

Supplementary Material

Taxonomy of coccolithophores

For taxonomic references, see Jordan et al. (2004)

5 **Kingdom CHROMISTA** Cavalier-Smith, 1986

Division HAPTOPHYTA Hibberd, 1972

Class PRYMNESIOPHYCEAE Hibbert, 1976 emend. Cavalier-Smith et al., 1996

Order COCCOLITHALES Schwartz, 1932 emend. Edvardsen et al., 2000

Family CALCIDISCACEAE Young and Bown, 1997

10 Genus *Calcidiscus* Kamptner, 1950

Calcidiscus leptoporus (Murray and Blackman, 1898) Loeblich and Tappan, 1978

Genus *Hayaster* Bukry 1973

Hayaster perplexus (Bramlette and Riedel 1954) Bukry 1973

Genus *Oolithotus* Reinhardt in Cohen and Reinhardt 1968

15 *Oolithotus antillarum* (Cohen 1964) Reinhardt in Cohen and Reinhardt 1968

Oolithotus fragilis (Lohmann 1912) Martini and Müller 1972

Genus *Umbilicosphaera* Lohmann, 1902

Umbilicosphaera anulus (Lecal 1967) Young and Geisen in Young et al. 2003

Umbilicosphaera foliosa (Kamptner 1963 ex Kleijne 1993) Geisen in Sáez et al. 2003b

20 *Umbilicosphaera hulburtiana* Gaarder 1970

Umbilicosphaera sibogae (Weber-van Bosse 1901) Gaarder 1970

Order ISOCHRYSIDALES Pascher, 1910 emend. Edvardsen and Eikrem in Edvardsen et al., 2000

Family NOELAERHABDACEAE Jerkovic, 1970 emend. Young and Bown, 1997

Genus *Emiliana* Hay and Mohler in Hay et al., 1967

25 *Emiliana huxleyi* (Lohmann, 1902) Hay and Mohler, 1967

Genus *Gephyrocapsa* Kamptner, 1943

Gephyrocapsa ericsonii McIntyre and Bé, 1967

Gephyrocapsa muelleriae Bréhéret, 1978

Gephyrocapsa oceanica Kamptner, 1943

30 Genus *Reticulofenestra* Hay et al. 1966

Reticulofenestra sessilis (Lohmann 1912) Jordan and Young 1990

Order SYRACOSPHAERALES Hay, 1977 emend. Young et al., 2003

Family CALCIOSOLENIACEAE Kamptner 1937

Genus *Calciosolenia* Gran 1912; emend. Young et al. 2003 (35)

35 *Calciosolenia brasiliensis* (Lohmann 1919) Young in Young et al. 2003

Calciosolenia murrayi Gran 1912

Family RHABDOSPHAERACEAE Haeckel 1894

- Genus *Acanthoica* Lohmann 1903; emend. Schiller 1913, Kleijne 1992
Acanthoica quattrosolina Lohmann 1903
- Genus *Algirosphaera* Schlauder 1945; emend. Norris 1984
Algirosphaera robusta (Lohmann 1902) Norris 1984
- 5 Genus *Discosphaera* Haeckel 1894
Discosphaera tubifera (Murray and Blackman 1898) Ostenfeld 1900
- Genus *Palusphaera* Lecal 1966a; emend. Norris 1984
Palusphaera vandellii Lecal 1966a; emend. Norris 1984
- Genus *Rhabdosphaera* Haeckel 1894
- 10 *Rhabdosphaera clavigera* Murray and Blackman 1898
Rhabdosphaera clavigera Murray and Blackman 1898
Rhabdosphaera xiphos (Deflandre and Fert 1954) Norris 1984
- Family SYRACOSPHAERACEAE (Lohmann, 1902) Lemmermann, 1903
- Genus *Ophiaster* Gran 1912; emend. Manton and Oates 1983b
- 15 Genus *Syracosphaera* Lohmann, 1902
Syracosphaera anthos (Lohmann 1912) Janin 1987
Syracosphaera lamina Lecal-Schlauder 1951
Syracosphaera molischii Schiller 1925
Syracosphaera pulchra Lohmann, 1902
- 20 **GENERA INCERTAE SEDIS**
Families with possible affinities to the Syracosphaerales
- Family ALISPHAERACEAE Young, Kleijne and Cros in Young et al. 2003
- Genus *Alisphaera* Heimdal 1973; emend. Jordan and Chamberlain 1993a; Kleijne et al. 2002
Alisphaera unicornis Okada and McIntyre 1977
- 25 Family UMBELLOSPHAERACEAE Young and Kleijne in Young et al. 2003
- Genus *Umbellosphaera* Paasche in Markali and Paasche 1955
Umbellosphaera irregularis Paasche in Markali and Paasche 1955
Umbellosphaera tenuis (Kamptner 1937) Paasche in Markali and Paasche 1955
- Genera with possible affinities with the Syracosphaerales
- 30 Genus *Coronosphaera* Gaarder in Gaarder and Heimdal 1977
Coronosphaera mediterranea (Lohmann 1902) Gaarder in Gaarder and Heimdal 1977
- Order ZYGODISCALES** Young and Bown, 1997
- Family HELICOSPHAERACEAE Black, 1971 emend. Jafar and Martini, 1975
- Genus *Helicosphaera* Kamptner, 1954
- 35 *Helicosphaera carteri* (Wallich 1877) Kamptner 1954
Helicosphaera hyalina Gaarder 1970
Helicosphaera wallichii (Lohmann 1902) Okada and McIntyre 1977

Family PONTOSPHAERACEAE Lemmermann 1908

Genus *Pontosphaera* Lohmann 1902

Pontosphaera multipora (Kamptner 1948) Roth 1970

Pontosphaera syracusana Lohmann 1902

5 Genus *Scyphosphaera* Lohmann 1902

Scyphosphaera apsteinii Lohmann 1902

HOLOCOCCOLITH-BEARING TAXA

Family CALYPTROSPHAERACEAE Boudreaux and Hay 1969

Genus *Syracolithus* (Kamptner 1941) Deflandre 1952

10 *Syracolithus dalmaticus* (Kamptner 1927) Loeblich Jr. and Tappan 1966

Syracolithus schilleri (Kamptner 1927) Kamptner 1956

NANNOLITH-BEARING FAMILIES

Family CERATOLITHACEAE Norris 1965

Genus *Ceratolithus* Kamptner 1950

15 *Ceratolithus cristatus* Kamptner 1950

NANNOLITH-BEARING GENERA INCERTAE SEDIS

Genus *Florisphaera* Okada and Honjo 1973

Florisphaera profunda var. *elongata* Okada and McIntyre 1980

Florisphaera profunda Okada and Honjo 1973 var. *profunda*

20 Genus *Gladiolithus* Jordan and Chamberlain 1993b

Gladiolithus flabellatus (Halldal and Markali 1955) Jordan and Chamberlain 1993b

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