Plate 26. MARINE DIATOMS FROM THE GALAPAGOS ISLANDS

Source of Material

Galapagos Islands, Santa Cruz. A very sparse sample collected by J.A. Broadhead August 16th, 1986.

Galapagos Islands, Santa Cruz. Sample 1, from Academy Bay (Puerto Ayora), south coast of Santa Cruz; skimming of thin surface film resulting from rising tide. Collected by Tui de Roy August 9th, 1991.

Galapagos Islands, Santa Cruz. Sample 2, from Academy Bay (Puerto Ayora), south coast of Santa Cruz; from thick silty mud covered in greenish algal slime on flat rock ledges at low tide. Collected by Tui de Roy August 9th, 1991.

Galapagos Islands, Santa Cruz. Sample 3, from Academy Bay (Puerto Ayora), south coast of Santa Cruz; from greenish-brown slime on mooring rope. Collected by Tui de Roy August 9th, 1991.

Sample #1 one bottle - very sparse.

Sample #2 four bottles - one unbleached (HCL rinsed); one heavy fraction; one sieved under 38μm and one sieved over 38μm.

Sample #3 four bottles - same sequence as for sample #2.

These samples are kept in the private collection of Stuart R. Stidolph and will eventually be deposited in the collections of NIWA, Wellington, New Zealand.

Plate Twenty-six:

94-97 *Lyrella lyra* (Ehrenberg) Karajeva 1978 . The specimen in fig. 94 agrees exactly with that of Hendey (1964, pl. 33, fig. 2). Figure 96 represents the var. *atlantica*.

98 *Navicula (Lyrella) hennedyi* var. *granulata* Grunow in Schmidt et al. 1874 (No formal transfer to *Lyrella* could be found for this variety). See Hendey (1970, pl.2, figs. 14-16).

99-100 *Diploneis notabilis* (Greville) Cleve 1894. See Schmidt's Atlas (1874-1959, pl. 8, figs. 46-47) and also Williams (1988, p. 41, pl. 46, fig. 4) given as *Navicula notabilis.*

101-102 *Navicula (Lyrella) hennedyi* var. *granulata* Grunow in Schmidt et al. 1874 (No formal transfer to *Lyrella* could be found for this variety). See Hendey (1970, pl. 2, figs. 14-16).

103 *Navicula rudis* Cleve 1881. The specimens agree well with Hustedt (1964, fig. 1468) and also Ricard (1977, pl. 3, fig. 10)

104 *Navicula cryptocephaloides* Hustedt 1937. See Gasse (1986, p. 91, pl. 22, figs. 3-4); also Hustedt in Simonsen (1987, p. 198, pl. 307, figs. 8-15) from Java. The specimens are more narrow in valve outline and more narrowly rostrate than the figures given by Hustedt.

105 *Proschkinia complanatula* (Hustedt) Mann in Round, Crawford and Mann. See Hustedt in Simonsen (1987, p. 479, pl. 735, figs. 9-10), given as *Navicula complanatula*, which agree exactly with this specimen.

106-107 *Navicula* sp. indet. The specimens agree well with *Navicula tripunctata* sensu Patrick and Reimer (1966, pl. 49, fig. 3) and Cox (1979, p. 137, figs. 7-9), but this is a freshwater to slightly brackish water species. Since the species requires a major influx of freshwater, which is not the case for the Galapagos, it places the identity in question.

108 *Plagiodiscus nervatus* Grunow 1867. See Hendey (1970, p. 160, pl. 4, fig. 39).

109 *Rhabdonema adriaticum* Kützing 1844. See Smith (1856, p. 35, pl. 38, fig. 305).

110 *Trachyneis aspera* (Ehrenberg) Cleve 1894. See Hendey (1964, p. 236, pl. 29, fig. 13), given as *Navicula aspera*.

111 *Opephora* sp. indet. This matches *Opephora pacifica* in Witkowski, Lange-Bertalot and Metzeltin (2000, pl. 25, fig. 21), but differs markedly from the other figures there identified as this species. The specimen in Hendey (1964, p. 159, pl. 36, fig. 9) identified as *O. schwartzii* looks similar, but his fig. 8 of the same plate with the same identification, also differs markedly.

112 *Plagiogramma staurophorum* (Gregory) Heiberg 1863. See Gregory (1857, p. 24, pl. 2, fig. 37) given as *Denticula staurophorum*. See also Hustedt (1931, fig. 635).

113 *Fragilariopsis doliolus* (Wallich) Medlin and Sims 1993. See Peragallo and Peragallo (1897-1908, pl. 82, fig. 27). Also Hendey (1971, p. 390) and Foged (1975, pl. 8, fig. 18), identified as *Pseudoeunotia doliolus*.

114 *Podocystis adriatica* (Kützing) Ralfs in Pritchard 1861. See Hendey (1971, p. 390) and Ricard (1977, pl. 1, fig. 2) whose specimen given as *P. americana* Bailey and measuring 20 x 33µm most closely resembles this valve of 20 x 30µm. Hendey's specimens from the Galapagos ranged from 30-32 x 46-50µm.

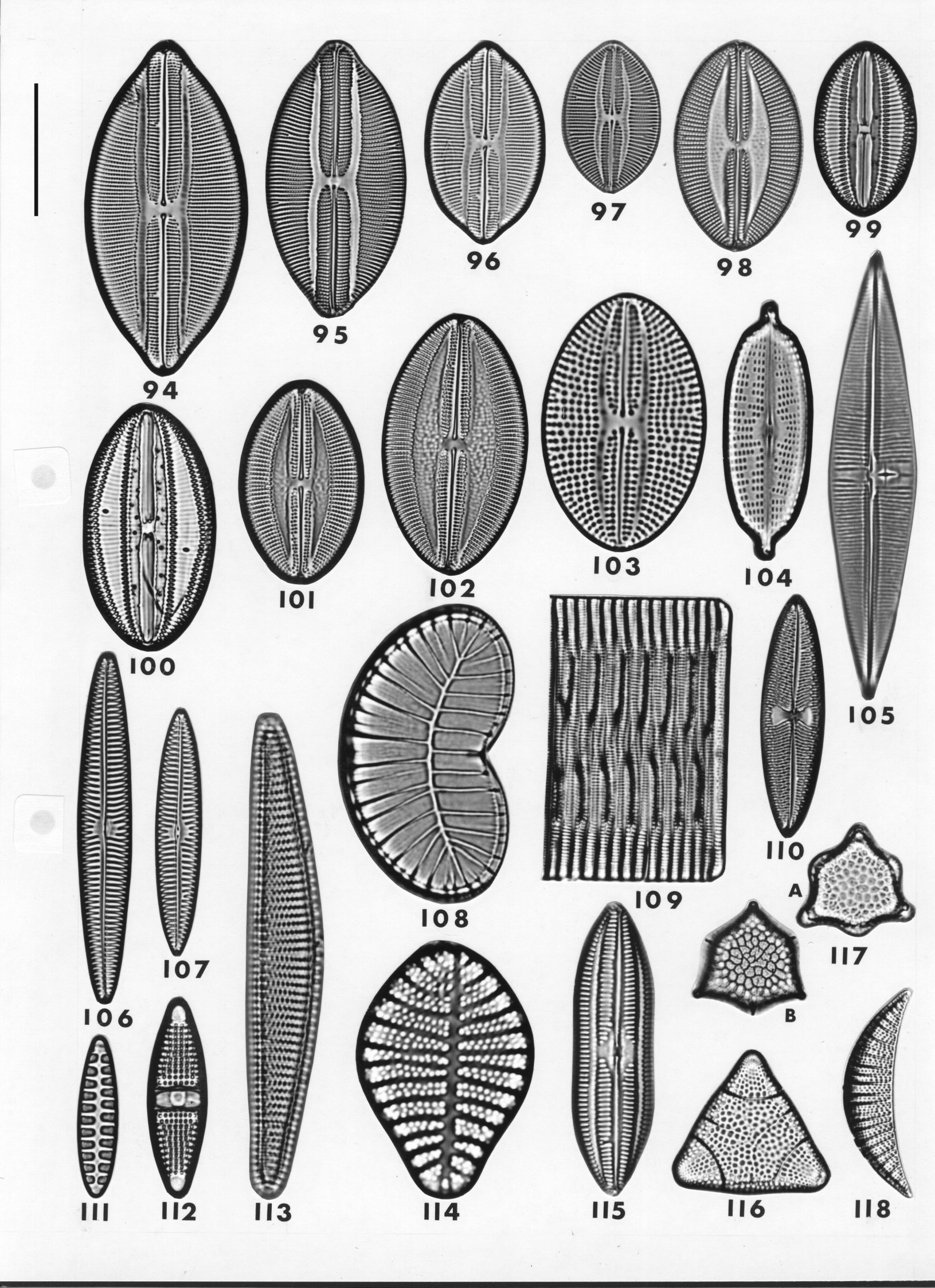
115 *Oestrupia powellii* var. *galapagensis* (Cleve) Mills 1934. See Cleve (1881, pl. 3, fig. 30).

116 *Trigonium alternans* (Bailey) Mann 1907. See Van Heurck (1896, p. 475, pl. 21, fig. 644).

117 *Triceratium dubium* Brightwell 1859. See Brightwell (1859, p. 180, pl. 9, fig. 12). Figure 117a and 117b are different specimens and they are focused at the inner and outer surfaces respectively.

118 *Rhopalodia musculus* (Kützing) Otto Müller 1900. Appears to be a good match for Witkowski, Lange-Bertalot, and Metzeltin (2000, pl. 214, fig. 11).

Magnifications: figs. 103, 105, 108, 113, 114: x2000; fig. 104: x1500; all others: x1000
Scale Bar: scale bar is 30 microns for figures at x1000; 20 microns for fig. 104;
15 microns at x2000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