Boergesenia J. Feldman, 1938

CLADOPHORALES, SIPHONOCLADACEAE

Plants erect, vesicular, with a narrow stipe attached to hard substrates by branching rhizoids. Forms clusters of vesicles by budding from the base.

Intertidal reef flats sheltered from waves, exposed at low tide but washed by waves, or in shallow pools.

One species in Sri Lanka and the Indian Ocean. - Silva et al, 1996

Description of species

Boergesenia forbesii (Harvey) J. Feldman, 1938

Syn. *Valonia forbesii* Harvey, 1860

Morphology Vesicles elongated, clavate (club-shaped), summits rounded, 20-40 mm high, 5-10 mm wide above, narrowing to a stipe 0.5 mm wide, ending in a tuft of short, branching rhizoids. Vesicles usually curved downwards and arranged radially with their bases at the centre, clustered into sub-hemispherical clumps up to 50 mm diameter. Propagation is by means of buds that arise from the lower part of the stipe above the rhizoids. The oldest vesicles underneath are attached to the substrate by their rhizoids. The younger ones are placed progressively higher, their rhizoids interlacing with each other together with entrapped sand grains. Vesicles dark to light greyish-green.

Anatomy Each vesicle is a single cell. Rhizoids also coloured green. The finer ramifications of the rhizoids septate.

Ecology Beruwela, Barberyn reef; epilithic on the walls of intertidal rock pools facing east, drying out at low tide, or submerged in pools. Plants that dry out are more robust. Associated with *Valonia utricularis* and *Dictyosphaeria cavernosa.*

Epilithic in mid-intertidal, air exposed at low tide but continuously wave-swept, not frequently observed (Coppejans et al, 2009).

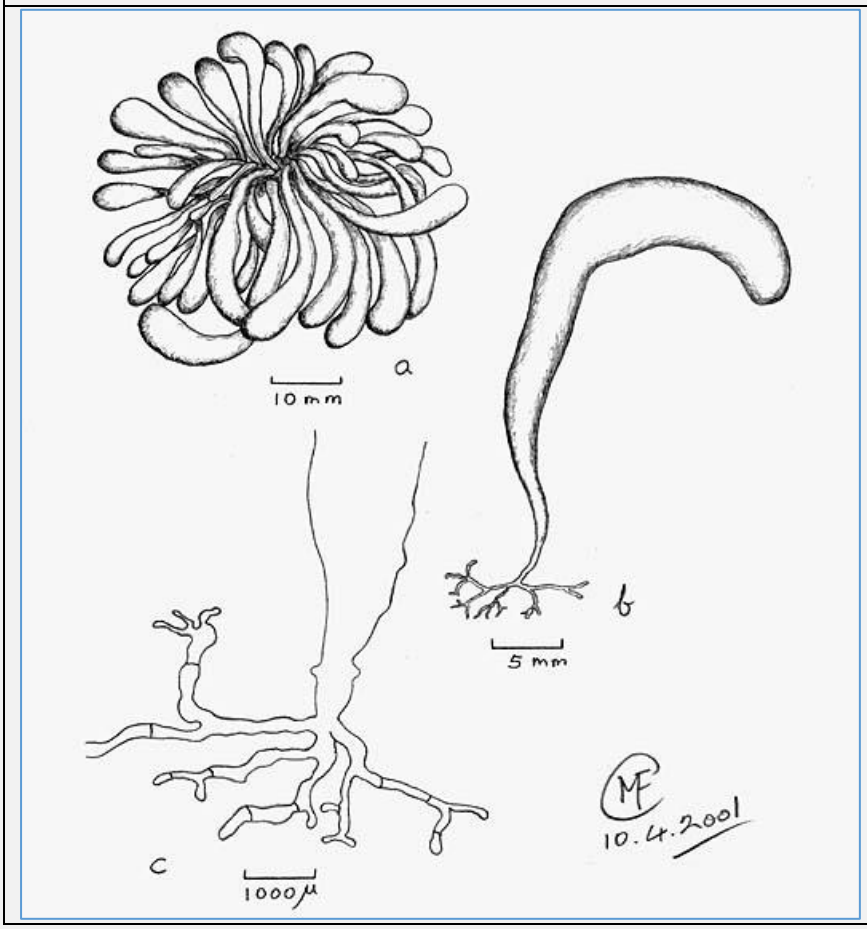
Discussion Børgesen (1936) states that these plants have "...a rather long and markedly annularly constricted stipe". My plants do not all have a long stipe and annular constrictions are only faintly seen in some vesicles.

Material examined HMF 101, 12.7.98, Beruwela, Barberyn reef; HMF 314, 8.4.2001, Beruwela, Barberyn reef.

References

Børgesen (1936): 62
Coppejans et al (2009): 92
Lewmanomont & Ogawa (1995): 27

Boergesenia forbesii (Harvey) J. Feldman, 1938



Top, ex-situ photograph: A group of vesicles collected from Beruwela, viewed from above. Scale bar 30 mm.

Left, Drawing.

(a) A cluster of vesicles.

(b) A single vesicle viewed from the side, showing the stipe arising from branching rhizoids.

(c) Highly magnified view of the stipe with annulations and septate, branching rhizoids.

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Coppejans, E., Leliaert, F., Dargent, O., Gunasekara, R. and De Clerck, O. 2009. *Sri Lankan Seaweeds, Methodologies and field guide to the dominant species*, ABC Taxa, Vol. 9, Belgian Development Corporation.

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