

0.35 to 0.55 mm in length and 0.13 to 0.25 mm in width; hydrothecae longer than wide; approximately one-third of the adcauline wall free from the internode; proximal region of fixed adcauline wall almost parallel to the internode axis, distal region and free adcauline wall bending outwards; aperture oblique, more or less circular, with a smooth margin; abcauline wall immediately below the margin with very well developed intrathecal ridge which extends approximately half-way across the theca; base of hydrotheca rounded when viewed laterally; length of abcauline wall of hydrotheca 0.20 to 0.22 mm; maximum width of hydrotheca at margin approximately 0.25 mm; nematothecae—mesial nematotheca fixed, erect, aperture facing upwards (vertically, towards the hydrotheca); distal chamber broad, shallow, and with little or no adcauline wall; length of mesial nematothecae approximately 0.07 mm; mesial nematothecae found below each hydrotheca; stem nematothecae, simple, scoop- or cowl-shaped, at the distal end of each internode, and one on the antero-superior side of the apophysis opposite the "mamelon": gonotheca, found towards the base of the stem, one gonotheca per internode, tapering proximally, rounded but somewhat truncated distally; walls with irregular, wide, transverse undulations; aperture lacking operculum or marginal rings; length of gonothecae up to 1.60 mm and 0.85 mm in maximum width.

**LOCALITY.** Type locality, Moncoeur Island, Bass Strait, 30–40 fathoms (Allman, 1883): near North Cape, Stn. 134 "Terra Nova", 11–20 fathoms; off Three Kings Islands, Stn. 90, "Terra Nova", 100 fathoms; off Cape Maria van Diemen, Stn. 144, "Terra Nova", 35–40 fathoms (Totton, 1930).

**DISTRIBUTION.** New Zealand; Australia; Tasmania; South Africa.

This species is not represented in the present collection, and the above description of the erect stem is from British Museum (Natural History) material. The Tasmanian material described by Hodgson (1950, p. 50, figs. 81, 82) as "*Kirchenpaueria mirabilis*", has hydrothecae in which the width is the same, or greater than the depth (width, 0.30–0.33 mm; depth, 0.28–0.33 mm); the abcauline intrathecal ridge relatively narrow, and the opening of the mesial nematothecae horizontal, rather than vertical (cf. fig. 81, Hodgson, 1950). All these characteristics demonstrate a closer similarity to *Pycnotheca producta*, as described and figured by Totton (1930), than to *P. mirabilis*. Perhaps Hodgson's Tasmanian material is a new varietal form of *P. producta*.

The following species *Halicornopsis elegans* (Lamarck) was described from New Zealand waters as early as 1873, but not recognized as such, by Hutton, who described it as *Plumularia banksii* Gray, 1843. It was shown by Coughtrey that Hutton's "*P. banksii*" was not the *P. banksii* of Gray and Coughtrey, who regarded it as a new species, describing it first (1875) as *Plumularia huttoni* and later (1876, a) as *Aglaophenia huttoni*. However, Kirchenpauer (1876) had shown that Hutton's *Plumularia pennatula* was not the *P. pennatula* of Ellis and Solander, and renamed this species also as *Aglaophenia huttoni*. Both *A. huttoni* (Coughtrey) and *A. huttoni* Kirchenpauer came from Lyall Bay, Wellington, and were regarded by Bale (1924) as an indeterminable species. Material has now become available that determines *A. huttoni* (Coughtrey) as *Halicornopsis elegans* (Lamarck) and *A. huttoni* Kirchenpauer as *Halicornaria longirostris* Kirchenpauer.

Among the material kindly loaned me by Canterbury Museum, Christchurch, was a box of microslides labelled "Hutton's types", and there is little or no doubt that all the slides in the box were Hutton's and that many of them were the specimens he described in 1873. In this latter category is a microslide of material from Wellington, with a label that appears originally to have read *Plumularia huttoni* Coughtrey. The *Plumularia* has been crossed through and below it *Aglaophenia* has been written. This microslide shows a small portion of an infertile stem of *Halicornopsis elegans*. Confirmation that this slide was made from material used by Hutton to describe his "*Plumularia banksii*" (later *A. huttoni*, now *H. elegans*) comes from a specimen labelled simply "*Plumularia banksii*", in the hydroid material kindly loaned me by the Otago Museum, Dunedin. This specimen is also readily recognizable as *Halicornopsis elegans*. Furthermore, Hutton described the stems of "*P. banksii*" as polysiphonic. This erect stem