A small collection of bryophytes from Montserrat, West Indies

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Abstract. Four species of liverworts and 13 taxa of mosses have been identified from samples collected in Montserrat in 1980, 11 of which appear to be new to the island.

Introduction
A small collection of liverworts was made by the second author in Montserrat, Leeward Islands, West Indies in April 1980. They were examined and some named by E.W. Jones in 1982/83, and Nardia succulenta was subsequently identified by R. Grolle. In 2000, the first author re-examined the collection and dissected out several mosses.

Eleven of the taxa listed below seem to be new to Montserrat, and are asterisked in the absence of evidence to the contrary. However, on a melancholy note - following volcanic activity from 1995 and particularly in 1996 and December 1997, certainly one site, and probably both, are lost. Great Alp Falls and White River are in a ghaut which has been engulfed in a pyroclastic flow. Aymer’s Ghaut has suffered only by deposition of ash, but up to 30 cm of it, so it seems very likely this site has also been destroyed so far as bryophytes are concerned.

Collection sites
Very shaded sites in wooded ravine with steep sides, in places nearly vertical. Noticeable smell of hydrogen sulphide at time of collection, the sites being little more than 1 km from Galway’s Soufrière.
2. Aymer’s Ghaut, near Plymouth, 16°42’10”N 62°12’9”W; alt: 120 m; 29 March 1980.
Wooded ravine.

For each record, the site number is given in parentheses after the habitat details. Determinations are by the first author, unless otherwise indicated. Species presumed new to the island = *
Liverworts

*Cephaloziopsis intertexta* (Gottsche) R.M.Schust. On vertical rock face (1), Banwell M2, det. E.W. Jones. On patches on permanently wet rocks at foot of waterfall in shady ravine (water iron- and sulphur-laden), c. per., (1), Banwell M2, M7a, M9, det. E.W. Jones. C. and S. America; W. Indies.

*Cheilolejeunea trifaria* (Reinw., et al.) Mizut. On steep rock face, roots and dead leaves (1), Banwell M3a, det. E.W. Jones. Nearly pantropical, extending outside the tropics to Taiwan and Japan.


*Nardia succulenta* (Rich. ex Lehm.) Spruce Extensive patches on permanently wet rocks at foot of waterfall (tufts bright yellow-brown from the iron- and sulphur-laden water) (1), Banwell M6 (det. R. Grolle), M8. Recorded in the W. Indies also from Guadalupe, Martinique and St. Kitts; elsewhere from Mexico and S. America.

Mosses

*Callicostella belangeriana* (Besch.) A.Jaeger On decaying trunk of fallen tree (1), with *Calymperes palisotii*, *Leucomium strumosum*, *Lejeunea* sp., Banwell M4g. In this specimen, though the leaf apices are often rather short and abruptly tapered (which, in Buck (1998) is usually a differentiating character of *C. depressa*), costal apices invariably end in a single spine, and leaf cells are usually elongate. W. Indies, from Puerto Rico to St. Lucia.

*Calymperes afzelii* Sw. Scattered stems amongst *Cheilolejeunea* sp. on roots growing over rock face (1), Banwell M5b, conf. L.T. Ellis. Pantropical; widespread in the W. Indies.


*Fissidens elegans* Brid. On decaying trunk of fallen tree (1), with *Calymperes palisotii*, *Leucomium strumosum*, *Lejeunea* sp., Banwell M4j, conf. R.A. Pursell (PAC). United States to northern S. America; W. Indies, not previously from the Leeward Islands.

*Fissidens hornschuchii* Mont. Scattered shoots amongst *Lejeuneaceae* and *Sematophyllum* sp., on steep rock face (1), Banwell M3e; on decaying trunk of fallen tree (1), with *Calymperes palisotii*, *Leucomium strumosum*, *Lejeunea* sp., Banwell M4e, both det. R.A. Pursell (PAC). C. America south into S. America; W. Indies.

*Fissidens inaequalis* Mitt. On decaying trunk of fallen tree (1), with *Calymperes palisotii*, *Leucomium strumosum*, *Lejeunea* sp., Banwell M4d, det. R.A. Pursell (PAC). Mexico south into S. America; W. Indies, not previously from the Leeward Islands.

*Fissidens perfalcatus* Broth. Scattered shoots amongst *Lejeuneaceae* and *Sematophyllum* sp., on steep rock face (1), Banwell M5j, det. R.A. Pursell (PAC). Mexico south into S. America; W. Indies, not previously from the Leeward Islands.

*Isopterygium subbrevisetum* (Hampe) Broth. On decaying trunk of fallen tree, c. sp. (1), with *Calymperes palisotii*, *Leucomium strumosum*, *Lejeunea* sp., Banwell M4f. Tropical C. and S. America; widespread in the W. Indies.


*Sematophyllum subsimplex* (Hedw.) Mitt. Creeping amongst mosses and liverworts on steep rock face, c. sp. (1), Banwell M3c, det. B.J.
O’Shea. C. and northern S. America; W. Indies; tropical Africa.

_Syrhropodon incompletus_ var. _incompletus_ Schwaegr. Scattered stems amongst _Cheilolejeunea trifaria_, on tree roots (1), _Banwell M3h_. Eastern Americas from New York to Brazil; W. Indies; E. Africa.

_Syrhropodon prolifer_ var. _scaber_ (Mitt.) W.D.Reese On decaying trunk of fallen tree (1), with _Calymperes palisotii_, _Leucomium strumosum_, _Lejeunea_ sp., _Banwell M4h_. Southern United States to northern S. America; W. Indies.

_Totalhelium planum_ (Brid.) Mitt. On decaying trunk of fallen tree (1), with _Callicostella belangeriana_, _Fissidens_ spp., _Leucomium strumosum_, _Banwell M4m_. Pantropical; widespread in the W. Indies.

Collection _M4_ is mainly of a sterile _Lejeunea_, which E.W. Jones considered to be probably _L. laetivirens_, but without fertile material it cannot be positively named. A _Cheilolejeunea_ (M5) growing on roots over a rock face (1) was provisionally named by E.W. Jones as _C. adnata_ (Kunze) Grolle. However, the leaves lack cilia and are not caducous, and the lobule has a rather elongated apical tooth, which might suggest another species is to hand.

The collections of _Fissidens_ are currently held in PAC, but will go eventually to MO; the rest of the collections are deposited at NMW.

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**Reference**
