

of the stem apophysis, elongate, oval, tapering distally into a narrow neck, proximally into a short stalk; female gonotheca 1.24 to 1.40 mm in length, and 0.32 to 0.37 mm in maximum width; aperture 0.10 to 0.11 mm in width; male gonotheca slightly smaller than female, 0.98 to 1.20 mm in length and 0.30 in greatest width; aperture 0.05 mm in width.

LOCALITY. Type locality, near North Cape, New Zealand, 11–20 fathoms (Totton, 1930). Species known only from the type locality.

There is no specimen of this species in the present collection, and the figures are drawn from the British Museum (Natural History) material kindly shown me by Dr. W. J. Rees.

Plumularia setaceoides Bale, 1882. Fig. 2, b-e.

1882. *Plumularia setaceoides* Bale.

1884. *Plumularia setaceoides* Bale. Bale, p. 136, pl. XI, fig. 8; pl. XIX, fig. 36.

1928. *Plumularia setaceoides* Bale. Trebilcock, p. 24.

1950. *Plumularia setaceoides* Bale. Hodgson, p. 44, fig. 74.

A medium sized plumularian with monosiphonic stem up to 8.0 cm in height, with recurved, regularly alternate hydrocladia arising from the distal end of the internode, and a hydrorhiza in which the internal wall is undulated; hydrorhiza flattened, stap-like approximately 0.14 mm in width; basal two or three stem internodes without hydrocladia; basal two or three nodes transverse, and internodes in this region often with transverse annulations; nodes elsewhere on stem and hydrocladia oblique, and regular in occurrence; stem internodes from 0.30 to 0.40 mm in length and 0.11 to 0.13 mm in width; stem internodes with from one to four transverse septa; stem apophysis approximately 0.03 mm in length; nodes divide the branches into short athecate internodes and long thecate internodes; hydrocladia with from two to six hydrothecae; short internodes of hydrocladia 0.08 to 0.12 mm in length; width of hydrocladia internodes 0.11 to 0.12 mm; length of long thecate internodes 0.30 to 0.35; hydrotheca deeply campanulate, aperture, more or less circular, with a smooth, entire margin set at an angle of approximately 40° to the long axis of the branch; abcauline wall frequently much thicker than either the lateral or adcauline wall; base of hydrotheca rounded but viewed laterally with a triangular thickening on the adcauline side and a similarly shaped thickening between the proximal free adcauline wall and the branch; length of abcauline side of hydrotheca 0.12 to 0.13 mm; length of adcauline side free 0.07 to 0.09 mm; length of adcauline side fixed to hydrocladial internode 0.045 to 0.06 mm; maximum width of hydrotheca 0.11 to 0.13 mm; nematothecae shaped like a wine glass, bithalamic, canalliculate, with slender base and shallow cup; mesial nematothecae on both long and short internodes have a notched margin on the adcauline side; maximum length of nematotheca approximately 0.055 mm and width of aperture of terminal cup approximately 0.025 mm; one nematotheca below each hydrotheca, and one at each side above it not reaching the rim of the hydrotheca; one mesial nematotheca on each short internode, one in the axil of each hydrocladium, and one near the proximal end of each stem internode: gonotheca—female gonotheca large, more or less cylindrical; walls almost smooth to transversely rugose; stem short; distal end truncated, often obliquely truncated; length of female gonotheca 1.30 to 1.50 mm; maximum width, approximately 0.50 mm; maximum width across truncated distal end approximately 0.40 mm; length of stalk approximately 0.10 mm; male gonotheca small, about a third the length of the female; ovate, and carried on a readily recognizable narrow stalk; length of male gonotheca 0.375 to 0.45 mm; maximum width 0.20 to 0.275 mm; male and female gonothecae usually arising at the base of a hydrocladium.

LOCALITY. Type locality, Williamstown, Victoria, Australia (Bale, 1882): Long Beach, Russell, Bay of Islands (P.M.R.), 27/11/50, 28; Muriwai Beach, North Auckland, on storm-drifted seaweed (P.M.R.), -/2/53, 320; Narrow Neck, Auckland (C. Trevarthen), 6/5/50, 724; Breaker Bay, Cook Strait, storm-drifted seaweed (V. Cassie), 4/5/52, 294; Makara Beach, west coast, Wellington area, storm-drifted seaweed (V. Cassie), 25/8/52, 302; Moa Point, Lyall Bay, Wellington, on *Cystophora retroflexa* (M. Curran), 9/10/56, 510; Island Bay, Cook Strait (Trebilcock, 1928); Clarence River mouth, Kaikoura, storm-drifted seaweed (P.M.R.) 13/11/51, 115; Taylor's Mistake, Christchurch (G. Knox), -/10/56, 233; Menzies Bay, Christchurch (G. Knox), 9/5/51, 720; Portobello Marine Biological Station, reef (P.M.R.), 30/11/51, 264; St. Clair, Dunedin, and Bluff (Trebilcock, 1928); Stn. 49, Port Hutt, L.T. rock pool (Chatham Expedition, 1954), 8/2/54, Chatham Expedition, Slide No. 20.

DISTRIBUTION. Australia, New Zealand.

Trebilcock (1928) thought it extremely doubtful that *P. wilsoni* Bale was specifically distinct from *P. setaceoides* and Vervoort (1946) stated that it was difficult