

On a small collection of Bryophytes collected by Professor H. B. Gilliland in Eastern New Guinea

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SMALL COLLECTIONS of mosses from West New Guinea have been recorded by Dixon, Brotherus, Fleischer and Reimers; while a large collection from Mt. Wilhelmina was made by Brass and Myer-Drees and recorded by Bartram (1942). A small collection of liverworts was collected by Takari Tuyama in Vogelkop in 1943 and was recorded by Hattori (1951). Records of an extensive collection of mosses from Eastern Papua were made by Bartram (1957). Records from the Territory of New Guinea of mosses collected by the Count and Countess Nils and Greta Gyldenstolpe in the Mt. Hagen district were given by Bartram (1953). Further collections in the Highlands of Eastern New Guinea were made by Hoogland in 1953 and Robbins in 1957. These collections were recorded by Bartram (1959).

The bryophyte flora of New Guinea is immensely rich and very imperfectly known (Bartram, 1959). Although it has a considerable affinity with the flora of the rest of Malaysia, there are a large number of endemic species; while alpine and sub-alpine species show a close relationship with the flora of Australia, Tasmania and New Zealand.

Professor Gilliland's collection was made in September 1960 in two places:—*Chimbu* and the *Daulo Pass* (6,000–8,170 ft.) Australian Territory of New Guinea. The numbers assigned to the bryophytes are accession numbers of the Bryophyte Herbarium of the University of Singapore.

Hepaticae

Marchantia polymorpha L.—Daulo Pass, no. 687.

Marchantia geminata Nees.—Daulo Pass, nos. 703, 710; "forma typica", with female heads bearing exceedingly long purple hairs, ventral scales similar to "Tjibodas type" (Burgeff, 1943).

Riccardia pinguis (L.) Gray—Chimbu, no. 696.

Nardia hasskarliana (N. ab Es.) O. Lind.—Daulo Pass, no. 693.

Plagiochlia teysmanni Sande Lac.—Daulo Pass, nos. 714, 711.

Eulejeunea Spr. sp.—Daulo Pass, no. 702, a slender species, hyaline papilla proximal to apical tooth, the lobes several times larger than the lobules.

Musci

Fissidens zollingeri Montg.—Chimbu, no. 700.

Campylopodium euphorocladium (C.M.) Besch.—Daulo Pass no. 706.

Campylopus richardii Brid.—Daulo Pass, nos. 704, 713.

- Thysanomitrium comosum* Hsch. et Rw.—Daulo Pass, no. 691.
Leucobryum subsanctum Broth.—Daulo Pass, nos. 701, 712.
Barbula consanguinea (Thw. et Mitt.) Jb.—Chimbu, no. 697.
Mniomalia semilimbata (Mitt.) C. Mull.—Daulo Pass, no. 694.
Symphysodon splendens (Hsch. et Rw.) Broth.—Daulo Pass, no. 709.
Neckeriopsis gracilentia (Lac.) Fleisch.—Chimbu, no. 698.
Ectropothecium aurifolium Bartr.—Daulo Pass, no. 707.
Ectropothecium falciforme (Dz. et Mb.) Jaeg.—Daulo Pass, no. 690.
Ectropothecium sp.—Chimbu, no. 708.
Isopterygium albescens (Schwaeg.) Jaeg.—Daulo Pass, no. 705.
Pogonatum junghuhnianum (Dz. et Mb.) v.d.B.—Daulo Pass, no. 688.
Pogonatum microphyllum (Dz. et Mb.) v.d.B. et Lac.—Chimbu, no. 695; Daulo Pass, no. 692.

Of the species listed above, *Marchantia polymorpha* and *Riccardia pinguis* are cosmopolitan, while *Thysanomitrium comosum* Hsch. et Rw. has a general tropical distribution. *Ectropothecium aurifolium* is endemic being previously recorded from Lake Habbema in West New Guinea (Bartram, 1942). The majority of the rest of the species are Malaysian in distribution some extending as far as the Pacific Islands (*Fissidens zollingeri*, *Campylopodium euphorocladium*, and *Mniomalia semilimbata*), Japan (*Campylopus blumii*) or East Africa (*Campylopodium euphorocladium*). The alpine and sub-alpine element is not represented, since no collection was made above 8,170 ft.

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