, Cachon-Enjumet & Bouquaheux 1969
- 73 **Schizochytriodinium** Elbr. 1988
- 265 *Schizochytriodinium calani* Elbr. 1988
- 74 **Syltodinium** Drebes 1989
- 266 *Syltodinium listi* Drebes 1989 (= ? *Gyrodinium undulans* Hulburt 1957)
- Gymnodiniaceae** Lank. 1885 (incl. Polykrikaceae Kof. & Swezy 1921)
- 75 **Barrufeta** N. Sampedro & S. Fraga 2011
- 267 *Barrufeta bravensis* N. Sampedro & S. Fraga 2011
- 76 **Gymnodinium** F. Stein 1878 (= *Gymnocystodinium* Baumeister 1957, *Rhizodinium* Baumeister 1955 ex Loeb. & A.R. Loeb. 1968) -type *G. fuscum* (214 species)
- 268 *Amphidinium dentatum* Kof. & Swezy 1921
- 269 *Amphidinium latum* M. Lebour 1925
- 270 *Amphidinium poecilochroum* J. Larsen 1985
- 271 *Amphidinium salinum* J. Ruinen 1938
- 272 *Amphidinium truncatum* Kof. & Swezy 1921
- 273 *Amphidinium vigrense* Wolosz. 1925
- 274 *Gymnocystodinium parthasarathii* Ramanathan 1967
- 275 *Gymnodinium absumens* J. Schiller 1955
- 276 *Gymnodinium achroum* J. Schiller 1955
- 277 *Gymnodinium acuminatum* Christen 1954
- 278 *Gymnodinium acutissimum* Okolodkov 1997
- 279 *Gymnodinium adriaticum* (Schmarda 1846) Kof. & Swezy 1921
- 280 *Gymnodinium aequatoriale* Hasle 1960
- 281 *Gymnodinium aeruginosum* F. Stein 1883 (= *G. dohrnii* Wawrik 1956, *G. acidotum* Nygaard 1949, *G. viride* Penard 1891, *G. capaniforme* Popovský 1971)
- 282 *Gymnodinium aesculum* Baumeister 1943
- 283 *Gymnodinium aestivale* Skvortzov 1968
- 284 *Gymnodinium agaricoides* P.H. Campb. 1973
- 285 *Gymnodinium agile* Kof. & Swezy 1921 (non *G. agile* sensu Herdman 1922 = *Herdmania litoralis* J.D. Dodge 1981)
- 286 *Gymnodinium agiliiforme* J. Schiller 1928
- 287 *Gymnodinium alaskense* Bursa 1963

Table 2. Continued.

- 288 *Gymnodinium alatum* Litvin. 1965
 289 *Gymnodinium albidum* J.B. Lackey & E.W. Lackey 1970
 290 *Gymnodinium albulum* Er. Lindem. 1928
 291 *Gymnodinium alsioophilum* Skuja 1964
 292 *Gymnodinium amphiconicoides* J. Schiller 1955
 293 *Gymnodinium amplinucleum* P.H. Campb. 1973
 294 *Gymnodinium arcticum* A. Wulff 1916 (= ?*G. soyai* Y. Hada 1970)
 295 *Gymnodinium arenicola* Dragesco 1965 (= *G. variabile* sensu J.D. Dodge 1982, non *G. variabile* Herdman 1924)
 296 *Gymnodinium armoricanum* Villeret 1953
 297 *Gymnodinium aurantium* P.H. Campb. 1973
 298 *Gymnodinium aureolum* (Hulburt 1957) Gert Hansen 2000
 299 *Gymnodinium australe* Playfair 1920
 300 *Gymnodinium australense* J. Ruinen 1938 (non *Gymnodinium australiense* Deflandre & Cookson 1966)
 301 *Gymnodinium baccatum* Balech 1965
 302 *Gymnodinium baicalense* N.L. Antipova 1955
 303 *Gymnodinium baumeisteri* J. Schiller 1955
 304 *Gymnodinium bicaudatum* Pavill. 1905
 305 *Gymnodinium biciliatum* Ohno 1911
 306 *Gymnodinium biconicum* J. Schiller 1928 (non *Gyrodinium biconicum* Kof. & Swezy 1921)
 307 *Gymnodinium bilobatum* Meel 1969
 308 *Gymnodinium birotundatum* Goor 1925
 309 *Gymnodinium bogoriense* G.A. Klebs 1912
 310 *Gymnodinium boguense* P.H. Campb. 1973
 311 *Gymnodinium bonaerense* Akselman 1985
 312 *Gymnodinium boreale* Gaarder 1953
 313 *Gymnodinium caerulescens* J. Schiller 1955
 314 *Gymnodinium campaniforme* Popovský 1971
 315 *Gymnodinium capitatum* W. Conrad & Kuff. 1954
 316 *Gymnodinium carinatum* A.J. Schill. 1891
 317 *Gymnodinium cassiei* R.E. Norris 1961
 318 *Gymnodinium catenatum* H.W. Graham 1943
 319 *Gymnodinium chiasmonetrium* R.E. Norris 1961
 320 *Gymnodinium chistosporum* (T.M. Harris 1940) A.A. Cridland 1958 (= *Tetradinium chistosporum* T.M. Harris 1940, *Dinastridinium chistosporum* (T.M. Harris 1940) Starmach 1974, *G. hippocastanum* A.A. Cridland 1958, *Dinastridinium sexangulare* Pascher 1927)
 321 *Gymnodinium chukwanii* D. Ballant. 1961
 322 *Gymnodinium cinctum* Kof. & Swezy 1921
 323 *Gymnodinium cnodax* W. Conrad & Kuff. 1954
 324 *Gymnodinium colymbeticum* T.M. Harris 1940 (= ?*G. pulvisculus* G.A. Klebs 1912)
 325 *Gymnodinium corollarium* A.M. Sundström, A. Kremp & Daugbjerg 2009
 326 *Gymnodinium corpusculum* (Perty 1852) Kent 1881
 327 *Gymnodinium cruciatum* (Massart 1920) J. Schiller 1932 (= *Chilodinium cruciatum* Massart, non *G. cruciatum* R.H. Thomps. 1950)
 328 *Gymnodinium cryophilum* (G.J. Wedemayer, L.W. Wilcox & L.E. Graham 1982) Gert Hansen & Moestrup 2000 (= *Amphidinium cryophilum* G.J. Wedemayer, L.W. Wilcox & L.E. Graham)
 329 *Gymnodinium cyaneofungiforme* W. Conrad & Kuff. 1954
 330 *Gymnodinium cyaneum* J. Schiller 1955 (non *G. cyaneum* H.J. Hu 1980)
 331 *Gymnodinium danicans* P.H. Campb. 1973

Table 2. Continued.

- 332 *Gymnodinium danubiense* J. Schiller 1955
 333 *Gymnodinium deformabile* J. Schiller 1955
 334 *Gymnodinium depressum* Skvortzov 1968
 335 *Gymnodinium diaphidum* R.E. Norris 1961
 336 *Gymnodinium discoidale* T.M. Harris 1940 (= *Glenodinium eurytomum* T.M. Harris 1939)
 337 *Gymnodinium dissimile* Kof. & Swezy 1921
 338 *Gymnodinium dodgei* R. Sarma & Y.S.R.K. Shyam 1974
 339 *Gymnodinium dorsalisulcum* (Hulburt, J.J.A. McLaughlin & P.A. Zahl 1960) Sh. Murray, de Salas & Hallegr. 2007
 (= *Katodinium dorsalisulcum* Hulburt, J.J.A. McLaughlin & P.A. Zahl)
 340 *Gymnodinium endofasciculum* P.H. Campb. 1973
 341 *Gymnodinium enorme* D. Ballant. 1964
 342 *Gymnodinium eucyaneum* H.J. Hu 1983 (= *Gymnodinium cyaneum* H.J. Hu 1980, non *Gymnodinium cyaneum* J. Schiller 1955)
 343 *Gymnodinium eufrigidum* J. Schiller 1955 (non *Gymnodinium frigidum* Balech 1965)
 344 *Gymnodinium excavatum* Meel 1969 (non *G. excavatum* Nygaard 1954)
 345 *Gymnodinium execheloutum* R.E. Norris 1961
 346 *Gymnodinium filum* M. Lebour 1917 (= *Amphidinium sphenoides* A. Wulff 1916)
 347 *Gymnodinium fissum* Levander 1894 (= *Spirodinium fissum* (Levander) Lemmerm. 1900, non *Gyr. fissum* (Levander) Kof. & Swezy 1921)
 348 *Gymnodinium flavum* Kof. & Swezy 1921 (non *Gyrodinium flavum* Kof. 1931)
 349 *Gymnodinium fossarum* W. Conrad & Kuff. 1954
 350 *Gymnodinium frigidum* Balech 1965 (non *Gymnodinium eufrigidum* J. Schiller 1955)
 351 *Gymnodinium fuscum* (Ehrenb. 1834) F. Stein 1878 (= *Gymnocystodinium gessneri* Baumeister 1957, *Cystodinium gessneri* (Baumeister) Bourr. 1970, *Rhizodinium gessneri* (Baumeister) Loeb. & A.R. Loeb. 1968, *Gymnodinium caudatum* Prescott 1944)
 352 *Gymnodinium galatheanum* Braarud 1957 (non *Karlodinium micrum* (B. Leadb. & J.D. Dodge 1966) J. Larsen 2000)
 353 *Gymnodinium galeaeforme* Matzen. 1933
 354 *Gymnodinium galeatum* J. Larsen 1994
 355 *Gymnodinium galesianum* P.H. Campb. 1973
 356 *Gymnodinium gelbum* Kof. 1931
 357 *Gymnodinium gibbera* J. Schiller 1928
 358 *Gymnodinium glandiforme* W. Conrad & Kuff. 1954
 359 *Gymnodinium gleba* F. Schütt 1895
 360 *Gymnodinium gracilentum* P.H. Campb. 1973
 361 *Gymnodinium grammaticum* (C.H.G. Pouchet 1887) Kof. & Swezy 1921 (= *G. punctatum* var. *grammaticum* C.H.G. Pouchet)
 362 *Gymnodinium granii* J. Schiller 1955
 363 *Gymnodinium helveticum* Penard 1891 (= *Glenodinium apiculatum* O. Zacharias 1913)
 364 *Gymnodinium herbaceum* Kof. & Swezy 1921
 365 *Gymnodinium hiroshimaense* Y. Hada 1968
 366 *Gymnodinium hulburtii* P.H. Campb. 1973
 367 *Gymnodinium impatiens* Skuja 1964
 368 *Gymnodinium impudicum* (S. Fraga & Bravo 1995) Gert Hansen & Moestrup 2000
 369 *Gymnodinium incertum* Herdman 1924
 370 *Gymnodinium inconstans* Meel 1969
 371 *Gymnodinium indicum* R. Shyam & Y.S.R.K. Sarma 1975
 372 *Gymnodinium intercalare* Bursa 1961
 373 *Gymnodinium irregulare* B. Hope 1954 (non *G. enorme* D. Ballant. 1964, non *G. irregulare* Christen 1959 = *G. uberrimum*)

Table 2. Continued.

- 374 *Gymnodinium japonicum* Y. Hada 1974
 375 *Gymnodinium knollii* J. Schiller 1955
 376 *Gymnodinium kowalevskii* Pitzik 1967
 377 *Gymnodinium kujavense* Liebetanz 1925
 378 *Gymnodinium lachmannii* Kent 1881
 379 *Gymnodinium lackeyi* (J.B. Lackey 1936) Kisselev 1954 (= *G. limneticum* J.B. Lackey 1936)
 380 *Gymnodinium lacustre* J. Schiller 1933 (= *G. profundum* J. Schiller 1933)
 381 *Gymnodinium lalitae* R. Sarma & Y.S.R.K. Shyam 1974
 382 *Gymnodinium lankoi* Rouchijajnen 1968
 383 *Gymnodinium lantzschii* Utermöhl 1925 (= *G. minimum* Lantzsch 1914, *Glenodinium minimum* (Lantzsch) Bachmann 1924, *Gymnodinium albulum* Er. Lindem. 1928, *G. rhinophoron* (Javorn.) Litvin. 1977, *G. macronucleum* Litvin. 1963)
 384 *Gymnodinium latum* Skuja 1948 (= *G. alsiphyllum* Skuja 1964)
 385 *Gymnodinium legiconveniens* J. Schiller 1955
 386 *Gymnodinium lens* Fott 1957 (= *Borghiella tenuissima* (Lauterborn 1894) Moestrup, Gert Hansen & Daugbjerg 2008)
 387 *Gymnodinium leptum* R.E. Norris 1961
 388 *Gymnodinium litoralis* A. Reñé 2011 (= *Gymnodinium vorax* Biecheler 1952)
 389 *Gymnodinium loburare* P.H. Campb. 1973
 390 *Gymnodinium luteofaba* Javorn. 1965
 391 *Gymnodinium luteo-viride* Meel 1969
 392 *Gymnodinium maguelonnense* Biecheler 1939
 393 *Gymnodinium mammosum* Meel 1969
 394 *Gymnodinium marylandicum* R.H. Thomps. 1947
 395 *Gymnodinium maximum* Nordli 1951
 396 *Gymnodinium microreticulatum* Bolch, A. Negri & Hallegr. 1999
 397 *Gymnodinium mitratum* J. Schiller 1933 (= *G. eurytopum* Skuja 1948, *G. simile* Skuja 1956)
 398 *Gymnodinium modestum* Balech 1976 (= *Gymnodinium baccatum* Balech sensu Y. Hada 1970)
 399 *Gymnodinium monadicum* (Perty 1852) Kent 1880 (= *Peridinium monadicum* Perty, *Glen. monadicum* (Perty) Diesing 1866)
 400 *Gymnodinium myriopyrenoides* H. Yamaguchi, T. Nakayama, A. Kai & I. Inouye 2011
 401 *Gymnodinium najadeum* J. Schiller 1928
 402 *Gymnodinium nanum* J. Schiller 1928
 403 *Gymnodinium neapolitanum* J. Schiller 1928
 404 *Gymnodinium nolleri* Ellegaard & Moestrup 1999
 405 *Gymnodinium obliquum* Okolodkov 1997
 406 *Gymnodinium oceanicum* Hasle 1960 (non *Gym. oceanicum* Sukhanova 1968, non *Gyrodinium oceaniae* Okolodkov 1997)
 407 *Gymnodinium ochraceum* Kof. 1931
 408 *Gymnodinium octo* J. Larsen 1994
 409 *Gymnodinium olivaceum* Skvortzov 1968
 410 *Gymnodinium opressum* W. Conrad 1926
 411 *Gymnodinium ostenfeldii* J. Schiller 1928
 412 *Gymnodinium ovato-capitatum* Meel 1969
 413 *Gymnodinium ovoideum* Okolodkov 1997 (non *Gyrodinium ovoideum* Kof. & Swezy 1921)
 414 *Gymnodinium ovulum* Kof. & Swezy 1921
 415 *Gymnodinium pallidum* Skuja 1939
 416 *Gymnodinium palustre* A.J. Schill. 1891 (= *G. carinatum* A.J. Schill. 1891, ? *G. vigrense* Wolosz. 1925, ? *G. zachariasii* Er. Lemmerm. 1900)

Table 2. Continued.

- 417 *Gymnodinium palustriforme* Gert Hansen & Flaim 2007
- 418 *Gymnodinium paradoxum* A.J. Schill. 1891
- 419 *Gymnodinium patagonicum* Balech 1971
- 420 *Gymnodinium paulsenii* J. Schiller 1928
- 421 *Gymnodinium pavlae* Popovský 1990
- 422 *Gymnodinium peisonis* J. Schiller 1955
- 423 *Gymnodinium perplexum* Meel 1969
- 424 *Gymnodinium pingue* Meel 1969 (non *Gyrodinium pingue* (F. Schütt 1895) Kof. & Swezy 1921)
- 425 *Gymnodinium placidum* Herdman 1922
- 426 *Gymnodinium planctonicum* Skvortzov 1968
- 427 *Gymnodinium posthiemale* J. Schiller 1955
- 428 *Gymnodinium pseudomirabile* Gert Hansen & Flaim 2007
- 429 *Gymnodinium pulchrum* J. Schiller 1928
- 430 *Gymnodinium punctatum* C.H.G. Pouchet 1887
- 431 *Gymnodinium pusillum* A.J. Schill. 1891 (= *Gyrodinium pusillum* (A.J. Schill.) Kof. & Swezy, ? *Gyr. elongatum* J. Schiller 1955)
- 432 *Gymnodinium pyrenoidosum* T. Horig. & Chihara 1988
- 433 *Gymnodinium ravenescens* Kof. & Swezy 1921
- 434 *Gymnodinium regulare* Meel 1969
- 435 *Gymnodinium rete* F. Schütt 1895
- 436 *Gymnodinium roseostigma* P.H. Campb. 1973
- 437 *Gymnodinium rotundatum* G.A. Klebs 1912
- 438 *Gymnodinium saginatum* T.M. Harris 1940
- 439 *Gymnodinium scaphium* Meel 1969
- 440 *Gymnodinium schaefferi* S. Morris 1937
- 441 *Gymnodinium schuettii* J. Schiller 1955
- 442 *Gymnodinium semidivisum* J. Schiller 1928
- 443 *Gymnodinium servatum* W. Busch 1927
- 444 *Gymnodinium simile* Skuja 1956
- 445 *Gymnodinium simplex* P.A. Dangeard 1939
- 446 *Gymnodinium sinuatum* Skvortzov 1968
- 447 *Gymnodinium soyai* Y. Hada 1970
- 448 *Gymnodinium sphaeroideum* Kof. 1931
- 449 *Gymnodinium subroseum* P.H. Campb. 1973
- 450 *Gymnodinium subrufescens* G.W. Martin 1929
- 451 *Gymnodinium suffusum* Meel 1969
- 452 *Gymnodinium telma* Meel 1969
- 453 *Gymnodinium terrum* Baumeister 1943
- 454 *Gymnodinium thomasi* Christen 1959
- 455 *Gymnodinium trapeziforme* Attaran-Fariman & Bolch 2007
- 456 *Gymnodinium triangularis* M. Lebour 1917
- 457 *Gymnodinium triceratium* Skuja 1939 (= *Gyrodinium asymmetricum* Wolosz. 1936, *Gymnodinium impar* T.M. Harris 1940)
- 458 *Gymnodinium tridentatum* J. Schiller 1933
- 459 *Gymnodinium uberrimum* (G.J. Allman 1854) Kof. & Swezy 1921 (= *Melodinium uberrimum* Kent 1880, *G. mirabile* Penard 1891, *G. rufescens* Lemmerm. 1910, *G. limneticum* Wolosz. 1935, *G. irregulare* Christen 1959, *G. bogoriense* G.A. Klebs 1912, *G. obesum* J. Schiller 1933, *G. rotundatum* G.A. Klebs 1912, *G. poculiferum* Skuja 1956, *G. limitatum* Skuja 1956, *Gyr. traunsteineri* Er. Lindem. 1928)

Table 2. Continued.

- 460 *Gymnodinium undulatum* Wolosz. 1925 (= ?*Woloszynskia pascheri* (Suchl. 1916) Stosch 1973)
- 461 *Gymnodinium valdecompressum* P.H. Campb. 1973
- 462 *Gymnodinium vas* Meel 1939
- 463 *Gymnodinium vastum* W. Busch 1927
- 464 *Gymnodinium venator* Flø Jørg. & Sh. Murray 2004 (= *G. pellucidum* (Herdman 1922) Flø Jørg. & Sh. Murray, A. subsalsum Biecheler 1952)
- 465 *Gymnodinium verruculosum* P.H. Campb. 1973
- 466 *Gymnodinium vigrense* Wolosz. 1925 (= ?*G. palustre* A.J. Schill. 1891)
- 467 *Gymnodinium violescens* Kof. & Swezy 1921 (non *Warnowia violescens* (Kof. & Swezy) Er. Lindem. 1928)
- 468 *Gymnodinium virescens* E.J.F. Wood 1963 (non *Gymnodinium viridescens* Kof. 1931)
- 469 *Gymnodinium viridaliut* J. Schiller 1955
- 470 *Gymnodinium viridans* Meel 1969
- 471 *Gymnodinium viride* Penard 1891
- 472 *Gymnodinium viridescens* Kof. 1931 (non *Gyrodinium viridescens* Kof. & Swezy 1921)
- 473 *Gymnodinium waweikae* J. Schiller 1955
- 474 *Gyrodinium ascendans* Kof. 1931
- 475 *Gyrodinium aureum* (W. Conrad 1926) J. Schiller 1933 (= *Spirodinium aureum* W. Conrad)
- 476 *Gyrodinium ferrugineum* Kof. 1931
- 477 *Gyrodinium flagellare* J. Schiller 1928
- 478 *Gyrodinium glaebum* Hulburt 1957
- 479 *Gyrodinium resplendens* Hulburt 1957
- 480 *Gyrodinium viridescens* Kof. & Swezy 1921 (non *Gymnodinium viridescens* Kof. 1931)
- 481 *Gyrodinium vorax* Biecheler 1952 (non *Gymnodinium vorax* Massart 1901)
- 77 **Gyrodiniellum** N.S. Kang, H.J. Jeong & Moestrup 2011
- 482 *Gyrodiniellum shiwhaense* N.S. Kang, H.J. Jeong & Moestrup 2011
- 78 **Lepidodinium** M. Watanabe, S. Suda, I. Inouye, T. Sawaguchi & M. Chihara 1990 -type *L. viride*
- 483 *Lepidodinium viride* M. Watanabe, S. Suda, I. Inouye, T. Sawaguchi & M. Chihara 1990
- 484 *Lepidodinium chlorophorum* (Elbr. & Schnepf 1996) Gert Hansen, L. Botes, de Salas 2007 (= *Gym. chlorophorum* Elbr. & Schnepf, ?*L. viride* Watanabe & al.)
- 79 **Paragymnodinium** N.S. Kang, H.J. Jeong, Moestrup & W. Shin 2010
- 485 *Paragymnodinium shiwhaense* N.S. Kang, H.J. Jeong, Moestrup & W. Shin 2010
- 80 **Pheopolykrikos** Chatton 1933
- 486 *Pheopolykrikos beauchampii* Chatton 1933 (= *Polykrikos beauchampii* (Chatton) A.R. Loebl. 1980, *P. beauchampii* (Chatton) J.D. Dodge 1982)
- 81 **Polykrikos** Buetschli 1873 -type *P. schwartzii* (6 species)
- 487 *Polykrikos grassei* Lec.-Schlaud. 1972
- 488 *Polykrikos hartmannii* W. Zimm. 1930 (= *Pheopolykrikos hartmannii* (W. Zimm. 1930) Matsuoka & Fukuyo 1986, *P. barnegatensis* G.W. Martin 1929)
- 489 *Polykrikos herdmaniae* Hoppenrath & B.S. Leander 2007
- 490 *Polykrikos kofoidii* Chatton 1914
- 491 *Polykrikos lebouriae* Herdman 1924 (= *P. schwartzii* Herdman 1922)
- 492 *Polykrikos schwartzii* Buetschli 1873 (= *P. auricularia* Bergh 1881)
- 82 **Spiniferodinium** T. Horig. & Chihara 1987
- 493 *Spiniferodinium galeiforme* T. Horig. & Chihara 1987
- 494 *Spiniferodinium palauense* T. Horig., Y. Hayashi, H. Kudo & Y. Hara 2011

Table 2. Continued.

Warnowiaceae Er. Lindem. 1928

- 83 **Erythropsidinium** P.C. Silva 1960 (=Erythropsis Hertwig 1884) -type *E. agile*
Erythropsidinium agile (Hertwig 1884) P.C. Silva 1960 (=E. *agilis* Hertwig, *E. pavillardii* (Kof. & Swezy 1921) P.C. Silva 1960, *E. agilis* Pavill. 1905, *E. hispidum* (Kof. & Swezy 1921) P.C. Silva 1960, *E. cornutum* (F. Schütt 1895) P.C. Silva 1960, *E. labrum* (Kof. & Swezy 1921) P.C. Silva 1960, *E. scarlatinum* (Kof. & Swezy 1921) P.C. Silva 1960, *E. richardii* (Kof. & Swezy 1921) P.C. Silva 1960)
- 495 *Erythropsidinium cochlea* (F. Schütt 1895) P.C. Silva 1960 (=Pouchetia cochlea F. Schütt)
- 496 *Erythropsidinium extrudens* (Kof. & Swezy 1921) P.C. Silva 1960 (=E. *extrudens* Kof. & Swezy)
- 497 *Erythropsidinium minus* (Kof. & Swezy 1921) P.C. Silva 1960 (=E. *minor* Kof. & Swezy)
- 498 **Greuetodinium** A.R. Loeb. 1980 (=Leucopsis Greuet 1968)
- 84 *Greuetodinium cylindricum* (Greuet 1968) A.R. Loeb. 1980 (=Leucopsis cylindrica Greuet)
- 499 **Nematodinium** Kof. & Swezy 1921 -type *N. partitum*
- 85 *Nematodinium armatum* (Dogiel 1906) Kof. & Swezy 1921 (=N. *lebouriae* J. Schiller 1933, *P. armata* Dogiel, *P. maculata* Kof. & Swezy 1921)
- 500 *Nematodinium atromaculatum* Kof. 1931 (non *Cochlodinium atromaculatum* Kof. & Swezy 1921)
- 501 *Nematodinium partitum* Kof. & Swezy 1921
- 502 *Nematodinium torpedo* Kof. & Swezy 1921
- 503 **Nematopsides** Greuet 1973
- 86 *Nematopsides tentaculoides* Greuet 1973
- 504 *Nematopsides vigilans* (S.M. Marshall 1925) Greuet 1973 (=Proterothropsis vigilans S.M. Marshall)
- 505 **Proterothropsis** Kof. & Swezy 1921
- 87 *Proterothropsis crassicaudata* Kof. & Swezy 1921
- 506 **Warnowia** Er. Lindem. 1928 (=Protopsis Kof. & Swezy 1921) -type *W. fusus* (30 species)
- 88 *Warnowia alba* (Kof. & Swezy 1921) Er. Lindem. 1928 (=Pouchetia alba Kof. & Swezy)
- 507 *Warnowia atra* (Kof. & Swezy 1921) J. Schiller 1933 (=P. *atra* Kof. & Swezy)
- 508 *Warnowia compacta* (F. Schütt 1895) J. Schiller 1933 (=P. *compacta* F. Schütt, *P. contorta* F. Schütt 1895)
- 509 *Warnowia dohrnii* W. Zimm. 1930
- 510 *Warnowia fusus* (F. Schütt 1895) Er. Lindem. 1928 (=P. *fusus* F. Schütt)
- 511 *Warnowia hataii* (Kof. & Swezy 1921) J. Schiller 1933 (=P. *hataii* Kof. 1931)
- 512 *Warnowia juno* (F. Schütt 1895) J. Schiller 1933 (=P. *juno* F. Schütt, *P. nigra* Pavill. 1905 partim)
- 513 *Warnowia maculata* (Kof. & Swezy 1921) Er. Lindem. 1928 (=P. *maculata* Kof. & Swezy, non *Gyr. maculatum* Kof. & Swezy 1921)
- 514 *Warnowia maxima* (Kof. & Swezy 1921) Er. Lindem. 1928 (=P. *maxima* Kof. & Swezy)
- 515 *Warnowia mutsui* (Kof. 1931) J. Schiller 1933 (=P. *mutsui* Kof.)
- 516 *Warnowia panamensis* (Kof. 1907) J. Schiller 1933 (=P. *panamensis* Kof.)
- 517 *Warnowia parva* (Lohmann 1908) Er. Lindem. 1928 (=P. *parva* Lohmann)
- 518 *Warnowia polyphemus* (C.H.G. Pouchet 1895) J. Schiller 1933 (=P. *polyphemus* (C.H.G. Pouchet) Kof. & Swezy 1921, *Gymnodinium polyphemus* C.H.G. Pouchet, *Warnowia pulchra* J. Schiller sensu Greuet 1968)
- 519 *Warnowia pouchetii* J. Schiller 1933 (=P. *pouchetii* Kof. & Swezy 1921)
- 520 *Warnowia pulchra* (J. Schiller 1928) J. Schiller 1933 (=P. *pulchra* J. Schiller, non *W. pulchra* J. Schiller sensu Greuet 1968)
- 521 *Warnowia purpurata* (Kof. & Swezy 1921) Er. Lindem. 1928 (=P. *perforata* Kof. & Swezy)
- 522 *Warnowia purpurescens* (Kof. & Swezy 1921) Er. Lindem. 1928 (=P. *purpurescens* Kof. & Swezy)
- 523 *Warnowia reticulata* (Kof. 1931) J. Schiller 1933 (=P. *reticulata* Kof.)
- 524 *Warnowia rosea* (C.H.G. Pouchet 1879) Kof. & Swezy 1921 (=Gym. *polyphemus* var. *roseum* C.H.G. Pouchet, non *P. rosea* F. Schütt 1895)
- 525 *Warnowia rubescens* (Kof. & Swezy 1921) Er. Lindem. 1928 (=P. *rubescens* Kof. & Swezy)
- 526 *Warnowia schuettii* (Kof. & Swezy 1921) J. Schiller 1933 (=P. *rosea* F. Schütt 1895)
- 527 *Warnowia striata* (Kof. & Swezy 1921) J. Schiller 1933 (=P. *striata* Kof. & Swezy)
- 528

Table 2. Continued.

- 529 *Warnowia subnigra* (Kof. & Swezy 1921) J. Schiller 1933 (= *P. subnigra* Kof. & Swezy)
- 530 *Warnowia violescens* (Kof. & Swezy 1921) Er. Lindem. 1928 (= *P. violescens* Kof. & Swezy, non *Gym. violescens* Kof. & Swezy 1921)
- 531 *Warnowia voracis* (Kof. & Swezy 1921) J. Schiller 1933 (= *P. voracis* Kof. & Swezy)
- 532 *Protopsis elongata* J. Schiller 1928
- 533 *Protopsis neapolitana* Kof. & Swezy 1921
- 534 *Protopsis nigra* (C.H.G. Pouchet 1887) Kof. & Swezy 1921 (= *G. polyphemus* var. *nigrum* C.H.G. Pouchet, *P. nigra* Lemmerm. 1899)
- 535 *Protopsis ochrea* (R.R. Wright 1907) Kof. & Swezy 1921 (= *Pouchetia ochrea* R.R. Wright)
- 536 *Protopsis simplex* M. Lebour 1925
- Order Gymnodiniales sensu lato, Family of Gyrodinium dorsum**
- 89 **Genus of Gyrodinium dorsum**
- 537 *Gyrodinium dorsum* Kof. & Swezy 1921
- 538 *Gyrodinium instriatum* Freud. & J.J Lee 1963 (= *Gymnodinium instriatum* (Freud. & J.J Lee) D.W. Coats 2002)
- 539 *Gyrodinium uncatenatum* Hulburt 1957 (= *Gymnodinium uncatenatum* (Hulburt 1957) Hallegr. 2002)
- Order Gymnodiniales sensu lato, Family of Togula**
- 90 **Togula** Flø Jørg., Sh. Murray & Daugbjerg 2004 -type *T. britannica*
- 540 *Togula britannica* (Herdman 1924) Flø Jørg., Sh. Murray & Daugbjerg 2004 (= *Amphidinium britannicum* (Herdman) M. Lebour 1925)
- 541 *Togula compacta* (Herdman 1922) Flø Jørg., Sh. Murray & Daugbjerg 2004 (= *Amphidinium asymmetricum* var. *compactum* Herdman)
- 542 *Togula jolla* Flø Jørg., Sh. Murray & Daugbjerg 2004
- 543 *Amphidinium corpulentum* Kof. & Swezy 1921 (= ? *Chilodinium cruciatum* Massart 1920)
- Order Gymnodiniales sensu lato, Family of Apicoporus**
- 91 **Apicoporus** S.F. Sparmann, B.S. Leander & Hoppenrath 2008 (= *Amphidinium* Clap. & J. Lachm. 1859) -type *A. glaber*
- 544 *Apicoporus glaber* (Hoppenrath & Okolodkov 2000) S.F. Sparmann, B.S. Leander & Hoppenrath 2008 (= *A. glabrum* Hoppenrath & Okolodkov)
- 545 *Apicoporus parvidiaboli* S.F. Sparmann, B.S. Leander & Hoppenrath 2008
- Order Gymnodiniales sensu lato, Family of Amphidinium**
- 92 **Amphidinium** Clap. & J. Lachm. 1859 -type *A. operculatum* (103 species)
- 546 *Amphidinium achromaticum* Skvortzov 1958
- 547 *Amphidinium aculeatum* Daday 1888 (non *Amphidinium aculeatum* Schröd. 1911)
- 548 *Amphidinium aculeatum* Schröd. 1911 (non *Amphidinium aculeatum* Daday 1888)
- 549 *Amphidinium acutum* J. Schiller 1928 (= *A. acutissimum* J. Schiller 1933)
- 550 *Amphidinium aeschrum* T.M. Harris 1940
- 551 *Amphidinium alinii* Skvortzov 1958
- 552 *Amphidinium aloxalocium* R.E. Norris 1961
- 553 *Amphidinium amphidinioides* (Geitler 1924) J. Schiller 1933 (= *Gymnodinium amphidinioides* Geitler 1924, *A. geitleri* Hub.-Pest. 1950)
- 554 *Amphidinium asymmetricum* Kof. & Swezy 1921
- 555 *Amphidinium aureum* Böhm 1976
- 556 *Amphidinium belauense* A.T. Banaszak, R. Iglesias-Prieto & R.K. Trench 1993
- 557 *Amphidinium bidentatum* J. Schiller 1955
- 558 *Amphidinium bipes* Herdman 1924
- 559 *Amphidinium boggayum* Sh. Murray & D.J. Patterson 2002
- 560 *Amphidinium bourrellyi* Wawrik 1983
- 561 *Amphidinium caeruleascens* J. Schiller 1955
- 562 *Amphidinium carbunculus* W. Conrad & Kuff. 1954

Table 2. Continued.

- 563 *Amphidinium carterae* Hulburt 1957 (= *A. microcephalum* R.E. Norris 1961)
- 564 *Amphidinium celestinum* W. Conrad & Kuff. 1954
- 565 *Amphidinium conradii* (W. Conrad 1926) J. Schiller 1933 (= *Gymnodinium glaucum* W. Conrad)
- 566 *Amphidinium conus* J. Schiller 1928
- 567 *Amphidinium coprosum* Baumeister 1943
- 568 *Amphidinium corallinum* W. Conrad & Kuff. 1954
- 569 *Amphidinium corrugatum* J. Larsen & D.J. Patterson 1990
- 570 *Amphidinium crassum* Lohmann 1908 (= *A. phaeocysticola* M. Lebour 1925)
- 571 *Amphidinium cristatum* D. Ballant. 1964 (= *A. rostratum* W. Conrad & Kuff. 1954, non *A. rostratum* Proshk.-Lavr. 1945)
- 572 *Amphidinium cucurbita* Kof. & Swezy 1921
- 573 *Amphidinium cucurbitella* Kof. & Swezy 1921
- 574 *Amphidinium cupulatisquama* M. Tamura & T. Horig. 2009
- 575 *Amphidinium curvatum* J. Schiller 1928
- 576 *Amphidinium cyaneoturbo* W. Conrad & Kuff. 1954
- 577 *Amphidinium discoidale* (Diesing 1866) Kof. & Swezy 1921 (= *A. operculatum* var. *discoidalis* Diesing)
- 578 *Amphidinium dubium* W. Conrad & Kuff. 1954
- 579 *Amphidinium eilatiensis* J.J. Lee, R. Olea, M. Cevalco, X. Pochon, M. Correia, M. Shpigel & J. Pawlowski 2003
- 580 *Amphidinium emarginatum* (Diesing 1886) Kof. & Swezy 1921 (= *A. operculatum* var. *marginata* Diesing 1886)
- 581 *Amphidinium extensum* A. Wulff 1916
- 582 *Amphidinium fastigium* Kof. & Swezy 1921
- 583 *Amphidinium filum* Böhm 1976
- 584 *Amphidinium flagellans* J. Schiller 1928
- 585 *Amphidinium flexum* Herdman 1923
- 586 *Amphidinium galbanum* Kof. & Swezy 1921
- 587 *Amphidinium gibbosum* (L. Maranda & Y. Shimizu 1996) Flø Jørg. & Sh. Murray 2004
- 588 *Amphidinium glaucovirescens* J. Schiller 1955
- 589 *Amphidinium glaucum* W. Conrad 1926
- 590 *Amphidinium globosum* Schröd. 1911
- 591 *Amphidinium hadai* Balech 1976
- 592 *Amphidinium herdmanii* Kof. & Swezy 1921 (= *A. operculatum* W.A. Herdman 1911)
- 593 *Amphidinium incoloratum* P.H. Campb. 1973 (= *A. boekhoutnensis* Caljon 1983, ? *A. klebsii* Kof. & Swezy 1921 = *A. operculatum* G.A. Klebs 1884)
- 594 *Amphidinium inflatum* Kof. 1931
- 595 *Amphidinium kesslitzii* J. Schiller 1928 (= ? *Gymnodinium nanum* J. Schiller 1933)
- 596 *Amphidinium lacunarum* Skuja 1964
- 597 *Amphidinium lanceolatum* Schröd. 1911
- 598 *Amphidinium lefevrei* Skvortzov 1968
- 599 *Amphidinium lilloense* W. Conrad & Kuff. 1954
- 600 *Amphidinium lissae* J. Schiller 1925
- 601 *Amphidinium luteum* Skuja 1939
- 602 *Amphidinium machapungarum* P.H. Campb. 1973
- 603 *Amphidinium macrocephalum* W. Conrad & Kuff. 1954
- 604 *Amphidinium mammillatum* W. Conrad & Kuff. 1954 (= *A. pseudogalbanum* W. Conrad & Kuff. 1954)
- 605 *Amphidinium mananninii* Herdman 1924
- 606 *Amphidinium massartii* Biecheler 1952 (= *A. hoeffleri* J. Schiller & Diskus 1955)
- 607 *Amphidinium mootonorum* Sh. Murray & D.J. Patterson 2002
- 608 *Amphidinium mucicola* W. Conrad 1941

Table 2. Continued.

- 609 *Amphidinium nasutum* Skvortzov 1958
 610 *Amphidinium obliquum* J. Schiller 1955
 611 *Amphidinium obrae* Er. Lindem. 1919
 612 *Amphidinium oceanicum* Lohmann 1920
 613 *Amphidinium oculatum* J. Schiller 1955
 614 *Amphidinium operculatum* Clap. & J. Lachm. 1859 (= *A. klebsii* Kof. & Swezy 1921, *A. rhynchocephala* Anisimova 1926, *A. elegans* Grell & Wohlfarth-Bottermann 1957)
 615 *Amphidinium ornithocephalum* W. Conrad 1939
 616 *Amphidinium ovoideum* (Lemmerm. 1896) Lemmerm. 1900 (= *Prorocentrum ovoideum* Lemmerm.)
 617 *Amphidinium ovum* Herdman 1924
 618 *Amphidinium pacificum* Kof. & Swezy 1921
 619 *Amphidinium pelagicum* M. Lebour 1925
 620 *Amphidinium phthartum* Skuja 1939
 621 *Amphidinium psammophila* W. Conrad & Kuff. 1954
 622 *Amphidinium psittacus* J. Larsen 1985
 623 *Amphidinium purpureum* W. Conrad & Kuff. 1954
 624 *Amphidinium pusillum* J. Schiller 1955
 625 *Amphidinium radiatum* Javorn. 1957
 626 *Amphidinium rhynchocephalum* Anisimova 1926
 627 *Amphidinium roseolum* (Schmarda 1854) J. Schiller 1933 (= *Gym. roseolum* (Schmarda) F. Stein 1878, *Glen. roseolum* Schmarda, =? *Opisthoaulax*)
 628 *Amphidinium ruttneri* J. Schiller 1955
 629 *Amphidinium schilleri* Skvortzov 1968
 630 *Amphidinium scissum* Kof. & Swezy 1921 (= *A. scissoides* M. Lebour 1925)
 631 *Amphidinium semilunatum* Kof. & Swezy 1921 (non *Amphidinium semilunatum* Herdman 1924, *Thecadinium inclinatum* Balech 1956)
 632 *Amphidinium sphagnicola* W. Conrad 1943
 633 *Amphidinium sphenoides* A. Wulff 1916 (=? *Gymnodinium filum* M. Lebour 1917)
 634 *Amphidinium steinii* Lemmerm. 1910 (= *A. wislouchii* Hulburt 1957, *A. rostratum* Proshk.-Lavr. 1945)
 635 *Amphidinium stellatum* W. Conrad & Kuff. 1954
 636 *Amphidinium stigmatum* J. Schiller 1928
 637 *Amphidinium sulcatum* Kof. 1907
 638 *Amphidinium testudo* Herdman 1924
 639 *Amphidinium tortum* W. Conrad & Kuff. 1954
 640 *Amphidinium trochodinoideum* W. Conrad & Kuff. 1954
 641 *Amphidinium trulla* Sh. Murray, L. Rhodes & Flø Jørg. 2004
 642 *Amphidinium turbo* Kof. & Swezy 1921
 643 *Amphidinium vasculum* Kof. & Swezy 1921
 644 *Amphidinium vernale* Skvortzov 1946
 645 *Amphidinium vigrense* Wolosz. 1925
 646 *Amphidinium vitreum* Herdman 1924
 647 *Amphidinium vittatum* W. Conrad & Kuff. 1954
 648 *Amphidinium yoorugurum* Sh. Murray & D.J. Patterson 2002
 93 ***Schillingia*** J. Schiller 1933
 649 *Schillingia coerulea* (W. Conrad 1939) J. Schiller 1933 (= *Amphidinium coeruleum* W. Conrad)
 94 ***Trochodinium*** W. Conrad 1926
 650 *Trochodinium prismaticum* W. Conrad 1926 (= *Amphidinium prismaticum* (W. Conrad) J. Schiller 1933)

Order Gymnodiniales sensu lato, Family of *Cochlodinium*

Table 2. Continued.

- 95 **Cochlodinium** F. Schütt 1896 sensu stricto (heterotrophic species) -type *C. strangulatum* (21 species)
- 651 *Cochlodinium achromaticum* M. Lebour 1925
- 652 *Cochlodinium archimedes* (C.H.G. Pouchet 1883) Lemmerm. 1899 (= *Gymnodinium archimedes* C.H.G. Pouchet)
- 653 *Cochlodinium atromaculatum* Kof. & Swezy 1921 (non *Nematodinium atromaculatum* Kof. 1931)
- 654 *Cochlodinium brandtii* A. Wulff 1916 (= *C. angustum* Kof. & Swezy 1921)
- 655 *Cochlodinium cavatum* Kof. & Swezy 1921
- 656 *Cochlodinium cereum* Kof. & Swezy 1921
- 657 *Cochlodinium citron* Kof. & Swezy 1921
- 658 *Cochlodinium clarissimum* Kof. & Swezy 1921
- 659 *Cochlodinium cnidophorum* Biecheler 1939
- 660 *Cochlodinium conspiratum* Kof. & Swezy 1921
- 661 *Cochlodinium constrictum* (F. Schütt 1895) Lemmerm. 1899 (= *Gymnodinium constrictum* F. Schütt)
- 662 *Cochlodinium elongatum* Kof. & Swezy 1921
- 663 *Cochlodinium faurei* Kof. & Swezy 1921
- 664 *Cochlodinium miniatum* Kof. & Swezy 1921
- 665 *Cochlodinium pellucidum* Lohmann 1908
- 666 *Cochlodinium pirum* (F. Schütt 1895) Lemmerm. 1899 (= *Gymnodinium pirum* F. Schütt)
- 667 *Cochlodinium pulchellum* M. Lebour 1917
- 668 *Cochlodinium pupa* M. Lebour 1925
- 669 *Cochlodinium semistriatum* Elbr. 1979
- 670 *Cochlodinium strangulatum* (F. Schütt 1895) F. Schütt 1896 (= *Gymnodinium strangulatum* F. Schütt)
- 671 *Cochlodinium volutum* Kof. & Swezy 1921
- 96 **Cochlodinium** (chloroplast-containing species) (15 species)
- 672 *Cochlodinium catenatum* Okamura 1916
- 673 *Cochlodinium flavum* Kof. 1931 (non *Gymnodinium flavum* Kof. & Swezy 1921, non *Gyrodinium flavum* Kof. 1931)
- 674 *Cochlodinium fulvescens* M. Iwataki, H. Kawami & Matsuoka 2007
- 675 *Cochlodinium geminatum* (F. Schütt 1895) F. Schütt 1896 (= *Gymnodinium geminatum* F. Schütt)
- 676 *Cochlodinium helicoides* M. Lebour 1925 (= *C. helix* F. Schütt 1895 partim, *Cochlodinium helix* Kof. & Swezy 1921)
- 677 *Cochlodinium helix* (C.H.G. Pouchet 1887) Lemmerm. 1899 (= *Gymnodinium helix* C.H.G. Pouchet, *Gymnodinium helix* F. Schütt 1895)
- 678 *Cochlodinium lebouriae* Kof. & Swezy 1921
- 679 *Cochlodinium polykrikoides* Margalef 1961 (= *C. heterolobatum* E.S. Silva 1967)
- 680 *Cochlodinium radiatum* Kof. & Swezy 1921
- 681 *Cochlodinium rosaceum* Kof. & Swezy 1921
- 682 *Cochlodinium schuettii* Kof. & Swezy 1921 (= *Gymnodinium helix* F. Schütt 1895 partim, non *G. helix* C.H.G. Pouchet 1887)
- 683 *Cochlodinium scintillans* Kof. & Swezy 1921
- 684 *Cochlodinium turbineum* Kof. & Swezy 1921
- 685 *Cochlodinium vinctum* Kof. & Swezy 1921
- 686 *Cochlodinium virescens* Kof. & Swezy 1921
- Order Gymnodiniales sensu lato, Gyrodinium sensu stricto**
- 97 **Ceratodinium** W. Conrad 1926
- 687 *Ceratodinium asymmetricum* W. Conrad 1926 (= *Gymnodinium massartii* (W. Conrad) J. Schiller 1932)
- 98 **Gyrodinium** Kof. & Swezy 1921 (= *Spirodinium* F. Schütt 1896) -type *G. spirale* (153 species)
- 688 *Cochlodinium distortum* Kof. & Swezy 1921
- 689 *Gymnodinium achromaticum* M. Lebour 1917
- 690 *Gymnodinium alaskense* Bursa 1963
- 691 *Gymnodinium allophron* J. Larsen 1994

Table 2. Continued.

- 692 *Gymnodinium amphora* Kof. & Swezy 1921
 693 *Gymnodinium arcuatum* Kof. 1931
 694 *Gymnodinium atomatum* J. Larsen 1994
 695 *Gymnodinium attenuatum* Kof. & Swezy 1921
 696 *Gymnodinium auratum* Kof. & Swezy 1921
 697 *Gymnodinium aureum* Kof. & Swezy 1921
 698 *Gymnodinium austriacum* J. Schiller 1933 (= *G. tridentatum* J. Schiller 1933, *G. cruciatum* R.H. Thomps. 1951, *G. thompsonii* (R.H. Thomps.) Kisselev 1954, *G. waltzii* Baumeister 1957, *G. titubans* Christen 1958, *G. autumnale* Christen 1959)
 699 *Gymnodinium bifurcatum* Kof. & Swezy 1921
 700 *Gymnodinium canus* Kof. & Swezy 1921
 701 *Gymnodinium caput* J. Schiller 1928
 702 *Gymnodinium contractum* Kof. & Swezy 1921
 703 *Gymnodinium costatum* Kof. & Swezy 1921
 704 *Gymnodinium cucumis* F. Schütt 1895
 705 *Gymnodinium dentatum* J. Larsen 1994
 706 *Gymnodinium devorans* J. Schiller 1955
 707 *Gymnodinium diploconus* F. Schütt 1895 (non *Gymnodinium diplococcus* Cleve-Euler 1918, nom. nud.)
 708 *Gymnodinium dogieli* Kof. & Swezy 1921
 709 *Gymnodinium doma* Kof. & Swezy 1921
 710 *Gymnodinium elongatum* B. Hope 1954 (= *Lessardia elongata* J.F. Saldarriaga & F.J.R. Taylor 2003, non *Gyr. elongatum* J. Schiller 1955)
 711 *Gymnodinium galeiforme* Okolodkov 1997
 712 *Gymnodinium gracile* Bergh 1881 (= *Gymnodinium spirale* var. *nobilis* C.H.G. Pouchet 1883, *Gymnodinium roseum* Lohmann 1908, *Gymnodinium abbreviatum* Kof. & Swezy 1921, *Gymnodinium lohmannii* Paulsen 1908)
 713 *Gymnodinium guttiforme* J. Larsen 1994
 714 *Gymnodinium guttula* Balech 1976
 715 *Gymnodinium heterostriatum* Kof. & Swezy 1921 (= *G. lucidum* D. Ballant. 1964, ? *G. hyalinum* M. Lebour 1925, non *G. striatissimum* Hulburt 1957)
 716 *Gymnodinium hyalinum* M. Lebour 1925 (= ? *Gym. heterostriatum* Kof. & Swezy 1921, non *G. hyalinum* A.J. Schill. 1891, non *G. hyalinum* Vozzhenn. 1967)
 717 *Gymnodinium incisum* Kof. & Swezy 1921
 718 *Gymnodinium incoloratum* W. Conrad & Kuff. 1954
 719 *Gymnodinium indicum* R. Shyam & Y.S.R.K. Sarma 1976
 720 *Gymnodinium katodiniiforme* Elbr. 1979
 721 *Gymnodinium lazulum* Hulburt 1957
 722 *Gymnodinium lineatum* Kof. & Swezy 1921
 723 *Gymnodinium lineopunicum* Kof. & Swezy 1921
 724 *Gymnodinium lira* Kof. & Swezy 1921
 725 *Gymnodinium lohmannii* Paulsen 1908
 726 *Gymnodinium marinum* Kent 1881
 727 *Gymnodinium minor* M. Lebour 1917
 728 *Gymnodinium minutulum* J. Larsen 1994
 729 *Gymnodinium mirabile* Penard 1891
 730 *Gymnodinium multilineatum* Kof. & Swezy 1921
 731 *Gymnodinium multistriatum* Kof. & Swezy 1921
 732 *Gymnodinium najadeum* J. Schiller 1928
 733 *Gymnodinium neapolitanum* J. Schiller 1928
 734 *Gymnodinium nucaceum* Okolodkov 1997

Table 2. Continued.

- 735 *Gymnodinium obesum* J. Schiller
 736 *Gymnodinium parvum* J. Larsen 1994
 737 *Gymnodinium polycomma* J. Larsen 1994
 738 *Gymnodinium prolatum* J. Larsen 1994
 739 *Gymnodinium puniceum* Kof. & Swezy 1921
 740 *Gymnodinium radiatum* Kof. & Swezy 1921
 741 *Gymnodinium rhomboides* F. Schütt 1895
 742 *Gymnodinium rubricauda* Kof. & Swezy 1921
 743 *Gymnodinium rubrocinctum* M. Lebour 1925
 744 *Gymnodinium scopulosum* Kof. & Swezy 1921
 745 *Gymnodinium situla* Kof. & Swezy 1921
 746 *Gymnodinium sphaericum* (Calk. 1902) Kof. & Swezy 1921 (= *Gymnodinium gracile* var. *sphaerica* Calk.)
 747 *Gymnodinium stellatum* Hulbult 1957
 748 *Gymnodinium sulcatum* Kof. & Swezy 1921
 749 *Gymnodinium translucens* Kof. & Swezy 1921 (non *Gymnodinium translucens* P.H. Campb. 1973)
 750 *Gymnodinium translucens* P.H. Campb. 1973 (non *Gymnodinium translucens* Kof. & Swezy 1921)
 751 *Gymnodinium variabile* Herdman 1924
 752 *Gymnodinium vestificii* F. Schütt 1885 (= *Katodinium glaucum* (M. Lebour 1917) A.R. Loeb. 1965)
 Gymnodinium vorax Massart 1901 (nom. nud.) (non *Gyrodinium vorax* Biecheler 1952)
 753 *Gymnodinium voukii* J. Schiller 1928
 754 *Gymnodinium wilczekii* C.H.G. Pouchet 1894
 755 *Gymnodinium wulffii* J. Schiller 1933 (non *Gyrodinium wulffii* J. Schiller 1933)
 756 *Gyrodinium acutum* (F. Schütt) Kof. & Swezy 1921
 757 *Gyrodinium adriaticum* J. Schiller 1928 (= *Cochlodinium adriaticum* J. Schiller 1933)
 758 *Gyrodinium antarcticum* Hasle 1960
 759 *Gyrodinium apidiomorphum* R.E. Norris 1961
 760 *Gyrodinium apuntatum* W. Busch 1927
 761 *Gyrodinium arcticum* Bursa 1961
 762 *Gyrodinium atractos* J. Larsen 1996
 763 *Gyrodinium biconicum* Kof. & Swezy 1921 (non *Gymnodinium biconicum* J. Schiller 1928)
 764 *Gyrodinium bistellatum* W. Conrad & Kuff. 1954
 765 *Gyrodinium californicum* Bursa 1962
 766 *Gyrodinium capsulatum* Kof. & Swezy 1921
 767 *Gyrodinium carteretense* P.H. Campb. 1973
 768 *Gyrodinium chiasmonetrium* R.E. Norris 1961
 769 *Gyrodinium citrinum* Kof. 1931
 770 *Gyrodinium cochlea* M. Lebour 1925
 771 *Gyrodinium complanatum* P.H. Campb. 1973
 772 *Gyrodinium concentricum* (M. Lebour 1917) Kof. & Swezy 1921 (= *Spirodinium concentricum* M. Lebour)
 773 *Gyrodinium conicum* J. Schiller 1928
 774 *Gyrodinium contortum* (F. Schütt 1895) Kof. & Swezy 1921 (= *Gym. contortum* F. Schütt, *Gymnodinium opimum* F. Schütt 1895 partim)
 775 *Gyrodinium corallinum* Kof. & Swezy 1921
 776 *Gyrodinium cornutum* (C.H.G. Pouchet 1885) Kof. & Swezy 1921 (= *Gym. spirale* var. *cornutum* C.H.G. Pouchet, non *G. cornutum* F. Schütt 1895)
 777 *Gyrodinium crassum* (C.H.G. Pouchet 1885) Kof. & Swezy 1921 (= *Gymnodinium crassum* C.H.G. Pouchet)
 778 *Gyrodinium culeus* Kof. & Swezy 1921
 779 *Gyrodinium cuneatum* Kof. & Swezy 1921 (= *Gymnodinium gracile* Bergh 1881)

Table 2. Continued.

- 780 *Gyrodinium dominans* Hulburt 1957
- 781 *Gyrodinium fissum* (Levander 1894) Kof. & Swezy 1921 (= *Gyr. fissoides* Elbr. 1979, non *Gym. fissum* Levander 1894, ? *Gyr. pavillardii* Biecheler 1952)
- 782 *Gyrodinium flavescens* Kof. & Swezy 1921
- 783 *Gyrodinium flavidum* Kof. & Swezy 1921
- 784 *Gyrodinium flavum* Kof. 1931 (non *Gymnodinium flavum* Kof. & Swezy 1921)
- 785 *Gyrodinium foliaceum* Kof. & Swezy 1921 (= *Gymnodinium viride* F. Schütt 1895, non *G. viride* Penard 1891)
- 786 *Gyrodinium formosum* P.H. Campb. 1973
- 787 *Gyrodinium fulvum* Kof. & Swezy 1921
- 788 *Gyrodinium fusiforme* Kof. & Swezy 1921 (= *Gyrodinium fusus* (Meunier 1910) Akselman 1985)
- 789 *Gyrodinium glaciale* Y. Hada 1970 ex Balech 1976
- 790 *Gyrodinium grave* (Meunier 1910) Kof. & Swezy 1921
- 791 *Gyrodinium grenlandicum* Braarud 1935
- 792 *Gyrodinium grossestriatum* P.H. Campb. 1973
- 793 *Gyrodinium guttula* J. Larsen 1996 (non *Gymnodinium guttula* Balech 1976)
- 794 *Gyrodinium helveticum* (Penard 1891) Y. Takano & T. Horig. 2004 (= *Gymnodinium helveticum* Penard)
- 795 *Gyrodinium herbaceum* Kof. & Swezy 1921
- 796 *Gyrodinium heterogrammum* J. Larsen 1996
- 797 *Gyrodinium hyalinum* (A.J. Schill. 1891) Kof. & Swezy 1921 (non *Gym. hyalinum* M. Lebour 1925, non *Gym. hyalinum* Vozzhenn. 1967)
- 798 *Gyrodinium intortum* Kof. & Swezy 1921
- 799 *Gyrodinium katodiniascens* P.H. Campb. 1973
- 800 *Gyrodinium kofoidii* R.E. Norris 1961
- 801 *Gyrodinium lachryma* (Meunier 1910) Kof. & Swezy 1921 (= *Spirodinium lachryma* Meunier)
- 802 *Gyrodinium lebouriae* Herdman 1924
- 803 *Gyrodinium leptogrammum* J. Larsen 1996
- 804 *Gyrodinium lingulifera* M. Lebour 1925
- 805 *Gyrodinium longum* (Lohmann 1908) Kof. & Swezy 1921 (= *Cochlodinium longum* Lohmann, non *Amphidinium longum* Lohmann 1908)
- 806 *Gyrodinium louisae* W. Conrad & Kuff. 1954
- 807 *Gyrodinium maculatum* Kof. & Swezy 1921 (non *Warnowia maculata* (Kof. & Swezy 1921) Er. Lindem. 1928)
- 808 *Gyrodinium melo* Kof. & Swezy 1921
- 809 *Gyrodinium metum* Hulburt 1957
- 810 *Gyrodinium mundulum* P.H. Campb. 1973
- 811 *Gyrodinium nasutum* (A. Wulff 1916) J. Schiller 1933
- 812 *Gyrodinium obtusum* (F. Schütt 1895) Kof. & Swezy 1921 (= *Gym. spirale* Bergh var. *obtusum* F. Schütt, non *G. spirale* var. *obtusum* Dogiel 1906)
- 813 *Gyrodinium oceaniae* Okolodkov 1997 (non *Gymnodinium oceanicum* Hasle 1960)
- 814 *Gyrodinium ochraceum* Kof. & Swezy 1921
- 815 *Gyrodinium opimum* (F. Schütt 1895) M. Lebour 1925 (= *Gym. opimum* F. Schütt, *Gyr. contortum* (F. Schütt) Kof. & Swezy 1921 partim)
- 816 *Gyrodinium ovatum* (Gourret 1883) Kof. & Swezy 1921 (= *Gymnodinium ovatum* Gourret)
- 817 *Gyrodinium ovoideum* Kof. & Swezy 1921 (non *Gymnodinium ovoideum* Okolodkov 1997)
- 818 *Gyrodinium ovum* (F. Schütt 1895) Kof. & Swezy 1921 (= *Gymnodinium ovum* F. Schütt)
- 819 *Gyrodinium parvulum* (F. Schütt 1895) Kof. & Swezy 1921 (= *Gymnodinium parvulum* F. Schütt)
- 820 *Gyrodinium pavillardii* Biecheler 1934 (= ? *Gymnodinium fissum* Levander 1894)
- 821 *Gyrodinium pellucidum* (A. Wulff 1916) J. Schiller 1933 (non *Gymnodinium pellucidum* (Herdman) Flø Jørg. & Sh. Murray)
- 822 *Gyrodinium pepo* (F. Schütt 1895) Kof. & Swezy 1921 (= *Gymnodinium spirale* var. *pepo* F. Schütt)

Table 2. Continued.

- 823 *Gyrodinium phorkorium* R.E. Norris 1961
- 824 *Gyrodinium pingue* (F. Schütt 1895) Kof. & Swezy 1921 (= *Spirodinium varians* A. Wulff 1916, ?*Gyr. submarinum* Kof. & Swezy 1921)
- 825 *Gyrodinium postmaculatum* Kof. & Swezy 1921
- 826 *Gyrodinium prunus* (A. Wulff 1920) M. Lebour 1925 (= *Spirodinium prunus* A. Wulff)
- 827 *Gyrodinium rubricaudatum* Kof. & Swezy 1921
- 828 *Gyrodinium rubrum* (Kof. & Swezy 1921) Y. Takano & T. Horig. 2004 (= *Gymnodinium rubrum* Kof. & Swezy)
- 829 *Gyrodinium schuettii* (Lemmerm. 1899) Kof. & Swezy 1921 (= *Spirodinium schuettii* Lemmerm., *Gym. cornutum* F. Schütt 1895)
- 830 *Gyrodinium spirale* (Bergh 1881) Kof. & Swezy 1921 (= *Gyr. britannicum* Kof. & Swezy 1921, *Gyr. cornutum* (C.H.G. Pouchet 1885) Kof. & Swezy 1921)
- 831 *Gyrodinium spumantia* Kof. & Swezy 1921
- 832 *Gyrodinium steinii* Skvortzov 1968
- 833 *Gyrodinium striatissimum* (Hulburt 1957) Gert Hansen & Moestrup 2000 (= *G. striatissimum* Hulburt, non *G. heterostriatum* Kof. & Swezy 1921)
- 834 *Gyrodinium truncatum* Kof. & Swezy 1921
- 835 *Gyrodinium truncus* Kof. & Swezy 1921
- 836 *Gyrodinium undulans* Hulburt 1957 (= ?*Syltodinium listii* Drebes 1989)
- 837 *Gyrodinium varians* (A. Wulff 1916) J. Schiller 1933 (non *Gymnodinium varians* Maskel 1887)
- 838 *Gyrodinium vesiculosum* J. Larsen 1996
- 839 *Gyrodinium virgatum* Kof. & Swezy 1921
- 840 *Gyrodinium wulfii* J. Schiller 1933 (non *Gymnodinium wulfii* J. Schiller 1933)
- 99 ***Plectodinium*** Biecheler 1934
- 841 *Plectodinium nucleovolvatum* Biecheler 1934 (= *Gyrodinium rhabdomante* Balech 1973, ?*Plectodinium miniatum* (Kof. & Swezy 1921) F.J.R. Taylor 1980, *Cochlodinium miniatum* Kof. & Swezy)
- 100 ***Sclerodinium*** J.D. Dodge 1981
- 842 *Sclerodinium calyptroglyphe* (M. Lebour 1925) J.D. Dodge 1981 (= *Gyrodinium calyptroglyphe* M. Lebour)
- 843 *Sclerodinium striatum* J.D. Dodge 1981
- Order Gymnodiniales sensu lato, Family of *Amphidinium longum***
- 101 **Genus of *Amphidinium longum***
- 844 *Amphidinium longum* Lohmann 1908 (= *A. acutum* Lohmann 1920, non *Cochlodinium longum* Lohmann 1908, non *A. acutum* J. Schiller 1928)
- Order Gymnodiniales sensu lato, Family of *Amphidinium semilunatum***
- 102 **Genus of *Amphidinium semilunatum***
- 845 *Amphidinium semilunatum* Herdman 1924 (= *Thecadinium semilunatum* (Herdman) J.D. Dodge 1982, non *Amphidinium semilunatum* Kof. & Swezy 1921)
- Order Gymnodiniales sensu lato, Family of *Balechina***
- 103 ***Balechina*** Loeb. & A.R. Loeb. 1968 -type *B. pachydermata*
- 846 *Balechina coerulea* (Dogiel 1906) F.J.R. Taylor 1976 (= *Gymnodinium coeruleum* Dogiel)
- 847 *Balechina marianae* F.J.R. Taylor 1976 ('*marianae*' non. corr. ICBN: Art. 60.11, Recom. 60C.1, Art. 32.7)
- 848 *Balechina pachydermata* (Kof. & Swezy 1921) Loeb. & A.R. Loeb. 1968 (= *Gymnodinium pachydermatum* Kof. & Swezy)
- Order Gymnodiniales sensu lato, Family of *Moestrupia***
- 104 ***Moestrupia*** Gert Hansen & Daugbjerg 2011
- 849 *Moestrupia oblonga* (J. Larsen & D.J. Patterson 1990) Gert Hansen & Daugbjerg 2011 (= *Gyrodinium oblongum* J. Larsen & D.J. Patterson)
- Order Ptychodiscales** Fensome & al. 1993
- Ptychodiscaceae** Lemmerm. 1899
- 105 ***Ptychodiscus*** F. Stein 1883

Table 2. Continued.

- 850 *Ptychodiscus noctiluca* F. Stein 1883 (= *P. inflatus* Pavill. 1916, *P. carinatus* Kof. 1907, *Diplocystis antarctica* Cleve 1900)

Order Thoracosphaerales Tangen 1982**Calciadinellaceae** / Calciadinelloideae Deflandre 1947

- 851 *Peridinium dzieduszyckii* Wolosz. 1925 (= *Peridinium lubienense* f. *dzieduszyckii* (Wolosz.) M. Lefèvre 1932)
- 852 *Peridinium lubienense* Wolosz. 1916 (= *Parvodinium lubienense* (Wolosz. 1916) Carty 2008)
- 853 *Peridinium lubieniensiforme* (Diwald 1938) Hub.-Pest. 1950 (= *Glen. lubieniensiforme* Diwald, *Peridiniopsis lubieniensiforme* (Diwald) Bourr. 1968)
- 854 *Peridinium polonicum* Wolosz. 1916 (= *Peridiniopsis polonicum* (Wolosz. 1916) Bourr. 1968, *P. trilineatum* Er. Lindem. 1919, *Peridiniopsis gymnodinium* (Penard 1891) Bourr. 1968, *Glenodinium gymnodinium* Penard 1891)
- 106 **Calciadinellum** Deflandre 1947 -type *C. operosum*
- 855 *Calciadinellum albatrosianum* (Kamptner 1963) D. Janofske & Karwath 2000
- 856 *Calciadinellum elongatum* (Hildebrand-Habel, H. Willems & Versteegh 1999) K.J.S. Meier, D. Janofske & H. Willems 2002
- 857 *Calciadinellum levantinum* K.J.S. Meier, D. Janofske & H. Willems 2002
- 858 *Calciadinellum operosum* Deflandre 1947
- 107 **Calcigonellum** Deflandre 1949
- 859 *Calcigonellum infula* Deflandre 1949
- 108 **Duboscquodinium** Grassé 1952 -type *D. collinii*
- 860 *Duboscquodinium collinii* Grassé 1952
- 861 *Duboscquodinium kofoidii* Grassé 1952
- 109 **Scrippsiella** Balech 1959 ex A.R. Loeb. 1965 -type *S. sweeneyae* (21 species)
- 862 *Scrippsiella crystallina* J.M. Lewis 1991
- 863 *Scrippsiella donghaiensis* H. Gu 2008
- 864 *Scrippsiella faeroensis* (Paulsen 1905) Balech & L.O. Soares 1967 (= *Calciadinellum faeroense* (Paulsen 1905) Havskum 1991)
- 865 *Scrippsiella hexapraeicingula* T. Horig. & Chihara 1983 (= *S. gregaria* (E.H. Lombard & B. Capon 1971) A.R. Loeb., J.L. Sherley & R.J. Schmidt 1979, non *Peridinium gregarium* Lombard & Capon)
- 866 *Scrippsiella infula* (Deflandre 1948) Montresor 2003 (= *Calcigonellum infula* Deflandre)
- 867 *Scrippsiella irregularis* Attaran-Fariman & Bolch 2007
- 868 *Scrippsiella lachrymosa* J.M. Lewis 1991
- 869 *Scrippsiella minima* X. Gao & J.D. Dodge 1991
- 870 *Scrippsiella operosa* (Deflandre 1947) Montresor 2003 (= *Calciadinellum operosum* Deflandre)
- 871 *Scrippsiella patagonica* Akselman & Keupp 1990
- 872 *Scrippsiella precaria* Montresor & Zingone 1988
- 873 *Scrippsiella ramonii* Montresor 1995
- 874 *Scrippsiella regalis* (Gaarder 1954) D. Janofske 2000 (= *Discosphaera regalis* Gaarder)
- 875 *Scrippsiella rotunda* J.M. Lewis 1991
- 876 *Scrippsiella saladensis* Balech 1963
- 877 *Scrippsiella spinifera* G. Honsell & M. Cabrini 1991
- 878 *Scrippsiella sweeneyae* Balech 1959 ex A.R. Loeb. 1965 (= *S. sweeneyae* D. Wall & B. Dale 1968)
- 879 *Scrippsiella tinctoria* Indel. & A.R. Loeb. 1985
- 880 *Scrippsiella trifida* J.M. Lewis 1991
- 881 *Scrippsiella triquetracapitata* K.J.S. Meier, D. Janofske & H. Willems 2002
- Scrippsiella trochoidea* (F. Stein 1883) Balech ex A.R. Loeb. 1965 (= *Glen. trochoideum* F. Stein 1883, *Glen. acuminatum* Jørg. 1899, *Peridinium trochoideum* (F. Stein 1883) Lemmerm. 1910, *Peridinium faeroense* Paulsen 1905, *Scrippsiella faeroensis* (Paulsen 1905) Balech & L.O. Soares 1967, *Scrippsiella trochoidea* var. *aciculifera* Montresor 1999)
- 110 **Pernambugia** D. Janofske & Karwath 2000
- 883 *Pernambugia tuberosa* (Kamptner 1963) D. Janofske & Karwath 2000 (= *Sphaerodinella tuberosa* (Kamptner) Keupp & Versteegh 1989, *Thoracosphaera tuberosa* Kamptner)
- 111 **Tintinnophagus** D.W. Coats 2010

Table 2. Continued.

- 884 *Tintinnophagus acutus* D.W. Coats 2010
- Oodiniaceae** Chatton 1920 (=Thoracosphaeraceae J. Schiller 1930, Protoodinidae/Protoodiniaceae Cachon 1964, Hemidiniaceae Bourr. 1970, Cachonellaceae P.C. Silva 1980, Stylodiniaceae Pascher ex Sournia 1984, Pfiesteriaceae Steidinger & al. 1996)
- Glenodinium inaequale* Chodat 1921 (=Peridiniopsis inaequale (Chodat) J. Stein & Borden 1980, non *Glen. inaequale* Schmarda 1854, *Glenoaulax inaequalis* (Schmarda) Diesing 1866, non *P. umbolatum* var. *inaequale* Lemmerm. 1910, non *P. inaequale* Fauré-Frem. 1908, non *P. inaequale* N. Peters 1928)
- 885 *Peridinium aciculiferum* Lemmerm. 1900 (=Glen. *aciculiferum* (Lemmerm.) Er. Lindem. 1928, *Glen. quadridens* (F. Stein 1883) J. Schiller 1935, *P. quadridens* F. Stein 1883, *Peridiniopsis quadridens* (F. Stein) Bourr. 1968, *P. stagnale* Meunier 1919)
- 886 *Peridinium centenniale* (Playfair 1919) M. Lefèvre 1932 (=P. *umbonatum* var. *centenniale* Playfair 1919, *Parvodinium centenniale* (Playfair) Carty 2008)
- 887 *Peridinium godlewskii* Wolosz. 1916
- 888 *Peridinium gutwinskii* Wolosz. 1912
- 890 *Scrippsiella hangoei* (J. Schiller 1935) J. Larsen 1995 (=Peridinium *gracile* Er. Lindem. 1924, ?*P. novascotiense* Gran & Braarud 1935, ?*Peridinium aciculiferum* Lemmerm. 1900)
- 112 **Amyloodinium** E. Brown & Hovasse 1946 (=Bargoniella Loeb. & Tappan 1961) -type A. *ocellatum*
- 891 *Amyloodinium ocellatum* (E. Brown 1931) E. Brown & Hovasse 1946 (=Oodinium *ocellatum* E. Brown, *Branchiophilus marinus* Schäperclaus 1935)
- 892 *Amylodinium amylaceum* (Bargoni 1894) E. Brown & Hovasse 1946 (=B. *amylacea* (Bargoni) Loeb. & Tappan 1961, *Salpicola amylacea* Bargoni)
- 113 **Cachonella** Rose & Cachon 1952 (=Diplomorpha Rose & Cachon 1951)
- 893 *Cachonella paradoxa* (Rose & Cachon 1951) Rose & Cachon 1952 (=Diplomorpha *paradoxa* Rose & Cachon 1951)
- 114 **Chalubinskia** Wolosz. 1916 (=Chimonodinium Craveiro, Calado, Daugbjerg, Gert Hansen & Moestrup)
- 894 *Chalubinskia tatica* Wolosz. 1916 (=Peridinium *tatrae* J. Schiller 1937)
- 115 **Chimonodinium** Craveiro, Calado, Daugbjerg, Gert Hansen & Moestrup 2011 (=Chalubinskia Wolosz. 1916)
- Chimonodinium lomnickii* (Wolosz. 1916) Craveiro, Calado, Daugbjerg, Gert Hansen & Moestrup 2011 (=Peridinium *lomnickii* Wolosz. 1916, *Glenodinium lomnickii* (Wolosz.) Er. Lindem. 1925, *P. lomnickii* var. *punctulatum* Er. Lindem. 1924, *Glen. lomnickii* var. *splendidum* (Wolosz.) Er. Lindem. 1928, *Chim. lomnickii* var. *splendidum* (Wolosz.) Craveiro, Calado, Daugbjerg, Gert Hansen & Moestrup, *Chim. lomnickii* var. *wierzejskii* Craveiro, Calado, Daugbjerg, Gert Hansen & Moestrup, *P. wierzejskii* Wolosz. 1916, *Glen. lomnickii* var. *wierzejskii* (Wolosz. 1916) Er. Lindem. 1928, *P. wierzejskii* Wolosz. 1916, ?*P. tatrae* J. Schiller 1937, ?*Chalubinskia tatica* Wolosz. 1916)
- 895 *Chimonodinium lomnickii* (Wolosz. 1916) Craveiro, Calado, Daugbjerg, Gert Hansen & Moestrup 2011 (=Peridinium *lomnickii* Wolosz. 1916, *Glenodinium lomnickii* (Wolosz.) Er. Lindem. 1925, *P. lomnickii* var. *punctulatum* Er. Lindem. 1924, *Glen. lomnickii* var. *splendidum* (Wolosz.) Er. Lindem. 1928, *Chim. lomnickii* var. *splendidum* (Wolosz.) Craveiro, Calado, Daugbjerg, Gert Hansen & Moestrup, *Chim. lomnickii* var. *wierzejskii* Craveiro, Calado, Daugbjerg, Gert Hansen & Moestrup, *P. wierzejskii* Wolosz. 1916, *Glen. lomnickii* var. *wierzejskii* (Wolosz. 1916) Er. Lindem. 1928, *P. wierzejskii* Wolosz. 1916, ?*P. tatrae* J. Schiller 1937, ?*Chalubinskia tatica* Wolosz. 1916)
- 116 **Crepidodinium** J. Lom & A.R. Lawler 1981 -type C. *cyprinodontum*
- 896 *Crepidodinium cyprinodontum* (A.R. Lawler 1967) J. Lom & A.R. Lawler 1981 (=Oodinium *cyprinodontum* A.R. Lawler)
- 897 *Crepidodinium virginicum* J. Lom, K. Rohde & I. Dykova 1993
- 898 *Crepidodinium australe* J. Lom, K. Rohde & I. Dykova 1993
- 117 **Cryptoperidiniopsis** Steid., J.H. Landsberg, P.L. Mason, W.K. Vogelbein, P.A. Tester & R.W. Litaker 2006
- 899 *Cryptoperidiniopsis brodyi* Steid., J.H. Landsberg, P.L. Mason, W.K. Vogelbein, P.A. Tester & R.W. Litaker 2006
- 118 **Cystodinedria** Pascher 1944 (=Phytodinedria Pascher 1944)
- Cystodinedria inermis* (Geitler 1943) Pascher 1944 (=C. *adpressa* (Pascher) Bourr. 1970, C. *aeruginea* (Pascher) Bourr., C. *brunnea* Pascher 1944, C. *cocconiforme* (Baumeister) Starmach 1974, C. *hemisphaera* (Pascher) Bourr. 1970, C. *hyalina* (Pascher) Bourr. 1970, C. *maxima* Popovský 1961, C. *obtusata* Pascher 1944, C. *procubans* (Pascher) Bourr. 1970, C. *reniformis* (Baumeister) Starmach 1974, C. *setosa* (Pascher) Bourr. 1970, *Dinococcus inermis* (Geitler 1943) Fott 1960, *P. adpressa* Pascher 1944, *P. cocconiforme* Baumeister 1957, *P. hemisphaera* Pascher 1944, *P. hyalina* Pascher 1944, *P. procubans* Pascher 1944, *P. reniformis* Baumeister 1957, *P. setosa* Pascher 1944, *Raciborskia inermis* Geitler 1943)
- 900 *Cystodinedria inermis* (Geitler 1943) Pascher 1944 (=C. *adpressa* (Pascher) Bourr. 1970, C. *aeruginea* (Pascher) Bourr., C. *brunnea* Pascher 1944, C. *cocconiforme* (Baumeister) Starmach 1974, C. *hemisphaera* (Pascher) Bourr. 1970, C. *hyalina* (Pascher) Bourr. 1970, C. *maxima* Popovský 1961, C. *obtusata* Pascher 1944, C. *procubans* (Pascher) Bourr. 1970, C. *reniformis* (Baumeister) Starmach 1974, C. *setosa* (Pascher) Bourr. 1970, *Dinococcus inermis* (Geitler 1943) Fott 1960, *P. adpressa* Pascher 1944, *P. cocconiforme* Baumeister 1957, *P. hemisphaera* Pascher 1944, *P. hyalina* Pascher 1944, *P. procubans* Pascher 1944, *P. reniformis* Baumeister 1957, *P. setosa* Pascher 1944, *Raciborskia inermis* Geitler 1943)
- 119 **Haidadinium** J. Buckland-Nicks, T.E. Reimchen & D.J. Garbary 1997
- 901 *Haidadinium ichthyophilum* J. Buckland-Nicks, T.E. Reimchen & D.J. Garbary 1997
- 120 **Leonella** D. Janofske & Karwath 2000
- 902 *Leonella granifera* (Fütterer 1977) D. Janofske & Karwath 2000 (=Thoracosphaera *granifera* Fütterer)
- 121 **Luciella** P.L. Mason, H.J. Jeong, R.W. Litaker, K.S. Reece & Steid. 2007 -type L. *masanensis*
- 903 *Luciella atlantis* P.L. Mason, R.W. Litaker, K.S. Reece & Steid. 2007
- 904 *Luciella masanensis* P.L. Mason, H.J. Jeong, R.W. Litaker, K.S. Reece & Steid. 2007

Table 2. Continued.

- 122 **Parvodinium** Carty 2008 -type *P. umbonatum* (8 species)
- 905 *Parvodinium africanum* (Lemmerm. ex West 1907) Carty 2008 (= *Peridinium africanum* Lemmerm. ex G.S. West 1907, *Peridinium ornamentosum* Er. Lindem. 1931, *P. intermedium* Playfair 1919)
- 906 *Parvodinium belizensis* (Carty 2003) Carty 2008 (= *Peridinium belizensis* Carty)
- 907 *Parvodinium deflandrei* (M. Lefèvre 1927) Carty 2008 (= *Peridinium deflandrei* M. Lefèvre)
- 908 *Parvodinium goslaviense* (Wolosz. 1916) Carty 2008 (= *Peridinium goslaviense* Wolosz.)
- 909 *Parvodinium inconspicuum* (Lemmerm. 1899) Carty 2008 (= *Per. inconspicuum* Lemmerm., *Glen. inconspicuum* (Lemmerm.) Wailes 1939)
- 910 *Parvodinium morzinense* (M. Lefèvre 1928) Carty 2008 (= *Peridinium morzinense* M. Lefèvre 1928, *Per. elegans* M. Lefèvre 1925)
- 911 *Parvodinium pusillum* (Penard 1891) Carty 2008 (= *Glenodinium pusillum* Penard 1891)
- Parvodinium umbonatum* (F. Stein 1883) Carty 2008 (= *Peridinium umbonatum* F. Stein 1883, *P. linzium* Er. Lindem., *P. ambiguum* Er. Lindem. 1931, *P. minimum* Wolosz. 1916, *P. minusculum* Er. Lindem. 1918, *P. steinmannii* Wolosz. 1930, *P. parvulum* Wolosz. 1935, *P. javanicum* C.J. Bernard 1908, *Gym. oligoplacatum* Skuja 1956)
- 123 **Protoodinium** Hovasse 1935 -type *P. chattonii*
- 913 *Protoodinium chattonii* Hovasse 1935
- 914 *Protoodinium hovassei* Cachon 1964
- 124 **Oodinioides** Reichenbach-Klinke 1970
- 915 *Oodinioides vastator* Reichenbach-Klinke 1970
- 125 **Oodinium** Chatton 1912 (= *Salpicola* Bargoni 1894) -type *O. pouchetii*
- 916 *Oodinium dogiellii* Cachon & M. Chatton 1971
- 917 *Oodinium fritillariae* Chatton 1912
- 918 *Oodinium inlandicum* T. Horig. & S. Ohtsuka 2001
- 919 *Oodinium jordanii* N. McLean & C. Nielsen 1989
- 920 *Oodinium pouchetii* (Lemmerm. 1899) Chatton 1912 (= *Gymnodinium pulvisculus* C.H.G. Pouchet 1883)
- 126 **Paulsenella** Chatton 1920 -type *P. chaetoceratis*
- 921 *Paulsenella chaetoceratis* (Paulsen 1911) Chatton 1920 (= *Apodinium chaetoceratis* Paulsen)
- 922 *Paulsenella kornmannii* Drebes & Schnepf 1988
- 923 *Paulsenella vonstoschii* Drebes & Schnepf 1988
- 127 **Pfiesteria** Steid. & J.M. Burkh. 1996
- 924 *Pfiesteria piscicida* Steid. & J.M. Burkh. 1996
- 128 **Pseudopfiesteria** R.W. Litaker, Steid., P.L. Mason, J.D. Shields & P.A. Tester 2005
- 925 *Pseudopfiesteria shumwayae* (H.B. Glasgow & J.M. Burkh. 2001) R.W. Litaker, Steid., P.L. Mason, J.D. Shields & P.A. Tester 2005 (= *Pfiesteria shumwayae* H.B. Glasgow & J.M. Burkh.)
- 129 **Staszicella** Wolosz. 1916 (= *Tyrannodinium* Calado, Craveiro, Daugbjerg & Moestrup 2009)
- 926 *Staszicella dinobryonis* Wolosz. 1916 (= *Peridiniopsis dinobryonis* (Wolosz. 1916) Bourr. 1968, *Glenodinium dinobryonis* (Wolosz.) J. Schiller 1937, *Stylodinium tarnum* Baumeister 1943)
- 130 **Stoeckeria** H.J. Jeong, J.S. Kim, J.Y. Park, J.H. Kim, S. Kim, I. Lee, S.H. Lee, J.H. Ha & W.H. Yih 2005
- 927 *Stoeckeria algicida* H.J. Jeong, J.S. Kim, J.Y. Park, J.H. Kim, S. Kim, I. Lee, S.H. Lee, J.H. Ha & W.H. Yih 2005
- 131 **Stylodinium** G.A. Klebs 1912 (= *Dinopodiella* Pascher 1944) -type *S. globosum* (6 species)
- 928 *Stylodinium littorale* T. Horig. & Chihara 1983
- 929 *Stylodinium gastrophilum* Cachon, Cachon-Enjumet & Bouquaheux 1965
- 930 *Stylodinium globosum* G.A. Klebs 1912 (= *Dinopodiella gracilis* Pascher 1944, *D. phaseolus* Pascher 1944, *D. gracilis* Pascher 1944)
- 931 *Stylodinium polymorphum* Baumeister 1957
- 932 *Stylodinium sphaera* Pascher 1944 (= *Vampyrella penula* Cienk. 1865)
- 933 *Stylodinium tarnum* Baumeister 1943
- 132 **Thoracosphaera** Kamptner 1927 -type *T. pelagica*
- 934 *Thoracosphaera heimii* (Lohmann 1920) Kamptner 1944 (= *Syracosphaera heimii* Lohmann, *Thoracosphaera pelagica* Kamptner 1927)

Table 2. Continued.

- 133 **Tyrannodinium** Calado, Craveiro, Daugbjerg & Moestrup 2009 (= *Staszcicella* Wolosz. 1916)
Tyrannodinium edax (A.J. Schilling 1891) Calado 2011 (= *Peridiniopsis edax* (A.J. Schill.) Bourr. 1968, *Glenodinium edax* A.J. Schill., *Tyrannodinium berolinense* (Lemmerm. 1900) Calado, Craveiro, Daugbjerg & Moestrup 2009, *Peridinium berolinense* Lemmerm. 1900, *Peridiniopsis berolinense* (Lemmerm.) Bourr. 1968, *Gymnodinium alatum* Litvin. 1963, ?*Staszcicella dinobryonis* Wolosz. 1916)
- Glenodiniaceae** Wiley & Hickson 1909 (incl. Glenodiniaceae Lemmerm. 1900, Glenodiniaceae Er. Lindem. 1928, Glenodiniopsidaceae J. Schiller 1935, Dinospaeraceae Er. Lindem. 1928, Lophodiniaceae Osorio-Tafall 1942, ?Lophodinales J.D. Dodge 1984)
- 936 *Gymnodinium impatiens* Skuja 1964
- 937 *Peridinium sociale* (Henneg. 1890) Biecheler 1935 (= *Glenodinium sociale* Henneg.)
- 134 **Dinospaera** Kof. & J.R. Michener 1912
- 938 *Dinospaera palustris* (Lemmerm. 1907) Kof. & J.R. Michener 1912 (= *Gonyaulax palustris* Lemmerm. 1907)
- 135 **Glochidinium** Boltovskoy 1999 -type *G. penardiforme*
- 939 *Glochidinium penardiforme* (Er. Lindem. 1918) Boltovskoy 1999 (= *Per. penardiforme* Er. Lindem. 1918, *Peridiniopsis penardiforme* (Er. Lindem.) Bourr., *Glen. penardiforme* (Er. Lindem.) J. Schiller 1937)
- 940 *Glochidinium platygaster* Boltovskoy 1999
- 136 **Gloeodinium** G.A. Klebs 1912
- 941 *Gloeodinium montanum* G.A. Klebs 1912
- 137 **Hemidinium** F. Stein 1878 -type *H. nasutum* (16 species)
- 942 *Hemidinium animale* Skvortzov 1968
- 943 *Hemidinium aquae-frigidae* Skvortzov 1968
- 944 *Hemidinium bryophyticum* Skvortzov 1958
- 945 *Hemidinium imprimatum* W. Busch 1927
- 946 *Hemidinium kisselewii* Skvortzov 1928
- 947 *Hemidinium kofoidii* Skvortzov 1968
- 948 *Hemidinium lindemannii* Skvortzov 1968
- 949 *Hemidinium mediterraneum* J. Schiller 1928
- 950 *Hemidinium mucosum* Skvortzov 1958
- Hemidinium nasutum* F. Stein 1878 (= *H. nobile* Skuja 1964, *H. brasiliense* C.E.M. Bicudo & Skvortzov 1970, *H. nasutum* var. *lapeanum* C.E.M. Bicudo & Ventrice, *H. nasutum* var. *taticum* J. Wolosz., *Gloeodinium cracoviense* Starmach 1963)
- 951 *Hemidinium nasutum* var. *lapeanum* C.E.M. Bicudo & Ventrice, *H. nasutum* var. *taticum* J. Wolosz., *Gloeodinium cracoviense* Starmach 1963)
- 952 *Hemidinium occulatum* Skvortzov 1958
- 953 *Hemidinium ochraceum* Levander 1900 (= *H. pseudoochraceum* C.E.M. Bicudo & Skvortzov 1970, *H. montanum* C.E.M. Bicudo & Skvortzov 1970)
- 954 *Hemidinium olivaceum* Skvortzov 1968 (non *Gymnodinium olivaceum* Skvortzov 1968)
- 955 *Hemidinium purpureum* Skvortzov 1968
- 956 *Hemidinium tumidum* Skvortzov 1946
- 957 *Hemidinium woloszynskae* Skvortzov 1968
- 138 **Glenodiniopsis** Wolosz. 1916 -type *G. steinii*
- 958 *Glenodiniopsis steinii* (Lemmerm. 1900) Wolosz. 1916 (= *Glenodinium cinctum* F. Stein 1878, *Glenodinium steinii* Lemmerm. 1900, *Glenodinium uliginosum* A.J. Schill. 1891, *Glenodiniopsis uliginosa* (A.J. Schill.) Wolosz. 1928)
- 959 *Glenodiniopsis pretiosa* Er. Lindem. 1931
- 139 **Glenodinium** Ehrenb. 1836 -type *G. cinctum* (59 species)
- 960 *Glenodinium abruptum* Skvortzov 1958
- 961 *Glenodinium alpinum* (Perty 1849) Perty 1852 (= *Peridinium alpinum* Perty)
- 962 *Glenodinium amphibium* C.H.G. Pouchet 1885
- 963 *Glenodinium amphiconicum* J. Schiller 1955
- 964 *Glenodinium bacilliferum* Biecheler 1952
- 965 *Glenodinium bieblii* J. Schiller 1955
- 966 *Glenodinium caspicum* (Ostenf. 1901) J. Schiller 1935 (= *Diplopsalis caspica* Ostenf.)

Table 2. Continued.

- 967 *Glenodinium cinctum* Ehrenb. 1836 (= *Sphaerodinium cinctum* (Ehrenb. 1836) Wolosz. 1917, ?*S. javanicum* Wolosz. 1930, *S. cinctum* f. *tatricum* (Wolosz.) Hub.-Pest. 1950, ?*S. cracoviense* Wolosz. 1916)
- 968 *Glenodinium compressum* Calk. 1901 (= *Amphidinium compressum* (Calk.) F.J.R. Taylor & Baillie 1971)
- 969 *Glenodinium cosmariiforme* Skvortzov 1958
- 970 *Glenodinium denticulatum* J. Schiller 1955
- 971 *Glenodinium ellipsoideum* Skvortzov 1968
- 972 *Glenodinium emarginatum* G.A. Klebs 1912
- 973 *Glenodinium frigidum* Skvortzov 1968
- 974 *Glenodinium fungiforme* J. Schiller 1955
- 975 *Glenodinium geminum* (Playfair 1919) Er. Lindem. 1931 (= *Peridinium geminum* Playfair)
- 976 *Glenodinium gessneri* J. Schiller 1955
- 977 *Glenodinium glaucum* Skvortzov 1968
- 978 *Glenodinium guildfordense* (Playfair 1920) Er. Lindem. 1931 (= *Peridinium caudatum* var. *guildfordense* Playfair)
- 979 *Glenodinium helicozoster* T.M. Harris 1940
- 980 *Glenodinium inflatum* Meunier 1910
- 981 *Glenodinium kamptneri* J. Schiller 1955
- 982 *Glenodinium lefevrei* Er. Lindem. 1928
- 983 *Glenodinium lemmermannii* O. Zacharias 1901
- 984 *Glenodinium lenticula* C.H.G. Pouchet 1885
- 985 *Glenodinium leptodermum* T.M. Harris 1940
- 986 *Glenodinium limos* T.M. Harris 1940
- 987 *Glenodinium longicorne* (Perty 1849) Diesing 1866
- 988 *Glenodinium majale* Skvortzov 1958
- 989 *Glenodinium maliavkinii* Skvortzov 1958
- 990 *Glenodinium mezii* Steinecke 1916
- 991 *Glenodinium minimum* (Lantzsch 1914) M. Bachm. 1923 (= *Gymnodinium minimum* Lantzsch)
- 992 *Glenodinium minutum* Skvortzov 1946
- 993 *Glenodinium monadicum* (Perty 1852) Diesing 1866
- 994 *Glenodinium monense* Herdman 1924
- 995 *Glenodinium mucronatum* W. Conrad 1926
- 996 *Glenodinium obliquum* C.H.G. Pouchet 1885
- 997 *Glenodinium ostefeldii* Paulsen 1904
- 998 *Glenodinium ovatum* Fauré-Frem. 1908
- 999 *Glenodinium paululum* Er. Lindem. 1928
- 1000 *Glenodinium peisonis* J. Schiller 1955
- 1001 *Glenodinium pilula* (Ostenf. 1908) J. Schiller 1937 (= *Diplopsalis pilula* Ostenf.)
- 1002 *Glenodinium planulum* (Perty 1852) Diesing 1866 (= *Peridinium planulum* Perty)
- 1003 *Glenodinium pseudostigmatosum* Skuja 1956
- 1004 *Glenodinium pulvisculum* (Ehrenb. 1832) F. Stein 1883
- 1005 *Glenodinium punctulatum* T.M. Harris 1940
- 1006 *Glenodinium rotundatum* Skvortzov 1958
- 1007 *Glenodinium saeculare* (G. Murray & Whitting 1899) J. Schiller 1935 (= *P. saecularis* (G. Murray & Whitting) Ostenf. 1915, *Diplopsalis saecularis* G. Murray & Whitting)
- 1008 *Glenodinium sanguineum* (H.J. Carter 1858) Diesing 1866
- 1009 *Glenodinium segriense* P.A. Dangeard 1939
- 1010 *Glenodinium spiculiferum* J. Schiller 1955
- 1011 *Glenodinium spinosum* Skvortzov 1968

Table 2. Continued.

- 1012 *Glenodinium sungariense* Skvortzov 1958
- 1013 *Glenodinium turbo* C.H.G. Pouchet 1885
- 1014 *Glenodinium turfosum* Skvortzov 1958
- 1015 *Glenodinium vernale* Skvortzov 1968
- 1016 *Glenodinium vindobonense* J. Schiller 1955
- 1017 *Glenodinium viride* Skvortzov 1958
- 1018 *Glenodinium warmingii* Bergh 1881
- 140 **Kansodinium** Carty & E.R. Cox 1986
- 1019 *Kansodinium ambiguum* (R.H. Thomps. 1950) Carty & E.R. Cox (= *Glenodinium ambiguum* R.H. Thomps., *Diplopsalis ambiguum* (R.H. Thomps.) Bourr. 1970, non *Peridinium ambiguum* Er. Lindem.)
- 141 **Lophodinium** Lemmerm. 1910
- 1020 *Lophodinium polylophum* (Daday 1905) Lemmerm. 1910 (= *L. dadayi* Osorio-Tafall 1942, *Glenodinium polylophum* Daday)
- 142 **Nephrodinium** Meunier 1910
- 1021 *Nephrodinium karianum* Meunier 1910 (= *Peridinium karianum* (Meunier) J. Schiller 1937, non *P. karianum* Henckel 1925)
- 1022 *Nephrodinium nivale* Meunier 1910 (= *Peridinium nivale* (Meunier) J. Schiller 1937)
- 143 **Palatinus** Craveiro, Calado, Daugbjerg & Moestrup 2009 -type *P. apiculatus*
- Palatinus apiculatus* (Ehrenb. 1838) Craveiro, Calado, Daugbjerg & Moestrup 2009 (= *Glen. apiculatus* Ehrenb. 1838, *P. apiculatus* (Ehrenb.) Clap. & J. Lachm. 1859, *Palatinus apiculatus* var. *laevis* (Huitf.-Kaas 1900) Craveiro, Calado, Daugbjerg & Moestrup 2009, *P. laeve* Huitf.-Kaas 1900, *P. palatinus* f. *laeve* (Huitf.-Kaas) Er. Lindem. 1928, *P. marssonii* Lemmerm. 1900, *P. anglicum* G.S. West 1909, *Properidinium apiculatum* (Ehrenb.) Meunier 1919)
- 1023 *Palatinus pseudolaevae* (M. Lefèvre 1926) Craveiro, Calado, Daugbjerg & Moestrup 2009 (= *Peridinium pseudolaevae* M. Lefèvre)
- 144 **Peridiniopsis** Lemmerm. 1904 -type *P. borgei* (15 species)
- 1025 *Peridiniopsis amazonica* Barbara Mey. 1997
- 1026 *Peridiniopsis armebeensis* Ten-Hage, K.P. Da & Couté 2007
- 1027 *Peridiniopsis borgei* Lemmerm. 1904 (= *P. borgei* (Lemmerm.) Lemmerm. 1910, *Glen. borgei* (Lemmerm.) J. Schiller 1937)
- 1028 *Peridiniopsis charkowiensis* (Matv. 1938) Bourr. 1968 (= *Peridinium charkowiensis* Matv.)
- 1029 *Peridiniopsis cristatum* (Balech 1961) Bourr. 1968 (= *Glenodinium cristatum* Balech)
- 1030 *Peridiniopsis cunningtonii* Lemmerm. 1907 (= *Peridinium suttonii* B.M. Griffiths 1922, *Glenodinium sedens* Er. Lindem. 1928, *Peridinium treubii* Wolosz. 1912, *Heterocapsa quinquecuspidata* Massart 1920)
- Peridiniopsis elpatiewskyi* (Ostenf. 1907) Bourr. 1968 (= *P. pygmaeum* Er. Lindem. 1918, *Peridiniopsis pygmaeum* (Er. Lindem.) Bourr., *P. umbonatum* var. *elpatiewskyi* Ostenf., *Glen. elpatiewskyi* (Ostenf.) J. Schiller 1935, *Glen. pygmaeum* (Er. Lindem.) J. Schiller 1937)
- 1031 *Peridiniopsis kulczynskii* (Wolosz. 1916) Bourr. 1968 (= *Glenodinium kulczynskii* (Wolosz.) Er. Lindem. 1928)
- 1033 *Peridiniopsis lindemannii* (M. Lefèvre 1927) Bourr. 1968 (= *Glenodinium lindemannii* M. Lefèvre)
- 1034 *Peridiniopsis oculata* (F. Stein 1883) Bourr. 1968 (= *Glenodinium oculatum* F. Stein)
- 1035 *Peridiniopsis quinquecuspidata* (Nygaard 1926) Gert Hansen & Flaim 2007 (= *P. cunningtonii* var. *quinquecuspidata* Nygaard, *Glen. quadridens* var. *quinquecuspidatum* (Massart) J. Schiller 1935)
- 1036 *Peridiniopsis salina* J.M. Trigueros 2000
- 1037 *Peridiniopsis sphaeroidea* (Christen 1958) Bourr. 1968 (= *Peridinium sphaeroideum* Christen)
- 1038 *Peridiniopsis thompsonii* (R.H. Thomps.) Bourr. 1968
- 1039 *Peridiniopsis viguieri* (M. Lefèvre 1932) Bourr. 1968 (= *Glen. viguieri* (M. Lefèvre) J. Schiller 1937, *P. viguieri* M. Lefèvre)
- 145 **Thompsodinium** Bourr. 1970
- 1040 *Thompsodinium intermedium* (R.H. Thomps. 1951) Bourr. 1970 (= *Peridinium intermedium* R.H. Thomps., ? *P. intermedium* Playfair 1919)

Table 2. Continued.

Order Peridiniales Haeckel 1894, Peridiniales sensu stricto**Peridiniaceae** Ehrenb. 1832

- 146 **Bagredinium** K.P. Da, F. Zongo, G. Mascarell & Couté 2004
- 1041 *Bagredinium crenulatum* (Couté & A. Ittis 1984) K.P. Da, F. Zongo, G. Mascarell & Couté 2004 (= *P. crenulatum* Couté & A. Ittis)
- 147 **Peridinium** Ehrenb. 1832 sensu stricto -type *P. cinctum* (32 species)
- 1042 *Peridinium abscissum* O. Zacharias 1903
- 1043 *Peridinium alatum* Cleve-Euler 1937 (non *Peridinium alatum* A. Garbini 1902)
- 1044 *Peridinium allorgei* M. Lefèvre 1912
- 1045 *Peridinium baicalense* Kisselev & Zwetkow 1935
- 1046 *Peridinium bipes* F. Stein 1883 (= *P. tabulatum* (Ehrenb.) Clap. & J. Lachm. partim)
- 1047 *Peridinium brasiliense* G. Borics & I. Grigorsky 2005
- Peridinium cinctum* (O.F. Müller 1786) Ehrenb. 1838 (= *Vorticella cincta* O.F. Müller, *P. tabulatum* Penard 1891, *P. tuberosum* Meunier 1919, *P. eximium* Er. Lindem. 1918, *P. rhenanum* Er. Lindem. 1919, *P. westii* Lemmerm. 1906, *Glenodinium cinctum* (O.F. Muller) Ehrenb. 1830)
- 1048 *Peridinium disciforme* Cleve-Euler 1918
- 1050 *Peridinium euryceps* K. Rengefors & Barbara Mey. 1998
- 1051 *Peridinium eximium* Er. Lindem. 1920
- 1052 *Peridinium gatouense* Nygaard 1925 (= *P. cinctum* var. *gibbosum* M. Lefèvre 1927, *P. zonatum* Playfair 1919)
- 1053 *Peridinium gemma* Cleve-Euler 1918
- 1054 *Peridinium gutwinskii* Wolosz. 1912
- 1055 *Peridinium illustrans* O.C.A. Wetzel 1933
- 1056 *Peridinium jensenii* (Nygaard 1926) Nygaard 1932 (= *Gonyaulax jensenii* Nygaard 1926)
- 1057 *Peridinium keyense* G. Nygaard 1926
- 1058 *Peridinium limbatum* (A. Stokes 1888) Lemmerm. 1900 (= *Proto-peridinium limbatum* A. Stokes)
- 1059 *Peridinium lingii* K. Thomasson 1986
- 1060 *Peridinium lubiniensiforme* (Diwald 1938) Hub.-Pest. (= *Glenodinium lubiniensiforme* Diwald)
- 1061 *Peridinium mixtum* Wolosz. 1952
- 1062 *Peridinium ovum* Matv. 1938 (non *Peridinium ovum* J. Schiller 1911)
- 1063 *Peridinium playfairii* Er. Lindem. 1931
- 1064 *Peridinium raciborskii* Wolosz. 1912 (= *P. chalubinskii* Wolosz. 1919, *Proto-peridinium palustre* (Er. Lindem.) M. Lefèvre 1932, *Glenodinium palustre* (Lemmerm.) J. Schiller 1935)
- 1065 *Peridinium rhenanum* Er. Lindem. 1919
- 1066 *Peridinium smirnovii* Skvortzov 1958
- 1067 *Peridinium striolatum* Playfair 1919
- 1068 *Peridinium subatranum* Wolosz. 1952
- 1069 *Peridinium sydneyense* K. Thomasson 1986 (= *Peridinium sydneyense* (Playfair) K. Thomasson 1986)
- 1070 *Peridinium volzii* Lemmerm. 1905 (= *Peridinium willei* Huitf.-Kaas 1900)
- Peridinium willei* Huitf.-Kaas 1900 (= *P. alatum* Garbini 1902, *P. guestrowiense* Er. Lindem. 1918, *P. kincaidii* Wailes 1933, *?P. volzii* Lemmerm. 1905, *P. tabulatum* Playfair 1912, *P. australe* Playfair 1912, *P. hieroglyphicum* Playfair 1919, *P. striolatum* Wailes 1928, *P. vancouverense* Wailes 1921)
- 1071 *Peridinium wisconsinense* S. Eddy 1930
- 1072 *Peridinium witoslawi* Er. Lindem. 1919
- Heterocapsaceae** Fensome & al. 1993
- 148 **Heterocapsa** F. Stein 1883 (= *Cachonina* A.R. Loeb. 1968) -type *H. triquetra* (19 species)
- 1074 *Heterocapsa arctica* T. Horig. 1997
- 1075 *Heterocapsa chattonii* (Biecheler 1952) P.H. Campb. 1973 (= *Peridinium chattonii* Biecheler)
- 1076 *Heterocapsa circularisquama* T. Horig. 1995
- 1077 *Heterocapsa horiguchii* M. Iwataki, H. Takayama & Matsuoka 2002

Table 2. Continued.

- 1078 *Heterocapsa huensis* M. Iwataki & Matsuoka 2009
Heterocapsa illdefina (E.M. Herman & B.M. Sweeney 1976) L.C. Morrill & A.R. Loeb. 1981 (= *Cachonina illdefina*)
- 1079 E.M. Herman & B.M. Sweeney, *Cachonina hallii* (Freud. & J.J. Lee) J.D. Dodge 1982, *Glenodinium hallii* Freud. & J.J. Lee 1963)
- 1080 *Heterocapsa kollmeriana* M.J. Swift & J.J.A. McLaughlin 1970
- 1081 *Heterocapsa lanceolata* M. Iwataki & Fukuyo 2002
- 1082 *Heterocapsa minima* A.J. Pomroy 1989
- 1083 *Heterocapsa niei* (A.R. Loeb. 1968) L.C. Morrill & A.R. Loeb. 1981
- 1084 *Heterocapsa orientalis* M. Iwataki & Fukuyo 2003
- 1085 *Heterocapsa ovata* M. Iwataki & Fukuyo 2003
- 1086 *Heterocapsa pacifica* Kof. 1907
- 1087 *Heterocapsa psammophila* M. Tamura, M. Iwataki & T. Horig. 2005
- 1088 *Heterocapsa pseudotriquetra* M. Iwataki, Gert Hansen & Fukuyo 2004
- 1089 *Heterocapsa pygmaea* A.R. Loeb., R.J. Schmidt & J.L. Sherley 1981 (= *Cachonina pygmaea* (A.R. Loeb., R.J. Schmidt & J.L. Sherley 1981) Sournia 1984)
- 1090 *Heterocapsa rotundata* (Lohmann 1908) Gert Hansen 1995 (= *Amphidinium rotundatum* Lohmann 1911, *A. pellucidum* Redeke 1935, *Gymnodinium minutum* M. Lebour 1925, *Massartia rotundata* (Lohmann) J. Schiller 1933, *Katodinium rotundatum* (Lohmann) A.R. Loeb. 1965, *K. redekei* (W. Conrad & Kufferath 1954) A.R. Loeb. 1965, *K. minutum* (M. Lebour) Sournia 1973)
- 1091 *Heterocapsa triquetra* (Ehrenb. 1840) F. Stein 1883 (= *Glenodinium triquetrum* Ehrenb., *Peridinium triquetrum* (Ehrenb.) M. Lebour 1925, *Properidinium heterocapsa* (F. Stein) Meunier 1919)
- 1092 *Heterocapsa umbilicata* F. Stein 1883
- Podolampadaceae** Er. Lindem. 1928 (incl. Lessardiaceae Carbonell-Moore 2004)
- 149 **Blepharocysta** Ehrenb. 1873 -type *B. splendor-maris*
- 1093 *Blepharocysta denticulata* D.S. Nie 1939
- 1094 *Blepharocysta hermosillai* Carbonell-Moore 1992
- 1095 *Blepharocysta okamurai* T.H. Abé 1966 (= ?*B. splendor-maris* (Ehrenb. 1860) Ehrenb. 1873)
- 1096 *Blepharocysta paulsenii* J. Schiller 1937
- 1097 *Blepharocysta splendor-maris* (Ehrenb. 1860) Ehrenb. 1873 (= ?*B. okamurai* T.H. Abé 1966)
- 150 **Gaardieriella** Carbonell-Moore 2010 (= *Gaarderia* Carbonell-Moore 1994) -type *G. angusta*
- 1098 *Gaardieriella angusta* (Carbonell-Moore 1994) Carbonell-Moore 2010
- 1099 *Gaardieriella armata* (Carbonell-Moore 1994) Carbonell-Moore 2010
- 1100 *Gaardieriella lata* (Carbonell-Moore 1994) Carbonell-Moore 2010
- 1101 *Gaardieriella compressa* (Carbonell-Moore 1994) Carbonell-Moore 2010
- 151 **Heterobractum** Carbonell-Moore 1994
- 1102 *Heterobractum striatum* Carbonell-Moore 1994
- 152 **Lessardia** J.F. Saldarriaga & F.J.R. Taylor 2003
- 1103 *Lessardia elongata* J.F. Saldarriaga & F.J.R. Taylor 2003
- 153 **Lissodinium** Matzen. 1933 -type *L. schilleri* (18 species)
- 1104 *Lissodinium australe* Carbonell-Moore 1993
- 1105 *Lissodinium balechii* Carbonell-Moore 1993
- 1106 *Lissodinium corrugatum* Carbonell-Moore 1993
- 1107 *Lissodinium fryxelliae* Carbonell-Moore 1993
- 1108 *Lissodinium heteracanthum* Carbonell-Moore 1993
- 1109 *Lissodinium heteroporum* Carbonell-Moore 1993
- 1110 *Lissodinium homacanthum* Carbonell-Moore 1993
- 1111 *Lissodinium longisulcus* Carbonell-Moore 1993
- 1112 *Lissodinium magnum* Carbonell-Moore 1993
- 1113 *Lissodinium matzenaueri* Carbonell-Moore 1993

Table 2. Continued.

- 1114 *Lissodinium orcadense* Carbonell-Moore 1993
 1115 *Lissodinium ovatum* Carbonell-Moore 1993
 1116 *Lissodinium parvum* Carbonell-Moore 1993
 1117 *Lissodinium schilleri* Matzen. 1933 (= *B. matzenaueri* (Matzen.) Gaarder, *B. compressa* Gaarder 1954)
 1118 *Lissodinium steidingeriae* Carbonell-Moore 1993
 1119 *Lissodinium taylorii* Carbonell-Moore 1993
 1120 *Lissodinium thompsonii* Carbonell-Moore 1993
 1121 *Lissodinium zondervanii* Carbonell-Moore 1993
 154 ***Mysticella*** Carbonell-Moore 1994 (non *Mysticella* R.V. Gorjunova 2007) -type *M. striata*
 1122 *Mysticella spinosa* Carbonell-Moore 1994
 1123 *Mysticella striata* (F. Schütt 1895) Carbonell-Moore 1994 (= *Blepharocysta striata* F. Schütt)
 155 ***Podolampas*** F. Stein 1883 -type *P. bipes* (7 species)
 1124 *Podolampas antarctica* Balech 1965
 1125 *Podolampas bipes* F. Stein 1883
 1126 *Podolampas curvata* J. Schiller 1937
 1127 *Podolampas elegans* F. Schütt 1895
 1128 *Podolampas palmipes* F. Stein 1883
 1129 *Podolampas reticulata* Kof. 1907 (= *P. bipes* var. *reticulata* (Kof.) F.J.R. Taylor 1976)
 1130 *Podolampas spinifera* Okamura 1912
 156 ***Roscoffia*** Balech 1956 -type *R. capitata*
 1131 *Roscoffia capitata* Balech 1956
 1132 *Roscoffia minor* T. Horig. & F. Kubo 1997
Amphidiniopsidaceae J.D. Dodge 1984
 157 **Genus of *Thecadinium dragescoi***
 1133 *Thecadinium dragescoi* Balech 1956
 158 ***Amphidiniopsis*** Wolosz. 1929 -type *A. kofoidii* (14 species)
 1134 *Amphidiniopsis aculeata* Hoppenrath, Koeman & B.S. Leander 2009
 1135 *Amphidiniopsis arenaria* Hoppenrath 2000
 1136 *Amphidiniopsis cristata* Hoppenrath 2000
 1137 *Amphidiniopsis dentata* Hoppenrath 2000
 1138 *Amphidiniopsis galericulata* Hoppenrath 2000
 1139 *Amphidiniopsis hexagona* S. Yoshimatsu, S. Toriumi & J.D. Dodge 2000
 1140 *Amphidiniopsis hirsuta* (Balech 1956) J.D. Dodge 1982 (= *Thecadinium hirsutum* Balech)
 1141 *Amphidiniopsis kofoidii* Wolosz. 1929
 1142 *Amphidiniopsis korewalensis* Sh. Murray & D.J. Patterson 2002
 1143 *Amphidiniopsis pectinaria* S. Toriumi, S. Yoshimatsu & J.D. Dodge 2002
 1144 *Amphidiniopsis sibbaldii* K.H. Nicholls 1998 ex K.H. Nicholls 1999
 1145 *Amphidiniopsis swedmarkii* (Balech 1956) J.D. Dodge 1982 (= *Thecadinium swedmarkii* Balech)
 1146 *Amphidiniopsis urnaeformis* G.I. Gail 1950
 1147 *Amphidiniopsis uroensis* S. Toriumi, S. Yoshimatsu & J.D. Dodge 2002
 159 ***Archaeoperidinium*** Jørg. 1912 (= *Protooperidinium* Bergh) -type *A. minutum*
 1148 *Archaeoperidinium minutum* (Kof. 1907) Jørg. 1912 (= *Protooperidinium minutum* (Kof. 1907) A.R. Loeb. 1970),
 ?*Archaeoperidinium monospinum* (Paulsen) Jørg. 1913, *Properidinium aspinum* Meunier 1919)
Archaeoperidinium monospinum (Paulsen 1907) Jørg. 1913 (= *Protooperidinium monospinum* (Paulsen) Zonneveld
 1149 & B. Dale 1994, *Protooperidinium constrictum* (T.H. Abé 1936) Balech 1974, *Peridinium constricta* T.H. Abé,
Properidinium aspinum Meunier 1919)
 1150 *Protooperidinium archiovatum* (Balech 1958) Balech 1974

Table 2. Continued.

- 1151 *Protopteridinium bolmonense* Chomérat & Couté 2008
- 1152 *Protopteridinium grenlandicum* (Wolosz. 1929) Balech 1974 (= *P. grenlandicum* Wolosz.)
- 1153 *Protopteridinium tricingulatum* H. Kawami, Wezel, Koeman & Matsuoka 2009
- 1154 *Protopteridinium vorax* Siano & Montresor 2005
- 160 ***Herdmania*** J.D. Dodge 1981 (= *Dodgeia* Özdikmen 2009)
- 1155 *Herdmania litoralis* J.D. Dodge 1981 (= *Gymnodinium agile* Herdman 1922, non *Gymnodinium agile* Kof. & Swezy 1921)
- Protopteridiniaceae** Balech 1988 (incl. Kolkwitiellaceae Er. Lindem. 1928, Congruentidiaceae J. Schiller 1935, Protopteridiniaceae J.P. Bujak & E.H. Davies 1998)
- 161 ***Protopteridinium*** Bergh 1881 sensu stricto (= *Minuscula* M. Lebour 1925, *Propteridinium* Meunier 1919, *Congruentidium* T.H. Abé 1927) -type *P. pellucidum* (269 species)
- 1156 *Protopteridinium abei* (Paulsen 1930) Balech 1974 (= *P. biconicum* T.H. Abé 1927, non *P. biconicum* P.A. Dangeard 1927)
- 1157 *Protopteridinium acutipes* (P.A. Dangeard 1927) Balech 1974 (= *P. quadratum* Matzen. 1933, *P. divergens* f. *acutipes* (P.A. Dangeard) J. Schiller 1937)
- 1158 *Protopteridinium angustum* (P.A. Dangeard 1932) Balech 1974 (= *Protopteridinium wiesneri* (J. Schiller 1931) Balech 1974)
- 1159 *Protopteridinium bipes* (Paulsen 1904) Balech 1974 (= *Minuscula bipes* (Paulsen) M. Lebour 1925, *Glenodinium bipes* Paulsen 1904, *Peridinium minusculum* Pavill. 1905, non *Peridinium bipes* F. Stein 1883)
- 1160 *Protopteridinium conicoides* (Paulsen 1905) Balech 1973 (= *Peridinium* (*Euperidinium*) *conicoides* Paulsen 1905)
- 1161 *Protopteridinium conicum* (Gran 1900) Balech 1974 (= *P. divergens* var. *conica* Gran)
- 1162 *Protopteridinium crassipes* (Kof. 1907) Balech 1974
- 1163 *Protopteridinium curtipes* (Jørg. 1912) Balech 1974 (= *P. curtipes* Jørg. 1912, *P. crassipes* Paulsen 1907 partim, non *P. crassipes* Paulsen 1930, nec J. Schiller 1937)
- 1164 *Protopteridinium denticulatum* (Gran & Braarud 1935) Balech 1974 (= *P. clavus* T.H. Abé 1936, *Protopter. hemisphaericum* (T.H. Abé 1936) Balech 1988)
- 1165 *Protopteridinium diabolus* (Cleve 1900) Balech 1974 (= *P. longipes* G. Karst. 1907)
- 1166 *Protopteridinium divergens* (Ehrenb. 1841) Balech 1974
- 1167 *Protopteridinium elegans* (Cleve 1900) Balech 1974 (= *P. annulatum* Kof. & J.R. Michener 1911, ?*P. elegans* Matzen. 1933)
- 1168 *Protopteridinium excentricum* (Paulsen 1907) Balech 1974 (= *P. excentricum* Paulsen, *P. perrieri* Fauré-Frem. 1909)
- 1169 *Protopteridinium leonis* (Pavill. 1916) Balech 1974 (= *P. conicum* Meunier 1919, *P. saltans* Pavill. 1915, non *P. saltans* Meunier 1910)
- 1170 *Protopteridinium mediterraneum* (Kof. 1909) Balech 1974 (= *P. longicollum* Pavill. 1916, *P. steinii* subsp. *mediterraneum* Kof.)
- 1171 *Protopteridinium longipes* Balech 1974 (= *Protopter. longipes* (G. Karst. 1907) Balech 1974, *P. diabolus* var. *longipes* (G. Karst.) F.J.R. Taylor 1976)
- 1172 *Protopteridinium magnum* (J. Schiller 1929) Balech 1974 (= ?*P. crassipes* Kof. 1907)
- Protopteridinium obtusum* (G. Karst. 1906) Parke & J.D. Dodge 1976 (= *Protopteridinium obtusum* (G. Karst.) Balech 1988, *P. divergens* var. *obtusum* G. Karst. 1906, *P. okamurai* Marukawa 1921, non *P. okamurai* T.H. Abé 1927, *P. obtusum* J. Schiller 1937, non *P. obtusum* Fauré-Frem. 1908)
- 1174 *Protopteridinium pallidum* (Ostenf. 1899) Balech 1973
- Protopteridinium pellucidum* Bergh 1882 ex Loeb. & A.R. Loeb. 1966 (= *P. pellucidum* (Bergh) F. Schütt 1895, non C.H.G. Pouchet 1883, nec Vanhöffen 1897, *P. pellucidum* ssp. *asteriferum* Balech 1994, = *P. pellucidum* ssp. *stellatum* Balech 1978, non *P. stellatum* D. Wall 1968)
- Protopteridinium pentagonum* (Gran 1902) Balech 1974 (= *P. divergens* var. *sinuosum* Lemmerm. 1899, *P. sinuosum* Lemmerm. 1905, *Protopteridinium sinuosum* (Lemmerm.) Matsuoka 1992, *P. expansum* T.H. Abé 1981, *Protopteridinium expansum* (T.H. Abé 1981) Head, *P. parapentagonum* Chia C. Wang 1936, non *P. pentagonum* P.A. Dangeard 1926)
- 1176 *Protopteridinium pentagonum* (Gran 1902) Balech 1974 (= *P. divergens* var. *sinuosum* Lemmerm. 1899, *P. sinuosum* Lemmerm. 1905, *Protopteridinium sinuosum* (Lemmerm.) Matsuoka 1992, *P. expansum* T.H. Abé 1981, *Protopteridinium expansum* (T.H. Abé 1981) Head, *P. parapentagonum* Chia C. Wang 1936, non *P. pentagonum* P.A. Dangeard 1926)
- 1177 *Protopteridinium planiceps* (T.H. Abé 1981) Balech 1988 (= *P. thorianum* var. *planiceps* T.H. Abé)
- 1178 *Protopteridinium punctulatum* (Paulsen 1908) Balech 1974 (non *P. punctulatum* Paulsen 1931 = *P. multistriatum* Kof. 1907)
- 1179 *Protopteridinium schilleri* (Paulsen 1930) Balech 1974 (= *P. pallidum* var. *schilleri* (Paulsen) J. Schiller 1937, non *P. schilleri* Böhm 1931)

Table 2. Continued.

- 1180 *Protooperidinium thorianum* (Paulsen 1905) Balech 1973 (= *P. thorianum* Paulsen, *Properidinium thorianum* Meunier 1919, *Peridinium* (*Euperidinium*) *thorianum* Paulsen 1905)
- 1181 *Protooperidinium thulesense* (Balech 1958) Balech 1973 (= *P. conicum* f. *islandica* Braarud 1935, *P. sympholis* Hermosilla & Balech 1969)
- 1182 *Protooperidinium tumidum* (Okamura 1907) Balech 1988 (= *P. (divergens) tessellatum* G. Karst.)
- Protooperidinium*** (to be assigned to *Protooperidinium* sensu stricto, Diplopsaliaceae or Amphidiniopsidaceae)
- 1183 *Peridinium parainerme* D.S. Nie D. & Chia C. Wang 1964
- 1184 *Peridinium tsingtaornsis* D.S. Nie & Chia C. Wang 1964
- 1185 *Protooperidinium acanthophorum* (Balech 1962) Balech 1974 (= *P. rhomboidalis* T.H. Abé 1981, *P. cerassiformis* T.H. Abé 1981)
- 1186 *Protooperidinium achromaticum* (Levander 1902) Balech 1974 (= *Protooperidinium finitimum* Balech 1976)
- 1187 *Protooperidinium acutum* (Fauré-Frem. 1908) Balech 1974 (= *P. pellucidum* var. *acutum* Fauré-Frem.)
- 1188 *Protooperidinium adeliense* (Balech 1959) Balech 1974
- 1189 *Protooperidinium adense* (Matzen. 1933) Balech 1974
- 1190 *Protooperidinium adulterum* (Balech 1971) Balech 1974
- 1191 *Protooperidinium aequatoriale* (Balech 1971) Balech 1974
- 1192 *Protooperidinium affine* (Balech 1958) Balech 1974
- 1193 *Protooperidinium aliferum* (Gaarder 1954) Balech 1974 (= *P. matzenaueri* Gaarder, non *P. matzenaueri* Böhm 1936)
- 1194 *Protooperidinium americanum* (Gran & Braarud 1935) Balech 1974
- 1195 *Protooperidinium amplum* (Matzen. 1933) Balech 1974
- 1196 *Protooperidinium ampulla* (Balech 1971) Balech 1974 (= *P. granii* var. *mite* f. *spirale* Gaarder 1954)
- 1197 *Protooperidinium anceps* (Meunier 1910) Balech 1974
- 1198 *Protooperidinium anguipes* (Balech 1967) Balech 1974
- 1199 *Protooperidinium anomaloplaxum* (Balech 1964) Balech 1974
- 1200 *Protooperidinium antarcticum* (A. Schimp. 1905) Balech 1974 (non *P. depressum* var. *parallelum* (Broch) Balech 1994)
- 1201 *Protooperidinium anthonyi* (Fauré-Frem. 1908) Balech 1974
- 1202 *Protooperidinium applanatum* (L. Mangin 1914) Balech 1974 (= *P. obovatum* E.J.F. Wood 1954)
- 1203 *Protooperidinium arcticum* (Grøntved & Seidenfaden 1938) Okolodkov 1997 (= *P. ovatum* f. *arctica* Grøntved & Seidenfaden)
- 1204 *Protooperidinium areolatum* (N. Peters 1928) Balech 1974
- 1205 *Protooperidinium argentiniense* Balech 1979
- 1206 *Protooperidinium asperum* (Wailles 1928) Balech 1974
- 1207 *Protooperidinium aspidiotum* (Balech 1964) Balech 1974
- 1208 *Protooperidinium asymmetricum* Balech 1974 (= *P. asymmetricum* (T.H. Abé 1927) T.H. Abé 1981, *Sphaerodinium asymmetricum* T.H. Abé 1927, non *P. asymmetricum* G. Karst. 1907, *P. mutsui* J. Schiller 1935)
- 1209 *Protooperidinium avellana* (Meunier 1919) Balech 1974 (= *Properidinium avellana* Meunier)
- 1210 *Protooperidinium balechii* (Akselman 1972) Balech 1988
- 1211 *Protooperidinium belizeanum* M.A. Faust 2003
- 1212 *Protooperidinium bellulum* (Balech 1971) Balech 1974
- 1213 *Protooperidinium biconicum* (P.A. Dangeard 1927) Balech 1974 (non *P. biconicum* T.H. Abé 1936)
- 1214 *Protooperidinium bidentatum* (T.H. Abé 1981) Balech 1994 (= *P. bidentatum* T.H. Abé)
- 1215 *Protooperidinium bipatens* Balech 1973
- 1216 *Protooperidinium bispinum* (J. Schiller 1937) Balech 1974 (= *P. bimucronatum* (J. Schiller 1937) Balech 1974, non *Protooperidinium sourmiae* (F.J.R. Taylor 1976) Balech 1994)
- 1217 *Protooperidinium bourrellyi* Balech 1999
- 1218 *Protooperidinium braarudii* (J. Schiller 1937) Balech 1974
- 1219 *Protooperidinium brevipes* (Paulsen 1908) Balech 1974 (= *P. brevipes* Paulsen, *P. varicans* Paulsen 1911, *P. incurvum* Er. Lindem. 1924)

Table 2. Continued.

- 1220 *Protopteridinium brochii* (Kof. & Swezy 1921) Balech 1974 (= *P. adriaticum* Broch 1920, non *P. adriaticum* Schmarda 1846)
- 1221 *Protopteridinium bulbosum* (Gaarder) Balech 1974
- 1222 *Protopteridinium bulla* (Meunier 1910) Balech 1974
- 1223 *Protopteridinium capurroi* (Balech 1959) Balech 1974 (= *P. brachypus* T.H. Abé 1981, non *P. brachypus* J. Schiller 1937)
- 1224 *Protopteridinium carinaeferum* (G.I. Gail 1950) Balech 1994 (= *P. carinaeferum* G.I. Gail)
- 1225 *Protopteridinium carum* (T.H. Abé 1981) Balech 1994 (= *P. carus* T.H. Abé)
- 1226 *Protopteridinium cassum* (Balech 1971) Balech 1974 (= *Protopteridinium cassum cassum* Balech 1988)
- 1227 *Protopteridinium castaneiforme* (L. Mangin 1926) Balech 1974
- 1228 *Protopteridinium cavispinum* (L. Mangin 1926) Balech 1974
- 1229 *Protopteridinium cepa* (Balech 1971) Balech 1974
- 1230 *Protopteridinium cerasus* (Paulsen 1907) Balech 1973
- 1231 *Protopteridinium charcotii* (Balech 1958) Balech 1974
- 1232 *Protopteridinium claudum* Balech 1994 (= *P. asymmetricum* G. Karst. sensu Böhm 1936, non G. Karst. 1907)
- 1233 *Protopteridinium colombonense* (Matzen. 1933) Balech 1974
- 1234 *Protopteridinium compressum* (T.H. Abé 1927) Balech 1974 (= *Congruentidium compressum* T.H. Abé 1927, *P. compressum* T.H. Abé 1981, *Stelladinium stellatum* (D. Wall 1968) P.C. Reid 1977)
- 1235 *Protopteridinium concavum* (L. Mangin 1926) Balech 1974 (= *Protopteridinium granii* (Ostenf. 1906) Balech 1974, *P. petersii* Balech 1958)
- 1236 *Protopteridinium concinnus* M.A. Faust 2006 (subgenus *Testeria* M.A. Faust)
- 1237 *Protopteridinium consimile* (T.H. Abé 1981) Balech 1994 (= *P. consimilis* T.H. Abé)
- 1238 *Protopteridinium corniculum* (Kof. & J.R. Michener 1911) F.J.R. Taylor & Balech 1979
- 1239 *Protopteridinium cornutum* (G. Karst. 1907) Balech 1974
- 1240 *Protopteridinium crassipyrum* (Balech 1961) Balech 1974 (= *P. crassum* Balech (1959) Balech 1974, non *P. crassum* P.A. Dangeard 1927)
- 1241 *Protopteridinium cristatum* Balech 1979
- 1242 *Protopteridinium cruciferum* (Balech 1971) Balech 1973 (= *P. parvum* T.H. Abé 1981)
- 1243 *Protopteridinium curtum* (Balech 1958) Balech 1973
- 1244 *Protopteridinium curvipes* (Ostenf. 1906) Balech 1974
- 1245 *Protopteridinium cuspidatum* Balech 1979
- 1246 *Protopteridinium dakariense* (P.A. Dangeard 1927) Balech 1974 (= *P. gibbosum* Matzen. (1933) Balech 1974, *P. parvispinum* Gaarder 1954)
- 1247 *Protopteridinium decens* (Balech 1971) Balech 1974 (= *Protopteridinium cassum* var. *decens* Balech 1988)
- 1248 *Protopteridinium decipiens* (Jørg. 1899) Parke & J.D. Dodge 1976
- 1249 *Protopteridinium decollatum* (Balech 1971) Balech 1974
- 1250 *Protopteridinium defectum* (Balech 1965) Balech 1974
- 1251 *Protopteridinium deficiens* (Meunier 1919) Balech 1974
- 1252 *Protopteridinium discoides* (Wailes 1928) Balech 1974 (= *P. denticulatum*)
- 1253 *Protopteridinium divaricatum* (Meunier 1919) Parke & J.D. Dodge 1976 (= *P. gainii* (P.A. Dangeard 1927) Balech 1974, *P. divaricatum* (Meunier) Balech 1988)
- 1254 *Protopteridinium dodgei* Okolodkov 1997
- 1255 *Protopteridinium dolichoporum* B. Borgese 1987
- 1256 *Protopteridinium elegantissimum* (Balech 1958) Balech 1974
- 1257 *Protopteridinium ellipticum* Halim 1969
- 1258 *Protopteridinium elongatum* (Meunier 1910) Balech 1974
- 1259 *Protopteridinium exageratum* Balech 1979 (= *P. globulus* var. *quarnerense* f. *spirale* Gaarder 1954)
- 1260 *Protopteridinium exiguiques* (L. Mangin 1930) J.D. Dodge 1985
- 1261 *Protopteridinium exiguum* (Cleve 1900) Balech 1974

Table 2. Continued.

- 1262 *Protoperidinium exile* Balech 1994 (= *P. gracile* Meunier 1910)
- 1263 *Protoperidinium falk-petersenii* Okolodkov 1999
- 1264 *Protoperidinium fastum* Balech 1979
- 1265 *Protoperidinium faurei* Balech 1994 (= *P. ovatum* C.H.G. Pouchet var.? Fauré-Frem. 1908)
- 1266 *Protoperidinium fimbriatum* (Meunier 1919) Balech 1974
- 1267 *Protoperidinium finitimum* Balech 1976
- 1268 *Protoperidinium formosum* (Pavill. 1909) Balech 1974 (= *P. diabolus* var. *formosum* (Pavill.) F.J.R. Taylor 1976)
- 1269 *Protoperidinium furcatum* (T.H. Abé 1981) Balech 1994 (= *P. furcatum* T.H. Abé)
- 1270 *Protoperidinium gaarderae* (Balech 1967) Balech 1974
- 1271 *Protoperidinium gibberum* (T.H. Abé 1981) Balech 1994 (= *P. gibberum* T.H. Abé, non *P. okamurai* T.H. Abé 1927, nec *P. okamurai* Yoneda & Marukawa 1921)
- 1272 *Protoperidinium globiferum* (T.H. Abé 1981) Balech 1994 (= *P. globifera* T.H. Abé)
- 1273 *Protoperidinium globulus* (F. Stein 1883) Balech 1974 (= *P. ovatum* (C.H.G. Pouchet) F. Schütt 1895)
- 1274 *Protoperidinium glyptopterum* Balech 1973
- 1275 *Protoperidinium grahamii* (Sournia 1973) Balech 1994 (= *P. grahamii* Sournia, *P. truncatum* H.W. Graham 1942, non *P. truncatum* O. Zacharias 1903)
- 1276 *Protoperidinium grande* (Kof. 1907) Balech 1974 (= *P. elegans* Matzen. 1933, non *P. grande* P.A. Dangeard 1927)
- 1277 *Protoperidinium granii* (Ostenf. 1906) Balech 1974 (= *P. finlandicum* Paulsen 1907, non *P. gracile* Gran & Braarud 1935)
- 1278 *Protoperidinium hamatum* Balech 1979
- 1279 *Protoperidinium helix* (Balech 1962) Balech 1974
- 1280 *Protoperidinium heteracanthum* (P.A. Dangeard 1927) Balech 1974 (non *Protoper. norpacense* Balech 1974)
- 1281 *Protoperidinium heteroconicum* (Matzen. 1933) Balech 1974
- 1282 *Protoperidinium heterospinum* (Gaarder 1954) Balech 1974
- 1283 *Protoperidinium hidemitii* (Paulsen 1949) Balech 1994 (= *P. rotundatum* T.H. Abé 1936, non *P. rotundatum* G. Karst. 1907)
- 1284 *Protoperidinium hirobis* (T.H. Abé 1927) Balech 1974
- 1285 *Protoperidinium huberi* (J. Schiller 1929) Balech 1974
- 1286 *Protoperidinium humile* (J. Schiller 1935) Balech 1974 (= *P. perbreve* Balech & L.O. Soares 1967)
- 1287 *Protoperidinium hyalinum* (Meunier 1910) Balech 1974
- 1288 *Protoperidinium illepidum* Balech 1994 (= *P. pellucidum* var. *crassum* Fauré-Frem. 1908)
- 1289 *Protoperidinium incertum* (Balech 1958) Balech 1973
- 1290 *Protoperidinium inclinatum* (Balech 1964) Balech 1974 (= *P. sphaericum* Okamura 1912)
- 1291 *Protoperidinium incognitum* (Balech 1959) Balech 1974
- 1292 *Protoperidinium inflatiforme* (Böhm 1936) Balech 1974
- 1293 *Protoperidinium inflatum* (Okamura 1912) Balech 1974 (= *P. inflatum* Okamura, *P. brochii* f. *inflatum* J. Schiller 1937, *P. crassum* P.A. Dangeard 1927)
- 1294 *Protoperidinium islandicum* (Paulsen 1904) Balech 1973
- 1295 *Protoperidinium isthmus* (T.H. Abé 1981) Balech 1994
- 1296 *Protoperidinium joergensenii* (Balech 1971) Balech 1974 (= *P. pedunculatum* Jørg. 1905, non *P. pedunculatum* F. Schütt 1895)
- 1297 *Protoperidinium joubinii* (P.A. Dangeard 1927) Balech 1974
- 1298 *Protoperidinium knipowitschii* (Usachev 1927) Balech 1974
- 1299 *Protoperidinium laciniosum* Balech 1994 (= *P. petersii* T.H. Abé 1981, non *P. petersii* Balech 1958)
- 1300 *Protoperidinium laticeps* (Grøntved & Seidenfaden 1938) Balech 1974 (= *P. laticeps* Grøntved & Seidenfaden, ?*P. consimile* (T.H. Abé 1981) Balech 1994)
- 1301 *Protoperidinium latipyrum* (Balech 1959) Balech 1974
- 1302 *Protoperidinium latispinum* (L. Mangin 1926) Balech 1974 (= ?*P. africanoides* (P.A. Dangeard 1927) Balech 1974, *P. angusticollum* T.H. Abé 1981, ?*P. sylvanae* P. Dangeard 1927)

Table 2. Continued.

- Protoperidinium latissimum* (Kof. 1907) Balech 1974 (= *P. pentagonoides* Balech 1949, *P. pentagonum* var. *latissimum* (Kof.) J. Schiller 1937, ? *P. sylvanae* P.A. Dangeard 1927, *Protoperidinium exiquipes* (L. Mangin 1930) J.D. Dodge 1985)
- 1304 *Protoperidinium latistriatum* (Balech 1958) Balech 1974
- 1305 *Protoperidinium ligusticum* (Rampi 1951) Balech 1974
- 1306 *Protoperidinium lipopodium* (Balech 1964) Balech 1974 (= *P. subcurvipes* Balech 1959, non *P. subcurvipes* M. Lebour 1923)
- 1307 *Protoperidinium longispinum* (Kof. 1907) Balech 1974 (= *P. michaelis* Ehrenb. 1840 partim, non *P. longispinum* L. Mangin 1930)
- 1308 *Protoperidinium macrapicatum* (Balech 1971) Balech 1973 (= ? *P. gracile* Gran & Braarud 1935)
- 1309 *Protoperidinium majus* (P.A. Dangeard 1927) Balech 1974 (= *P. ovatum* var. *majus* P.A. Dangeard)
- 1310 *Protoperidinium manginii* (Balech 1971) Balech 1974 (= *P. pyriforme* N. Peters 1928)
- 1311 *Protoperidinium maranense* Tolomio 1981
- 1312 *Protoperidinium mariebouriaie* (Paulsen 1931) Balech 1974 (= *P. obtusum* (G. Karst. 1906) M. Lebour 1925, non *P. obtusum* (G. Karst.) Fauré-Frem. 1980)
- 1313 *Protoperidinium marukawai* (T.H. Abé 1936) Balech 1974
- 1314 *Protoperidinium mastophorum* (Balech 1971) Balech 1974 (= *P. granii* Matzen. 1933, non *P. granii* Ostenf. 1906)
- 1315 *Protoperidinium mediocre* (Balech 1958) Balech 1974
- 1316 *Protoperidinium melo* (Balech 1971) Balech 1974
- 1317 *Protoperidinium mendiolaie* Balech 1978
- 1318 *Protoperidinium metananum* (Balech 1965) Balech 1974
- 1319 *Protoperidinium minus* (L. Mangin 1926) Balech 1974
- 1320 *Protoperidinium minutissimum* (L. Mangin 1926) Balech 1974
- 1321 *Protoperidinium mite* (Pavill. 1916) Balech 1974 (= *P. granii* Ostenf. f. *mite* (Pavill.) J. Schiller 1937)
- 1322 *Protoperidinium monacanthum* (Broch 1910) Balech 1973 (= *P. complanatum* Meunier 1910)
- 1323 *Protoperidinium monovelum* (T.H. Abé 1936) Balech 1974
- 1324 *Protoperidinium multipunctatum* (Fauré-Frem. 1908) Balech 1994 (= *P. multipunctatum* Fauré-Frem.)
- 1325 *Protoperidinium munobis* (T.H. Abé 1927) Balech 1974
- 1326 *Protoperidinium murrayi* (Kof. 1907) Hernández-Becerril 1991 (= *P. murrayi* Kof. 1907, *P. murrayi* var. *occidentalis* Pavill. 1930, *P. murrayi* var. *orientalis* Matzen. 1933)
- 1327 *Protoperidinium mutsuense* (T.H. Abé 1936) Balech 1974 (= *P. mutsuensis* T.H. Abé, non *Peridinium mutsui* J. Schiller 1935)
- 1328 *Protoperidinium nanum* (Balech 1962) Balech 1974
- 1329 *Protoperidinium norpacense* (Balech 1962) Balech 1974 (= *P. heteracanthum* P.A. Dangeard sensu Matzen. 1933, non *P. heteracanthum* P.A. Dangeard 1927)
- 1330 *Protoperidinium novascotiense* (Gran & Braarud 1935) Balech 1974 (= ? *Scrippsiella hangoei* (J. Schiller 1935) J. Larsen 1995)
- 1331 *Protoperidinium novellus* M.A. Faust 2006 (subgenus *Testeria*)
- 1332 *Protoperidinium nudum* (Meunier 1910) Balech 1974
- 1333 *Protoperidinium nux* (J. Schiller 1937) Balech 1974 (= *P. levanderi* T.H. Abé 1927, *P. aequilimbus* T.H. Abé 1981)
- 1334 *Protoperidinium obesum* (Matzen. 1933) Balech 1974
- 1335 *Protoperidinium obtusipes* (L. Mangin 1930) Balech 1974
- 1336 *Protoperidinium oceanicum* (Vanhöffen 1897) Balech 1974
- 1337 *Protoperidinium okamurai* Yoneda & Marukawa 1921 (non *Protoperidinium gibberum* (T.H. Abé 1981) Balech 1994)
- 1338 *Protoperidinium orientale* (Matzen. 1933) Balech 1974
- 1339 *Protoperidinium ovatoides* (Meunier 1910) Balech 1974
- 1340 *Protoperidinium ovatum* C.H.G. Pouchet 1883 (= *P. lenticulatum* Fauré-Frem. 1908, *Protoperidinium ovatum* ssp. *asymmetricum* (P.A. Dangeard 1927) Balech 1988, *Peridinium ovatum* (C.H.G. Pouchet) F. Schütt 1895)
- 1341 *Protoperidinium oviforme* (P.A. Dangeard 1927) Balech 1974

Table 2. Continued.

- 1342 *Protoperidinium ovum* (J. Schiller 1911) Balech 1974 (= *Protoperidinium nipponicum* (T.H. Abé 1927) Balech 1974, *P. ovum* J. Schiller 1911, ?*P. ellipsoides* P.A. Dangeard 1927, *P. ellipsoideum* P.A. Dangeard 1927, non *P. ovum* L. Mangin 1912, non *Peridinium ovum* Matv. 1938)
- 1343 *Protoperidinium pacificum* (Kof. & J.R. Michener 1911) F.J.R. Taylor & Balech ex Balech 1988 (= *P. capdevillei* Balech 1959) Balech 1974, *Protoperidinium capdevillei* (Balech 1959) Balech 1974, ?*P. pacificum* Kof. & J.R. Michener 1911)
- 1344 *Protoperidinium paradoxum* (F.J.R. Taylor 1976) Balech 1994
- 1345 *Protoperidinium parapyriforme* (Hermosilla 1968) Balech 1974
- 1346 *Protoperidinium parvum* (Balech 1971) Balech 1974
- 1347 *Protoperidinium parthenopes* Zingone & Montresor 1988
- 1348 *Protoperidinium parvicollum* (Balech 1958) Balech 1973
- 1349 *Protoperidinium parvispinum* (Gaarder 1954) Balech 1974
- 1350 *Protoperidinium parviverter* Balech 1978 (= ?*P. gracile* Gran & Braarud 1935)
- 1351 *Protoperidinium paulsenii* (Pavill. 1909) Balech 1974 (non *P. paulsenii* L. Mangin 1911, non *P. paulsenii* T.H. Abé 1981, = *P. subinermis* Paulsen 1931)
- 1352 *Protoperidinium pedunculatum* (F. Schütt 1895) Balech 1974
- 1353 *Protoperidinium penitum* (Balech 1971) Balech 1974 (= *P. ovatum* N. Peters 1928)
- 1354 *Protoperidinium perplexum* (Balech 1971) Balech 1974
- 1355 *Protoperidinium perradiatum* Balech 1978
- 1356 *Protoperidinium persicum* (J. Schiller 1937) Okolodkov 2008 (= *P. schilleri* Böhm 1931, *P. matzenaueri* Böhm 1936, *P. margalefii* E.S. Silva 1965)
- 1357 *Protoperidinium peruvianum* (Balech 1961) Balech 1974
- 1358 *Protoperidinium pietschmannii* (Böhm 1931) Balech 1974
- 1359 *Protoperidinium platifrons* Balech 1999
- 1360 *Protoperidinium ponticum* A. Vershinin & S.L. Morton 2005 (non *Peridinium ponticum* D. Wall & B. Dale 1973)
- 1361 *Protoperidinium porosum* Balech 1978
- 1362 *Protoperidinium pouchetii* (Kof. & J.R. Michener 1911) F.J.R. Taylor & Balech ex Balech 1988 (= *Per. brintonii* Balech 1962, *P. brintonii* (Balech) Balech 1974)
- 1363 *Protoperidinium pseudoantarcticum* (Balech 1958) Balech 1974
- 1364 *Protoperidinium pseudogranii* (N. Peters 1930) Balech 1994
- 1365 *Protoperidinium pseudopallidum* (N. Peters 1930) Balech 1994
- 1366 *Protoperidinium pyriforme* (Paulsen 1907) Balech 1974 (= *P. steinii* var. *pyriformis* Paulsen 1905, *P. pyriforme* spp. *pyriforme* (Paulsen) Balech 1988, *Protoperidinium pyriforme* ssp. *breve* (Paulsen 1907) Balech 1988, = *P. breve* (Paulsen 1907) Balech)
- 1367 *Protoperidinium pyrum* (Balech 1959) Balech 1974
- 1368 *Protoperidinium quadratum* (Matzen. 1933) Balech 1974
- 1369 *Protoperidinium quamerense* (Schröd. 1900) Balech 1974 (= *P. globulus* var. *quamerense* Schröd.)
- 1370 *Protoperidinium radius* (Balech 1971) Balech 1976 (= *P. concavum* subsp. *radius* Balech)
- 1371 *Protoperidinium rampii* (Balech 1959) Balech 1974
- 1372 *Protoperidinium raphanus* (Balech 1958) Balech 1974
- 1373 *Protoperidinium rectiforme* (J. Schiller 1929) Balech 1974
- 1374 *Protoperidinium rectum* (Kof. 1907) Balech 1974 (= *P. sphaericum* Okamura 1912, non *P. sphaericum* G. Murray & Whitting 1899)
- 1375 *Protoperidinium retiferum* (Matzen. 1933) Balech 1978
- 1376 *Protoperidinium rhombiforme* (T.H. Abé 1981) Balech 1994 (= *P. rhombiformis* T.H. Abé)
- 1377 *Protoperidinium robustum* (Meunier 1910) Hernández-Becerril 1991
- 1378 *Protoperidinium rosaceum* (Balech 1958) Balech 1974
- 1379 *Protoperidinium roscoffiense* (Balech 1962) Balech 1974
- 1380 *Protoperidinium roseum* (Paulsen 1904) Balech 1974

Table 2. Continued.

- 1381 *Protooperidinium saltans* (Meunier 1910) Balech 1973 (= *P. valgus* T.H. Abé 1981, non *Peridinium saltans* Pavill. 1915)
- 1382 *Protooperidinium simulium* (Paulsen 1931) Balech 1974
- 1383 *Protooperidinium sinaicum* (Matzen. 1933) Balech 1974
- 1384 *Protooperidinium solidicorne* (L. Mangin 1922) Balech 1974 (= *Protooperidinium spiniferum* (J. Schiller 1937) Balech 1974, *P. spinosum* J. Schiller 1937)
- 1385 *Protooperidinium solitarium* (T.H. Abé 1936) Balech 1974
- 1386 *Protooperidinium somma* (Matzen. 1933) Balech 1974
- 1387 *Protooperidinium sourniai* (F.J.R. Taylor 1976) Balech 1994 (non *P. bimucronatum* (J. Schiller 1937) Balech 1974, *P. bispinum* J. Schiller 1937)
- 1388 *Protooperidinium sphaericum* (G. Murray & Whitting 1899) Balech 1974 (non *P. sphaericum* Okamura 1912, *P. sphaericum* Meunier 1910)
- 1389 *Protooperidinium sphaeroides* (P.A. Dangeard 1927) Balech 1974 (= *Protooperidinium globulus* (F. Stein 1883) Balech 1974)
- 1390 *Protooperidinium sphaeroideum* (L. Mangin 1922) Balech 1974 (= *P. breve* Paulsen 1907)
- 1391 *Protooperidinium spirale* (Gaarder 1954) Balech 1974 (= *P. granii* f. *spirale* Gaarder)
- 1392 *Protooperidinium spitzbergense* (Broch 1910) Balech 1994 (= *P. spitzbergense* Broch, non *P. globulus* sensu J. Schiller 1937)
- 1393 *Protooperidinium steinii* (Jørg. 1899) Balech 1974 (= *P. michaelis* F. Stein 1883, = *Protooperidinium africanoides* (Dangeard) Balech 1974)
- 1394 *Protooperidinium stellatum* (D. Wall 1968) Balech 1994 (= *P. stellatum* D. Wall 1968, non *P. compressum* T.H. Abé 1981, *Stelladinium stellatum* (D. Wall) P.C. Reid 1977)
- 1395 *Protooperidinium styliiferum* (J. Schiller 1929) Balech 1974
- 1396 *Protooperidinium subcrassipes* Balech 1988 (= *P. asymmetricum* G. Karst. 1907)
- 1397 *Protooperidinium subcurvipes* (M. Lebour 1923) Balech 1974 (non *P. subcurvipes* Balech 1959, = *Protooperidinium lipopodium* (Balech 1959) Balech 1974)
- 1398 *Protooperidinium subinermis* (Paulsen 1904) A.R. Loeb. 1970
- 1399 *Protooperidinium subpunctulatum* (Wailes 1928) Balech 1974
- 1400 *Protooperidinium subpyriforme* (P.A. Dangeard 1927) Balech 1974
- 1401 *Protooperidinium subsphaericum* (Balech 1959) Balech 1974
- 1402 *Protooperidinium symmetricum* (Halim 1968) Balech 1974 (non *P. symmetricum* Gaarder 1954)
- 1403 *Protooperidinium taeningii* (Rampi 1950) Balech 1974
- 1404 *Protooperidinium tatihouense* (Fauré-Frem. 1908) Balech 1994 (= *P. minutum* var. *tatihouensis* Fauré-Frem. 1908)
- 1405 *Protooperidinium tenuissimum* (Kof. 1907) Balech 1974 (= *P. crassiformis* T.H. Abé 1981)
- 1406 *Protooperidinium tohrui* Balech 1994 (= *P. paulsenii* T.H. Abé 1981)
- 1407 *Protooperidinium tregouboffii* (Halim 1955) Balech 1974 (= *P. brachypus* J. Schiller 1937, non *P. brachypus* T.H. Abé 1981)
- 1408 *Protooperidinium tristylum* (F. Stein 1883) Balech 1974
- 1409 *Protooperidinium truncum* (T.H. Abé 1936) Balech 1974
- 1410 *Protooperidinium tuba* (J. Schiller 1935) Balech 1974
- 1411 *Protooperidinium turbinatum* (L. Mangin 1926) Balech 1974
- 1412 *Protooperidinium turgidum* (Meunier 1910) Balech 1974
- 1413 *Protooperidinium unipes* (Balech 1962) Balech 1974
- 1414 *Protooperidinium variegatum* (N. Peters 1928) Balech 1974
- 1415 *Protooperidinium ventrale* (T.H. Abé 1936) Balech 1974 (= *P. ventricum* T.H. Abé 1927)
- 1416 *Protooperidinium ventricum* (T.H. Abé 1927) Balech 1974
- 1417 *Protooperidinium venustum* (Matzen. 1933) Balech 1974
- 1418 *Protooperidinium verrucosum* (Meunier 1910) Balech 1974
- 1419 *Protooperidinium volsella* (Margalef 1968) Balech 1974
- 1420 *Protooperidinium vulgare* Balech 1978 (= *P. aliferum* Gaarder 1954)

Table 2. Continued.

- Protoperidinium wiesneri* (J. Schiller) Balech 1974 (= *Protoperidinium wiesneri* ssp. *wiesneri* (J. Schiller 1911) Balech 1988, *P. angustum* (P.A. Dangeard 1927) Balech 1974, *Protoperidinium wiesneri* ssp. *patagonicum* Balech 1979, *P. patagonicum* (Balech 1959) Balech 1974)
- 1422 *Protoperidinium woloszynskae* (W. Conrad 1940) Parke & J.D. Dodge 1976
- 1423 *Protoperidinium yonedai* (T.H. Abé 1981) Balech 1994 (= ?*P. latispinum* L. Mangin 1926)
- 1424 *Protoperidinium yserense* (Meunier 1919) Balech 1974
- Diplopsaliaceae** Matsuoka 1988
- 162 **Genus of *Protoperidinium depressum***
- 1425 *Protoperidinium claudicans* (Paulsen 1907) Balech 1974
- Protoperidinium depressum* (J.W. Bailey 1854) Balech 1974 (= *P. parallelum* Broch 1906, *P. marinum* Er. Lindem. 1925, *P. claudicanoides* H.W. Graham 1942, *Protoperidinium depressum* subsp. *convexius* (Graham 1941) Balech 1994)
- 1427 *Protoperidinium latidorsale* (P.A. Dangeard 1927) Balech 1974 (= *P. oblongum* var. *latidorsale* P.A. Dangeard)
- 1428 *Protoperidinium oblongum* (Auriv. 1898) Parke & J.D. Dodge 1976 (= *P. divergens* var. *oblongum* Auriv.)
- 1429 *Protoperidinium rectius* (H.W. Graham 1942) Balech 1994 (= *P. depressum* var. *rectius* H.W. Graham)
- 1430 *Protoperidinium steidingeriae* Balech 1979 (= *P. oblongum* (Auriv.) sensu Steid. & I. Williams 1970, non *P. oblongum* (Auriv.) Cleve)
- 163 ***Boreadinium*** J.D. Dodge & H.B. Hermes 1981 (= *Diplopsalis* Bergh 1881 partim) -type *B. pisiforme*
- 1431 *Boreadinium breve* (T.H. Abé 1981) Sournia 1984 (= *Diplopsalis brevis* T.H. Abé)
- 1432 *Boreadinium pisiforme* J.D. Dodge & H.B. Hermes 1981
- 164 ***Diplopelta*** F. Stein 1883 ex Jørg. 1912 (= *Dissodium* T.H. Abé 1941 partim, *Diplopsalis* Bergh 1881 partim) -type *D. bomba*
- 1433 *Diplopelta bomba* F. Stein ex Jørg. 1912
- 1434 *Diplopelta excentrica* (= D.S. Nie 1943) Balech (= *Diplopsalis excentrica* Nie, *Dissodium excentricum* (D.S. Nie) A.R. Loeb., *Peridiniopsis excentrica* (D.S. Nie) F.J.R. Taylor 1976, *Gotoius excentricus* (D.S. Nie) Sournia 1973)
- 1435 *Diplopelta steinii* (T.H. Abé 1941) Balech 1988 (= *Diplopsalopsis steinii* T.H. Abé)
- 165 ***Diplopsalis*** Bergh 1881 (*Dissodium* T.H. Abé 1941 partim, ?*Kolkwitzella* Er. Lindem. 1919, *Apsteinia* T.H. Abé 1981, *Entzia* M. Lebour (Apstein) M. Lebour 1922 -type *D. lenticula*)
- 1436 *Diplopsalis lebouriae* (D.S. Nie 1943) Balech 1967 (= *D. lenticula* var. *lebouriae* D.S. Nie, non *Diplopsalis lebouriae* T.H. Abé 1941, nec T.H. Abé 1981)
- 1437 *Diplopsalis lenticula* Bergh 1881 (= *Glen. lenticula* (Bergh) J. Schiller 1937, *Dissodium lenticulum* (Bergh) A.R. Loeb. 1970, *Peridiniopsis lenticula* (Bergh) Starmach 1974)
- 1438 *Diplopsalis minuta* L. Mangin 1912
- 1439 *Diplopsalis sphaerica* Meunier 1910
- Diplopsalis acuta* (Apstein 1896) Entz 1904 (= *Glen. acutum* Apstein 1896, *Kolkwitzella acuta* (Apstein) Elbr. 1993, *P. latum* Paulsen 1908, *Kolkwitzella salebrosa* Er. Lindem. 1919, *Entzia acuta* (Apstein) M. Lebour 1922, *Kolkwitzella salebrosa* v. *gibbera* Er. Lindem. 1924, *Kolkwitzella gibbera* (Er. Lindem.) Er. Lindem. 1928, *Apsteinia acuta* T.H. Abé 1981 nom. nud.)
- 166 ***Diplopsalopsis*** Meunier 1910 (= *Diplopsalis* Bergh 1881 partim, *Diplopelta* F. Stein ex Jørg. 1912 partim) -type *D. orbicularis* (8 species)
- Diplopsalopsis bomba* (F. Stein 1883) J.D. Dodge & Toriumi 1993 (= *Diplopelta bomba* F. Stein ex Jørg. 1912, *Diplopsalis asymmetrica* (L. Mangin 1911) Er. Lindem. 1928, ?*Diplopsalis asymmetrica* (L. Mangin) T.H. Abé 1941, *Peridiniopsis asymmetrica* L. Mangin 1911, *Dissodium asymmetricum* (L. Mangin) A.R. Loeb. 1970, *Diplopelta symmetrica* Pavill. 1913)
- 1441 *Diplopsalopsis globula* T.H. Abé 1941 (= *Diplopelta globulus* (T.H. Abé) Balech 1979, *Diplopsalopsis asymmetrica* var. *sphaerica* L. Mangin 1911, *Diplopsalopsis sphaerica* (L. Mangin) Balech 1962, *Dissodium globula* (T.H. Abé) J.D. Dodge & H.B. Hermes 1981)
- 1442 *Diplopsalopsis imitatio* (Balech 1979) Balech 1988 (= *Protoperidinium imitatio* Balech)
- 1443 *Diplopsalopsis kisselevii* M.S. Selina, G.V. Konovalova, A.A. Begun & T.V. Morozova 2008
- 1444 *Diplopsalopsis latipeltata* Balech & B. Borgese 1990
- 1445 *Diplopsalopsis orbicularis* (Paulsen 1907) Meunier 1910 (= *Peridinium orbiculare* Paulsen, *Diplopsalis orbicularis* (Paulsen) Paulsen 1930)

Table 2. Continued.

- 1447 *Diplopsalopsis ovata* (T.H. Abé 1941) J.D. Dodge & Toriumi 1993 (= *Diplopsalopsis orbicularis* (Paulsen 1907) var. *ovata* T.H. Abé 1941)
- 1448 *Diplopsalopsis pingii* (D.S. Nie 1943) J.D. Dodge & Toriumi 1993 (= *Diplopsalis pingii* D.S. Nie, *Peridiniopsis pingii* (D.S. Nie) F.J.R. Taylor 1976)
- 167 **Dissodium** T.H. Abé 1941 (= *Diplopsalis* Bergh 1881 partim, *Diplopelta* F. Stein 1883 ex Jørg. 1912 partim)
- 1449 *Dissodium parvum* T.H. Abé 1941 (= *Diplopelta parva* (T.H. Abé) Matsuoka 1988, *Diplopsalis parvum* (T.H. Abé) T.H. Abé 1981)
- 168 **Gotoius** T.H. Abé 1981 ex Matsuoka 1988 (= *Diplopsalis* Bergh 1881 partim, *Dissodium* T.H. Abé 1941 partim) -type *G. mutsuensis*
- 1450 *Gotoius abei* Matsuoka 1988
- 1451 *Gotoius excentricus* (D.S. Nie 1943) Sournia 1984 (= *Diplopsalis excentrica* D.S. Nie 1943, *Dissodium excentricum* (D.S. Nie) A.R. Loeb. 1970, *Peridiniopsis excentrica* (D.S. Nie) F.J.R. Taylor 1976)
- 1452 *Gotoius mutsuensis* T.H. Abé 1981 ex Matsuoka 1988
- 1453 *Gotoius ostenfeldii* (Steem. Niels. 1931) J.D. Dodge & Toriumi 1993 (= *Diplopsalis ostenfeldii* Steem. Niels.)
- 169 **Lebouraia** T.H. Abé 1941 ex Sournia 1986 (= *Diplopsalis* Bergh 1881 partim, *Diplopelta* F. Stein ex Jørg. 1912 partim) -type *L. minuta*
- 1454 *Lebouraia minuta* T.H. Abé 1941 (= *Diplopsalis minuta* (T.H. Abé) T.H. Abé 1981)
- 1455 *Lebouraia pusilla* (Balech & Akselman 1988) J.D. Dodge & Toriumi 1993 (= *Diplopelta pusilla* Balech & Akselman)
- 170 **Oblea** Balech 1964 (= *Peridiniopsis* Lemmerm. 1904 partim, *Diplopsalis* Bergh 1881 partim) -type *O. baculifera*
- 1456 *Oblea acanthocysta* H. Kawami, M. Iwataki & Matsuoka 2006
- 1457 *Oblea baculifera* Balech 1964 ex Loeb. & A.R. Loeb. 1966
- 1458 *Oblea rotunda* (M. Lebour 1922) Balech 1964 ex Sournia 1973 (= *Peridiniopsis rotunda* M. Lebour, *Glenodinium rotundum* (M. Lebour) J. Schiller 1937, *Peridinium limnophilum* Er. Lindem. 1924, *Peridiniopsis limnophilum* (Er. Lindem.) Bourr. 1968, *Glenodinium rotundum* J. Schiller, *Diplopsalis rotunda* (M. Lebour) E.J.F. Wood 1954, *Diplopsalis rotundata* Steid. & I. Williams 1970)
- 1459 *Oblea torta* (T.H. Abé 1941) Balech 1964 ex Sournia 1973 (= *Diplopsalis torta* T.H. Abé, *Diplopsalis hainanensis* D.S. Nie 1943, *Peridiniopsis hainanensis* (D.S. Nie) F.J.R. Taylor 1976)
- 171 **Preperidinium** L. Mangin 1913 (= *Diplopeltopsis* Pavill. 1913, *Zygabikodinium* Loeb. & A.R. Loeb. 1970)
- 1460 *Preperidinium granulatum* (Balech 1958) Elbr. 1993 (= *Diplopeltopsis granulosa* Balech, *Zygabikodinium granulatum* (Balech) A.R. Loeb. 1970)
- 1461 *Preperidinium meunieri* (Pavill. 1907) Elbr. 1993 (= *Diplopsalis lenticula* Bergh f. *minor* Paulsen 1907, *Zygabikodinium lenticulatum* Loeb. & A.R. Loeb. 1970, *Peridinium lenticulum* L. Mangin 1911, *Peridinium paulsenii* L. Mangin 1911, *Glenodinium lenticula* f. *minor* (Paulsen 1907) Pavill. 1913, *Diplopeltopsis minor* (Paulsen 1907) Pavill. 1913, *Peridiniopsis minor* (Paulsen) Starmach 1974)
- 1462 *Preperidinium perlatus* (Balech 1971) Elbr. 1993 (= *Diplopeltopsis perlata* Balech 1971, *Zygabikodinium perlatus* (Balech) Elbr. 1975)
- 1463 *Preperidinium pseudo-oblea* (Elbr. 1975) Elbr. 1993 (= *Zygabikodinium pseudo-oblea* Elbr.)
- Heterodiniaceae** Er. Lindem. 1928
- 172 **Dolichodinium** Kof. & A.M. Adamson 1933
- 1464 *Dolichodinium lineatum* (Kof. & J.R. Michener 1911) Kof. & A.M. Adamson 1933 (= *Heterodinium lineatum* Kof. & J.R. Michener)
- 173 **Heterodinium** Kof. 1906 -type *H. scrippsiae* (46 species)
- 1465 *Heterodinium agassizii* Kof. 1907
- 1466 *Heterodinium angulatum* Kof. & J.R. Michener 1911
- 1467 *Heterodinium asymmetricum* Kof. & A.M. Adamson 1933
- 1468 *Heterodinium australiae* E.J.F. Wood 1963
- 1469 *Heterodinium balechii* Rampi 1951
- 1470 *Heterodinium blackmanii* (G. Murray & Whitting 1899) Kof. 1906 (= *H. curvatum* Kof. 1907)
- 1471 *Heterodinium calvum* Kof. 1907
- 1472 *Heterodinium crassipes* J. Schiller 1916
- 1473 *Heterodinium debeauxii* Rampi 1941
- 1474 *Heterodinium deformatum* (Kof. 1907) Kof. & A.M. Adamson 1933 (= *H. gesticulatum* f. *deformata* Kof. 1907)

Table 2. Continued.

- 1475 *Heterodinium dispar* Kof. & A.M. Adamson 1933
 1476 *Heterodinium doma* (G. Murray & Whitting 1899) Kof. 1906
 1477 *Heterodinium dubium* Rampi 1941
 1478 *Heterodinium elongatum* Kof. & J.R. Michener 1911
 1479 *Heterodinium expansum* Kof. 1907
 1480 *Heterodinium extremum* (Kof. 1907) Kof. & A.M. Adamson 1933 (= *H. gesticulatum* f. *extrema* Kof. 1907)
 1481 *Heterodinium fenestratum* Kof. 1907
 1482 *Heterodinium fides* Kof. 1907
 1483 *Heterodinium gesticulatum* Kof. 1907 (= *Peridinium tristylum* Hensen 1911)
 1484 *Heterodinium gracile* Böhm 1936 (= ? *H. globosum* Kof. 1907)
 1485 *Heterodinium grahamii* Rampi 1941
 1486 *Heterodinium hindmarchii* (G. Murray & Whitting 1899) Kof. 1906
 1487 *Heterodinium inaequale* Kof. 1906 (= *H. inaequale* (Kof. 1906) J. Schiller 1937, ? *H. laticinctum* Kof. 1907)
 1488 *Heterodinium kofoidii* Pavill. 1915 (= *H. pavillardii* Kof. & A.M. Adamson 1933, non *H. kofoidii* J. Schiller 1916 = *H. schilleri* Pavill. 1932)
 1489 *Heterodinium laeve* Kof. & J.R. Michener 1911
 1490 *Heterodinium laticeps* G. Léger 1972
 1491 *Heterodinium laticinctum* Kof. 1907 (= ? *H. kofoidii* Pavill. 1915)
 1492 *Heterodinium leiorhynchum* (G. Murray & Whitting 1899) Kof. 1906
 1493 *Heterodinium mediocre* (Kof. 1907) Kof. & A.M. Adamson 1933 (= *H. gesticulatum* f. *mediocris* Kof., ? *H. sinistrum* Kof. & A.M. Adamson 1933)
 1494 *Heterodinium mediterraneum* Pavill. 1932
 1495 *Heterodinium milneri* (G. Murray & Whitting 1899) Kof. 1906
 1496 *Heterodinium minutum* Kof. & J.R. Michener 1911
 1497 *Heterodinium murrayi* Kof. 1906 (= *Peridinium tripos* G. Murray & Whitting 1899)
 1498 *Heterodinium obesum* Kof. 1907
 1499 *Heterodinium praetextum* Kof. 1907
 1500 *Heterodinium rigdeniae* Kof. 1906 (= *H. globosum* Kof. 1907, *H. longum* Kof. 1907, ? *H. gracile* Böhm 1936)
 1501 *Heterodinium schilleri* Pavill. 1932 (= *H. kofoidii* J. Schiller 1916, non *H. kofoidii* Pavill. 1915 = *H. pavillardii* Kof. & A.M. Adamson 1933)
 1502 *Heterodinium scottii* Kof. & A.M. Adamson 1933
 1503 *Heterodinium scrippsiae* Kof. 1906 (= *H. richardii* Pavill. 1932, *H. pulchrum* Böhm 1933, *Peridinium areolatum* G. Karst. 1906) 'scrippsii' non. corr. ICBN: Art. 60.11, Recom. 60C.1, Art. 32.7)
 1504 *Heterodinium sinistrum* Kof. & A.M. Adamson 1933 (= *H. sinistrum* f. *sinistrum* (Kof. & A.M. Adamson 1933) J. Schiller 1936)
 1505 *Heterodinium sphaeroideum* Kof. 1906
 1506 *Heterodinium spiniferum* Kof. & J.R. Michener 1911
 1507 *Heterodinium superbum* Kof. 1907
 1508 *Heterodinium triostre* (G. Murray & Whitting 1899) Kof. 1906
 1509 *Heterodinium varicator* Kof. & A.M. Adamson 1933
 1510 *Heterodinium whittingiae* Kof. 1906 'whittingae'

Order Peridiniales, Family of Ensiculifera

- 174 *Ensiculifera* Balech 1967 -type *E. mexicana*
 1511 *Ensiculifera angulata* Balech 1988
 1512 *Ensiculifera carinata* Matsuoka, S. Kobayashi & Gains 1990
 1513 *Ensiculifera imariensis* S. Kobayashi & Matsuoka 1995
 1514 *Ensiculifera loeblichii* E.R. Cox & H.J. Arnott 1971 (= *Pentapharsodinium trachodinium* Indel. & A.R. Loebel. 1986, *P. loeblichii* (E.R. Cox & H.J. Arnott) B. Dale 1977)

Table 2. Continued.

- 1515 *Ensiculifera mexicana* Balech 1967 (= *Scrippsiella mexicana* (Balech) Indel. & A.R. Loeb. 1986)
- 175 ***Pentapharsodinium*** Indel. & A.R. Loeb. 1986 -type *P. dalei*
- 1516 *Pentapharsodinium tyrrhenicum* (Balech 1990) Montresor, Zingone & D. Marino 1993 (= *P. tyrrhenicum* Balech, *Calcicarpinum bivalvum* Versteegh 1993)
- 1517 *Pentapharsodinium dalei* Indel. & A.R. Loeb. 1986 (= *P. dalei* (Indel. & A.R. Loeb.) Balech 1990, *P. faeroense* Paulsen sensu B. Dale 1977)
- Oxytoxaceae** Er. Lindem. 1928
- 176 ***Oxytoxum*** F. Stein 1883 -type *O. scolopax* (37 species)
- 1518 *Oxytoxum adriaticum* J. Schiller 1937
- Oxytoxum breve* Kof. & J.R. Michener 1911 (not illustrated)
- 1519 *Oxytoxum brunellii* Rampi 1939
- 1520 *Oxytoxum caudatum* J. Schiller 1937 (= *O. nanum* Halldal 1953, *O. rampii* Sournia 1973, *O. ligusticum* Rampi 1969)
- 1521 *Oxytoxum challengeroides* Kof. 1907 (= *O. minutum* Rampi 1941)
- 1522 *Oxytoxum coronatum* J. Schiller 1937
- 1523 *Oxytoxum crassum* J. Schiller 1937 (= *O. globosum* J. Schiller 1937, non *C. globosum* (Kof. 1907) F.J.R. Taylor 1976)
- 1524 *Oxytoxum cribosum* F. Stein 1883
- 1525 *Oxytoxum criophilum* Balech 1965
- 1526 *Oxytoxum curvatum* (Kof. 1907) Kof. 1911 (= *Prorocentrum curvatum* Kof.)
- 1527 *Oxytoxum depressum* J. Schiller 1937
- 1528 *Oxytoxum elongatum* E.J.F. Wood 1963
- 1529 *Oxytoxum gladiolus* F. Stein 1883
- 1530 *Oxytoxum laticeps* J. Schiller 1937
- 1531 *Oxytoxum longum* J. Schiller 1937
- 1532 *Oxytoxum michaelisarsii* Gaarder 1954
- 1533 *Oxytoxum milneri* G. Murray & Whitting 1899 (= *O. subulatum* Kof. 1907)
- 1534 *Oxytoxum minutum* Rampi 1941 (= *O. challengeroides* Kof. 1907, *O. lativelatum* F.J.R. Taylor 1976)
- 1535 *Oxytoxum mitra* F. Stein 1883
- 1536 *Oxytoxum mucronatum* B. Hope 1954
- 1537 *Oxytoxum obesum* Rampi 1969
- 1538 *Oxytoxum obliquum* J. Schiller 1937
- 1539 *Oxytoxum ovale* J. Schiller 1937 (= *O. mediterraneum* J. Schiller 1937, *O. punctulatum* Rampi 1951, *O. spinosum* Rampi 1941, *O. lativelatum* F.J.R. Taylor 1976)
- 1540 *Oxytoxum ovum* Gaarder 1954 (= *C. globosum* (Kof. 1907) F.J.R. Taylor 1976)
- 1541 *Oxytoxum pachyderme* J. Schiller 1937 ex F.J.R. Taylor 1976
- 1542 *Oxytoxum parvum* J. Schiller 1937 (= *O. tenuistriatum* Rampi 1943)
- 1543 *Oxytoxum pyramidale* J.D. Dodge & R.D. Saunders 1985
- 1544 *Oxytoxum radiosum* Rampi 1951
- 1545 *Oxytoxum robustum* Kof. 1911
- 1546 *Oxytoxum sceptrum* (F. Stein 1883) Schröd. 1906 (= *O. longiceps* J. Schiller 1937, *O. aceratum* Rampi 1951)
- 1547 *Oxytoxum schauinslandii* Lemmerm. 1905
- 1548 *Oxytoxum scolopax* Stein 1883
- 1549 *Oxytoxum semicollatum* F.J.R. Taylor 1976
- 1550 *Oxytoxum sphaeroideum* F. Stein 1883 (= *Oxytoxum boehmii* J. Schiller 1937)
- 1551 *Oxytoxum strophalatum* J.D. Dodge & R.D. Saunders 1985
- 1552 *Oxytoxum turbo* Kof. 1907
- 1553 *Oxytoxum variabile* J. Schiller 1937 (= *O. gracile* J. Schiller 1937)
- 1554 *Oxytoxum viride* J. Schiller 1937

Table 2. Continued.

Order Peridiniales sensu lato, Family of Corythodinium

- 177 **Corythodinium** Loeb. & A.R. Loeb. 1966 -type *C. tessellatum* (15 species)
- 1555 *Corythodinium belgicæ* (Meunier 1910) F.J.R. Taylor 1976
- 1556 *Corythodinium biconicum* (Kof. 1907) F.J.R. Taylor 1976 (= *Oxytoxum biconicum* (Kof.) J.D. Dodge & R.D. Saunders 1985, *Amphidoma biconica* Kof., *Murrayella kofoidii* Gaarder 1954, *Pavillardinium kofoidii* (Gaarder) Sournia 1973)
- 1557 *Corythodinium carinatum* (Gaarder 1954) F.J.R. Taylor 1976
- 1558 *Corythodinium compressum* (Kof. 1907) F.J.R. Taylor 1976
- 1559 *Corythodinium constrictum* (F. Stein 1883) F.J.R. Taylor 1976 (= *Oxytoxum constrictum* (F. Stein) Buetschli 1885)
- 1560 *Corythodinium cristatum* (Kof. 1907) F.J.R. Taylor 1976
- 1561 *Corythodinium curvicaudatum* (Kof. 1907) F.J.R. Taylor 1976
- 1562 *Corythodinium diploconus* (F. Stein 1883) F.J.R. Taylor 1976
- 1563 *Corythodinium elegans* (Pavill. 1916) F.J.R. Taylor 1976
- 1564 *Corythodinium frenguelli* (Rampi 1941) F.J.R. Taylor 1976 (= ? *C. reticulatum* (F. Stein 1883) Loeb. & A.R. Loeb. 1966)
- 1565 *Corythodinium globosum* (Kof. 1907) F.J.R. Taylor 1976 (= *Murrayella globosa* Kof., non *O. globosum* J. Schiller 1937)
- 1566 *Corythodinium latum* (Gaarder 1954) F.J.R. Taylor 1976
- 1567 *Corythodinium recurvum* (Kof. & J.R. Michener 1911) F.J.R. Taylor 1976
- Corythodinium reticulatum* (F. Stein 1883) Loeb. & A.R. Loeb. 1966 (= *Oxytoxum reticulatum* (F. Stein) F. Schütt
- 1568 1896, ? *O. areolatum* Rampi 1941, ? *C. frenguelli* (Rampi 1941) F.J.R. Taylor 1976, ? *C. latum* (Gaarder 1954) F.J.R. Taylor 1976)
- 1569 *Corythodinium tessellatum* (F. Stein 1883) Loeb. & A.R. Loeb. 1966 (= *Oxytoxum tessellatum* (F. Stein) F. Schütt 1895, *O. michaelsarsii* Gaarder 1954, *C. michaelsarsii* (Gaarder) F.J.R. Taylor 1976) 'tesselatum'

Amphidomataceae Sournia 1984

- 178 **Amphidoma** F. Stein 1883 -type *A. nucula* (8 species)
- 1570 *Amphidoma acuminata* F. Stein 1883
- 1571 *Amphidoma curtata* Kof. & Swezy 1911
- 1572 *Amphidoma depressa* Kof. & Swezy 1911
- 1573 *Amphidoma elongata* Kof. & Swezy 1911
- 1574 *Amphidoma laticincta* Kof. & Swezy 1911
- 1575 *Amphidoma nucula* F. Stein 1883 (= *A. spinosa* (Kof. 1907) Kof. & J.R. Michener 1911, *Gonyaulax rouchii* Rampi 1948, *Pavillardinium spinosum* (Kof. 1907) F.J.R. Taylor 1967 ex Sournia 1973, *Murrayella spinosa* Kof. 1907)
- 1576 *Amphidoma obtusa* Kof. & Swezy 1911
- 1577 *Amphidoma steinii* J. Schiller 1929

Cladopyxidaceae F. Stein 1883 / Cladopyxidaceae Poche 1913 / Cladopyxididae Poche 1913

- 179 **Cladopyxis** F. Stein 1883 (= *Acanthodinium* Kof. 1907) -type *C. brachiolata*
- 1578 *Cladopyxis brachiolata* F. Stein 1883 (= *C. spinosa* (Kof. 1907) J. Schiller 1937, *C. steinii* O. Zacharias 1906, *Acanthodinium spinosum* Kof. 1907)
- 1579 *Cladopyxis caryophyllum* (Kof. 1907) Pavill. 1931 (= *Acanthodinium caryophyllum* Kof.)
- 1580 *Cladopyxis hemibrachiata* Balech 1964
- 1581 *Cladopyxis quadrispina* Pavill. 1931 (= *Micracanthodinium quadrispinum* (Pavill.) Margalef 1969)
- 180 **Micracanthodinium** Deflandre 1937 (= *Cladopyxis* F. Stein 1883 partim) -type *M. setiferum*
- 1582 *Micracanthodinium bacilliferum* (J. Schiller 1937) Deflandre 1937 (= *C. bacillifera* J. Schiller)
- 1583 *Micracanthodinium claytonii* (R.W. Holmes 1956) J.D. Dodge 1982 (= *C. claytonii* R.W. Holmes)
- 1584 *Micracanthodinium setiferum* (Lohmann 1902) Deflandre 1937 (= *C. setifera* Lohmann)
- 181 **Palaeophalacroma** J. Schiller 1928 (= *Epiperidinium* Gaarder 1954, *Sinodinium* D.S. Nie 1945) -type *P. verrucosum*
- 1585 *Palaeophalacroma connectens* (D.S. Nie 1945) A.R. Loeb. 1980 (= *Sinodinium connectens* D.S. Nie)
- 1586 *Palaeophalacroma sphaericum* F.J.R. Taylor 1976
- 1587 *Palaeophalacroma unicinctum* J. Schiller 1928 (= *Heterodinium detonii* Rampi 1943, *Epiperidinium michaelsarsii* Gaarder 1954)

Table 2. Continued.

- 1588 *Palaeophalacroma verrucosum* J. Schiller 1928
- Order Peridiniales sensu lato, Family Endodiniaceae** J. Schiller 1935
- 182 **Endodinium** Hovasse 1922
- 1589 *Endodinium chattonii* Hovasse 1922 (= *Zooxanthella chattonii* (Hovasse) Hovasse 1924, *Scrippsiella chattonii* (Hovasse) A.T. Banaszak, R. Iglesias-Prieto & R.K. Trench 1993, *Amphidinium chattonii* (Hovasse) D.L. Taylor 1971)
- 1590 *Endodinium nutricula* (J. Brandt 1883) Hollande & Carre 1975 (= *Zooxanthella nutricula* J. Brandt, *Scrippsiella nutricula* (J. Brandt) Banaszak, Iglesias-Prieto & R.K. Trench 1993)
- 1591 *Scrippsiella velellae* Banaszak, Iglesias-Prieto & R.K. Trench 1993 ex R.K. Trench 2000
- 1592 *Gloeodinium viscum* A.T. Banaszak, R. Iglesias-Prieto & R.K. Trench 1993
- Order Peridiniales sensu lato, Family of Amphidoma caudata**
- 1593 *Amphidoma caudata* Halldal 1953 (= *Oxytoxum tonollii* Rampi 1969, *O. margalefii* Rampi 1969)
- 183 **Azadinium** Elbr. & Tillmann 2009
- 1594 *Azadinium obesum* Tillmann & Elbr. 2010
- 1595 *Azadinium poporum* Tillmann & Elbr. 2011
- 1596 *Azadinium spinosum* Elbr. & Tillmann 2009
- Order Peridiniales, incertae sedis**
- 1597 *Gloeodinium marinum* Bouquaeux 1971
- 184 **Adenoides** Balech 1956 -type *A. eludens*
- 1598 *Adenoides eludens* (Herdman 1922) Balech 1956 (= *Amphidinium eludens* Herdman)
- 1599 *Adenoides kofoidii* (Herdman 1922) J.D. Dodge 1982 (= *Amphidinium kofoidii* Herdman, non *Amphidinium kofoidii* var. *petasatum* Herdman 1924)
- 185 **Archaeosphaerodiniopsis** Rampi 1943
- 1600 *Archaeosphaerodiniopsis verrucosa* Rampi 1943
- 186 **Bysmatrum** M.A. Faust & Steid. 1998 -type *B. subsalsum*
- 1601 *Bysmatrum arenicola* T. Horig. & Pienaar 2000 (= *Scrippsiella arenicola* T. Horig. & Pienaar 1988)
- 1602 *Bysmatrum caponii* (T. Horig. & Pienaar 1988) M.A. Faust & Steid. 1998
- 1603 *Bysmatrum granulatum* Ten-Hage, J.P. Quod, J. Turquet & Couté 2001
- 1604 *Bysmatrum subsalsum* (Ostenf. 1908) M.A. Faust & Steid. 1998 (= *P. subsalsum* Ostenf., *Scrippsiella subsalsa* (Ostenf.) Steid. & Balech 1977)
- 1605 *Bysmatrum teres* Sh. Murray, Hoppenrath, J. Larsen & D.J. Patterson 2006
- 187 **Cabra** Sh. Murray & D.J. Patterson 2004 -type *C. matta*
- 1606 *Cabra aremorica* Chomérat, Couté & Nézan 2010
- 1607 *Cabra matta* Sh. Murray & D.J. Patterson 2004
- 1608 *Cabra reticulata* Chomérat & Nézan 2009
- 188 **Peridiniella** Kof. & J.R. Michener 1911 -type *P. sphaeroidea*
- 1609 *Peridiniella catenata* (Levander 1894) Balech 1977 (= *Gonyaulax catenata* (Levander) Kof. 1911, *P. catenatum* Levander, *Amylax catenata* Meunier 1910)
- 1610 *Peridiniella danica* (Paulsen 1907) Okolodkov & J.D. Dodge 1995 (= *Glenodinium danicum* Paulsen 1907 ex Braarud 1935 partim)
- 1611 *Peridiniella globosa* (P.A. Dangeard 1927) Okolodkov 2006 (= *Protoper. globosum* (P.A. Dangeard) Balech 1974, ? *Gonyaulax paulsenii* Gaarder 1954)
- 1612 *Peridiniella sphaeroidea* Kof. & J.R. Michener 1911
- 189 **Planodinium** R.D. Saunders & J.D. Dodge 1984
- 1613 *Planodinium striatum* R.D. Saunders & J.D. Dodge 1984
- 190 **Pseudothecadinium** Hoppenrath & M.S. Selina 2006
- 1614 *Pseudothecadinium campbellii* Hoppenrath & M.S. Selina (= *Thecadinium aureum* P.H. Campb. 1973)
- 191 **Rhinodinium** Sh. Murray, Hoppenrath, S. Yoshimatsu, S. Toriumi & J. Larsen 2006
- 1615 *Rhinodinium broomeense* Sh. Murray, Hoppenrath, S. Yoshimatsu, S. Toriumi & J. Larsen 2006

Table 2. Continued.

- 192 **Sabulodinium** R.D. Saunders & J.D. Dodge 1984
- 1616 *Sabulodinium undulatum* R.D. Saunders & J.D. Dodge 1984 (= *Phalacroma kofoidii* var. (colourless variety) Herdman 1924)
- 193 **Thecadiniopsis** Croome, Hallegr. & P.A. Tyler 1987
- 1617 *Thecadiniopsis tasmanica* Croome, Hallegr. & P.A. Tyler 1987
- 194 **Vulcanodinium** Nézan & Chomérat 2011
- 1618 *Vulcanodinium rugosum* Nézan & Chomérat 2011
- Uncertain order**
- Tovellaceae** Moestrup, K.C.R. Lindberg & Daugbjerg 2005
- 195 **Bernardinium** Chodat 1924 -type. *B. bernardinense*
- Bernardinium bernardinense* Chodat 1924 (= *Glenodinium bernardinense* Chodat & Zender 1923, *Hemidinium bernardinense* (Chodat) Hub.-Pest. 1950, *H. salinum* Anisimova 1926, *H. thiophilum* W. Conrad 1939, *Bernardinium thiophilum* (W. Conrad) Javorn. 1962, ?*Esoptrodinium gemma* Javorn. 1997)
- 1620 *Bernardinium salinum* (Anisimova 1926) Javorn. 1962 (= *Hemidinium salinum* Anisimova)
- 1621 *Bernardinium ucrainicum* (Proshk.-Lavr. 1945) P. Javorn. 1997 (= *Hemidinium ucrainicum* Proshk.-Lavr.)
- 196 **Esoptrodinium** Javorn. 1997 -type *E. gemma*
- 1622 *Esoptrodinium gemma* Javorn. 1997 (= *Bernardinium bernardinense* sensu auctt. non sensu Chodat, ?*B. bernardinense* Chodat 1924, *Hemidinium bernardinense* (Chodat) Hub.-Pest. 1950, *H. soligenum* Skuja 1964)
- 1623 *Esoptrodinium soligenum* (Skuja 1964) Javorn. 1997 (= ?*Esoptrodinium gemma*)
- 1624 *Esoptrodinium thiophilum* (W. Conrad 1939) Javorn. 1997 (= ?*Bernardinium thiophilum* (W. Conrad 1939) Javorn. 1962, *H. thiophilum* W. Conrad 1939)
- 197 **Jadwigia** Moestrup, K.C.R. Lindberg & Daugbjerg 2005
- 1625 *Jadwigia applanata* Moestrup, K.C.R. Lindberg & Daugbjerg 2005
- 198 **Katodinium** Fott 1957 (= *Massartia* Conrad 1926) -type *K. nieuportense* (32 species)
- 1626 *Katodinium astigmatum* Christen 1959
- 1627 *Katodinium asymmetricum* (Massart 1900) Loeb. 1965 (= *Gymnodinium asymmetricum* Massart, *M. asymmetrica* (Massart) J. Schiller 1933)
- 1628 *Katodinium auratum* Bursa 1970
- 1629 *Katodinium bohemicum* (Fott) Litvin. 1977 (= *Gymnodinium bohemicum* Fott 1938)
- 1630 *Katodinium edax* (J. Schiller 1954) A.R. Loeb. 1965 (= *M. edax* J. Schiller)
- 1631 *Katodinium fontinalis* C.E.M. Bicudo & Skvortsov 1970
- Katodinium fungiforme* (Anisimova 1920) A.R. Loeb. 1965 (= *Gymnodinium fungiforme* Anisimova 1920, *M. crassifilum* J. Schiller 1954, *K. crassifilum* (J. Schiller) A.R. Loeb. 1965, *M. austriacum* J. Schiller 1955, *K. austriacum* (J. Schiller) A.R. Loeb. 1965, *Gym. blax* T.M. Harris 1940)
- 1633 *Katodinium galeatum* (W. Conrad & Kuff. 1954) A.R. Loeb. 1965 (= *Massartia galeata* Conrad & Kuff.)
- 1634 *Katodinium glandula* (Herdman 1924) A.R. Loeb. 1965
- 1635 *Katodinium glaucum* (M. Lebour 1917) A.R. Loeb. 1965 (= *Gyrodinium glaucum* (M. Lebour) Kof. & Swezy 1921)
- 1636 *Katodinium hiemale* (J. Schiller 1954) A.R. Loeb. 1965 (= *Gymnodinium hiemale* (J. Schiller) Popovský 1984, *M. hiemalis* J. Schiller)
- 1637 *Katodinium hyperxanthum* (T.M. Harris 1940) A.R. Loeb. 1965 (= *M. hyperxanthoides* T.H. Harris, *K. hyperxanthoides* (T.M. Harris) A.R. Loeb., *K. molopicum* (T.M. Harris 1940) A.R. Loeb. 1965)
- 1638 *Katodinium intermedium* Christen 1959
- 1639 *Katodinium mazuricum* Javorn. 1965
- 1640 *Katodinium monadicum* (Perty 1852) Javorn. 1970 (= *Katodinium polyplastidum* Popovský 1968, *Gymnodinium monadicum* (Perty) Kent 1880)
- 1641 *Katodinium montanum* (J. Schiller 1955) A.R. Loeb. 1965 (= *Massartia montana* J. Schiller)
- 1642 *Katodinium nieuportense* (W. Conrad 1926) Loeb. & A.R. Loeb. 1966
- 1643 *Katodinium planum* (Fott 1938) A.R. Loeb. 1965 (= *M. plana* Fott)
- 1644 *Katodinium pluristigmatum* P.H. Campb. 1973
- 1645 *Katodinium ruppieae* (W. Conrad 1939) A.R. Loeb. 1965

Table 2. Continued.

- 1646 *Katodinium sanctipaulense* C.E.M. Bicudo & Skortzov 1970
- 1647 *Katodinium schilleri* (Wolosz. 1936) A.R. Loeblich 1965 (= *M. schilleri* Wolosz., *M. pyrtica* T.M. Harris 1940, *K. pyrticum* (T.M. Harris 1940) A.R. Loeblich 1965)
- 1648 *Katodinium simile* Christen 1961
- 1649 *Katodinium spirodinoides* Christen 1961
- Katodinium stigmaticum* (Er. Lindem. 1928) A.R. Loeblich 1965 (= *Gymnodinium stigmaticum* Er. Lindem., *M. campylops* T.M. Harris 1940, *Katodinium campylops* (T.M. Harris 1940) Loeblich 1965, *K. astigmatum* Christen 1959)
- 1651 *Katodinium thiophila* (W. Conrad 1939) Hulburt, J.J.A. McLaughlin & P.A. Zahl (= *K. thiophilum* (W. Conrad) A.R. Loeblich 1965)
- 1652 *Katodinium tubulatum* (Rampi 1969) Sournia 1973 (= *M. tubulata* Rampi)
- 1653 *Katodinium uncinatum* (W. Conrad & Kuff. 1957) A.R. Loeblich 1965 1965 (= *M. uncinata* W. Conrad & Kuff. 1954)
- 1654 *Katodinium viera* Javorn. 1970
- 1655 *Katodinium notatum* (Skuja) Christen 1961 (= *Opisthoaulax piscinalis* (Fott 1957) Calado 2011)
- 1656 *Katodinium piscinale* Fott 1957 (= *Opisthoaulax piscinalis* (Fott 1957) Calado 2011)
- Katodinium viride* Christen 1961 (= *K. vernale* Christen 1961, *?M. pratensis* Baumeister 1943, *?K. pratensis* (Baumeister) A.R. Loeblich 1965, *?K. pratense* (Baumeister) Christen, *?Opisthoaulax vorticella* (F. Stein 1878) Calado 2011)
- 199 ***Opisthoaulax*** Calado 2011 (= *Massartia* Conrad 1926, *Katodinium* Fott 1957) -type *O. vorticella*
- 1658 *Opisthoaulax campylops* (T.M. Harris 1940) Calado 2011 (= *M. campylops* T.M. Harris 1940, *K. campylops* (T.M. Harris) A.R. Loeblich 1965)
- 1659 *Opisthoaulax fastigata* (B. Kirchhoff & Barbara Mey. 1995) Calado 2011 (= *K. fastigatum* B. Kirchhoff & Barbara Mey. 1995)
- Opisthoaulax musei* (Danysz 1886) Calado 2011 (= *Gymnodinium musei* Danysz, *M. musei* (Danysz) J. Schiller (1933, *K. musei* (Danysz) A.R. Loeblich 1965, *?Opisthoaulax woloszynskae* (J. Schiller 1933) Calado 2011) 'musei'
- 1660 *Opisthoaulax piscinalis* (Fott 1957) Calado 2011 (= *K. piscinale* Fott, *?O. woloszynskae* (J. Schiller 1933) Calado 2011)
- 1661 *Opisthoaulax tetragonops* (T.M. Harris 1940) Calado 2011 (= *M. tetragonops* T.M. Harris, *K. tetragonops* (T.M. Harris) A.R. Loeblich 1965)
- Opisthoaulax vorticella* (F. Stein 1878) Calado 2011 (= *Gymnodinium vorticella* F. Stein, *Gyrodinium vorticella* (F. Stein) Er. Lindemann (1924), *M. vorticella* (F. Stein) J. Schiller 1933, *K. vorticella* (F. Stein) A.R. Loeblich 1965, *Gymnodinium stigmaticum* Er. Lindemann 1928, *?K. viride* Christen 1961, *?K. vernale* Christen 1961, *?M. pratensis* Baumeister 1943, *?K. pratensis* (Baumeister) A.R. Loeblich 1965, *?K. pratense* (Baumeister) Christen)
- 1663 *Opisthoaulax woloszynskae* (J. Schiller 1933) Calado 2011 (= *M. woloszynskae* J. Schiller, *Spirodinium vorticella* Wolosz., *K. woloszynskae* (J. Schiller 1933) A.R. Loeblich 1965, *M. woloszynskae* J. Schiller 1933, *?K. musei* (Danysz) A.R. Loeblich, *?K. piscinale* Fott 1957, *?K. notatum* (Skuja) Christen 1961, non *M. vorticella* (F. Stein) J. Schiller)
- 1664 *Opisthoaulax woloszynskae* (J. Schiller 1933) Calado 2011 (= *M. woloszynskae* J. Schiller, *Spirodinium vorticella* Wolosz., *K. woloszynskae* (J. Schiller 1933) A.R. Loeblich 1965, *M. woloszynskae* J. Schiller 1933, *?K. musei* (Danysz) A.R. Loeblich, *?K. piscinale* Fott 1957, *?K. notatum* (Skuja) Christen 1961, non *M. vorticella* (F. Stein) J. Schiller)
- 200 ***Tovellia*** Moestrup, K.C.R. Lindberg & Daugbjerg 2005 (= *Woloszynskia* R.H. Thomps. 1951) -type *T. coronata*
- 1665 *Tovellia apiculata* (Stosch 1973) Moestrup, K.C.R. Lindberg & Daugbjerg 2005 (= *Woloszynskia apiculata* Stosch)
- 1666 *Tovellia coronata* (Wolosz. 1918) Moestrup, K.C.R. Lindberg & Daugbjerg 2005 (= *Gym. coronatum* Wolosz., *?W. coronata* (Wolosz.) R.H. Thompson 1951)
- 1667 *Tovellia glabra* (Wolosz. 1918) Moestrup, K.C.R. Lindberg & Daugbjerg 2005 (= *Gymnodinium glabra* Wolosz.)
- 1668 *Tovellia leopoliensis* (Wolosz. 1918) Moestrup, K.C.R. Lindberg & Daugbjerg 2005 (= *Gym. leopoliense* Wolosz., *W. leopoliensis* (Wolosz.) R.H. Thompson 1951)
- 1669 *Tovellia nygaardii* (Christen 1958) Moestrup, K.C.R. Lindberg & Daugbjerg 2005 (= *Gym. nygaardii* Christen, *W. nygaardii* (Christen) A.R. Loeblich 1970)
- 1670 *Tovellia sanguinea* Moestrup, Gert Hansen, Daugbjerg, Flaim & D'Andrea 2006 (= *Glen. pulvisculus* var. *oculatum* Largajolli 1907, *Glen. sanguineum* Marchesoni 1941, non *Glen. sanguineum* (H.J. Carter 1858) Diesing 1866)
- 1671 *Tovellia stoschii* (Christen 1958) Moestrup, K.C.R. Lindberg & Daugbjerg 2005 (= *Woloszynskia stoschii* R. Shyam & Y.S.R.K. Sarma 1976)
- Woloszynskiaceae** Bourr. 1970 ex Starmach 1974
- 201 ***Woloszynskia*** R.H. Thomps. 1951 -type *W. reticulata*
- 1672 *Woloszynskia limnetica* Bursa 1958

Table 2. Continued.

- 1673 *Woloszynskia neglecta* (A.J. Schill. 1891) R.H. Thomps. 1951 (= *Glenodinium neglectum* A.J. Schill.)
 1674 *Woloszynskia ordinata* (Skuja 1939) R.H. Thomps. 1950 (= *Gymnodinium ordinatum* Skuja 1939)
 1675 *Woloszynskia reticulata* R.H. Thomps. 1951
 1676 *Woloszynskia tylota* (Mapletoft, J. Waters & P. Wells 1966) Bibby & J.D. Dodge 1972 (= *Gymnodinium tylotum* Mapletoft, J. Waters & P. Wells)

Uncertain order, Apodiniaceae Chatton 1920

- 202 *Apodinium* Chatton 1907 -type *A. mycetoides*
 1677 *Apodinium chattonii* (Cachon 1964) Cachon & Cachon-Enjumet 1973 (= *Parapodinium chattonii* Cachon)
 1678 *Apodinium floodii* N. McLean & C.P. Galt 1990
 1679 *Apodinium mycetoides* Chatton 1907
 1680 *Apodinium rhizophorum* Chatton 1912 (= *Parapodinium catenaria* Cachon 1964)
 1681 *Apodinium zygorhizum* Cachon & Cachon-Enjumet 1973 (= *Parapodinium catenaria* Cachon 1964)
 203 *Parapodinium* Chatton 1920 -type *P. stylipes*
 1682 *Parapodinium stylipes* Chatton 1920
 1683 *Parapodinium catenaria* Cachon 1964

Order Actiniscales Sournia 1984**Actiniscaceae** Kützinger 1844 (incl. Gymnasteraceae Er. Lindem. 1928)

- 204 *Actiniscus* Ehrenb. 1843 (= *Diaster* Meunier 1910, *Gymnaster* F. Schütt 1891) -type *A. pentasterias*
 1684 *Actiniscus canadensis* Bursa 1969
Actiniscus pentasterias (Ehrenb. 1840) Ehrenb. 1854 (= *Dictyocha pentasterias* Ehrenb., *Gymnaster pentasterias* Ehrenb.) F. Schütt 1891, *Diaster macrokaryon* Meunier 1910, *Gymnaster striatum* Meunier 1910, *G. helix* Meunier 1910)

Dicroerismataceae Fensome & al. 1993

- 205 *Dicroerisma* F.J.R. Taylor & Cattell 1969
 1686 *Dicroerisma psilonereia* F.J.R. Taylor & Cattell 1969

Order Amphilothes Er. Lindem. 1928**Amphitholaceae** Poche 1913 / **Amphilotheaceae**

- 206 *Achradina* Lohmann 1902 -type *A. pulchra*
 1687 *Achradina pulchra* Lohmann 1902 (= *A. pulchra* f. *truncata* Nival 1969, *A. pulchra* f. *spatulata* Nival 1969, *A. pulchra* f. *nervosa* Nival 1969, *A. pulchra* f. *aciculata* Nival 1969)
 1688 *Achradina angusta* Lohmann 1919 (= *A. pulchra* f. *angustata* (Lohmann) Nival 1969)
 1689 *Achradina reticulata* Lohmann 1919 (= *A. pulchra* f. *reticulata* (Lohmann) Nival 1969)
 1690 *Achradina sulcata* Lohmann 1919 (= *A. pulchra* f. *sulcata* (Lohmann) Nival 1969)
 207 *Amphilothus* Kof. 1907 ex Poche 1913 (= *Amphitholus* F. Schütt 1895, *Monaster* F. Schütt) -type *A. elegans*
 1691 *Amphitholus elegans* F. Schütt 1895 (= *A. elegans* (F. Schütt) Er. Lindem. 1928)
 1692 *Amphilothus quincuncialis* Kof. 1907

Order Prorocentrales Lemmerm. 1910**Haplodiniaceae** Er. Lindem. 1928

- 208 *Haplodinium* G.A. Klebs 1912 (= *Exuviaella* Cienk.) -type *H. antjoliense*
 1693 *Haplodinium antjoliense* G.A. Klebs 1912 (= *Prorocentrum foveolata* Croome & P.A. Tyler 1987)
 1694 *Haplodinium indicum* Subrahman. 1966
 1695 *Haplodinium iyengaricum* Subrahman. 1966
 1696 *Haplodinium jonesianum* Subrahman. 1966

Prorocentraceae F. Stein 1883

- 209 *Prorocentrum* pro *Exuviaella* Cienk. 1881 (= *Dinopyxis* F. Stein 1883, ? *Haplodinium* G.A. Klebs 1912) -type *E. marina* (29 species)
 1697 *Exuviaella cavanillesiana* P. González 1945
 1698 *Prorocentrum belizeanum* M.A. Faust 1993

Table 2. Continued.

- 1699 *Prorocentrum borbonicum* Ten-Hage, J. Turquet, J.P. Quod, Puiseux-Dao & Couté 2000
- 1700 *Prorocentrum caribbaeum* M.A. Faust 1993
- 1701 *Prorocentrum cassubicum* (Wolosz. 1928) J.D. Dodge 1975
- 1702 *Prorocentrum clipeus* Hoppenrath 2000
- Prorocentrum compressum* (J.W. Bailey 1851) T.H. Abé ex J.D. Dodge 1975 (= *E. oblonga* J. Schiller 1928, *E. elongata* Rampi 1951, *E. compressa* Ostenf. 1899, *P. bidens* J. Schiller 1928, non *P. lenticulatum* (Matzen.) F.J.R. Taylor 1976, nec *P. lebouriae* J. Schiller 1928, *P. hentschlii* J. Schiller 1933 in J.D. Dodge 1982, *Dinopyxis compressa* (J.W. Bailey) F. Stein)
- 1703 *Prorocentrum concavum* Fukuyo 1981 (= *Prorocentrum arabianum* S.L. Morton & M.A. Faust 2002)
- 1705 *Prorocentrum consutum* Chomérat & Nézan 2010
- 1706 *Prorocentrum dactylus* (F. Stein 1883) J.D. Dodge 1975 (= *E. dactylus* (F. Stein) F. Schütt 1895, *Dinopyxis dactylus* F. Stein)
- 1707 *Prorocentrum elegans* M.A. Faust 1993
- 1708 *Prorocentrum faustiae* S.L. Morton 1998
- 1709 *Prorocentrum foraminosum* M.A. Faust 1993
- 1710 *Prorocentrum formosum* M.A. Faust 1993
- 1711 *Prorocentrum foveolatum* Croome & P.A. Tyler 1987 (= *E. lima* var. *scrobiculata* Playfair, ? *Haplodinium antjoliense* G.A. Klebs 1912)
- 1712 *Prorocentrum hoffmannianum* M.A. Faust 1990 (= *E. hoffmanniana* (M.A. Faust) J.L. McLachlan & Boalch 1997)
- 1713 *Prorocentrum leve* M.A. Faust, M.W. Vandersea, S.R. Kibler, P.A. Tester & R.W. Litaker 2008 'levis'
- Prorocentrum lima* (Ehrenb. 1860) J.D. Dodge 1975 (= *P. arenarium* M.A. Faust 1994, *E. marina* Cienk. 1881, *E. caspica* Kisselev 1940, *E. lima* (Ehrenb.) Buetschli 1885, *Dinopyxis laevis* F. Stein 1883, *E. laevis* (F. Stein) Schröd. 1900, *E. chathamensis* Lemmerm. 1907, *E. cincta* J. Schiller 1918, *E. ostenfeldii* J. Schiller 1931, *Prorocentrum marinum* J.D. Dodge & Bibby 1973)
- 1714 *Prorocentrum maculosum* M.A. Faust 1993 (= *E. maculosa* (M.A. Faust) J.L. McLachlan & Boalch 1997)
- 1716 *Prorocentrum norrisianum* M.A. Faust 1997
- 1717 *Prorocentrum playfairii* Croome & P.A. Tyler 1987 (= *E. lima* var. *major* Playfair 1920)
- 1718 *Prorocentrum pusillum* (J. Schiller 1928) A.R. Loeb. 1976 (= *E. pusilla* J. Schiller 1928, non *P. nanum* J. Schiller 1918)
- 1719 *Prorocentrum reticulatum* M.A. Faust 1997
- 1720 *Prorocentrum rivalis* D. Delmail, P. Labrousse, P. Crassous, P. Hourdin, M. Guri & M. Botineau 2011
- 1721 *Prorocentrum ruetzlerianum* M.A. Faust 1990
- 1722 *Prorocentrum sabulosum* M.A. Faust 1994
- 1723 *Prorocentrum sipadanensis* Mohammad-Noor, Daugbjerg & Moestrup 2007
- 1724 *Prorocentrum tropicale* M.A. Faust 1997
- 1725 *Prorocentrum vietnamensis* J.S. Yoo & Fukuyo 2004
- 210 **Mesoporos** Lillick 1937 (= *Porella* J. Schiller 1928, *Dinoporella* Halim 1960, *Porothea* P.C. Silva) -type *M. globulus*
- 1726 *Mesoporos parthasarathicus* Subrahman. 1966
- Mesoporos perforatus* (Gran 1915) Lillick 1937 (= *Porella adriatica* J. Schiller 1928, *P. asymmetrica* J. Schiller 1933, *P. bisimpresa* J. Schiller 1928, *P. globulus* J. Schiller 1928, *M. globulus* (J. Schiller) Lillick, *Dinoporella globulus* (J. Schiller) Halim 1960, *Dinoporella perforata* (Gran 1915) Gran 1928, *Porothea perforata* (Gran) P.C. Silva 1960)
- 1727 **Prorocentrum** Ehrenb. 1834 sensu stricto (= *Postprorocentrum* Gourret 1883) -type *P. micans* (34 species)
- 211 *Prorocentrum aporum* (J. Schiller 1928) J.D. Dodge 1975 (= *P. antarcticum* (Y. Hada 1970) Balech 1976, *E. granii* Gaarder 1938)
- 1728 *Prorocentrum arcuatum* Issel 1928
- 1730 *Prorocentrum balticum* (Lohmann 1908) A.R. Loeb. 1970 (= *P. pomoideum* Bursa 1959, ? *P. ponticum* Krachmalny & Terenko 2002)
- 1731 *Prorocentrum dentatum* F. Stein 1883 (= *P. donghaiense* D. Lu 2001, = ? *P. obtusidens* J. Schiller 1928, ? *P. monacense* Kuff. 1957, non *P. veloi* Osorio-Tafall 1942, non *P. shikokuense* Y. Hada 1975)
- 1732 *Prorocentrum emarginatum* Fukuyo 1981
- 1733 *Prorocentrum fukuyoi* Sh. Murray & Y. Nagah. 2007

Table 2. Continued.

- 1734 *Prorocentrum gracile* F. Schütt 1895 (= *P. diamantinae* E.J.F. Wood 1963, non *P. sigmoides* Böhm 1933)
- 1735 *Prorocentrum lebouriae* J. Schiller 1928 (non *P. compressum* (J.W. Bailey 1850) T.H. Abé ex J.D. Dodge 1975)
- 1736 *Prorocentrum lenticulatum* (Matzen. 1933) F.J.R. Taylor 1976 (= *E. lenticulata* Matzen., non *P. compressum* (J.W. Bailey 1850) T.H. Abé ex J.D. Dodge 1975, ? *E. aequatorialis* Hasle 1960)
- 1737 *Prorocentrum magnum* (Gaarder 1954) J.D. Dodge 1975
- 1738 *Prorocentrum maximum* (Gourret 1883) J. Schiller 1937 (= *P. brochii* J. Schiller 1918, non *P. mexicanum* Osorio-Tafall 1942)
- 1739 *Prorocentrum mexicanum* Osorio-Tafall 1942 (non *P. rhathymum* A.R. Loebli., J.L. Sherley & R.J. Schmidt 1979)
- 1740 *Prorocentrum micans* Ehrenb. 1834 (= *P. schilleri* Böhm 1933, *P. gibbosum* (J. Schiller 1929) J. Schiller 1933, *P. levantoides* Bursa 1959, *P. pacificum* E.J.F. Wood 1963, non *E. pacifica* Kusjmina 1960)
- 1741 *Prorocentrum minimum* (Pavill. 1916) J. Schiller 1931 (= *E. minima* Pavill. 1916, *E. apora* J. Schiller, *P. triangulatum* G.W. Martin 1929, *E. marie-lebouriae* Parke & D. Ballant. 1957, *P. minimum* var. *triangulatum* (G.W. Martin) Hulburt 1965, *P. cordiforme* Bursa 1959, ? *P. cordatum* (Ostenf.) J.D. Dodge 1975)
- 1742 *Prorocentrum nanum* J. Schiller 1918 (non *P. pusillum* (J. Schiller 1928) A.R. Loebli. 1976)
- 1743 *Prorocentrum nux* Puigserver & Zingone 2002
- 1744 *Prorocentrum obtusidens* J. Schiller 1928 (= ? *P. dentatum* F. Stein 1883)
- 1745 *Prorocentrum obtusum* Ostenf. 1908
- 1746 *Prorocentrum ovum* (J. Schiller 1918) J.D. Dodge 1975
- 1747 *Prorocentrum ponticus* Krachmalny & Terenko 2002 (= ? *P. balticum* (Lohmann 1908) A.R. Loebli. 1970)
- 1748 *Prorocentrum redfieldii* Bursa 1959 (= ? *P. triestinum* J. Schiller 1918)
- 1749 *Prorocentrum rhathymum* A.R. Loebli., J.L. Sherley & R.J. Schmidt 1979 (non *P. mexicanum* Osorio-Tafall 1942)
- 1750 *Prorocentrum robustum* Osorio-Tafall 1942 (non *P. scutellum* Schröd. 1900)
- 1751 *Prorocentrum rostratum* F. Stein 1883 (= *P. styliferum* Lohmann 1920, *P. tenue* Lohmann 1920)
- 1752 *Prorocentrum rotundatum* J. Schiller 1928 (= *P. cornutum* J. Schiller 1918)
- 1753 *Prorocentrum sculptile* M.A. Faust 1994
- 1754 *Prorocentrum scutellum* Schröd. 1900 (= *P. sphaeroideum* J. Schiller 1928, non *P. robustum* Osorio-Tafall 1942)
- 1755 *Prorocentrum shikokuense* Y. Hada 1975 (= ? *P. donghaiense* D. Lu 2001, non *P. dentatum* F. Stein 1883)
- 1756 *Prorocentrum sigmoides* Böhm 1933 (non *P. gracile* F. Schütt 1895)
- 1757 *Prorocentrum triestinum* J. Schiller 1918 (= *P. setoutii* Y. Hada 1975, non *P. shikokuense* Y. Hada 1975, ? *P. redfieldii* Bursa 1959, *P. pyrenoideum* Bursa 1959)
- 1758 *Prorocentrum tsawwassenense* Hoppenrath & B.S. Leander 2008
- 1759 *Prorocentrum vaginula* (F. Stein 1883) J.D. Dodge 1975 (= *P. adriaticum* J. Schiller 1918, *Dinopyxis vaginula* F. Stein)
- 1760 *Prorocentrum veloi* Osorio-Tafall 1942 (non *P. dentatum* F. Stein 1883)
- 1761 *Prorocentrum venetum* Tolomio & Cavolo 1985

Order Prorocentrales, Family of *Prorocentrum panamense***212 Genus of *Prorocentrum panamense***

- 1762 *Prorocentrum panamense* Grzebyk, Y. Sako & B. Berland 1998
- 1763 *Prorocentrum glenanicum* Chomérat & Nézan 2011
- 1764 *Prorocentrum pseudopanamense* Chomérat & Nézan 2011

Order Prorocentrales, Family of *Plagiodinium***213 *Plagiodinium* M.A. Faust & Balech 1993**

- 1765 *Plagiodinium belizeanum* M.A. Faust & Balech 1993

Order Dinophysales Er. Lindem. 1928**Amphisoleniaceae Er. Lindem. 1928**

- 214 *Amphisolenia* F. Stein 1883 -type *A. globifera* (37 species)
- 1766 *Amphisolenia acuta* S. Gul & Saifullah 2007
- 1767 *Amphisolenia astragalus* Kof. & J.R. Michener 1911

Table 2. Continued.

- 1768 *Amphisolenia asymmetrica* Kof. 1907
- 1769 *Amphisolenia bidentata* Schröd. 1900 (non *A. bidentata* Pavill. 1916, non *A. bidentata* Okamura 1907)
- 1770 *Amphisolenia bifurcata* G. Murray & Whitting 1899 (= *A. thrinax* O. Zacharias 1906, *A. projecta* Kof. 1907)
- 1771 *Amphisolenia biprojecta* Saifullah & D. Hassan 1973
- 1772 *Amphisolenia bispinosa* Kof. 1907
- 1773 *Amphisolenia brevicauda* Kof. 1907
- 1774 *Amphisolenia clavipes* Kof. 1907
- 1775 *Amphisolenia complanata* Kof. & Skogsb. 1928
- 1776 *Amphisolenia curvata* Kof. 1907
- 1777 *Amphisolenia deltiana* S. Gul & Saifullah 2007
- 1778 *Amphisolenia elegans* Böhm 1933
- 1779 *Amphisolenia elongata* Kof. & Skogsb. 1928
- 1780 *Amphisolenia extensa* Kof. 1907
- 1781 *Amphisolenia fusiformis* Ceballos-Corona & Hernández-Becerril 2008
- 1782 *Amphisolenia globifera* F. Stein 1883 (= *A. globosa* Gran 1912, *A. tenella* Gran 1912)
- 1783 *Amphisolenia inflata* G. Murray & Whitting 1899
- 1784 *Amphisolenia laticincta* Kof. 1907
- 1785 *Amphisolenia lemmermannii* Kof. 1907
- 1786 *Amphisolenia michoacana* Ceballos-Corona & Hernández-Becerril 2008
- 1787 *Amphisolenia microcephalus* T.H. Abé 1967
- 1788 *Amphisolenia mozambica* Sournia 1967 (= *A. sigma* Halim 1965)
- 1789 *Amphisolenia nizamuddinii* S. Mansoor & Saifullah 1995
- 1790 *Amphisolenia palaeotheroides* Kof. 1907
- 1791 *Amphisolenia palmata* F. Stein 1883
- 1792 *Amphisolenia quadricauda* Kof. & J.R. Michener 1911 (= *A. quinquecauda* Kof. 1907)
- 1793 *Amphisolenia quadrispina* Kof. 1907
- 1794 *Amphisolenia rectangulata* Kof. 1907
- 1795 *Amphisolenia schauinslandii* Lemmerm. 1899
- 1796 *Amphisolenia schroederi* Kof. 1907
- 1797 *Amphisolenia sigma* Halim 1965 (= *A. spinulosa* Kof. 1907, ? *A. mozambica* Sournia 1967)
- 1798 *Amphisolenia spinulosa* Kof. 1907
- 1799 *Amphisolenia taylorii* Saifullah & D. Hassan 1973
- 1800 *Amphisolenia testa* Balech 1962
- 1801 *Amphisolenia thrinax* F. Schütt 1893 (non *A. thrinax* O. Zacharias 1906)
- 1802 *Amphisolenia truncata* Kof. & J.R. Michener 1911
- 215 ***Triposolenia*** Kof. 1906 -type *A. truncata* (10 species)
- 1803 *Triposolenia ambulatrix* Kof. 1907 (non *T. ambulatrix* Jørg. 1923)
- 1804 *Triposolenia bicornis* Kof. 1906
- 1805 *Triposolenia depressa* Kof. 1906 (= *T. ambulatrix* Jørg. 1923)
- 1806 *Triposolenia exilis* Kof. 1906
- 1807 *Triposolenia fallax* Hernández-Becerril & Meave del Castillo 1999
- 1808 *Triposolenia fatula* Kof. 1907
- 1809 *Triposolenia intermedia* Kof. & Skogsb. 1928
- 1810 *Triposolenia longicornis* Kof. 1907
- 1811 *Triposolenia ramificiformis* Kof. 1906
- 1812 *Triposolenia truncata* Kof. 1906

Table 2. Continued.

Oxyphysaceae Sournia 1984

- 216 *Dinofurcula* Kof. & Skogsb. 1928 -type *D. ultima*
- 1813 *Dinofurcula ultima* (Kof. 1906) Kof. & Skogsb. 1928
- 1814 *Dinofurcula ventralis* Kof. & Skogsb. 1928
- 217 *Latifascia* Loeb. & A.R. Loeb. 1966 (= *Heteroschisma* Kof. & Skogsb. 1928) -type *L. inaequale*
- 1815 *Latifascia inaequale* (Kof. & Skogsb. 1928) Loeb. & A.R. Loeb. 1966 (= *Heteroschisma inaequale* Kof. & Skogsb.)
- 1816 *Latifascia subantarctica* (Balech 1971) Okolodkov 2006 (= *Heteroschisma subantarcticum* Balech)
- 218 *Proheteroschisma* L.S. Tai & Skogsb. 1934
- 1817 *Proheteroschisma connectens* L.S. Tai & Skogsb. 1934
- 219 *Phalacroma* F. Stein 1883 (= *Oxyphysis* Kof. 1926, *Prodinophysis* Balech 1944) -type *P. porodictyum* (69 species)
- 1818 *Dinophysis micropterygia* P.A. Dangeard 1927
- 1819 *Phalacroma alatum* E.J.F. Wood 1954 (= *D. paralata* Sournia 1973)
- 1820 *Phalacroma biceps* (J. Schiller 1928) J. Schiller 1933 (= *D. biceps* J. Schiller)
- 1821 *Phalacroma bipartitum* Kof. & Skogsb. 1928 (= *D. bipartita* (Kof. & Skogsb.) Balech 1967)
- 1822 *Phalacroma circumcinctum* Kof. & J.R. Michener 1911 (= *D. circumcincta* (Kof. & J.R. Michener) Balech 1967)
- 1823 *Phalacroma circumsutum* G. Karst. 1907 (= *D. circumsuta* (G. Karst.) Balech 1967)
- 1824 *Phalacroma complanatum* Gaarder 1954
- 1825 *Phalacroma contractum* Kof. & Skogsb. 1928 (= *D. contracta* (Kof. & Skogsb. 1928) Balech 1967, *Ph. ruudii* Braarud 1935)
- 1826 *Phalacroma cornutum* N. Peters 1928 (= *D. cornuta* (N. Peters) Balech 1967, *Phalacroma cornutum* ssp. *inermis* Balech 1965, *D. cornuta* ssp. *inermis* (Balech in Balech & S. El-Sayed) Sournia 1973)
- 1827 *Phalacroma cuneolus* Kof. & Skogsb. 1928 (= *D. cuneolus* (Kof. & Skogsb.) Balech 1967)
- 1828 *Phalacroma cuneus* F. Schütt 1895 (= *D. cuneus* (F. Schütt) T.H. Abé vel Balech 1967, *Ph. blackmanii* G. Murray & Whitting 1899, *Ph. triangulare* E.J.F. Wood 1954, *D. triangulare* (E.J.F. Wood) Balech 1967)
- 1829 *Phalacroma dens* Kof. & Skogsb. 1928 (= *D. dens* (Kof. & Skogsb.) Balech 1967, non *D. dens* Pavill. 1915)
- 1830 *Phalacroma dolychopterygium* G. Murray & Whitting 1899 (= *D. dolychopterygium* (G. Murray & Whitting) Balech 1967)
- 1831 *Phalacroma doryphorum* F. Stein 1883 (= *D. doryphora* (F. Stein 1883) T.H. Abé vel Balech 1967 (= *D. doryphorides* (P.A. Dangeard 1927) Balech 1967)
- 1832 *Phalacroma elongatum* Jørg. 1923 (= *D. elongata* (Jørg. 1923) T.H. Abé vel Balech 1967, *D. minuta* (Cleve 1900) Balech 1967)
- 1833 *Phalacroma favus* Kof. & J.R. Michener 1911 (= *P. hindmarchii* Pavill. 1916)
- 1834 *Phalacroma fimbriatum* Kof. & J.R. Michener 1911 (= *D. fimbriata* (Kof. & J.R. Michener) Balech 1967)
- 1835 *Phalacroma giganteum* Kof. & J.R. Michener 1911 (= *D. gigantea* (Kof. & J.R. Michener) Balech 1967)
- 1836 *Phalacroma globulus* F. Schütt 1895 (= *D. globulus* (F. Schütt) Balech 1967, *Heteroschisma globulus* (F. Schütt) J. Schiller 1931)
- 1837 *Phalacroma hindmarchii* G. Murray & Whitting 1899 (= *D. hindmarchii* (G. Murray & Whitting) Balech 1967, non *Ph. hindmarchii* Pavill. 1916)
- 1838 *Phalacroma irregulare* M. Lebour 1925 (= *D. irregularis* (M. Lebour) Balech 1967)
- 1839 *Phalacroma jibbonense* E.J.F. Wood 1954 (= *D. jibbonensis* (E.J.F. Wood) Balech 1967)
- 1840 *Phalacroma lacrima* Gaarder 1954 (= *D. lacrima* (Gaarder) Balech 1967)
- 1841 *Phalacroma lativelatum* Kof. & Skogsb. 1928 (= *D. lativelata* (Kof. & Skogsb.) Balech 1967)
- 1842 *Phalacroma latum* Gaarder 1954 (= *D. lata* (Gaarder 1954) Balech 1967, non *D. lata* Balech 1971 = *D. sourniai* Balech 1978)
- 1843 *Phalacroma lens* Kof. & Skogsb. 1928 (= *D. lens* (Kof. & Skogsb.) Balech 1967)
- 1844 *Phalacroma lenticula* Kof. 1907 (= *D. neolenticula* Sournia 1973, non *D. lenticula* Daday 1888, nec *D. lenticula* Pavill. 1916)
- 1845 *Phalacroma limbatum* Kof. & J.R. Michener 1911 (= *D. michenerae* Sournia 1973)
- 1846 *Phalacroma longialatum* Gaarder 1954 (= *D. fortunata* Sournia 1973, *Heteroschisma longialatum* (Gaarder) Balech 1967, non *D. longialata* Gran & Braarud 1935)
- 1847 *Phalacroma mawsonii* E.J.F. Wood 1954 (= *D. mawsonii* (E.J.F. Wood) Balech 1967, ?*Ph. tuberculatum* Galil 1959)

Table 2. Continued.

- 1848 *Phalacroma minutum* Cleve 1900 (= *D. minuta* (Cleve) Balech 1967)
- 1849 *Phalacroma mitra* F. Schütt 1895 (= *D. mitra* (F. Schütt 1895) T.H. Abé vel Balech 1967, *Ph. rapa* F. Stein 1883, *Ph. dolichopterygium* G. Murray & Whitting 1899)
- 1850 *Phalacroma modestum* Böhm 1936 (= *D. modesta* (Böhm) Balech 1967)
- 1851 *Phalacroma monacanthum* G.I. Gail 1950 (non *D. monacantha* Kof. & Skogsb. 1928)
- 1852 *Phalacroma mucronatum* Kof. & Skogsb. 1928 (= *D. mucronata* (Kof. & Skogsb. 1928) Sournia 1973, = *D. paulsenii* (J. Schiller 1928) Balech 1967, non *D. paulsenii* Wolosz. 1928)
- 1853 *Phalacroma okamurai* Pavill. 1931 (= *D. mitroides* Sournia 1973, non *D. okamurai* Kof. & Skogsb. 1928)
- 1854 *Phalacroma operculatum* F. Stein 1883 (= *D. operculata* (F. Stein 1883) Balech 1967)
- 1855 *Phalacroma operculoides* F. Schütt 1895 (= *D. operculoides* (F. Schütt) Balech 1967)
- 1856 *Phalacroma ovatum* (Clap. & J. Lachm. 1859) Jørg. 1923
- 1857 *Phalacroma ovum* F. Schütt 1895 (= *D. amandula* (Balech 1967) Sournia 1973, *D. amygdala* Balech 1967, *Ph. ovum* F. Schütt 1895, non *D. amygdalus* Paulsen 1949, non *D. ovum* F. Schütt 1895)
- 1858 *Phalacroma oxytoxoides* (Kof. 1926) F. Gómez, P. López-García & D. Moreira 2011 (= *Oxyphysis oxytoxoides* Kof.)
- 1859 *Phalacroma parvulum* (F. Schütt 1895) Jørg. 1923 (= *P. porodictyum* F. Stein var. *parvula* F. Schütt, *D. oviformis* J. Schiller 1928)
- 1860 *Phalacroma paulsenii* Kof. & Skogsb. 1928 (= *D. groenlandica* (J. Schiller 1933) Balech 1967)
- 1861 *Phalacroma pirum* Gaarder 1954 (= *Heteroschisma pirum* (Gaarder) Balech 1967)
- 1862 *Phalacroma planiceps* J. Schiller 1928 (= *D. planiceps* (J. Schiller 1928) Balech 1967)
- 1863 *Phalacroma porodictyum* F. Stein 1883 (= *Phalacroma acutum* (F. Schütt 1895) Pavill. 1916, *D. acutoides* Balech 1967, non *D. acuta* Ehrenb. 1839)
- 1864 *Phalacroma porosum* (Kof. & Skogsb. 1928 (= *D. perforata* Sournia 1973, *D. porosa* (Kof. & Skogsb.) Balech 1967)
- 1865 *Phalacroma praetextum* Kof. & J.R. Michener 1911 (= *D. praetexta* (Kof. & J.R. Michener) Balech 1967)
- 1866 *Phalacroma protuberans* Kof. & Skogsb. 1928 (= *D. protuberans* (Kof. & Skogsb.) Balech 1967)
- 1867 *Phalacroma pugiunculus* Jørg. 1923 (= *D. pugiunculus* (Jørg.) Balech 1967)
- 1868 *Phalacroma pulchellum* M. Lebour 1922 (= *Pseudophalacroma pulchellum* (M. Lebour) G.I. Gail 1950, *D. pulchella* (M. Lebour) Balech 1967)
- 1869 *Phalacroma pulchrum* Kof. & J.R. Michener 1911 (= *D. pulchra* (Kof. & J.R. Michener) Balech 1967)
- 1870 *Phalacroma pyriforme* Kof. & Skogsb. 1928 (= *D. pyriformis* (Kof. & Skogsb.) Balech 1967)
- 1871 *Phalacroma rapa* F. Stein 1883 (= *D. rapa* (F. Stein) Balech 1967)
- 1872 *Phalacroma reticulatum* Kof. 1907 (= *D. rete* Sournia 1973, = *D. reticulata* (Kof. 1907) Balech 1967, non *D. reticulata* Gaarder 1954)
- 1873 *Phalacroma richardii* Pavill. 1934 (= *D. richardii* (Pavill. 1934) Balech 1967, ?*D. ruudii* (Braarud 1935) Balech 1967)
- 1874 *Phalacroma robustum* Gaarder 1954 (= *D. gaarderae* Sournia 1973, non *D. robusta* Gran & Braarud 1935)
- 1875 *Phalacroma rotundatum* (Clap. & J. Lachm. 1859) Kof. & J.R. Michener 1911 (= *D. rotundata* Clap. & J. Lachm., *D. whittingiae* Balech 1971, *Phalacroma rudgei* G. Murray & Whitting 1899, *D. rotundiformis* L.S. Tai & Skogsb. 1934)
- 1876 *Phalacroma rugosum* Gaarder 1954 (= *D. scabra* Sournia 1973, *D. rugosa* (Gaarder) Balech 1967)
- 1877 *Phalacroma scrobiculatum* (Balech 1971) Díaz-Ramos & G.J. Estrella de F. 2000 (= *D. scrobiculata* Balech)
- 1878 *Phalacroma sphaeroideum* J. Schiller 1928 (= *D. schilleri* Sournia 1973)
- 1879 *Phalacroma striatum* Kof. 1907 (= *D. striata* (Kof.) Balech 1967)
- 1880 *Phalacroma symmetricum* Gaarder 1954 (= *D. symmetrica* (Gaarder) Balech 1967)
- 1881 *Phalacroma thompsonii* E.J.F. Wood 1954 (= *D. thompsonii* (E.J.F. Wood) Balech 1967)
- 1882 *Phalacroma tuberculatum* G.I. Galil 1959 (= *D. tuberculata* (G.I. Gail) Konovalova 1998, ?*D. mawsonii* (E.J.F. Wood 1954) Balech 1988)
- 1883 *Phalacroma turbineum* Kof. & J.R. Michener 1911 (= *D. turbinea* (Kof. & J.R. Michener) Balech 1967)
- 1884 *Phalacroma vastiforme* L.S. Tai & Skogsb. 1934 (= *D. vastiformis* (L.S. Tai & Skogsb.) Balech 1967)
- 1885 *Phalacroma vastum* F. Schütt 1895 (= *D. vasta* (F. Schütt) Balech 1967)
- 1886 *Phalacroma whiteleggei* E.J.F. Wood 1954 (= *D. whiteleggei* (E.J.F. Wood) Balech 1967)
- Dinophysaceae** F. Stein 1883 (= Citharistaceae Kof. & Skogsb. 1928, Ornithocercaceae Kof. & Skogsb. 1928)

Table 2. Continued.

- 220 *Citharistes* F. Stein 1883 -type *C. regius*
- 1887 *Citharistes apsteinii* F. Schütt 1895
- 1888 *Citharistes regius* F. Stein 1883
- 221 ***Dinophysis*** Ehrenb. 1839 sensu stricto (= *Dinoceras* J. Schiller 1931, *Heteroceras* Forti 1901) -type *D. acuta* (58 species)
- 1889 *Dinophysis acuminata* Clap. & J. Lachm. 1859 (= *D. ovum* var. *baltica* Paulsen 1908, *D. baltica* (Paulsen) Wolosz. 1928, *D. baltica* (Paulsen) Kof. & Skogsb. 1928, *D. cassubica* Wolosz. 1928, *D. levanderi* Wolosz. 1928, *D. paulsenii* Wolosz. 1928, *D. boehmii* Paulsen 1949 ex Balech 1971, *D. borealis* Paulsen 1949, *D. lachmannii* Paulsen 1949, *D. skagii* Paulsen 1949, *D. simplex* Böhm 1933, non *D. simplex* Balech 1962)
- 1890 *Dinophysis acuta* Ehrenb. 1839 (= *D. dens* Pavill. 1915, ?*D. vermicula* C.H.G. Pouchet 1893)
- 1891 *Dinophysis amphora* Balech 1971
- 1892 *Dinophysis anabilis* T.H. Abé 1967
- 1893 *Dinophysis apiculata* Meunier 1910 (= ?*D. acuminata* Clap. & J. Lachm. 1859)
- 1894 *Dinophysis arctica* Mereschk. 1879 (= *D. granulata* Cleve 1899, *D. laevis* C.H.G. Pouchet 1883, non *D. laevis* Bergh 1881, *D. rotundata* Levander 1894, non *D. rotundata* Clap. & J. Lachm. 1859, ?*D. vertex* Meunier 1910)
- 1895 *Dinophysis bibulbus* Balech 1971
- 1896 *Dinophysis bicerias* J. Schiller 1928 (= *Dinoceras bicerias* J. Schiller 1933)
- 1897 *Dinophysis capitulata* Balech 1967
- 1898 *Dinophysis carpentariae* E.J.F. Wood 1963
- 1899 *Dinophysis caudata* Kent 1881 (= *D. homunculus* F. Stein 1883, *D. allieri* Gourret 1883, *D. inaequalis* Gourret 1883, *D. diegensis* Kof. 1907)
- 1900 *Dinophysis curvata* J. Schiller 1933 (= *D. sphaerica* F. Stein 1883 partim, non *D. diegensis* var. *curvata* Kof. 1907)
- 1901 *Dinophysis cyrtoptera* Balech 1978
- 1902 *Dinophysis dentata* J. Schiller 1928
- 1903 *Dinophysis dubia* Balech 1978
- 1904 *Dinophysis ellipsoides* Kof. 1907
- 1905 *Dinophysis equalantii* Balech 1971
- 1906 *Dinophysis exigua* Kof. & Skogsb. 1928
- 1907 *Dinophysis fortii* Pavill. 1923 (= *D. laevis* C.H.G. Pouchet 1883, *D. lapidistrigiliformis* T.H. Abé 1967, *D. intermedia* Pavill. 1916, non *D. intermedia* Cleve 1900)
- 1908 *Dinophysis granii* Paulsen 1949
- 1909 *Dinophysis hasleae* Balech 1973
- 1910 *Dinophysis hyalina* E.J.F. Wood 1963
- 1911 *Dinophysis infundibulus* J. Schiller 1928 (= *D. parva* J. Schiller 1928)
- 1912 *Dinophysis intermedia* Cleve 1900 (non *D. intermedia* Pavill. 1916)
- 1913 *Dinophysis islandica* Paulsen 1949
- 1914 *Dinophysis laevis* Clap. & J. Lachm. 1859 (non *D. laevis* Bergh 1881, non *D. laevis* C.H.G. Pouchet 1883)
- 1915 *Dinophysis laticincta* Balech 1979
- 1916 *Dinophysis longialata* Gran & Braarud 1935
- 1917 *Dinophysis meteorii* Böhm 1933
- 1918 *Dinophysis meunieri* J. Schiller 1928 (= *D. cuneiformis* Meunier 1910, non *D. cuneiformis* L. Mangin 1922, ?*D. acuta* Ehrenb. 1839)
- 1919 *Dinophysis micropleura* Balech 1971
- 1920 *Dinophysis microstrigiliformis* T.H. Abé 1967
- 1921 *Dinophysis miles* Cleve 1900 (= *D. aggregata* Weber van Bosse 1901, *Heteroceras schroeteri* Forti 1901, ?*D. tripus* Gourret 1883)
- 1922 *Dinophysis norvegica* Clap. & J. Lachm. 1859 (= *D. norvegica* var. *debiliior* Paulsen 1907, *D. debiliior* (Paulsen) Paulsen 1949, *D. crassior* Paulsen 1949)

Table 2. Continued.

- 1923 *Dinophysis okamurai* Kof. & Skogsb. 1928 (= *D. vanhoeffenii* Okamura 1907 partim, non *D. vanhoeffenii* Ostenf. 1899)
- 1924 *Dinophysis opposita* E.J.F. Wood 1963
- 1925 *Dinophysis oviformis* Chen Ni 1988 (non *D. oviformis* J. Schiller 1928)
- 1926 *Dinophysis ovum* F. Schütt 1895 (= *D. brevisulcus* L.S. Tai & Skogsb. 1937 partim, *D. antarctica* Balech 1958, non *Ph. ovum* F. Schütt 1895)
- 1927 *Dinophysis pacifica* E.J.F. Wood 1963
- 1928 *Dinophysis punctata* Jørg. 1923 (non *D. punctata* Balech 1971)
- 1929 *Dinophysis recurva* Kof. & Skogsb. 1928 (= *D. lenticula* Pavill. 1916, non *D. lenticula* Daday 1888)
- 1930 *Dinophysis robusta* Gran & Braarud 1935
- 1931 *Dinophysis sacculus* F. Stein 1883 (= *D. acuminata* f. *reniformis* Pavill. 1905, *D. pavillardii* Schröd. 1906, *D. reniformis* (Pavill.) Kof. & Skogsb. 1928, *D. ventrecta* J. Schiller 1933, *D. phaseolus* E.S. Silva 1952)
- 1932 *Dinophysis schroederi* Pavill. 1909
- 1933 *Dinophysis semen* Meunier 1910
- 1934 *Dinophysis siakanensis* Becerril-Almazán & Hernández-Becerril 2002
- 1935 *Dinophysis sourniai* Balech 1978 (= *D. lata* Balech 1971, non *D. lata* (Gaarder 1954) Balech 1967)
- 1936 *Dinophysis sphaerica* F. Stein 1883 (= *D. vanhoeffenii* Ostenf. 1899, non *D. sphaerica* F. Schütt 1895)
- 1937 *Dinophysis spinata* (N. Peters 1928) Balech 1967
- 1938 *Dinophysis subcircularis* Paulsen 1949
- 1939 *Dinophysis tailisunii* Chen Ni 1988
- 1940 *Dinophysis tenuivelata* Balech 1973
- 1941 *Dinophysis tripos* Gourret 1883 (= *D. caudata* var. *tripos* (Gourret) G.I. Gail 1950, ?*D. miles* Cleve 1900)
- 1942 *Dinophysis truncata* Cleve 1901 (= *D. cuneiformis* L. Mangin 1922, non *D. cuneiformis* Meunier 1910)
- 1943 *Dinophysis tuberculata* L. Mangin 1926 (= *D. carinata* N. Peters 1928)
- 1944 *Dinophysis umbosa* J. Schiller 1928
- 1945 *Dinophysis urceola* Kof. & Skogsb. 1928
- 1946 *Dinophysis vertex* Meunier 1910 (= ?*D. arctica* Mereschk. 1879)
- Dinophysis hastata*-group -type *D. hastata***
- 1947 *Dinophysis acutissima* Gaarder 1954
- 1948 *Dinophysis alata* Jørg. 1923 (= ?*D. alata* Böhm 1931, non *D. alata* (E.J.F. Wood 1954) Balech 1967)
- 1949 *Dinophysis balechii* D.R. Norris & L.D. Berner 1970
- 1950 *Dinophysis collaris* Kof. & Skogsb. 1928
- 1951 *Dinophysis hastata* F. Stein 1883 (= *D. uracantha* (F. Stein) E.S. Silva 1956)
- 1952 *Dinophysis joergensenii* Kof. & Skogsb. 1928 (= *D. triacantha* Jørg. 1923 partim)
- 1953 *Dinophysis monacantha* Kof. & Skogsb. 1928 (non *Ph. monacanthum* G.I. Gail 1950)
- 1954 *Dinophysis nias* G. Karst. 1907 (= *D. triacantha* G. Karst. 1907)
- 1955 *Dinophysis odiosa* (Pavill. 1930) L.S. Tai & Skogsb. 1934 (= *Ph. odiosum* Pavill. 1930, *Ph. hastatum* Pavill. 1909)
- 1956 *Dinophysis paralata* Sournia 1973 (= *D. alata* (E.J.F. Wood 1954) Balech 1967)
- 1957 *Dinophysis phalacromoides* (Jørg. 1923) F. Gómez, P. López-García & D. Moreira 2011 (= *D. hastata* F. Stein f. *phalacromides* Jørg.)
- 1958 *Dinophysis pusilla* Jørg. 1923
- 1959 *Dinophysis reticulata* Gaarder 1954 (non *D. reticulata* (Kof. 1907) Balech 1967)
- 1960 *Dinophysis rudgei* G. Murray & Whitting 1899 (non *Ph. rudgei* G. Murray & Whitting 1899)
- 1961 *Dinophysis schuettii* G. Murray & Whitting 1899 (= *D. uracantha* F. Schütt 1895, non *D. uracantha* F. Stein 1883)
- 1962 *Dinophysis spinosa* Rampi 1950
- 1963 *Dinophysis swezyae* Kof. & Skogsb. 1928
- 1964 *Dinophysis trapezium* Kof. & Skogsb. 1928
- 1965 *Dinophysis triacantha* Kof. 1907 (non *D. triacantha* G. Karst. 1907)

Table 2. Continued.

- 1966 *Dinophysis uracantha* F. Stein 1883 (non *D. uracantha* F. Schütt 1895=*D. schuettii* G. Murray & Whitting 1899)
- 1967 *Dinophysis uracanthoides* (Jørg. 1923) F. Gómez, P. López-García & D. Moreira 2011 (= *D. hastata* F. Stein f. *uracanthides* Jørg.)
- 1968 *Dinophysis urceola* Kof. & Skogsb. 1928
- 222 *Histioneis* F. Stein 1883 -type *H. remora* (52 species)
- 1969 *Histioneis aequatorialis* E.J.F. Wood 1963
- 1970 *Histioneis australiae* E.J.F. Wood 1963 (= *H. moresbyensis* Wood 1963)
- 1971 *Histioneis biremis* F. Stein 1883
- 1972 *Histioneis bougainvillae* E.J.F. Wood 1963
- 1973 *Histioneis caminus* Böhm 1933
- 1974 *Histioneis carinata* Kof. 1907
- 1975 *Histioneis cerasus* Böhm 1933
- 1976 *Histioneis cleaveri* Rampi 1952
- 1977 *Histioneis costata* Kof. & J.R. Michener 1911 (= *H. elongata* Kof. & J.R. Michener 1911)
- 1978 *Histioneis crateriformis* F. Stein 1883 (= *H. reticulata* Kof. 1907)
- 1979 *Histioneis cymbalaria* F. Stein 1883 (= *H. skogsbergii* J. Schiller 1933, *H. depressa* J. Schiller 1933, *H. speciosa* Rampi 1969)
- 1980 *Histioneis dentata* G. Murray & Whitting 1899
- 1981 *Histioneis detonii* Rampi 1947 (= *H. cleaveri* Rampi 1952)
- 1982 *Histioneis diamantinae* E.J.F. Wood 1963 (= *P. acutiformis* Rampi 1947)
- 1983 *Histioneis dubia* Böhm 1933
- 1984 *Histioneis elongata* Kof. & J.R. Michener 1911 (= *H. subcarinata* Rampi 1947, ?*H. costata* Kof. & J.R. Michener 1911)
- 1985 *Histioneis fragilis* Böhm 1931
- 1986 *Histioneis gubernans* F. Schütt 1895 (= *H. expansa* Rampi 1947, *H. ligustica* Rampi 1940)
- 1987 *Histioneis highleyi* G. Murray & Whitting 1899
- 1988 *Histioneis hyalina* Kof. & J.R. Michener 1911 (= *H. longicollis* Kof. 1907)
- 1989 *Histioneis imbricata* Halim 1960 (= *H. longicollis* Kof. 1907)
- 1990 *Histioneis inclinata* Kof. & J.R. Michener 1911 (= *H. alata* Rampi 1947)
- 1991 *Histioneis inornata* Kof. & J.R. Michener 1911
- 1992 *Histioneis isselii* Forti 1932 (= *H. elongata* sensu Böhm 1936)
- 1993 *Histioneis joergensenii* J. Schiller 1928 (= *H. vouckii* J. Schiller 1928, ?*H. planeta* E.J.F. Wood 1963)
- 1994 *Histioneis josephinae* Kof. 1907 (= *H. megalocopa* F. Stein 1883)
- 1995 *Histioneis lanceolata* E.J.F. Wood 1963
- 1996 *Histioneis longicollis* Kof. 1907 (= *H. elegans* Halim 1960, *H. faouzii* Halim 1960, *H. kofoidii* Forti & Issel 1925, *H. minuscula* Rampi 1950, *H. sublongicollis* Halim 1960, *H. villafranca* Halim 1960)
- 1997 *Histioneis marchesonii* Rampi 1941
- 1998 *Histioneis mediterranea* J. Schiller 1928 (= *H. reticulata* Kof. 1907)
- 1999 *Histioneis megalocopa* F. Stein 1883 (= *H. dolon* G. Murray & Whitting 1899)
- 2000 *Histioneis milneri* G. Murray & Whitting 1899 (= *H. helenae* G. Murray & Whitting 1899, *H. hippoperoides* Kof. & J.R. Michener 1911)
- 2001 *Histioneis mitchellana* G. Murray & Whitting 1899 (= *H. mitchelliana* Schröd. 1906, ?*H. pulchra* Kof. 1907)
- 2002 *Histioneis moresbyensis* E.J.F. Wood 1963 (= *H. costata* Kof. & J.R. Michener 1911)
- 2003 *Histioneis navicula* Kof. 1907 (= *H. oceanica* Rampi 1950)
- 2004 *Histioneis oceanica* Rampi 1950 (= *H. navicula* Kof. 1907)
- 2005 *Histioneis oxypteris* J. Schiller 1928 (= *H. paulsenii* Kof. 1907)
- 2006 *Histioneis pacifica* Kof. & Skogsb. 1928 (= *H. pavillardii* Rampi 1939, *H. bernhardii* Rampi 1969)
- 2007 *Histioneis panaria* Kof. & Skogsb. 1928 (= *H. panda* Kof. & J.R. Michener 1911)

Table 2. Continued.

- 2008 *Histioneis panda* Kof. & J.R. Michener 1911 (= ?*H. panaria* Kof. & Skogsb. 1928)
- 2009 *Histioneis paulsenii* Kof. 1907 (= ?*H. crateriformis* F. Stein 1883, ?*H. reticulata* Kof. 1907 sensu Balech 1988)
- 2010 *Histioneis pietschmannii* Böhm 1933
- 2011 *Histioneis planeta* E.J.F. Wood 1963 (= ?*H. longicollis* Kof. 1907)
- 2012 *Histioneis pulchra* Kof. 1907 (= ?*H. mitchellana* G. Murray & Whitting 1899)
- 2013 *Histioneis rampii* Halim 1960 (= ?*H. cymbalaria* F. Stein 1883)
- 2014 *Histioneis reginella* Kof. & J.R. Michener 1911
- 2015 *Histioneis remora* F. Stein 1883 (= ?*H. sphaeroidea* Rampi 1947)
- 2016 *Histioneis robusta* Rampi 1969
- 2017 *Histioneis schilleri* Böhm 1933
- 2018 *Histioneis simplex* E.J.F. Wood 1963
- 2019 *Histioneis striata* Kof. & J.R. Michener 1911 (= *H. variabilis* J. Schiller 1933, *H. steinii* J. Schiller 1928, *H. parallela* Gaarder 1954)
- 2020 *Histioneis vouckii* J. Schiller 1928 (= ?*H. joergensenii* J. Schiller 1928)
- 223 **Histiophysis** Kof. & Skogsb. 1928
- 2021 *Histiophysis rugosa* (Kof. & J.R. Michener 1911) Kof. & Skogsb. 1928 (= *Dinophysis rugosa* Kof. & J.R. Michener 1911)
- 224 **Metadinophysis** D.S. Nie & Chia C. Wang 1941
- 2022 *Metadinophysis sinensis* D.S. Nie & Chia C. Wang 1941
- 225 **Metaphalacroma** L.S. Tai & Skogsb. 1934
- 2023 *Metaphalacroma skogsbergii* L.S. Tai 1934
- 226 **Ornithocercus** F. Stein 1883 -type *O. magnificus* (15 species)
- 2024 *Ornithocercus australis* E.J.F. Wood 1963
- 2025 *Ornithocercus bilobatus* Rampi 1950 (= ?*O. quadratus* f. *intermedia* Kof. & Skogsb. 1928)
- 2026 *Ornithocercus carpentariae* E.J.F. Wood 1963
- 2027 *Ornithocercus cristatus* Matzen. 1933 (= *Dinophysis moresbyensis* E.J.F. Wood 1963)
- 2028 *Ornithocercus formosus* Kof. & J.R. Michener 1911
- 2029 *Ornithocercus francescae* (G. Murray 1899) Balech 1962 (= *O. carolinae* Kof. 1907, *Histioneis francescae* G. Murray 1899)
- 2030 *Ornithocercus geniculatus* P.A. Dangeard 1927
- 2031 *Ornithocercus heteroporoides* T.H. Abé 1967
- 2032 *Ornithocercus heteroporus* Kof. 1907 (= *O. biclavatus* E.J.F. Wood 1954, *O. triclavatus* Wood 1954)
- 2033 *Ornithocercus magnificus* F. Stein 1883 (= *O. minor* Jørg. 1923, non *O. magnificus* Buetschli 1885)
- 2034 *Ornithocercus quadratus* F. Schütt 1900 (= *O. assimilis* Jørg. 1923, *Histioneis quadrata* Lemmerm. 1901, *O. galea* (C.H.G. Pouchet 1883) T.H. Abé 1967)
- 2035 *Ornithocercus skogsbergii* T.H. Abé 1967
- 2036 *Ornithocercus splendidus* F. Schütt 1895 (= *Histioneis splendida* G. Murray & Whitting 1899)
- 2037 *Ornithocercus steinii* F. Schütt 1900 (= *O. serratus* Kof. 1907, *O. orbiculatus* Kof. & J.R. Michener 1911)
- 2038 *Ornithocercus thumii* (Johannes Schmidt 1888) Kof. & Skogsb. 1928
- 227 **Parahistioneis** Kof. & Skogsb. 1928 -type *P. diomedeeae* (13 species)
- 2039 *Histioneis gregoryi* Böhm 1936 (= ?*H. pachypus* Böhm 1931)
- 2040 *Histioneis tubifera* Böhm 1933 (= ?*H. pieltainii* Osorio-Tafall 1942, ?*H. sphaeroidea* Rampi 1947)
- 2041 *Parahistioneis acuta* Böhm 1933 (= *H. paraformis* (Kof. & Skogsb. 1928) Balech 1971, *H. para* Okamura 1912)
- 2042 *Parahistioneis acutiformis* Rampi 1947 (= ?*H. diamantinae* E.J.F. Wood 1963)
- 2043 *Parahistioneis conica* Böhm 1933 (= *H. para* G. Murray & Whitting 1899)
- 2044 *Parahistioneis diomedeeae* (Kof. & J.R. Michener 1911) Kof. & Skogsb. 1928 (= *H. diomedeeae* Kof. & J.R. Michener)
- 2045 *Parahistioneis garrettii* (Kof. 1907) Kof. & Skogsb. 1928 (= *H. garrettii* Kof.)
- 2046 *Parahistioneis gascoynensis* E.J.F. Wood 1963

Table 2. Continued.

- 2047 *Parahistioneis karstenii* (Kof. & J.R. Michener 1911) Kof. & Skogsb. 1928 (= *H. karstenii* Kof. & J.R. Michener)
- 2048 *Parahistioneis pachypus* Böhm 1933 (= *P. varians* Böhm 1933, = ? *H. gregoryi* Böhm 1936)
- 2049 *Parahistioneis pieltainii* Osorio-Tafall 1942 (= ? *H. sphaeroidea* Rampi 1947, ? *H. tubifera* Böhm 1933, *H. pieltainii* (Osorio-Tafall) Y.B. Okolodkov 2006)
- 2050 *Parahistioneis rotundata* (Kof. & J.R. Michener 1911) Kof. & Skogsb. 1928 (= *H. rotundata* Kof. & J.R. Michener)
- 2051 *Parahistioneis sphaeroidea* Rampi 1947 (= ? *P. pieltainii* Osorio-Tafall 1942, = ? *H. tubifera* Böhm 1933)
- Dinophysaceae incertae sedis**
- 2052 *Dinophysis apicata* (Kof. & Skogsb. 1928) T.H. Abé vel Balech 1967 (= *Phalacroma apicatum* Kof. & Skogsb.)
- 2053 *Dinophysis argus* (F. Stein 1883) T.H. Abé vel Balech 1967 (= *Phalacroma argus* F. Stein)
- 2054 *Dinophysis braarudii* (Nordli 1951) Balech 1967 (= *Ph. braarudii* Nordli)
- 2055 *Dinophysis brevisulcus* L.S. Tai & Skogsb. 1934
- 2056 *Dinophysis expulsa* Kof. J.R. Michener 1911 (= *P. expulsum* (Kof. & J.R. Michener 1911) Kof. & Skogsb. 1928, *P. stenopterygium* Jørg. 1923)
- 2057 *Dinophysis similis* Kof. & Skogsb. 1928 (= *D. sphaerica* F. Schütt 1895, *D. simplex* Balech 1962 = *D. tai* Balech 1971, non *D. simplex* Böhm 1933)
- Order Dinophysales, Family of Pseudophalacroma**
- 228 *Pseudophalacroma* Jørg. 1923
- 2058 *Pseudophalacroma nasutum* (F. Stein 1883) Jørg. 1923 (= *Phalacroma nasutum* F. Stein, *D. nasutum* (F. Stein) Parke & P.S. Dixon 1968)
- Order Dinophysales, Family of Sinophysis**
- 229 *Sinophysis* D.S. Nie & Chia C. Wang 1944 -type *S. microcephala* (7 species)
- 2059 *Sinophysis canaliculata* J.P. Quod, Ten-Hage, J. Turquet, G. Mascarell & Couté 1999
- 2060 *Sinophysis ebriola* (Herdman 1924) Balech 1956 (= *Phalacroma ebriola* Herdman 1924, *Thecadinium ebriolum* (Herdman) Kof. & Skogsb. 1928)
- 2061 *Sinophysis grandis* Hoppenrath 2000
- 2062 *Sinophysis microcephala* D.S. Nie & Chia C. Wang 1944
- 2063 *Sinophysis minima* M.S. Selina & Hoppenrath 2004
- 2064 *Sinophysis stenosoma* Hoppenrath 2000
- 2065 *Sinophysis verruculosa* Chomérat & Nézan 2009
- Order Blastodinales** Chatton 1906
- Blastodiniaceae** Cavers 1913 / Chatton 1920
- 230 *Blastodinium* Chatton 1906 -type *B. pruvotii* (13 species)
- 2066 *Blastodinium apsteinii* Sewell 1951
- 2067 *Blastodinium chattonii* Sewell 1951
- 2068 *Blastodinium contortum* Chatton 1908
- 2069 *Blastodinium crassum* Chatton 1908
- 2070 *Blastodinium elongatum* Chatton 1912
- 2071 *Blastodinium galatheanum* Skovg. 2009
- 2072 *Blastodinium hyalinum* Chatton 1929
- 2073 *Blastodinium inornatum* Chatton 1920
- 2074 *Blastodinium manginii* Chatton 1908 (= *B. manginii* var. *oncae* Chatton 1912, ? *Schizodinium sparsum* Chatton 1912)
- 2075 *Blastodinium navicula* Chatton 1912
- 2076 *Blastodinium oviforme* Chatton 1912
- 2077 *Blastodinium pruvotii* Chatton 1906
- 2078 *Blastodinium spinulosum* Chatton 1908
- Order Gonyaulacales** F.J.R. Taylor 1980 (= Pyrocystales Apstein 1909)
- Thecadiniaceae** Balech 1956
- 231 *Thecadinium* Kof. & Skogsb. 1928 -type *T. kofoidii* (9 species)

Table 2. Continued.

- 2079 *Thecadinium acanthium* Hoppenrath 2000
- 2080 *Thecadinium arenarium* S. Yoshimatsu, S. Toriumi & J.D. Dodge 2004
- 2081 *Thecadinium inclinatum* Balech 1956 (= *Sabulodinium inclinatum* (Balech 1956) R.D. Saunders & J.D. Dodge 1984)
- 2082 *Thecadinium kofoidii* (Herdman 1924) J. Larsen 1985 (= *Amphidinium kofoidii* var. *petasatum* Herdman 1922, *T. petasatum* (Herdman) Balech, *Phalacroma kofoidii* Herdman 1924)
- 2083 *Thecadinium neopetasatum* R.D. Saunders & J.D. Dodge 1984
- 2084 *Thecadinium ornatum* Hoppenrath 2000
- 2085 *Thecadinium ovatum* S. Yoshimatsu, S. Toriumi & J.D. Dodge 2004
- 2086 *Thecadinium striatum* S. Yoshimatsu, S. Toriumi & J.D. Dodge 2004
- 2087 *Thecadinium yashimaense* S. Yoshimatsu, S. Toriumi & J.D. Dodge 2004 (= *T. mucosum* Hoppenrath & F.J.R. Taylor 2004, *T. foveolatum* Bolch 2004)
- Protoceratidaceae** Er. Lindem. 1928 (=Ceratocorythaceae Er. Lindem. 1928)
- 232 **Ceratocorys** F. Stein 1883 -type *C. horrida* (11 species)
- 2088 *Ceratocorys anacantha* Carbonell-Moore 1996
- 2089 *Ceratocorys armata* (F. Schütt 1895) Kof. 1910 (= *C. spinifera* G. Murray & Whitting 1899, *Goniodoma fimbriatum* G. Murray & Whitting 1899)
- 2090 *Ceratocorys aultii* H.W. Graham 1942
- 2091 *Ceratocorys bipes* (Cleve 1903) Kof. 1910 (= *C. asymmetrica* G. Karst. 1907)
- 2092 *Ceratocorys gourretii* Paulsen 1931 (= *C. allenii* Osorio-Tafall 1942, *Phalacroma jourdanii* (Gourret 1883) F. Schütt 1895, *Dinophysis jourdanii* Gourret, *C. kofoidii* Paulsen 1931)
- 2093 *Ceratocorys grahamii* Carbonell-Moore 1996
- 2094 *Ceratocorys horrida* F. Stein 1883 (= *C. hirsuta* Matzen. 1933)
- 2095 *Ceratocorys indica* E.J.F. Wood 1963
- 2096 *Ceratocorys magna* Kof. 1910 (= *C. spinifera* G. Murray & Whitting 1899 partim)
- 2097 *Ceratocorys reticulata* H.W. Graham 1942
- 2098 *Ceratocorys skogsbergii* H.W. Graham 1942
- 233 **Protoceratium** Bergh 1881 -type *P. aceros*
- 2099 *Protoceratium aculeatum* (F. Stein 1883) J. Schiller 1937 (= *Clathrocysta aculeata* F. Stein)
- 2100 *Protoceratium areolatum* Kof. 1907
- Protoceratium cancellorum* Kof. & J.R. Michener 1911 (not illustrated)
- Protoceratium globosum* Kof. & J.R. Michener 1911 (not illustrated)
- Protoceratium pepo* Kof. & J.R. Michener 1911 (not illustrated)
- Protoceratium promissum* Kof. & J.R. Michener 1911 (not illustrated)
- 2101 *Protoceratium reticulatum* (Clap. & J. Lachm. 1859) Buetschli 1885 (= *G. grindleyi* P. Reinecke 1967, *Protoceratium aceros* Bergh 1881, *Peridiniopsis reticulata* (Clap. & J. Lachm.) Starmach 1974)
- 2102 *Protoceratium spinulosum* (G. Murray & Whitting 1899) J. Schiller 1937
- 2103 *Protoceratium splendens* Meunier 1910 (= *P. reticulatum* (Clap. & J. Lachm. 1859) Buetschli 1885)
- 234 **Schuetziella** Balech 1988
- 2104 *Schuetziella mitra* (F. Schütt 1895) Balech 1988 (= *Steinella mitra* F. Schütt, *Oxytoxum gigas* Kof. 1907, *Gonyaulax mitra* (F. Schütt) Kof. 1911)
- Ceratiaceae** Kof. 1907
- 235 **Ceratium** Schrank 1793 -type *C. hirundinella* (7 species)
- 2105 *Ceratium carolinianum* (J.W. Bailey 1850) Jørg. 1911 (= *C. curvirostre* Huitf.-Kaas 1900)
- 2106 *Ceratium monoceros* Temponeras 2000
- 2107 *Ceratium cornutum* (Ehrenb.) Clap. & J. Lachm. 1858
- 2108 *Ceratium furcoides* (Levander 1900) Langhans 1925
- Ceratium hirundinella* (O.F. Müller 1773) Dujard. 1841 (= *C. tetraceros* Schrank 1793, *C. pleuroceras* Schrank 1793, *C. macroceras* Schrank 1802, *C. longicorne* Perty 1849, *C. kumaonense* H.J. Carter 1871, *C. brevicorne* O. Zacharias 1905, *C. leptoceras* O. Zacharias 1904, *C. pumilum* O. Zacharias 1905, *C. handelii* Skuja 1937)

Table 2. Continued.

- 2110 *Ceratium rhomvodes* B. Hickel 1988
- 2111 *Ceratium brachyceros* Daday 1907 (= *C. hirundinella* var. *brachyceros* (Daday) Ostenf. 1909)
- 236 **Neoceratium** F. Gómez, D. Moreira & P. López-García 2009 -type *N. furca* (77 species)
- 2112 *Neoceratium arcticum* (Ehrenb. 1854) F. Gómez, D. Moreira & P. López-García 2009 (= *C. arcticum* (Ehrenb.) Cleve 1901, *C. labradoricum* Vanhöffen 1897)
- 2113 *Neoceratium arietinum* (Cleve 1900) F. Gómez, D. Moreira & P. López-García 2009 (= *C. arietinum* Cleve, *C. bucephalum* (Cleve 1897) Cleve 1901)
- 2114 *Neoceratium aultii* (H.W. Graham & Bronik. 1944) F. Gómez, D. Moreira & P. López-García 2009 (= *C. aultii* H.W. Graham & Bronik.)
- 2115 *Neoceratium axiale* (Kof. 1907) F. Gómez, D. Moreira & P. López-García 2009 (= *C. axiale* Kof.)
- 2116 *Neoceratium azoricum* (Cleve 1900) F. Gómez, D. Moreira & P. López-García 2009 (= *C. azoricum* Cleve)
- 2117 *Neoceratium balechii* (Meave del Castillo, Okolodkov & Zamudio 2003) F. Gómez, D. Moreira & P. López-García 2009 (= *C. balechii* Meave del Castillo, Okolodkov & Zamudio)
- 2118 *Neoceratium belone* (Cleve 1900) F. Gómez, D. Moreira & P. López-García 2009 (= *C. belone* Cleve, *C. pacificum* Schröd. 1906, non *C. pacificum* E.J.F. Wood 1963)
- 2119 *Neoceratium biceps* (Clap. & J. Lachm. 1859) F. Gómez, D. Moreira & P. López-García 2009
- 2120 *Neoceratium bigelowii* (Kof. 1907) F. Gómez, D. Moreira & P. López-García 2009 (= *C. bigelowii* Kof.)
- 2121 *Neoceratium breve* (Ostenf. & Johannes Schmidt 1901) F. Gómez, D. Moreira & P. López-García 2009 (= *C. breve* (Ostenf. & Johannes Schmidt) Schröd. 1906)
- 2122 *Neoceratium brunellii* (Rampi 1942) F. Gómez, D. Moreira & P. López-García 2009 (= *C. brunellii* Rampi)
- 2123 *Neoceratium candelabrum* (Ehrenb. 1860) F. Gómez, D. Moreira & P. López-García 2009 (= *C. candelabrum* (Ehrenb.) F. Stein 1883)
- 2124 *Neoceratium carnegiei* (H.W. Graham & Bronik. 1944) F. Gómez, D. Moreira & P. López-García 2009 (= *C. carnegiei* H.W. Graham & Bronik.)
- 2125 *Neoceratium carriense* (Gourret 1883) F. Gómez, D. Moreira & P. López-García 2009 (= *C. carriense* Gourret, *C. massiliense* Pavill. 1907, *C. volans* Cleve 1900)
- 2126 *Neoceratium cephalotum* (Lemmerm. 1900) F. Gómez, D. Moreira & P. López-García 2009 (= *C. cephalotum* (Lemmerm.) Jørg. 1911)
- 2127 *Neoceratium compressum* (Gran 1912) F. Gómez, D. Moreira & P. López-García 2009 (= *C. compressum* Gran)
- 2128 *Neoceratium concilians* (Jørg. 1920) F. Gómez, D. Moreira & P. López-García 2009 (= *C. concilians* Jørg.)
- Neoceratium contortum* (Gourret 1883) F. Gómez, D. Moreira & P. López-García 2009 (= *C. contortum* (Ehrenb.) Clap. & J. Lachm. 1859, *C. contortum* (Gourret) Cleve 1900, = *C. contortum* var. *robustum* (G. Karst. 1907) Sournia 1966)
- 2129 *Neoceratium contrarium* (Gourret 1883) F. Gómez, D. Moreira & P. López-García 2009 (= *C. contrarium* (Gourret) Pavill. 1905)
- 2131 *Neoceratium declinatum* (G. Karst. 1907) F. Gómez, D. Moreira & P. López-García 2009 (= *C. declinatum* (G. Karst.) Jørg. 1911)
- 2132 *Neoceratium deflexum* (Kof. 1907) F. Gómez, D. Moreira & P. López-García 2009 (= *C. deflexum* (Kof.) Jørg. 1911, *C. californiense* G. Karst. 1907, *C. recurvatum* Schröd. 1906)
- 2133 *Neoceratium dens* (Ostenf. & Johannes Schmidt 1901) F. Gómez, D. Moreira & P. López-García 2009 (= *C. dens* Ostenf. & Johannes Schmidt)
- 2134 *Neoceratium digitatum* (F. Schütt 1895) F. Gómez, D. Moreira & P. López-García 2009 (= *C. digitatum* F. Schütt)
- 2135 *Neoceratium divaricatum* (Lemmerm. 1900) F. Gómez, D. Moreira & P. López-García 2009 (= *C. divaricatum* (Lemmerm.) Kof. 1908)
- 2136 *Neoceratium egyptiacum* (Halim 1963) F. Gómez, D. Moreira & P. López-García 2009 (= *C. egyptiacum* Halim)
- 2137 *Neoceratium eucarvatum* (Jørg. 1920) F. Gómez, D. Moreira & P. López-García 2009 (= *C. eucarvatum* Jørg., = *C. arcuatum* Pavill. 1905)
- 2138 *Neoceratium extensum* (Gourret 1883) F. Gómez, D. Moreira & P. López-García 2009 (= *C. strictum* Kof. 1907, ? *C. biceps* Clap. & J. Lachm. 1859)
- 2139 *Neoceratium falcatifforme* (Jørg. 1920) F. Gómez, D. Moreira & P. López-García 2009 (= *C. falcatifforme* Jørg.)
- 2140 *Neoceratium falcatum* (Kof. 1907) F. Gómez, D. Moreira & P. López-García 2009 (= *C. falcatum* (Kof.) Jørg. 1920)
- 2141 *Neoceratium filicorne* (Steem. Niels. 1934) F. Gómez, D. Moreira & P. López-García 2009 (= *C. filicorne* Steem. Niels.)
- 2142 *Neoceratium furca* (Ehrenb. 1834) F. Gómez, D. Moreira & P. López-García 2009 (= *C. furca* (Ehrenb.) Clap. & J. Lachm. 1859, = *C. biceps* Clap. & J. Lachm. 1859)

Table 2. Continued.

- 2143 *Neoceratium fusus* (Ehrenb. 1834) F. Gómez, D. Moreira & P. López-García 2009 (= *C. fusus* (Ehrenb.) Dujard. 1841, *C. seta* (Ehrenb. 1859) Jørg. 1911)
- 2144 *Neoceratium geniculatum* (Lemmerm. 1900) F. Gómez, D. Moreira & P. López-García 2009 (= *C. geniculatum* (Lemmerm.) Cleve 1911, *C. tricarinatum* Kof. 1907)
- 2145 *Neoceratium gibberum* (Gourret 1883) F. Gómez, D. Moreira & P. López-García 2009 (= *C. gibberum* Gourret)
- 2146 *Neoceratium gravidum* (Gourret 1883) F. Gómez, D. Moreira & P. López-García 2009 (= *C. gravidum* Gourret, ? *C. praeolongum* Lemmerm. 1900)
- 2147 *Neoceratium hexacanthum* (Gourret 1883) F. Gómez, D. Moreira & P. López-García 2009 (= *C. hexacanthum* Gourret, *C. reticulatum* (C.H.G. Pouchet 1883) Cleve 1903)
- 2148 *Neoceratium hircus* (Schröd. 1909) F. Gómez, D. Moreira & P. López-García 2009 (= *C. hircus* Schröd.)
- 2149 *Neoceratium horridum* (Gran) F. Gómez, D. Moreira & P. López-García 2009 (= *C. claviger* Kof. 1907, *C. inclinatum* Kof. 1907, ? *C. tenue*)
- 2150 *Neoceratium humile* (Jørg. 1911) F. Gómez, D. Moreira & P. López-García 2009 (= *C. humile* Jørg.)
- 2151 *Neoceratium incisum* (G. Karst. 1906) F. Gómez, D. Moreira & P. López-García 2009 (= *C. incisum* (G. Karst.) Jørg. 1911)
- 2152 *Neoceratium inflatum* (Kof. 1907) F. Gómez, D. Moreira & P. López-García 2009 (= *C. inflatum* (Kof.) Jørg. 1911, *C. nipponicum* Okamura 1912)
- 2153 *Neoceratium karstenii* (Pavill. 1907) F. Gómez, D. Moreira & P. López-García 2009 (= *C. karstenii* Pavill.)
- 2154 *Neoceratium kofoidii* (Jørg. 1911) F. Gómez, D. Moreira & P. López-García 2009 (= *C. kofoidii* Jørg.)
- 2155 *Neoceratium lanceolatum* (Kof. 1907) F. Gómez, D. Moreira & P. López-García 2009 (= *C. lanceolatum* Kof.)
- 2156 *Neoceratium limulus* (Gourret 1883) F. Gómez, D. Moreira & P. López-García 2009 (= *C. limulus* Gourret)
- 2157 *Neoceratium lineatum* (Ehrenb. 1854) F. Gómez, D. Moreira & P. López-García 2009 (= *C. lineatum* (Ehrenb.) Cleve 1899)
- 2158 *Neoceratium longipes* (J.W. Bailey 1850) F. Gómez, D. Moreira & P. López-García 2009 (= *C. longipes* (J.W. Bailey) Gran 1902)
- 2159 *Neoceratium longirostrum* (Gourret 1883) F. Gómez, D. Moreira & P. López-García 2009 (= *C. longirostrum* Gourret, *C. scapiforme* Kof. 1907)
- 2160 *Neoceratium longissimum* (Schröd. 1900) F. Gómez, D. Moreira & P. López-García 2009 (= *C. longissimum* (Schröd.) Kof. 1907)
- 2161 *Neoceratium lunula* (A. Schimp. 1910 ex G. Karst. 1905) F. Gómez, D. Moreira & P. López-García 2009 (= *C. lunula* (A. Schimp. ex G. Karst.) Jørg. 1911)
- 2162 *Neoceratium macroceros* (Ehrenb. 1840) F. Gómez, D. Moreira & P. López-García 2009 (= *C. macroceros* (Ehrenb.) Vanhöffen 1897, *C. californiense* Kof. 1907)
- 2163 *Neoceratium massiliense* (Gourret 1883) F. Gómez, D. Moreira & P. López-García 2009 (= *C. massiliense* (Gourret) Jørg. 1911, *C. ostenfeldii* Kof. 1907, *C. protuberans* (G. Karst. 1905) Paulsen 1930)
- 2164 *Neoceratium minutum* (Jørg. 1920) F. Gómez, D. Moreira & P. López-García 2009 (= *C. minutum* Jørg.)
- 2165 *Neoceratium obesum* (Pavill. 1930) F. Gómez, D. Moreira & P. López-García 2009 (= *C. obesum* Pavill.)
- 2166 *Neoceratium pacificum* (E.J.F. Wood 1963) F. Gómez, D. Moreira & P. López-García 2009 (= *C. pacificum* E.J.F. Wood, non *C. pacificum* Schröd. 1906)
- 2167 *Neoceratium paradoxides* (Cleve 1900) F. Gómez, D. Moreira & P. López-García 2009 (= *C. paradoxides* Cleve)
- 2168 *Neoceratium pavillardii* (Jørg. 1911) F. Gómez, D. Moreira & P. López-García 2009 (= *C. pavillardii* Jørg., *C. vultur* Pavill. 1905)
- 2169 *Neoceratium pentagonum* (Gourret 1883) F. Gómez & P. López-García (= *C. pentagonum* Gourret, *C. subrobustum* (Jørg.) Steem. Niels. 1934)
- 2170 *Neoceratium petersii* (Steem. Niels. 1934) F. Gómez, D. Moreira & P. López-García 2009 (= *C. petersii* Steem. Niels.)
- 2171 *Neoceratium platycorne* (Daday 1888) F. Gómez, D. Moreira & P. López-García 2009 (= *C. platycorne* Daday, *C. lamellicorne* Kof. 1908)
- 2172 *Neoceratium porrectum* (G. Karst. 1907) F. Gómez, D. Moreira & P. López-García 2009 (= *C. porrectum* G. Karst.)
- 2173 *Neoceratium praeolongum* (Lemmerm. 1900) F. Gómez, D. Moreira & P. López-García 2009 (= ? *C. gravidum* Gourret 1883)
- 2174 *Neoceratium pulchellum* (Schröd. 1906) F. Gómez, D. Moreira & P. López-García 2009 (= *C. pulchellum* Schröd.)
- 2175 *Neoceratium ranipes* (Cleve 1900) F. Gómez, D. Moreira & P. López-García 2009 (= *C. palmatum* (Schröd. 1901) Schröd. 1906)

Table 2. Continued.

- 2176 *Neoceratium recurvatum* (Schröd. 1906) F. Gómez, D. Moreira & P. López-García 2009 (= *C. deflexum* var. *recurvatum* (Schröd.) Jørg. 1911)
- 2177 *Neoceratium reflexum* (Cleve 1900) F. Gómez, D. Moreira & P. López-García 2009 (= *C. reflexum* Cleve)
- 2178 *Neoceratium schrankii* (Kof. 1907) F. Gómez, D. Moreira & P. López-García 2009 (= *C. schrankii* Kof.)
- 2179 *Neoceratium schroeteri* (Schröd. 1906) F. Gómez, D. Moreira & P. López-García 2009 (= *C. schroeteri* Schröd., non *C. schroederi* D.S. Nie 1936)
- 2180 *Neoceratium setaceum* (Jørg. 1911) F. Gómez, D. Moreira & P. López-García 2009 (= *C. setaceum* Jørg.)
- 2181 *Neoceratium symmetricum* (Pavill. 1905) F. Gómez, D. Moreira & P. López-García 2009 (= *C. symmetricum* Pavill., *C. coarctatum* Pavill. 1905)
- 2182 *Neoceratium tasmaniae* (E.J.F. Wood 1963) F. Gómez, D. Moreira & P. López-García 2009 (= *C. tasmaniae* E.J.F. Wood)
- 2183 *Neoceratium tenue* (Ostenf. & Johannes Schmidt 1901) F. Gómez, D. Moreira & P. López-García 2009 (= *C. tenue* (Ostenf. & Johannes Schmidt 1901) Jørg. 1911)
- 2184 *Neoceratium teres* (Kof. 1907) F. Gómez, D. Moreira & P. López-García 2009 (= *C. teres* Kof.)
- 2185 *Neoceratium trichoceros* (Ehrenb. 1860) F. Gómez, D. Moreira & P. López-García 2009 (= *C. trichoceros* (Ehrenb.) Kof. 1908, *C. flagelliferum* Cleve 1900)
- 2186 *Neoceratium tripos* (O.F. Müller 1777) F. Gómez, D. Moreira & P. López-García 2009 (= *C. tripos* (O.F. Müller) Nitzsch 1817, *C. schroederi* D.S. Nie 1936, *C. neglectum* Ostenf. 1903)
- 2187 *Neoceratium uncinus* (Sournia 1972) F. Gómez, D. Moreira & P. López-García 2009 (= *C. uncinus* Sournia)
- 2188 *Neoceratium vultur* (Cleve 1900) F. Gómez, D. Moreira & P. López-García 2009 (= *C. vultur* Cleve, *C. sumatranum* (G. Karst. 1907) Jørg. 1911, *C. recurvum* (Jørg.) P. Reinecke 1973)
- Goniodomataceae** Er. Lindem. 1928 (incl. *Ostreopsidaceae* Er. Lindem. 1928, *Triadiniaceae* J.D. Dodge 1981, *Yeseviidae* Özdiçmen 2009, *Centrodiniaceae* Hernández-Becerril *et al.* 2010)

Subfamily of Goniodoma

- 237 **Gambierdiscus** Adachi & Fukuyo 1979 -type *G. toxicus* (11 species)
- 2189 *Gambierdiscus australes* M. Chinain & M.A. Faust 1999
- 2190 *Gambierdiscus belizeanus* M.A. Faust 1995
- 2191 *Gambierdiscus caribaeus* M.W. Vandersea, R.W. Litaker, M.A. Faust, S.R. Kibler, W.C. Holland & P.A. Tester 2009
- 2192 *Gambierdiscus carolinianus* R.W. Litaker, Vandersea, M.A. Faust, S.R. Kibler, W.C. Holland & P.A. Tester 2009
- 2193 *Gambierdiscus carpenteri* S.R. Kibler, R.W. Litaker, M.A. Faust, W.C. Holland, M.W. Vandersea & P.A. Tester 2009
- 2194 *Gambierdiscus excentricus* S. Fraga 2011
- 2195 *Gambierdiscus pacificus* M. Chinain & M.A. Faust 1999
- 2196 *Gambierdiscus polynesiensis* M. Chinain & M.A. Faust 1999
- 2197 *Gambierdiscus ruetzleri* M.A. Faust, R.W. Litaker, M.W. Vandersea, S.R. Kibler, M.J. Holland & P.A. Tester 2009
- 2198 *Gambierdiscus toxicus* Adachi & Fukuyo 1979
- 2199 *Gambierdiscus yasumotoi* M.J. Holmes 1998
- 238 **Goniodoma** F. Stein 1883 (= *Triadinium* J.D. Dodge 1981, *Heteraulacus* Diesing 1850, *Triadinium* J.D. Dodge 1981, *Yesevius* Özdiçmen 2009) -type *G. acuminatum*
- 2200 *Goniodoma acuminatum* (Ehrenb. 1838) F. Stein 1883 (= *Peridinium acuminatum* Ehrenb., non *Peridinium polyedricum* C.H.G. Pouchet 1883)
- 2201 *Goniodoma crassum* Kof. & J.R. Michener 1911
- Goniodoma polyedricum* (C.H.G. Pouchet 1883) Jørg. 1899 (= *Peridinium polyedricum* C.H.G. Pouchet, *Triadinium polyedricum* (C.H.G. Pouchet) J.D. Dodge 1981, *Goniodoma acuminata* F. Stein 1883 partim, non *Peridinium acuminatum* Ehrenb. 1838)
- 2202 *Goniodoma polyedricum* (C.H.G. Pouchet) J.D. Dodge 1981, *Goniodoma acuminata* F. Stein 1883 partim, non *Peridinium acuminatum* Ehrenb. 1838)
- 2203 *Goniodoma sphaericum* G. Murray & Whitting 1899 (= *T. sphaericum* (G. Murray & Whitting) J.D. Dodge 1981, *H. sphaericum* (G. Murray & Whitting) A.R. Loeb. 1970)

Subfamily of Ostreopsis

- 239 **Alexandrium** Halim (= *Protogonyaulax* F.J.R. Taylor 1976, *Gessnerium* Halim 1967 ex Halim 1969) -type *A. minutum* (30 species)
- 2204 *Alexandrium acatenella* (Whedon & Kof. 1936) Balech 1985 (= *G. acatenella* Whedon & Kof., *Protogonyaulax acatenella* (Whedon & Kof.) F.J.R. Taylor 1979)
- 2205 *Alexandrium affine* (H. Inoue & Fukuyo 1985) Balech 1985 (= *A. fukuyoi* Balech 1985, *Protogonyaulax affinis* H. Inoue & Fukuyo)

Table 2. Continued.

- 2206 *Alexandrium andersonii* Balech 1990
- 2207 *Alexandrium balechii* (Steid. 1971) Balech 1995 (= *Gonyaulax balechii* Steid.)
- 2208 *Alexandrium camurascutulum* L. MacKenzie & K. Todd 2002
- 2209 *Alexandrium catenella* (Whedon & Kof. 1936) Balech 1985 (= *G. catenella* Whedon & Kof. 1936, *G. washingtonensis* Hsu 1967)
- 2210 *Alexandrium cohorticula* (Balech 1967) Balech 1985 (= *G. cohorticula* Balech)
- 2211 *Alexandrium compressum* (Fukuyo, K. Yoshida & H. Inoue 1985) Balech 1995
- 2212 *Alexandrium convacum* (Gaarder 1954) Balech 1985 (= *Goniodoma concavum* Gaarder 1954, non *A. concavum* (Gaarder 1985) Balech 1985)
- 2213 *Alexandrium depressum* (Gaarder 1954) Balech & Tangen 1985 (= *Goniodoma depressum* Gaarder, *Gonyaulax depressum* (Gaarder) Balech 1979)
- 2214 *Alexandrium foedum* Balech 1990
- 2215 *Alexandrium fraterculus* (Balech 1964) Balech 1985 (= *G. fratercula* Balech)
- 2216 *Alexandrium fundyense* Balech 1985
- 2217 *Alexandrium gaarderae* Nguyen-Ngoc & J. Larsen 2004 (= *Gonyaulax concava* (Gaarder 1954) Balech 1967)
- 2218 *Alexandrium globosum* Nguyen-Ngoc & J. Larsen 2004 (non *Gonyaulax globosa* (Braarud) Balech 1971, non *Gonyaulax globosa* W. Stüwe 1909)
- 2219 *Alexandrium insuetum* Balech 1985
- 2220 *Alexandrium kutnerae* (Balech 1979) Balech 1985
- 2221 *Alexandrium leei* Balech 1985
- 2222 *Alexandrium margalefii* Balech 1994 (= *A. pseudogoniaulax* (Biecheler 1952) T. Horig. 1983)
- 2223 *Alexandrium minutum* Halim 1960 (= *A. ibericum* Balech 1985, *A. lusitanicum* Balech 1985, *A. angustitubulatum* F.J.R. Taylor 1995)
- 2224 *Alexandrium monilatum* (J.F. Howell 1953) Balech 1985 (= *G. monilata* J.F. Howell, *Gessnerium mochimaensis* Halim 1967 ex Halim 1969)
- Alexandrium ostenfeldii* (Paulsen 1904) Balech & Tangen 1985 (= *Goniodoma ostenfeldii* Paulsen, *Gonyaulax ostenfeldii* (Paulsen) Paulsen 1949, *Protogonyaulax ostenfeldii* (Paulsen) S. Fraga & Sánchez 1985, *Heteraulacus ostenfeldii* (Paulsen) A.R. Loeb. 1970, *Gessnerium ostenfeldii* (Paulsen) Loeb. & A.R. Loeb., *Triadinium ostenfeldii* (Paulsen) J.D. Dodge 1976, ? *G. globosa* (Braarud 1945) Balech, ? *Protogonyaulax globosa* (Braarud) F.J.R. Taylor 1976, ? *Gonyaulax trygvei* J.D. Dodge 1976, ? *Gonyaulax tamarensis* Lebour var. *globosa* Braarud 1945)
- 2225 *Alexandrium ostenfeldii* (Paulsen) A.R. Loeb. 1970, *Gessnerium ostenfeldii* (Paulsen) Loeb. & A.R. Loeb., *Triadinium ostenfeldii* (Paulsen) J.D. Dodge 1976, ? *G. globosa* (Braarud 1945) Balech, ? *Protogonyaulax globosa* (Braarud) F.J.R. Taylor 1976, ? *Gonyaulax trygvei* J.D. Dodge 1976, ? *Gonyaulax tamarensis* Lebour var. *globosa* Braarud 1945)
- 2226 *Alexandrium peruvianum* (Balech & B.R. Mendiola 1977) Balech & Tangen 1985 (= *G. peruviana* Balech & B.R. Mendiola)
- 2227 *Alexandrium pseudogoniaulax* (Biecheler 1952) T. Horig. 1983 ex T. Kita & Fukuyo 1992 (= *Goniodoma pseudogoniaulax* Biecheler, *A. hiranoi* T. Kita & Fukuyo 1988)
- 2228 *Alexandrium satoanum* K. Yuki & Fukuyo 1992
- 2229 *Alexandrium tamarensis* (M. Lebour 1925) Balech 1985 (= *A. excavatum* (Braarud 1945) Balech & Tangen 1985)
- 2230 *Alexandrium tamiyavanichii* Balech 1994
- 2231 *Alexandrium tamutum* Montresor, Beran & U. John 2004
- 2232 *Alexandrium taylorii* Balech 1994
- 2233 *Alexandrium tropicale* Balech 1985 (= *Gonyaulax excavata* (Braarud 1945) Balech 1971)
- 240 *Coolia* Meunier 1919 (= ? *Discodinium* P.A. Dangeard 1938) -type *C. monotis* (6 species)
- 2234 *Coolia areolata* Ten-Hage, J. Turquet, J.P. Quod & Couté 2000
- 2235 *Coolia canariensis* S. Fraga 2008
- 2236 *Coolia malayensis* Leaw, P.-T. Lim & Usup 2010
- 2237 *Coolia monotis* Meunier 1919 (= *Ostreopsis monotis* (Meunier) Er. Lindem. 1928, *Glen. monotis* (Meunier) Biecheler 1952, ? *Discodinium pouchetii* P.A. Dangeard 1938)
- 2238 *Coolia tropicalis* M.A. Faust 1995
- 241 *Centrodinium* Kof. 1907 (*Murrayella* Kof. 1907, *Pavillardinium* De-Toni 1936 partim) -type *C. elongatum* (17 species)
- 2239 *Centrodinium biconicum* (G. Murray & Whitting 1899) F.J.R. Taylor 1976 (= *M. biconica* (G. Murray & Whitting) Pavill. 1931, *P. biconicum* Rampi 1948)

Table 2. Continued.

- 2240 *Centrodinium complanatum* (Cleve 1903) Kof. 1907 (= *Steiniella complanata* Cleve)
- 2241 *Centrodinium deflexoides* Balech 1962
- 2242 *Centrodinium deflexum* Kof. 1907
- 2243 *Centrodinium elongatum* Kof. 1907
- 2244 *Centrodinium eminens* Böhm 1933
- 2245 *Centrodinium expansum* Kof. & J.R. Michener 1911
- 2246 *Centrodinium intermedium* Pavill. 1930
- 2247 *Centrodinium maximum* Pavill. 1930
- 2248 *Centrodinium mimeticum* (Balech 1967) F.J.R. Taylor 1976 (= *M. mimetica* Balech)
- 2249 *Centrodinium ovalis* (Pavill. 1930) Hernández-Becerril 2010 (= *M. ovalis* Pavill., *P. ovale* (Pavill. 1930) De-Toni 1936)
- 2250 *Centrodinium pacificum* (Rampi 1950) F.J.R. Taylor 1976 (= *P. pacificum* Rampi)
- 2251 *Centrodinium pavillardii* F.J.R. Taylor 1976 (= *P. intermedium* (Pavill. 1916) de Toni 1936, *M. intermedia* Pavill., non *C. intermedium* Pavill. 1930)
- 2252 *Centrodinium porulosum* Kof. & J.R. Michener 1911
- 2253 *Centrodinium pulchrum* Böhm 1933 (= *C. eminens* f. *pulchrum* (Böhm) J. Schiller 1933)
- Centrodinium punctatum* (Cleve 1900) F.J.R. Taylor 1976 (= *Steiniella punctata* Cleve, *M. punctata* (Cleve) Kof. 1907, *P. punctatum* (Cleve) De Toni 1936, *M. splendida* Rampi 1941, *Pavillardinium splendidum* (Rampi) Rampi 1950)
- 2254
- 2255 *Murrayella australica* E.J.F. Wood 1963
- 242 **Ostreopsis** Johannes Schmidt 1901 -type *O. siamensis* (9 species)
- 2256 *Ostreopsis belizeana* M.A. Faust 1999
- 2257 *Ostreopsis caribbeana* M.A. Faust 1999
- 2258 *Ostreopsis heptagona* D.R. Norris, J.W. Bomber & Balech 1985
- 2259 *Ostreopsis labens* M.A. Faust & S.L. Morton 1995
- 2260 *Ostreopsis lenticularis* Fukuyo 1981
- 2261 *Ostreopsis marina* M.A. Faust 1999
- 2262 *Ostreopsis mascarenensis* J.P. Quod 1994
- 2263 *Ostreopsis ovata* Fukuyo 1981
- 2264 *Ostreopsis siamensis* Johannes Schmidt 1901
- 243 **Pachydinium** Pavill. 1915 -type *P. mediterraneum*
- 2265 *Pachydinium indicum* Matzen. 1933
- 2266 *Pachydinium mediterraneum* Pavill. 1915
- 244 **Pyrodinium** L. Plate 1906 -type *P. bahamense*
- Pyrodinium bahamense* L. Plate 1906 (= *P. bahamense* L. Plate 1906 var. *bahamense*/ var. *compressum* (Böhm 1931) Steid., Tester & F.J.R. Taylor 1980, *P. bahamense* f. *compressa* Böhm 1931, *P. schilleri* (Matzen. 1933) J. Schiller 1935, *Gonyaulax schilleri* Matzen. 1933)
- 2267
- Pyrodinium phoneus* Wolosz. & W. Conrad 1939 (= *Gonyaulax phoneus* (Wolosz. & W. Conrad) F.J.R. Taylor 1975, 1926, *G. clevei* Ostenf. 1901, *G. polonica* Wolosz., *G. limnetica* Er. Lindem. 1918, ?*Kolkwitzella gibbera* (Er. Lindem.) Er. Lindem. 1928)
- 2268 ?*Alexandrium ostenfeldii* (Paulsen 1904) Balech & Tangen 1985, *Gonyaulax phoneus* (Wolosz. & W. Conrad) Loeb. & A.R. Loeb. 1975)
- Gonyaulacaceae** Er. Lindem. 192
- 245 **Gonyaulax** Diesing 1866 (= *Melanodinium* J. Schiller 1935) -type *G. spinifera* (71 species)
- 2269 *Gonyaulax acuta* Kof. & J.R. Michener 1911 (? *G. birostris* F. Stein 1883)
- 2270 *Gonyaulax africana* J. Schiller 1929
- 2271 *Gonyaulax alaskensis* Kof. 1911
- Gonyaulax apiculata* (Penard 1891) Entz 1904 (= *G. apiculata* var. *clevei* Ostenf. 1908), *G. austriaca* J. Schiller 1926, *G. clevei* Ostenf. 1901, *G. polonica* Wolosz., *G. limnetica* Er. Lindem. 1918, ?*Kolkwitzella gibbera* (Er. Lindem.) Er. Lindem. 1928)
- 2272
- 2273 *Gonyaulax areolata* Kof. & J.R. Michener 1911
- 2274 *Gonyaulax baltica* Ellegaard, J.M. Lewis & I. Harding 2002

Table 2. Continued.

- 2275 *Gonyaulax birostris* F. Stein 1883 (= *G. glyptorhynchus* G. Murray & Whitting 1899, *G. highleyi* G. Murray & Whitting 1899)
- 2276 *Gonyaulax bispinosa* Kof. & J.R. Michener 1911
- 2277 *Gonyaulax borealis* Nordli 1951
- 2278 *Gonyaulax braarudii* Hasle 1960
- 2279 *Gonyaulax brevisulcata* P.A. Dangeard 1927 (= *G. paulsenii* Gaarder 1954, ?*Peridiniella globosa* (P.A. Dangeard 1927) Okolodkov 2006)
- 2280 *Gonyaulax bruunii* F.J.R. Taylor 1976
- 2281 *Gonyaulax ceratocoroides* Kof. 1910 (= *Acanthogonyaulax spinifera* (G. Murray & Whitting) H.W. Graham 1942, *Ceratocorys spinifera* G. Murray & Whitting 1899)
- 2282 *Gonyaulax cochlea* Meunier 1919
- 2283 *Gonyaulax conjuncta* E.J.F. Wood 1954
- 2284 *Gonyaulax dangeardii* (P.A. Dangeard 1927) J. Schiller 1935 (= *G. pavillardii* P.A. Dangeard 1927, non *G. pavillardii* Kof. & J.R. Michener 1911, *Glenodinium dangeardii* (Dangeard 1883) Lemmerm. 1910)
- 2285 *Gonyaulax diegensis* Kof. 1911
- 2286 *Gonyaulax digitalis* (C.H.G. Pouchet 1883) Kof. 1911 (= *Proto-peridinium digitale* C.H.G. Pouchet, *Peridinium digitale* Lemmerm. 1899)
- 2287 *Gonyaulax dimorpha* Biecheler 1952
- 2288 *Gonyaulax elegans* Rampi 1951
- 2289 *Gonyaulax elongata* (P.C. Reid 1974) Ellegaard, Daugbjerg, Rochon, J.M. Lewis & I. Harding 2003 (= *Spiniferites elongatus* P.C. Reid)
- 2290 *Gonyaulax expansa* Kof. & J.R. Michener 1911
- 2291 *Gonyaulax fragilis* (F. Schütt 1895) Kof. 1911 (= *Steiniella fragilis* F. Schütt)
- 2292 *Gonyaulax fusiformis* H.W. Graham 1942 (non *G. birostris* F. Stein 1883, non *G. joliffei* G. Murray & Whitting 1899)
- 2293 *Gonyaulax globosa* (Braarud 1945) Balech 1971 (= *G. tamarensis* M. Lebour var. *globosa* Braarud, ?*G. trygvei* Parke 1976, *A. ostenfeldii* (Paulsen 1904) Balech & Tangen 1985)
- 2294 *Gonyaulax globosa* W. Stüwe 1909
- 2295 *Gonyaulax gabrielae* J. Schiller 1935
- 2296 *Gonyaulax gracilis* J. Schiller 1935
- 2297 *Gonyaulax helensis* Wolosz. 1928
- 2298 *Gonyaulax hyalina* Ostenf. & Johannes Schmidt 1901
- 2299 *Gonyaulax inclinata* Kof. & J.R. Michener 1911
- 2300 *Gonyaulax inflata* (Kof. 1907) Kof. 1911 (= *G. pavillardii* P.A. Dangeard 1927, non *G. pavillardii* (P.A. Dangeard) J. Schiller 1935)
- 2301 *Gonyaulax kofoidii* Pavill. 1909
- 2302 *Gonyaulax lebouriae* Balech 1979 (= *G. orientalis* Er. Lindem. 1924 sensu M. Lebour 1925, non *G. orientalis* Er. Lindem., *Goniodyma orientale* (Er. Lindem.) Balech 1979)
- 2303 *Gonyaulax ligustica* Rampi 1951
- 2304 *Gonyaulax limnetica* Er. Lindem. 1919
- 2305 *Gonyaulax loculata* Meunier 1919
- 2306 *Gonyaulax longicornu* P.H. Campb. 1973
- 2307 *Gonyaulax macroporus* L. Mangin 1922
- 2308 *Gonyaulax matkovicii* J. Schiller 1929 'matkovichii'
- 2309 *Gonyaulax membranacea* (M.R. Rossignol 1964) Ellegaard, Daugbjerg, Rochon, J.M. Lewis & I. Harding 2003 (= *Hystriosphera furcata* var. *membranacea* M.R. Rossignol)
- 2310 *Gonyaulax minuta* Kof. & J.R. Michener 1911 (= *G. minima* Matzen. 1933)
- 2311 *Gonyaulax monacantha* Pavill. 1916
- 2312 *Gonyaulax monospina* Rampi 1951
- 2313 *Gonyaulax nigricans* (J. Schiller 1937) Balech 1988 (= *Melanodinium nigricans* J. Schiller)

Table 2. Continued.

- 2314 *Gonyaulax nivicola* (Meunier 1910) Kof. 1911 (= *Amylax nivicola* Meunier)
- 2315 *Gonyaulax obliqua* (Gourret 1883) Lemmerm. 1899 (= *Roulea obliqua* Gourret)
- 2316 *Gonyaulax orientalis* Er. Lindem. 1924 (= *Goniodoma orientale* (Er. Lindem.) Balech 1979, *Triadinium orientale* (Er. Lindem.) J.D. Dodge 1981, *G. lebouriae* Balech 1980 partim, non *G. orientalis* sensu M. Lebour 1925)
- 2317 *Gonyaulax ovalis* J. Schiller 1929 (= *G. ovata* Matzen. 1933)
- 2318 *Gonyaulax ovata* Matzen. 1933 (= *G. ovalis* J. Schiller 1929)
- 2319 *Gonyaulax pacifica* Kof. 1907 (= *Steiniella cornuta* G. Karst. 1907, *Pavillardinium brianii* (Rampi 1941) Sournia 1973, ? *G. kofoidii* Pavill. 1909)
- 2320 *Gonyaulax parva* Ramsfjell 1959
- 2321 *Gonyaulax paucula* Kof. & J.R. Michener 1911
- 2322 *Gonyaulax pavillardii* Kof. & J.R. Michener 1911 (non *G. pavillardii* P.A. Dangeard 1927)
- 2323 *Gonyaulax perpusilla* (Meunier 1910) Kof. 1911
- 2324 *Gonyaulax polygramma* F. Stein 1883 (= *G. schuettii* Lemmerm. 1899, *Per. pyrophorum* (C.H.G. Pouchet) Lemmerm. 1899, non *Gon. polygramma* Meunier 1910)
- 2325 *Gonyaulax reticulata* Kof. & J.R. Michener 1911 (= *G. polygramma* sensu F.J.R. Taylor 1962)
- 2326 *Gonyaulax rostratum* P.A. Dangeard 1927
- 2327 *Gonyaulax rotundata* Rampi 1951
- 2328 *Gonyaulax rugosa* Wailes 1928
- 2329 *Gonyaulax scrippsiae* Kof. 1911
- 2330 *Gonyaulax senta* Kof. & J.R. Michener 1911
- 2331 *Gonyaulax sousae* Balech 1959
- 2332 *Gonyaulax sphaeroidea* Kof. 1911 (= *G. globosum* J. Schiller 1929)
- 2333 *Gonyaulax spinifera* (Clap. & J. Lachm. 1859) Diesing 1866 (= *G. levanderi* (Lemmerm.) Paulsen 1907, non *G. spinifera* F. Stein 1883)
- 2334 *Gonyaulax striata* L. Mangin 1922
- 2335 *Gonyaulax subulata* Kof. & J.R. Michener 1911 (non *G. subulata* sensu F.J.R. Taylor 1976)
- 2336 *Gonyaulax taylorii* Carbonell-Moore 1996 (= *G. monacantha* var. *minor* sensu Balech 1971)
- 2337 *Gonyaulax trottii* Rampi 1951
- 2338 *Gonyaulax turbynei* G. Murray & Whitting 1899
- 2339 *Gonyaulax unicornis* M. Lebour 1925
- 246 ***Spiraulax*** Kof. 1911 (= *Spiraulaxina* A.R. Loeb. 1970) -type *S. jolliffei*
- 2340 *Spiraulax jolliffei* (G. Murray & Whitting 1899) Kof. 1911 (= *Gonyaulax jolliffei* G. Murray & Whitting, *Spiraulax kofoidii* H.W. Graham 1942, *Spiraulaxina kofoidii* (H.W. Graham) A.R. Loeb. 1970)
- 2341 *Spiraulax kofoidii* H.W. Graham 1942
- Pyrocystaceae** (F. Schütt 1896) Lemmerm. 1899 (incl. Pyrophacaceae Er. Lindem. 1928)
- 247 ***Fragilidium*** Balech ex A.R. Loeb. 1965 (= *Helgolandicum* Stosch 1969) -type *F. heterolobum* (6 species)
- 2342 *Fragilidium duplocampanaeforme* Nézan & Chomérat 2009
- 2343 *Fragilidium fissile* Balech 1990
- 2344 *Fragilidium heterolobum* Balech 1959 ex A.R. Loeb. 1965
- 2345 *Fragilidium lacustre* (Er. Lindem. 1924) Balech 1988 (= *Goniodoma lacustre* Er. Lindem.)
- 2346 *Fragilidium mexicanum* Balech 1988
- 2347 *Fragilidium subglobosum* (Stosch 1969) A.R. Loeb. 1980 (= *Helgolandicum subglobosum* Stosch)
- 248 ***Pyrocystis*** J. Murray 1876 ex Haeckel 1890 (= *Murracystis* Haeckel 1890) -type *P. noctiluca* (13 species)
- 2348 *Pyrocystis acuta* Kof. 1907
- 2349 *Pyrocystis apiculata* F.J.R. Taylor 1976
- 2350 *Pyrocystis elegans* Pavill. 1931
- 2351 *Pyrocystis fusiformis* (C.W. Thomson 1876 ex Haeckel 1890) V.H. Blackman 1902 (= *Murracystis fusiformis* C.W. Thomson in J. Murray 1885 ex Haeckel 1890, *Dissodinium fusiformis* (C.W. Thomson ex J. Murray) Matzen. 1933)

Table 2. Continued.

- 2352 *Pyrocystis gerbaultii* Pavill. 1935 (= *Dissodinium gerbaultii* (Pavill.) F.J.R. Taylor 1976)
- 2353 *Pyrocystis hamulus* Cleve 1900
- 2354 *Pyrocystis lanceolata* Schröd. 1900 (= *P. fusiformis* f. *lanceolata* (Schröd.) F.J.R. Taylor 1976)
- Pyrocystis lunula* (F. Schütt 1895) F. Schütt 1896 (= *Gymnodinium lunula* F. Schütt 1895, *Diplodinium lunula* (F. Schütt) G.A. Klebs 1912 in Pascher 1916, *Dissodinium lunula* (F. Schütt) F.J.R. Taylor, E.V. Swift & V. Meunier 1976)
- 2355 *Pyrocystis minima* (Matzen. 1933) J. Schiller 1937 (= *Dissodinium minimum* Matzen.)
- 2357 *Pyrocystis noctiluca* J. Murray 1885 ex Haeckel 1890 (= *P. pseudonociluca* Wyville Thomson ex J. Murray 1876, *P. noctiluca* J. Murray 1885 ex F. Schütt 1896)
- 2358 *Pyrocystis obtusa* Pavill. 1931 (= *Gymnodinium lunula* F. Schütt 1895)
- 2359 *Pyrocystis rhomboides* (Matzen. 1933) J. Schiller 1937 (= *Dissodinium rhomboides* Matzen.)
- 2360 *Pyrocystis robusta* Kof. 1907
- 249 ***Pyrophacus*** F. Stein 1883 -type *P. horologium*
- 2361 *Pyrophacus horologium* F. Stein 1883
- 2362 *Pyrophacus steinii* (J. Schiller 1935) D. Wall & B. Dale 1971 (= *P. horologicum* var. *steinii* J. Schiller 1935, *P. vancampoe* (M.R. Rossignol 1962) D. Wall & B. Dale 1971)
- Order Gonyaulacales, Family of Amylax**
- 250 ***Amylax*** Meunier 1910 -type *A. lata*
- 2363 *Amylax buxus* (Balech 1967) J.D. Dodge 1989 (= *Gonyaulax buxus* Balech, ?*Amylax triacantha* (Jørg. 1900) Sournia 1984)
- 2364 *Amylax triacantha* (Jørg. 1900) Sournia 1984 (= *Gonyaulax triacantha* Jørg., *G. hyperborea* (Cleve 1900) Paulsen 1903, *Amylax lata* Meunier 1910, =? *Amylax buxus* (Balech 1967) J.D. Dodge 1989)
- 2365 *Amylax diacantha* Meunier 1919 (= *Gonyaulax verior* Sournia 1973, *G. diacantha* (Meunier) J. Schiller 1937, *G. longispina* M. Lebour 1925)
- 2366 *Amylax verrucosa* Rampi 1943
- 251 ***Lingulodinium*** D. Wall 1967 -type *L. polyedra*
- 2367 *Lingulodinium milneri* (G. Murray & Whitting 1899) J.D. Dodge 1989 (= *Gonyaulax milneri* (G. Murray & Whitting) Kof. 1911)
- 2368 *Lingulodinium polyedra* (F. Stein 1883) J.D. Dodge 1989 (= *Gonyaulax polyedra* F. Stein)
- Gonyaulacales incertae sedis**
- 252 ***Amphidiniella*** T. Horig. 1995
- 2369 *Amphidiniella sedentaria* T. Horig. 1995
- 253 ***Halostylodinium*** T. Horig. & Yoshizawa-Ebata 2000
- 2370 *Halostylodinium arenarium* T. Horig. & Yoshizawa-Ebata 2000
- 254 ***Pileidinium*** M. Tamura & T. Horig. 2005
- 2371 *Pileidinium ciceropse* M. Tamura & T. Horig. 2005
- Dinoflagellata incertae sedis**
- 255 ***Berghiella*** Kofoid & J.R. Michener 1911 (non *Borghiella* Moestrup, Gert Hansen & Daugbjerg 2008)
- 2372 *Berghiella josephineae* F.J.R. Taylor 1976 'josephinae'
- 2373 *Berghiella perplexa* Kof. 1911
- 256 ***Ceratoperidinium*** Margalef 1969 ex A.R. Loeb. 1980
- 2374 *Ceratoperidinium yeye* Margalef 1969 (= *C. margalefii* A.R. Loeb. 1980, *C. mediterraneum* Abboud-Abi Saab 1989)
- 257 ***Pyramidodinium*** T. Horig. & C. Sukigara 2005
- 2375 *Pyramidodinium atrofusum* T. Horig. & C. Sukigara 2005
- 258 ***Pseudoactiniscus*** Bursa 1969
- 2376 *Pseudoactiniscus apentasterias* Bursa 1969
- 259 ***Thaumatodinium*** Böhm 1933
- 2377 *Thaumatodinium molischii* Böhm 1933

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