

DIATOMS FROM AN UNUSUAL SITE IN CUBA

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A number of years ago the senior author acquired a sample that had been collected from a stream flowing into the Caribbean at Batabanó, La Habana Province, Cuba ($22^{\circ} 41' 55''$ N, $82^{\circ} 17' 38''$ W). The diatoms involved are a mix of freshwater, brackish water and marine species. This very rich sample produced 119 species and varieties in 39 genera. The location apparently was subject to both flow from the stream and tidal flow in the opposite direction, with brackish water species living in between. We present a list of the identified forms and their normal habitat, as well as photographs of selected specimens. False color was used to make details more visible.

We thank Richard Carter for reviewing the manuscript and for his corrections on taxonomy. If anybody sees other mistakes, please contact the junior author.



Location of Batabanó, site of collection on the Caribbean coast of Cuba. (Base map constructed by Max Bleiweiss, New Mexico State University).

Table 1. List of diatoms from Batabanó, La Habana Province, Cuba.

Species	Habitat
	(M = Marine B=Brackish, F = Freshwater)
<i>Achnanthes brevipes</i> C. A. Agardh	B
<i>Amphitetras antediluviana</i> Ehrenberg	M
<i>Amphora acuta</i> Gregory	M
<i>Amphora</i> sp. A	?
<i>Amphora</i> sp. B	?
<i>Amphora</i> sp. C	?
<i>Anomoeoneis sphaerophora</i> (Ehrenberg) Pfitzer	F/B
<i>Anomoeoneis sphaerophora</i> cf. var. <i>sculpta</i> (Ehrenberg) Müller`	B
<i>Ardissonea robusta</i> (Ralfs ex Pritchard) De Notaris (= <i>Synedra robusta</i> Ralfs ex Pritchard)	M?
<i>Biddulphia biddulphiana</i> (J. E. Smith) Boyer (= <i>Biddulphia pulchella</i> Gray)	M
<i>Caloneis excentrica</i> (Grunow) Boyer	M
<i>Caloneis latiuscula</i> (Kützing) Cleve	F
<i>Caloneis permagna</i> (Bailey) Cleve	F
<i>Caloneis westii</i> (Wm. Smith) Hendey	B/M
<i>Campylodiscus clypeus</i> var. <i>bicostatus</i> (Wm. Smith in Roper) Hustedt	B
<i>Campylodiscus hibernicus</i> Ehernberg	F
<i>Campylodiscus</i> sp. A	B?
<i>Campylodiscus</i> sp. B	B?
<i>Chaetoceros atlanticus</i> Cleve	M
<i>Cocconeis pseudomarginata</i> A. Schmidt	M
<i>Cocconeis</i> sp. A	M
<i>Cocconeis</i> sp. B	M
<i>Cocconeis</i> sp. C	M
<i>Cocconeis</i> sp. D	M
<i>Coscinodiscus excentricus</i> Ehrenberg	M
<i>Coscinodiscus granii</i> Gough	M
<i>Craticula halophila</i> (Grunow ex Van Heurck) D. G. Mann	B
<i>Cyclotella ocellata</i> Pantocsek	F
<i>Cyclotella stylorum</i> Brightwell	M
<i>Cymbella affinis</i> Kützing	F
<i>Diploneis bomboides</i> (A.Schmidt) Cleve	M

Diploneis crabro (Ehrenberg) Ehrenberg	M
Diploneis elliptica (Kützing) Cleve	B/F
Diploneis ovalis (Hilse) Cleve	F
Diploneis suborbicularis (Gregory) Cleve	M
Diploneis sp. A	M?
Diploneis sp. B	M?
Diploneis sp. C	M
Diploneis sp. D	M
Entomoneis pulchra (Bailey) Reimer	M
Eunotia parallela Ehrenberg	B?
Eunotia pectinalis (Kützing) Rabenhorst	F
Eunotia pectinalis var. ventricosa Grunow (=Eunotia pectinalis var. ventralis (Ehrenberg) Hustedt)	F
Eunotia soleirolii (Kützing) Rabenhorst	B?
Eunotia sp. A	B?
Fragilaria sp. A	F
Fragilaria sp. B	F
Frustulia interposita (Lewis) De Toni	B?
Glyphodesmis eximia Greville	M
Gomphonema sp. A	F?
Gomphonema sp. B	F?
Gomphonema sp. C	F?
Gomphonema sp. D	F?
Gomphonema sp. E	F?
Gomphonema sp. F	F?
Gomphonema sp. G	F?
Grammatophora marina (Lyngbye) Kützing	M
Grammatophora oceanica Ehrenberg	M
Grammatophora oceanica var. subtilissima (Bailey) De Toni	M
Gyrosigma balticum (Ehrenberg) Rabenhorst	B
Gyrosigma sp. A	B?
Hyalodiscus radiatus (O'Meara) Grunow	M
Hylodiscus scoticus (Kützing) Grunow	M
Mastogloia binotata (Grunow) Cleve	M
Mastogloia braunii Grunow	B
Mastogloia fimbriata (Brightwell) Cleve (=Mastogloia cribrosa Grunow)	M
Mastogloia jelineckii Grunow	M
Navicula maculata Hustedt	M
Navicula radiosa Kützing	F
Navicula radiosa var parva J. H. Wallace	F
Navicula sp. A	F?
Navicula sp. B	F?
Navicula sp. C	F?

Navicula sp. D	F?	
Nitzschia abbreviata Hustedt	F	
Nitzschia amphibia Grunow	F	
Nitzschia amphibioides Hustedt	F	
Nitzschia compressa var. elongata (Grunow) Lange-Bertalot	M	
Nitzschia fonticola (Grunow) Grunow in Van Heurck	F	
Nitzschia insignis Gregory	M	
Nitzschia lancettula O. Müller	F	
Nitzschia littoralis var. tergestina Grunow	M	
Nitzschia scalaris (Ehrenberg) Wm. Smith	M	
Nitzschia sigma (Kützing) Wm. Smith	B	
Nitzschia sigmoidea (Nitzsch) Wm. Smith		B/F
Nitzschia vermicularis (Kützing) Hantzsch	B/F	
Nitzschia sp. A	M	
Odontella aurita (Lyngbye) Agardh	M	
Odontella obtusa (Kützing) Agardh	B/M	
Paralia sulcata (Ehrenberg) Cleve	B/M	
Pinnularia nobilis (Ehrenberg) Ehrenberg	F	
Pinnularia viridiformis K. Krammer	F	
Plagiotropis elegans (Wm. Smith) Cleve (=Tropidoneis elegans (Wm. Smith) Cleve)	M	
Plagiotropis lepidoptera var. proboscidea (Cleve) Reimer	M	
Pleurosigma formosum Wm. Smith	M	
Pleurosira laevis (Ehrenberg) Compère (= Biddulphia laevis Ehrenberg)	M	
Podocystis adriatica (Kützing) Ralfs	M	
Rhabdonema adriaticum Kützing	M	
Rhabdonema minutum Kützing	M	
Rhaphoneis belgica (Grunow) Grunow	M	
Rhopalodia gibba (Ehrenberg) O. F. Müller	F	
Rhoicosphenia sp. A	F?	
Stephanocyclus meneghiniana (Kützing) Skabitshevsky (= Cyclotella meneghiniana Kützing)	F/B	
Surirella fastuosa var. cuneata Wittrock	M	
Surirella inducta A. Schmidt	B?	
Surirella sp. A	B?	
Synedra bacillaris (Grunow) Hustedt	B/M	
Synedra baculus Gregory	B/M	
Synedra brockmanni Hustedt	M	
Synedra formosa Hantzsch	M	
Synedra fulgens (Greville) Wm. Smith	M	
Synedra undulata Bailey	M	

Tabularia grandis (Mereschkowsky) Aboal in Aboal et al. (=Synedra tabulata var. grandis Mereschkowsky)	M?
Terpsinoë americana (Bailey) Ralfs	M
Terpsinoë musica Ehrenberg	M
Tryblionella apiculata Gregory	M
Tryblionella granulata (Grunow) D. G. Mann (= Nitzschia granulata Grunow)	M
Tryblionella gracilis Wm. Smith	M
Tryblionella littoralis (Cleve & Grunow) D. G. Mann	M

References

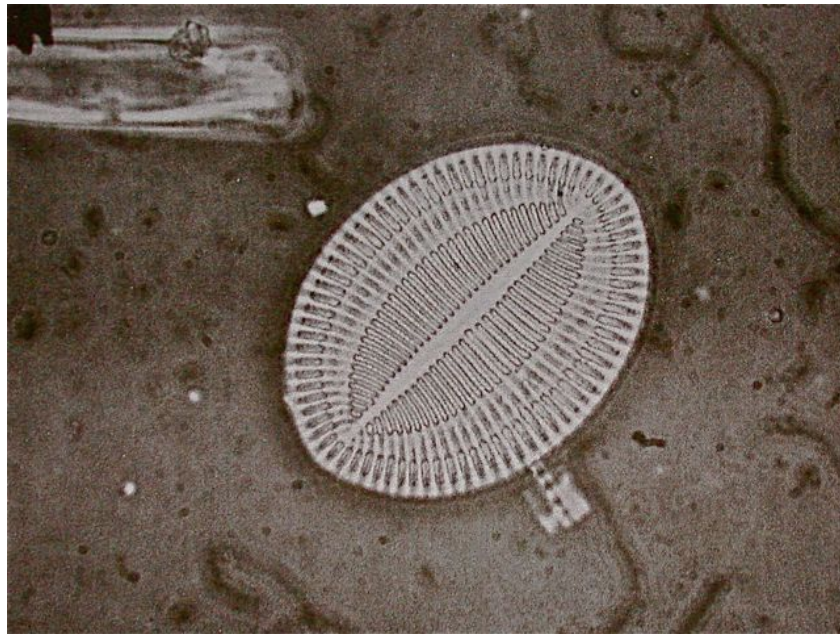
Foged, N. 1984. Freshwater and littoral diatoms from Cuba.
Bibliotheca Diatomologica 5. J. Cramer. Vaduz. 243 p.



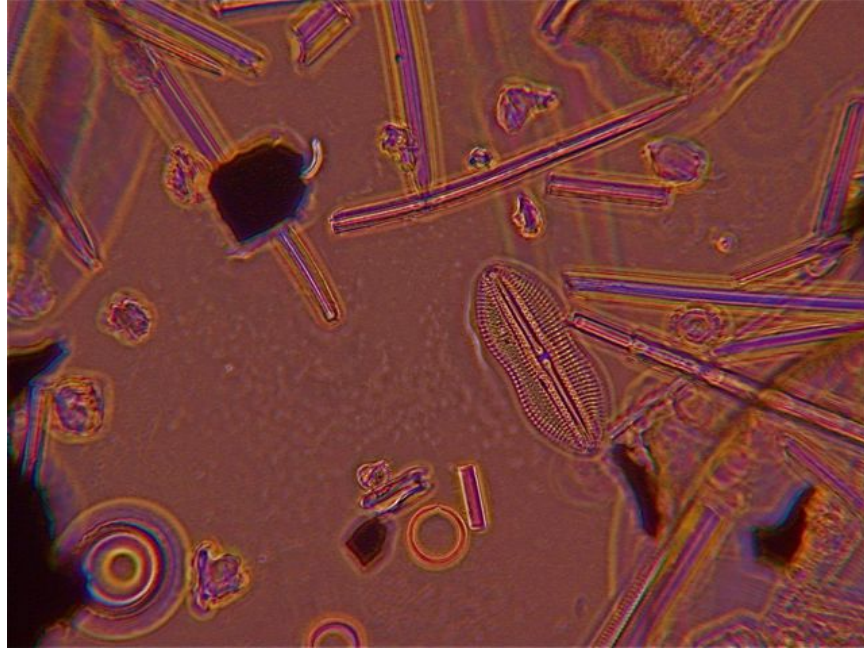
Biddulphia biddulphiana (center). 120 X 50 microns.



Campylodiscus sp.? ca. 55 microns in width.



Cocconeis pseudomarginata ca. 30 microns long (photo by Robert McLaughlin)



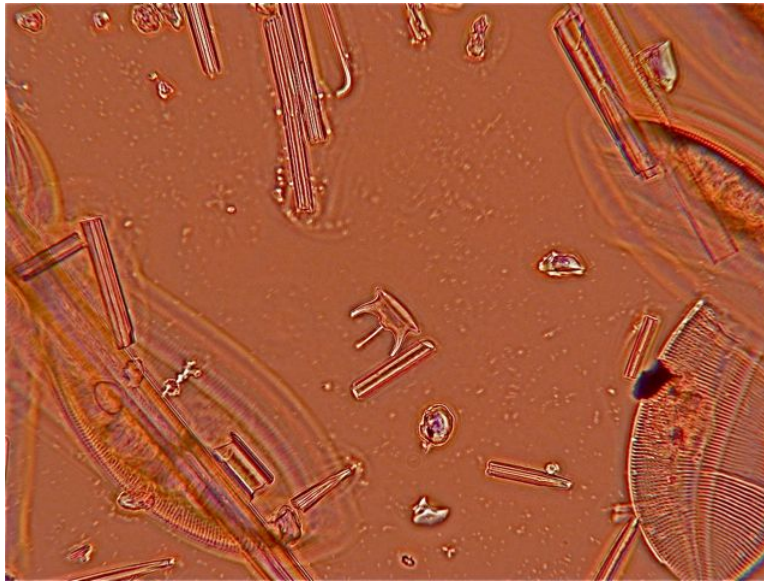
Diploneis bomboides (right of center). 66 X 28 microns.



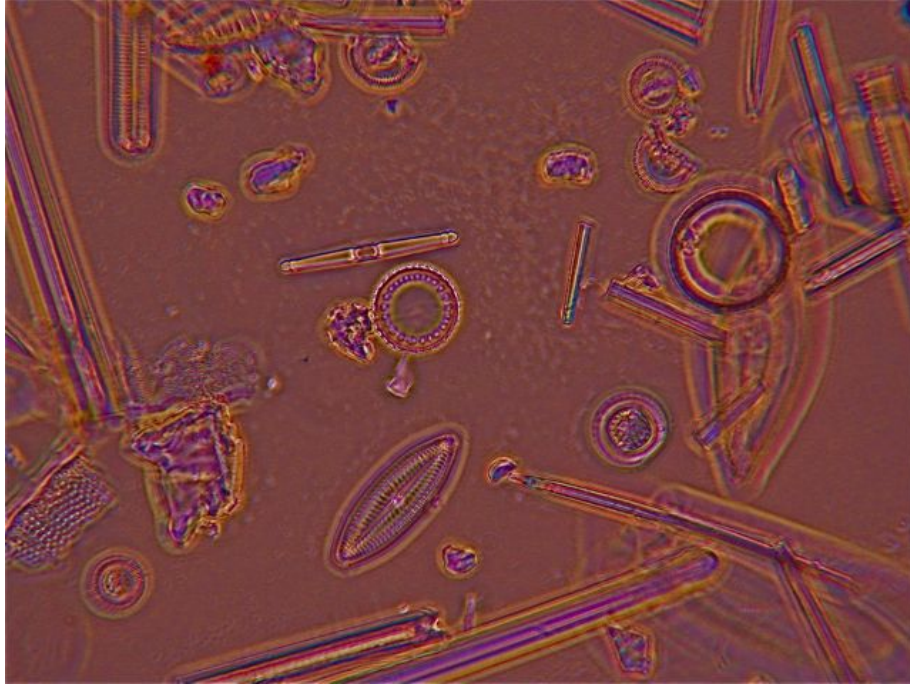
Entomoneis pulchra (center). 250 X 60 microns.



Gyrosigma balticum 380 x 40 microns.



Odontella sp. (center), ca. 20 X 30 microns.



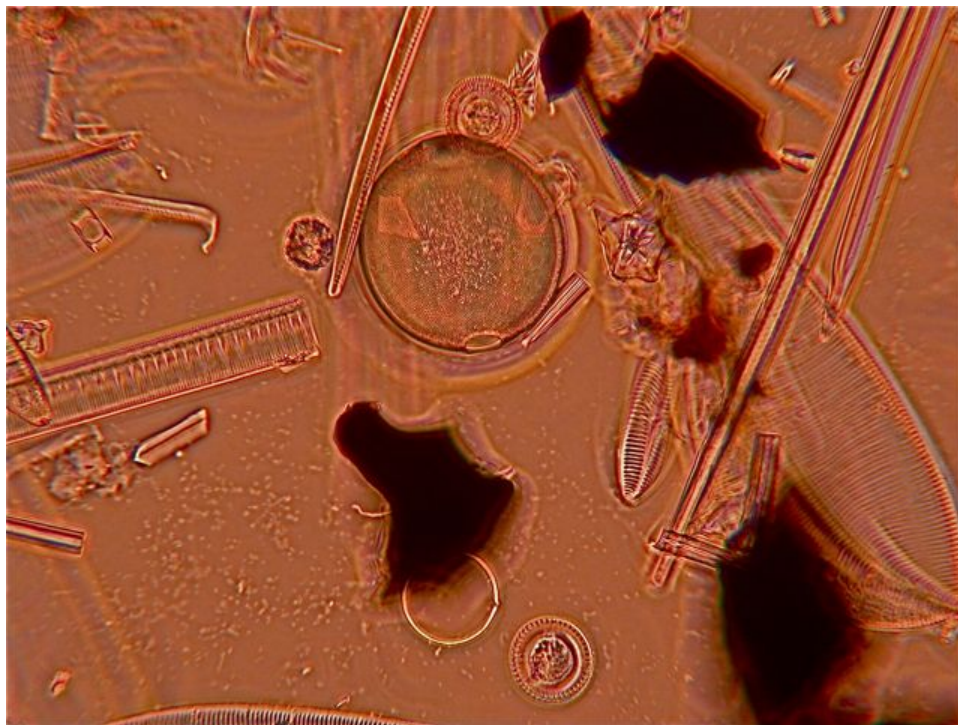
Paralia sulcata (center) (diameter 28 microns). Just above it is a *Grammatophora* sp. and below *Navicula* sp. B.



Pinnularia nobilis (center) ca. 250 X 40 microns



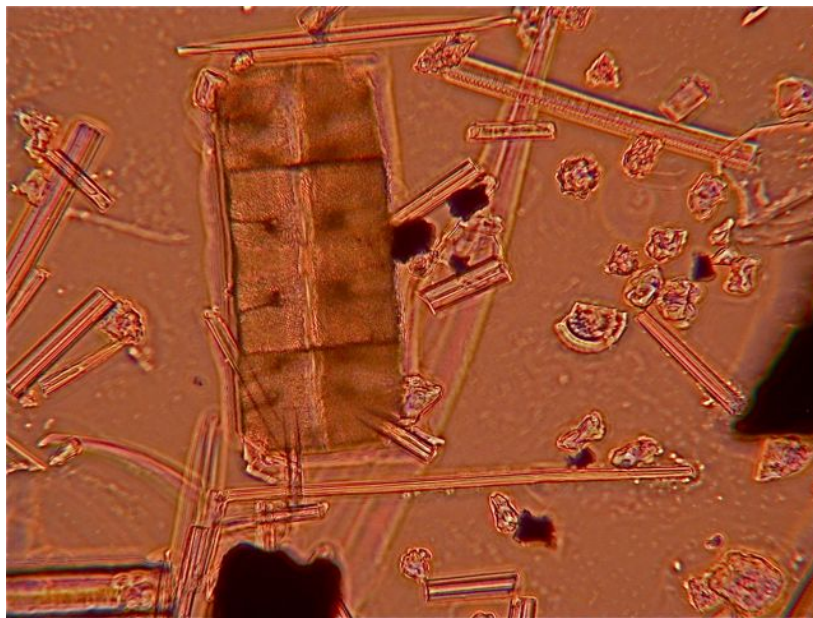
Pinnularia viridiformis (center), 170 X 30 microns with *Cocconeis pseudomarginata* above and *Grammatophora oceanica*? below.



Pleurosira laevis (top), ca. 60 microns in diameter



Terpsinoë musica (center), ca 140 microns long



Terpsinoë musica (just left of center) girdle view, ca 150 microns long

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www.microscopy-uk.org.uk/mag/artdec10/cuba-diatom.pdf