

Rosenvingea Børgesen, 1914

ECTOCARPALES, SCYTOSIPHONACEAE

Plants tubular, forming considerable clumps which are cylindrical or compressed, and attached by a basal disc. Branching sparsely, easily torn, dividing dichotomously or pseudo dichotomously, frequently with proliferous branchlets on the main branch system. Axis composed of 3 to 4 layers of cells, the outer forming a close epidermis of angular cells with probably a single chromatophore; the larger inner cells nearly colourless. Hairs single, scattered or aggregated in sori.

- Durairatnam, 1961:84

Species reported from Sri Lanka

Rosenvingea intricata (J. Agardh) Børgesen, 1914 [Dur, 1961: 32, Pl. VII, Fig. 6, Pl. XXII, Fig. 2] [= *R. endiviifolia*]

Rosenvingea orientalis (J. Agardh) Børgesen, 1914.

- Silva et al, 1996

Description of species

***Rosenvingea endiviifolia* (Martius) M. J. Wynne in Wynne & Nunes 2021**

Synonym *Rosenvingea intricata* (J. Agardh) Børgesen 1914

Morphology Thallus forming crisp, pale, yellow-brown, spongy cushions that are colourless and translucent underwater. The cushions mostly 5 x 3, 8 x 5 or 6 x 4 cm, others up to 10 - 20 cm across. Attached to substratum or detached. The constituent fronds matted together with free trumpet-shaped terminal fronds at the surface. The oldest parts of the thallus perished—in the detached cushion examined. Living thallus consisting of thin-walled tubular fronds dividing dichotomously in many planes and becoming progressively narrower, the branch system forming rounded heads. The widest fronds 5 mm in diameter, the terminal divisions 0.5 to 1.0 mm diameter. The translucent olive coloured thallus wall finely peppered with minute black dots.

Anatomy The thallus wall consists of three layers of cells. Seen in surface view the outer epidermis consists of angular cells, square, triangular or elongated irregular polygons pointed at one end measuring 12.5 x 7.5 µm or so, tending to be arranged in rows or as an irregular meshwork. The middle layer of larger thin-walled and colourless polygonal cells 50 - 200 µm long and 100 µm wide was visualized through the inner surface. The layer lining the inner surface of the tubule, in surface view, consists of very large, thin-walled elongated and rounded polygons or ovals with a few brownish granules at the centre orientated in the long axis of the frond, 250 - 550 µm long and 110 - 190 µm in maximum width. Heavily pigmented sori are scattered over the surface from which protrude hairs 7.5 µm wide and over 500 µm long consisting of cells 110 - 125 µm long joined end to end.

Ecology

Found only at Clappenberg Bay, Trincomalee, just off the pier at the former Ceylon Sea Anglers' Club now with the Sri Lanka Air Force, on a stone and pebble littered shallow sand bottom, associated with profuse growths of *Padina* cf. *boryana*. The cushions attached to stones by the base and to *Padina* by terminal branches. Many detached cushions, the attaching base missing.

Discussion

The specimens agree with the description and drawing in Durairatnam, 1961. The images in both Durairatnam and Lewmanomont & Ogawa, 1995 show plants that are much taller, with long basal segments. This species is quite unlike the other species reported from the country i.e., *Rosenvingea orientalis* that has "erect, tubular, sparsely divided branches" as seen in the images in AlgaeBase (2021) - J. M. Huisman, caption to image ref. 17721; see also 17722 & 32267, AlgaeBase (2021). Lewmanomont & Ogawa, 1995 give the thallus diameter as 2 mm in the lower parts, narrowing upwards.

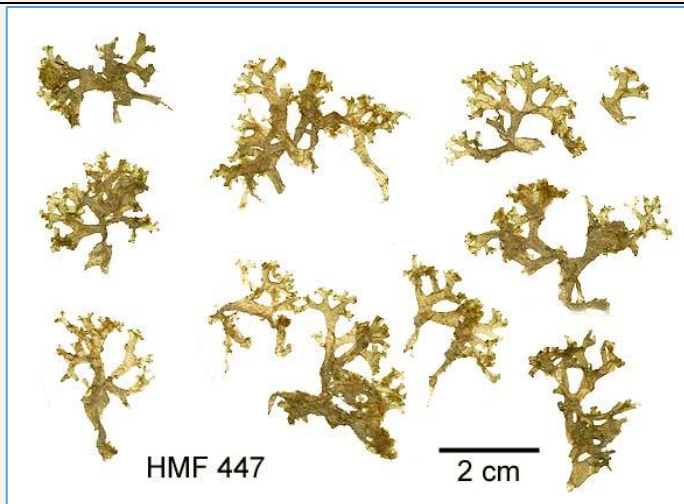
Material examined

HMF 256, 2.8.2000 and HMF 447, 13.3.2004, Trincomalee, Clappenberg bay, 2 m.

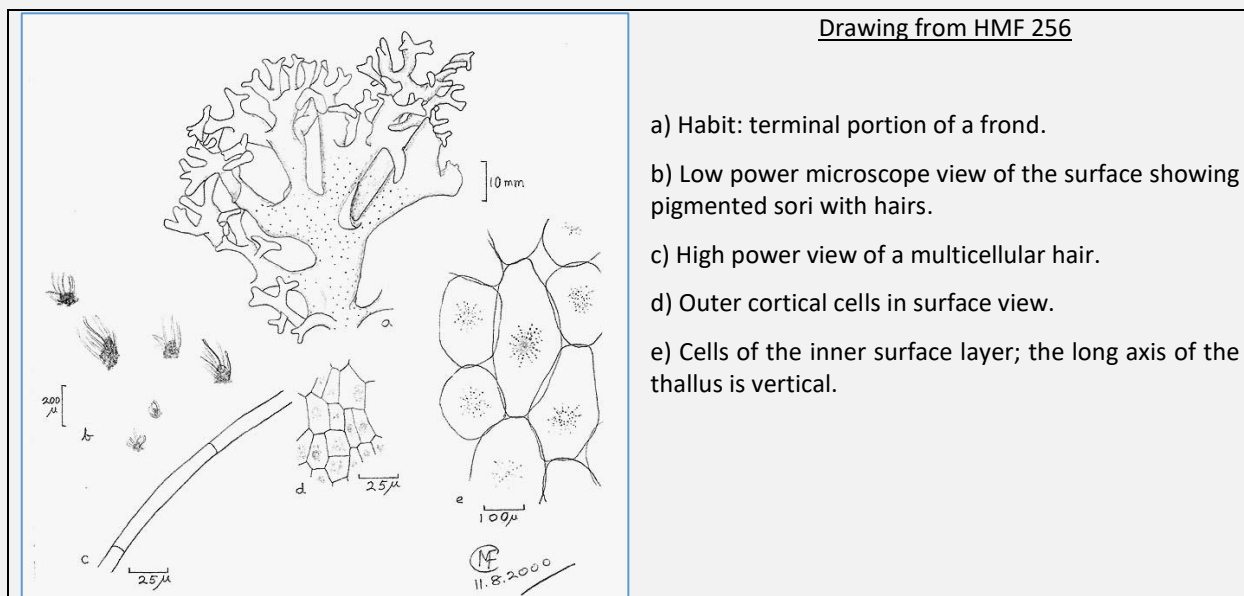
References

Durairatnam, 1961: Dur, 1961: 32, Pl. VII, Fig. 6, Pl. XXII, Fig. 2.
Lewmanomont & Ogawa, 1995: 79 & 81.
Silva et al. 1996.

***Rosenvingea endiviifolia* (Martius) M. J. Wynne in Wynne & Nunes 2021**



Herbarium image of HMF 447 and an ex-situ image of a freshly collected, detached thallus of *Rosenvingea endiviifolia* from Trincomalee, Clappenberg Bay, 13.3.2004. The basal segments of the branches very delicate, adherent to one another and fragmenting easily on attempted separation.



BIBLIOGRAPHY

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