

中国海区常见浮游植物种名更改初步意见*

孙 军 刘东艳

(青岛海洋大学海洋生命学院 青岛 266003)

提要 系统地研究了中国海区海洋浮游植物的名称。参照有关文献,对硅藻门 37 属 135 种(包含变种和变型)、甲藻门 16 属 60 种(包含变种和变型)、金藻门 1 属 1 种和隐藻门 1 属 1 种的名称进行了适当的调整和更正。对于个别的种类进行了属的迁移和种的联合。

关键词 浮游植物,命名法,中国海区,同物异名,错误命名

中图分类号 Q949.2

海洋浮游植物是海洋中最主要的初级生产者,在生态系统中也是重要的生物组分。海洋浮游植物的多样性变化,直接或间接地影响着局部海域或全球的生物多样性,以致对人类生存环境造成影响。生物多样性既是人类生存的基础,也是持续发展的强大支持力量。如何保护和合理开发生物资源是当今人类面临的重大问题。中国海区属西太平洋边缘海,有着独特的地质发育过程和地理优势。据研究资料统计,中国海域已记录的生物种类约有 2 万种左右(黄宗国,1994)。因此中国海是全球海洋生物多样性最具代表性的海域之一。据以往历史资料统计,中国海区有记载的硅藻 1395 种,甲藻 255 种,蓝藻 131 种,金藻 14 种,隐藻 1 种,黄藻 3 种(由于调查研究方法的改进,又新增很多新记录)(黄宗国,1994)。

浮游植物是生态学分类名词,按照自然分类法及中国现行的分类原则,中国海洋浮游植物分布于 11 个门中(郑柏林等,1961)[根据目前国际上现行的资料,个别浮游藻类门应降为纲(Tomas,1997),但考虑中国藻类系统学的现状,本文暂时保留此体系],它们分别是:硅藻门(Bacillariophyta)、甲藻门(Pyrophyta)、蓝藻门(Cyanophyta)、绿藻门(Chlorophyta)、金藻门(Chrysophyta)、隐藻门(Cryptophyta)、黄藻门(Xanthophyta)、褐藻门(Phaeophyta)、红藻门(Rhodophyta)、裸藻门(Euglenophyta)和原绿藻门(Prochlorophyta)。其中硅藻门、甲藻门、金藻门、隐藻门、黄藻门属原生生物界(Protista),其全部种类为浮游植物。蓝藻门属原核生物界(Monera),其中的束毛藻属(*Trichodesmium*)是典型的浮游植物,在中国各海区均有分布。红藻门、褐藻门、绿藻门属植物界(Plantae),这三个门中只有部分种属或其生殖细胞属于浮游植物。

现代海洋浮游植物的命名遵循林奈(Carl Von Linne)的“双名法”。瑞典植物学家林奈于 1737 年首先在其著作《植物学批评》中提出了“植物命名法规”;1751 年林奈在另一著作

* 国家基础研究与重点项目, G1999043703 号; 2001CB409702 号。孙军,男,出生于 1972 年 8 月,在职博士,讲师, E-mail: sunjun@ouqd.edu.cn

收稿日期: 2001-05-16, 收修改稿日期: 2001-12-10

《植物学哲学》中又提出了“双名法”,为统一植物命名法奠定了基础。1753年林奈在其所著《植物种志》一书中正式应用“双名法”命名植物(Stem, 1975)。1867年在巴黎举行了第一次国际植物学会议,会上正式通过了植物学家德堪多(A. Decandolle)提出的“植物分类学命名法规”,在植物分类学史上开辟了新纪元(Stem, 1975)。此后经过多次国际植物学会议讨论,直到最近的第15届横滨会议确定的东京代码,都明确地进行了植物命名法则的约定。

硅藻的分类开始于18世纪(Gmelin, 1791),最初的分类系统主要是以光学显微镜下硅藻细胞的形态和壳面上的花纹为主要的分类依据。20世纪50年代(Tomas, 1997)开始应用电子显微镜技术来研究硅藻分类,如支持突和唇形突作为分类依据,使得以往很多不易划分的种类得以区分开来,硅藻分类学的形态分类特征又有所增加。另外,过去和现今的硅藻分类系统主要基于硅藻细胞硅质壁的形态差异特别是壳面上的花纹不同来划分的,很少会注意细胞质和有性生殖习性所提供的分类信息(Round *et al.*, 1990)。然而,在最近硅藻分类的研究中也适当地引入了其他的分类特征,比如有性生殖的类型、复大孢子的结构和生态习性等(Simonsen, 1979; von Stosch, 1982; Round *et al.*, 1990)。所以近年来国际上关于硅藻的分类和系统学内容有了较大的改变。

甲藻的分类也开始于18世纪(Müller, 1786)。由于所有甲藻种类中有一半的生活类型为异养类型,所以一直以来甲藻被植物学家和动物学家划定为自己的研究领域,分别称为藻类和原生动物。最初的甲藻分类主要是以细胞形态分类为主,后来由于Kofoid(Kofoid, 1907, 1909, 1911)又进一步对膝沟藻目使用甲板程式来进行分类,使得具甲类甲藻分类有了质的飞跃。到目前为止最全的甲藻分类系统是Josef Schiller在1933年和1937年的《Rabenhorst's Kryptogamen-Flora》系列专著中建立的(Schiller, 1933, 1937)。其他的系统学工作较著名的有Levine等(1980)、Dodge(1984)、Taylor(1987)、Fensome等(1993)、Steidinger(1997)。尽管现在国际上对甲藻的分类,存在对包囊甲藻分类过细而对现今甲藻分类过粗的情况(Dale, 1983),但由于近年来甲藻生活史的研究增多以及赤潮科学的发展,国际上对于现今甲藻的分类和系统学内容也有了很大的改变。

另外还有很多其他类群的藻类,它们的分类也经过近两个世纪的积累,尤其是近几十年来新兴的培养和观测技术的改进,使分类学和系统学也有了相当的变化。

中国近海浮游植物分类学的研究从20世纪30年代王家楫和倪达书(Wang, 1932)进行的厦门海域浮游甲藻研究开始,经历了20多年的工作,如建国后从烟台、威海鲈鱼渔场角毛藻属的研究(朱树屏等, 1957),直到全国海洋普查(1958—1962年)开始有大批的浮游植物分类学工作出现;后又进行了海岸带、滩涂调查(1981—1986年),海岛资源调查(1990—1992年),系统地采集了大量的浮游植物标本,为中国浮游植物分类学研究奠定了基础。其中比较重要的工作如《中国海洋浮游硅藻类》(金德祥等, 1965)和《中国底栖硅藻志》(金德祥等, 1982, 1992)和正在进行的《中国孢子植物志》。另外,许多学者除了海岸带及近海海域外,对台湾海峡、黑潮及临近海域、南海中部、中太平洋西部水域也进行了研究,这些结果都极大地充实和完善了中国海洋浮游植物分类学和生态学的研究内容。但近十几年来随着国际上对浮游植物分类研究的深入,很多浮游植物的命名早已发生了变动,而国内始终在使用老的分类体系和命名(中国海区浮游植物的中文译名大多参考《藻

表 1 中国海区常见浮游植物的种名更正

Tab 1 The transfer and combination of nomenclature of common founded phytoplankton species in the China Seas Waters

正确拉丁文名称(Latin name)	正确中文名称	被修订拉丁文名称(Synonym or basionym)	被修订中文名称	参考文献
硅藻门(Bacillariophyta)				
<i>Acanthoceros nungaburgense</i> (Brun) Honigmann	麦第刺角藻	<i>Attheya zachvatzi</i> Brun	扎卜四棘藻	Honigmann, 1909
<i>Achnanthes macrocephala</i> Kützting	微形曲壳形藻	<i>Achnanthes microcephala</i> (Kützting) Cleve	微形曲壳藻	Kützting, 1844
<i>Achnocyclus ochonarius</i> Ehrenberg	八幅辐环藻	<i>Achnocyclus ehrenbergi</i> Ralfs	爱氏辐环藻	Ehrenberg, 1838
<i>Actinocyclus senarius</i> (Ehrenberg) Ehrenberg	六幅辐刺藻	<i>Actinocyclus undulatus</i> (Bailey) Ralfs	波状辐刺藻	Ehrenberg, 1843
<i>Ardassinea robusta</i> (Ralfs) De Notaris	粗阿狄藻	<i>Synedra robusta</i> Ralfs	粗针杆藻	Round <i>et al.</i> , 1990
<i>Asterionellopsis glacialis</i> (Castracane) Round	冰河拟星杆藻	<i>Asterionella glacialis</i> Castracane	冰河星杆藻	Round <i>et al.</i> , 1990
<i>Asterionellopsis glacialis</i> (Castracane) Round	冰河拟星杆藻	<i>Asterionella japonica</i> Cleve	日本星杆藻	Round <i>et al.</i> , 1990
<i>Asteroplanus karnanus</i> (Grunow) Gardner et Crawford	加拉星平藻	<i>Asterionella karnana</i> Grunow	加拉星杆藻	Crawford <i>et al.</i> , 1997
<i>Asterolampis marilandica</i> Ehrenberg	南方星纹藻	<i>Asterolampis vanheurnicki</i> Brun	范氏星纹藻	Ehrenberg, 1844
<i>Aspetta africana</i> (Janssch ex Schmidt) Fryxell & Watkins	非洲心孔藻	<i>Coarctodiscus africanus</i> Janssch ex Schmidt	非洲圆帽藻	Fryxell <i>et al.</i> , 1986
<i>Aspetta neerlandica</i> (Van Landingham) Fryxell & Watkins	细圆齿心孔藻	<i>Coarctodiscus crenulatus</i> Grunow 1884	细圆齿圆帽藻	Fryxell <i>et al.</i> , 1986
<i>Aspetta medulifera</i> (Schmidt) Fryxell & Sims	结节心孔藻	<i>Coarctodiscus nodulifer</i> Schumli	结节圆帽藻	Fryxell <i>et al.</i> , 1986
<i>Bacteristrum firratum</i> Schudloft	叉状辐杆藻	<i>Bacteristrum varians</i> Laufer	变异辐杆藻	Boath, 1975
<i>Bacillaria pusillifera</i> (Muller) Hendey	派格棍形藻	<i>Bacillaria puridava</i> Grunin	奇异棍形藻	Hendey, 1964
<i>Bacillaria pusillifera</i> (Muller) Hendey	派格棍形藻	<i>Nitzschia paridava</i> (Grunin) Grunow	奇异菱形藻	Hendey, 1964
<i>Bladeleya notata</i> (Grunow) Round	标志布莱克甲亚藻	<i>Asterionella bladeleyi</i> var <i>notata</i> Grunow	布氏星杆藻标志变种	Round <i>et al.</i> , 1990
<i>Bladeleya notata</i> (Grunow) Round	标志布莱克甲亚藻	<i>Asterionella notata</i> (Grunow) Grunow	标志星杆藻	Round <i>et al.</i> , 1990
<i>Citracombus gailloani</i> (Bory) Williams et Round	伽氏十塔藻	<i>Synedra gailloani</i> (Bory) Ehrenberg	伽氏针杆藻	Williams <i>et al.</i> , 1986
<i>Ceratodina pelagica</i> (Cleve) Hendey	海洋角管藻	<i>Ceratodina bergonii</i> (H. Peragallo) Schütt	柏氏角管藻	Hendey, 1937
<i>Ceratodina bicornis</i> (Ehrenberg) Hasle	双角管藻	<i>Ceratodina compacta</i> Ostensfeldt	紧密角管藻	Hasle <i>et al.</i> , 1985
<i>Chaetoceros dudmanii</i> (Ehrenberg) Gran	皇冠角毛藻	<i>Chaetoceros subseriusculus</i> (Grunow) Husted	冕袍角毛藻	Gran, 1897

续表

正确拉丁文名称(Latin name)	正确中文名称	被修订拉丁文名称(Synonym or basonym)	被修订中文名称	参考文献
<i>Caucula scutiformis</i> (Grunow ex Schmitt) Mann & Sturkle	盾形卡维藻	<i>Navicula scutiformis</i> Grunow ex Schmitt	盾形舟形藻	Round <i>et al.</i> , 1990
<i>Cistula lorentziana</i> (Grunow) Cleve	洛氏箱形藻	<i>Navicula lorentzi</i> (Grunow) Husted	洛氏舟形藻	Cleve, 1894
<i>Cistula lorentziana</i> (Grunow) Cleve	洛氏箱形藻	<i>Navicula lorentziana</i> Grunow	洛氏舟形藻	Cleve, 1894
<i>Climacostira nurijizum</i> (Smith) Grunow	点状棒硅藻	<i>Rhabdonema nurijizum</i> Smith	点状杆线藻	Grunow, 1862
<i>Dactylosolen blaryanus</i> (Peragallo) Hasle	锯齿指管藻	<i>Gumardia blaryana</i> Peragallo	锯齿几内亚藻	Hasle, 1975
<i>Dactylosolen fragilissimus</i> (Bergan) Hasle	脆指管藻	<i>Rhizosolenia fragilissima</i> Bergan 1903	脆根管藻	Hasle <i>et al.</i> , 1997
<i>Delphinurus surirella</i> (Ehrenberg) Andrews	双菱兵槽藻	<i>Rhaphionus surirella</i> (Ehrenberg) Grunow	双菱鳍盘藻	Andrews, 1981
<i>Detonula pumila</i> (Castrovaran) Gran	矮小短棘藻	<i>Schroederella delicatula</i> (Peragallo) Pavillari	优美施罗藻	Gran, 1900
<i>Detonula pumila</i> (Castrovaran) Gran	矮小短棘藻	<i>Thalassiosira rondarsata</i> Cleve	密联海链藻	Gran, 1900
<i>Diadema hazarosa</i> (Greville) Kemp & Padlock	壮丽达蒂藻	<i>Navicula hazarosa</i> Greville	壮丽舟形藻	Round <i>et al.</i> , 1990
<i>Doryphora amphiverus</i> (Ehrenberg) Kützang	双角舟柄藻	<i>Rhaphionus amphiveros</i> (Ehrenberg) Ehrenberg	双角缝舟藻	Kützang, 1844
<i>Ectamones alata</i> Ehrenberg	翼内虫藻	<i>Navicula alata</i> (Ehrenberg) Kützang	翼虫形藻	Round <i>et al.</i> , 1990
<i>Fallacia pygmaea</i> (Kützang) Stickle & Mann	侏儒法拉藻	<i>Navicula pygmaea</i> Kützang	侏儒舟形藻	Round <i>et al.</i> , 1990
<i>Fallacia forcipata</i> (Greville) Stickle & Mann 1980	钳状法拉藻	<i>Navicula forcipata</i> Greville	钳状舟形藻	Round <i>et al.</i> , 1990
<i>Fragularopsis cylindrus</i> (Grunow) Krieger	柱状拟脆杆藻	<i>Fragularia cylindrus</i> Grunow	柱状脆杆藻	Hellmcke <i>et al.</i> , 1954
<i>Fragularopsis deltoidea</i> (Wallich) Mallin & Sims	鼓形拟脆杆藻	<i>Pseudocostata deltoidea</i> (Wallich) Grunow	鼓形伪短缝藻	Vedlin <i>et al.</i> , 1993
<i>Fragularopsis oceanica</i> (Cleve) Hasle	大洋拟脆杆藻	<i>Fragularia oceanica</i> Cleve	大洋脆杆藻	Hasle, 1965
<i>Gumardia cylindrus</i> (Cleve) Hasle	圆柱几内亚藻	<i>Rhizosolenia cylindrus</i> Cleve	圆柱根管藻	Hasle <i>et al.</i> , 1997
<i>Gumardia delicatula</i> (Cleve) Hasle	柔弱几内亚藻	<i>Rhizosolenia delicatula</i> Cleve	柔弱根管藻	Hasle <i>et al.</i> , 1997
<i>Gumardia smata</i> (Stollerfohl) Hasle	斯氏几内亚藻	<i>Rhizosolenia stollerfohlia</i> Peragallo	斯氏根管藻	Hasle <i>et al.</i> , 1997
<i>Helicolenia tamensis</i> (Strubsole) Ricard	泰晤士旋鞘藻	<i>Streptolenia tamensis</i> Strubsole	扭鞘藻	Ricard, 1987
<i>Helicolenia tamensis</i> (Strubsole) Ricard	泰晤士旋鞘藻	<i>Streptolenia thumensis</i> Strubsole	扭鞘藻	Illicard, 1987
<i>Helicolenia tamensis</i> (Strubsole) Ricard	泰晤士旋鞘藻	<i>Streptolenia thumensis</i> Strubsole	扭鞘藻	Ricard, 1987

续表

正确拉丁文名称 (Latin name)	正确中文名称	被修订拉丁文名称 (Synonym or lessonym)	被修订中文名称	参考文献
<i>Hyalosynedra laevigata</i> (Grunow) Williams & Round	平滑明针杆藻	<i>Synedra laevigata</i> Grunow	平滑针杆藻	Williams et al., 1986
<i>Lauderia armulata</i> Cleve	环纹劳德藻	<i>Lauderia borealis</i> Grun	北方劳德藻	Cleve, 1873a
<i>Lepidoclradius mediterraneus</i> (Peragallo) Hasle	地中海细柱藻	<i>Dactylosolen mediterraneus</i> Peragallo	地中海指管藻	Hasle, 1975
<i>Lobosoa delicatulum</i> (Cupp) Hasle	柔弱扭杆藻	<i>Thalassiosira delicatula</i> Cupp	柔弱海毛藻	Hasle et al., 1997
<i>Luticola mutua</i> (Kützting) Mann	端粒生藻	<i>Navicula mutua</i> Kützting	端形生藻	Round et al., 1990
<i>Luticola inserrata</i> (Hustedt) Mann	可疑泥生藻	<i>Navicula inserrata</i> Hustedt	可疑舟形藻	Round et al., 1990
<i>Lutolana pacificum</i> (Cupp) Hasle	太平洋泥生藻	<i>Thalassiosira mediterranea</i> var. <i>pacifica</i> Cupp	地中海海毛藻太平洋变种	Hasle et al., 1997
<i>Lyrella abrupta</i> (Gregory) Mann	截形琴状藻	<i>Navicula abrupta</i> (Gregory) Donkin	截形舟形藻	Round et al., 1990
<i>Lyrella abruptoides</i> (Hustedt) Mann	拟截形琴状藻	<i>Navicula abruptoides</i> Hustedt	拟截形舟形藻	Round et al., 1990
<i>Lyrella approximata</i> (Greville) Mann	相似琴状藻	<i>Navicula approximata</i> Greville	相似舟形藻	Round et al., 1990
<i>Lyrella clausa</i> (Gregory) Mann	棍棒琴状藻	<i>Navicula clavata</i> Gregory	棍棒舟形藻	Round et al., 1990
<i>Lyrella hennedyi</i> (Smith) Sickle & Mann	海氏琴状藻	<i>Navicula hennedyi</i> Smith	海氏舟形藻	Round et al., 1990
<i>Lyrella lyra</i> (Ehrenberg) Karayeva	琴状藻	<i>Navicula lyra</i> Ehrenberg	琴状舟形藻	Karayeva, 1978
<i>Lyrella lyraoides</i> (Hendley) Mann	似琴状藻	<i>Navicula lyraoides</i> Hendley	似琴状舟形藻	Round et al., 1990
<i>Lyrella perplexoides</i> (Hustedt) Mann	混乱琴状藻	<i>Navicula perplexoides</i> Hustedt	混乱舟形藻	Round et al., 1990
<i>Lyrella praetexta</i> (Ehrenberg) Mann	交织琴状藻	<i>Navicula praetexta</i> Ehrenberg	交织舟形藻	Round et al., 1990
<i>Lyrella robertsona</i> (Greville) Mann	罗拍琴状藻	<i>Navicula robertsona</i> Greville	罗拍舟形藻	Round et al., 1990
<i>Lyrella schourzhmidti</i> (Pantocsek) Mann	沙氏琴状藻	<i>Navicula schourzhmidti</i> Pantocsek	沙氏舟形藻	Round et al., 1990
<i>Lyrella spectabilis</i> (Gregory) Mann	美丽琴状藻	<i>Navicula spectabilis</i> Gregory	美丽舟形藻	Round et al., 1990
<i>Martiana martyi</i> (Hénbaud) Round	马氏藻	<i>Opephona martyi</i> Hénbaud	马氏棒槌藻	Round et al., 1990
<i>Memnera membranacea</i> (Cleve) Silva	膜状缪氏藻	<i>Navicula membranacea</i> Cleve	膜状舟形藻	Hasle et al., 1997
<i>Odonella aurita</i> (Lyngbye) Agardh	长耳齿状藻	<i>Biddulphia aurita</i> (Lyngbye) Brébisson	长耳盒形藻	Agardh, 1832
<i>Odonella longicirris</i> (Greville) Holm	长角齿状藻	<i>Biddulphia longicirris</i> Greville	长角盒形藻	Hoban, 1983

续表

正确拉丁名称(Latin name)	正确中文名称	被修订拉丁名称(Synonym or basionym)	被修订中文名称	参考文献
<i>Odontella mobilensis</i> (Bailey) Grunow	活动齿状藻	<i>Biddulphia mobilensis</i> Grunow	活动盒形藻	Grunow, 1884
<i>Odontella regia</i> (Schultze) Simonsen	高齿状藻	<i>Biddulphia regia</i> (Schultze) Ostentfeld	高盒形藻	Simonsen, 1974
<i>Odontella sinensis</i> (Greville) Grunow	中华齿状藻	<i>Biddulphia sinensis</i> Greville	中华盒形藻	Grunow, 1884
<i>Palmelia hardmaniana</i> Greville	哈德掌状藻	<i>Hemodiscus hardmanianus</i> (Greville) Mann	哈德半盘藻	Greville, 1865
<i>Parvula sulcata</i> (Ehrenberg) Cleve	具槽帕拉藻	<i>Melourea sulcata</i> (Ehrenberg) Kutzing	具槽互链藻	Cleve, 1873b
<i>Petrodictyan gemma</i> (Ehrenberg) Mann	芽形石网藻	<i>Sutirella gemma</i> Ehrenberg	芽形双囊藻	Round <i>et al.</i> , 1990
<i>Petronella arabica</i> (Grunow ex Schmidt) Mann	阿拉伯石舟藻	<i>Navicula arabica</i> Grunow	阿拉伯舟形藻	Round <i>et al.</i> , 1990
<i>Petronella granulata</i> (Bailey) Mann	颗粒石舟藻	<i>Navicula granulata</i> Bailey	颗粒舟形藻	Round <i>et al.</i> , 1990
<i>Petronella humerosa</i> (Brebisson ex Smith) Stickle & Mann	肩部石舟藻	<i>Navicula humerosa</i> Brebisson	肩部舟形藻	Round <i>et al.</i> , 1990
<i>Petronella laissina</i> (Gregory) Stickle & Mann	宽阔石舟藻	<i>Navicula laissina</i> Gregory	宽阔舟形藻	Round <i>et al.</i> , 1990
<i>Petronella marina</i> (Ralfs in Pritchard) Mann	海洋石舟藻	<i>Navicula marina</i> Ralfs	海洋舟形藻	Round <i>et al.</i> , 1990
<i>Petronella monilifera</i> (Cleve) Stickle & Mann	串珠石舟藻	<i>Navicula monilifera</i> Cleve	串珠舟形藻	Round <i>et al.</i> , 1990
<i>Petronella transfuga</i> (Grunow ex Cleve) Mann	横片石舟藻	<i>Navicula transfuga</i> Grunow	横片舟形藻	Round <i>et al.</i> , 1990
<i>Phaeodiscus punctulatus</i> (Gregory) Meunier	平壳法考藻	<i>Coscinodiscus punctulatus</i> Gregory	平壳圆筛藻	Meunier, 1910
<i>Platodiscus verrucosus</i> Grunow	叶脉斜盘藻	<i>Sutirella verrucosa</i> (Grunow) Mereschkowsky	叶脉双菱藻	Grunow, 1867
<i>Platogramminopsis vanbenarkinii</i> (Grunow) Hasle, von Storch, & Syvertsen	范氏拟斜斑藻	<i>Platogramma vanbenarkinii</i> Grunow	范氏斜斑藻	Hasle <i>et al.</i> , 1983
<i>Planktoniella blanda</i> (Schmidt) Syvertsen & Hasle	具翼漂流藻	<i>Coscinodiscus bipartitus</i> Ralfs	有翼圆筛藻	Hasle <i>et al.</i> , 1993
<i>Planktoniella blanda</i> (Schmidt) Syvertsen & Hasle	具翼漂流藻	<i>Coscinodiscus blanda</i> Schmidt	舌形圆筛藻	Hasle <i>et al.</i> , 1993
<i>Planktoniella blanda</i> (Schmidt) Syvertsen & Hasle	具翼漂流藻	<i>Coscinodiscus latimarginatus</i> Guo	宽缘裂圆筛藻	Hasle <i>et al.</i> , 1993
<i>Planktoniella blanda</i> (Schmidt) Syvertsen & Hasle	具翼漂流藻	<i>Thalassiosira bipartita</i> (Ralfs) Hallegraeff	有翼两链藻	Hasle <i>et al.</i> , 1993
<i>Pleuromma laevis</i> (Ehrenberg) Compère	平角侧生藻	<i>Biddulphia laevis</i> Ehrenberg	平角盒形藻	Compère, 1982
<i>Proboscota inornata</i> (Castracane) Jordan & Lipowski	无刺鼻状藻	<i>Rhizolenia alata</i> f. <i>inornata</i> (Castracane) Hustvedt <i>var.</i> Hustvedt	翼假管藻无刺变型	Jordan <i>et al.</i> , 1991

Hendy

续表

正确拉丁文名称(Latin name)	正确中文名称	被修订拉丁文名称(Synonym or basionym)	被修订中文名称	参考文献
<i>Probores truncata</i> (Karsten) Nathum & Ligowski	平截鼻状藻	<i>Rhizosolenia alata</i> f. <i>curvirostris</i> Gran	翼根管藻弯喙变型	Jordan <i>et al.</i> , 1991
<i>Probores alata</i> (Brightwell) Sundström	翼鼻状藻	<i>Rhizosolenia alata</i> Brightwell	翼根管藻	Sundström, 1986
<i>Pseudonodictyon copulentum</i> (Hendey) Mann	胖沙网藻	<i>Nitzschia copulenta</i> Hendey	胖菱形藻	Round <i>et al.</i> , 1990
<i>Pseudonodictyon panduriforme</i> (Gregory) Mann	琴氏伪网藻	<i>Nitzschia panduriformis</i> Gregory	琴氏菱形藻	Round <i>et al.</i> , 1990
<i>Pseudonodiscus nitidus</i> (Gregory) Round & Mann	细束纹沙盘藻	<i>Cocconeodiscus nitidus</i> Gregory	细束纹圆筛藻	Round <i>et al.</i> , 1990
<i>Pseudo-nitzschia australis</i> Frenguelli	澳洲伪菱形藻	<i>Nitzschia pseudoseriata</i> Hasle	拟成列菱形藻	Frenguelli, 1939
<i>Pseudo-nitzschia delicatissima</i> (Cleve) Heiden	柔弱伪菱形藻	<i>Nitzschia delicatissima</i> Cleve	柔弱菱形藻	Heiden <i>et al.</i> , 1928
<i>Pseudo-nitzschia multiseries</i> (Hasle) Hasle	多列伪菱形藻	<i>Pseudo-nitzschia pungens</i> f. <i>multiseries</i> (Hasle) Hasle	尖刺伪菱形藻多列变型	Hasle, 1995
<i>Pseudo-nitzschia multiseries</i> (Hasle) Hasle	多列伪菱形藻	<i>Nitzschia pungens</i> f. <i>multiseries</i> Hasle	尖刺伪菱形藻多列变型	Hasle, 1995
<i>Pseudo-nitzschia pungens</i> (Grunow ex Cleve) Hasle	尖刺伪菱形藻	<i>Nitzschia pungens</i> Grunow ex Cleve	尖刺菱形藻	Hasle, 1993
<i>Pseudo-nitzschia seriata</i> f. <i>seriata</i> (Cleve) Peragallo	成列伪菱形藻模式变型	<i>Nitzschia seriata</i> Cleve	成列菱形藻	Hasle <i>et al.</i> , 1997
<i>Pseudosolenia calcar-eris</i> (Schulze) Sundström	距端假管藻	<i>Rhizosolenia calcar-eris</i> Schulze	距端假管藻	Sundström, 1986
<i>Pseudostaurastrum breustrata</i> (Grunow) Williams & Round	短纹假横带藻	<i>Fragilaria brevistriata</i> Grunow	短纹脆杆藻	Williams <i>et al.</i> , 1987
<i>Rhizosolenia imbricata</i> Brightwell	覆瓦根管藻	<i>Rhizosolenia imbricata</i> var. <i>shrubsolea</i> (Cleve) Schroeder	覆瓦根管藻扇鲁变种	Brightwell, 1858
<i>Rhizosolenia styliformis</i> Brightwell	笔尖形根管藻	<i>Rhizosolenia styliformis</i> var. <i>longispina</i> Ilonstedt	笔尖形根管藻长棘变种	Brightwell, 1858
<i>Rhothonax boldana</i> Grunow	博利弯角藻	<i>Nitzschia boldana</i> (Grunow) Cleve	博利弯角藻	Grunow, 1863
<i>Semurax cymbelloides</i> (Grunow) Mann	弯半舟藻	<i>Amphora cymbelloides</i> Grunow	弯双眉藻	Round <i>et al.</i> , 1990
<i>Sellarina stellaris</i> (Roper) Hasle & Sims	星突早心藻	<i>Cocconeodiscus stellaris</i> Roper	星突圆筛藻	Hasle <i>et al.</i> , 1986
<i>Staurastrum construens</i> (Ehrenberg) Williams & Round	缩横带藻	<i>Fragilaria construens</i> (Ehrenberg) Rabenhorst	缩脆杆藻	Williams <i>et al.</i> , 1987
<i>Tabularia barbata</i> (Kützinger) Williams & Round	髯毛扁杆藻	<i>Synedra barbata</i> Kützinger	髯毛针杆藻	Williams <i>et al.</i> , 1987
<i>Thalassionema bacillare</i> (Heider) Kolbe	杆状海线藻	<i>Thalassionema bacillaris</i> (Heiden) Kolbe	杆状海线藻	Kolbe, 1985
<i>Thalassionema frauenfeldii</i> (Grunow) Hallegraeff	伏氏海线藻	<i>Thalassiothrix frauenfeldii</i> (Grunow) Grunow	伏氏海毛藻	Hallegraeff, 1986
<i>Thalassiosira angulata</i> (Gregory) Hasle	角海褶藻	<i>Thalassiosira dertziensis</i> (Grunow) Jørgensen	角海褶藻	Hasle, 1978

续表

正确拉丁文名称(Latin name)	正确中文名称	被修订拉丁文名称(Synonym or basionym)	被修订中文名称	参考文献
<i>Thalassiosira anguste-lineata</i> (Schmidt) Fryxell & Hasle	狭线形海链藻	<i>Coccolodiscus anguste-lineatus</i> Schmidt	狭线形圆筛藻	Fryxell <i>et al.</i> , 1977
<i>Thalassiosira lentiginosa</i> (Janisch) Fryxell	斑孔海链藻	<i>Coccolodiscus lentiginosus</i> Janisch	斑孔圆筛藻	Fryxell, 1977
<i>Thalassiosira leptopus</i> (Grunow) Hasle & Fryxell	细海链藻	<i>Coccolodiscus lineatus</i> Ehrenberg	线形圆筛藻	Hasle <i>et al.</i> , 1977
<i>Thalassiosira punctigera</i> (Castracane) Hasle	斑点海链藻	<i>Thalassiosira angusti</i> (Gran) Makarova	安氏海链藻	Hasle, 1983
<i>Thalassiosira punctigera</i> (Castracane) Hasle	斑点海链藻	<i>Coccolodiscus angusti</i> Gran	安氏圆筛藻	Hasle, 1983
<i>Thalassiosiropsis wilsoniana</i> (Pantocsek) Hasle	维延海链藻	<i>Coccolodiscus wilsonianus</i> Pantocsek	维延圆筛藻	Round <i>et al.</i> , 1990
<i>Toxarium kennedyanum</i> (Gregory) Pelletan	亨尼膨杆藻	<i>Synedra kennedyana</i> Gregory	亨尼杆藻	Pell. etan., 1889
<i>Toxarium undulatum</i> Bailey	波边膨杆藻	<i>Synedra undulata</i> (Bailey) Gregory	波边杆藻	Bailey, 1854
<i>Tryblionella acuminata</i> (Smith) Mann	尖椎盘杆藻	<i>Nitzschia acuminata</i> Smith	尖椎菱形藻	Round <i>et al.</i> , 1990
<i>Tryblionella arcua</i> (Cleve) Mann	微尖盘杆藻	<i>Nitzschia arcua</i> Cleve	微尖菱形藻	Round <i>et al.</i> , 1990
<i>Tryblionella coarctata</i> (Grunow) Mann	密聚盘杆藻	<i>Nitzschia coarctata</i> Grunow	密聚菱形藻	Round <i>et al.</i> , 1990
<i>Tryblionella coccoviformis</i> (Grunow) Mann	卵形盘杆藻	<i>Nitzschia coccoviformis</i> Grunow	卵形菱形藻	Round <i>et al.</i> , 1990
<i>Tryblionella didyma</i> (Hustedt) Mann	二裂盘杆藻	<i>Nitzschia didyma</i> Hustedt	二裂菱形藻	Round <i>et al.</i> , 1990
<i>Tryblionella granulata</i> (Grunow) Mann	颗粒盘杆藻	<i>Nitzschia granulata</i> Grunow	颗粒菱形藻	Round <i>et al.</i> , 1990
<i>Tryblionella hungarica</i> (Grunow) Mann	匈牙利盘杆藻	<i>Nitzschia hungarica</i> Grunow	匈牙利菱形藻	Round <i>et al.</i> , 1990
<i>Tryblionella jelinekii</i> (Grunow) Mann	捷氏盘杆藻	<i>Nitzschia jelinekii</i> Grunow	捷氏菱形藻	Round <i>et al.</i> , 1990
<i>Tryblionella lanceola</i> (Grunow ex Cleve) Mann	长菱盘杆藻	<i>Nitzschia lanceola</i> Grunow ex Cleve	长菱菱形藻	Round <i>et al.</i> , 1990
<i>Tryblionella littoralis</i> (Grunow) Mann	海滩盘杆藻	<i>Nitzschia littoralis</i> Grunow	海滩菱形藻	Round <i>et al.</i> , 1990
<i>Tryblionella marginulata</i> (Grunow) Mann	边缘盘杆藻	<i>Nitzschia marginulata</i> Grunow	边缘菱形藻	Round <i>et al.</i> , 1990
<i>Tryblionella navicularis</i> (Brébisson ex Kutzing) Mann	舟形盘杆藻	<i>Nitzschia navicularis</i> (Brébisson ex Kutzing) Ralfs	舟形菱形藻	Round <i>et al.</i> , 1990
<i>Tryblionella plana</i> (Smith) Mann	明显盘杆藻	<i>Nitzschia plana</i> (Smith) Pelletan	明显菱形藻	Round <i>et al.</i> , 1990
<i>Tryblionella punctata</i> (Smith) Mann	具点盘杆藻	<i>Nitzschia punctata</i> Smith	具点菱形藻	Round <i>et al.</i> , 1990
<i>Vanheurckia lewisiana</i> (Greville) Brébisson	长端节范霍奇藻	<i>Frasatella lewisiana</i> Greville	长端节肋缝藻	Round <i>et al.</i> , 1990

续表

正确拉丁文名称(Latin name)	正确中文名称	被修订拉丁文名称(Synonym or basionym)	被修订中文名称	参考文献
甲藻门(Pyrrophyta)				
<i>Alexandrium catenella</i> (Whedon & Kofoid) Balech	联岩业历山大藻	<i>Gonyaulax catenella</i> Whedon & Kofoid	联岩藤沟藻	Balech, 1985
<i>Alexandrium tamarense</i> (Lebour) Balech	塔玛业历山大藻	<i>Gonyaulax tamarense</i> Lebour	塔玛藤沟藻	Steidinger et al., 1997
<i>Balechina coerulea</i> (Dogiel) Taylor	蓝色贝其那藻	<i>Gymnodinium coeruleum</i> Dogiel	蓝色裸甲藻	Taylor, 1976
<i>Ceratium contortum</i> var. <i>subcontortum</i> (Schroder) Taylor	扭角藻微曲变种	<i>Ceratium contortum</i> f. <i>subcontortum</i> (Schroder) Nielsen	扭角藻微曲变种	Taylor, 1976
<i>Ceratium contortum</i> var. <i>carsteni</i> (Pavillard) Sourmia	扭角藻卡氏变种	<i>Ceratium contortum</i> var. <i>robustum</i> (Jorgensen) Sourmia	扭角藻粗变种	Taylor, 1976
<i>Ceratium horridum</i> var. <i>molle</i> (Kofoid) Graham et Bronikovsky	粗刺角藻柔软变种	<i>Ceratium molle</i> Kofoid	柔软角藻	Graham et al., 1944
<i>Ceratium brene</i> (Ostenfeld) Schroder	短角角藻	<i>Ceratium schmidii</i> Jorgensen	凹腹角藻	Schroder, 1906
<i>Ceratium horridum</i> var. <i>tenu</i> (Ostenfeld et Schmidt) Taylor	粗刺角藻纤细变种	<i>Ceratium tenue</i> Ostenfeld et Schmidt	纤细角藻	Taylor, 1976
<i>Ceratium longipes</i> (Bailey) Gran	弯顶角藻	<i>Peridinium longipes</i> Bailey	长顶多甲藻	Steidinger et al., 1997
<i>Ceratium tripos</i> var. <i>tripos</i> (Muller) Nitzsch	三角角藻模式变种	<i>Ceratium tripos</i> f. <i>ballicum</i> Schuller	三角角藻波罗的海变种	Taylor, 1976
<i>Ceratium tripos</i> var. <i>tripos</i> (Muller) Nitzsch	三角角藻模式变种	<i>Ceratium tripos</i> var. <i>subalsatum</i> Ostenfeld	三角角藻广盐变种	Taylor, 1976
<i>Ceratium vulvar</i> var. <i>vulvar</i> f. <i>angulatum</i> (Jorgensen) Taylor	兀鹰角藻兀鹰变种棱角型	<i>Ceratium vulvar</i> f. <i>angulatum</i> Jorgensen	兀鹰角藻棱角型	Taylor, 1976
<i>Ceratium vulvar</i> var. <i>vulvar</i> f. <i>sumatranum</i> (Karsten) Sourmia	兀鹰角藻兀鹰变种苏门答腊变种	<i>Ceratium vulvar</i> var. <i>sumatranum</i> Karsten	兀鹰角藻苏门答腊变种	Sourmia, 1968
<i>Ceratium vulvar</i> var. <i>vulvar</i> f. <i>recurvum</i> (Jorgensen) Schuller	兀鹰角藻兀鹰变种后弯型	<i>Ceratium vulvar</i> l. <i>recurvum</i> Jorgensen	兀鹰角藻后弯型	Schuller, 1977
<i>Dinophysis amygdala</i> (Schott) Balech	扁桃形鳍藻	<i>Phalacrocoma acuta</i> Schutt	卵形壳顶藻	Balech, 1962
<i>Longobrodinium polyedrum</i> (Stein) Dodge	多边形甲藻	<i>Gonyaulax polyedra</i> Stein	多边形藻	Dodge, 1989
<i>Karenia brevis</i> (Davis) Daugbjerg, Hansen, Larsen, Meestrup	短凯伦藻	<i>Gymnodinium breve</i> Davis	短裸甲藻	Daugbjerg et al., 2000
<i>Karenia mikimotoi</i> (Miyake & Komatsu ex Oda) Daugbjerg, Hansen, Larsen, Meestrup	米氏凯伦藻	<i>Gymnodinium mikimotoi</i> Miyake & Komatsu ex Oda	米氏裸甲藻(黄长江等, 2000)	Daugbjerg et al., 2000

续表

正确拉丁文名称(Latin name)	正确中文名称	被修订拉丁文名称(Synonym or basonym)	被修订中文名称	参考文献
<i>Hakohisio sanguineum</i> (Hirasaka) Daugbjerg, Hansen, Larsen, Moestrup	血红哈卡藻	<i>Gymnodinium sanguineum</i> Hirasaka	血红裸甲藻	Daugbjerg et al. 2000
<i>Peridiniopsis asymmetrica</i> Mangin	不对称拟多甲藻	<i>Diplopsalis asymmetrica</i> (Mangin) Lindemann	不对称翼藻	Mangin, 1911
<i>Peridiniopsis excentrica</i> (Nie) Taylor	偏心拟多甲藻	<i>Diplopsalis excentrica</i> Nie	偏心翼藻	Taylor, 1976
<i>Peridiniopsis hamusensis</i> (Nie) Taylor	海南拟多甲藻	<i>Diplopsalis hamusensis</i> Nie	海南翼藻	Taylor, 1976
<i>Peridiniopsis pingui</i> (Nie) Taylor	新村拟多甲藻	<i>Diplopsalis pingui</i> Nie	新村翼藻	Taylor, 1976
<i>Preperidinium meunieri</i> (Pavillard) Elbrächter	缪氏前多甲藻	<i>Diplosalis minor</i> (Paulsen) Lindemann	微小翼藻	Elbrächter, 1993
<i>Preperidinium meunieri</i> (Pavillard) Elbrächter	缪氏前多甲藻	<i>Diplopeltopsis minor</i> (Paulsen) Pavillard	微小巨翼藻	Elbrächter, 1993
<i>Proocentrum balharum</i> (Lohmann) Loeblich III	波罗的原甲藻	<i>Exuviaella baltea</i> Lohmann	波罗的脱壳藻	Loeblich III, 1970
<i>Proocentrum murinum</i> (Cienkowiak) Loeblich III	海洋原甲藻	<i>Exuviaella murina</i> Cienkowski	海洋脱壳藻	Loeblich III, 1970
<i>Protoperidinium claudicans</i> (Paulsen) Balech	窄脚原多甲藻	<i>Pendinium claudicans</i> Paulsen	窄脚多甲藻	Balech, 1974
<i>Protoperidinium compressum</i> (Nie) Balech	侧扁原多甲藻	<i>Pendinium compressum</i> (Albé) Nie	侧扁多甲藻	Balech, 1974
<i>Protoperidinium conoides</i> (Paulsen) Balech	双曲原多甲藻	<i>Pendinium conoides</i> Paulsen	双曲多甲藻	Balech, 1973
<i>Protoperidinium conicum</i> (Grøn) Balech	锥形原多甲藻	<i>Pendinium conicum</i> (Grøn) Ostentfeld & Schmidt	锥形多甲藻	Balech, 1974
<i>Protoperidinium crassipes</i> (Kofoid) Balech	厚甲原多甲藻	<i>Pendinium crassipes</i> Kofoid	厚甲多甲藻	Balech, 1974
<i>Protoperidinium depressum</i> (Bailey) Balech	扁平原多甲藻	<i>Pendinium depressum</i> Bailey	扁平多甲藻	Balech, 1974
<i>Protoperidinium divergens</i> (Ehrenberg) Balech	叉分原多甲藻	<i>Pendinium divergens</i> Ehrenberg	叉分多甲藻	Balech, 1974
<i>Protoperidinium elegans</i> (Clève) Balech	优美原多甲藻	<i>Pendinium elegans</i> Clève	优美多甲藻	Balech, 1974
<i>Protoperidinium excentricum</i> (Paulsen) Balech	偏心原多甲藻	<i>Pendinium excentricum</i> Paulsen	偏心多甲藻	Balech, 1974
<i>Protoperidinium fatulipes</i> (Kofoid) Balech	脚膜原多甲藻	<i>Pendinium fatulipes</i> Kofoid	脚膜多甲藻	Balech, 1974
<i>Protoperidinium grande</i> (Kofoid) Balech	大原多甲藻	<i>Pendinium grande</i> Kofoid	大多甲藻	Balech, 1974
<i>Protoperidinium latissimum</i> (Kofoid) Balech	宽刺原多甲藻	<i>Pendinium latissimum</i> Kofoid	宽刺多甲藻	Balech, 1974
<i>Protoperidinium latissimum</i> (Kofoid) Balech	宽刺原多甲藻	<i>Pendinium parapentagonum</i> Wang	拟五角多甲藻	Balech, 1974
<i>Protoperidinium leonis</i> (Pavillard) Balech	里昂原多甲藻	<i>Pendinium leonis</i> Pavillard	里昂多甲藻	Balech, 1974

续表

正确拉丁文名称 (Latin name)	正确中文名称	被修订拉丁文名称 (Synonym or basionym)	被修订中文名称	参考文献
<i>Protoperidinium nanumum</i> (Kofoid) Loeblich III	微小原多甲藻	<i>Peridinium nanumum</i> Kofoid	微小多甲藻	Loeblich III, 1970
<i>Protoperidinium oceanicum</i> (VanHaffnen) Balech	海洋原多甲藻	<i>Peridinium oceanicum</i> VanHoffnen	海洋多甲藻	Balech, 1974
<i>Protoperidinium pallidum</i> (Osterfeld) Balech	光甲原多甲藻	<i>Peridinium pallidum</i> Osterfeld	光甲多甲藻	Balech, 1973
<i>Protoperidinium pellucidum</i> Bergh	灰甲原多甲藻	<i>Peridinium pellucidum</i> (Bergh) Schütt	灰甲多甲藻	Bergh, 1882
<i>Protoperidinium pentagonum</i> (Gran) Balech	五角原多甲藻	<i>Peridinium pentagonum</i> Gran	五角多甲藻	Balech, 1974
<i>Protoperidinium quarnerense</i> (Schroder) Balech	夸尼原多甲藻	<i>Peridinium globulus</i> Sten	球形多甲藻	Balech, 1974
<i>Protoperidinium subnerne</i> (Paulsen) Loeblich III	赛裸原多甲藻	<i>Peridinium subnerne</i> Paulsen	赛裸多甲藻	Loeblich III, 1970
<i>Protoperidinium thorianum</i> (Paulsen) Balech	方格原多甲藻	<i>Peridinium thorianum</i> Paulsen	方格多甲藻	Balech, 1974
<i>Pyrocystis fusiformis</i> Wyville-Thomson ex Blackmann	纺锤梨甲藻	<i>Pyrocystis lanceolata</i> Schmolzer	才形梨甲藻	Taylor, 1976
<i>Pyrocystis lunata</i> (Schütt) Schütt	新月梨甲藻	<i>Dissodinium lunata</i> (Schütt) Pascher	新月球甲藻	Schütt, 1896
<i>Pyrocystis noctiluca</i> Murray ex Schütt	夜光梨甲藻	<i>Pyrocystis pseudonoctiluca</i> Wyville-Thomson	拟夜光梨甲藻	Siedinger et al., 1997
<i>Pyrophacus stenu</i> (Schüller) Wall & Dale	斯氏扁甲藻	<i>Pyrophacus horologium</i> var. <i>stenu</i> Schüller	钟扁甲藻斯氏变种	Wall et al., 1971
<i>Obblea rotunda</i> (Lebour) Balech ex Sourin	卵甲藻	<i>Peridiniopsis rotunda</i> Lebour	圆拟多甲藻	Balech, 1964
<i>Schuettdella mitra</i> (Schütt) Balech	帽状苏提藻	<i>Gonyaulax mitra</i> (Schütt) Koloid	帽状膝沟藻	Balech, 1988
<i>Spiraulax kofoidi</i> Graham	科氏螺沟藻	<i>Spiraulax palifex</i> (Murray & Whitting) Kofoid	具氏螺沟藻	Graham, 1942
<i>Symbodinium microadriaticum</i> Freudenthal	小亚得里亚海几牛藻	<i>Gymnodinium microadriaticum</i> (Freudenthal) Taylor	小亚得里亚海裸甲藻	Freudenthal, 1962
<i>Triadinium polyedricum</i> (Pouchet) Dodge	多面三刺甲藻	<i>Heieraulax polyedricus</i> Drugg & Loeblich	多面异沟藻	Dodge, 1981
<i>Triadinium polyedricum</i> (Pouchet) Dodge	多面三刺甲藻	<i>Cantodoma polyedricum</i> (Pouchet) Jørgensen	多面尾甲藻	Dodge, 1981
<i>Triadinium sphaericum</i> (Murray & Whitting) Dodge	球形三刺甲藻	<i>Consodoma sphaericum</i> Murray & Whitting	球形唇甲藻	Dodge, 1981
金藻门 (Chrysophyta)				
<i>Dityochus speculum</i> Ehrenberg	六等刺柱鞭藻	<i>Dstephanus speculum</i> (Ehrenberg) Haeckel	六等刺柱鞭藻	Ehrenberg, 1839
隐藻门 (Cryptophyta)				
<i>Rhodomonas baltica</i> Karsten sensu Zimmerman	波罗的海粉隐藻	<i>Cryptomonas baltica</i> (Karsten) Batcher	波罗的海隐藻	Karsten, 1898

类名称名词》(朱浩然, 1979), 研究的结果难与国际资料接轨。本文对中国海域现存的浮游植物同物异名(synonym)和错误命名(basionym)进行了更正。

1 材料与方法

本文参考有关文献(表1)对中国海区浮游植物现有常见的种名进行了更改、迁移和属名的联合, 对中国海域现存的浮游植物同物异名(synonym)和错误命名(basionym)进行了修改。对于《藻类名称名词》名称没有的中文译名, 本文参照中国发表的最早中文文献; 如若再没有作者进行了拉丁文的直译和意译。对于每个种或属的修订, 将另文描述。

2 结果

中国海区常见浮游植物同物异名(synonym)和错误命名(basionym)的修改见表1, 汉语译名仅供参考。

中国海区常见浮游植物共有4门55属197种(包括变种和变型)更正为4门84属181种(包括变种和变型), 这些种属的原始修订主要分布于81篇文献中, 其中硅藻门共37属135种(包括变种和变型)更正为64属123种(包括变型), 甲藻门共16属60种(包括变种和变型)更正为18属56种(包括变种和变型), 金藻门共1属1种更正为1属1种, 隐藻门共1属1种更正为1属1种。

3 结论

本文对存在于中国海区的常见浮游植物, 进行了种名的调整和更正。以上对中国海区浮游植物种名的修改是以现今国际上通行的种名为准, 这样利于同国际资料进行交流。另外还有其他的一些存疑的种类, 待进一步研究。

致谢 青岛海洋大学的王筱庆教授、钱树本教授、美国海洋科学中心 Carmelo Tomas 博士和德国奥登堡大学 Claus-Dieter Drselén 博士在成文过程中给予了积极的帮助和指导, 谨致谢忱。

参 考 文 献

- 朱树屏, 郭玉洁, 1957. 烟台、威海鲈鱼渔场及其邻近海区角毛硅藻属的研究. 海洋与湖沼, 1(1): 27-94
- 朱浩然编, 1979. 藻类名词及名称. 北京: 科学出版社, 1-159
- 郑柏林, 王筱庆, 1961. 海藻学. 北京: 农业出版社, 1-260
- 金德祥, 陈金环, 黄凯歌, 1965. 中国海洋浮游硅藻类. 上海: 科学技术出版社, 1-230
- 金德祥, 程兆第, 刘师成等, 1992. 中国海洋底栖硅藻类(下卷). 北京: 海洋出版社, 1-437
- 金德祥, 程兆第, 林均民等, 1982. 中国海洋底栖硅藻类(上卷). 北京: 海洋出版社, 1-323
- 黄长江, 董巧香, 2000. 1998年春季珠江口海域大规模赤潮原因生物的形态分类和生物学特征 I. 海洋与湖沼, 31(2): 197-204
- 黄宗国编, 1994. 中国海洋生物种类与分布. 北京: 海洋出版社, 1-764
- Agardh C A, 1832. *Conspectus criticus diatomaceanum*. Lund: Berlingianis, 49-66
- Andrews G W, 1981. Revision of the diatom genus *Delphinis* and morphology of *Delphineis surirella* (Ehrenberg) G. W. Andrews, n. Comb. In: Ross R ed, *Proceeding of the 6th Symposium on Recent and Fossil Diatoms*. Koenigstein: Koeltz, 81-90
- Bailey J W, 1854. Notes of new American species and localities of microscopical organisms. *Smithsonian Contributions to Knowledge*, 7(3): 1-16
- Balech E, 1962. Tintinninea y dinoflagellata del Pacifico, segun material de las expediciones Norpac y Downwind del Instituto Scripps

- de Oceanografía. Museo Argentino de Ciencias Naturales, "Bernadino Rivadavia" e Instituto Nacional de Investigación de las Ciencias Naturales, Revista, Ciencias Zoológicas, 7(1): 1—253
- Balech E, 1964. El Plancton del Mar del Plata durante el Periodo 1961—1962 (Buenos Aires, Argentina). Bol Inst biol mar Mar del Plata, 4: 1—49
- Balech E, 1973. Cuarta contribución al conocimiento del género *Protoperdinium*. Museo Argentino de Ciencias Naturales, "Bernadino Rivadavia" e Instituto Nacional de Investigación de las Ciencias Naturales, Revista, Hidrobiología, 3: 347—381
- Balech E, 1974. El género *Protoperdinium* Bergh, 1881 (*Peridinium* Ehrenberg, 1931, partim). Museo Argentino de Ciencias Naturales "Bernadino Rivadavia" e Instituto Nacional de Investigación de las Ciencias Naturales, Revista, Hidrobiología, 4: 1—79
- Balech E, 1985. The genus *Alexandrium* or *Gonyaulax* of the tamarensis group. In: Anderson D M, White A W, Baden D G ed. Toxic Dinoflagellates. New York: Elsevier, 33—38
- Balech E, 1988. Los Dinoflagelados del Atlántico Sudoccidental. Publicaciones Especiales del Instituto Español de Oceanografía, 1: 1—310
- Bergh R S, 1882. Der Organismus der Ciliflagellaten. Morph Jb, 7: 177—288
- Boalch G T, 1975. The Lauder species of the diatom genus *Bateriastrum*. Beiheft zur Nova Hedwigia, 53: 185—189
- Brightwell T, 1858. Remark on the genus "*Rhizosolenia*" of Ehrenberg. Quarterly Journal of Microscopical Science, 6: 93—95
- Cleve P T, 1873a. Examination of diatoms found on the surface of the Sea of Java. Bihang till Kongliga Svenska Vetenskaps Akademiens Handlingar, 1(11): 1—13
- Cleve P T, 1873b. On diatoms from the arctic sea. Bihang till Kongliga Svenska Vetenskaps Akademiens Handlingar, 1(13): 1—28
- Cleve P T, 1894. Synopsis of the naviculoid diatoms. Bihang till Kongliga Svenska Vetenskaps Akademiens Handlingar, 26(2): 1—194
- Comp re P, 1982. Taxonomic revision the diatom genus *Plausosira* (Eupodiscaeae). Bacillaria, 5: 165—190
- Crawford R M, Gardner C, 1997. The transfer of *Asterionellopsis kariana* to the new genus *Asteroplanus* (Bacillariophyceae), with reference to the fine structure. Nova Hedwigia, 65: 47—57
- Daughbjerg N, Hansen G, Larsen J *et al*, 2000. Phylogeny of some of the major genera of dinoflagellates based on ultrastructure and partial LSU rDNA sequence data, including the erection of three new genera of unarmoured dinoflagellates. Phycologia, 39(4): 302—317
- Dale B, 1983. Dinoflagellate resting cysts: benthic plankton. In: Fryxell G A ed. Survival Strategies of the Algae. Cambridge: Cambridge University Press, 69—136
- Dodge J D, 1981. Three new generic names in the Dinophyceae: *Hertmania*, *Sclerodinium*, and *Triadinium* to replace *Heteraulacus* and *Goniodoma*. Br J Phycol, 16(3): 273—281
- Dodge J D, 1984. Dinoflagellate taxonomy. In: Spector D L ed. Dinoflagellates. London: Academic Press, 17—42
- Dodge J D, 1989. Some revisions of the family Gonyaulacaceae (Dinophyceae) based on a scanning electron microscope study. Botanica Marina, 32: 275—289
- Ehrenberg C G, 1838. Die Infusionsthierchen als Vollkommene Organismen. Leipzig: Leopold Voss, 1—548
- Ehrenberg C G, 1839. Über die Bildung der Kreidelfelsen und des Kreidemergels durch unsichtbare Organismen. Abhandlung der königlichen Akademie der Wissenschaften zu Berlin, 1838: 59—148
- Ehrenberg C G, 1843. Verbreitung und Einfluss des mikroskopischen Lebens in Süd- und Nord-Amerika. Abhandlungen der königlichen Akademie der Wissenschaften zu Berlin, 1841: 291—445
- Ehrenberg C G, 1844. 2 neue Lager von Gebirgsmassen aus Infusorien als Meeres-Absatz in Nord-Amerika und eine Vergleichung derselben mit den organischen Kreide-Gebilden in Europa und Afrika. Deutsche Akademie der Wissenschaften zu Berlin, Berichte Februar, 1844: 57—97
- Elhächter M, 1993. *Kolkwitzia* Lindemann 1919 and *Protoperdinium* Margin 1913: Correct genera names in the *Diplopsalis*-group (Dinophyceae). Nova Hedwigia, 56: 173—178
- Fensome R A, Taylor F J R, Norris G *et al*, 1993. A Classification of Living and Fossil Dinoflagellates. Hanover: Sheridan Press, 1—351
- Frenguelli J, 1939. Diatomea del Golfo de San Matías. Revista del Museo de La Plata, 2: 201—226

- Freudenthal H D, 1962. *Symbiodinium* gen. nov. and *Symbiodinium microadriaticum* sp. nov., a zooxanthella: taxonomy, life cycle, and morphology. *J Protozool*, 9: 45—52
- Fryxell G A, 1977. *Thalassiosira australis* Peragallo and *T. lentiginosa* (Janisch) G. Fryxell, comb. nov.: Two antarctic diatoms (Bacillariophyceae). *Phycologia*, 16: 95—104
- Fryxell G A, Hasle G R, 1977. The genus *Thalassiosira*: Some species with a modified ring of central strutted processes. *Beiheft zur Nova Hedwigia*, 54: 67—89
- Fryxell G A, Sims P A, Watkins T P, 1986. *Azpatia* (Bacillariophyceae): Related genera and promorphology. *System Botany Monographs*, 13: 1—74
- Gmelin J F, 1791. *Systema Naturae* 1(6), 13th edition. Leipzig: Georg Emanuel Beer, 3021—3910
- Graham H W, 1942. Studies on the morphology, taxonomy, and ecology of the Peridinales. *Carnegie Institution of Washington Publication*, 542: 1—127
- Graham H W, Bronikovsky N, 1944. The genus *Ceratium* in the Pacific and north Atlantic Oceans. *Scient Results Cruise VII Carnegie: Biol Ser*, 5: 1—209
- Gran H H, 1897. *Protophyta: Diatomaceae, Silicoflagellata and Ciliolflagellata. The Norwegian North-Atlantic Expedition 1876—1878, Botany*, 1: 1—36
- Gran H H, 1900. Bemerkungen über einige Plankondiatomeen. *Nyt Magazin for Naturvidenskabeme*, 38: 103—128
- Greville R K, 1865. Description of new genera and species from Hong Kong. *The Annals and Magazine of Natural History Series 3*, 16 (91): 1—7
- Grunow A, 1862. Die Österreichischen Diatomaceen. *Verhandlungen der kaiserlich-königlichen zoologisch-botanischen Gesellschaft in Wien*, 12: 315—588
- Grunow A, 1863. Ueber einige neue und ungenügend bekannte Arten und Gattungen von Diatomaceen. *Verhandlungen der kaiserlich-königlichen zoologisch-botanischen Gesellschaft in Wien*, 13: 137—162
- Grunow A, 1867. Diatomeen auf *Sargassum* von Honduras, gesammelt von Lindig. *Hedwigia*, 6: 1—8, 17—37
- Grunow A, 1884. Die Diatomeen von Franz Josefs Land. *Denkschriften der kaiserlichen Akademie der Wissenschaften. Mathematisch-naturwissenschaftliche Classe, Wien*, 28: 53—112
- Hallegraeff G M, 1986. Taxonomy and morphology of the marine plankton diatoms *Thalassionema* and *Thalassiothrix*. *Diatom Research*, 1: 57—80
- Hasle G R, 1965. *Nitzschia* and *Fragilariopsis* species studied in the light and electron microscopes, III The genus *Fragilariopsis*. *Skrifter utgitt av Det Norske Videnskaps Akademi Oslo I, Matematisk-Naturvidenskapelig Klasse, Ny Serie*, 21: 1—49
- Hasle G R, 1975. Some living marine species of the diatom family Rhizosoleniaceae. *Beiheft zur Nova Hedwigia*, 53: 99—140
- Hasle G R, 1978. Some *Thalassiosira* species with one central process. *Norwegian Journal of Botany*, 25: 77—110
- Hasle G R, 1983. *Thalassiosira punctigera* (Castr.) comb nov, a widely distributed marine planktonic diatom. *Nordic Journal of Botany*, 3: 593—608
- Hasle G R, 1993. Nomenclatural notes on marine planktonic diatoms: The family Bacillariaceae. *Beiheft zur Nova Hedwigia*, 106: 315—321
- Hasle G R, 1995. *Pseudo-nitzschia pungens* and *P. multiseries* (Bacillariophyceae): Nomenclatural history, morphology and distribution. *Journal of Phycology*, 30: 1036—1039
- Hasle G R, Fryxell G A, 1977. The genus *Thalassiosira*: Some species with a linear areola array. *Beiheft zur Nova Hedwigia*, 54: 15—66
- Hasle G R, Sims P A, 1985. The morphology of the diatom resting spores *Syringidium bicorne* and *Syringidium simplex*. *British Phycological Journal*, 20: 219—225
- Hasle G R, Sims P A, 1986. The diatom genera *Stellarima* and *Symbolophora* with comments on the genus *Astinoptychus*. *British Phycological Journal*, 21: 97—114
- Hasle G R, Syvertsen E E, 1993. New nomenclatural combinations of marine diatoms: The families Thalassiosiraceae and Phaphoneidaceae. *Beiheft zur Nova Hedwigia*, 106: 297—314

- Hasle G R, Tomas C R, 1997. Marine Diatoms. In: Tomas C R ed, Identifying Marine Phytoplankton. San Diego: Academic Press, 5—386
- Hasle G R, von Stosch H A, Syvertsen E E, 1983. Cymatosiraceae, a new diatom family. *Bacillaria*, 6: 9—156
- Heiden H, Kolbe R W, 1928. Die marinen Diatomee der Deutschen Sdpolar-Expedition 1901—1903, 8: 447—715
- Helmcke J G, Krieger W, 1954. Diatomeenschalen im Elektronenmikroskopischen Bild 2. Weinheim: Cramer, 1—24
- Hendey N I, 1964. An introductory account of the small algae of British costal waters, Part 5: Bacillariophyceae (Diatoms). In: Ministry of Agriculture, Fisheries and Food ed. Fishery investigations Series IV, London: HMSO, 1—317
- Hendy N I, 1937. The plankton diatoms of the Southern Seas. *Discovery Reports*, 16: 151—364
- Holan M A, 1983. Biddulphoid diatoms, II: The morphology and systematics of the pseudocellate species, *Biddulphia biddulphiana* (Smith) Boyer, *B. alternans* (Bailey) Van Heurck, and *Trigonium arcticum* (Brightwell) Cleve. *Botanica Marina*, 26: 271—284
- Honigsmann H, 1909. Beiträge zur Kenntnis des Sdpolarplanktons. *Archiv für Hydrobiol Plankton*, 5: 71—78
- Jordan R W, Ligowski R, Nithig *et al*, 1991. The diatom genus *Proboscia* in Antarctic waters. *Diatom Research*, 6: 63—78
- Karayeva N I, 1978. New genus of the family Naviculaceae West. *Botanicheskii Zhurnal*, 63: 1593—1596
- Karsten G, 1898. *Rhodomonas baltica* N. g. et sp. *Wissenschaftliches Meeresuntersuchungen, Abteilung Kiel, Neue Folge*, 3: 15—16
- Kofoid C A, 1907. Reports of the scientific results of the expedition to the eastern tropical Pacific in charge of Alexander Agassiz, 9: New species of dinoflagellates. *Bulletin of the Museum of Comparative Zoology at Harvard College*, 50: 163—207
- Kofoid C A, 1909. On *Peridinium stanii* Jørgensen, with a note on the nomenclature of the skeleton of Peridinidae. *Archiv für Protistenkunde*, 16: 25—47
- Kofoid C A, 1911. On the skeletal morphology of *Gonyaulax catenata*. *University of California Publication in Zoology*, 8: 287—294
- Kolbe R W, 1955. Diatom from equatorial Atlantic cores. *Report of the Swedish Deep-Sea Expedition*, 7(3): 150—184
- Kützting F T, 1844. Die kieselschaligen Bacillarien oder Diatomeen. Nordhausen: Ferd Forstmann, 1—152
- Levine N D, Corliss J O, Cox F E G *et al*, 1980. A newly revised classification of the Protozoa. *J Protozool*, 27: 37—58
- Loeblich A R III, 1970. *Proceeding of north American paleontography Convention, Chicago, September 1969, 2, Part G*. Kansas: Allen Press, 867—929
- Mangin L, 1911. Sur l'existence d'individus dextres et senestres chez certains Peridinies. *C R hebdomadaire Acad Sci Paris*, 153: 27—32
- Medlin L K, Sims P A, 1993. The transfer of *Pseudoeunotia doliolus* to *Fragilariopsis*. *Beiheft zur Nova Hedwigia*, 106: 323—334
- Meunier A, 1910. *Microplankton des Mer de Barents et de Kara: Duc d'Orléans Campagne Arctique de 1907*. Brussels: Bulens, 1—355
- Müller O F, 1786. *Animalcula Infusoria Fluvialia et Marina, que Detexit, Systematice Descriptit et ad Vivum Delinearit Curavit Otho Fredericus Müller, Regi Daniae Quondam a Constiliis Conferentiae, Plurium que Academicarum et Societatum Scientiarum Sodalitatis, Sistit Opus hoc Posthumum Quod Cum Tabulis Aeneis L., in Lucem Tradit Vidua Ejus Nobilissima, cur Othonis Fabricii*. Hauniae: Nicolai Molleri, 1—367
- Pelletan J, 1889. Les Diatomees Histoire Naturelle, Préparation, Classification et description des principales espèces. *Journal de Micrographie*, 2: 364
- Ricard M, 1987. *Atlas du phytoplancton marin 2: Diatomophycees*. Paris: Centre National de la Recherche Scientifique, 1—297
- Round F E, Crawford R M, Mann D G, 1990. *The Diatoms, Biology & Morphology of the Genera*. Cambridge: Cambridge University Press, 1—747
- Schiller J, 1933. Dinoflagellatae (Peridineae) in monographischer Behandlung. 1. Teil, Lieferung 3. In: Kolkwitz R ed. *Dr L Rabenhorst's Kryptogamen-Flora, von Deutschland, Österreich und der Schweiz*. Leipzig: Akademische Verlagsgesellschaft, 1—617
- Schiller J, 1937. Dinoflagellatae (Peridineae) in monographischer Behandlung. 2. Teil, Lieferung 4. In: Rabenhorst L ed. *Dr L Rabenhorst's Kryptogamen-Flora von Deutschland, Österreich und der Schweiz*. Leipzig: Akademische Verlagsgesellschaft, 1—589
- Schulder B, 1906. Beiträge zur Kenntnis des Phytoplanktons warmer Meere. *Naturforsch Ges*, 51: 319—337
- Schütt F, 1896. *Die natürlichen Pflanzenfamilien, I, Abt. B*. Leipzig: Engelmann, 1—30
- Simonsen R, 1974. The diatom plankton of the Indian Ocean Expedition of RV "Meteor" 1964—1965. "Meteor" Forschungsergebnisse

Rehe D, 19: 1—107

Simonsen R, 1979. The diatom system: Ideas on Phylogeny. *Bacillaria*, 2: 9—71

Soumia A, 1968. Le genre *Ceratium* (p. ridinien planctonique) dans le Canal de Mozambique: Contribution à une révision mondiale. *Milieu, S r A. Biologie Marine*, 18(2, 3, A): 375—499

Steidinger K A, Jangen K, 1997. Dinoflagellates. In: Tomas C R ed. *Identifying marine phytoplankton*. San Diego: Academic Press. 387—584

Stern W T, 1975. Botanical Latin. 秦仁昌译, 1978. *植物学拉丁文(上, 下)*. 北京: 科学出版社, 1—712, 1—344

Sundström B G, 1986. The marine diatom genus *Rhizosolenia*: Doctoral Dissertation. Lund: Lund University, 1—117

Taylor F J R, 1976. Dinoflagellates from the international Indian Ocean Expedition. *Bibliotheca Botanica*, 132: 1—234

Taylor F J R, 1987. Taxonomy and classification. In: Taylor F J R ed. *The biology of Dinoflagellates*, Botanical Monographs, vol 21. London: Blackwell Scientific Publications, 723—731

Tomas C R ed, 1997. *Identifying Marine Phytoplankton*. San Diego: Academic Press, 1—858

von Stosch H A, 1982. On auxospore envelopes in diatoms. *Bacillaria*, 5: 127—156

Wall D, Dale B, 1971. A reconsideration of living and fossil *Pyrphacus* Stein, 1883(Dinophyceae). *J Phycol*, 7: 221—235

Wang C C, Nie D, 1932. A survey of the marine protozoa of Amoy. *Contr Biol Lab Sc Soc China*, 8(9): 285—385

Williams D M, Round F E, 1986. Revision of the genus *Synedra* Ehrenb. *Diatom Research*, 1: 313—339

Williams D M, Round F E, 1987. Revision of the genus *Fragilaria*. *Diatom Research*, 2: 267—288

THE PRELIMINARY NOTION ON NOMENCLATURE OF COMMON PHYTOPLANKTON IN CHINA SEAS WATERS

SUN Jun, LIU Dong-Yan

(*Marine Life Science College, Ocean University of Qingdao, Qingdao, 266003*)

Abstract Some phytoplankton species name published on Chinese journals, books or other scientific information, are synonyms or basionyms. It will lead to confuse when we read these materials. Based on the recent international publications, 135 species(include variety and forma) in 37 genera of Bacillariophyta, 60 species(include variety and forma) in 16 genera of Pyrrophyta, 1 species of Chrysophyta and 1 species of Cryptophyta common founded in China Sea Waters are rectified from synonym or basionym. After transfer and combination, the new 123 species(include forma) in 64 genera of Bacillariophyta, 56 species(include variety and forma) in 18 genera of Pyrrophyta, 1 species of Chrysophyta and 1 species of Cryptophyta were renamed. The article introduce these phytoplankton species new names to Chinese readers, the Chinese names of these phytoplankton species were translated from meaning or pronunciation of these Latin name.

Key words Phytoplankton, Nomenclature, China Seas, Synonym, Basionym