



The Inclusion of *Coscinosira* Gran (Bacillariophyceae) in *Thalassiosira* Cleve

Author(s): Grethe Rytter Hasle

Source: *Taxon*, Vol. 21, No. 4 (Aug., 1972), pp. 543-544

Published by: International Association for Plant Taxonomy (IAPT)

Stable URL: <http://www.jstor.org/stable/1219143>

Accessed: 09/04/2009 09:32

Your use of the JSTOR archive indicates your acceptance of JSTOR's Terms and Conditions of Use, available at <http://www.jstor.org/page/info/about/policies/terms.jsp>. JSTOR's Terms and Conditions of Use provides, in part, that unless you have obtained prior permission, you may not download an entire issue of a journal or multiple copies of articles, and you may use content in the JSTOR archive only for your personal, non-commercial use.

Please contact the publisher regarding any further use of this work. Publisher contact information may be obtained at <http://www.jstor.org/action/showPublisher?publisherCode=iapt>.

Each copy of any part of a JSTOR transmission must contain the same copyright notice that appears on the screen or printed page of such transmission.

JSTOR is a not-for-profit organization founded in 1995 to build trusted digital archives for scholarship. We work with the scholarly community to preserve their work and the materials they rely upon, and to build a common research platform that promotes the discovery and use of these resources. For more information about JSTOR, please contact support@jstor.org.



International Association for Plant Taxonomy (IAPT) is collaborating with JSTOR to digitize, preserve and extend access to *Taxon*.

<http://www.jstor.org>

1838; A. DC. in DC., Prodr. 7(2): 422. 1839; Spach, Hist. Nat. Veg. 9: 562. 1840; Benth. et Hook. f., Gen. Pl. 2: 558. 1876; Nicholson, Ill. Dict. Gard. 1: 259. 1884; Schönland in Engler et Prantl, Pflanzenfam. ed. 1, IV. 5: 55. 1889; Bailey, Stand. Cycl. Hort. 1: 653. 1939; R.H.S. Dict. Gard. 1: 381. 1951; O. Hedberg in Svensk Bot. Tidskr. 35: 48. 1961.

Mindium Adanson, Fam. Pl. 2: 134. 1763 *nom. rej. prop.*

Type species: *Mindium canariense* (L.) Rafin.

Adopted by: Rafinesque, Fl. Telluriana, 2: 79. 1837; Merrill, Index Rafinesquianus, 231. 1949.

Discussion: This must be read in conjunction with the comments on my proposal (340) to conserve the generic name *Michauxia*. As pointed out there, Adanson's *Mindium* (1763) can be interpreted in two ways: one can follow Rechinger f. and Schiman-Czeika (Fl. Iranica, no. 13: 47. 1965), basing the name upon Rauwolf's *Mindium Rhazis* and typifying it by the species described and figured in the *Eigentliche Beschreibung der Raiss*, 284. 1582-83, or, alternatively, one can follow Rafinesque and regard *Mindium* as the earliest valid name for the genus subsequently named *Canarina* by Linnaeus (1771). In either case a well-known and long-standing name has to be rejected, unless conservation is employed to safeguard traditional nomenclature. I do not think *Mindium* Adanson can be rejected as a *nomen confusum* under Art. 69: admittedly it has been used in different senses, but it would be difficult to argue that it has become a long-persistent source of error since it has scarcely been used since 1763. In any case there is no satisfactory machinery under Art. 69 for disposing of *nomina confusa*, whereas, by means of conservation, the imperilled name *Canarina* can be finally and permanently rescued.

Proposed by: R. D. MEIKLE, Royal Botanic Gardens, Kew, England.

THE INCLUSION OF COSCINOSIRA GRAN (BACILLARIOPHYCEAE) IN THALASSIOSIRA CLEVE*

The similarity between the genera *Thalassiosira* Cleve and *Coscinosira* Gran was pointed out by Proshkina-Lavrenko (1956) when describing *Thalassiosira aculeata*, a species appearing in colonies in which adjacent cells are connected by more than one thread, as in species of *Coscinosira*. In the text preceding the diagnosis of the new species, *Coscinosira polychorda* Gran, *C. oestrupii* Ostenf. and *C. mediterranea* Schröder were mentioned. Hasle (1960), not being aware of Proshkina-Lavrenko's paper, published a similar discussion, in which it was emphasized that same *Thalassiosira* species, e.g. *T. gravida* Cleve and *T. fluvialilis* Hust. have more than one central tubulus or central thread (for terms see Hasle, 1972). Therefore, she concluded that a separation of the two genera on the basis of the number of central tubuli and connecting mucilage threads (Gran, 1900, p. 115; Hustedt, 1930, p. 310) could not be upheld. It was also suggested that the five *Coscinosira* species described to that time should be transferred to the older genus *Thalassiosira*. Further investigations have shown that still more species which without hesitation would be regarded as *Thalassiosira* species have more than one central tubulus and consequently more than one connecting thread (Hasle, 1968; Hasle & Heimdal, 1968). Moreover it has been found that two of the species previously regarded as *Coscinosira* species, *T. polychorda* (Hasle & Heimdal, 1970, Fig. 26) and *T. floridana*, belong to the group of *Thalassiosira* species with a marginal labiate process and the greater part of the tubuli external to the valve, while *T. oestrupii* and *T. poroseriata* (Hasle & Heimdal, 1970, Figs. 65-69) belong to the group having a labiate process intermediate between the centre and the valve margin and the greater length of the tubuli internal to the valve. The fifth species, *T. mediterranea*, has not been examined. If the presence of more than one connecting thread is discarded as a justification for retaining *Coscinosira* as a separate genus, and since this character most probably was the

reason why Schröder (1911) referred the species to this genus, *C. mediterranea* must also be regarded as a species of *Thalassiosira*.

Assuming that valid combinations had been made by Proshkina-Lavrenko (1956) and Hasle (1960), the names *Thalassiosira floridana* (Cooper) Hasle, *T. polychorda* (Gran) Pr.-Lavr., *T. oestrupii* (Ostenf.) Pr.-Lavr., and *T. poroseriata* (Ramsfjell) Hasle were used by Hasle (1968) and Hasle & Heimdal (1968, 1970).

In a letter of October 28, 1970, Dr. P. C. Silva, University of California, Berkeley, informed me that *Thalassiosira polychorda* (Gran) Jørgensen (Jørgensen, 1899) was the correct name, and that the other *Coscinosira* species had not been validly transferred to *Thalassiosira* in accordance with Art. 33 of the International Code of Botanical Nomenclature (Lanjouw et al., 1966).

In order to validate these combinations, they are here given with their basionyms:

Thalassiosira floridana (Cooper) comb. nov. — Basionym: *Coscinosira floridana* Cooper, 1958, p. 127, Figs. a, b, c, Pl. 3.

Thalassiosira oestrupii (Ostenf.) comb. nov. — Basionym: *Coscinosira oestrupii* Ostenfeld, 1900, p. 52.

Thalassiosira poroseriata (Ramsfjell) comb. nov. — Basionym: *Coscinosira poroseriata* Ramsfjell, 1959, p. 175, Pl. 1g, Pl. 11a.

Thalassiosira mediterranea (Schröder) comb. nov. — Basionym: *Coscinosira mediterranea* Schröder, 1911, p. 28, Fig. 5.

References

- COOPER, I. C. G. 1958 — A new diatom from Fort Meyer, Florida, U.S.A. *Revue algol.* 2: 125-128.
- GRAN, H. H. 1900 — Bemerkungen über einige Planktondiatomeen. *Nyt Mag. Naturvid.* 38: 103-128.
- HASLE, G. R. 1960 — Phytoplankton and ciliate species from the tropical Pacific. *Skr. norske VidenskAkad. I. Mat.-Nat. Kl.* 1960, 2: 1-50.
- HASLE, G. R. 1968 — The valve processes of the centric diatom genus *Thalassiosira*. *Nytt Mag. Bot.* 15: 193-201.
- HASLE, G. R. 1972 — Two types of valve processes in centric diatoms. *Nova Hedwigia*, Beiheft 29: 55-78.
- HASLE, G. R. & B. R. HEIMDAL 1968 — Morphology and distribution of the marine centric diatom *Thalassiosira antarctica* Comber. *J. R. microsc. Soc.* 88: 357-369.
- HASLE, G. R. & B. R. HEIMDAL 1970 — Some species of the centric diatom genus *Thalassiosira* studied in the light and electron microscopes. *Diatomaceae II*. Friedrich Hustedt Gedenkband (Beiheft 31 zur *Nova Hedwigia*): 543-581.
- HUSTEDT, F. 1930 — Die Kieselalgen Deutschlands, Österreichs und der Schweiz. *Rabenhorst, Krypt. Flora* 7(1): 1-920.
- JØRGENSEN, E. 1899 — Protophyten und Protozoën im Plankton aus der norwegischen Westküste. *Bergens Mus. Årb.* 6: 1-112.
- LANJOUW, J. et al. 1966 — International code of botanical nomenclature. Pp. 402. *Int. Bur. Pl. Taxonomy and Nomenclature*. Utrecht.
- OSTENFELD, C. 1900 — Plankton i 1899. Pp. 43-95. In M. Knudsen & C. Ostenfeld: *Iagttagelser over Overfladevandets Temperatur, Saltholdighed og Plankton paa islandske og grønlandske Skibsrouter i 1899*. Kjøbenhavn.
- PROSHKINA-LAVRENKO, A. J. 1956 — De specie nova *Thalassiosira e* Mari Macotia. *Botanicheskie materialy. Otdela sporovykh rastenij* 11: 57-60 (In Russian.)
- RAMSFJELL, E. 1959 — Two new phytoplankton species from the Norwegian Sea, the diatom *Coscinosira poroseriata*, and the dinoflagellate *Goniaulax parva*. *Nytt Mag. Bot.* 7: 175-177.
- SCHRÖDER, B. 1911 — Adriatisches Phytoplankton. *Sbr. Akad. Wiss. Wien, Mat.-Nat. Kl.* 70, 1: 1-57.

GRETHE RYTTER HASLE
Institute of Marine Biology
Blindern, Oslo 3, Norway