

Finlay (1927: 446) stated: "I find *furcata* difficult to separate satisfactorily from *zelandica*" and "I can only note that *zelandica* seems to grow to a larger size than *furcata*, and has coarser radial sculpture and a larger byssal opening in the right valve". These characters vary greatly in populations of New Zealand *Monia*, the sculpture ranging from almost smooth to low radial ribs with prominent semitubular spines about 2mm long. *M. zelandica* includes specimens identical to the holotypes of both *M. furcata* (Suter) and *M. furcilla* Marwick, and there is no reason to retain the two latter names. *Monia furcilla* was described from Momoe-a-toa, Chatham Islands (Opoitian, Lower Pliocene); *Monia zelandica* is also known from the Waitotaran (Upper Pliocene) of Palliser Bay (Beu, 1967: 96) and from Castlecliff, Wanganui, and Te Piki, Cape Runaway (both Castlecliffian, Lower Pleistocene; specimens in New Zealand Geological Survey).

*Monia ione*, a supposed southern Australian species, was considered by Suter (1913: 845) to be a junior synonym of *M. zelandica*, and a member of *Placunanomia*; this synonymy was also suggested by Hutton's recording *Placunanomia ione* from New Zealand. The Australian specimens of *Monia* examined are certainly conspecific with *M. zelandica*, being opaque, white on the exterior and green on the interior, and having identical spinose sculpture. The holotypes, figured by Reeve (1859b, Pl. 1, Fig. 4; Pl. 2, Fig. 6 a-c), are also very similar. This is the form described by Cotton (loc. cit.) as *Monia ione*. One Australian specimen I have examined that was identified as *M. ione* was yellow in colour, slightly translucent and had the internal characters of *Anomia*, and proved to be *Anomia descripta* Iredale. As MacPherson and Gabriel (loc. cit.) described *M. ione* as being yellow in colour, it is possible that they were also confusing this form with *Anomia descripta*.

A second species of *Monia* recorded from deep water all around eastern Australia is *M. deliciosa* Iredale. The only specimen I have examined that was identified as *M. deliciosa* is from off Lakes Entrance, Victoria, and is in the collection of Mr W. Paul of Wellington; it has the internal features of *Patro*, and belongs in *Patro australis*. This is a new record for southern Australia, and suggests that the ranges of Australian Anomiidae are very imperfectly known. Australian fossils identified as *Monia ione* in the collection of the New Zealand Geological Survey are all juveniles of an unidentified species of *Anomia*.

The wide geographic range now attributed to *Monia zelandica* is not unusual when the ranges of foreign species of the family are compared. *Monia macroschisma* (Deshayes) ranges from the Gulf of California to Alaska, Kamchatka and Japan (Hertlein and Strong, 1946: 69), and *Anomia ephippium* Linnaeus is distributed at least from Spain to Britain (specimens examined) and throughout the Mediterranean Sea.

Thomson (1920: 368) recorded a specimen of "*Anomia furcata*" from the Main Mount Brown Limestone, Waipara, North Canterbury (Awamoan). This was probably a specimen of *Pododesmus incisurus* (Hutton).

#### Genus *PODODESMUS* Philippi

*Pododesmus incisurus* (Hutton, 1873). Text-fig. 2b, 2c.

1873. *Placunanomia incisura*. Hutton, Cat. Tert. Moll. N.Z.: 34.

1914. *Placunanomia incisura* Hutton. Suter, N.Z. Geol. Surv. Pal. Bull. 2: 34, Pl. 6, f. 2.

1965. *Monia zelandica* (Gray). Boreham, N.Z. Geol. Surv. Pal. Bull. 37: 46, pl. 5, f. 3 (in part not of Gray, 1843).

The common middle Tertiary species known as *Monia incisura* (Hutton) was synonymised by Boreham (1965: 46) with *Monia zelandica* (Gray) on the grounds that its sculpture fell within the range of sculpture of *M. zelandica*, and that the