

Notes on Seychelles mosses. 5. Mosses of Frégate Island

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Abstract. In May 1997, the first collections of bryophytes were made on Frégate island, Seychelles. A list of collections is provided. *Fissidens sciophyllus* is recorded for the first time from the Seychelles.

In May 1997, a small collection of bryophytes was made on Frégate island, the most easterly and isolated of the granitic islands of the Seychelles. These are the first bryophytes recorded from the island.

Frégate (pronounced 'fray-gate') is a small, isolated island of two square kilometres in the Seychelles group, just over 50 km east of Mahé. It is named after the frigate birds that live there, and famed for its idyllic beaches - but also for the endemic and endangered Seychelles magpie robin, and the endemic giant tenebrionid beetle. The owner of the island has recently improved and enlarged the hotel on the island (Plantation House), and it was during a visit to family members working on this project that Mrs. E.B. Evenwell and Mrs C.C. Fraser from Pretoria collected the bryophytes listed in this paper. The small 'inner' islands of the Seychelles group have only previously been examined for bryophytes by De Sloover (Onraedt, 1994), who collected three moss taxa from Denis; these collections thus represent

a very useful addition to our knowledge, and include the first record of *Fissidens sciophyllus* for the Seychelles. Previously, collections have only been published for Mahé, Praslin, La Digue, Silhouette and Denis (O'Shea *et al.* 1997). Although officially one of the granitic islands, the amount of granite is quite low, with larger amounts of aplite and granite porphyry. The south eastern part of the island is relatively flat, with hills to the north and west rising to 125 m.

Mrs Evenwell and Mrs Fraser made their well-annotated collections between 14th and 16th May 1997, shortly after the end of the main rainy season. Forty-nine collections were made on the island in all, 15 by Fraser, 34 by Evenwell (who also collected on Mahé). All collections appear to have been made in forest or coconut plantations, on tree bark, humus on rocks, bare rocks, rocky soil, clay or leaf litter. Most of the collections of *Fissidens* were also included in an earlier paper in this series (Bruggeman-Nannenga, 1999). The collections are all held in PRE

herbarium, but most have duplicates in either the author's herbarium, BM or herb. Bruggeman-Nannenga.

Calymperes erosum Müll.Hal.

This species is common in the Seychelles, as it is throughout the Indian Ocean islands, and is typically found on the base of coconut palms. Found in Frégate on tree bark, humus on rock, leaf litter, coconut husk and the clay of a ditch. *Evenwell 68, 69, 73, 94; Fraser 1, 3, 5.*

Fissidens seychellensis Dury & Onr.

Endemic to the Seychelles. Bruggeman-Nannenga (1999) reports this species as uncommon on Mahé, Silhouette and Praslin, but common on Frégate. It was also found several times by De Sloover on La Digue (De Sloover, 1995). Found on Frégate on rocks, soil on rocks and rocky soil in forest and plantations. *Evenwell 63, 64, 82, 84, 85, 86, 88, 89, 90; Fraser 9, 10, 11, 13.*

Fissidens sciophyllus Mitt.

New to the Seychelles. This species occurs throughout sub-Saharan Africa, and also in the Indian Ocean islands (Madagascar, Réunion, Rodrigues) and the Arabian peninsula. On Frégate, found on a shaded rock in forest. *Evenwell 87.*

Isopterygium argyroleucum Besch.

This genus needs further investigation in the Seychelles. *I. argyroleucum* also occurs in mainland Africa around the Gulf of Guinea and into central Africa, and in Comores, Madagascar and Mauritius. All the Seychelles specimens I have seen as part of this investigation named *I. gracile* and most named *I. argyroleucum* appear to be the same taxon, which agrees with the type specimen and description of *I. argyroleucum*. Others agree with the type and description of *I. boivinii*, which Tixier (1989) made a synonym of *I. argyroleucum*, but which has a broader, less narrowly acuminate leaf shape. I have not yet seen the type specimen of *I. gracile*, but if it is a good species it is probably restricted to Madagascar. Although the Frégate specimens are rather small and fine-leaved, they are within the range of other collections of *I. argyroleucum*.

The plant is common on Frégate, and grows on tree bark and roots, humus on rock, leaf litter on humus on the forest floor, and clay of a ditch in a coconut plantation. *Evenwell 67, 70, 71, 72, 93, 95, 96, 98; Fraser 2, 4, 7.*

Octoblepharum albidum Hedw.

Common in the Seychelles and throughout the lowland tropics. Found in Frégate on rock and rocky soil, tree bark and the clay of a ditch. *Evenwell 76b, 79, 91, 99; Fraser 6, 14.*

Syrrhodon mahensis Besch.

Frequent throughout the Seychelles, and very distinctive with the red 'shoulders' of the lower leaf lamina. All Frégate collections seem to be within the bounds of the type variety of this very variable species. On Frégate, found on rocks, tree bark, rocky soil and leaf litter in forest. *Evenwell 77, 78, 80, 81, 83, 92; Fraser 8, 12.*

Syrrhodon prolifer Schwaegr., s.l.

This species is widespread in tropical America, and also appears in Asia and Australia, occasionally on the African mainland, but more frequently on the Indian Ocean islands. Only previously known in the Seychelles from Mahé, where there are nevertheless quite a large number of collections. It was not possible to assign it to one of the recognised varieties. Tree bark in forest, with *Octoblepharum albidum*. *Evenwell 76a.*

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References

- Bruggeman-Nannenga, M.A. 1999.** Notes on Seychelles mosses. 2. A revision of the Fissidentaceae. *Bryobrothera* **5**: 65-75.
- De Sloover, J.L. 1995.** Bryophytes de La Digue (Seychelles). *Cryptogamie, Bryologie. Lichénologie* **16**: 213-217.

- Onraedt, M. 1994.** Contributions à la flore bryologique des Seychelles. *Cryptogamie, Bryologie, Lichénologie* **15**: 215-223.
- O'Shea, B.J., Frahm, J.-P. & Porembski, S. 1996.** Die Laubmoosflora der Seychellen. *Tropical Bryology* **12**: 169-191.
- Tixier, P. 1989.** Bryophyta exotica - 8. Recoltes de J.-F. Brunel au Togo (1983-1985). *Candollea* **44**: 493-511.

