

A Checklist of Diatom Species Reported (and Presumed Native) from Canadian Coastal Waters

L. Mather, K. MacIntosh, I. Kaczmarska, G. Klein and J.L. Martin

Fisheries and Oceans Canada
Science Branch
Maritimes Region
St. Andrews Biological Station
531 Brandy Cove Road
St. Andrews, NB Canada
E5B 2L9

2010

Canadian Technical Report of
Fisheries and Aquatic Sciences 2881



Fisheries and Oceans
Canada

Pêches et Océans
Canada

Canada

Canadian Technical Report of Fisheries and Aquatic Sciences

Technical reports contain scientific and technical information that contributes to existing knowledge but which is not normally appropriate for primary literature. Technical reports are directed primarily toward a worldwide audience and have an international distribution. No restriction is placed on subject matter and the series reflects the broad interests and policies of Fisheries and Oceans Canada, namely, fisheries and aquatic sciences.

Technical reports may be cited as full publications. The correct citation appears above the abstract of each report. Each report is abstracted in the data base *Aquatic Sciences and Fisheries Abstracts*.

Technical reports are produced regionally but are numbered nationally. Requests for individual reports will be filled by the issuing establishment listed on the front cover and title page.

Numbers 1-456 in this series were issued as Technical Reports of the Fisheries Research Board of Canada. Numbers 457-714 were issued as Department of the Environment, Fisheries and Marine Service, Research and Development Directorate Technical Reports. Numbers 715-924 were issued as Department of Fisheries and Environment, Fisheries and Marine Service Technical Reports. The current series name was changed with report number 925.

Rapport technique canadien des sciences halieutiques et aquatiques

Les rapports techniques contiennent des renseignements scientifiques et techniques qui constituent une contribution aux connaissances actuelles, mais qui ne sont pas normalement appropriés pour la publication dans un journal scientifique. Les rapports techniques sont destinés essentiellement à un public international et ils sont distribués à cet échelon. Il n'y a aucune restriction quant au sujet; de fait, la série reflète la vaste gamme des intérêts et des politiques de Pêches et Océans Canada, c'est-à-dire les sciences halieutiques et aquatiques.

Les rapports techniques peuvent être cités comme des publications à part entière. Le titre exact figure au-dessus du résumé de chaque rapport. Les rapports techniques sont résumés dans la base de données *Résumés des sciences aquatiques et halieutiques*.

Les rapports techniques sont produits à l'échelon régional, mais numérotés à l'échelon national. Les demandes de rapports seront satisfaites par l'établissement auteur dont le nom figure sur la couverture et la page du titre.

Les numéros 1 à 456 de cette série ont été publiés à titre de Rapports techniques de l'Office des recherches sur les pêcheries du Canada. Les numéros 457 à 714 sont parus à titre de Rapports techniques de la Direction générale de la recherche et du développement, Service des pêches et de la mer, ministère de l'Environnement. Les numéros 715 à 924 ont été publiés à titre de Rapports techniques du Service des pêches et de la mer, ministère des Pêches et de l'Environnement. Le nom actuel de la série a été établi lors de la parution du numéro 925.

Canadian Technical Report of
Fisheries and Aquatic Sciences 2881

March 2010

**A Checklist of Diatom Species Reported (and Presumed Native)
from Canadian Coastal Waters**

by

L. Mather¹, K. MacIntosh¹, I. Kaczmarska¹, G. Klein¹ and J.L. Martin

Fisheries and Oceans Canada, Maritimes Region, St. Andrews Biological Station,
531 Brandy Cove Road, St. Andrews, NB Canada E5B 2L9

¹Dept. Biology, Mount Allison University, 63B York St., Sackville, NB Canada E4L 1G7

This is the two hundred and ninetieth Technical Report of
the Biological Station, St. Andrews, NB

© Her Majesty the Queen in Right of Canada, 2010

Cat. No. Fs 97-6/2881E.....ISSN 0706-6457 (print version)

Cat. No. F597-6/2881E-PDF.....ISSN 1488-5379 (on-line version)

Correct citation for this publication:

Mather, L., MacIntosh, K., Kaczmarska, I., Klein, G. and Martin, J.L. 2010. A checklist of diatom species reported (and presumed native) from Canadian coastal waters. Can. Tech. Rep. Fish. Aquat. Sci. 2881: iii + 78p.

ABSTRACT

Mather, L., MacIntosh, K., Kaczmarska, I., Klein, G. and Martin, J.L. 2010. A checklist of diatom species reported (and presumed native) from Canadian coastal waters. Can. Man. Rep. Fish. Aquat. Sci. 2881: iii+ 78 p.

The transportation of phytoplankton via ballast water is one of the main vectors allowing organisms to establish themselves in new environments. Since the 1970s, both the frequency of ocean crossings and the volume transported has increased. Therefore, it is to be expected that the potential for invasion would have also increased.

Although reviews on the species richness of native biota have been done for some areas of the world, a clear and concise list of the presumed native biota for Canadian waters has yet to be documented.

The aim of this report is to provide a list of diatom species found as their names appear in the cited literature, as well as their current valid name, from the Canadian and the neighbouring north, east, and west coasts of North America. This will allow for a better understanding of the presumed native diatoms, and thus the potentially non-native diatom species, documented in Canadian waters. As well, it provides a time-line for when these organisms were documented as occurring in our waters.

RÉSUMÉ

Mather, L., MacIntosh, K., Kaczmarska, I., Klein, G. and Martin, J.L. 2010. A checklist of diatom species reported (and presumed native) from Canadian coastal waters. Can. Tech. Rep. Fish. Aquat. Sci. 2881: iii+ 78 p.

Le transport des eaux de ballast est un des vecteurs principal dans le transfert du phytoplancton qui permet à ces organismes de s'établir dans un nouvel environnement. Depuis les années 1970 la capacité et la fréquence des navires long courrier ont augmenté, ainsi que le potentiel d'invasion.

Ailleurs au monde, des recensements de la richesse des espèces natives ont été achevés mais jusqu'à date il n'y a aucune liste documentée pour les diatomées présumées indigènes dans les eaux canadiennes.

Le but de ce rapport est de dresser une liste des diatomées trouvées dans les eaux canadiennes et des côtes adjacentes du nord, est et ouest de l'Amérique du Nord. Cette liste comprend le nom de l'espèce comme il apparaît dans la littérature citée ainsi que le nom courant valide. Elle offre une meilleure compréhension des diatomées dites natives et subséquentement des espèces non indigènes dans les eaux canadiennes. Également, cette liste permet de dresser une ligne temporelle depuis quand ces organismes ont été observés dans nos eaux canadiennes.

INTRODUCTION

The confirmed introduction of non-indigenous and toxic or harmful phytoplankton species via ballast water in Australia (Hallegraeff et al. 1988) and other waters around the world has established a growing concern regarding our ability to recognize newcomers for the North American coasts (Edlund et al. 2000, Mills et al. 1993, Ricciardi 2001). The possibility for invasion of a species is not only determined by whether or not a transfer vector is available to the organism, but whether or not the environmental conditions, such as nutrient availability and temperature, of the new location facilitate survival. These introduced organisms pose obvious ecological risks to native habitats but the risk is further magnified by the potential that such organisms may become toxigenic or otherwise harmful once introduced. However, before identifying a species as alien, a good understanding of species richness in native biota is needed. Examples of documentation of native species include: diatoms of the United States (Patrick and Reimer 1966, 1975), diatoms of Europe (Hustedt 1930, 1939, Krammer 2000, 2002, Lange-Bertalot 2001) and diatoms of British coast (Hendey 1964). Such systematic work from the microbial community is yet to be undertaken for marine diatoms in Canadian waters.

This work was initiated through a project funded by the Canadian Aquatic Invasive Species Network (CAISN) to study the potential for diatoms to invade Canadian marine and freshwater environments through the transport of ballast water. CAISN is an organization that is conducting a comprehensive study examining and identifying existing invasions with the goal of preventing future invasions from foreign locations into Canadian ports. The overall mission of CAISN is to reveal to the public the results of an expansive network of research and to raise awareness and initiate policy changes when it comes to aquatic invasive species. As part of this project, ballast water samples from ships coming to the ports of Halifax and Montreal (East Coast), Vancouver (West Coast), and the Great Lakes were examined for the potential of diatoms species to survive and thrive in these tanks. As this research was conducted, a list of species' names and references was collected to aid in mapping the potential for change in species' composition in our waters.

This report documents diatoms (Bacillariophyta) that have been observed in Canada and the neighbouring north, east and west coasts of North America, and thus would be expected to naturally occur in Canadian waters.

Reported species are documented, including: 1) the diatom species name listed as it appears in its original publication; 2) the species current and valid name; and, 3) the common synonyms, verified through the two taxonomic databases: algae base and catalogue of life (algaebase.org, catalogueoflife.com). Use of invalid names or synonyms can cause erroneous or confusing reports of species of micro-biota. Diatom species reported here were collected from a total of thirty published sources that represent the years spanning 1910-2008 (see Appendix 1), and five lists obtained through personal communications (B. Ginn, Dept. of Biology, Queen's University, 116 Barrie St., Kingston, ON Canada K7L 3N6; L.A. Hobson, University of Victoria, PO Box 1700 STN CSC, Victoria, BC Canada V8W 2Y2; R.A. Horner, University of Washington, Box 357940, Seattle, WA 98195-7940; J.L. Martin, Biological Station, 531 Brandy Cove Road, St. Andrews, NB Canada E5B 2L9; and C. Rafuse, National Research Council Institute for Marine Biosciences, 1411 Oxford Street, Halifax, NS Canada, B3H 3Z1). Ballast waters from transoceanic vessels can be a major means by which diatoms are transported to ports throughout

the world. The volume and frequency of these ocean crossing vessels has significantly increased since the 1970s, with increasing introductions at the close of the 20th century (Carlton 1996), a time span sufficient for microorganisms such as diatoms to establish themselves in Canadian waters. Examples from the macroscopic level include species such as the zebra mussel (*Dreissena polymorpha*) and the Emerald ash boring beetle (*Agrilus planipennis*) - non-indigenous invaders that are now well established in Canada. There is growing evidence that the potential for invasions to occur at a microscopic level exists as well - as has been documented for the species *Didymosphenia geminata* (Lyngbye) M. Schmidt (Blanco and Ector 2009) and *Thalassiosira baltica*, (Edlund et. al. 2000) - all of which necessitates more research focusing on microbes, both native and those arriving from exotic locations.

In this list, some diatoms presumed by many to be non-indigenous diatoms, have been found to be reported in some locations in Canada as early as 1910. One such example is *Achnanthes subsessilis* K., (Bailey 1910). Another example is *Pseudo-nitzschia fraudulenta* (Cleve) Hasle, a species thought to be cosmopolitan, but was first observed in the Bay of Fundy as recently as the year 2008 (Martin and LeGresley 2008). Some species such as *Tabellaria flocculosa* (Roth) Kützing, (Hay et. al. 2003; Bailey 1913) are most likely native to our waters as they have been reported both before and after 1970, when the volume and frequency of ocean crossing vessels began to increase substantially (Carlton 1996). As more organisms become established, it is increasingly difficult to determine whether or not species are indigenous or introduced. Thus, uncovering the time-lines to which these species occur can indicate the possibility for establishment of new species in our coastal waters as well as the potential for species (native/non-native) to sustain themselves within the environment. More species, established through ballast water transport, are indicated in a manuscript written by Klein et al. (2009).

We appreciate that some taxa included in this report might have been introduced centuries ago given that seafaring communities have existed on the Canadian East coast since the 1600s. Until presented with evidence to the contrary, we assume these species to be indigenous.

The goal of this compilation is to provide baseline data of our current understanding of marine diatom species composition in Canada. This will aid in recognizing non-native arrivals found through various vectors including incoming ships' ballast water and sediments.

MATERIALS AND METHODS

Books and papers collected from scientific journals were checked for species' lists. As well, various colleagues were contacted and contributed their personal species' lists. Details on the collection of samples are described in the books and papers cited in this manuscript and the names of the colleagues who contributed their lists are listed in the Acknowledgements.

RESULTS

Approximately 893 valid names are listed, representing 160 diatom genera that include 825 species and 69 subspecies level taxa. Of these, some are marine and brackish, likely collected in

situ, but others are known to be from freshwater and most likely introduced into the marine environment from inland sources. Appendix I presents the species' names as they are found originally as well as current accepted names and synonyms. Each species' name has been cited indicating the source of the information and the known geographic location in Canada (East, West or Arctic) of the species is documented.

DISCUSSION

This checklist of species represents the start of documenting species currently observed in North American marine waters, specifically those found on the Canadian marine coasts. The intent of this publication is to make the present data available for examining the composition of diatom species in Canadian waters, both present and from the past. This will provide valuable baseline data on native diatom species and give a greater understanding of the potential for introduction of new organisms from foreign locations that may exist in our coastal regions and establish themselves.

This list may also aid in identifying species that are cryptogenic, that is species that have not been confidently identified as being native or introduced (Carlton 1996). Cryptogenic species are ones that have an unknown origin, or an origin that is not explicitly clear. It seems inevitable that marine organisms that are moved transoceanically into habitats wherever vectors implicated in their transport have gone would be classified as being cryptogenic (Carlton 1996). The understanding that cryptogenic species may be more common than originally thought makes it possible for one to significantly underestimate the impacts of biological invasions on natural and previously invaded communities (Carlton 1996). Neglecting this information may lead to a misleading interpretation of invasion corridors, the types of communities susceptible or resistant to invasions, and invasion success rates (Carlton 1996).

Although we have included the vast majority of papers and books that list species from the North American marine coast, specifically from Canadian waters, we acknowledge that this may not be representative of all the data available and as more research is being conducted more species may be detected.

ACKNOWLEDGEMENTS

Partial funding for this work was through Canadian Aquatic Invasive Network (CAISN) to I. Kaczmarek. The CAISN organization is partners with a number of organizations including Natural Sciences and Engineering Research Council of Canada (NSERC), the Department of Fisheries and Oceans, Transport Canada, the Ontario Ministry of the Environment, and Ontario Ministry of Natural Resources. We gratefully acknowledge the following colleagues who kindly shared their species lists, in alphabetic order of surname: Brian Ginn (PhD research at Queen's University pending his acceptance), Louis Hobson (University of Victoria), Rita Horner (University of Washington), and Cheryl Rafuse (Dalhousie University). We thank Rita Horner and Murielle LeGresley for reviewing; Charlotte McAdam for editing and Joanne Power for formatting the manuscript.

REFERENCES

- Antoniades, D., Douglas, M.S.V. and Smol, J.P. 2005. Benthic diatom autecology and inference model development from the Canadian High Arctic Archipelago. *J. Phycol.* 41(1): 30-45.
- Bailey, L.W. 1910. The Marine and Estuarine Diatoms of the New Brunswick Coasts. *Bulletin of the Natural History Society of New Brunswick* 6: 219-239.
- Bailey, L.W. 1913. Diatoms of New Brunswick. *Bulletin of the Natural History Society of New Brunswick* 6: 387-417.
- Bailey, L.W. and MacKay, A.H. 1921. The Diatoms of Canada. *Contributions to Can. Biol.* 1918-1920: 115-124.
- Bates, S.S. and Strain, P.M. 2006. Nutrients and phytoplankton in Prince Edward Island Inlets during late summer to fall, 2001-2003. *Can. Tech. Rep. Fish. Aquat. Sci.* 2668: 148 p.
- Bérard-Therriault, L., Poulin, M., Bossé, L. 1999. Guide d'identification du phytoplancton marin de l'estuaire et du golfe du Saint-Laurent incluant également certains protozoaires. *Publi. spéc. can. sci. halieut. aquatic.* 128. 387 p.
- Blanco, S. and Ector, L. 2009. Distribution, ecology and nuisance effects of the freshwater invasive diatom *Didymosphenia geminata* (Lyngbye) M. Schmidt: a literature review. *Nova Hedwigia* 88 (3-4): 347-422.
- Booth, B.C. and Horner, R.A. 1997. Microalgae on the Arctic Ocean Section, 1994: species abundance and biomass. *Deep Sea Res. II Top. Stud. Oceanogr.* 44 (8): 1607-1622.
- Brunel, J. 1962. Le phytoplancton de la Baie des Chaleurs. *Contributions du Ministère de la chasse et des pêcheries, Montreal.* 91. 365 p.
- Bursa, A.S. 1963. Phytoplankton in coastal waters of the Arctic Ocean at Point Barrow, Alaska. *Arctic* 16(4): 239-262.
- Cardinal, A., Poulin, M. and Bérard-Therriault, L. 1984. Les diatomées benthiques de substrats durs des eaux marines et saumâtres du Québec 4. Naviculales, Naviculaceae (A l'exclusion de genres *Navicula*, *Donkinia*, *Gyrosigma* et *Pleurosigma*). *Rev. Écol. Syst.* 111: 369-394.
- Cardinal, A, Poulin, M, and Bérard-Therriault, L. 1989. New criteria for species characterization in the genera *Donkinia*, *Gyrosigma* and *Pleurosigma* (Naviculaceae, Bacillariophyceae). *Phycologia* 28(1): 15-27.

- Carlton, J.T. 1996. Pattern, process, and prediction in marine invasion ecology. *Biol.Conserv.* 78(1-2): 97-106.
- Carver, C.E. and Mallet, A.L. 2002. An assessment of the risk of ballast water-mediated introduction of non-indigenous phytoplankton and zooplankton into Atlantic Canada waters. Darmouth NS, Mallet Research Services Ltd. 97 p.
- Cattaneo, A., Couillard, Y., Wunsam, S. and Courcelle, M. 2004. Diatom taxonomic and morphological changes as indicators of metal pollution and recovery in Lac Dufault (Quebec, Canada). *J. Paleolimnol.* 32(2): 163-175.
- Chang, B.D., Martin, J.L., Page, F.H., Harrison, W.G., Burridge, L.E., LeGresley, M.M., Hanke, A.R., McCurdy, E.P., Losier, R.J., Horne E.P.W. and Lyons, M.C. 2007. Phytoplankton early warning approaches for salmon farmers in southwestern New Brunswick: aquaculture collaborative research and development program final project report. *Can. Tech. Rep. Fish. Aquat. Sci.* 2715: 112 p.
- Cupp, E.E. 1943. Marine plankton diatoms of the west coast of North America. *Bull. Scripps Inst. of Oceanogr., Univ. Calif.* 237 p.
- Edlund, M.B., Taylor, C.M., Schelske, C.L. and Stoermer, E.F. 2000. *Thalassiosira baltica* (Grunow) Ostenfeld (Bacillariophyta), a new exotic species in the Great Lakes. *Can. J. Fish. Aquat. Sci.* 57(3): 610–615.
- Fritz, C.W. 1921. Plankton diatoms, their distribution and bathymetric range in St. Andrews waters. *Contr. Can. Biol. Fish.* 1918–1920: 49–62.
- Gran, H.H., and Braarud, T. 1935. A quantitative study of the phytoplankton in the Bay of Fundy and the Gulf of Maine (including observations on hydrography, chemistry and turbidity). *J. Biol. Bd. Can.* 1: 279-467.
- Hallegraeff, G.M., Steffensen, D.A. and Wetherbee, R. 1988. Three estuarine dinoflagellates that can produce paralytic shellfish toxins. *J. Plankton Res.* 10(3): 533-541.
- Hargraves, P.E., and Maranda, L. 2002. Potentially toxic or harmful microalgae from the northeast coast. *Northeast. Nat.* 9(1): 81-120.
- Hasle, G.R., and Syvertsen, E. 1997. Marine Diatoms. In Tomas, C.R. (Ed.) *Identifying marine phytoplankton.* Academic Press, San Diego, CA. p. 5-385.
- Hay, M.B., Pienitz, R., and Thomson, R.E. 2003. Distribution of diatom surface sediment assemblages within Effingham Inlet, a temperate fjord on the west coast of Vancouver Island (Canada). *Mar. Micropaleontol.* 48(3-4): 291-320.

- Hendey, N.I. 1964. An introductory account of the smaller algae of British Coastal waters. Part V: Bacillariophyceae (Diatoms). Ministry of Agriculture, Fisheries and Food, Fisheries Investigations Ser. IV. Her Majesty's Stationery Office, London. 317 p.
- Hobson, L.A. 2009. Phytoplankton ecology of the northeast Pacific Ocean: An illustrated guide. LCJLMES Press, Victoria, British Columbia. 87 p.
- Horner, R.A. 2002. A taxonomic guide to some common marine phytoplankton. Henry Ling Ltd., Dorset Press, Dorchester. 195 p.
- Horner, R.A., Postel, J.R., Halsband-Lenk, C., Pierson, J.J., Pohnert, G. and Wichard, T. 2005. Winter-spring phytoplankton blooms in Dabob Bay, Washington. Prog. Oceanogr. 67 (3-4): 286-313.
- Hustedt, F., 1930. Bacillariophyta (Diatomeae). In: Die Süßwasser Flora Mitteleuropas, Heft 10 Edited by A. Pascher, Gustav Fischer, Jena, pp. 1-466.
- Hustedt, F. 1939. Die Diatomeenflora des Küstengebietes der Nordsee vom Dollart bis zur Elbemündung. Abh. naturwiss. Ver. Bremen, 31: 572-677.
- Johnson, K.J. 1988. The phytoplankton community structure of two estuaries in eastern Prince Edward Island. Thesis (B.Sc.) Mount Allison University, Sackville, New Brunswick, Canada. 34 p.
- Kaczmarska, I., Martin, J.L., Ehrman, J.M. and LeGresley, M.M. 2007. *Pseudo-nitzschia* species population dynamics in the Quoddy Region, Bay of Fundy. Harmful Algae 6(6): 861-874.
- Kirkwood, A.E., Shea, T., Jackson, L.J. and McCauley, E. 2007. *Didymosphenia geminata* in two Alberta headwater rivers: an emerging invasive species that challenges conventional views on algal bloom development. Can. J. Fish. Aquat. Sci. 64(12): 1703-1709.
- Klein, G., Martin, J.L. and Kaczmarska, I. 2009. Biological synopsis of phytoplankton new to the Bay of Fundy. Can. Man. Rep. Fish. Aquat. Sci. 2919: 43 p.
- Krammer, K. 2000. The genus *Pinnularia*. Diatoms of Europe: Diatoms of the European inland waters and comparable habitats. Vol. 1 Edited by H. Lange-Bertalot, ARG Gantner Verlag, Germany. 703 p.
- Krammer, K. 2002. *Cymbella*. Diatoms of Europe: Diatoms of the European inland waters and comparable habitats. Vol. 3 Edited by H. Lange-Bertalot. A.R.G. Gantner Verlag, Germany. 584 p.
- Lakshminarayana, J.S.S. 1983. Phytoplankton of the Quoddy Region. In Marine and Coastal Systems of the Quoddy Region, New Brunswick. Edited by Martin L.H. Thomas. Can. Spec. Publ. Fish. Aquat. Sci. 64: 176-192.

- Lange-Bertalot, H. 2001. *Navicula sensu stricto*: 10 genera separated from *Navicula sensu lato Frustulia*. Diatoms of Europe: Diatoms of the European inland waters and comparable habitats. Vol. 2 Edited by H. Lange-Bertalot. A.R.G. Gantner Verlag, Germany. 526 p.
- Linkletter, L.E., Lord, E.I. and Dadswell, M.J. 1977. A checklist and catalogue of the marine fauna and flora of the lower Bay of Fundy shore of New Brunswick. St. Stephen N.B., The Huntsman Marine Laboratory: Print'N Press Ltd. St. Stephen, NB. 75 p.
- Lovejoy, C., Legendre, L., Martineau, M.J., Bâcle, J. and von Quillfeldt, C.H. 2002. Distribution of phytoplankton and other protists in the North Water. Deep Sea Res. II Top. Stud. Oceanogr. 49(22-23): 5027-5047.
- Martin, J.L., LeGresley, M.M., Strain, P.M., and Clement, P. 1999. Phytoplankton monitoring in the southwest Bay of Fundy during 1993-96. Can. Tech. Rep. Fish. Aquat. Sci. 2265: 132 p.
- Martin, J.L., LeGresley, M.M., and Strain, P.M. 2001. Phytoplankton monitoring in the Western Isles region of the Bay of Fundy during 1997-98. Can. Tech. Rep. Fish. Aquat. Sci. 2349: 85 p.
- Martin, J.L. and LeGresley, M.M. 2008. New phytoplankton species in the Bay of Fundy since 1995. ICES J. Mar. Sci. 65(5): 759-764.
- McQuoid, M.R. and Hobson, L.A. 1997. A 91-year record of seasonal and interannual variability of diatoms from laminated sediments in Saanich Inlet, British Columbia. J. Plankton Res. 19(2): 173-194.
- McQuoid, M.R. and Hobson L.A. 2001. A Holocene record of diatom and silicoflagellate microfossils in sediments of Saanich Inlet, ODP Leg 169S. Marine Geology 174: 111-123.
- Mills, E.L., Leach, J.H., Carlton, J.T., and Secor, C.L. 1993. Exotic species in the Great Lakes: a history of biotic crises and anthropogenic introductions. J. Great Lakes Res. 19(1): 1-54.
- Patrick, R. and Reimer, C.W. 1966. The diatoms of the United States Vol 1. Philadelphia, Sutter House. 688 p.
- Patrick, R. and Reimer, C.W. 1975. The diatoms of the United States Vol 2.1. Philadelphia, Sutter House. 213 p.
- Poulin, M., Bérard-Therriault, L. and Cardinal, A. 1984a. Les diatomées benthiques de substrats durs des eaux marines et saumâtres du Québec. 2. Tabellarioideae et Diatomoideae (Fragilariales, Fragilariaceae). Naturaliste can. (Rev. Écol. Syst.) 111: 274-295.

- Poulin, M., Bérard-Therriault, L., and Cardinal, A. 1984b. Les diatomées benthiques de substrats durs des eaux marines et saumâtres du Québec. 3. Fragilarioideae (Fragilariales, Fragilariaceae). *Naturaliste can. (Rev. Écol. Syst.)* 111: 349-367.
- Poulin, M., Bérard-Therriault, L. and Cardinal, A. 1987. Les diatomées (Bacillariophyta) benthiques de substrats durs des eaux marines et saumâtres du Québec. 7. Naviculales (les genres *Plagiotropis* et *Entomoneis*) Epithemiales et Surilellales. *Naturaliste can. (Rev. Écol. Syst.)* 114: 67-80.
- Poulin, M., Bérard-Therriault, L., Cardinal, A., and Hamilton, P.B. 1990. Les Diatomées (Bacillariophyta) benthiques de substrats durs des eaux marines et saumâtres du Québec. 9. Bacillariaceae. *Naturaliste can. (Rev. Écol. Syst.)* 117: 73-101.
- Rawlence, D.J. 1987. A guide to the common phytoplankton of the St. Croix Estuary, New Brunswick. Saint John, NB. Publications in Natural Science No. 6. 60 p.
- Ricciardi, A. 2001. Facilitative interactions among aquatic invaders: is an “invasional meltdown” occurring in the Great Lakes? *Can. J. Fish. Aquat. Sci.* 58(12): 2513-2525.
- Riedel, A., Michel, C., Poulin, M. and Lessard, S. 2003. Taxonomy and abundance of microalgae and protists at a first-year sea ice station near Resolute Bay, Nunavut, spring to early summer 2001. *Can. Data Rep. Hydrogr. Ocean Sci.* 159: 59 p.
- Róžańska, M., Poulin, M. and Gosselin, M. 2008. Protist entrapment in newly formed sea ice in the Coastal Arctic Ocean. *J. Mar. Systems* 74(3-4): 887–901.
- Sancetta, C. and Calvert, S.E. 1988. The annual cycle of sedimentation in Saanich Inlet, British Columbia: implications for the interpretation of diatom fossil assemblages. *Deep Sea Res. Part A. Oceanogr. Res. Pap.* 35(1): 71-90.
- Thaler, M. 2007. Spatial and temporal variation in epipelagic diatoms on a Bay of Fundy shoreline. Thesis (B.Sc.) Mount Allison University, Sackville, New Brunswick, 86 p.
- Trites, M., Kaczmarek, I., Ehrman, J.M., Hicklin, P.W. and Ollerhead, J. 2005. Diatoms from two macro-tidal mudflats in Chignecto Bay, Upper Bay of Fundy, New Brunswick, Canada. *Hydrobiologia* 544(1): 299-319.
- Zwicker, L.A. 1998. The effect of salinity on the epiphytic diatoms of floating macrophyton in the Kouchibouguac River, Kouchibouguac National Park. Thesis (B.Sc.) Mount Allison University, Sackville, New Brunswick, 131 p.

APPENDIX I

Table I : List of species documented from east, west and arctic North American coastal waters, with emphasis on Canadian waters. (BoF= Bay of Fundy, US= United States, pers. comm.= personal communication, (col)= catalogue of life, (ab)= algae base). References outside parentheses are the original papers for reference of species' name while references within parentheses are from additional papers that support the presence of a species.

¹Ginn (pers. comm.) - B. Ginn, Queen's University, Dept. of Biology, 116 Barrie St., Kingston, ON Canada K7L 3N6

²Martin (pers. comm.) - J.L. Martin, Biological Station, 531 Brandy Cove Road, St. Andrews, NB Canada E5B 2L9

³Horner (pers. comm.) - R. Horner, University of Washington, School of Oceanography, Box 357940, Seattle, WA 98195-7940

⁴Rafuse (pers. comm.) - C. Rafuse, National Research Council - Institute for Marine Biosciences, 1411 Oxford Street, Halifax, NS Canada B3H 3Z1

⁵Hobson (pers. comm.) - L.A. Hobson, University of Victoria, PO Box 1700 STN CSC, Victoria, BC Canada V8W 2Y2

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Achnanthes bahusiensis</i> (Grunow) Lange-Bertalot	<i>Achnanthes bahusiensis</i> (Grunow) Lange-Bertalot (ab)	<i>Navicula koenigii</i> Brockmann, <i>Navicula bahusiensis</i> (Grunow) Cleve, <i>Achnanthes pseudosolea</i> Simonsen	East (BoF)	Ginn (pers. comm.) ¹
<i>Achnanthes bioretii</i> Germain	<i>Achnanthes bioretii</i> Germain (ab)	<i>Navicula rotæana</i> var. <i>excentrica</i> Grunow, <i>Navicula vanheurckii</i> R.M. Patrick	Arctic	Antoniades et al. 2005
<i>Achnanthes brevipes</i>	<i>Achnanthes brevipes</i> C. Agardh (ab)	<i>Cymbosira agardhii</i> Kützing, <i>Achnantella brevipes</i> (Agardh) Gailon, <i>Achnanthidium brevipes</i> (Agardh) Heiberg, <i>Achnanthidium</i> <i>brevipes</i> (Agardh) Cleve	East	Brunel 1962 (Bailey 1910, Carver & Mallet 2002)
<i>Achnanthes brevipes</i> var. <i>intermedia</i>	<i>Achnanthes brevipes</i> var. <i>intermedia</i> (Kützing) Cleve (ab)	<i>Achnanthes intermedia</i> Kützing, <i>Achnanthes subsessilis</i> Kützing	East	Brunel 1962
<i>Achnanthes broenlundensis</i> Foged	<i>Achnanthes broenlundensis</i> Foged (ab)		Arctic	Antoniades et al. 2005
<i>Achnanthes chlidanos</i> Hohn & Hellerman	<i>Psammothidium chlidanos</i> (M.H. Hohn & Hellerman) Lange-Bertalot (ab)	<i>Achnanthes chlidanos</i> M.H. Hohn & Hellerman	Arctic	Antoniades et al. 2005
<i>Achnanthes flexella</i> Kützing	<i>Eucoconeis flexella</i> (Kützing) Meister (ab)	<i>Achnanthes flexella</i> (Kützing) Brun	Arctic	Antoniades et al. 2005

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Achnanthes hauckiana</i> var. <i>rostrata</i> Schulz	<i>Achnanthes hauckiana</i> var. <i>rostrata</i> Schulz (col)		East	Zwicker 1998
<i>Achnanthes helvetica</i> Hustedt	<i>Achnanthes helvetica</i> (Hustedt) Lange-Bertalot (ab)	<i>Achnanthes austriaca</i> var. <i>ventricosa</i> Krasske, <i>Achnanthes austriaca</i> var. <i>helvetica</i> Hustedt	Arctic	Antoniades et al. 2005
<i>Achnanthes kriegeri</i> Krasske	<i>Achnanthes kriegeri</i> Krasske (ab)		West (Eiffingham Inlet)	Hay et al. 2003
<i>Achnanthes kryophila</i> Petersen	<i>Achnanthes kryophila</i> J.B. Petersen (ab)	<i>Navicula seminulum</i> var. <i>intermedia</i> Hustedt, <i>Achnanthes plitvicensis</i> Hustedt	Arctic	Antoniades et al. 2005
<i>Achnanthes laevis</i> Østrup	<i>Achnanthes laevis</i> Østrup (ab)		Arctic	Antoniades et al. 2005
<i>Achnanthes longipes</i> Agardh	<i>Achnanthes longipes</i> Agardh (ab)		East/West	Linkletter et al. 1977 (Bailey 1910, 1913)
<i>Achnanthes marginulata</i> Grunow in Cleve & Grunow	<i>Achnanthes marginulata</i> Grunow in Cleve & Grunow (ab)		Arctic	Antoniades et al. 2005
<i>Achnanthes minutissima</i> Kützing	<i>Achnantheidium minutissimum</i> (Kützing) Czarniecki (ab)	<i>Achnanthes minutissima</i> Kützing	West (Eiffingham Inlet)/Arctic/East	Hay et al. 2003 (Antoniades et al. 2005, Cattaneo et al. 2004)
<i>Achnanthes petersenii</i> Hustedt	<i>Rossithidium petersenii</i> (Hustedt) Round & L. Bukhtiyarova ex Aboal (ab)	<i>Achnanthes petersenii</i> Hustedt, <i>Achnanthes hustedtii</i> Bily & Marvan, <i>Achnanthes jakovljevicii</i> Hustedt, <i>Achnanthes kryophila</i> var. <i>densestriata</i> Hustedt, <i>Achnanthes parallela</i> J.R. Carter, <i>Achnanthes procera</i> Hustedt, <i>Achnanthes pusilla</i> var. <i>petersenii</i> (Hustedt) Lange-Bertalot, <i>Achnanthes sonyda</i> B. Hartley, <i>Navicula densestriata</i> Hustedt, <i>Achnanthes grubei</i> Simonsen	Arctic	Antoniades et al. 2005

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Achnanthes rossii</i> Hustedt	<i>Achnanthes rossii</i> Hustedt (ab)	<i>Achnanthes cassida</i> Carter	Arctic	Antoniades et al. 2005
<i>Achnanthes</i> spp.	<i>Achnanthes</i> spp.		East/Arctic	Bates & Strain 2006 (Booth & Horner 1997)
<i>Achnanthes subsessilis</i> K.	<i>Achnanthes brevipes</i> var. <i>intermedia</i> (Kützing) Cleve	<i>Achnanthes subsessilis</i> Kützing	East	Bailey 1910 (Bailey 1913)
<i>Achnanthes taeniata</i>	<i>Achnanthes taeniata</i> Grunow (ab)	<i>Achnanthes taeniata</i> var. <i>hyperborea</i> Grunow, <i>Achnanthes hyperborea</i> (Grunow) Grunow	East (BoF)/Arctic	Carver & Mallet 2002 (Bursa 1963, Gran & Braarud 1935)
<i>Achnanthes ventralis</i> Krasske	<i>Achnanthes ventralis</i> (Krasske) Lange-Bertalot (ab)	<i>Achnanthes kryophila</i> var. <i>protracta</i> Hustedt, <i>Achnanthes sublaevis</i> Hustedt, <i>Navicula ventralis</i> Krasske, <i>Achnanthes sublaevis</i> var. <i>crassa</i> C.W. Reimer	Arctic	Antoniades et al. 2005
<i>Achnanthidium biasolettianum</i> (Grunow in Cleve and Grunow) Round & Bukhtiyarova	<i>Achnanthidium biasolettianum</i> (Grunow) F.E. Round & L. Bukhtiyarova (ab)	<i>Achnanthidium biasolettianum</i> (Grunow) Lange-Bertalot, <i>Achnanthidium biasolettianum</i> (Kützing) Bukhtiyarova, <i>Microneis biasolettiana</i> (Kützing) Meister, <i>Microneis biasolettiana</i> (Kützing) Cleve, <i>Achnanthes biasolettiana</i> Grunow, <i>Falcatella biasolettiana</i> (Kützing) Rabenhorst, <i>Synedra biasolettiana</i> Kützing	West (Eiffingham Inlet)	Hay et al. 2003
<i>Actinocyclus curvatulus</i> Janisch	<i>Actinocyclus curvatulus</i> Janisch	<i>Actinocyclus subocellatus</i> (Grunow) Rattray, <i>Coscinodiscus curvatulus</i> var. <i>subocellatus</i> Grunow	West/Arctic	Sancetta & Calvert 1988 (Lovejoy et al. 2002, McQuoid & Hobson 2001)
<i>Actinocyclus ehrenbergi</i> Ralfs	<i>Actinocyclus octonarius</i> Ehrenberg (ab)	<i>Actinocyclus ehrenbergii</i> Ralfs	East	Gran & Braarud 1935
<i>Actinocyclus</i> sp.	<i>Actinocyclus</i> sp.		Arctic	Riedel et al. 2003
<i>Actinocyclus tenuissimus</i>	<i>Actinocyclus tenuissimus</i> Cleve		East/Arctic	Bérard-Therriault et al. 1999 (Lovejoy et al. 2002)

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Actinocyclus octonarius</i> Ehrenberg	<i>Actinocyclus octonarius</i> Ehrenberg (ab)	<i>Actinocyclus ehrenbergii</i> Ralfs	West	Hobson 2009
<i>Actinoptychus senarius</i> Ehrenberg	<i>Actinoptychus senarius</i> (Ehrenberg) Ehrenberg (ab)	<i>Actinoptychus undulatus</i> Bailey ex Hustedt, <i>Actinocyclus senarius</i> Ehrenberg, <i>Actinocyclus undulatus</i> J.W. Bailey, <i>Actinocyclus undulatus</i> Kützing, <i>Actinoptychus undulatus</i> (J.W. Bailey) Ralfs	East/West	Horner et al. 2005 (Linkletter et al. 1977, Sancetta & Calvert 1988, McQuoid & Hobson 2001, Hay et al. 2003)
<i>Actinoptychus</i> sp.	<i>Actinoptychus</i> sp.		Arctic	Bursa 1963
<i>Actinoptychus splendens</i> (Shadbolt) Ralfs	<i>Actinoptychus splendens</i> (Shadbolt) Ralfs ex Pritchard (ab)	<i>Actinoptychus halionyx</i> Grunow, <i>Actinoptychus quatuordenarius</i> Ehrenberg, <i>Actinosphaenia splendens</i> Shadbolt	West (US)/East	Cupp 1943 (McQuoid & Hobson 2001, Carver & Mallet 2002)
<i>Actinoptychus undulatus</i> (Bailey) Ralfs	<i>Actinoptychus senarius</i> (Ehrenberg) Ehrenberg (ab)	<i>Actinoptychus undulatus</i> (J.W. Bailey) Ralfs	East/West (US)/Arctic	Cupp 1943 (Bailey 1910, 1913, Bursa 1963, Gran & Braarud 1935)
<i>Actinoptychus vulgaris</i> Schumann	<i>Actinoptychus vulgaris</i> Schumann (ab)		West (Effingham Inlet)	Hay et al. 2003
<i>Amphipleura pellucida</i> Kutz.	<i>Amphipleura pellucida</i> (Kützing) Kützing (ab)	<i>Berkeleya pellucida</i> (Kützing) Giffen, <i>Carrodoria pellucida</i> (Kützing) Kuntze, <i>Aulacocystis pellucida</i> (Kützing) Hassall, <i>Navicula pellucida</i> (Kützing) Ehrenberg, <i>Frustulia pellucida</i> Kützing	East	Bailey 1913
<i>Amphipleura sigmoidea</i> W. Sm.	<i>Amphipleura sigmoidea</i> W. Smith		East	Bailey 1910 (Bailey 1913)
<i>Amphiprora alata</i> Kutz.	<i>Entomoneis alata</i> (Ehrenberg) Ehrenberg	<i>Amphiprora alata</i> (Ehrenberg) Kützing	East	Bailey 1910 (Bailey 1913)
<i>Amphiprora gigantea</i> var. <i>sulcata</i> (O'Meara) Cleve	<i>Amphiprora gigantea</i> var. <i>sulcata</i> (O'Meara) Cleve (ab)		West (US)	Cupp 1943
<i>Amphiprora hyperborea</i> Gran	<i>Amphiprora hyperborea</i> (Grunow) Gran (col)	<i>Amphiprora paludosa</i> var. <i>hyperborea</i> Grunow	Arctic	Bursa 1963 (Booth & Horner 1997)
<i>Amphiprora paludosa</i>	<i>Amphiprora paludosa</i> W. Smith		East	Brunel 1962

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Amphitetras</i> sp.	<i>Amphitetras</i> sp.		West	Hobson 2009 (McQuoid & Hobson 2001)
<i>Amphora</i> sp.	<i>Amphora</i> sp.		East	Brunel 1962
<i>Amphora</i> spp.	<i>Amphora</i> spp.		Arctic/West	Lovejoy et al. 2002 (McQuoid & Hobson 2001)
<i>Amorpha affinis</i> Kütz.	<i>Amphora libyca</i> Ehrenberg (ab)	<i>Amphora affinis</i> Kützing	East	Bailey 1913
<i>Amphora coffeaeformis</i> (C.A. Agardh) Kützing	<i>Amphora aponina</i> Kützing (ab)	<i>Frustulia coffeaeformis</i> C. Agardh	West (Effingham Inlet)	Hay et al. 2003
<i>Amphora costata</i> W. S.	<i>Amphora costata</i> W. Smith (ab)		East	Bailey 1913
<i>Amphora helenensis</i> Giffen	<i>Amphora helenensis</i> M.H. Giffen (ab)		West (Effingham Inlet)	Hay et al. 2003
<i>Amphora inariensis</i> Krammer	<i>Amphora inariensis</i> Krammer (ab)		Arctic	Antoniades et al. 2005
<i>Amphora laevis</i> var. <i>laevissima</i>	<i>Amphora laevis</i> var. <i>laevissima</i> (Gregory) Cleve		Arctic	Riedel et al. 2003 (Lovejoy et al. 2002)
<i>Amphora libyca</i> Ehrenberg	<i>Amphora libyca</i> Ehrenberg (ab)	<i>Amphora copulata</i> (Kützing) Schoeman & Archibald, <i>Amphora ovalis</i> var. <i>libyca</i> (Ehrenberg) Cleve, <i>Amphora ovalis</i> var. <i>affinis</i> (Kützing) van Heurck, <i>Amphora affinis</i> Kützing, <i>Frustulia copulata</i> Kützing	Arctic	Antoniades et al. 2005
<i>Amphora obtecta</i> H.L.S.	<i>Amphora obtecta</i> J.W. Bailey (ab)		East	Bailey 1913
<i>Amphora ovalis</i> Kütz.	<i>Amphora ovalis</i> (Kützing) Kützing (ab)	<i>Amphora amphora</i> (C.G. Ehrenberg) J. Pantocsek, <i>Amphora ocellata</i> Ehrenberg, <i>Navicula amphora</i> Ehrenberg, <i>Frustulia ovalis</i> Kützing	East (BoF)/West	Bailey 1913 (McQuoid & Hobson 2001, Bailey 1910)

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Amphora pediculus</i> (Kützing) Grunow ex Schmidt	<i>Amphora pediculus</i> (Kützing) Grunow ex A. Schmidt (ab)	<i>Amphora ovalis</i> var. <i>pediculus</i> (Kützing) Pero, <i>Encyonema</i> <i>pediculus</i> (Kützing) H. Peragallo, <i>Amphora ovalis</i> var. <i>pediculus</i> (Kützing) van Heurck, <i>Cymbella</i> <i>caespitosum</i> var. <i>pediculus</i> (Kützing) Brun, <i>Cymbella</i> <i>pediculus</i> Kützing, <i>Amphora</i> <i>ovalis</i> var. <i>pediculus</i> Kützing	Arctic	Antoniades et al. 2005
<i>Amphora robusta</i>	<i>Amphora robusta</i> Gregory (ab)		East	Carver & Mallet 2002
<i>Amphora spitzbergensis</i> VanLandingham	<i>Amphora spitzbergensis</i> VanLandingham (ab)		Arctic	Antoniades et al. 2005
<i>Amphora</i> sp.	<i>Amphora</i> sp.		East	Brunel 1962
<i>Amphora</i> spp.	<i>Amphora</i> spp.		East	Martin (pers. comm.) ²
<i>Arachnoidiscus ehrenbergii</i> Bailey ex Ehrenberg	<i>Arachnoidiscus ehrenbergii</i> Bailey ex Ehrenberg (ab)		West (US)	Cupp 1943
<i>Arcocellulus cornucervis</i>	<i>Arcocellulus cornucervis</i> G.R. Hasle, H.A. von Stosch & E.E. Syvertsen (ab)		East/Arctic	Bérard-Therriault et al. 1999 (Lovejoy et al. 2002)
<i>Asterionella formosa</i>	<i>Asterionella formosa</i> Hassall (ab)	<i>Asterionella gracillima</i> var. <i>formosa</i> (Hassall) Wislouch	East	Cattaneo et al. 2004
<i>Asterionella gracillima</i> Heib.	<i>Asterionella gracillima</i> (Hantzsch) Heiberg (ab)		Arctic/East	Bursa 1963 (Gran & Braarud 1935)
<i>Asterionella japonica</i>	<i>Asterionellopsis glacialis</i> (F. Castracane) F.E. Round		East	Brunel 1962 (Gran & Braarud 1935)
<i>Asterionella kariana</i> Grunow	<i>Asteroplanus karianus</i> (Grunow) C. Gardner & R.M. Crawford (ab)	<i>Asterionella kariana</i> Grunow, <i>Asterionellopsis kariana</i> (Grunow) F.E. Round	Arctic/East	Bursa 1963 (Gran & Braarud 1935)
<i>Asterionellopsis glacialis</i>	<i>Asterionellopsis glacialis</i> (F. Castracane) F.E. Round	<i>Asterionella glacialis</i> F. Castracane, <i>Asterionella japonica</i> Cleve	East/West	Bérard-Therriault et al. 1999 (Horner 2002)
<i>Asterionellopsis kariana</i>	<i>Asteroplanus karianus</i> (Grunow) C. Gardner & R.M. Crawford (ab)		East	Carver & Mallet 2002
<i>Asterionellopsis socialis</i> (Lewin & Norris) Round	<i>Asterionella socialis</i> Lewin & Norris (ab)		West	Horner (pers. comm.) ³
<i>Asterolampira</i> sp.	<i>Asterolampira</i> sp.		Arctic	Bursa 1963

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Asterolampira marylandica</i> Ehrenberg	<i>Asterolampira marylandica</i> Ehrenberg (ab)	<i>Asterolampira vanheurckii</i> Brun	West (US)/East	Cupp 1943
<i>Asteromphalus fiabellatus</i>	<i>Asteromphalus fiabellatus</i> (Brébisson) Greville (ab)	<i>Spatangidium fiabellatum</i> Brébisson	East	Carver & Mallet 2002
<i>Asteromphalus heptactis</i> (Brébisson) Ralfs	<i>Asteromphalus heptactis</i> (Brébisson) Ralfs (ab)	<i>Asterolampira areolata</i> A. Mann, <i>Asterolampira heptactis</i> Greville, <i>Asteromphalus reticulatus</i> Cleve, <i>Spatangidium heptactis</i> Brébisson, <i>Spatangidium</i> <i>ralfsianum</i> G. Norman, <i>Asterolampira ralfsiana</i> (G. Norman) Grunow	West	Cupp 1943 (Hobson 2009, Sancetta & Calvert 1988, McQuoid & Hobson 2001)
<i>Asteromphalus hyalinus</i>	<i>Asteromphalus hyalinus</i> Karsten (ab)		East	Bérard-Therriault et al. 1999
<i>Asteromphalus sarcophagus</i> Wallich	<i>Asteromphalus sarcophagus</i> Wallich (ab)		West	Horner (pers. comm.) ³
<i>Attheya armatus</i> (West) Crawford	<i>Attheya armata</i> (T. West) R. M. Crawford (ab)		West	Horner (pers. comm.) ³
<i>Attheya decora</i>	<i>Attheya decora</i> T. West (ab)		East	Bérard-Therriault et al. 1999
<i>Attheya longicornis</i>	<i>Attheya longicornis</i> R. M. Crawford & C. Gardner (ab)		East	Martin & LeGresley 2008
<i>Attheya septentrionalis</i>	<i>Attheya septentrionalis</i> (Østrup) Crawford (ab)	<i>Chaetoceros septentrionalis</i> Østrup, <i>Gonioceros</i> <i>septentrionalis</i> (Østrup) Round, Crawford & Mann	East/Arctic	Bérard-Therriault et al. 1999 (Riedel et al. 2003, Lovejoy et al. 2002, Booth & Horner 1997, Rozanska et al. 2008)
<i>Attheya</i> sp.	<i>Attheya</i> sp.		Arctic	Lovejoy et al. 2002
<i>Aulacodiscus kittonii</i> Arnott	<i>Aulacodiscus kittonii</i> Arnott ex Ralfs (ab)		West	Horner (pers. comm.) ³
<i>Aulacoseira ambigua</i> (Grunow) Simonsen	<i>Aulacoseira ambigua</i> (Grunow) Simonsen (ab)	<i>Melosira ambigua</i> (Grunow) O.F. Muller	East (BoF)	Ginn (pers. comm.) ¹

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Aulacoseira distans</i> (Ehrenb.) Simonsen	<i>Aulacoseira distans</i> (Ehrenberg) Simonsen (ab)	<i>Melosira polymorpha</i> subsp. <i>distans</i> (C.G. Ehrenberg) H. Bethge, <i>Gaillionella distans</i> Ehrenberg, <i>Melosira distans</i> (Ehrenberg) Kützing, <i>Lysigonium distans</i> (Ehrenberg) Trevisan, <i>Lysigonium distans</i> (Ehrenberg) Kuntze, <i>Melosira polymorpha</i> subsp. <i>distans</i> (C.G. Ehrenberg) H. Bethge	East	Ginn (pers. comm.) ¹
<i>Aulacoseira granulata</i>	<i>Aulacoseira granulata</i> (Ehrenberg) Simonsen (ab)	<i>Melosira polymorpha</i> subsp. <i>granulata</i> (C.G. Ehrenberg) H. Bethge, <i>Gaillionella granulata</i> Ehrenberg, <i>Melosira granulata</i> (Ehrenberg) Ralfs, <i>Melosira punctata</i> var. <i>granulata</i> (Ehrenberg) Cleve & Möller, <i>Lysigonium granulatum</i> (Ehrenberg) Kuntze, <i>Orthosira granulata</i> (Ehrenberg) Schonfeldt	East (BoF)	Carver & Mallet 2002
<i>Aulacoseira islandica</i>	<i>Aulacoseira islandica</i> (O.Müller) Simonsen		East	Bérard-Therriault et al. 1999
<i>Aulacoseira</i> spp.	<i>Aulacoseira</i> spp.		West	McQuoid & Hobson 2001
<i>Aulacoseira subarctica</i> (O. Müller) Haworth	<i>Melosira italica</i> subsp. <i>subarctica</i> O.F. Müller (ab)	<i>Aulacoseira subarctica</i> (O. Müller) Haworth	West (Effingham Inlet)	Hay et al. 2003
<i>Auliscus sculptus</i> Ralfs	<i>Auliscus sculptus</i> (W. Smith) Ralfs ex Pritchard (ab)	<i>Auliscus caelatus</i> J.W. Bailey, <i>Eupodiscus sculptus</i> W. Smith	East (BoF)	Bailey 1913 (Lakshminarayana 1983)
<i>Auliscus spinosus</i> Chris.	<i>Auliscus spinosus</i> T.Christian (ab)		East	Bailey 1913
<i>Auliscus</i> sp.	<i>Auliscus</i> sp.		West	Sancetta & Calvert 1988

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Bacillaria paradoxa</i> Gmel.	<i>Bacillaria paradoxa</i> J.F. Gmelin (ab)	<i>Vibrio paxillifer</i> O.F. Müller, <i>Oscillatoria paxillifer</i> (O.F. Müller) Schrank, <i>Diatoma paxilliferum</i> (O.F. Müller) Brébisson, <i>Nitzschia paxillifer</i> (O.F. Müller) Heiberg, <i>Nitzschia paradoxa</i> (J.F. Gmelin) Grunow, <i>Oscillatoria paxillifera</i> (O.F. Müller) Schrank ex Gomont, <i>Bacillaria paxillifer</i> (O.F. Müller) T. Marsson, <i>Homoeocladia paxillifer</i> (O.F. Müller) Elmore, <i>Bacillaria paxillifer</i> (O.F. Müller) Hendey	East	Bailey 1910 (Bailey 1913)
<i>Bacillaria paxillifer</i> (O.F. Müller) Hendey	<i>Bacillaria paradoxa</i> J.F. Gmelin (ab)	<i>Oscillatoria paxillifera</i> (O.F. Müller) Schrank	East/West	Horner et al. 2005 (Martin [pers. comm.] ² , Carver & Mallet 2002, McQuoid & Hobson 2001)
<i>Bacteriastrium comosum</i> Pavillard	<i>Bacteriastrium comosum</i> Pav. (ab)		West (US)/East	Cupp 1943
<i>Bacteriastrium delicatulum</i>	<i>Bacteriastrium delicatulum</i> Cleve (ab)		East/West	Carver & Mallet 2002 (Horner pers. comm.) ³
<i>Bacteriastrium elongatum</i> Cleve	<i>Bacteriastrium elongatum</i> Cl. (ab)		West (US)/East	Cupp 1943 (Carver & Mallet 2002)
<i>Bacteriastrium furcatum</i>	<i>Bacteriastrium furcatum</i> Shadbolt (ab)	<i>Bacteriastrium varians</i> Lauder	East	Carver & Mallet 2002
<i>Bacteriastrium hyalinum</i> Lauder	<i>Bacteriastrium hyalinum</i> Laud. (ab)		West (US)/East	Cupp 1943 (Carver & Mallet 2002)
<i>Bacteriastrium hyalinum</i> var. <i>princeps</i> (Castracane) Ikari	<i>Bacteriastrium hyalinum</i> var. <i>princeps</i> (Castr.) Ikari (ab)		West (US)	Cupp 1943
<i>Bacteriastrium</i> spp.	<i>Bacteriastrium</i> spp.		East	Martin (pers. comm.) ²
<i>Bacterosira bathyomphala</i>	<i>Bacterosira bathyomphala</i> (Cleve) E.E. Syvertsen & G.R. Hasle (ab)	<i>Bacterosira fragilis</i> (Gran) Gran, <i>Lauderia fragilis</i> Gran, <i>Coscinodiscus bathyomphalus</i> Cleve	East/Arctic	Béard-Therriault et al. 1999 (Lovejoy et al. 2002)

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Bacteriosira fragilis</i> Gran	<i>Bacteriosira bathyomphala</i> (Cleve) E.E. Svertsen & G.R. Hasle	<i>Bacteriosira fragilis</i> (Gran) Gran	East (BoF)/Arctic	Linkletter et al. 1977 (Brunel 1962, Bursa 1963, Gran & Braarud 1935, Booth & Horner 1997)
<i>Bellerochea horologicalis</i>	<i>Bellerochea horologicalis</i> von Stosch (ab)	<i>Bellerochea malleus</i> (Brightwell) Van Heurck	East	Carver & Mallet 2002
<i>Bellerochea malleus</i>	<i>Bellerochea malleus</i> (Brightwell) Van Heurck	<i>Triceratium malleus</i> Brightwell	East	Bérard-Therriault et al. 1999 (Bursa 1963)
<i>Berkeleya rutilans</i> (Trentepohl) Grunow	<i>Berkeleya rutilans</i> (Trentepohl ex Roth) Grunow (ab)	<i>Carrodoria rutilans</i> (Roth) Kuntze, <i>Amphipleura rutilans</i> (Trentepohl ex Roth) Cleve, <i>Conferva rutilans</i> Trentepohl, <i>Berkeleya dillwynii</i> var. <i>rutilans</i> (Trentepohl ex Roth) Eiben, <i>Monema rutilans</i> (Trentepohl ex Roth) Meneghini, <i>Girodella rutilans</i> (Roth) Gaillon, <i>Schizonema rutilans</i> (Trentepohl ex Roth) Agardh, <i>Hydrolinum rutilans</i> (Trentepohl ex Roth) Link, <i>Bangia rutilans</i> (Roth) Lyngbye, <i>Conferva rutilans</i> Trentepohl ex Roth	East (BoF)	Cardinal et al. 1984
<i>Biddulphia alternans</i> (Bailey) Van Heurck	<i>Triceratium alternans</i> J.W. Bailey (ab)	<i>Biddulphia alternans</i> (J.W. Bailey) Van Heurck	East/West (US)	Cupp 1943 (Bérard-Therriault et al. 1999, Gran & Braarud 1935)
<i>Biddulphia aurita</i> (Lyng.) Bréb. & God.	<i>Odontella aurita</i> (Lyngbye) C.A. Agardh (ab)	<i>Biddulphia aurita</i> (Lyngbye) Brébisson	East/Arctic	Rawlence 1987 (Brunel 1962, Fritz 1921, Bursa 1963, Gran & Braarud 1935, Bailey 1910, 1913)
<i>Biddulphia aurita</i> var. <i>obtus</i>	<i>Biddulphia obtusa</i> (Kützing) Ralfs (ab)	<i>Biddulphia aurita</i> var. <i>obtus</i> (Kützing) Hustedt	East	Brunel 1962
<i>Biddulphia baileyi</i>	<i>Biddulphia mobilensis</i> (J.W. Bailey) Grunow	<i>Biddulphia baileyi</i> W. Smith	East	Bailey 1910
<i>Biddulphia dubia</i> (Brightwell) Cleve	<i>Biddulphia dubia</i> (T. Brightwell) P.T. Cleve (ab)		West (US)	Cupp 1943
<i>Biddulphia laevis</i>	<i>Pleurosira laevis</i> (Ehrenberg) Compère (ab)	<i>Biddulphia laevis</i> Ehrenberg	East	Bailey 1913

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Biddulphia longicurris</i> var. <i>hyalina</i> (Schröder) Cupp	<i>Odontella longicurris</i> (Greville) Hoban (ab)	<i>Biddulphia longicurris</i> var. <i>hyalina</i> (Schröd.) Cupp	West (US)	Cupp 1943
<i>Biddulphia mobiliensis</i>	<i>Odontella mobiliensis</i> (J.W. Bailey) Grunow	<i>Biddulphia mobiliensis</i> Grunow, Zygoceros <i>mobiliensis</i> J.W. Bailey, <i>Biddulphia baileyi</i> W. Smith	East	Fritz 1921 (Bailey 1913)
<i>Biddulphia obtusa</i>	<i>Biddulphia obtusa</i> (Kützing) Ralfs (ab)	<i>Biddulphia roperiana</i> Greville, <i>Odontella obtusa</i> Kützing, <i>Biddulphia aurita</i> var. <i>obtusa</i> (Kützing) Hustedt	West (US)	Carver & Mallet 2002
<i>Biddulphia pulchella</i> Gray	<i>Biddulphia pulchella</i> S.F. Gray		East	Bailey 1910 (Carver & Mallet 2002)
<i>Biddulphia regia</i> (Schulze) Ostenfeld	<i>Odontella regia</i> (Schulze) Simonsen	<i>Denticella regia</i> Schultze (ab)	East	Gran & Braarud 1935
<i>Biddulphia reticulum</i>	<i>Biddulphia reticulum</i> (Ehrenberg) Boyer (ab)	<i>Triceratium sculptum</i> Shadbolt, <i>Triceratium punctatum</i> Brightwell	East	Carver & Mallet 2002
<i>Biddulphia rhombus</i> (Ehrenberg) W. Smith	<i>Zygoceros rhombus</i> Ehrenberg (ab)		West (US)/East	Cupp 1943 (Bailey 1913, Carver & Mallet 2002)
<i>Brachysira vitrea</i>	<i>Brachysira vitrea</i> (Grunow) R. Ross (ab)	<i>Anomooneis vitrea</i> (Grunow) Ross, <i>Anomooneis variabilis</i> (Ross) Reimer, <i>Navicula variabilis</i> R. Ross, <i>Gomphonema vitreum</i> Grunow	East	Cattaneo et al. 2004
<i>Brébissonia boeckii</i> (Ehrenberg) Grunow	<i>Brébissonia boeckii</i> (Ehrenberg) E. O'Meara (ab)	<i>Cocconeoma boeckii</i> Ehrenberg, <i>Doryphora boeckii</i> (Ehrenberg) W. Smith	East	Linkletter et al. 1977 (Bailey 1913, 1910, Cardinal et al. 1984)
<i>Caloneis aerophila</i> Bock	<i>Caloneis aerophila</i> Bock (ab)		Arctic	Antoniades et al. 2005
<i>Caloneis hendeyi</i> Lange-Bertalot	<i>Caloneis hendeyi</i> Lange-Bertalot (ab)		Arctic	Antoniades et al. 2005
<i>Caloneis schumaniana</i> Grun.	<i>Caloneis schumaniana</i> (Grunow) Cleve (ab)		East	Bailey 1913
<i>Caloneis silicula</i> (Ehrenberg) Cleve	<i>Navicula silicula</i> Ehrenberg (ab)		Arctic	Antoniades et al. 2005
<i>Caloneis subclevei</i> Krammer	<i>Caloneis subclevei</i> Krammer (ab)		Arctic	Antoniades et al. 2005
<i>Campylodiscus cribrosus</i>	<i>Campylodiscus echineis</i> Ehrenberg (ab)	<i>Campylodiscus cribrosus</i> W. Smith	East	Bailey 1910

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Campylodiscus fastuosus</i> Her.	<i>Campylodiscus fastuosus</i> Ehrenberg (ab)	<i>Campylodiscus thuretii</i> Brébisson, <i>Campylodiscus parvulus</i> W.Smith	East	Bailey 1913
<i>Campylodiscus ralfsii</i> W. Sm.	<i>Campylodiscus ralfsii</i> W.Smith (ab)		East	Bailey 1913
<i>Campylodiscus spiralis</i> W. Sm.	<i>Campylodiscus spiralis</i> (Kützing) W. Smith (ab)		East	Bailey 1913
<i>Campylodiscus thuretii</i>	<i>Campylodiscus fastuosus</i> Ehrenberg (ab)	<i>Campylodiscus thuretii</i> Brébisson	East	Brunel 1962
<i>Campyloneis</i> spp.	<i>Campyloneis</i> spp.		West	McQuoid & Hobson 1997 (McQuoid & Hobson 2001)
<i>Campylosira cymbelliformis</i> (A. Schmidt) Grunow	<i>Campylosira cymbelliformis</i> (A. Schmidt) Grunow ex Van Heurck (ab)	<i>Synedra cymbelliformis</i> A.Schmidt (col)	West (US)	Cupp 1943 (Carver & Mallet 2002)
<i>Cerataulina bergoni</i> H. Peragallo	<i>Cerataulina pelagica</i> (Cleve) Hendey (ab)	<i>Cerataulus bergonii</i> H. Peragallo	East	Gran & Braarud 1935
<i>Cerataulina pelagica</i> (Cleve) Hendey	<i>Cerataulina pelagica</i> (Cleve) Hendey (ab)	<i>Cerataulus bergonii</i> H. Peragallo, <i>Cerataulina bergonii</i> (H. Peragallo) Schütt	East/West	Horner et al. 2005 (Linkletter et al. 1977, Hargraves & Maranda 2002, Bérard-Therriault et al. 1999, Bates & Strain 2006)
<i>Cerataulina</i> spp.	<i>Cerataulina</i> spp.		East	Martin (pers. comm.) ²
<i>Chaetoceros abnormis</i>	<i>Chaetoceros abnormis</i> A.I. Proshkina-Lavrenko (ab)		East	Brunel 1962
<i>Chaetoceros affinis</i> Lauder	<i>Chaetoceros affinis</i> Lauder (ab)	<i>Chaetoceros angulatus</i> Schütt, <i>Chaetoceros ralfsii</i> Cleve, <i>Chaetoceros javanicus</i> Cleve, <i>Chaetoceros schuttii</i> Cleve	East/West	Sancetta & Calvert 1988 (Bérard-Therriault et al. 1999, Brunel 1962, Gran & Braarud 1935)
<i>Chaetoceros affinis</i> var. <i>circinalis</i> (Meunier) Hustedt	<i>Chaetoceros affinis</i> var. <i>circinalis</i> (Meun.) Hust. (ab)		West (US)	Cupp 1943
<i>Chaetoceros affinis</i> var. <i>willei</i>	<i>Chaetoceros willei</i> Grunow (ab)		East	Bérard-Therriault et al. 1999 (Brunel 1962)
<i>Chaetoceros anastomosans</i>	<i>Chaetoceros anastomosans</i> Grunow (ab)		East/West	Brunel 1962 (Horner 2002)
<i>Chaetoceros angulatus</i>	<i>Chaetoceros affinis</i> Lauder (ab)		East	Brunel 1962

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Chaetoceros atlanticus</i> Cleve	<i>Chaetoceros atlanticus</i> Cleve (ab)	<i>Chaetoceros dispar</i> Castracane, <i>Chaetoceros polygonus</i> Schütt, <i>Chaetoceros audax</i> Schütt	East/West/Arctic	Cupp 1943 (Bérard-Therriault et al. 1999, Brunel 1962, Bursa 1963, Lovejoy et al. 2002, Gran & Braarud 1935, Booth & Horner 1997)
<i>Chaetoceros atlanticus</i> form <i>audax</i> (Schütt) Gran	<i>Chaetoceros atlanticus</i> f. <i>audax</i> (Schütt) Gran. (ab)		West (US)	Cupp 1943
<i>Chaetoceros atlanticus</i> var. <i>skeleton</i> (Schütt) Hustedt	<i>Chaetoceros atlanticus</i> var. <i>skeleton</i> (Schütt) Hust. (ab)		West (US)	Cupp 1943
<i>Chaetoceros boreale</i> Bail.	<i>Chaetoceros borealis</i> J.W. Bailey (ab)		East	Bailey 1913 (Bailey 1910)
<i>Chaetoceros borealis</i>	<i>Chaetoceros borealis</i> J.W. Bailey (ab)		East/Arctic	Bérard-Therriault et al. 1999 (Brunel 1962, Bursa 1963, Gran & Braarud 1935)
<i>Chaetoceros brevis</i> Schütt	<i>Chaetoceros brevis</i> Schütt (ab)		East/West(U S)/ Arctic	Cupp 1943 (Bérard-Therriault et al. 1999, Brunel 1962, Lovejoy et al. 2002, Gran & Braarud 1935)
<i>Chaetoceros capreolus</i>	<i>Chaetoceros capreolus</i> (Ehrenberg) Bailey (ab)		East	Bailey 1910
<i>Chaetoceros ceratosporus</i> Ostenfeld	<i>Chaetoceros ceratosporus</i> Ostenfeld (ab)	<i>Chaetoceros gracile</i> Apstein	East	Gran & Braarud 1935
<i>Chaetoceros ceratosporus</i> var. <i>brachysetus</i>	<i>Chaetoceros ceratosporus</i> var. <i>brachysetus</i> J.E.B. Rines & P.E. Hargraves (ab)		East	Bérard-Therriault et al. 1999
<i>Chaetoceros chriophyllum</i> Cast.	<i>Chaetoceros chriophyllum</i> Cast. (ab)		East	Bailey 1910
<i>Chaetoceros cinctus</i> Gran	<i>Chaetoceros cinctus</i> Gran. (ab)		West (US)/East	Cupp 1943 (Brunel 1962, Gran & Braarud 1935)
<i>Chaetoceros clevei</i>	<i>Chaetoceros clevei</i> F. Schütt (ab)		East	Brunel 1962
<i>Chaetoceros coarctatus</i> Lauder	<i>Chaetoceros coarctatus</i> Lauder (ab)	<i>Chaetoceros rude</i> Cleve	West (US)/East	Cupp 1943 (Brunel 1962)
<i>Chaetoceros compressus</i>	<i>Chaetoceros compressus</i> Lauder (ab)	<i>Chaetoceros contortus</i> Schütt	East/West/Arctic	Martin (pers. comm.) ² (Brunel 1962, Riedel et al. 2003, Gran & Braarud 1935, Bates & Strain 2006, Johnson 1988)

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Chaetoceros concavicornis</i> Mangin	<i>Chaetoceros concavicornis</i> Mangin (ab)	<i>Chaetoceros criophilus</i>	East/West/Arctic	Hargraves & Maranda 2002 (Sancetta & Calvert 1988, Bérard-Therriault et al. 1999, Brunel 1962, Bursa 1963, Lovejoy et al. 2002, Gran & Braarud 1935, Booth & Horner 1997, Rozanska et al. 2008)
<i>Chaetoceros concavicornis</i> form <i>volans</i> (Schütt) Hustedt	<i>Chaetoceros concavicornis</i> form <i>volans</i> (Schütt) Hust. (ab)		West (US)	Cupp 1943
<i>Chaetoceros constrictus</i>	<i>Chaetoceros constrictus</i> Gran (ab)		East	Brunel 1962 (Gran & Braarud 1935)
<i>Chaetoceros contortus</i> Shütt	<i>Chaetoceros compressus</i> Lauder (ab)	<i>Chaetoceros contortus</i> Shütt	East/West	Horner et al. 2005 (Bérard-Therriault et al. 1999, Brunel 1962)
<i>Chaetoceros convolutus</i>	<i>Chaetoceros convolutus</i> Castracane (ab)		East/West/Arctic	Horner et al. 2005 (Chang et al. 2007, Bérard-Therriault et al. 1999, Brunel 1962, Bursa 1963, Lovejoy et al. 2002, Gran & Braarud 1935, Rozanska et al. 2008)
<i>Chaetoceros convolutus</i> f. <i>clavipes</i>	<i>Chaetoceros convolutus</i> f. <i>clavipes</i> E. Paasche (ab)		East	Brunel 1962
<i>Chaetoceros convolutus</i> var. <i>trisetosa</i>	<i>Chaetoceros convolutus</i> f. <i>trisetosa</i> J.F. Brunel	<i>Chaetoceros convolutus</i> var. <i>trisetosa</i>	East/Arctic	Martin (pers. comm.) ² (Rozanska et al. 2008)
<i>Chaetoceros coronatus</i>	<i>Chaetoceros coronatus</i> Gran (ab)		East	Brunel 1962
<i>Chaetoceros costatus</i> Pavillard	<i>Chaetoceros costatus</i> Pavillard (ab)	<i>Chaetoceros adhaerens</i> Mangin	East/West (US)	Cupp 1943 (Brunel 1962, McQuoid & Hobson 1997)
<i>Chaetoceros crinitus</i> Schütt in Ostenfeld	<i>Chaetoceros crinitus</i> Schütt (ab)		East	Brunel 1962
<i>Chaetoceros criophilus</i>	<i>Chaetoceros criophilus</i> Castracane (ab)		East	Brunel 1962
<i>Chaetoceros curvisetus</i> Cleve	<i>Chaetoceros curvisetus</i> Cleve (ab)		East (BoF)/West/Arctic	Horner (pers. comm.) ³ (Brunel 1962, Bursa 1963)
<i>Chaetoceros dadayi</i> Pavillard	<i>Chaetoceros dadayi</i> Pavillard (ab)		East/West	Horner (pers. comm.) ³ (Brunel 1962)

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Chaetoceros danicus</i>	<i>Chaetoceros danicus</i> Cleve (ab)		East/West	Bérard-Therriault et al. 1999 (Brunel 1962, Gran & Braarud 1935, Bates & Strain 2006, Horner 2002)
<i>Chaetoceros debilis</i> Cleve	<i>Chaetoceros debilis</i> Cleve (ab)	<i>Chaetoceros vermiculatum</i> Schütt	East/West/Arctic	Hargraves & Maranda 2002 (Sancetta & Calvert 1988, Bérard-Therriault et al. 1999, Brunel 1962, Bursa 1963, Lovejoy et al. 2002, Gran & Braarud 1935, McQuoid & Hobson 1997)
<i>Chaetoceros decipiens</i>	<i>Chaetoceros decipiens</i> Cleve (ab)	<i>Chaetoceros grunowii</i> Schütt	East/West/Arctic	Bailey 1913 (Bailey 1910, Linkletter et al. 1977, Bérard-Therriault et al. 1999, Brunel 1962, Fritz 1921, Bursa 1963, Lovejoy et al. 2002, Gran & Braarud 1935, Booth & Horner 1997)
<i>Chaetoceros decipiens</i> form <i>singularis</i> Gran	<i>Chaetoceros decipiens</i> form <i>singularis</i> Gran (ab)		West (US)	Cupp 1943
<i>Chaetoceros delicatulus</i>	<i>Chaetoceros delicatulus</i> C.E.H. Ostenfeld (ab)		East	Brunel 1962
<i>Chaetoceros densus</i>	<i>Chaetoceros densus</i> Cleve	<i>Chaetoceros borealis</i> var. <i>densum</i> Cleve	East/West/Arctic	Sancetta & Calvert 1988 (Brunel 1962, Bursa 1963, Gran & Braarud 1935)
<i>Chaetoceros diadema</i> (Ehrenberg) Gran	<i>Chaetoceros diadema</i> (Ehrenberg) Gran	<i>Chaetoceros paradoxus</i> Peragallo, <i>Chaetoceros groenlandicus</i> Cleve, <i>Chaetoceros distans</i> var. <i>subsecundus</i> Grunow ex Van Heurck, <i>Syndendrium diadema</i> Ehrenberg	East/West/Arctic	Sancetta & Calvert 1988 (Bérard-Therriault et al. 1999, Brunel 1962, Fritz 1921, Lovejoy et al. 2002, Gran & Braarud 1935, McQuoid & Hobson 1997)
<i>Chaetoceros dictyota</i> Ehrenberg	<i>Chaetoceros dictyota</i> Ehrenberg (ab)	<i>Chaetoceros janischianus</i> Castracane, <i>Chaetoceros remotus</i> Cleve & Grunow, <i>Chaetoceros distans</i> Cleve	West (US)	Cupp 1943 (Brunel 1962)

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Chaetoceros dicaldia</i>	<i>Chaetoceros dicaldia</i> F.S. Castracane degli Angelminelli (ab)		East	Bailey 1910
<i>Chaetoceros didymus</i> Ehrenberg	<i>Chaetoceros didymus</i> C.G. Ehrenberg	<i>Chaetoceros didymus</i> f. <i>singularis</i> H. Takano, <i>Chaetoceros didymus</i> var. <i>anglica</i> (Grunow) Gran	East/West/Arctic	Sancetta & Calvert 1988 (Bérard-Therriault et al. 1999, Brunel 1962, Bursa 1963, Gran & Braarud 1935, Bates & Strain 2006, McQuoid & Hobson 1997)
<i>Chaetoceros didymus</i> var. <i>anglica</i> (Grunow) Gran	<i>Chaetoceros didymus</i> Ehrenberg (ab)	<i>Chaetoceros didymus</i> var. <i>anglica</i> (Grunow) Gran	West (US)	Cupp 1943
<i>Chaetoceros didymus</i> var. <i>protuberans</i> (Lauder) Gran and Yendo	<i>Chaetoceros protuberans</i> Lauder (ab)	<i>Chaetoceros didymus</i> var. <i>protuberans</i> (Lauder) Gran and Yendo	West (US)	Cupp 1943
<i>Chaetoceros difficilis</i> Cleve	<i>Chaetoceros difficilis</i> Cl. (ab)		West (US)/East	Cupp 1943 (Brunel 1962)
<i>Chaetoceros dipyrenops</i>	<i>Chaetoceros dipyrenops</i> A.F. Meunier (ab)		East	Brunel 1962
<i>Chaetoceros diversus</i> Cleve	<i>Chaetoceros diversus</i> Cleve (ab)	<i>Chaetoceros laeve</i> G. Leuduger-Fortmorel	East/West (US)	Cupp 1943 (Carver & Mallet 2002)
<i>Ch. eibeni</i> Grunow	<i>Chaetoceros eibeni</i> (Grunow) Meunier (ab)	<i>Chaetoceros paradoxum</i> var. <i>eibeni</i> (Grunow) Van Heurck	Arctic	Bursa 1963
<i>Chaetoceros furcellatus</i> Bailey	<i>Chaetoceros furcellatus</i> Bailey (ab)		East/Arctic	Martin (pers. comm.) ² (Bérard-Therriault et al. 1999, Riedel et al. 2003, Bursa 1963, Gran & Braarud 1935, Booth & Horner 1997)
<i>Chaetoceros gracilis</i> Schütt	<i>Chaetoceros neogracile</i> VanLandingham (ab)	<i>Chaetoceros gracilis</i> Schütt	West (US)	Cupp 1943 (Brunel 1962, Bursa 1963)
<i>Chaetoceros holsaticus</i> Schütt	<i>Chaetoceros holsaticus</i> Schütt (ab)	<i>Chaetoceros balticus</i> Cleve	West (US)/East	Cupp 1943 (Bérard-Therriault et al. 1999, Brunel 1962)
<i>Chaetoceros ingolfianus</i>	<i>Chaetoceros ingolfianus</i> Ostenfeld		East/Arctic	Bates & Strain 2006 (Rozanska et al. 2008)
<i>Chaetoceros karianus</i> Grunow	<i>Chaetoceros karianus</i> Grunow (ab)		East/Arctic	Martin (pers. comm.) ² (Bérard-Therriault et al. 1999, Brunel 1962, Lovejoy et al. 2002)

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Chaetoceros lacinosus</i> Grunow	<i>Chaetoceros lacinosus</i> Schütt (ab)		East/West/Arctic	Horner et al. 2005 (Bérard-Therriault et al. 1999, Brunel 1962, Bursa 1963, Lovejoy et al. 2002, Gran & Braarud 1935)
<i>Chaetoceros laevis</i> Leuduger-Fortmorel	<i>Chaetoceros laevis</i> Leud.-Fort (ab)		East/West (US)	Cupp 1943 (Carver & Mallet 2002)
<i>Chaetoceros lauderi</i> Ralfs	<i>Chaetoceros lauderi</i> Ralfs (ab)	<i>Chaetoceros weissflogii</i> Schütt	West (US)	Cupp 1943 (Brunel 1962)
<i>Chaetoceros lorenzianus</i> Grunow	<i>Chaetoceros lorenzianus</i> Grunow (ab)	<i>Chaetoceros cellulosus</i> Launder	East/West/Arctic	Sancetta & Calvert 1988 (Bérard-Therriault et al. 1999, Bursa 1963, Bates & Strain 2006)
<i>Chaetoceros lorenzianus</i> f. <i>forceps</i>	<i>Chaetoceros lorenzianus</i> var. <i>forceps</i> A.F. Meunier (ab)		East	Brunel 1962
<i>Chaetoceros messanensis</i> Castracane	<i>Chaetoceros messanense</i> Castracane (ab)	<i>Chaetoceros furca</i> Cleve	West (US)/East	Cupp 1943 (Brunel 1962, Carver & Mallet 2002)
<i>Chaetoceros mitra</i>	<i>Chaetoceros mitra</i> (J.W. Bailey) Cleve (ab)	<i>Dicladia mitra</i> J.W. Bailey, <i>Dicladia groenlandica</i> Cleve	East/Arctic	Brunel 1962 (Bursa 1963, Lovejoy et al. 2002)
<i>Chaetoceros muelleri</i>	<i>Chaetoceros muelleri</i> E.J.		East	Brunel 1962 (Johnson 1988)
<i>Chaetoceros paulsenii</i>	<i>Chaetoceros paulsenii</i> Ostenfeld (ab)		East	Brunel 1962
<i>Chaetoceros pavillardii</i> Ikari	<i>Chaetoceros pavillardii</i> J. Ikari (ab)		West	Sancetta & Calvert 1988
<i>Chaetoceros pelagicus</i> Cleve	<i>Chaetoceros pelagicus</i> Cl. (ab)		West (US)	Cupp 1943 (Brunel 1962)
<i>Chaetoceros perpusillus</i> Cleve	<i>Chaetoceros perpusillus</i> Cl. (ab)		West(US)/East	Cupp 1943 (Brunel 1962)
<i>Chaetoceros peruvianus</i> Brightwell	<i>Chaetoceros peruvianus</i> Brightwell (ab)	<i>Chaetoceros chilensis</i> Krasske, <i>Chaetoceros convexicornis</i> Mangin, <i>Chaetoceros peruvianum</i> var. <i>currrens</i> Peragallo, <i>Chaetoceros peruviano-atlanticum</i> Karsten	West (US)/East	Cupp 1943 (Brunel 1962, Carver & Mallet 2002)
<i>Chaetoceros peruvianus</i> form <i>gracilis</i> (Schröder) Hustedt	<i>Chaetoceros peruvianus</i> var. <i>gracilis</i> J.L.B. Schröder (ab)		West (US)	Cupp 1943
<i>Chaetoceros procerus</i>	<i>Chaetoceros procerus</i> F. Schütt (ab)		East	Brunel 1962
<i>Chaetoceros pseudocrininitus</i>	<i>Chaetoceros pseudocrininitus</i> Ostenfeld (ab)		East	Brunel 1962 (Gran & Braarud 1935)

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Chaetoceros pseudocurvisetus</i> Mangin	<i>Chaetoceros pseudocurvisetus</i> Mang. (ab)		East/West (US)	Cupp 1943
<i>Chaetoceros radicans</i> Schütt	<i>Chaetoceros radicans</i> Schütt (ab)	<i>Chaetoceros scolopendra</i> Cleve	East/West/Arctic	Horner et al. 2005 (Sancetta & Calvert 1988, Bérard-Therriault et al. 1999, Brunel 1962, Lovejoy et al. 2002, Gran & Braarud 1935, McQuoid & Hobson 1997)
<i>Chaetoceros ralfsii</i>	<i>Chaetoceros affinis</i> Lauder (ab)	<i>Chaetoceros ralfsii</i> Cleve	East	Brunel 1962
<i>Chaetoceros rigidus</i>	<i>Chaetoceros rigidus</i> Ostenfeld (ab)		East	Brunel 1962
<i>Chaetoceros rostratus</i>	<i>Chaetoceros rostratus</i> Lauder (ab)		East	Brunel 1962 (Carver & Mallet 2002)
<i>Chaetoceros saltans</i>	<i>Chaetoceros saltans</i> P.T. Cleve (ab)		East	Brunel 1962
<i>Chaetoceros schüttii</i>	<i>Chaetoceros affinis</i> Lauder (ab)	<i>Chaetoceros schüttii</i> Cleve	East	Brunel 1962
<i>Chaetoceros scolopendra</i>	<i>Chaetoceros radicans</i> Schütt (ab)	<i>Chaetoceros scolopendra</i> Cleve	East	Brunel 1962
<i>Chaetoceros seiracanthus</i>	<i>Chaetoceros seiracanthus</i> Gran (ab)		East	Brunel 1962
<i>Ch. septentrionalis</i>	<i>Attheya septentrionalis</i> (Østrup Crawford) (ab)		Arctic	Bursa 1963
<i>Chaetoceros similis</i> Cleve	<i>Chaetoceros similis</i> Cleve (ab)		East/West/Arctic	Horner et al. 2005 (Bérard-Therriault et al. 1999, Gran & Braarud 1935, Rozanska et al. 2008)
<i>Chaetoceros simplex</i>	<i>Chaetoceros simplex</i> Ostenfeld (ab)		East/Arctic	Martin (pers. comm.) ² (Rafuse [pers. comm.] ⁴ , Bérard-Therriault et al. 1999, Brunel 1962, Gran & Braarud 1935, Rozanska et al. 2008)
<i>Chaetoceros sociale</i>	<i>Chaetoceros sociale</i> Lauder (ab)		East	Fritz 1921

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Chaetoceros socialis</i> Lauder	<i>Chaetoceros socialis</i> Lauder (ab)		East/West/Arctic	Horner et al. 2005 (Chang et al. 2007, Sancetta & Calvert 1988, Bérard-Therriault et al. 1999, Brunel 1962, Riedel et al. 2003, Bursa 1963, Lovejoy et al. 2002, Gran & Braarud 1935, Bates & Strain 2006, Booth & Horner 1997)
<i>Chaetoceros</i> spp.	<i>Chaetoceros</i> spp.		East	Bates & Strain 2006
<i>Chaetoceros subsecundus</i>	<i>Chaetoceros diadema</i> (Ehrenberg) Gran (Tomas 1997)		East	Brunel 1962 (Bursa 1963)
<i>Chaetoceros subtilis</i>	<i>Chaetoceros subtilis</i> Cleve (ab)		East/Arctic/	Bérard-Therriault et al. 1999
<i>Chaetoceros tenuissimus</i>	<i>Chaetoceros tenuissimus</i> A.F. Meunier (ab)		East/Arctic	Bérard-Therriault et al. 1999 (Riedel et al. 2003)
<i>Chaetoceros teres</i>	<i>Chaetoceros teres</i> Cleve (ab)		East/West/Arctic	Bérard-Therriault et al. 1999 (Brunel 1962, Bursa 1963, Lovejoy et al. 2002, Gran & Braarud 1935, Bates & Strain 2006, Horner et al. 2005)
<i>Chaetoceros tetrastichon</i>	<i>Chaetoceros tetrastichon</i> Cleve		East/West (US)	Brunel 1962 (Cupp 1943)
<i>Chaetoceros tortilisetus</i>	<i>Chaetoceros tortilisetus</i> L.A. Mangin		East	Brunel 1962
<i>Chaetoceros tortilisetus</i>	<i>Chaetoceros tortissimus</i> Gran (ab)		East	Brunel 1962
<i>Chaetoceros tortissimus</i>	<i>Chaetoceros tortissimus</i> Gran (ab)		East/West	Carver & Mallet 2002 (Cupp 1943)
<i>Chaetoceros uruguayensis</i>	<i>Chaetoceros uruguayensis</i> F.C. Müller Melchers (ab)		East	Brunel 1962
<i>Chaetoceros vistulae</i>	<i>Chaetoceros vistulae</i> C. Apstein (ab)		East	Brunel 1962
<i>Chaetoceros wighamii</i>	<i>Chaetoceros wighamii</i> Brightwell (ab)	<i>Chaetoceros bottnicus</i> Cleve, <i>Chaetoceros biconcavus</i> Gran	East/Arctic	Bérard-Therriault et al. 1999 (Brunel 1962, Lovejoy 2002, Rozanska et al. 2008)
<i>Chaetoceros willei</i>	<i>Chaetoceros willei</i> Grunow (ab)	<i>Chaetoceros affinis</i> var. <i>willei</i> (Gran) Hustedt	East	Hargraves & Maranda 2002 (Martin [pers. comm.] ² , Bérard-Therriault et al. 1999, Brunel 1962, Linkletter et al. 1977)

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Chaetoceros</i> sp.	<i>Chaetoceros</i> sp.		East/Arctic	Martin (pers. comm.) ² (Fritz 1921 & Bursa 1963)
<i>Chaetoceros</i> spp. (phaeoceros)	<i>Chaetoceros</i> spp. (phaeoceros)		East	Martin (pers. comm.) ²
<i>Chaetoceros subsecundus</i> (Grunow) Hustedt	<i>Chaetoceros subsecundus</i> (Grunow ex Van Heurck) Hustedt (ab)	<i>Chaetoceros distans</i> var. <i>subsecundus</i> Grunow ex Van Heurck	West (US)	Cupp 1943
<i>Chaetoceros vanheurckii</i> Gran	<i>Chaetoceros vanheurckii</i> Gran (ab)		East/West (US)	Horner et al. 2005 (Cupp 1943, Sancetta & Calvert 1988, McQuoid & Hobson 1997)
<i>Chaetoceros vistulae</i> Apstein	<i>Chaetoceros vistulae</i> Apstein (ab)		West (US)	Cupp 1943
<i>Chaetoceros wighamii</i> Brightwell	<i>Chaetoceros wighamii</i> Brightwell (ab)	<i>Chaetoceros bottnicus</i> Cleve, <i>Chaetoceros biconcavus</i> Gran	East/West (US)	Cupp 1943 (Bailey 1913)
<i>Climacodium frauenfeldianum</i> Grunow	<i>Chaetoceros frauenfeldianum</i> Grunow (ab)		East/West (US)	Cupp 1943 (Carver & Mallet 2002)
<i>Climacosphenia elongata</i>	<i>Climacosphenia elongata</i> Mereschkowsky (ab)		East	Bailey 1913
<i>Climacosphenia moniligera</i> Ehrenberg	<i>Climacosphenia moniligera</i> Ehr. (ab)		West (US)	Cupp 1943
<i>Cocconeis costata</i> Gregory	<i>Cocconeis costata</i> Gregory (ab)		West (Effingham Inlet)	Hay et al. 2003
<i>Cocconeis decipiens</i> Cleve	<i>Cocconeis decipiens</i> P. T. Cleve (ab)		West	McQuoid & Hobson 2001
<i>Cocconeis diminuta</i> Pentoscek, Kieselalg, Balat	<i>Cocconeis neodiminuta</i> Krammer (ab)	<i>Cocconeis diminuta</i> Pantocsek	East	Johnson 1988
<i>Cocconeis distans</i> Gregory	<i>Cocconeis distans</i> Gregory (ab)	<i>Cocconeis granulifera</i> Greville, <i>Cocconeis villosa</i> H. Peragallo	East (BoF)	Rawlence 1987
<i>Cocconeis neodiminuta</i> var. <i>marina</i> (Krammer) de Stefano, Marino & Mazzella	<i>Cocconeis neodiminuta</i> var. <i>marina</i> (Krammer) de Stefano, Marino & Mazzella (ab)		West (Effingham Inlet)	Hay et al. 2003
<i>Cocconeis pediculus</i>	<i>Cocconeis pediculus</i> Ehrenberg (ab)	<i>Encyonema caespitosum</i> var. <i>pediculus</i> (Ehrenberg) De Toni, <i>Cocconeis communis</i> f. <i>pediculus</i> (Ehrenberg) Chmielewski	East	Bailey 1910

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Cocconeis placentula</i>	<i>Cocconeis placentula</i> Ehrenberg (ab)	<i>Cocconeis pediculus</i> var. <i>placentula</i> (C.G. Ehrenberg) A. Grunow, <i>Cocconeis communis</i> f. <i>placentula</i> (Ehrenberg) Chmielewski	East/West (Effingham Inlet)	Hay et al. 2003 (Bailey 1913, Bailey 1910, Zwicker 1998)
<i>Cocconeis placentula</i> var. <i>euglypta</i> (Ehr.) Cl.	<i>Cocconeis placentula</i> var. <i>euglypta</i> (Ehrenberg) Cleve	<i>Cocconeis euglypta</i> Ehrenberg	East	Zwicker 1998
<i>Cocconeis placentula</i> var. <i>lineata</i> (Ehr.) V.H.	<i>Cocconeis placentula</i> var. <i>lineata</i> (Ehrenberg) P. Cleve (col)	<i>Cocconeis lineata</i> Ehrenberg	East	Zwicker 1998
<i>Cocconeis placentula</i> Ehr. v. <i>placentula</i>	<i>Cocconeis placentula</i> Ehr. v. <i>placentula</i> (ab)	<i>Cocconeis elongata</i> Ehrenberg, <i>Cocconeis punctata</i> Ehrenberg, <i>Cocconeis pumila</i> Kützing	East	Rawlence 1987
<i>Cocconeis scutellum</i> Ehrenberg	<i>Cocconeis scutellum</i> Ehrenberg (ab)		East/West (Effingham Inlet)/Arctic	Hay et al. 2003 (Linkletter et al. 1977, Zwicker 1998, Johnson 1988, Bailey 1910, Bailey 1913)
<i>Cocconeis scutellum</i> var. <i>parva</i> (Grunow in Van Heurck) Cleve	<i>Cocconeis scutellum</i> var. <i>parva</i> (Grunow in Van Heurck) Cleve (ab)		West (Effingham Inlet)	Hay et al. 2003
<i>Cocconeis</i> spp.	<i>Cocconeis</i> spp.		West	Hobson 2009 (McQuoid & Hobson 1997, McQuoid & Hobson 2001)
<i>Cocconeis stauroneiformis</i> (Rabenhorst) Okuno	<i>Cocconeis stauroneiformis</i> (Rabenhorst) Okuno (ab)	<i>Cocconeis scutellum</i> var. <i>stauroneiformis</i> Van Heurck	West (Effingham Inlet)	Hay et al. 2003
<i>Cocconeis cistula</i>	<i>Cocconeis cistula</i> (Ehrenberg) Ehrenberg (ab)		East	Bailey 1913
<i>Cocconeis lanceolatum</i>	<i>Cymbella lanceolata</i> (Ehrenberg) Kirchner (ab)	<i>Cocconeis lanceolatum</i> Ehrenberg	East	Bailey 1910
<i>Colletonema subcohaerens</i>	<i>Colletonema subcohaerens</i> Thwaites (ab)		East	Bailey 1913
<i>Corethron criophilum</i>	<i>Corethron criophilum</i> Castracane (ab)	<i>Corethron hystrix</i> Hensen	East/West	Chang et al. 2007
<i>Corethron hystrix</i> Hensen	<i>Corethron criophilum</i> Castracane (ab)		East	Gran & Braarud 1935

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Coscinodiscus asteromphalus</i>	<i>Coscinodiscus asteromphalus</i> Ehrenberg (ab)	<i>Coscinodiscus asteromphalus</i> var. <i>conspicua</i> Grunow ex Van Heurck, <i>Coscinodiscus radiatus</i> var. <i>asteromphalus</i> (Ehrenberg) Ehrenberg, <i>Coscinodiscus asteromphalus</i> var. <i>guinea</i> Grunow	East	Bailey 1913 (Brunel 1962, Lovejoy 2002)
<i>Coscinodiscus asteromphalus</i> var. <i>centralis</i>	<i>Coscinodiscus centralis</i> Ehrenberg (ab)	<i>Coscinodiscus asteromphalus</i> var. <i>centralis</i> Grunow	East	Brunel 1962
<i>Coscinodiscus centralis</i> (Ehrenberg)	<i>Coscinodiscus oculus-iridis</i> var. <i>tenuistriata</i> Grunow (ab)	<i>Coscinodiscus asteromphalus</i> var. <i>centralis</i> Grunow	East/West/Arctic	Horner et al. 2005 (Hargraves & Maranda 2002, Bérard-Therriault et al. 1999, Brunel 1962, Lovejoy et al. 2002)
<i>Coscinodiscus centralis</i> var. <i>pacifica</i> Gran & Angst	<i>Coscinodiscus centralis</i> var. <i>pacifica</i> Gran & Angst (ab)		East/West (US)	Cupp 1943 (Brunel 1962)
<i>Coscinodiscus concinnus</i>	<i>Coscinodiscus concinnus</i> W. Smith (ab)		East/West/Arctic	Hargraves & Maranda 2002 (Bailey 1913, Bérard-Therriault et al. 1999, Bursa 1963)
<i>Coscinodiscus curvatus</i> Grunow	<i>Coscinodiscus curvatus</i> Grunow ex A. Schmidt (ab)		West (US)	Cupp 1943
<i>Coscinodiscus eccentricus</i>	<i>Thalassiosira eccentrica</i> (Ehrenberg) Cleve (ab)	<i>Coscinodiscus heliozoides</i> Siddall, <i>Coscinodiscus eccentricus</i> Ehrenberg	East	Bailey 1913
<i>Coscinodiscus excentricus</i> Ehrenberg	<i>Coscinodiscus excentricus</i> Ehr. (ab)		East/West (US)/Arctic	Cupp 1943 (Bailey 1913, Brunel 1962, Bursa 1963, Gran & Braarud 1935)
<i>Coscinodiscus fasciculatus</i> O'Me	<i>Coscinodiscus normanii</i> Gregory ex Greville (ab)	<i>Coscinodiscus fasciculatus</i> Schmidt	East (BoF)	Linkletter et al. 1977
<i>Coscinodiscus gigas</i> Ehrenberg	<i>Coscinodiscus gigas</i> Ehrenberg (ab)		West	Sancetta & Calvert 1988 (McQuoid & Hobson 2001)
<i>Coscinodiscus granii</i>	<i>Coscinodiscus granii</i> Gough (ab)		East/West/Arctic	Martin (pers. comm.) ² (Riedel et al. 2003, Bursa 1963, McQuoid & Hobson 2001)
<i>Coscinodiscus griseus</i>	<i>Coscinodiscus griseus</i> R.K. Greville (ab)		East	Bailey 1910
<i>C. lineatus</i> Ehrenberg	<i>Thalassiosira leptopus</i> (Grunow ex Van Heurck) Hasle & G. Fryxell (ab)	<i>Coscinodiscus lineatus</i> Ehrenberg, <i>Coscinodiscus ehrenbergii</i> O'Meara	Arctic	Bursa 1963

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Coscinodiscus marginatus</i> K.B.	<i>Coscinodiscus marginatus</i> Ehrenberg (ab)	<i>Coscinodiscus limbatus</i> Ehrenberg, <i>Coscinodiscus fimbriatus-limbatus</i> Ehrenberg	East/West/Arctic	Bailey 1913 (Bailey 1910, Brunel 1962, Bursa 1963)
<i>Coscinodiscus minutus</i>	<i>Coscinodiscus minutus</i> Kützing (ab)		East	Bailey 1913
<i>Coscinodiscus neoradiatus</i>	<i>Coscinodiscus neoradiatus</i> A. Cleve-Euler (ab)		East	Brunel 1962
<i>Coscinodiscus nitidus</i> Gregory	<i>Coscinodiscus nitidus</i> Greg. (ab)		East/West (US)	Cupp 1943 (Bailey 1913)
<i>Coscinodiscus oculus-iridis</i>	<i>Coscinodiscus oculus-iridis</i> (Ehrenberg) Ehrenberg (ab)	<i>Coscinodiscus radiatus</i> var. <i>oculus-iridis</i> Ehrenberg, <i>Coscinodiscus genuina</i> Grunow, <i>Coscinodiscus oculus-iridis</i> var. <i>typicus</i> Cleve-Euler	East/West	Bailey 1910
<i>Coscinodiscus omphalanthus</i> Ehr.	<i>Coscinodiscus omphalanthus</i> Ehrenberg (ab)		East	Bailey 1913
<i>Coscinodiscus pellucida</i>	<i>Coscinodiscus pellucidus</i> A. Grunow (ab)		East	Bailey 1910
<i>Coscinodiscus perforatus</i> Ehrenberg	<i>Coscinodiscus perforatus</i> Ehrenberg (ab)		East/West	Cupp 1943
<i>Coscinodiscus perforatus</i> var. <i>cellulosa</i> Grunow	<i>Coscinodiscus perforatus</i> var. <i>cellulosa</i> Grun. (ab)		West (US)	Cupp 1943
<i>Coscinodiscus perforatus</i> var. <i>pavillardii</i> (Forti) Hustedt	<i>Coscinodiscus perforatus</i> var. <i>pavillardii</i> (Forti) Hust. (ab)		West (US)	Cupp 1943
<i>Coscinodiscus polychordus</i>	<i>Thalassiosira anguste-lineata</i> (A. Schmidt) G. Fryxell & Hasle (ab)	<i>Coscinodiscus polychordus</i> Gran	East	Brunel 1962
<i>Coscinodiscus radiatus</i> Ehrenberg	<i>Azpeitia nodulifera</i> (A.W.F. Schmidt) G.A. Fryxell & P.A. Sims (ab)	<i>Coscinodiscus radiatus</i> Ehrenberg	East/West/Arctic	Sancetta & Calvert 1988 (Bailey 1910, Bailey 1913, Béard-Therriault et al. 1999, Brunel 1962, Lovejoy et al. 2002, McQuoid & Hobson 2001, Hay et al. 2003)
<i>Coscinodiscus</i> sp.	<i>Coscinodiscus</i> sp.		East	Brunel 1962
<i>Coscinodiscus</i> spp.	<i>Coscinodiscus</i> spp.		West	McQuoid & Hobson 1997 (McQuoid & Hobson 2001)
<i>Coscinodiscus subbulliens</i>	<i>Coscinodiscus subbulliens</i> E.G. Jørgensen (ab)		East	Brunel 1962

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Coscinodiscus subglobosus</i>	<i>Coscinodiscus subglobosus</i> P.T. Cleve & A. Grunow (ab)		East	Brunel 1962
<i>Coscinodiscus subtilis</i> Ehr.	<i>Coscinodiscus subtilis</i> Ehrenberg (ab)		East	Bailey 1913
<i>Coscinodiscus walesii</i> Gran & Angst	<i>Coscinodiscus walesii</i> Gran & Angst (ab)		East/West	Horner et al. 2005 (Hargraves & Maranda 2002)
<i>Coscinosira atlantica</i>	<i>Coscinosira atlantica</i> P.J.L. Dangeard (ab)		East	Brunel 1962
<i>Coscinosira mediterranea</i>	<i>Coscinosira mediterranea</i> J.L.B. Schröder (ab)		East	Brunel 1962
<i>Coscinosira oestrupii</i> Ostenfeld	<i>Thalassiosira oestrupii</i> (Ostenfeld) Hasle (ab)	<i>Coscinosira oestrupii</i> Ostenfeld	East	Gran & Braarud 1935
<i>Coscinosira polychorda</i>	<i>Thalassiosira anguste-lineata</i> (A. Schmidt) G. Fryxell & Hasle (ab)	<i>Coscinosira polychorda</i> (Gran) Gran, <i>Coscinodiscus polychorda</i> Gran	East/West	Brunel 1962 (Bursa 1963, Gran & Braarud 1935, Horner 2002)
<i>Ctenophora pulchella</i> (Ralfs ex Kützing) Williams & Round	<i>Ctenophora pulchella</i> (Kützing) D.M. Williams & Round	<i>Synedra pulchella</i> Ralfs ex Kützing	East	Zwicker 1998
<i>Cyclotella antiqua</i> W.Smith	<i>Cyclotella antiqua</i> W.Smith (ab)		Arctic	Antoniades et al. 2005
<i>Cyclotella choctawhatcheeana</i> Prasad	<i>Cyclotella choctawhatcheeana</i> Prasad (ab)	<i>Cyclotella caspia</i> Grunow, <i>Cyclotella hakanssoniae</i> Wendker	East/West (Effingham Inlet)	Hay et al. 2003 (Bérard-Therriault et al. 1999)
<i>Cyclotella compta</i> Grun.	<i>Cyclotella compta</i> (Ehrenberg) Kützing (ab)	<i>Discoplea compta</i> Ehrenberg, <i>Puncticulata compta</i> (Ehrenberg) H. Hakansson	East	Bailey 1910 (Bailey 1913)
<i>Cyclotella kützingiana</i> Thw.	<i>Cyclotella kützingiana</i> Thw. (ab)		East	Bailey 1910
<i>Cyclotella litoralis</i> Lange & Syvertsen	<i>Cyclotella litoralis</i> Lange & Syvertsen (ab)		West	McQuoid & Hobson 2001
<i>Cyclotella meneghiniana</i> Kg.	<i>Cyclotella meneghiniana</i> Kützing (ab)		East	Bailey 1913 (Johnson 1988, Bailey 1910)
<i>Cyclotella operculata</i> (Ag.) Ktz.	<i>Cyclotella operculata</i> (C. Agardh) Brébisson (ab)		East (BoF)	Rawlence 1987
<i>Cyclotella</i> sp.	<i>Cyclotella</i> sp.		West/Arctic	Sancetta & Calvert 1988 (Bursa 1963)
<i>Cyclotella</i> spp.	<i>Cyclotella</i> spp.		East/West/Arctic	Martin (pers. comm.) ² (Riedel et al. 2003, McQuoid & Hobson 2001, Hay et al. 2003)

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Cyclotella striata</i> Kützing (Grunow)	<i>Cyclotella striata</i> Kützing (Grunow) (ab)	<i>Coscinodiscus striatus</i> Kützing, <i>Cyclotella dallasiana</i> W.Smith	East/West (Eiffingham Inlet)	Hay et al. 2003 (Bailey 1913, Bérard-Therriault et al. 1999)
<i>Cylindrotheca closterium</i> (Ehrenberg) Lewin & Reimann	<i>Cylindrotheca closterium</i> (Ehrenberg) Reimann & Lewin (ab)	<i>Nitzschia tenuirostris</i> Mereschkowsky, <i>Ceratoneis closterium</i> Ehrenberg, <i>Nitzschia closterium</i> W. Smith	East/West/Arctic	Horner et al. 2005 (Bérard-Therriault et al. 1999, Thaler 2007, Riedel et al. 2003, Lovejoy et al. 2002, Bates & Strain 2006, Booth & Horner 1997, Rozanska et al. 2008)
<i>Cylindrotheca gracilis</i> (Bréb.) Grun.	<i>Cylindrotheca gracilis</i> (Brébisson ex Kützing) Grunow (ab)	<i>Cylindrotheca gerstenbergeri</i> Rabenhorst, <i>Ceratoneis gracilis</i> Brébisson ex Kützing, <i>Nitzschia taenia</i> W.Smith, <i>Nitzschia gracilis</i> (Brébisson ex Kützing) Rabenhorst	East	Rawlence 1987 (Bérard-Therriault et al. 1999, Thaler 2007, Trites 2005, Bates & Strain 2006)
<i>Cymatopleura elliptica</i> S.B.D.	<i>Cymatopleura elliptica</i> (Brébisson) W.Smith (ab)		East	Bailey 1913
<i>Cymatosira lorenziana</i>	<i>Cymatosira lorenziana</i> Grunow (ab)		East	Carver & Mallet 2002
<i>Cymatosira</i> sp.	<i>Cymatosira</i> sp.		West	Sancetta & Calvert 1988
<i>Cymbella amphicephala</i> Naegeli	<i>Cymbella amphicephala</i> Naegeli (ab)		Arctic	Antoniades et al. 2005
<i>Cymbella angustata</i> (W.Smith) Cleve	<i>Cymbella angustata</i> (W.Smith) Cleve (ab)		Arctic	Antoniades et al. 2005
<i>Cymbella arctica</i> (Langerstedt) Schmidt	<i>Cymbella arctica</i> (Langerstedt) Schmidt (ab)		Arctic	Antoniades et al. 2005
<i>Cymbella botellus</i> (Langerstedt) Schmidt	<i>Cymbella botellus</i> (Langerstedt) Cleve (ab)		Arctic	Antoniades et al. 2005
<i>Cymbella cesatii</i> (Rabenhorst) Grunow ex Schmidt	<i>Encyonopsis cesatii</i> (Rabenhorst) Krammer (ab)	<i>Cymbella cesatii</i> (Rabenhorst) Grunow ex Schmidt	Arctic	Antoniades et al. 2005
<i>Cymbella cistula</i> (Ehrenberg) Kirchner	<i>Cocconeis cistula</i> (Ehrenberg) Ehrenberg (ab)		Arctic/East	Antoniades et al. 2005 (Bailey 1913)
<i>Cymbella cuspidata</i> Kützing	<i>Cymbella cuspidata</i> Kützing (ab)		Arctic/East	Antoniades et al. 2005 (Bailey 1913)
<i>Cymbella descripta</i> (Hustedt) Krammer & Lange-Bertalot	<i>Cymbella broenlundensis</i> Foged (ab)	<i>Cymbella descripta</i> (Hustedt) Krammer & Lange-Bertalot	Arctic	Antoniades et al. 2005

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Cymbella designata</i> Krammer	<i>Cymbella designata</i> Krammer (ab)		Arctic	Antoniades et al. 2005
<i>Cymbella ehrenbergii</i> Kützing	<i>Cymbella ehrenbergii</i> Kützing (ab)		East	Bailey 1910
<i>Cymbella gastroides</i>	<i>Cymbella aspera</i> (Ehrenberg) Cleve	<i>Cymbella gastroides</i> (Kützing) Brébisson & Godey	East	Bailey 1910
<i>Cymbella incerta</i> (Grunow) Cleve	<i>Cymbella incerta</i> Grunow (ab)		Arctic	Antoniades et al. 2005
<i>Cymbella lanceolata</i>	<i>Cymbella lanceolata</i> (Ehrenberg) Kirchner (ab)	<i>Cocconema lanceolatum</i> Ehrenberg, <i>Gomphonema lanceolatum</i> Ehrenberg	East	Bailey 1910
<i>Cymbella lapponica</i> Grunow	<i>Cymbella lapponica</i> Grunow ex Cleve (ab)		Arctic	Antoniades et al. 2005
<i>Cymbella latens</i> Krasske	<i>Encyonema latens</i> (Krasske) D.G. Mann (ab)	<i>Cymbella latens</i> Krasske	Arctic	Antoniades et al. 2005
<i>Cymbella microcephala</i> Grunow in Van Heurk	<i>Encyonopsis microcephala</i> (Grunow) Krammer (ab)	<i>Cymbella ruttneri</i> Hustedt, <i>Navicula incompta</i> Krasske	Arctic	Antoniades et al. 2005
<i>Cymbella obscura</i> Krasske	<i>Encyonema obscurum</i> (Krasske) D.G. Mann (ab)	<i>Cymbella obscura</i> Krasske	Arctic	Antoniades et al. 2005
<i>Cymbella silesiaca</i> Bleisch in Rabenhorst	<i>Encyonema silesiacum</i> (Bleisch) D.G. Mann (ab)	<i>Cymbella silesiaca</i> Bleisch	Arctic	Antoniades et al. 2005
<i>Cymbella stauroneiformis</i> Lagerstedt	<i>Cymbella stauroneiformis</i> Lagerst. (ab)		Arctic	Antoniades et al. 2005
<i>Cymbella</i> spp. Agardh	<i>Cymbella</i> spp. Agardh		West (Eiffingham Inlet)	Hay et al. 2003 (McQuoid & Hobson 2001)
<i>Cymbella tumida</i> Breb.	<i>Cymbella tumida</i> (Brébisson in Kützing) van Heurck (ab)	<i>Cocconema tumidum</i> Brébisson	East	Bailey & MacKay 1921
<i>Cystopleura turgida</i> (Ehr.) Kuntze	<i>Epithemia turgida</i> (Ehrenberg) Kützing (ab)	<i>Navicula turgida</i> Ehrenberg	East	Patrick & Reimer 1975
<i>Dactyliosolen antarcticus</i>	<i>Dactyliosolen antarcticus</i> Castracane (ab)	<i>Dactyliosolen antarcticus</i> var. <i>typica</i> , <i>Dactyliosolen antarcticus</i> f. <i>typica</i> Heiden & Kolbe	West	Hobson 2009
<i>Dactyliosolen blavyanus</i> (H. Peragallo) Hasle	<i>Dactyliosolen blavyanus</i> (H. Peragallo) Hasle (ab)	<i>Guinardia blavyana</i> H. Peragallo	East/West	Horner et al. 2005

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Dactyliosolen fragilissimus</i> (Bergon) Hasle	<i>Dactyliosolen fragilissimus</i> (Bergon) Hasle (ab)	<i>Rhizosolenia fragilissima</i> Bergon	East/West/Arctic	Horner et al. 2005 (Bérard-Therriault et al. 1999, Lovejoy 2002, Bates & Strain 2006)
<i>Dactyliosolen mediterraneus</i> Peragallo	<i>Leptocylindrus mediterraneus</i> (H. Peragallo) Hasle (ab)	<i>Dactyliosolen mediterraneus</i> (Peragallo) Peragallo	East	Gran & Braarud 1935
<i>Dactyliosolen phuketensis</i>	<i>Dactyliosolen phuketensis</i> (B.G. Sundström) G.R. Hasle (ab)	<i>Rhizosolenia phuketensis</i> B.G. Sundström	East/West	Hobson 2009 (Carver & Mallet 2002)
<i>Dactyliosolen</i> spp.	<i>Dactyliosolen</i> spp.		East	Martin (pers. comm.) ²
<i>Denticula kuetzingii</i> Grunow	<i>Denticula kuetzingii</i> Grunow (ab)	<i>Nitzschia denticula</i> Grunow, <i>Denticula denticula</i> (Grunow) Schonfeldt	Arctic	Antoniades et al. 2005
<i>Diadsmis contenta</i> (Grunow) Mann	<i>Diadsmis contenta</i> (Grunow ex Van Heurck) D.G. Mann (ab)	<i>Navicula contenta</i> Grunow ex Van Heurck, <i>Navicula trinodis</i> f. <i>minuta</i> Grunow, <i>Schizonema contentum</i> (Grunow) Kuntze	Arctic	Antoniades et al. 2005
<i>Diadsmis paracontenta</i> Lange-Bertalot & Werum	<i>Diadsmis paracontenta</i> Lange-Bertalot & Werum (ab)		Arctic	Antoniades et al. 2005
<i>Diatoma elongatum</i> Ag.	<i>Diatoma tenuis</i> C. Agardh (ab)	<i>Diatoma elongatum</i> Ag.	East	Rawlence 1987
<i>Diatoma hyemale</i> Lng.	<i>Diatoma hyemale</i> (Roth) Heiberg (ab)		East	Bailey 1910
<i>Diatoma mesodon</i> (Ehrenberg) Kützing	<i>Diatoma mesodon</i> (Ehrenberg) Kützing	<i>Diatoma hyemalis</i> f. <i>mesodon</i> (Ehrenberg) Grunow, <i>Diatoma vulgare</i> var. <i>mesodon</i> (Ehrenberg) Grunow, <i>Odontidium mesodon</i> (Kützing) Kützing, <i>Diatoma hyemale</i> var. <i>mesodon</i> (Ehrenberg) Kirchner, <i>Diatoma hyemalis</i> var. <i>mesodon</i> (Ehrenberg) Grunow	West	Hay et al. 2003
<i>Diatoma moniliformis</i> Kützing	<i>Diatoma moniliformis</i> Kützing (ab)	<i>Diatoma tenue</i> var. <i>moniliforme</i> Kützing	Arctic	Antoniades et al. 2005
<i>Diatoma</i> spp.	<i>Diatoma</i> spp.		West	McQuoid & Hobson 2001
<i>Diatoma tenuis</i> Agardh	<i>Diatoma tenuis</i> Agardh (ab)	<i>Diatoma tenuis</i> var. <i>elongata</i> Lyngbye, <i>Diatoma elongatum</i> (Lyngbye) C. Agardh Agardh	Arctic	Antoniades et al. 2005
<i>Diatoma tenue</i> Ag.	<i>Diatoma tenue</i> Agardh (ab)		East	Bailey 1910
<i>Diatoma tenue</i> var. <i>elongatum</i> Lyngbye	<i>Diatoma tenue</i> var. <i>elongatum</i> (Lyngb.) (ab)		East (BoF)	Poulin et al. 1984a

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Diatomella minuta</i> Hustedt in A. Schmidt, Atlas	<i>Diatomella minuta</i> Hustedt in A. Schmidt, Atlas (ab)		West (Effingham Inlet)	Hay et al. 2003
<i>Dicladia capreolus</i> Ehr.	<i>Dicladia capreolus</i> Ehrenberg (ab)		East	Bailey 1913
<i>Diploneis bombus</i>	<i>Diploneis bombus</i> (Ehrenberg) Cleve	<i>Pinnularia bombus</i> Ehrenberg, <i>Navicula bombus</i> (Ehrenberg) Kützing, <i>Navicula abnormis</i> Castracane	East	Bérard-Therriault et al. 1999
<i>Diploneis didyma</i> (Ehrenberg) Cleve	<i>Diploneis didyma</i> (Ehrenberg) Cleve (ab)	<i>Pinnularia didymus</i> Ehrenberg, <i>Navicula didymus</i> Ehrenberg	East	Linkletter et al. 1977 (Bailey 1913)
<i>Diploneis interrupta</i> (Kützing) Cleve	<i>Diploneis interrupta</i> (Kützing) Cleve (ab)	<i>Navicula interrupta</i> Kützing, <i>Schizonema interruptum</i> (Cleve) Kuntze	East	Thaler 2007
<i>Diploneis litoralis</i> var. <i>arctica</i>	<i>Diploneis litoralis</i> var. <i>arctica</i> P. T. Cleve (ab)		Arctic	Riedel et al. 2003
<i>Diploneis litoralis</i> var. <i>clathrata</i>	<i>Diploneis litoralis</i> var. <i>clathrata</i> (Østrup) Cleve (ab)		Arctic	Riedel et al. 2003
<i>Diploneis oculata</i> (Brébisson) Cleve	<i>Diploneis oculata</i> (Brébisson) Cleve (ab)		Arctic	Antoniades et al. 2005
<i>Diploneis parma</i> Cleve	<i>Diploneis parma</i> Cleve		Arctic	Antoniades et al. 2005
<i>Diploneis</i> spp.	<i>Diploneis</i> spp.		West	McQuoid & Hobson 2001
<i>Diploneis smithii</i> (Brébisson) Cleve	<i>Diploneis smithii</i> (Brébisson) in W. Smith) Cleve (ab)	<i>Navicula elliptica</i> W. Smith, <i>Navicula smithii</i> Brébisson in W. Smith	East/West (Effingham Inlet)	Hay et al. 2003 (Bailey 1913)
<i>Ditylum brightwellii</i> (West) Grunow	<i>Ditylum brightwellii</i> (T. West) Grunow (ab)	<i>Ditylum trigonum</i> L.W. Bailey ex L.W. Bailey, <i>Triceratium brightwellii</i> T. West, <i>Ditylum inaequale</i> J.W. Bailey ex L.W. Bailey	East/West/Arctic	Horner et al. 2005 (Linkletter et al. 1977, Chang et al. 2007, Sancetta & Calvert 1988, Lovejoy et al. 2002, Gran & Braarud 1935, McQuoid & Hobson 1997, 2001, Hay et al. 2003)
<i>Ditylum sol</i>	<i>Ditylum sol</i> (Grunow) De Toni (ab)		East	Carver & Mallet 2002
<i>Delphineis surirella</i> (Ehr.) G.W. Andrews	<i>Delphineis surirella</i> (Ehrenberg) G.W. Andrews	<i>Rhaphoneis surirella</i> (Ehrenberg) Grunow	East	Trites 2005

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Denticula kuetzingii</i> Grunow	<i>Denticula kuetzingii</i> Grunow	<i>Nizschia denticula</i> Grunow, <i>Denticula denticula</i> (Grunow) Schonfeldt	Arctic	Antoniades et al. 2005
<i>Detonula confervacea</i>	<i>Detonula confervacea</i> (Cleve) Gran (ab)	<i>Lauderia confervacea</i> Cleve, <i>Detonula cystifera</i> Gran	East/Arctic	Bérard-Therriault et al. 1999 (Brunel 1962, Lovejoy et al. 2002, Gran & Braarud 1935, Bates & Strain 2006)
<i>Detonula cystifera</i>	<i>Detonula confervacea</i> (Cleve) Gran (ab)	<i>Detonula cystifera</i> Gran	East	Brunel 1962
<i>Detonula pumila</i> (Castracane) Schütt	<i>Detonula pumila</i> (Castracane) Schütt	<i>Schroederella delicatula</i> Pavillard, <i>Thalassiosira condensata</i> Cleve, <i>Lauderia pumila</i> Castracane	West	Sancetta & Calvert 1988
<i>Doryphora amphicerus</i>	<i>Rhaphoneis amphicerus</i> (Ehrenberg) Ehrenberg (ab)	<i>Doryphora amphicerus</i> (Ehrenberg) Kützing	East	Bailey 1913
<i>Doryphora boeckii</i>	<i>Brébissonia boeckii</i> (Ehrenberg) E. O'Meara (ab)	<i>Doryphora boeckii</i> (Ehrenberg) W. Smith	East	Bailey 1913
<i>Encyonema caespitosum</i> Kutz.	<i>Encyonema caespitosum</i> Kutz. (ab)	<i>Cocconeira caespitosum</i> (Kützing) G. S. West, <i>Cymbella</i> <i>caespitosa</i> (Kützing) Schütt, <i>Cymbella caespitosum</i> (Kützing) Brun, <i>Cymbella caespitosa</i> (Kützing) Brun, <i>Cymbella</i> <i>ventricosa</i> var. <i>caespitosa</i> (Kützing) Dippel	East	Bailey 1910 (Bailey 1913)
<i>Encyonema elginense</i> (Krammer) Mann	<i>Cymbella elginensis</i> Krammer (ab)	<i>Encyonema elginense</i> (Krammer) Mann	Arctic	Antoniades et al. 2005
<i>Encyonema fagedii</i> Krammer	<i>Encyonema fagedii</i> Krammer (ab)		Arctic	Antoniades et al. 2005
<i>Encyonema gauemanni</i> (Meister) Krammer	<i>Encyonema gauemanni</i> (Meister) Krammer (ab)		Arctic	Antoniades et al. 2005
<i>Encyonema lange-bertalotii</i> Krammer	<i>Encyonema lange-bertalotii</i> Krammer (ab)		Arctic	Antoniades et al. 2005

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Encyonema minutum</i> (Hilse) Mann	<i>Encyonema minutum</i> (Hilse in Rabenhorst) D.G. Mann (ab)	<i>Encyonema ventricosum</i> var. <i>minutum</i> (Hilse) Mayer, <i>Cymbella ventricosa</i> f. <i>minuta</i> (Hilse in Rabenhorst) Cleve-Euler, <i>Cymbella ventricosa</i> f. <i>minuta</i> (Hilse in Rabenhorst) Mayer, <i>Cymbella ventricosa</i> f. <i>minuta</i> (Hilse in van Heurck) Mereschkowsky, <i>Encyonema ventricosum</i> var. <i>minuta</i> (Hilse in Rabenhorst) Schmidt, <i>Encyonema ventricosum</i> f. <i>minuta</i> (Hilse in Rabenhorst) Grunow, <i>Cymbella gracilis</i> var. <i>minuta</i> (Hilse in Rabenhorst) Rabenhorst, <i>Cymbella minuta</i> Hilse in Rabenhorst, <i>Cymbella</i> var. <i>minuta</i> (Hilse in Rabenhorst) Cleve-Euler	Arctic	Antoniades et al. 2005
<i>Encyonema ventricosum</i> (Agardh) Grunow	<i>Encyonema ventricosum</i> (Agardh) Grunow (ab)	<i>Cocconeis ventricosum</i> (Kützing) G.S. West	East/Arctic	Antoniades et al. 2005 (Bailey 1910)
<i>Endictya oceanica</i> Ehrenberg	<i>Endictya oceanica</i> Ehrenberg (ab)		East	Gran & Braarud 1935
<i>Entomoneis kjellmanii</i>	<i>Entomoneis kjellmanii</i> (Cleve) Poulin & Cardinal (ab)	<i>Amphiprora kjellmanii</i> Cleve, <i>Entomoneis kjellmanii</i> var. <i>typica</i> Cleve-Euler	East/Arctic	Bérard-Therriault et al. 1999 (Riedel et al. 2003)
<i>Entomoneis paludosa</i> var. <i>duplex</i>	<i>Entomoneis paludosa</i> var. <i>duplex</i> (Donkin) D.B. Czarnecki & D.C. Reinke (ab)		East	Bérard-Therriault et al. 1999
<i>Entomoneis paludosa</i> var. <i>hyperborea</i>	<i>Entomoneis paludosa</i> var. <i>hyperborea</i> (Grunow) Poulin & Cardinal (ab)	<i>Amphiprora hyperborea</i> Grunow, <i>Amphiprora paludosa</i> f. <i>minuta</i> Grunow, <i>Amphiprora hyperborea</i> var. <i>genuina</i> Cleve-Euler	Arctic	Riedel et al. 2003
<i>Entomoneis</i> sp.	<i>Entomoneis</i> sp.		Arctic	Riedel et al. 2003 (Booth & Horner 1997)

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Ephemera planamembranacea</i>	<i>Ephemera planamembranacea</i> (Hendey) Paddock (ab)	<i>Navicula planamembranacea</i> Hendey	East/Arctic	Bérard-Therriault et al. 1999 (Riedel et al. 2003)
<i>Epithemia argus</i> W. Sm.	<i>Epithemia argus</i> (Ehrenberg) Kützing (ab)	<i>Cystopleura argus</i> (Ehrenberg) Kuntze, <i>Epithemia ocellata</i> (Ehrenberg) Kützing, <i>Eunotia argus</i> Ehrenberg, <i>Eunotia ocellata</i> Ehrenberg, <i>Epithemia argus</i> var. <i>ocellata</i> (Ehrenberg) F. Fricke	East	Bailey 1913
<i>Epithemia gibba</i> Kütz.	<i>Epithemia gibba</i> Kützing (ab)		East	Bailey 1910
<i>Epithemia hyndmani</i>	<i>Epithemia hyndmanii</i> W. Smith (ab)		East	Bailey 1913
<i>Epithemia musculus</i> Kützing	<i>Rhopalodia musculus</i> (Kützing) O.F. Müller (ab)	<i>Epithemia musculus</i> Kützing	East	Bailey 1910 (Bailey 1913)
<i>Epithemia turgida</i> Ehr.	<i>Epithemia turgida</i> (Ehrenberg) Kützing (ab)	<i>Navicula turgida</i> Ehrenberg, <i>Cymbella turgida</i> (Ehrenberg) Hassall, <i>Cystopleura turgida</i> (Ehrenberg) Kuntze	East	Bailey 1910 (Bailey 1913)
<i>Epithemia zebra</i> Ehr.	<i>Epithemia adnata</i> (Kützing) Brébisson (ab)	<i>Epithemia zebra</i> (Ehrenberg) Kützing	East	Bailey 1910 (Bailey 1913)
<i>Eucampia cornuta</i>	<i>Eucampia cornuta</i> (ab)		East	Carver & Mallet 2002
<i>Eucampia groenlandica</i>	<i>Eucampia groenlandica</i> Cleve (ab)		Arctic	Bérard-Therriault et al. 1999 (Brunel 1962, Lovejoy et al. 2002)
<i>Eucampia recta</i>	<i>Eucampia recta</i> H.H. Gran & T. Braarud		East	Gran & Braarud 1935
<i>Eucampia zodiacus</i>	<i>Eucampia zodiacus</i> Ehrenberg (ab)	<i>Eucampia britannica</i> W. Smith, <i>Eucampia nodosa</i> A. Schmidt	East/West/Arctic	Chang et al. 2007 (Brunel 1962, Bursa 1963, Gran & Braarud 1935)
<i>Eucampia zodiaca</i> Ehrenberg	<i>Eucampia zodiaca</i> Ehrenberg (ab)	<i>Eucampia zodiaca</i> Ehrenberg	West	Sancetta & Calvert 1988
<i>Eunotia arcus</i>	<i>Eunotia arcus</i> Ehrenberg (ab)	<i>Himantidium arcus</i> (Ehrenberg) Ehrenberg	East	Bailey 1913
<i>Eunotia curvata</i> (Ktz.) Lagerst v. <i>curvata</i>	<i>Eunotia curvata</i> var. <i>curvata</i> (Kützing) Lagerst (ab)		East	Rawlence 1987
<i>Eunotia diodon</i> Ehr.	<i>Eunotia diodon</i> Ehrenberg (ab)		East	Bailey 1913 (Bailey 1910)
<i>Eunotia lunaris</i>	<i>Eunotia bilunaris</i> (Ehrenberg) Mills (ab)	<i>Eunotia lunaris</i> (Ehrenberg) Grunow	East	Bailey 1910

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Eunotia major</i>	<i>Eunotia major</i> (W.Smith) Rabenhorst (ab)		East	Bailey 1910 (Bailey 1913)
<i>Eunotia monodon</i>	<i>Eunotia monodon</i> Ehrenberg (ab)	<i>Eunotia major</i> (W. Smith) Rabenhorst	East	Bailey 1910 (Bailey 1913)
<i>Eunotia pectinalis</i>	<i>Eunotia pectinalis</i> (Kützing) Rabenhorst (ab)	<i>Eunotia pectinalis</i> var. <i>minor</i> (Kützing) Rabenhorst, <i>Himantidium pectinatale</i> Kützing	East	Bailey 1910
<i>Eunotia pectinalis</i> var. <i>undulata</i> Ralf	<i>Eunotia pectinalis</i> var. <i>undulata</i> (Ralfs) Rabenhorst (ab)		East	Bailey & MacKay 1921
<i>Eunotia praerupta</i> Ehrenberg	<i>Eunotia praerupta</i> Ehrenberg (ab)		Arctic	Antoniades et al. 2005
<i>Eunotia</i> spp.	<i>Eunotia</i> spp.		West	Hobson 2009 (Hay et al. 2003, McQuoid & Hobson 2001)
<i>Eunotia tetraodon</i> Ehr.	<i>Eunotia tetraodon</i> (Ehrenberg) Ralfs (ab)		East	Bailey 1913
<i>Eupodiscus radiatus</i>	<i>Eupodiscus radiatus</i> J.W. Bailey (ab)	<i>Aulacodiscus radiatus</i> (J.W. Bailey) Brightwell	East	Carver & Mallet 2002
<i>Fallacia</i> sp.	<i>Fallacia</i> sp.		Arctic	Lovejoy et al. 2002
<i>Fossula arctica</i> Hasle, Syvertsen & Quillfeldt	<i>Fossula arctica</i> G.R. Hasle, E.E. Syvertsen & C.H. von Quillfeldt (ab)		Arctic	Lovejoy et al. 2002
<i>Fragilaria capucina</i> Desmazieres	<i>Fragilaria capucina</i> Desmazières (ab)	<i>Fragilaria capucina</i> f. <i>lanceolata</i> (Grunow in van Heurck) Hustedt, <i>Fragilaria capucina</i> var. <i>lanceolata</i> Grunow, <i>Fragilaria</i> <i>capucina</i> f. <i>lanceolata</i> (Grunow) Skabichevskii	East/Arctic	Linkletter et al. 1977 (Bailey 1913, Antoniades et al. 2005)
<i>Fragilaria capucina</i> var. <i>gracilis</i> (Østrup) Hustedt	<i>Fragilaria capucina</i> var. <i>gracilis</i> (Østrup) Hustedt (ab)		Arctic	Antoniades et al. 2005
<i>Fragilaria construens</i> E.	<i>Staurosira construens</i> Ehrenberg (ab)	<i>Fragilaria construens</i> Ehrenberg	East	Bailey & MacKay 1921
<i>Fragilaria oceanica</i>	<i>Fragilariopsis oceanica</i> (Cleve) Hasle (ab)	<i>Fragilaria oceanica</i> Cleve	East	Brunel 1962 (Gran & Braarud 1935)
<i>Fragilaria harrissonii</i> Grun.	<i>Fragilaria harrissonii</i> (W.Smith) Grunow (ab)		East	Bailey 1913

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Fragilaria</i> cf. <i>sopotensis</i> Witkowski & Lange- Bertalot	<i>Fragilaria</i> cf. <i>sopotensis</i> Witkowski & Lange- Bertalot (ab)		West (Effingham Inlet)	Hay et al. 2003
<i>Fragilaria</i> spp.	<i>Fragilaria</i> spp.		West	McQuoid & Hobson 2001
<i>Fragilaria striatula</i> Lyngbye	<i>Fragilaria striatula</i> Lyngbye (ab)		East/Arctic	Poulin et al. 1984b (Bérard-Therriault et al. 1999, Riedel et al. 2003)
<i>Fragilaria vaucheriae</i> (Kützing) Petersen	<i>Fragilaria vaucheriae</i> (Kützing) Petersen (ab)	<i>Fragilaria capucina</i> var. <i>vaucheriae</i> (Kützing) Lange- Bertalot	Arctic	Antoniades et al. 2005
<i>Fragilariopsis atlantica</i>	<i>Fragilariopsis atlantica</i> Paasche (ab)	<i>Nitzschia paaschei</i> Hasle	East	Bérard-Therriault et al. 1999
<i>Fragilariopsis cylindrus</i>	<i>Fragilariopsis cylindrus</i> (Grunow) Krieger (ab)	<i>Fragilaria cylindrus</i> Grunow, <i>Fragilaria nana</i> Steemann Nielsen, <i>Fragilariopsis cylindrus</i> var. <i>planctonica</i> Willi Krieger, <i>Fragilariopsis cylindrus</i> f. <i>minor</i> Manguin, <i>Fragilariopsis linearis</i> var. <i>intermedia</i> Manguin, <i>Nitzschia cylindrus</i> (Grunow) Hasle	East/Arctic	Bérard-Therriault et al. 1999 (Riedel et al. 2003, Lovejoy et al. 2002, Rozanska et al. 2008)
<i>Fragilariopsis doliolus</i> (Wallich) Medlin & Sims	<i>Fragilariopsis doliolus</i> (Wallich) Medlin & Sims (ab)	<i>Synedra doliolus</i> Wallich, <i>Pseudoeunotia doliolus</i> (Wallich) Grunow	East/West	McQuoid & Hobson 2001 (Carver & Mallet 2002)
<i>Fragilariopsis oceanica</i>	<i>Fragilariopsis oceanica</i> (Cleve) Hasle (ab)	<i>Fragilaria oceanica</i> Cleve, <i>Fragilaria arctica</i> Grunow, <i>Nitzschia grunowii</i> Hasle,	East/Arctic	Bérard-Therriault et al. 1999 (Riedel et al. 2003, Lovejoy et al. 2002)
<i>Fragilariopsis pseudonana</i>	<i>Fragilariopsis pseudonana</i> (Hasle) Hasle (ab)	<i>Fragilariopsis nana</i> (Steemann Nielsen) Paasche, <i>Nitzschia pseudonana</i> Hasle	East	Bérard-Therriault et al. 1999
<i>Fragilariopsis</i> spp.	<i>Fragilariopsis</i> spp.		West/Arctic	Hobson 2009 (Booth & Horner 1997, Hay et al. 2003)
<i>Frustulia vulgaris</i> (Thwait) De T. v. <i>vulgaris</i>	<i>Frustulia vulgaris</i> var. <i>vulgaris</i> (Thwaites) De Toni (ab)		East (BoF)	Rawlence 1987
<i>Gomphonema acuminatum</i> Ehr.	<i>Gomphonema acuminatum</i> Ehrenb. (ab)		East	Linkletter et al. 1977 (Bailey 1913, Bailey 1910)

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Gomphonema angustatum</i> (Kützing) Rabenhorst	<i>Gomphonema angustatum</i> (Kützing) Rabenhorst (ab)	<i>Sphenella angustata</i> Kützing, <i>Gomphonema bohemicum</i> Hustedt, <i>Sphenoneis angustata</i> (Kützing) Trevisan, <i>Gomphonema instabilis</i> Hohn & Hellermann	East/Arctic	Antoniades et al. 2005 (Bailey 1910)
<i>Gomphonema capitatum</i>	<i>Gomphonema capitatum</i> Ehrenberg (ab)	<i>Gomphonema constrictum</i> f. <i>clavata</i> (Ehrenberg) Cleve-Euler, <i>Gomphonema truncatum</i> var. <i>capitata</i> (Ehrenberg) Woodhead & Tweed, <i>Gomphonema constrictum</i> var. <i>capitatum</i> (Ehrenberg) Grunow, <i>Gomphonema constrictum</i> f. <i>capitata</i> (Ehrenberg) Hustedt	East	Bailey 1913
<i>Gomphonema constrictum</i> Ehr.	<i>Gomphonema truncatum</i> Ehrenberg (ab)	<i>Gomphonema constrictum</i> Ehr.	East	Bailey 1913
<i>Gomphonema crucigerum</i>	<i>Gomphonema crucigerum</i>		East (BoF)	Linkletter et al. 1977
<i>Gomphonema exiguum</i> K.	<i>Gomphonemopsis exigua</i> (Kützing) Medlin	<i>Gomphonema exiguum</i> Kützing	East	Bailey 1910
<i>Gomphonema geminatum</i> A.	<i>Didymosphenia geminata</i> (Lyngbye) M. Schmidt (ab)	<i>Gomphonema geminatum</i> (Lyngbye) C. Agardh	East	Bailey 1910 (Bailey 1913)
<i>Gomphonema marinum</i> W. Sm.	<i>Gomphonema marinum</i> (Kützing) Smith (ab)		East	Bailey 1913 (Bailey 1910)
<i>Gomphonema</i> spp. Agardh	<i>Gomphonema</i> spp. Agardh		West (Eiffingham Inlet)	Hay et al. 2003 (McQuoid & Hobson 2001)
<i>Gomphonemopsis pseudoexigua</i> (Simonsen) Medlin	<i>Gomphonemopsis pseudoexigua</i> (Simonsen) Medlin (ab)		West (Eiffingham Inlet)	Hay et al. 2003
<i>Grammatophora angulosa</i> Ehrenberg	<i>Grammatophora angulosa</i> Ehrenberg (ab)		East/West(U S)	Cupp 1943
<i>Grammatophora marina</i> (Lyngbye) Kützing	<i>Grammatophora marina</i> (Lyngbye) Kützing (ab)	<i>Diatoma marinum</i> Lyngbye	East/West(U S)/ Arctic	Linkletter et al. 1977 (Bailey 1913, Bailey 1910, Cupp 1943, Bursa 1963, Bates & Strain 2006, McQuoid & Hobson 2001)
<i>Grammatophora marina</i> var. <i>adriatica</i> Grunow	<i>Grammatophora marina</i> var. <i>adriatica</i> Grun. (ab)		West (US)	Cupp 1943

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Grammatophora oceanica</i> (Ehrenberg, 1854, in part) Grunow	<i>Grammatophora oceanica</i> Ehrenberg (ab)	<i>Grammatophora marina</i> var. <i>communis</i> Grunow ex Van Heurck	West (US)	Cupp 1943
<i>Grammatophora serpentina</i> Ehrenberg	<i>Grammatophora serpentina</i> Ehrenberg (ab)		East	Linkletter et al. 1977 (Bailey 1913, Bailey 1910)
<i>Grammatophora</i> sp.	<i>Grammatophora</i> sp.		Arctic	Bursa 1963
<i>Grammatophora</i> spp.	<i>Grammatophora</i> spp.		East/West	Hobson 2009 (McQuoid & Hobson 2001)
<i>Guinardia delicatula</i> (Cleve) Hasle	<i>Rhizosolenia delicatula</i> Cleve (ab)		East/West	Horner et al. 2005 (Bérard-Therriault et al. 1999, Bates & Strain 2006, Horner 2002)
<i>Guinardia flaccida</i> (Castracane) H. Peragello	<i>Guinardia flaccida</i> (Castracane) H. Peragello (ab)	<i>Henseniella baltica</i> Schutt, <i>Rhizosolenia castracanei</i> Cleve, <i>Rhizosolenia flaccida</i> Castracane, <i>Guinardia baltica</i> Schutt	East/West(U S)	Cupp 1943 (Linkletter 1977, Gran & Braarud 1935)
<i>Guinardia striata</i>	<i>Guinardia striata</i> (Stolterfoth) Hasle	<i>Eucampia striata</i> Stolterfoth, <i>Rhizosolenia stolterfothii</i> H. Peragallo	East/West	Carver & Mallet 2002 (Horner 2002)
<i>Gyrosigma balticum</i>	<i>Gyrosigma balticum</i> (Ehrenberg) Rabenhorst	<i>Navicula baltica</i> Ehrenberg, <i>Pleurosigma balticum</i> (Ehrenberg) W. Smith	East	Brunel 1962 (Trites 2005, Bates & Strain 2006)
<i>Gyrosigma diaphanum</i>	<i>Gyrosigma diaphanum</i> Cleve (ab)		Arctic	Riedel et al. 2003
<i>Gyrosigma distortum</i> (W. Sm.) W. Griffith & Henfrey	<i>Gyrosigma distortum</i> (W. Smith) Griffith & Henfrey (col)		East	Thaler 2007 (Trites 2005)
<i>Gyrosigma fasciola</i> (Ehrenberg) J.W. Griffith & Henfrey	<i>Gyrosigma fasciola</i> (Ehrenberg) J.W. Griffith & Henfrey (col)	<i>Ceratoneis fasciola</i> Ehrenberg, <i>Pleurosigma fasciola</i> (Ehrenberg) W. Smith	East	Thaler 2007
<i>Gyrosigma hippocampus</i> (Ehrenberg) Hassall	<i>Gyrosigma hippocampus</i> (Ehrenberg) Hassall (ab)	<i>Navicula hippocampus</i> Ehrenberg, <i>Pleurosigma hippocampus</i> (Ehrenberg) W. Smith	East	Patrick & Reimer 1966
<i>Gyrosigma litorale</i>	<i>Gyrosigma litorale</i> (W. Smith) Griffith & Henfrey (ab)	<i>Pleurosigma litorale</i> W. Smith	East	Rawlence 1987
<i>Gyrosigma obliquum</i> Grunow	<i>Gyrosigma obliquum</i> (Grunow) Boyer (col)		East	Thaler 2007

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Gyrosigma obtusatum</i> (Sullivan & Wormley) Boyer	<i>G. obtusatum</i> (Sullivan & Wormley) Boyer (ab)		Arctic	Antoniades et al. 2005
<i>Gyrosigma prolongatum</i> var. <i>closterioides</i>	<i>Gyrosigma prolongatum</i> var. <i>closterioides</i> (Grunow) Cleve	<i>Pleurosigma prolongatum</i> var. <i>closterioides</i> Grunow	East	Brunel 1962
<i>Gyrosigma spencerii</i> (Quekett) Cleve	<i>Gyrosigma spencerii</i> (J.W. Bailey ex Quekett) Griffith & Henfrey (ab)	<i>Scalptrum spencerii</i> (Quekett) Kuntze, <i>Pleurosigma spencerii</i> var. <i>kuetzingii</i> (Grunow) Grunow, <i>Pleurosigma kuetsingii</i> Grunow, <i>Gyrosigma spencerii</i> (W. Smith) Griffith & Henfrey, <i>Pleurosigma spencerii</i> (Bailey ex Quekett) W. Smith, <i>Navicula spencerii</i> J.W. Bailey ex Quekett, <i>Pleurosigma spencerii</i> W. Smith, <i>Gyrosigma kuetsingii</i> (Grunow) Cleve	East/West (US)/Arctic	Cupp 1943 (Bursa 1963)
<i>Gyrosigma tenuissimum</i> W. Sm.	<i>Gyrosigma tenuissimum</i> (W. Smith) Griffith & Henfrey (ab)	<i>Pleurosigma tenuissimum</i> W. Smith	East	Rawlence 1987 (Bates & Strain 2006)
<i>Gyrosigma wansbeckii</i>	<i>Gyrosigma wansbeckii</i> (Donkin) Cleve	<i>Pleurosigma wansbeckii</i> Donkin, <i>Pleurosigma balticum</i> var. <i>wansbeckii</i> (Donkin) Van Heurck	East	Brunel 1962 (Trites 2005)
<i>Hanaea arcus</i> (Ehrenberg) Patrick in Patrick & Reimer	<i>Hanaea arcus</i> (Ehrenberg) R.M. Patrick (ab)		West (Effingham Inlet)/Arctic	Hay et al. 2003 (Antoniades et al. 2005)
<i>Hantzschia weyprechtii</i>	<i>Hantzschia weyprechtii</i> Grunow (ab)		Arctic	Riedel et al. 2003
<i>Haslea crucigeroides</i>	<i>Haslea crucigeroides</i> (Hustedt) Simonsen (ab)		Arctic	Riedel et al. 2003
<i>Haslea kjellmanii</i>	<i>Haslea kjellmanii</i> (Cleve) Simonsen (ab)		Arctic	Riedel et al. 2003
<i>Haslea</i> sp.	<i>Haslea</i> sp.		Arctic	Booth & Horner 1997
<i>Haslea vitrea</i>	<i>Haslea vitrea</i> (Cleve) Simonsen (ab)	<i>Pleurosigma vitreum</i> Cleve	Arctic	Riedel et al. 2003
<i>Hemiaulus membranaceus</i> Cleve	<i>Hemiaulus membranaceus</i> Cl. (ab)		East/West (US)	Cupp 1943 (Carver & Mallet 2002)
<i>Hemiaulus sinensis</i> Greville	<i>Hemiaulus sinensis</i> Grev. (ab)		East/West (US)	Cupp 1943 (Carver & Mallet 2002)

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Hemidiscus cuneiformis</i> var. <i>ventricosa</i> (Castracane) Hustedt	<i>Hemidiscus cuneiformis</i> var. <i>ventricosa</i> (Castr.) Hust. (ab)		West (US)	Cupp 1943
<i>Himantidium arcus</i> W. Sm.	<i>Eunotia arcus</i> Ehrenberg (ab)	<i>Himantidium arcus</i> (Ehrenberg) Ehrenberg	East	Bailey 1913
<i>Himantidium gracile</i> Ehr.	<i>Himantidium gracile</i> Ehrenberg (ab)		East	Bailey 1913
<i>Himantidium majus</i> W. Sm.	<i>Himantidium majus</i> W. Smith (ab)		East	Bailey 1913
<i>Hyalodiscus</i> sp.	<i>Hyalodiscus</i> sp. (ab)		West	Sancetta & Calvert 1988
<i>Hyalodiscus subtilis</i> Bail.	<i>Hyalodiscus subtilis</i> J.W.Bailey (ab)		East	Bailey 1913
<i>Isthmia enervis</i> Ehr.	<i>Isthmia enervis</i> Ehrenberg (ab)	<i>Isthmia obliquata</i> (J.E.Smith) C.Agardh, <i>Isthmiella enervis</i> Cleve	East	Bailey 1910
<i>Isthmia nervosa</i> Kützing	<i>Isthmia nervosa</i> Kütz. (ab)		East/West (US)/Arctic	Bailey 1910 (Cupp 1943, Bursa 1963)
<i>Lauderia confervacea</i>	<i>Detonula confervacea</i> (Cleve) Gran (ab)	<i>Lauderia confervacea</i> Cleve	East	Brunel 1962
<i>Lauderia annulata</i>	<i>Lauderia annulata</i> Cleve (ab)	<i>Lauderia borealis</i> Gran	East	Rawlence 1987
<i>Lauderia glacialis</i>	<i>Porosira glacialis</i> (Grunow) Jorgensen (ab)	<i>Lauderia glacialis</i> (Grunow) Gran	East	Brunel 1962
<i>Lennoxia faveolata</i>	<i>Lennoxia faveolata</i> H.A. Thomsen & K.R. Buck (ab)		East	Bérard-Therriault et al. 1999
<i>Leptocylindrus danicus</i> Cleve	<i>Leptocylindrus danicus</i> Cleve (ab)		East/West/Arctic	Horner et al. 2005 (Brunel 1962, Bursa 1963, Lovejoy 2002, Gran & Braarud 1935, Bates & Strain 2006)
<i>Leptocylindrus mediterraneus</i>	<i>Leptocylindrus mediterraneus</i> (H. Peragallo) Hasle (ab)	<i>Lauderia mediterranea</i> H. Peragallo, <i>Dactyliosolen mediterraneus</i> (Peragallo) Peragallo, <i>Dactyliosolen mediterraneus</i> var. <i>tenuis</i> Cleve, <i>Dactyliosolen tenuis</i> (Cleve) Gran, <i>Dactyliosolen meleagris</i> Karsten	East	Bérard-Therriault et al. 1999 (Bates & Strain 2006)

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Leptocylindrus minimus</i> Gran	<i>Leptocylindrus minimus</i> Gran (ab)	<i>Leptocylindrus belgicus</i> Meunier	East/West	Horner et al. 2005 (Linkletter et al. 1977, Chang et al. 2007, Bérard-Therriault et al. 1999, Gran & Braarud 1935, Bates & Strain 2006)
<i>Licmophora abbreviata</i> Agardh	<i>Licmophora abbreviata</i> C. Agardh (ab)		East/Arctic	Bursa 1963 (Bates & Strain 2006)
<i>Licmophora flabellata</i> W.S.	<i>Licmophora flabellata</i> C. Agardh (ab)	<i>Exilaria flabellata</i> Greville	East	Bailey 1913
<i>Licmophora hyalina</i> (Kützing) Grunow	<i>Licmophora hyalina</i> (Kützing) Grunow (ab)		East	Poulin et al. 1984a
<i>Licmophora lyngbyei</i> (Kützing) Grunow ex Van Heurck	<i>Licmophora lyngbyei</i> (Kützing) Grunow ex Van Heurck (ab)	<i>Licomorpha abbreviata</i> C. Agardh, <i>Podosphenia lyngbyei</i> Kutzing	East/West (US)	Cupp 1943 (Bailey 1910)
<i>Licmophora</i> spp.	<i>Licmophora</i> spp.		West	Hobson 2009 (McQuoid & Hobson 2001)
<i>Licmophora tinctoria</i>	<i>Licmophora tinctoria</i>		East	Bailey 1913
<i>Lyrella clavata</i>	<i>Lyrella clavata</i> (Gregory) Mann (ab)	<i>Navicula clavata</i> Gregory	East	Bérard-Therriault et al. 1999
<i>Lyrella</i> sp.	<i>Lyrella</i> sp.		West	Hobson 2009 (McQuoid & Hobson 2001)
<i>Manguinea</i> sp. Paddock	<i>Manguinea</i> sp. Paddock		Arctic	Lovejoy et al. 2002
<i>Mastogloia elliptica</i>	<i>Mastogloia elliptica</i> (C. Agardh) Cleve (ab)	<i>Frustulia elliptica</i> C. Agardh, <i>Amphora elliptica</i> (Agardh) Kützing, <i>Mastogloia danseii</i> var. <i>elliptica</i> Van Heurck	East	Bailey 1910
<i>Mastogloia exigua</i> Lewis	<i>Mastogloia exigua</i> F.W. Lewis (ab)		East	Bailey 1913
<i>Mastogloia lanceolata</i> S.B.D.	<i>Mastogloia lanceolata</i> Thwaites (ab)		East	Bailey 1913
<i>Mastogloia smithii</i> Thw.	<i>Mastogloia smithii</i> Thwaites ex W. Smith (ab)		East	Bailey 1910
<i>Mediopyxis helysia</i>	<i>Mediopyxis helysia</i> (ab)		East	Martin & LeGresley 2008

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Melosira arctica</i>	<i>Melosira arctica</i> Dickie (ab)	<i>Melosira hyperborea</i> Schütt, <i>Gaillonella arctica</i> (Dickie) Ehrenberg	East/Arctic	Bérard-Therriault et al. 1999 (Brunel 1962, Zwicker 1998, Riedel et al. 2003, Bursa 1963, Lovejoy et al. 2002, Booth & Horner 1997, Rozanska et al. 2008)
<i>Melosira borrieri</i>	<i>Melosira borrieri</i> Greville		East	Fritz 1921 (Brunel 1962, Bailey 1910, Bailey 1913)
<i>Melosira crenulata</i>	<i>Melosira crenulata</i> (Ehrenberg) Kützing (ab)		East	Linkletter et al. 1977 (Bailey 1910, Fritz 1921)
<i>Melosira distans</i> (Ehr.) Ktz.	<i>Aulacoseira distans</i> (Ehrenb.) Simonsen (ab)	<i>Melosira distans</i> (Ehrenberg) Kützing	East	Rawlence 1987
<i>Melosira glacialis</i>	<i>Melosira glacialis</i> (A. Grunow) A. Cleve-Euler (ab)		East	Brunel 1962
<i>Melosira granulata</i> (Ehr.) Ralfs	<i>Aulacoseira granulata</i> (Ehrenberg) Simonsen (ab)	<i>Melosira granulata</i> (Ehrenberg) Ralfs	East	Rawlence 1987 (Bailey 1910)
<i>Melosira granulata</i> v. <i>angustissima</i> O. Müller	<i>Aulacoseira granulata</i> var. <i>angustissima</i> (O.F. Müller) Simonsen (ab)	<i>Melosira granulata</i> var. <i>angustissima</i> O.F. Müller	East	Rawlence 1987
<i>Melosira hyperborea</i> Grunow	<i>Melosira hyperborea</i> Grunow (ab)		East (BoF)	Linkletter et al. 1977 (Fritz 1921)
<i>Melosira italica</i> (Ehr.) Ktz.	<i>Aulacoseira italica</i> (Ehrenberg) Simonsen (ab)	<i>Melosira italica</i> (Ehr.) Ktz.	East (BoF)	Rawlence 1987
<i>Melosira juergensii</i> Ag.	<i>Melosira lineata</i> (Dillwyn) Agardh (ab)	<i>Melosira juergensii</i> Ag.	East	Bailey 1910 (Zwicker 1998)
<i>Melosira lineata</i> (Dillw.) C.A. Ag.	<i>Melosira lineata</i> (Dillwyn) Agardh (ab)	<i>Melosira juergensii</i> C. Agardh, <i>Gaillonella lineata</i> (Dillwyn) Bory in Ehrenberg, <i>Conferva lineata</i> Dillwyn, <i>Lysigonium lineatum</i> (Dillwyn) Trevisan	East (BoF)	Rawlence 1987 (Brunel 1962)
<i>Melosira marina</i>	<i>Melosira marina</i> (W.Smith) Janisch (ab)		East (BoF)	Linkletter et al. 1977

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Melosira moniliformis</i> (Müller) Agardh	<i>Melosira moniliformis</i> (O.F. Müller) C. Agardh (ab)	<i>Lysigonium moniliforme</i> (O.F. Müller) Trevisan, <i>Lysigonium moniliforme</i> (O.F. Müller) Link, <i>Conferva moniliformis</i> O.F. Müller, <i>Melosira borrieri</i> var. <i>moniliformis</i> (O.F. Müller) A. Grunow	East/West	Linkletter et al. 1977 (McQuoid & Hobson 2001)
<i>Melosira moniliformis</i> var. <i>subglobosa</i>	<i>Melosira moniliformis</i> var. <i>subglobosa</i> (Grunow) Husted	<i>Melosira borrieri</i> var. <i>subglobosa</i> A. Grunow	East	Brunel 1962
<i>Melosira nummuloides</i> Ag.	<i>Melosira nummuloides</i> C.A. Agardh (ab)		East/West (Effingham inlet)/Arctic	Hay et al. 2003 (Bailey 1913, Bailey 1910, Bérard-Therriault et al. 1999, Brunel 1962, Bursa 1963)
<i>Melosira octagona</i>	<i>Melosira octogona</i> Schmidt (ab)		East	Bailey 1910
<i>Melosira orichalcea</i> Ken.	<i>Melosira orichalcea</i> (Mertens ex Jürgens) Kützing (ab)	<i>Conferva orichalcea</i> Mertens ex Jürgens	East	Bailey 1910
<i>Melosira</i> sp.	<i>Melosira</i> sp.		East/West/Arctic	Sancetta & Calvert 1988 (Bursa 1963, Bates & Strain 2006)
<i>Melosira</i> spp.	<i>Melosira</i> spp.		West	McQuoid & Hobson 2001
<i>Melosira subflexilis</i> Kutz.	<i>Melosira subflexilis</i> Kützing (ab)		East	Bailey 1913 (Bailey 1910)
<i>Melosira subsalsa</i>	<i>Melosira subsalsa</i> Cleve-Euler (ab)		East	Brunel 1962
<i>Melosira sulcata</i>	<i>Paralia sulcata</i> (Ehrenberg) Cleve (ab)	<i>Melosira sulcata</i> (Ehrenberg) Kützing	East	Fritz 1921 (Brunel 1962, Gran & Braarud 1935, Bailey 1910)
<i>Melosira varians</i> Ag.	<i>Melosira varians</i> C. Agardh (ab)	<i>Lysigonium varians</i> (C. Agardh) DeToni	East	Bailey 1913 (Bailey 1910)
<i>Membraneis challengeri</i> Pitzer	<i>Membraneis challengeri</i> (Grunow) Paddock (ab)	<i>Navicula challengeri</i> Grunow, <i>Tropidoneis antarctica</i> (Grunow in Cleve & Möller) Cleve	East	Bérard-Therriault et al. 1999
<i>Meridion circulare</i> Ag.	<i>Meridion circulare</i> (Greville) C. Agardh (ab)	<i>Exilaria circularia</i> (Greville) Greville, <i>Echinella circularis</i> Greville, <i>Exilaria circularis</i> (Greville) C. Agardh	East	Bailey 1913 (Brunel 1962)
<i>Meridion intermedium</i> H.L.S.	<i>Meridion intermedium</i> H.L. Smith (ab)		East	Bailey 1913 (Bailey 1910)
<i>Meridion</i> spp.	<i>Meridion</i> spp.		West	McQuoid & Hobson 2001

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Meuniera membranacea</i>	<i>Meuniera membranacea</i> (Cleve) P.C. Silva (ab)	<i>Stauropsis membranacea</i> (Cleve) Meunier, <i>Navicula membranacea</i> Cleve, <i>Stauroneis membranacea</i> (Cleve) Hustedt	Arctic	Riedel et al. 2003
<i>Minidiscus chilensis</i>	<i>Minidiscus chilensis</i> Rivera (ab)		East	Bérard-Therriault et al. 1999
<i>Minidiscus comicus</i>	<i>Minidiscus comicus</i> Takano (ab)		East	Bérard-Therriault et al. 1999
<i>Minidiscus</i> spp. Hasle	<i>Minidiscus</i> spp. Hasle		West (Effingham Inlet)	Hay et al. 2003 (Sancetta & Calvert 1988, McQuoid & Hobson 2001)
<i>Minidiscus trioculatus</i>	<i>Minidiscus trioculatus</i> (F.J.R. Taylor) Hasle (ab)	<i>Coscinodiscus trioculatus</i> F.J.R. Taylor	East	Bérard-Therriault et al. 1999
<i>Minutocellulus</i> Hasle, von Stosch and Syvertsen sp.	<i>Minutocellulus</i> Hasle, von Stosch and Syvertsen sp. (ab)		Arctic	Lovejoy et al. 2002
<i>Navicula acuta</i> S.B.D.	<i>Navicula acuta</i> Skvortzov (ab)		East	Bailey 1913
<i>Navicula algida</i>	<i>Navicula algida</i> Grunow (ab)		Arctic	Riedel et al. 2003
<i>Navicula americana</i> Ehr.	<i>Sellaphora americana</i> (Ehrenberg) D.G. Mann (ab)	<i>Navicula americana</i> Ehrenberg	East	Bailey 1913
<i>Navicula bacillum</i> Ehrenberg	<i>Sellaphora bacillum</i> (Ehrenberg) D.G. Mann (ab)	<i>Navicula bacillum</i> Ehrenberg	Arctic	Antoniades et al. 2005
<i>Navicula baileyana</i> Grun.	<i>Navicula baileyana</i> Grunow ex A. Schmidt (ab)		East	Bailey 1913
<i>Navicula binodis</i> Ehrenberg	<i>Neidium binodis</i> (Ehrenberg) Hustedt (ab)		East	Rawlence 1987
<i>Navicula bryophila</i> (Petersen) Lange-Bertalot	<i>Navicula bryophila</i> Petersen (ab)		Arctic	Antoniades et al. 2005
<i>Navicula chiarae</i> Lange-Bertalot & Genkal	<i>Navicula chiarae</i> Lange-Bertalot & Genkal (ab)		Arctic	Antoniades et al. 2005
<i>Navicula cincta</i> (Ehrenberg) Ralfs	<i>Navicula cincta</i> (Ehrenberg) Ralfs (ab)	<i>Navicula umida</i> Bock, <i>Navicula inutilis</i> Krasske, <i>Navicula cincta</i> var. <i>heufferii</i> Grunow, <i>Pinnularia cincta</i> Ehrenberg, <i>Schizonema cinctum</i> (Ehrenberg) Kuntze, <i>Navicula cari</i> var. <i>cincta</i> (Ehrenberg) Lange-Bertalot	Arctic	Antoniades et al. 2005

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Navicula clementis</i> Grunow	<i>Navicula clementis</i> Grunow (ab)	<i>Placoneis clementis</i> (Grunow) E.J.Cox, <i>Navicula inclementis</i> var. <i>rhombica</i> Brockmann, <i>Schizonema clementis</i> (Grunow) Kuntze, <i>Placoneis rhombica</i> (Brockmann) Lange-Bertalot	Arctic	Antoniades et al. 2005
<i>Navicula clunthensis</i> f. <i>rostrata</i>	<i>Navicula clunthensis</i> f. <i>rostrata</i> (Simonsen) Hustedt (ab)	<i>Navicula pseudoglacialis</i> f. <i>rostrata</i> Simonsen	East	Bérard-Therriault et al. 1999
<i>Navicula cocconeiformis</i> Gregory ex Greville	<i>Cavinula cocconeiformis</i> (Gregory ex Greville) D.G. Mann & A.J. Stickle (ab)	<i>Navicula cocconeiformis</i> Gregory ex Greville	Arctic	Antoniades et al. 2005
<i>Navicula crucigera</i> Cleve	<i>Haslea crucigera</i> (W. Smith) Simonsen (ab)	<i>Stauroneis crucigera</i> (W. Smith) Heiberg, <i>Navicula crucigera</i> (W. Smith) Cleve	East (BoF)	Lakshminarayana 1983
<i>Navicula cryptocephala</i> Kützing	<i>Navicula cryptocephala</i> Kützing (ab)	<i>Navicula cryptocephala</i> forma <i>terrestris</i> Lund, <i>Schizonema</i> <i>cryptocephalum</i> (Kützing) Kuntze, <i>Navicula cryptocefalsa</i> Lange- Bertalot	Arctic	Antoniades et al. 2005
<i>Navicula cyprinus</i>	<i>Navicula cyprinus</i> (Ehrenberg) Kützing (ab)		East	Bailey 1913
<i>Navicula dicephala</i> (Ehrenberg) W. Smith	<i>Navicula dicephala</i> (Ehrenberg) W. Smith (ab)		East	Bailey 1913
<i>Navicula digito-radiata</i> (Greg.) Ralfs.	<i>Navicula digito-radiata</i> (Greg.) Ralfs (ab)		East (BoF)	Rawlence 1987
<i>Navicula directa</i>	<i>Pinnularia directa</i> W. Smith (ab)		East/Arctic	Bailey 1913 (Bérard-Therriault et al. 1999, Riedel et al. 2003, Lovejoy et al. 2002, Rozanska et al. 2008)
<i>Navicula distans</i> (W. Smith) Ralfs	<i>Navicula distans</i> (W. Smith) Schmidt (ab)	<i>Pinnularia distans</i> W. Smith	East/West (US)/Arctic	Cupp 1943 (Bailey 1913, Bailey 1910, Bursa 1963, Gran & Braarud 1935, Hobson & McQuoid 2001)
<i>Navicula egregia</i> Hustedt	<i>Fallacia egregia</i> (Hustedt) D.G. Mann (ab)	<i>Navicula egregia</i> Hustedt	Arctic	Antoniades et al. 2005

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Navicula elliptica</i>	<i>Diploneis elliptica</i> (Kützing) Cleve (ab)	<i>Navicula elliptica</i> Kützing	East	Bailey 1910 (Bailey 1913)
<i>Navicula gandrupii</i> Krasske	<i>Navicula gandrupii</i> (Petersen) Krasske (ab)		Arctic	Antoniades et al. 2005
<i>Navicula gelida</i>	<i>Navicula gelida</i> Grunow		Arctic	Riedel et al. 2003
<i>Navicula gemmata</i> Grev.	<i>Navicula gemmata</i> Grev. (ab)		East (BoF)	Rawlence 1987
<i>Navicula gerloffii</i> Schimanski	<i>Navicula gerloffii</i> Schimanski (ab)		Arctic	Antoniades et al. 2005
<i>Navicula globulifera</i> Hustedt	<i>Navicula globulifera</i> Hustedt (ab)		Arctic	Antoniades et al. 2005
<i>Navicula graeffii</i> Grunow ex A. Schmidt	<i>Navicula graeffii</i> Grunow ex A. Schmidt (ab)		East (BoF)	Rawlence 1987
<i>Navicula granii</i>	<i>Navicula granii</i> (Jørgensen) Gran (ab)	<i>Stauroneis granii</i> E. Jørgensen	East/Arctic	Brunel 1962 (Riedel et al. 2003, Lovejoy et al. 2002)
<i>Navicula gregaria</i> Donkin	<i>Navicula gregaria</i> Donkin (ab)	<i>Schizonema gregarium</i> (Donkin) Kuntze	West (Effingham Inlet)	Hay et al. 2003 (Bérard-Therriault et al. 1999)
<i>Navicula halophiloides</i> Hustedt	<i>Navicula halophiloides</i> Hustedt (ab)		Arctic	Antoniades et al. 2005
<i>Navicula hennedyi</i> S.B.D.	<i>Lyrella hennedyi</i> (W. Smith) Stickle & Mann (ab)	<i>Navicula hennedyi</i> S.B.D.	East	Bailey 1913
<i>Navicula impexa</i>	<i>Navicula impexa</i> Hustedt (ab)		Arctic	Riedel et al. 2003
<i>Navicula insociabilis</i>	<i>Fallacia insociabilis</i> (Krasske) D.G. Mann	<i>Navicula fritschii</i> J.W.G. Lund, <i>Navicula insociabilis</i> Krasske	Arctic	Antoniades et al. 2005
<i>Navicula kariana</i> var. <i>frigida</i>	<i>Navicula kariana</i> var. <i>frigida</i> (Grunow) Cleve (ab)		East	Bérard-Therriault et al. 1999
<i>Navicula krasskei</i> Hustedt	<i>Navicula krasskei</i> Hustedt (ab)		Arctic	Antoniades et al. 2005
<i>Navicula kryophila</i>	<i>Navicula criophila</i> (Castracane) De Toni	<i>Navicula kryophila</i> Cleve	Arctic	Booth & Horner 1997
<i>Navicula lenzii</i> Hust. in Schmidt	<i>Navicula lenzii</i> Hust (ab)		Arctic	Antoniades et al. 2005
<i>Navicula liber</i> S.B.D.	<i>Navicula liber</i> W.Smith (ab)		East	Bailey 1913
<i>Navicula longa</i> Ralfs.	<i>Navicula longa</i> (Gregory) Ralfs ex Pritchard (ab)	<i>Pinnularia longa</i> Gregory	East	Bailey 1913
<i>Navicula maculata</i> Bail.	<i>Navicula maculata</i> Hustedt (ab)		East	Bailey 1913 (Bailey 1910)
<i>Navicula major</i> Kiz.	<i>Navicula major</i> Kützing		East	Bailey 1910 (Bailey 1913)
<i>Navicula marina</i> Ralfs	<i>Petronis marina</i> (Ralfs ex Pritchard) D.G. Mann (ab)	<i>Navicula punctulata</i> W. Smith, <i>Navicula marina</i> Ralfs ex Pritchard	East	Bailey 1910

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Navicula mesolepta</i> Kutz.	<i>Pinnularia mesolepta</i> (Ehrenberg) W. Smith (ab)	<i>Navicula mesolepta</i> Kutz.	East	Bailey 1913
<i>Navicula minuscula</i>	<i>Adlafia minuscula</i> (Grunow) H. Lange-Bertalot (ab)	<i>Navicula pseudoexilissima</i> Hustedt, <i>Navicula importunata</i> Hustedt, <i>Navicula muralis</i> Grunow, <i>Navicula minuscula</i> var. <i>muralis</i> (Grunow) Lange-Bertalot, <i>Navicula cloacina</i> Lange-Bertalot & Bonik, <i>Navicula minuscula</i> Grunow	East	Bailey 1910
<i>Navicula mutica</i> Kutzing	<i>Luticola mutica</i> (Kützing) D.G. Mann	<i>Navicula imbricata</i> Bock, <i>Navicula mutica</i> Kützing	Arctic	Antoniades et al. 2005
<i>Navicula nobilis</i> Ehr.	<i>Navicula nobilis</i> Kützing (ab)		East	Bailey 1910 (Bailey 1913)
<i>Navicula patula</i> S.B.D.	<i>Navicula patula</i> W.Smith (ab)		East	Bailey 1913
<i>Navicula pelagica</i>	<i>Navicula pelagica</i> Cleve (ab)	<i>Stauropsis pelagica</i> (Cleve) Meunier	East/Arctic	Bérard-Therriault et al. 1999 (Riedel et al. 2003, Lovejoy et al. 2002, Booth & Horner 1997)
<i>Navicula pellucidula</i>	<i>Navicula pellucidula</i> Hustedt (ab)		Arctic	Riedel et al. 2003
<i>Navicula peregrina</i> Ktz.	<i>Navicula peregrina</i> (Ehrenberg) Kützing (ab)	<i>Pinnularia peregrina</i> Ehrenberg	East	Linkletter et al. 1977 (Bailey 1913 & Bailey 1910)
<i>Navicula permagna</i> Bail.	<i>Caloneis permagna</i> (J.W. Bailey) Cleve (ab)	<i>Navicula permagna</i> (Bailey) A.M. Edwards	East	Bailey 1910 (Bailey 1913)
<i>Navicula perminuta</i> Grunow in Van Heurck	<i>Navicula perminuta</i> Grunow (ab)	<i>Navicula disterta</i> Hustedt, <i>Navicula cryptocephala</i> var. <i>perminuta</i> (Grunow) Cleve	West (Eiffingham Inlet)	Hay et al. 2003 (Bérard-Therriault et al. 1999)
<i>Navicula phyllepta</i> Kutzing	<i>Navicula phyllepta</i> Kützing (ab)	<i>Navicula phyllepta</i> Kützing, <i>Navicula lanceolata</i> var. <i>phyllepta</i> (Kützing) van Heurck	Arctic	Antoniades et al. 2005
<i>Navicula pseudotenelloides</i> Kraske	<i>Navicula pseudotenelloides</i> Cholnoky (ab)		Arctic	Antoniades et al. 2005
<i>Navicula pupula</i> var. <i>mutata</i> (Kraske) Hustedt	<i>Navicula pupula</i> var. <i>mutata</i> (Kraske) Hustedt (ab)		Arctic	Antoniades et al. 2005
<i>Navicula quadripedis</i>	<i>Navicula septentrionalis</i> (Grunow) Gran (ab)	<i>Navicula quadripedis</i> Cleve-Euler	East	Brunel 1962

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Navicula radiosa</i> S.B.D.	<i>Navicula radiosa</i> Kützing (ab)	<i>Navicula radiosa</i> var. <i>tenella</i> (Brébisson) Van Heurck, <i>Schizonema radiosum</i> (Kützing) Kuntze	East	Bailey 1913
<i>Navicula recurvata</i>	<i>Navicula recurvata</i> Gran (ab)		Arctic	Riedel et al. 2003
<i>Navicula semen</i> Ehr.	<i>Navicula semen</i> Ehrenberg (ab)		East	Bailey 1913
<i>Navicula septentrionalis</i>	<i>Navicula septentrionalis</i> (Grunow) Gran (ab)	<i>Stauroneis septentrionalis</i> Grunow, <i>Navicula quadripedis</i> Cleve-Euler	East/Arctic	Bérard-Therriault et al. 1999 (Brunel 1962, Riedel et al. 2003, Lovejoy et al. 2002, Booth & Horner 1997)
<i>Navicula</i> spp.	<i>Navicula</i> spp.		East/West (US)/Arctic	Horner et al. 2005 (Lovejoy et al. 2002, Bates & Strain 2006, Booth & Horner 1997, McQuoid & Hobson 2001)
<i>Navicula soehrensii</i> Krasske	<i>Navicula soehrensii</i> Krasske (ab)		Arctic	Antoniades et al. 2005
<i>Navicula superba</i> var. <i>subacuta</i>	<i>Navicula superba</i> var. <i>subacuta</i> Gran		Arctic	Riedel et al. 2003
<i>Navicula transitans</i> Cl.	<i>Navicula transitans</i> Cl. (ab)		East (BoF)/Arctic	Rawlence 1987 (Booth & Horner 1997)
<i>Navicula transitans</i> var. <i>derasa</i>	<i>Navicula transitans</i> var. <i>derasa</i> (Grunow) Cleve (ab)	<i>Navicula derasa</i> Grunow	East	Bérard-Therriault et al. 1999
<i>Navicula transitans</i> var. <i>derasa</i> f. <i>delicatula</i>	<i>Navicula transitans</i> var. <i>derasa</i> f. <i>delicatula</i> Heimdal (ab)		East/Arctic	Bérard-Therriault et al. 1999 (Lovejoy et al. 2002)
<i>Navicula trigonocephala</i>	<i>Navicula trigonocephala</i> Cleve		East/Arctic	Riedel et al. 2003 (Booth & Horner 1997)
<i>Navicula trigonocephala</i> var. <i>depressa</i>	<i>Navicula trigonocephala</i> var. <i>depressa</i> Østrup		Arctic	Riedel et al. 2003
<i>Navicula tripunctata</i> (O.F. Mull.) Bory v. <i>tripunctata</i>	<i>Navicula tripunctata</i> var. <i>tripunctata</i> (O.F. Müller) Bory (ab)		East	Rawlence 1987
<i>Navicula vanhoeffenii</i>	<i>Navicula vanhoeffenii</i> Gran (ab)	<i>Stauropsis vanhoeffenii</i> (Gran) Meunier	East/Arctic	Bérard-Therriault et al. 1999 (Riedel et al. 2003, Lovejoy et al. 2002, Gran & Braarud 1935, Booth & Horner 1997)
<i>Navicula viridis</i> Ktz.	<i>Navicula viridis</i> (Nitzsch) Kützing		East	Bailey 1910 (Bailey 1913)

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Navicula vulpina</i> Kützing	<i>Navicula vulpina</i> Kützing (ab)	<i>Schizonema vulpinum</i> (Kützing) Kuntze, <i>Navicula gracilis</i> var. <i>vulpina</i> (Kützing) Rabenhorst, <i>Navicula viridula</i> var. <i>vulpina</i> (Kützing) Lange-Bertalot	Arctic	Antoniades et al. 2005
<i>Neidium ampliatum</i> (Ehrenberg) Krammer	<i>Neidium ampliatum</i> (Ehrenberg) Krammer (ab)	<i>Navicula ampliata</i> Ehrenberg, <i>Neidium iridis</i> var. <i>ampliatum</i> (Ehrenberg) Cleve	Arctic	Antoniades et al. 2005
<i>Neidium bergii</i> (Cleve) Krammer	<i>Neidium bergii</i> (Cleve) Krammer (ab)		Arctic	Antoniades et al. 2005
<i>Neidium binode</i> (Ehr.) Hust. v. binode	<i>Neidium binode</i> (Ehr.) Hust. v. binode		East	Rawlence 1987
<i>Neodenticula seminae</i>	<i>Neodenticula seminae</i> (R. Simonsen & T. Kanaya) F. Akiba & Y. Yanagisawa (ab)	<i>Denticula seminae</i> R. Simonsen & T. Kanaya, <i>Denticula marina</i> Semina, <i>Denticulopsis seminae</i> (Simonsen & Kanaya) Simonsen	East/West	Martin & LeGresley 2008
<i>Nitzschia amphibia</i> Grunow	<i>Nitzschia amphibia</i> Grunow (ab)		Arctic	Antoniades et al. 2005 (Zwicker 1998)
<i>Nitzschia angularis</i> S.B.D.	<i>Nitzschia angularis</i> W. Smith (ab)		East	Bailey 1913 (Bailey 1910)
<i>Nitzschia bilobata</i>	<i>Nitzschia bilobata</i> W. Smith (ab)		East	Linkletter et al. 1977 (Bailey 1913 & Bailey 1910)
<i>Nitzschia bilobata</i> var. <i>minor</i> Grun.	<i>Nitzschia bilobata</i> var. <i>minor</i> Grun. (ab)		West (US)	Cupp 1943
<i>Nitzschia brevissima</i> Grunow in Van Heurck	<i>Nitzschia brevissima</i> Grunow	<i>Nitzschia parvula</i> Lewis, <i>Nitzschia parvula</i> var. <i>terricola</i> Lund	East	Thaler 2007
<i>Nitzschia circumscuta</i> Bail.	<i>Nitzschia circumscuta</i> (Bailey) Grunow (ab)	<i>Surirella circumscuta</i> J.W. Bailey	East	Bailey 1913 (Bailey 1910)
<i>Nitzschia clausii</i> Hantzsch	<i>Nitzschia clausii</i> Hantzsch (ab)		Arctic	Antoniades et al. 2005

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Nitzschia closterium</i>	<i>Nitzschia closterium</i> (Ehrenberg) W. Smith (ab)	<i>Ceratoneis closterium</i> Ehrenberg, <i>Nitzschia closterium</i> (Ehrenberg) Rabenhorst, <i>Nitzschia longissima</i> var. <i>closterium</i> (Ehrenberg) Van Heurck, <i>Nitzschia curvirostris</i> var. <i>closterium</i> (Ehrenberg) De Toni, <i>Nitzschia longissima</i> var. <i>closterium</i> (Ehrenberg) Peragallo & Peragallo, <i>Homoeocladia closterium</i> (Ehrenberg) Kuntze, <i>Cylindrotheca closterium</i> (Ehrenberg) Reimann & Lewin	East/Arctic	Brunel 1962 (Fritz 1921, Bursa 1963, Bailey 1910, Bailey 1913)
<i>Nitzschia commutata</i> Grunow	<i>Nitzschia commutata</i> Grunow (ab)	<i>Nitzschia pseudoamphioxys</i> Hustedt	Arctic	Antoniades et al. 2005
<i>Nitzschia constricta</i> Grun.	<i>Nitzschia constricta</i> (Gregory) Grunow		East	Bailey 1910
<i>Nitzschia bilobata</i>	<i>Nitzschia bilobata</i> W. Smith (ab)		East	Fritz 1921
<i>Nitzschia debilis</i> (Arnott) Grunow	<i>Tryblionella debilis</i> Arnott ex O'Meara (ab)	<i>Nitzschia debilis</i> (Arnott) Grunow	Arctic	Antoniades et al. 2005
<i>Nitzschia delicatissima</i>	<i>Pseudo-nitzschia delicatissima</i> (Cleve) Heiden (ab)	<i>Nitzschia delicatissima</i> Cleve	East/West/Arctic	Sancetta & Calvert 1988 (Brunel 1962, Bursa 1963, Gran & Braarud 1935)
<i>Nitzschia dissipata</i> var. <i>media</i> (Hantzsch) Grunow in Van Heurck	<i>Nitzschia dissipata</i> var. <i>media</i> (Hantzsch) Grunow (ab)	<i>Nitzschia tenuis</i> var. <i>media</i> (Hantzsch) Rabenhorst, <i>Nitzschia media</i> Hantzsch	Arctic	Antoniades et al. 2005
<i>Nitzschia epithemioides</i> Grunow	<i>Nitzschia epithemioides</i> Grunow (ab)	<i>Nitzschia epithemiformis</i> Lange-Bertalot	East	Thaler 2007
<i>Nitzschia filiformis</i> (W.Smith) Van Heurck	<i>Nitzschia filiformis</i> (W.Smith) Hustedt (ab)		East	Ginn (pers. comm.) ¹
<i>Nitzschia fontifuga</i>	<i>Nitzschia fontifuga</i> Cholnoky (ab)		East	Béard-Therriault et al. 1999
<i>Nitzschia frigida</i>	<i>Nitzschia frigida</i> Grunow (ab)		East/Arctic	Béard-Therriault et al. 1999 (Riedel et al. 2003, Bursa 1963, Lovejoy et al. 2002, Booth & Horner 1997, Rozanska et al. 2008)

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Nitzschia frustulum</i> (Kützing) Grunow in Cleve and Grunow	<i>Nitzschia austriaca</i> Hustedt (ab)	<i>Nitzschia frustulum</i> (Kützing) Grunow	West (Effingham Inlet)	Hay et al. 2003 (Zwicker 1998)
<i>Nitzschia gracilis</i>	<i>Nitzschia gracilis</i> Hantzsch (ab)		East	Bailey 1913
<i>Nitzschia granulata</i>	<i>Tryblionella granulata</i> (Grunow) D.G. Mann (ab)	<i>Nitzschia granulata</i> Grunow	East	Bailey 1910
<i>Nitzschia hudsonii</i>	<i>Nitzschia hudsonii</i> M. Poulin & A. Cardinal (ab)		Arctic	Riedel et al. 2003
<i>Nitzschia inconspicua</i> Grunow	<i>Nitzschia inconspicua</i> Grunow (ab)		West (Effingham Inlet)/Arctic	Hay et al. 2003 (Antoniades et al. 2005)
<i>Nitzschia laevis</i>	<i>Nitzschia laevis</i> Grunow (ab)		Arctic	Riedel et al. 2003 (Booth & Horner 1997)
<i>Nitzschia levidensis</i> Ant.	<i>Tryblionella levidensis</i> W. Smith (ab)	<i>Nitzschia levidensis</i> (W. Smith) Grunow	East	Bailey 1910
<i>Nitzschia ligowskii</i> Witkowski, Lange-Bertalot, Kociolek & Brzezinska	<i>Nitzschia ligowskii</i> Witkowski, Lange- Bertalot, Kociolek & Brzezinska (col)		East	Thaler 2007
<i>Nitzschia linearis</i> W. Sm.	<i>Nitzschia linearis</i> (Agardh) W. Smith (ab)		East	Bailey 1913
<i>Nitzschia lineola</i> Gran	<i>Pseudo-nitzschia lineola</i> (Cleve) Hasle (ab)	<i>Nitzschia lineola</i> Cleve	Arctic	Bursa 1963
<i>Nitzschia littoralis</i> Grun.	<i>Tryblionella littoralis</i> (Grunow) D.G. Mann (ab)	<i>Nitzschia littoralis</i> Grunow	East	Bailey 1910
<i>Nitzschia longissima</i> Ralfs	<i>Nitzschia longissima</i> (Brébisson in Kützing) Ralfs (ab)	<i>Nitzschia birostrata</i> W. Smith, <i>Ceratoneis longissima</i> Brébisson	East/West/Arctic	Bailey 1910 (Bérard-Therriault et al. 1999, Brunel 1921, Lovejoy et al. 2002, Bailey 1913, Rozanska et al. 2008)
<i>Nitzschia longissima</i> var. <i>closterium</i>	<i>Nitzschia closterium</i> (Ehrenberg) W. Smith (ab)	<i>Nitzschia longissima</i> var. <i>closterium</i> (Ehrenberg) Van Heurck	East	Brunel 1962
<i>Nitzschia longicruris</i>	<i>Nitzschia longicruris</i>		East (NS)	Rafuse (pers. comm.) ⁴
<i>Nitzschia neofrigida</i>	<i>Nitzschia neofrigida</i> Medlin (ab)		Arctic	Booth & Horner 1997
<i>Nitzschia pacifica</i> Cupp	<i>Nitzschia pacifica</i> Cupp (ab)		West (US)	Cupp 1943
<i>Nitzschia palea</i> (Kützing) W. Smith	<i>Nitzschia palea</i> (Kützing) W. Smith (ab)		Arctic	Antoniades et al. 2005
<i>Nitzschia paleacea</i> Grunow	<i>Nitzschia paleacea</i> Grunow (ab)		Arctic	Antoniades et al. 2005

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Nitzschia palustris</i> Hustedt	<i>Nitzschia palustris</i> Hustedt (ab)		Arctic	Antoniades et al. 2005
<i>Nitzschia paradoxa</i>	<i>Tryblionella granulata</i> (Grunow) D.G. Mann		East	Bailey 1910
<i>Nitzschia paradoxa</i> var. <i>tumidula</i>	<i>Bacillaria paxillifer</i> var. <i>tumidula</i> (Grunow) Witkowski, Lange-Bertalot & Metzeltin (ab)		Arctic	Riedel et al. 2003
<i>Nitzschia pellucida</i>	<i>Nitzschia pellucida</i> Grunow (ab)		East	Bérard-Therriault et al. 1999 (Trites 2005)
<i>Nitzschia perminuta</i> (Grunow) M. Peragallo	<i>Nitzschia perminutum</i> (Grunow) M. Peragallo (ab)	<i>Nitzschia hiemalis</i> Hustedt, <i>Nitzschia frustulum</i> var. <i>perminutum</i> Grunow	West (Effingham Inlet)/Arctic	Hay et al. 2003 (Antoniades et al. 2005)
<i>Nitzschia plana</i> W. Sm.	<i>Nitzschia plana</i> W. Smith (ab)		East	Bailey 1913
<i>Nitzschia polaris</i>	<i>Nitzschia polaris</i> Grunow ex Cleve (ab)		Arctic	Booth & Horner 1997
<i>Nitzschia punctata</i> Grunow	<i>Nitzschia punctata</i> Grunow (ab)		East	Linkletter et al. 1977 (Bailey 1910)
<i>Nitzschia pungens</i>	<i>Pseudo-nitzschia pungens</i> (Grunow ex Cleve) Hasle (ab)	<i>Nitzschia pungens</i> Grunow ex Cleve	East	Sancetta & Calvert 1988 (Johnson 1988)
<i>Nitzschia pungens</i> var. <i>atlantica</i> Cleve	<i>Nitzschia pungens</i> var. <i>atlantica</i> Cl. (ab)		West (US)	Cupp 1943
<i>Nitzschia pura</i> Hustedt	<i>Nitzschia pura</i> Hustedt (ab)		Arctic	Antoniades et al. 2005
<i>Nitzschia pusilla</i> Grunow	<i>Nitzschia pusilla</i> Grunow (ab)	<i>Nitzschia kützingiana</i> Hise, <i>Nitzschia obtusangula</i> Hustedt, <i>Nitzschia indistincta</i> Michailov, <i>Nitzschia amphioxys</i> var. <i>pusilla</i> (Grunow) Mayer, <i>Hantzschia amphioxys</i> var. <i>pusilla</i> (Grunow) Dippel, <i>Nitzschia indistincta</i> Michailov	Arctic	Antoniades et al. 2005
<i>Nitzschia rectilonga</i>	<i>Nitzschia rectilonga</i> Takano (ab)		East	Bérard-Therriault et al. 1999
<i>Nitzschia scabra</i>	<i>Nitzschia scabra</i> Cleve (ab)		Arctic	Riedel et al. 2003
<i>Nitzschia scalaris</i>	<i>Nitzschia scalaris</i> (Ehrenb.) W.Sm. (ab)		East	Linkletter et al. 1977 (Bailey 1910)
<i>Nitzschia scutellum</i> S.B.D.	<i>Nitzschia scutellum</i> (W. Smith) Wolle (ab)		East	Bailey 1913
<i>Nitzschia seriata</i>	<i>Pseudo-nitzschia seriata</i> (Cleve) H. Peragallo (ab)	<i>Nitzschia seriata</i> Cleve	East/Arctic	Fritz 1921 (Brunel 1962, Bursa 1963, Gran & Braarud 1935)

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Nitzschia sigma</i> W. Smith	<i>Nitzschia sigma</i> (Kützing) W. Smith (ab)	<i>Sigmatella sigma</i> (Kützing) Frenguelli, <i>Homoeocladia sigma</i> (Kützing) Kuntze, <i>Synedra sigma</i> Kützing	East	Linkletter et al. 1977 (Bailey 1913, Bailey 1910, Fritz 1921, Thaler 2007, Trites 2005)
<i>Nitzschia sigma</i> S.B.D.	<i>Nitzschia sigma</i> (Nitzsch) W. Smith (ab)	<i>Bacillaria sigma</i> Nitzsch, <i>Nitzschia elongata</i> Hassal, <i>Homoeocladia sigma</i> (Nitzsch) Elmore, <i>Frustulia sigma</i> (Nitzsch) Jenner, <i>Synedra sigma</i> (Nitzsch) Kützing, <i>Cymbella sigma</i> (Nitzsch) C. Agardh	East	Bailey 1913 (Bailey 1910)
<i>Nitzschia</i> sp.	<i>Nitzschia</i> sp.		Arctic	Bursa 1963 (Booth & Horner 1997)
<i>Nitzschia subtilis</i> (Ktz.) Grun.	<i>Nitzschia subtilis</i> Grunow (ab)		East (BoF)	Rawlence 1987
<i>Nitzschia thermalis</i> Ktz.	<i>Nitzschia thermalis</i> Kützing (ab)		East	Linkletter et al. 1977 (Bailey 1910)
<i>Nitzschia tryblionella</i> H.	<i>Nitzschia tryblionella</i> Hantzsch (ab)	<i>Tryblionella hantzschiana</i> var. <i>calida</i> (Grunow) Van Heurck, <i>Tryblionella hantzschiana</i> var. <i>minor</i> Playfair, <i>Tryblionella hantzschiana</i> var. <i>ovata</i> (Lagerstedt) Playfair, <i>Tryblionella hantzschiana</i> var. <i>victoriae</i> (Grunow) Playfair, <i>Tryblionella gracilis</i> W. Smith, <i>Tryblionella hantzschiana</i> var. <i>australica</i> Playfair, <i>Tryblionella hantzschiana</i> Grunow	East	Bailey 1913 (Bailey 1910)
<i>Nitzschia tubicola</i>	<i>Nitzschia tubicola</i> Grunow (ab)		East	Zwicker 1998
<i>Nitzschia vermicularis</i> Han.	<i>Nitzschia vermicularis</i> (Kützing) Hantzsch (ab)		East	Bailey 1913
<i>Nitzschia vitrea</i> Nonn.	<i>Nitzschia vitrea</i> G. Norman (ab)		East	Bailey 1913
<i>Odontella aurita</i> (Lyngbye) C.A. Agardh	<i>Odontella aurita</i> (Lyngbye) C.A. Agardh (ab)	<i>Diatoma auritum</i> Lyngbye, <i>Biddulphia aurita</i> (Lyngbye) Brébisson	East/West	Horner et al. 2005 (Sancetta & Calvert 1988, Bérard-Therriault et al. 1999, Bates & Strain 2006, McQuoid & Hobson 2001)

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Odontella longicruris</i> (Greville) Hoban	<i>Odontella longicruris</i> (Greville) Hoban (ab)	<i>Biddulphia longicruris</i> var. <i>hyalina</i> (J.L.B. Schröder) E.E. Cupp, <i>Biddulphia hyalina</i> J.L.B. Schröder, <i>Biddulphia longicruris</i> Greville	East/West	Horner et al. 2005 (Sancetta & Calvert 1988, McQuoid & Hobson 2001, Carver & Mallet 2002)
<i>Odontella mobilensis</i>	<i>Odontella mobilensis</i> (J.W. Bailey) Grunow	<i>Zygoceros mobilensis</i> J.W. Bailey, <i>Biddulphia mobilensis</i> (J.W. Bailey) Grunow	West	Horner 2002
<i>Odontella obtusa</i> Kutz.	<i>Biddulphia obtusa</i> (Kützing) Ralfs (ab)	<i>Odontella obtusa</i> Kutz.	East	Martin et al. 1999
<i>Odontella regia</i>	<i>Odontella regia</i> (Schultze) Simonsen (ab)	<i>Biddulphia regia</i> (Schultze) Ostenfeld	East	Bérard-Therriault et al. 1999
<i>Odontella sinensis</i> (Greville) Grunow	<i>Odontella sinensis</i> (Greville) Grunow (ab)	<i>Biddulphia sinensis</i> Greville	East	Bérard-Therriault et al. 1999
<i>Odontidium mesodon</i> S.B.D.	<i>Diatoma mesodon</i> (Ehrenberg) Kützing (ab)	<i>Odontidium mesodon</i> S.B.D.	East	Bailey 1913
<i>Odontidium mutabile</i> S.	<i>Odontidium mutabile</i> W. Smith (ab)		East	Bailey 1910 (Bailey 1913)
<i>Opephora</i> cf. <i>horsiana</i> Witkowski	<i>O. mutabilis</i> (Grunow) Sabbe & Wyverman (ab)	<i>Opephora</i> cf. <i>horsiana</i> Witkowski	West (Effingham Inlet)	Hay et al. 2003
<i>Opephora marina</i> (Gregory) Petit	<i>Opephora marina</i> (Gregory) Petit (ab)	<i>Meridion marinum</i> Gregory	West (Effingham Inlet)	Hay et al. 2003
<i>Opephora olsenii</i> Møller	<i>Opephora mutabilis</i> (Grunow) Sabbe & Wyverman	<i>Opephora olsenii</i> Møller	West (Effingham Inlet)	Hay et al. 2003
<i>Paralia marina</i>	<i>Paralia sulcata</i> (Ehrenberg) Cleve	<i>Paralia marina</i> (W. Smith) Heiberg	East/West	Bates & Strain 2006 (McQuoid & Hobson 1997)
<i>Paralia sulcata</i> (Ehrenberg) Cleve	<i>Paralia sulcata</i> (Ehrenberg) Cleve (ab)	<i>Melosira sulcata</i> (Ehrenberg) Kützing, <i>Gallionella sulcata</i> Ehrenberg, <i>Paralia marina</i> (W. Smith) Heiberg, <i>Orthoseira marina</i> W. Smith	East/West	Horner et al. 2005 (Linkletter et al. 1977, Sancetta & Calvert 1988, Bérard-Therriault et al. 1999, Brunel 1921, Trites 2005, McQuoid & Hobson 2001, Hay et al. 2003)
<i>Pauliella taeniata</i>	<i>Pauliella taeniata</i> (Grunow) F. E. Round & P. W. Basson (ab)		East/Arctic	Bérard-Therriault et al. 1999 (Riedel et al. 2003, Lovejoy et al. 2002)

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Petrodictyon gemma</i> (Ehrenberg) D.G. Mann in Round et al.	<i>Petrodictyon gemma</i> (Ehrenberg) D.G. Mann (ab)	<i>Surirella gemma</i> (Ehrenberg)	East	Thaler 2007
<i>Pinnularia acuta</i> W. Sm.	<i>Pinnularia acuta</i> W.Smith (ab)		East	Bailey 1913
<i>Pinnularia borealis</i> Ehrenberg	<i>Pinnularia borealis</i> Ehrenberg (ab)	<i>Pinnularia chilensis</i> Bleisch, <i>Navicula borealis</i> (Ehrenberg) Kützing, <i>Schizonema boreale</i> (Ehrenberg) Kuntze	Arctic	Antoniades et al. 2005
<i>Pinnularia cyprinus</i>	<i>Pinnularia cyprinus</i> C.G. Ehrenberg (ab)		East	Bailey 1913
<i>Pinnularia divergens</i> W.Smith	<i>Pinnularia divergens</i> W.Smith (ab)		Arctic	Antoniades et al. 2005
<i>Pinnularia intermedia</i> (Lagerstedt) Cleve	<i>Pinnularia intermedia</i> (Lagerstedt) Cleve (ab)		Arctic	Antoniades et al. 2005
<i>Pinnularia interrupta</i> W.Smith	<i>Pinnularia interrupta</i> W.Smith (ab)		Arctic	Antoniades et al. 2005
<i>Pinnularia major</i> (Kutz) Rabenhorst	<i>Pinnularia major</i> (Kutz) Rabenhorst (ab)		East	Ginn (pers. comm.) ¹
<i>Pinnularia nobilis</i> Ehr.	<i>Pinnularia nobilis</i> Ehrenberg (ab)	<i>Navicula nobilis</i> Ehrenberg	East	Bailey 1913
<i>Pinnularia obscura</i> Krasske	<i>Pinnularia obscura</i> Krasske (ab)		Arctic	Antoniades et al. 2005
<i>Pinnularia ovalis</i> Hise	<i>Diploneis ovalis</i> (Hise) Cleve (ab)	<i>Pinnularia ovalis</i> Hise	East	Patrick & Reimer 1966
<i>Pinnularia quadratarea</i> var. <i>bicontracta</i>	<i>Pinnularia quadratarea</i> var. <i>bicontracta</i> (E.V. Østrup) H.H. Gran		Arctic	Riedel et al. 2003
<i>Pinnularia quadratarea</i> var. <i>constricta</i>	<i>Pinnularia quadratarea</i> var. <i>constricta</i> (Østrup) Heiden (ab)	<i>Navicula pinnularia</i> var. <i>constricta</i> Østrup	Arctic	Riedel et al. 2003
<i>Pinnularia semiinflata</i>	<i>Pinnularia semiinflata</i> (E.V. Østrup) H.H. Gran (ab)		Arctic	Riedel et al. 2003 (Booth & Horner 1997)
<i>Pinnularia</i> sp.	<i>Pinnularia</i> sp.		East	Brunel 1962
<i>Pinnularia</i> spp.	<i>Pinnularia</i> spp.		Arctic	Riedel et al. 2003
<i>Pinnularia subrostrata</i> (A.Cleve) Cleve-Euler	<i>Pinnularia subrostrata</i> (A.Cleve) Cleve-Euler (ab)	<i>Pinnularia divergentissima</i> var. <i>subrostrata</i> A. Cleve, <i>Pinnularia</i> <i>divergentissima</i> var. <i>wulfii</i> J.B. Petersen	Arctic	Antoniades et al. 2005

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Pinnularia viridis</i> Ktz.	<i>Pinnularia viridis</i> (Nitzsch) Ehrenberg (ab)	<i>Navicula viridis</i> (Nitzsch) Ehrenberg, <i>Frustulia viridis</i> (Nitzsch) Kützing, <i>Bacillaria viridis</i> (Nitzsch), <i>Navicula viridis</i> (Nitzsch) Kützing, <i>Schizonema viride</i> (Nitzsch) Kuntze	East	Linkletter 1977 (Bailey 1913)
<i>Plagiogramma</i> sp.	<i>Plagiogramma</i> sp.		Arctic	Bursa 1963
<i>Plagiogrammopsis vanheurckii</i> (Grunow) Hasle, von Stosch, & Syvertsen	<i>Plagiogramma vanheurckii</i> Grunow (ab)		East/West	Horner (pers. comm.) ³ (Trites 2005, McQuoid & Hobson 2001)
<i>Plagiotropis longa</i>	<i>Plagiotropis longa</i> (Cleve) Kuntze (ab)		East	Bérard-Therriault et al. 1999
<i>Plagiotropis vanheurckii</i> (Grunow) Cleve	<i>Tropidoneis vanheurckii</i> (Grunow) Cleve (ab)	<i>Plagiotropis vanheurckii</i> Grunow	East	Trites 2005
<i>Planktoniella sol</i> (Wallich) Schütt	<i>Planktoniella sol</i> (Wallich) Schütt (ab)	<i>Coscinodiscus sol</i> Wallich, <i>Planktoniella wolterecki</i> Schimper	East/West (US)	Cupp 1943 (Carver & Mallet 2002)
<i>Planothidium delicatulum</i> (Kützing) Round & Bukhtiyarova	<i>Planothidium delicatulum</i> (Kützing) Round & L. Bukhtiyarova (ab)	<i>Microneis delicatula</i> (Kützing) Cleve, <i>Achnanthes delicatula</i> (Kützing) Grunow, <i>Achnanthes delicatula</i> (Kützing) Brun, <i>Achnanthes delicatula</i> (Kützing) Grunow, <i>Falcatella delicatula</i> (Kützing) Rabenhorst, <i>Achnantheidium delicatulum</i> Kützing, <i>Achnantheiopsis delicatula</i> (Kützing) Lange-Bertalot	West (Effingham Inlet)	Hay et al. 2003
<i>Planothidium</i> cf. <i>engelbrechtii</i> (Cholnoky) Round & Bukhtiyarova	<i>Planothidium engelbrechtii</i> (Cholnoky) Round & Bukhtiyarova (ab)		West (Effingham Inlet)	Hay et al. 2003

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Planothidium lanceolatum</i> (Brébisson ex Kützing) Lange-Bertalot	<i>Planothidium lanceolatum</i> (Brébisson ex Kützing) Lange-Bertalot (ab)	<i>Planothidium lanceolatum</i> (Brébisson ex Kützing) F.E. Round & L. Bukhtiyarova, <i>Microneis lanceolata</i> (Brébisson in Kützing) Frenguelli, <i>Achnanthes lanceolata</i> (Brébisson ex Kützing) Grunow, <i>Achnanthes lanceolata</i> (Brébisson ex Kützing) Grunow, <i>Achnanthidium lanceolatum</i> Brébisson ex Kützing, <i>Achnantheiopsis lanceolata</i> (Brébisson ex Kützing) Lange-Bertalot	West (Effingham Inlet)	Hay et al. 2003
<i>Pleurosigma acuminatum</i>	<i>Gyrosigma acuminatum</i> (Kützing) Rabenhorst (ab)	<i>Pleurosigma acuminatum</i> (Kützing) Grunow	East	Linkletter et al. 1977 (Bailey 1913)
<i>Pleurosigma aestuarii</i> W. Smith	<i>Pleurosigma aestuarii</i> (Brébisson ex Kützing) W. Smith (ab)	<i>Navicula aestuarii</i> Brébisson ex Kützing	East	Linkletter et al. 1977 (Bailey 1910)
<i>Pleurosigma affinis</i> Grun.	<i>Pleurosigma affinis</i> Grun. (ab)		East	Bailey 1913
<i>Pleurosigma allenuatum</i>	<i>Pleurosigma allenuatum</i>		East	Linkletter et al. 1977
<i>Pleurosigma angulatum</i> (Quekett) W. Smith	<i>Pleurosigma angulatum</i> W. Smith (ab)		East	Linkletter et al. 1977 (Bailey 1910, Fritz 1921, Trites 2005, Bates & Strain 2006)
<i>Pleurosigma angulatum</i> var. <i>strigosa</i> (W. Smith) Van Heurck	<i>Pleurosigma strigosum</i> W. Smith (ab)	<i>Pleurosigma angulatum</i> var. <i>strigosum</i> (W. Smith) Van Heurck	East	Martin et al. 2001
<i>Pleurosigma arcuatum</i> Donkin	<i>Pleurosigma arcuatum</i> Donkin (ab)		East	Bailey 1913
<i>Pleurosigma balticum</i>	<i>Gyrosigma balticum</i> (Ehrenberg) Rabenhorst (ab)	<i>Pleurosigma balticum</i> (Ehrenberg) W. Smith	East	Fritz 1921 (Bailey 1910, Bailey 1913)
<i>Pleurosigma decorum</i> Wm. Smith	<i>Pleurosigma decorum</i> Wm. Smith (ab)		East	Linkletter et al. 1977
<i>Pleurosigma delicatum</i> W.S.	<i>Pleurosigma delicatum</i> W. Smith (ab)		East	Bailey 1913

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Pleurosigma elongatum</i> W. Smith	<i>Pleurosigma elongatum</i> W. Smith (ab)	<i>Pleurosigma angulatum</i> var. <i>elongatum</i> (W. Smith) van Heurck, <i>Gyrosigma elongatum</i> (W. Smith) Griffith & Henfrey, <i>Gyrosigma elongatum</i> (W. Smith) G.S. West	East (BoF)/West (US)	Linkletter et al. 1977 (Cupp 1943, Carver & Mallet 2002)
<i>Pleurosigma eximium</i> (Thwaites) Cleve & Grunow	<i>Pleurosigma eximium</i> (Thwaites) Cleve & Grunow (ab)		East	Patrick & Reimer 1966
<i>Pleurosigma fasciola</i>	<i>Gyrosigma fasciola</i> (Ehrenberg) J.W. Griffith & Henfrey (ab)	<i>Pleurosigma fasciola</i> (Ehrenberg) W. Smith	East	Fritz 1921 (Bailey 1910, Bailey 1913)
<i>Pleurosigma formosum</i> W. Smith	<i>Pleurosigma formosum</i> W. Smith (ab)	<i>Pleurosigma australicum</i> Witt, <i>Pleurosigma tahitense</i> Witt	East	Linkletter et al. 1977 (Bailey 1910, Bailey 1913, Bailey 1910, Fritz 1921, Brunel 1962)
<i>Pleurosigma hamuliferum</i> Brun and Tempère	<i>Pleurosigma hamuliferum</i> Brun and Tempère (ab)		West (US)	Cupp 1943
<i>Pleurosigma intermedium</i> W. Smith	<i>Pleurosigma intermedium</i> W. Smith (ab)	<i>Pleurosigma nubecula</i> var. <i>intermedium</i> (W. Smith) Cleve, <i>Pleurosigma nubecula</i> W. Smith, <i>Pleurosigma intermedium</i> var. <i>nubecula</i> (W. Smith) Grunow ex Van Heurck	East (BoF)	Cardinal et al. 1989
<i>Pleurosigma macrum</i> W.S.	<i>Pleurosigma macrum</i> W. Smith (ab)		East	Bailey 1913
<i>Pleurosigma nicobaricum</i> Grunow	<i>Pleurosigma nicobaricum</i> Grun. (ab)		West (US)	Cupp 1943
<i>Pleurosigma normanii</i> Ralfs	<i>Pleurosigma normanii</i> Ralfs (ab)	<i>Pleurosigma affine</i> Grunow	East/West (US)	Cupp 1943 (Carver & Mallet 2002)
<i>Pleurosigma</i> sp.	<i>Pleurosigma</i> sp.		East/Arctic	Bursa 1963 (Gran & Braarud 1935)
<i>Pleurosigma</i> W. Smith spp.	<i>Pleurosigma</i> W. Smith spp.		Arctic	Lovejoy et al. 2002
<i>Pleurosigma spenceri</i> Grun.	<i>Pleurosigma spenceri</i> (Quek.) W. Smith		East	Bailey 1910
<i>Pleurosigma strigilis</i> W. Smith	<i>Pleurosigma strigilis</i> Wm. Smith (ab)		East (BoF)	Linkletter et al. 1977 (Bailey 1910, Bailey 1913)
<i>Pleurosigma strigosum</i> W. Smith	<i>Pleurosigma strigosum</i> W. Smith (ab)	<i>Pleurosigma angulatum</i> var. <i>strigosum</i> (W. Smith) Van Heurck	East	Linkletter et al. 1977 (Bailey 1910, Fritz 1921, Bailey 1913)
<i>Pleurosigma stuxbergii</i>	<i>Pleurosigma stuxbergii</i> Cleve & Grunow (ab)		Arctic	Riedel et al. 2003 (Booth & Horner 1997)

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Porosira glacialis</i> Jorgensen	<i>Porosira glacialis</i> (Grunow) Jorgensen (ab)	<i>Porosira hormoides</i> var. <i>glacialis</i> Grunow, <i>Podosira glacialis</i> (Grunow) Cleve, <i>Lauderia</i> <i>glacialis</i> (Grunow) Gran, <i>Porosira</i> <i>antarctica</i> O.G. Kozlova	East/Arctic	Bursa 1963 (Lovejoy et al. 2002, Gran & Braarud 1935, Booth & Horner 1997)
<i>Proboscia alata</i>	<i>Proboscia alata</i> (Brightwell) Sündstrom (ab)	<i>Rhizosolenia alata</i> Brightwell, <i>Rhizosolenia alata</i> f. <i>gracillima</i> (Cleve) Gran, <i>Rhizosolenia alata</i> f. <i>Genuina</i> Gran	East/West	Bérard-Therriault et al. 1999 (Horner 2002)
<i>Proboscia eumorpha</i>	<i>Proboscia eumorpha</i> K. Takahashi, R. Jordan & J. Priddle (ab)	<i>Rhizosolenia obtusa</i> Hensen	East	Martin & LeGresley 2008 (Carver & Mallet 2002)
<i>Pseudogomphonema arcticum</i>	<i>Pseudogomphonema arcticum</i> (Grunow) L.K. Medlin (ab)		Arctic	Riedel et al. 2003 (Lovejoy et al. 2002)
<i>Pseudo-nitzschia americana</i> (G.R.Hasle) G.A. Fryxell	<i>Pseudo-nitzschia americana</i> (G.R. Hasle) G.A. Fryxell (ab)	<i>Nitzschia americana</i> G.R.Hasle	East/West	Martin (pers. comm.) ² (Horner pers. comm.) ³
<i>Pseudo-nitzschia australis</i> Frenguelli	<i>Pseudo-nitzschia australis</i> Frenguelli (ab)	<i>Nitzschia pseudoseriata</i> Hasle	West	Horner (pers. comm.) ³
<i>Pseudo-nitzschia delicatissima</i> (Cleve) Heiden	<i>Pseudo-nitzschia delicatissima</i> (Cleve) Heiden (ab)	<i>Nitzschia delicatissima</i> Cleve, <i>Nitzschia actytophila</i> Hasle	East/West/Arctic	Hargraves & Maranda 2002 (Chang et al. 2007, Bérard- Therriault et al. 1999, Lovejoy et al. 2002)
<i>Pseudo-nitzschia fraudulenta</i> (Cleve) Hasle	<i>Pseudo-nitzschia fraudulenta</i> (Cleve) G.R. Hasle (ab)	<i>Nitzschia fraudulenta</i> Cleve, <i>Pseudo-nitzschia seriata</i> var. <i>fraudulenta</i> (Cleve) H. Peragallo	East/West	Hargraves & Maranda 2002 (Martin & LeGresley 2008)
<i>Pseudo-nitzschia granii</i> (Hasle) Hasle & Syvertsen	<i>Pseudo-nitzschia granii</i> (G.R. Hasle) G.R. Hasle (ab)	<i>Nitzschia granii</i> G.R. Hasle	Arctic	Lovejoy et al. 2002
<i>Pseudo-nitzschia multiseries</i> (Hasle) Hasle	<i>Pseudo-nitzschia multiseries</i> (Hasle) Hasle (ab)	<i>Nitzschia pungens</i> f. <i>multiseries</i> G.R. Hasle, <i>Pseudo-nitzschia</i> <i>pungens</i> f. <i>multiseries</i> Hasle	East/West	Hargraves & Maranda 2002 (Martin [pers. comm.] ² , Bérard- Therriault et al. 1999)
<i>Pseudo-nitzschia pseudodelicatissima</i> (Hasle) Hasle	<i>Pseudo-nitzschia</i> <i>pseudodelicatissima</i> (Hasle) Hasle (ab)	<i>Nitzschia delicatula</i> Hasle, <i>Nitzschia pseudodelicatissima</i> G.R. Hasle	East/West/Arctic	Horner et al. 2005 (Martin [pers. comm.] ² , Hargraves & Maranda 2002, Bérard-Therriault et al. 1999, Booth & Horner 1997)

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Pseudo-nitzschia pungens</i> (Grunow) Hasle	<i>Pseudo-nitzschia pungens</i> (Grunow ex Cleve) Hasle (ab)	<i>Nitzschia pungens</i> Grunow ex Cleve	East/West	Hargraves & Maranda 2002 (Martin [pers. comm.] ² , Bérard-Therriault et al. 1999)
<i>Pseudo-nitzschia seriata</i> (Cleve) H. Peragallo	<i>Pseudo-nitzschia seriata</i> (Cleve) H. Peragallo (ab)	<i>Nitzschia seriata</i> Cleve	East/West	Hobson (pers. comm.) ⁵ (Chang et al. 2007, Kaczmarek et al. 2007, Bérard-Therriault et al. 1999)
<i>Pseudo-nitzschia seriata</i> f. <i>obtusata</i>	<i>Pseudo-nitzschia obtusata</i> (Hasle) Hasle & Lundholm (ab)	<i>Pseudo-nitzschia seriata</i> f. <i>obtusata</i> (Hasle) Hasle	East	Bérard-Therriault et al. 1999
<i>Pseudo-nitzschia</i> spp.	<i>Pseudo-nitzschia</i> spp.		Arctic	Lovejoy et al. 2002
<i>Pseudo-nitzschia subpacificata</i>	<i>Pseudo-nitzschia subpacificata</i> (G.R. Hasle) G.R. Hasle (ab)	<i>Nitzschia subpacificata</i> G.R. Hasle	East/West	Martin & LeGresley 2008 (Horner [pers. comm.] ³)
<i>Punctastriata</i> sp.	<i>Punctastriata</i> sp.		East	Bérard-Therriault et al. 1999
<i>Raphoneis</i> sp.	<i>Raphoneis</i> sp.		West	McQuoid & Hobson 2001
<i>Rhaphoneis amphicerus</i> Ehrenberg	<i>Rhaphoneis amphicerus</i> (Ehrenberg) Ehrenberg (ab)	<i>Rhaphoneis lanceolata</i> Ehrenberg, <i>Doryphora amphicerus</i> (Ehrenberg) Kützing, <i>Cocconeis amphicerus</i> Ehrenberg, <i>Rhaphoneis rhombus</i> Ehrenberg, <i>Rhaphoneis amphicerus</i> var. <i>rhombica</i> Grunow ex Van Heurck	East/West	Linkletter et al. 1977 (Bailey 1913, Bailey 1910)
<i>Rhaphoneis amphicerus</i> v. <i>elongata</i> Perag. & Perag.	<i>Rhaphoneis amphicerus</i> var. <i>elongata</i> Perag. & Perag (ab)		East	Rawlence 1987
<i>Rhaphoneis margaritalimbata</i> Mertz	<i>Rhaphoneis margaritalimbata</i> Mertz (ab)		West (Effingham Inlet)	Hay et al. 2003
<i>Rhabdonema adriaticum</i> Kützing	<i>Rhabdonema adriaticum</i> Kützing (ab)		East	Bailey 1913
<i>Rhabdonema arcuatum</i> (Lyngbye) Kützing	<i>Rhabdonema arcuatum</i> (Lyngbye) Kützing (ab)	<i>Diatoma arcuatum</i> Lyngbye	East/Arctic	Linkletter et al. 1977 (Bailey 1913, Bailey 1910, Brunel 1962, Bursa 1963)
<i>Rhabdonema</i> spp.	<i>Rhabdonema</i> spp.		East/West	Martin (pers. comm.) ² (McQuoid & Hobson 2001)
<i>Rhizosolenia acuminata</i> (H. Péragello) Gran	<i>Rhizosolenia acuminata</i> (H. Péragello) Gran (ab)	<i>Rhizosolenia temperlei</i> var. <i>acuminata</i> H. Péragallo	West (US)	Cupp 1943

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Rhizosolenia alata</i> Brightwell	<i>Proboscia alata</i> (Brightwell) Sündström (ab)	<i>Rhizosolenia alata</i> Brightwell	East/Arctic	Bursa 1963 (Gran & Braarud 1935)
<i>Rhizosolenia alata</i> form <i>curvirostris</i> Gran	<i>Rhizosolenia alata</i> form <i>curvirostris</i> Gran (ab)		West (US)	Cupp 1943
<i>Rhizosolenia alata</i> form <i>gracillima</i> (Cleve) Grun	<i>Proboscia alata</i> (Brightwell) Sündström (ab)	<i>Rhizosolenia alata</i> var. <i>gracillima</i> (Cleve) Grunow ex Van Heurck, <i>Rhizosolenia gracillima</i> Cleve	East (BoF)/West (US)	Cupp 1943
<i>Rhizosolenia alata</i> form <i>indica</i> (H. Pérágallo) Gran	<i>Rhizosolenia alata</i> form <i>indica</i> (H. Pérágallo) Gran (ab)	<i>Rhizosolenia indica</i> H. Pérágallo	West (US)	Cupp 1943
<i>Rhizosolenia alata</i> form <i>inermis</i> (Castracane) Hustedt	<i>Rhizosolenia alata</i> form <i>inermis</i> (Castr.) Hust. (ab)		West (US)	Cupp 1943
<i>Rhizosolenia bergonii</i> H. Pérágallo	<i>Rhizosolenia bergonii</i> H. Pérágallo (ab)	<i>Rhizosolenia amputata</i> Ostenfeld	West (US)	Cupp 1943
<i>Rhizosolenia calcar avis</i> M. Schultze	<i>Pseudosolenia calcar-avis</i> (Schultze) Sundström (ab)	<i>Rhizosolenia calcar avis</i> M. Schultze	West (US)	Cupp 1943
<i>Rhizosolenia castracanei</i> H. Pérágallo	<i>Guinardia flaccida</i> (Castracane) H. Pérágallo	<i>Rhizosolenia castracanei</i> Cleve	West (US)	Cupp 1943
<i>Rhizosolenia delicatula</i>	<i>Guinardia delicatula</i> (Cleve) Hasle	<i>Rhizosolenia delicatula</i> Cleve	Arctic	Booth & Horner 1997
<i>Rhizosolenia faeroensis</i> Ostenfeld	<i>Rhizosolenia faeroensis</i> Ostenfeld (ab)		East (BoF)	Linkletter et al. 1977 (Fritz 1921, Brunel 1962)
<i>Rhizosolenia fragilissima</i>	<i>Dactyliosolen fragilissimus</i> (Bergon) G.R. Hasle	<i>Rhizosolenia fragilissima</i> Bergon	East/West	Brunel 1962 (Gran & Braarud 1935, Horner 2002)
<i>Rhizosolenia fragilissima</i> var. <i>bergonii</i>	<i>Rhizosolenia fragilissima</i> var. <i>bergonii</i> A. Cleve-Euler		East	Brunel 1962
<i>Rhizosolenia fragilissima</i> var. <i>faeroensis</i>	<i>Rhizosolenia fragilissima</i> var. <i>faeroensis</i> (C.E.H. Ostenfeld) A. Cleve-Euler		East	Brunel 1962
<i>Rhizosolenia hebetata</i> Bailey	<i>Rhizosolenia hebetata</i> J.W. Bailey (ab)	<i>Rhizosolenia hebetata</i> f. <i>hiemalis</i> Gran	East/West/Arctic	Linkletter et al. 1977 (Fritz 1921, Brunel 1962, Bursa 1963, Gran & Braarud 1935, Bates & Strain 2006)
<i>Rhizosolenia hebetata</i> f. <i>hiemalis</i>	<i>Rhizosolenia hebetata</i> J.W. Bailey	<i>Rhizosolenia hebetata</i> f. <i>hiemalis</i> Gran	East	Brunel 1962

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Rhizosolenia hebetata</i> f. <i>semispina</i>	<i>Rhizosolenia hebetata</i> f. <i>semispina</i> (Hensen) Gran (ab)	<i>Rhizosolenia semispina</i> Hensen, <i>Rhizosolenia styliformis</i> var. <i>semispina</i> (Hensen) G. Karsten	East/West	Hobson (pers. comm.) ⁵ (Bérard-Therriault et al. 1999, Brunel 1962, Bates & Strain 2006)
<i>Rhizosolenia imbricata</i>	<i>Rhizosolenia imbricata</i> Brightwell (ab)	<i>Rhizosolenia shrubsolei</i> Cleve, <i>Rhizosolenia imbricata</i> var. <i>striata</i> (Greville) Grunow, <i>Rhizosolenia imbricata</i> var. <i>shrubsolei</i> (Cleve) Schröder	East	Bérard-Therriault et al. 1999 (Gran & Braarud 1935, Bates & Strain 2006)
<i>Rhizosolenia obtusa</i>	<i>Proboscia eumorpha</i> K. Takahashi, R. Jordan & J. Priddle (ab)	<i>Rhizosolenia obtusa</i> Hensen	East	Fritz 1921
<i>Rhizosolenia pungens</i>	<i>Rhizosolenia setigera</i> f. <i>pungens</i> (Cleve-Euler) Brunel (ab)	<i>Rhizosolenia pungens</i> Cleve-Euler	East	Bérard-Therriault et al. 1999 (Brunel 1962, Bates & Strain 2006)
<i>Rhizosolenia robusta</i> Norman	<i>Neocalyptrella robusta</i> (G. Norman ex Ralfs) D.U. Hernández-Becerril & M. E. Meave del Castillo (ab)	<i>Rhizosolenia robusta</i> G. Norman ex Ralfs	East/West (US)	Cupp 1943
<i>Rhizosolenia setigera</i> Brightwell	<i>Rhizosolenia setigera</i> Brightwell (ab)	<i>Rhizosolenia japonica</i> Castracane, <i>Rhizosolenia henseni</i> Schütt	East/West	Horner et al. 2005 (Bailey 1913, Bailey 1910, Linkletter et al. 1977, Sancetta & Calvert 1988, Brunel 1962, Gran & Braarud 1935, Bates & Strain 2006, Hay et al. 2003)
<i>Rhizosolenia setigera</i> f. <i>pungens</i>	<i>Rhizosolenia setigera</i> f. <i>pungens</i> (Cleve-Euler) Brunel (ab)	<i>Rhizosolenia pungens</i> Cleve-Euler	East	Brunel 1962
<i>Rhizosolenia shrubsolei</i>	<i>Rhizosolenia imbricata</i> Brightwell (ab)	<i>Rhizosolenia shrubsolei</i> Cleve	East	Fritz 1921
<i>Rhizosolenia styliformis</i>	<i>Rhizosolenia styliformis</i> Brightwell (ab)	<i>Rhizosolenia styliformis</i> var. <i>polydactyla</i> van Heurck, <i>Rhizosolenia styliformis</i> var. <i>longispina</i> Hustect	East/Arctic	Bursa 1963 (Gran & Braarud 1935, Carver & Mallet 2002)
<i>Rhizosolenia</i> sp.	<i>Rhizosolenia</i> sp.		West	McQuoid & Hobson 1997
<i>Rhizosolenia</i> spp.	<i>Rhizosolenia</i> spp.		West	Sancetta & Calvert 1988 (McQuoid & Hobson 2001)
<i>Rhoicosphenia curvata</i> (Kützing) Grunow ex Rabh.	<i>Rhoicosphenia abbreviata</i> (C. Agardh) Lange-Bertalot	<i>Rhoicosphenia curvata</i> (Kützing) Grunow	West	McQuoid & Hobson 2001 (Bailey 1913)

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Rhopalodia gibba</i> (Ehrenberg) Müller	<i>Rhopalodia gibba</i> (Ehrenberg) O.F. Müller (ab)	<i>Eunotia gibba</i> (Ehrenberg) Ehrenberg, <i>Navicula gibba</i> Ehrenberg, <i>Cystopleura gibba</i> (Ehrenberg) Kuntze, <i>Epithemia</i> <i>ventricosa</i> var. <i>gibba</i> (Ehrenberg; Ehrenberg) J. Schumann, <i>Frustulia gibba</i> (Ehrenberg) Jenner, <i>Epithemia gibba</i> (Ehrenberg) Kützing, <i>Pinnularia</i> <i>gibba</i> (Ehrenberg) Ehrenberg, <i>Schizonema gibbum</i> (Ehrenberg) Kuntze	East	Linkletter et al. 1977
<i>Rhopalodia musculus</i>	<i>Rhopalodia musculus</i> (Kützing) O.F. Müller (ab)	<i>Rhopalodia gibberula</i> var. <i>musculus</i> (Kützing) Muschler, <i>Epithemia musculus</i> Kützing, <i>Cystopleura musculus</i> (Kützing) Kuntze, <i>Eunotia westermanni</i> var. <i>musculus</i> (Kützing) G.L. Rabenhorst, <i>Rhopalodia</i> <i>gibberula</i> var. <i>musculus</i> (Kützing) Cleve-Euler	East	Linkletter et al. 1977
<i>Rhopalodia</i> spp.	<i>Rhopalodia</i> spp.		West	McQuoid & Hobson 2001
<i>Rhopalodia turgida</i>	<i>Rhopalodia turgida</i>		East (BoF)	Linkletter et al. 1977
<i>Rhopalodia zebra</i>	<i>Rhopalodia zebra</i>		East	Linkletter et al. 1977
<i>Schizonema crucigerum</i> W. Sm.	<i>Haslea crucigera</i> (W. Smith) Simonsen (ab)	<i>Schizonema crucigera</i> W. Sm.	East	Bailey 1910
<i>Schröderella delicatula</i> Pavillard	<i>Detonula pumila</i> (Castracane) Gran (ab)	<i>Detonula schroederi</i> Gran, <i>Lauderia schroederi</i> Bergon, <i>Detonula delicatula</i> (H. Peragallo) Gran, <i>Lauderia delicatula</i> H. Peragallo, <i>Schröderella</i> <i>schroederi</i> (Bergon) Pavillard	West	Cupp 1943 (Homer 2002)
<i>Scolioleura tumida</i> (deBrébisson) Rabenhorst	<i>Scolioleura tumida</i> (Brébisson ex Kützing) Rabenhorst (ab)		East (BoF)	Linkletter et al. 1977

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Sellaphora pupula</i> (Kütz.) Mereschkovsky	<i>Sellaphora pupula</i> (Kützing) Mereschkovsky (ab)	<i>Navicula pupula</i> Kützing, <i>Schizonema pupula</i> (Kützing) Kuntze	East (BoF)	Ginn (pers. comm.) ¹
<i>Skeletonema costatum</i>	<i>Skeletonema costatum</i> (Greville) Cleve (ab)	<i>Melosira costata</i> Greville	East/West/Arctic	Bailey 1913 (Sancetta & Calvert 1988, Bérard-Therriault et al. 1999, Brunel 1962, Lovejoy et al. 2002, Bates & Strain 2006, McQuoid & Hobson 1997, McQuoid & Hobson 2001)
<i>Skeletonema subsalsum</i>	<i>Skeletonema subsalsum</i> (A. Cleve) Bethge (ab)		East	Brunel 1962
<i>Stauroneis acuta</i> W.S.	<i>Stauroneis kochii</i> Pantocsek (col)	<i>Stauroneis acuta</i> W. Smith	East	Bailey 1913
<i>Stauroneis anceps</i> Ehr.	<i>Stauroneis anceps</i> Ehrenberg (ab)	<i>Schizonema anceps</i> (Ehrenberg) Kuntze, <i>Stauroneis anceps</i> var. <i>amphicephala</i> (Kützing) Cleve, <i>Stauroneis anceps</i> var. <i>amphicephala</i> (Kützing) van Heurck, <i>Stauroneis amphicephala</i> Kützing, <i>Stauroneis anceps</i> f. <i>gracilis</i> (Ehrenberg) Cleve, <i>Navicula anceps</i> (Ehrenberg) Mann	East	Bailey 1913 (Bailey 1910)
<i>Stauroneis obliqua</i>	<i>Stauroneis obliqua</i> Gregory (ab)		East	Linkletter et al. 1977 (Bailey 1910)
<i>Stauroneis phoenicenteron</i> (Nitzsch) Ehrenberg	<i>Stauroneis phoenicenteron</i> (Nitzsch) Ehrenberg (ab)	<i>Stauroneis phoenicenteron</i> var. <i>genuina</i> P.T. Cleve, <i>Navicula phoenicenteron</i> (Nitzsch) Ehrenberg, <i>Cymbella phoenicenteron</i> (Nitzsch) C. Agardh, <i>Bacillaria phoenicenteron</i> Nitzsch, <i>Stauroneis nobilis</i> f. <i>alabamae</i> (Heiden) A. Cleve, <i>Schizonema phoenicenterum</i> (Ehrenberg) Kuntze	East/Arctic	Antoniades et al. 2005 (Bailey 1913, Bailey 1910)

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Stauroneis smithii</i> Grunow	<i>Stauroneis smithii</i> Grunow (ab)	<i>Stauroneis linearis</i> Ehrenberg sensu W. Smith, <i>Pleurostaurum smithii</i> (Grunow) Grunow	East (BoF)	Rawlence 1987
<i>Stauroneis spicula</i>	<i>Haslea spicula</i> (Hickie) L. Bukhtiyarova (ab)	<i>Stauroneis spicula</i> Hickie	East	Bailey 1910
<i>Staurosira construens</i> Ehrenberg	<i>Staurosira construens</i> Ehrenberg (ab)	<i>Fragilaria construens</i> (Ehrenberg) Grunow, <i>Staurosira venter</i> var. <i>construens</i> (Ehrenberg) Cleve & Möller, <i>Nematoplata construens</i> (Ehrenberg) Kuntze	East	Ginn (pers. comm.) ¹
<i>Stauropsis septentrionalis</i>	<i>Navicula septentrionalis</i> (Østrup) Cleve (ab)	<i>Stauropsis septentrionalis</i> Meunier	East	Brunel 1962
<i>Staurosirella</i> sp.	<i>Staurosirella</i> sp.		West	McQuoid & Hobson 2001
<i>Stellarima stellaris</i> (Roper) Hasle	<i>Stellarima stellaris</i> (Roper) G.R. Hasle & P.A. Sims (ab)	<i>Coscinodiscus stellaris</i> Roper	East (BoF)/West	Horner (pers. comm.) ³ (Sancetta & Calvert 1988)
<i>Stephanopyxis appendiculata</i> Ehrenberg	<i>Stephanopyxis appendiculata</i> (C.G. Ehrenberg) C.G. Ehrenberg (ab)		East (BoF)	Linkletter et al. 1977
<i>Stephanopyxis nipponica</i> Gran & Yendo	<i>Stephanopyxis nipponica</i> Gran & Yendo (ab)		East/West	Horner et al. 2005 (Carver & Mallet 2002)
<i>Stephanopyxis turris</i> (Greville et Arnott) Ralfs	<i>Stephanopyxis turris</i> (Greville) Ralfs ex Pritchard (ab)	<i>Creswellia turris</i> Greville & Arnott	East/West	Sancetta & Calvert 1988 (McQuoid & Hobson 2001, Carver & Mallet 2002)
<i>Streptothecca thamensis</i> Shrubsole	<i>Helicothecca tamesis</i> (Shrubsole) Ricard (ab)		West (US)	Cupp 1943
<i>Striatella delicatula</i> (Kützing) Grunow	<i>Striatella delicatula</i> (Kützing) Grunow ex Van Heurck (ab)		West (US)	Cupp 1943
<i>Striatella unipunctata</i> (Lyngbye) Agardh	<i>Striatella unipunctata</i> (Lyngbye) C. Agardh (ab)	<i>Fragilaria unipunctata</i> Lyngbye	East/West	Linkletter et al. 1977 (Bailey 1913, Bailey 1910, Brunel 1962, Bates & Strain 2006)
<i>Surirella biseriata</i> W.Sm.	<i>Surirella biseriata</i> Brébisson (ab)	<i>Suriraya biseriata</i> (Brébisson) Pfitzer	East	Bailey 1910
<i>Surirella constricta</i>	<i>Surirella constricta</i> W. Smith (ab)		East	Bailey 1910
<i>Surirella craticula</i> Ehr.	<i>Surirella craticula</i> (C.G. Ehrenberg) C.G. Ehrenberg		East	Bailey 1913

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Surirella cruciata</i> A.S.	<i>Surirella cruciata</i> Schmidt (ab)		East	Bailey 1913
<i>Surirella crumena</i> Breb.	<i>Surirella crumena</i> de Brébisson ex Kützing (ab)		East	Bailey 1913
<i>Surirella elegans</i> Ehr.	<i>Surirella elegans</i> Ehrenberg (ab)		East	Bailey 1913
<i>Surirella fastuosa</i> var. <i>recedens</i> (A. Schmidt) Cleve	<i>Surirella fastuosa</i> var. <i>recedens</i> (A. Schm.) Cl. (ab)		West (US)	Cupp 1943
<i>Surirella febrigerii</i> Lewis	<i>Surirella febrigerii</i> Lewis (ab)		East	Bailey 1913
<i>Surirella gemma</i> (Ehrenberg) Kützing	<i>Surirella gemma</i> (Ehrenberg) Kützing (col)	<i>Navicula gemma</i> Ehrenberg	East	Linkletter et al. 1977 (Bailey 1913)
<i>Surirella minuta</i> Breb.	<i>Surirella minuta</i> Brébisson (ab)		East	Bailey 1913 (Bailey 1910)
<i>Surirella moleriana</i> Grunow	<i>Surirella moleriana</i> Grunow (ab)		East	Linkletter et al. 1977 (Bailey 1913, Bailey 1910)
<i>Surirella ovalis</i> deBrébisson	<i>Surirella ovalis</i> Brébisson (ab)		East	Linkletter et al. 1977 (Bailey 1913, Bailey 1910)
<i>Surirella pulchella</i>	<i>Surirella pulchella</i> L.A. Brébisson (ab)		East (BoF)	Linkletter et al. 1977
<i>Surirella smithii</i> Ralfs	<i>Surirella smithii</i> Ralfs (ab)		East (BoF)	Poulin et al. 1987
<i>Surirella splendida</i> Kütz.	<i>Surirella splendida</i> Kützing (ab)		East	Bailey 1913 (Bailey 1910)
<i>Surirella</i> spp.	<i>Surirella</i> spp.		East	Thaler 2007
<i>Surirella striatula</i> Turp.	<i>Surirella striatula</i> P.J. Turpin (ab)	<i>Navicula striatula</i> (Turpin) Ehrenberg, <i>Novilla striatula</i> (Turpin) Heiberg, <i>Suriraya striatula</i> (Turpin) Pfitzer	East	Bailey 1913 (Bailey 1910)
<i>Syndendrium diadema</i>	<i>Chaetoceros diadema</i> (Ehrenberg) Gran (ab)	<i>Syndendrium diadema</i> Ehrenberg	East	Brunel 1962
<i>Synedra acus</i> Kütz.	<i>Ulnaria acus</i> (Kützing) M. Aboal (ab)	<i>Synedra acus</i> Kützing	East	Bailey 1913 (Bailey 1910)
<i>Synedra acus</i> var. <i>radians</i> (Kütz) Hustedt	<i>Ulnaria delicatissima</i> var. <i>angustissima</i> (Grunow) M. Aboal & P.C. Silva (ab)	<i>Synedra acus</i> var. <i>radians</i> (Kützing) Hustedt	East	Bailey 1910
<i>Synedra fasciculata</i> (Agardh) Kützing	<i>Synedra fasciculata</i> (Agardh) Kützing		East	Rawlence 1987
<i>Synedra gaillonii</i> (Bory) Ehrenberg	<i>Catacombus gaillonii</i> (Bory) D.M. Williams & Round (ab)	<i>Synedra gaillonii</i> (Bory de Saint-Vincent) Ehrenberg	East (BoF)	Linkletter et al. 1977
<i>Synedra lunaris</i> Ehr.	<i>Synedra lunaris</i> Ehrenberg (ab)		East	Linkletter et al. 1977 (Bailey 1913)

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Synedra radians</i> Kützing	<i>Synedra radians</i> Kützing (ab)		East	Linkletter et al. 1977 (Bailey 1910, Bailey 1913)
<i>Synedra salina</i>	<i>Synedra ulna</i> var. <i>salina</i> (W. Smith) W. Smith	<i>Synedra salina</i> W. Smith	East	Bailey 1910 (Bailey 1913)
<i>Synedra</i> sp.	<i>Synedra</i> sp.		Arctic	Bursa 1963
<i>Synedra ulna</i> (Nitzsch) Ehrenberg	<i>Ulnaria ulna</i> (Nitzsch) P. Compère (ab)	<i>Synedra ulna</i> (Nitzsch) Ehrenberg (ab)	East	Linkletter et al. 1977 (Brunel 1962, Bailey 1910, Bailey 1913)
<i>Synedra ulna</i> var. <i>contracta</i> Ostr.	<i>Synedra ulna</i> var. <i>contracta</i> Østrup		East	Zwicker 1998
<i>Synedropsis hyperborea</i>	<i>Synedropsis hyperborea</i> (Grunow) Hasle, Medlin & Syvertsen (ab)	<i>Synedra hyperborea</i> Grunow, <i>Synedra hyperborea</i> var. <i>rostellata</i> Grunow, <i>Synedra hyperborea</i> var. <i>flexuosa</i> Grunow	Arctic	Riedel et al. 2003 (Lovejoy et al. 2002, Booth & Horner 1997)
<i>Tabellaria fenestrata</i> K.B.	<i>Tabellaria fenestrata</i> (Lyngbye) Kützing (ab)		East	Bailey 1913 (Bailey 1910)
<i>Tabellaria flocculosa</i> Kutz.	<i>Tabellaria flocculosa</i> (Roth) Kützing (ab)	<i>Conferva flocculosa</i> Roth, <i>Striatella flocculosa</i> (Roth) Kuntze, <i>Bacillaria flocculosa</i> (Roth) Leiblein	East/West (Eiffingham Inlet)	Hay et al. 2003 (Bailey 1913, Cattaneo et al. 2004)
<i>Tabellaria</i> spp.	<i>Tabellaria</i> spp.		East/West	Martin (pers. comm.) ² (McQuoid & Hobson 2001)

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Tabularia fasciculata</i> (Agardh) Williams & Round	<i>Tabularia fasciculata</i> (C. Agardh) D.M. Williams & Round (ab)	<i>Fragilaria tabulata</i> (C. Agardh) Lange-Bertalot, <i>Fragilaria fasciculata</i> (C. Agardh) Lange-Bertalot, <i>Synedra tabulata</i> var. <i>fasciculata</i> (C. Agardh), <i>Synedra tabulata</i> (C. Agardh) Kützing, <i>Diatoma tabulata</i> C. Agardh, <i>Diatoma tabulata</i> C.A. Agardh, <i>Diatoma tabulatum</i> C. Agardh, <i>Exilaria fasciculata</i> (C. Agardh) Greville, <i>Lyngbyea fasciculata</i> (C. Agardh) Sommerfelt, <i>Echinella fasciculata</i> (Agardh) Jurgens, <i>Diatoma fasciculata</i> C.A. Agardh, <i>Synedra fasciculata</i> (Agardh) Kützing, <i>Tabularia tabulata</i> (C. Agardh) Snoeijs	East/West (Effingham Inlet)	Hay et al. 2003
<i>Tabularia investiens</i> (W. Smith) Williams & Round	<i>Tabularia investiens</i> (W. Smith) D.M. Williams & Round (ab)	<i>Synedra investiens</i> W. Smith	West (Effingham Inlet)	Hay et al. 2003 (Bérard-Therriault et al. 1999)
<i>Tabularia tabulata</i> (Kützing) D.M. Williams & F.E. Round <i>Thalassionema nitzschioides</i> Grunow	<i>Tabularia tabulata</i> (C. Agardh) D.M. Williams & Round (col) <i>Thalassionema nitzschioides</i> (Grunow) Mereschkowsky (ab)	<i>Thalassiothrix nitzschioides</i> var. <i>javanica</i> Grunow, <i>Synedra nitzschioides</i> Grunow, <i>Thalassiothrix nitzschioides</i> (Grunow) Grunow, <i>Thalassiothrix curvata</i> Castracane, <i>Synedra nitzschioides</i> var. <i>minor</i> Cleve, <i>Thalassiothrix fraunfeldii</i> var. <i>Nitzschioides</i> (Grunow) Jörgensen	East East/West/Arctic	Zwicker 1998 Linkletter 1977 (Sancetta & Calvert 1988, Bérard-Therriault et al. 1999, Brunel 1962, McQuoid & Hobson 1997, McQuoid & Hobson 2001, Hay et al. 2003, Rozanska et al. 2008, Horner 2002, Rawlence 1987)
<i>Thalassiosira aestivalis</i> Gran & Angst	<i>Thalassiosira aestivalis</i> Gran (ab)		West (US)	Horner et al. 2005 (Sancetta & Calvert 1988, McQuoid & Hobson 1997)

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Thalassiosira angulata</i> (Gregory) Hasle	<i>Thalassiosira angulata</i> (Gregory) Hasle (ab)	<i>Orthoseira angulata</i> Gregory, <i>Thalassiosira decipiens</i> (Grunow) E.G. Jørgensen	East/West (Eiffingham inlet)/Arctic	Hay et al. 2003 (Lovejoy et al. 2002)
<i>Thalassiosira anguste-lineata</i> (A. Schmidt) Fryxell & Hasle	<i>Thalassiosira anguste-lineata</i> (A. Schmidt) G. Fryxell & Hasle (ab)	<i>Thalassiosira polychorda</i> (Gran) Jørgensen, <i>Coscinodiscus polychordus</i> Gran, <i>Coscinodiscus anguste-lineata</i> A. Schmidt, <i>Coscinosira polychorda</i> (Gran) Gran	East/West /Arctic	Horner et al. 2005 (Sancetta & Caivert 1988, Bérard-Therriault et al. 1999, Lovejoy et al. 2002, Booth & Horner 1997, McQuoid & Hobson 1997, McQuoid & Hobson 2001)
<i>Thalassiosira antarctica</i>	<i>Thalassiosira antarctica</i> Comber (ab)	<i>Thalassiosira antarctica</i> Karsten, <i>Thalassiosira fallax</i> Meunier, <i>Thalassiosira antarctica</i> var. <i>borealis</i> G. Fryxell, Doucette, & Hubbard	East	Bérard-Therriault et al. 1999 (Riedel et al. 2003)
<i>Thalassiosira antarctica</i> var. <i>borealis</i>	<i>Thalassiosira antarctica</i> Comber (ab)	<i>Thalassiosira antarctica</i> var. <i>borealis</i> G. Fryxell, Doucette, & Hubbard	Arctic	Riedel et al. 2003 (Lovejoy et al. 2002)
<i>Thalassiosira baltica</i> (Grun.) Osten.	<i>Thalassiosira baltica</i> (Grunow) Ostenfeld (ab)	<i>Coscinodiscus polyacanthus</i> var. <i>balticus</i> Grunow, <i>Coscinodiscus balticus</i> (Grunow) Grunow ex Cleve	East	Rawlence 1987 (Brunel 1962)
<i>Thalassiosira bioculata</i>	<i>Thalassiosira bioculata</i> (Grunow) Ostenfeld (ab)	<i>Coscinodiscus bioculatus</i> Grunow	East/Arctic	Bérard-Therriault et al. 1999 (Brunel 1962, Bursa 1963, Lovejoy et al. 2002, Gran & Braarud 1935)
<i>Thalassiosira bioculata</i> var. <i>exigua</i>	<i>Thalassiosira bioculata</i> var. <i>exigua</i> (Grunow) Hustedt (ab)		East	Bérard-Therriault et al. 1999
<i>Thalassiosira bulbosa</i> Syvertsen	<i>Thalassiosira bulbosa</i> E.E. Syvertsen (ab)		Arctic	Lovejoy et al. 2002
<i>Thalassiosira condensata</i>	<i>Detonula pumila</i> (Castracane) Gran	<i>Thalassiosira condensata</i> Cleve	East	Brunel 1962
<i>Thalassiosira conferta</i> Hasle in Hasle and Fryxell	<i>Thalassiosira conferta</i> Hasle (ab)		West (Eiffingham Inlet)	Hay et al. 2003 (Bérard-Therriault et al. 1999)

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Thalassiosira decipiens</i>	<i>Thalassiosira angulata</i> (Gregory) Hasle (ab)	<i>Thalassiosira decipiens</i> (Grunow) E.G. Jørgensen, <i>Coscinodiscus decipiens</i> Grunow ex Van Heurck, <i>Thalassiosira gelatinosa</i> Hensen	East/West	Brunel 1962 (Gran & Braarud 1935, Hay et al. 2003)
<i>Thalassiosira eccentrica</i> (Ehrenberg) Cleve	<i>Thalassiosira eccentrica</i> (Ehrenberg) Cleve (ab)	<i>Coscinodiscus eccentricus</i> Ehrenberg, <i>Coscinodiscus labyrinthus</i> Roper	East/West	Horner et al. 2005 (Sancetta & Calvert 1988, McQuoid & Hobson 1997, McQuoid & Hobson 2001, Hay et al. 2003)
<i>Thalassiosira fallax</i>	<i>Thalassiosira antarctica</i> Comber (ab)	<i>Thalassiosira fallax</i> Meunier	East	Brunel 1962
<i>Thalassiosira fluviatilis</i>	<i>Thalassiosira weissflogii</i> (Grunow) G. Fryxell & Hasle (ab)	<i>Thalassiosira fluviatilis</i> Hustedt	East	Brunel 1962
<i>Thalassiosira gravida</i> Cleve	<i>Thalassiosira gravida</i> Cleve (ab)	<i>Thalassiosira tcherniai</i> Manguin	East/West(U S)/ Arctic	Rawlence 1987 (Cupp 1943, Sancetta & Calvert 1988, Bérard-Therriault et al. 1999, Brunel 1962, Bursa 1963, Gran & Braarud 1935, McQuoid & Hobson 1997, McQuoid & Hobson 2001)
<i>Thalassiosira hyalina</i>	<i>Thalassiosira hyalina</i> (Grunow) Gran (ab)	<i>Coscinodiscus hyalinus</i> Grunow	East/Arctic	Bérard-Therriault et al. 1999 (Brunel 1962, Bursa 1963, Lovejoy et al. 2002, Gran & Braarud 1935)
<i>Thalassiosira kushirensis</i>	<i>Thalassiosira kushirensis</i> Takano (ab)	<i>Thalassiosira solitaria</i> Gayoso	East	Bérard-Therriault et al. 1999
<i>Thalassiosira levanderi</i>	<i>Thalassiosira levanderi</i> Van Goor (ab)		East	Brunel 1962
<i>Thalassiosira</i> cf. <i>leptopus</i> (Grunow) Hasle & Fryxell	<i>Thalassiosira leptopus</i> (Grunow ex Van Heurck) Hasle & G. Fryxell (ab)	<i>Coscinodiscus leptopus</i> var. <i>discrepans</i> Rattray, <i>Coscinodiscus pseudolineatus</i> Pantocsek, <i>Coscinodiscus leptopus</i> Grunow, <i>Coscinodiscus lineatus</i> Ehrenberg, <i>Coscinodiscus praelineatus</i> Jousé	East/West (Effingham Inlet)	Hay et al. 2003

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Thalassiosira nana</i>	<i>Thalassiosira nana</i> Lohmann (ab)		East	Brunel 1962
<i>Thalassiosira nordenskiöldii</i> Cleve	<i>Thalassiosira nordenskiöldii</i> Cleve (ab)		East/West/Arctic	Horner et al. 2005 (Sancetta & Calvert 1988, Bérard-Therriault et al. 1999, Brunel 1962, Riedel et al. 2003, Lovejoy et al. 2002, Gran & Braarud 1935, Bates & Strain 2006, McQuoid & Hobson 1997, McQuoid & Hobson 2001, Hay et al. 2003)
<i>Thalassiosira oceanica</i>	<i>Thalassiosira oceanica</i> Hasle (ab)	<i>Cyclotella nana</i> Hustedt	East	Bérard-Therriault et al. 1999
<i>Thalassiosira oestrupii</i> (Ostenfeld) Hasle	<i>Thalassiosira oestrupii</i> (Ostenfeld) Hasle (ab)	<i>Coscinosira oestrupii</i> Ostenfeld, <i>Thalassiosira antiqua</i> var. <i>septata</i> Proschkina-Lavrenko	East/West (Effingham inlet)	Hay et al. 2003
<i>Thalassiosira pacifica</i> Gran & Angst	<i>Thalassiosira pacifica</i> Gran & Angst (ab)		East/West	Horner et al. 2005 (Sancetta & Calvert 1988, Bérard-Therriault et al. 1999, McQuoid & Hobson 2001, Hay et al. 2003)
<i>Thalassiosira plicata</i>	<i>Thalassiosira plicata</i> H. J. Schrader (ab)		West	McQuoid & Hobson 1997
<i>Thalassiosira proschkinae</i>	<i>Thalassiosira proschkinae</i> Makarova (ab)	<i>Thalassiosira spinulata</i> Takano, <i>Thalassiosira proschkinae</i> var. <i>spinulata</i> (Takano) Makarova	East	Bérard-Therriault et al. 1999
<i>Thalassiosira pseudonana</i>	<i>Thalassiosira pseudonana</i> Hasle & Heimdal (ab)		East	Bérard-Therriault et al. 1999
<i>Thalassiosira punctigera</i> (Castracane) Hasle	<i>Thalassiosira punctigera</i> (Castracane) Hasle (ab)	<i>Thalassiosira japonica</i> Kisselev, <i>Ethmodiscus japonicus</i> Castracane, <i>Ethmodiscus punctiger</i> Castracane, <i>Thalassiosira angstii</i> (Gran) Makarova	East (BoF)/West	Horner et al. 2005 (Sancetta & Calvert 1988, Carver & Mallet 2002)
<i>Thalassiosira rotula</i> Meunier	<i>Thalassiosira rotula</i> Meunier (ab)		East/West/Arctic	Horner et al. 2005 (Sancetta & Calvert 1988, Brunel 1962, Bursa 1963)
<i>Thalassiosira</i> sp.	<i>Thalassiosira</i> sp.		East/Arctic	Bursa 1963 (Gran & Braarud 1935)

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Thalassiosira subtilis</i> (Osten.) Gran.	<i>Thalassiosira subtilis</i> (Ostenfeld) Gran (ab)	<i>Podosira subtilis</i> Ostenfeld	East/West(U S)	Rawlence 1987 (Cupp 1943, Brunel 1962, Bursa 1963)
<i>Thalassiosira tenera</i> Proschkina- Lavrenko	<i>Thalassiosira tenera</i> Proschkina- Lavrenko (ab)		East/West (Effingham Inlet)	Hay et al. 2003 (Bérard-Therriault et al. 1999)
<i>Thalassiothrix longissima</i> Cleve and Grunow	<i>Thalassiothrix longissima</i> Cleve & Grunow (ab)	<i>Synedra thalassiothrix</i> Cleve	East/West(U S)/ Arctic	Linkletter et al. 1977 (Cupp 1943, Bérard-Therriault et al. 1999, Fritz 1921, Bursa 1963, Lovejoy et al. 2002, Gran & Braarud 1935)
<i>Thalassiothrix nitzschioides</i>	<i>Thalassionema nitzschioides</i> (Grunow) Mereschkowsky (ab)	<i>Thalassiothrix nitzschioides</i> (Grunow) Grunow	East	Fritz 1921 (Brunel 1962)
<i>Trachyneis aspera</i> (Ehrenberg) Cleve	<i>Trachyneis aspera</i> (Ehrenberg) Cleve (ab)	<i>Navicula stauroneiformis</i> Leuduger-Fortmorel, <i>Pinnularia</i> <i>aspera</i> (Ehrenberg) Ehrenberg, <i>Stauroneis pulchella</i> W. Smith, <i>Stauroneis achnanthes</i> (Ehrenberg) Kützing, <i>Stauroneis</i> <i>aspera</i> (Ehrenberg) Kützing, <i>Stauoptera aspera</i> Ehrenberg, <i>Navicula aspera</i> Ehrenberg, <i>Navicula aspera</i> var. <i>genuina</i> (Cleve) Fricke	East	Bailey 1913 (Thaler 2007)
<i>Triceratium alternans</i>	<i>Biddulphia alternans</i> (J.W. Bailey) Van Heurck	<i>Triceratium alternans</i> J.W. Bailey	East	Bérard-Therriault et al. 1999
<i>Triceratium favus</i>	<i>Triceratium favus</i> Ehrenberg	<i>Triceratium comptum</i> Ehrenberg, <i>Triceratium muricatum</i> Brightwell, <i>Triceratium fimbriatum</i> Wallich, <i>Biddulphia favus</i> (Ehrenberg) Grunow, <i>Triceratium ferox</i> Castracane, <i>Triceratium</i> <i>sarcophagus</i> Castracane	East	Brunel 1962
<i>Triceratium</i> sp.	<i>Triceratium</i> sp.		West	McQuoid & Hobson 2001
<i>Trigonium</i> sp.	<i>Trigonium</i> sp.		West	Hobson 2009
<i>Tropidoneis antarctica</i> var. <i>polyplasta</i> Gran & Angst	<i>Tropidoneis antarctica</i> var. <i>polyplasta</i> Gran & Angst (ab)		West	Horner (pers. comm.) ³

Name used in original paper	Current used (valid) name	(=Synonyms)	Location	Reference(s)
<i>Tropidoneis lepidoptera</i> (Gregory) Cleve	<i>Tropidoneis lepidoptera</i> (Gregory) Cleve (ab)	<i>Amphiprora lepidoptera</i> Gregory, <i>Tropidoneis lepidoptera</i> var. <i>mediterranea</i> Peragallo	West (US)	Cupp 1943
<i>Tropidoneis</i> sp.	<i>Tropidoneis</i> sp.		Arctic	Booth & Horner 1997
<i>Tryblionella gracilis</i>	<i>Nitzschia tryblionella</i> Hantzsch (ab)	<i>Tryblionella gracilis</i> W. Smith	East	Bailey 1910 (Bailey 1913)
<i>Tryblionella levidensis</i> W.Smith	<i>Tryblionella levidensis</i> W. Smith (ab)	<i>Nitzschia levidensis</i> (W.Smith) Grun, <i>Nitzschia tryblionella</i> var. <i>levidensis</i> (W. Smith) Grunow, <i>Denticula levidensis</i> (W. Smith) De Toni, <i>Tryblionella tryblionella</i> var. <i>levidensis</i> (W. Smith) <i>Prochazka</i> , <i>Tryblionella</i> <i>hantzschiana</i> var. <i>levidensis</i> (W. Smith) Frenguelli	East	Thaler 2007 (Poulin et al. 1990)
<i>Tryblionella scutellum</i> Sm.	<i>Tryblionella scutellum</i> W. Smith (ab)		East	Bailey 1910 (Bailey 1913)
<i>Urosolenia eriensis</i> (H.L. Smith) Round & Crawford	<i>Urosolenia eriensis</i> (H.L. Smith) F.E. Round & R.M. Crawford (ab)	<i>Rhizosolenia eriensis</i> H.L. Smith, <i>Rhizosolenia eriensis</i> var. <i>genuina</i> A. Cleve-Euler	East (BoF)	Ginn (pers. comm.) ¹ (Bérard- Therriault et al. 1999)
<i>Zygoceros mobiliensis</i> Bail.	<i>Odontella mobiliensis</i> (J.W. Bailey) Grunow	<i>Zygoceros mobiliensis</i> J.W. Bailey	East	Bailey 1910