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NOTES ON THE BIOLOGY OF SOME COMMON MILLIPEDES OF THE GUNUNG MULU NATIONAL PARK, SARAWAK, BORNEO

J.G.E. Lewis

Dover College, Dover, Kent.

INTRODUCTION

The Gunung National Park, Sarawak, contains four main land types: 1) Gunung Mulu sandstone/shale massif, 2) Limestone (Gunung Api and Benaret), 3) Alluvial plains and 4) Setap shales/Mentawai drainage (Hanbury — Tenison and Jermy, 1979). During the Royal Geographical Society/Sarawak Government Expedition in 1978 millipedes were collected in the first three land types. They are virtually absent from the Gunung Mulu massif but are common on the limestone (Lewis, 1981). Specimens longer than 20 mm are conspicuously absent from litter and humus in the alluvial forest but such larger specimens, although by no means common, occur on the surface of litter and logs. The four species for which data are given here were confined to the alluvial forest and virtually limited to land at or below 150 m. They were not found on limestone, in kerangas or on Gunung Mulu. Figure 2 shows the distribution of *Pseudodesmus*, that of the other three species is very similar.

Hoplorhachis (hosei-lamprus group) (Order Polydesmida, Family Platyrrhacidae). This is a large flat—back species, length up to 64 mm. Colouration: Body sepia with the exception of the edges of the keels which are pale yellow so that the animal appears black with a light stripe down each side. Localities: M3, M4 on leaves in forest by helipad. Base Camp, 15.vii.78; M38 on log, 2 km E of Base Camp, 16.vii.78; M100 on path half way up to Clear-water Cave, C. Saunders, 22.vii.78; M104 on litter. Base Camp 24.vii.78; M129 Base Camp, A. Panchen, 29.vii.78; M 139 crossing path 3.5 km SW of Camp 1, 7.viii.78; M144 on path by Long House, Base Camp, N. de Wmser 8.viii.78; M146 between Base Camp and Camp 1, A.C. Jermy, 4.viii.78; M147 on path. Plot 1 9.viii.78; M160 on path. Forestry Hut, Base Camp 11.viii.78. M161 in grass. Base Camp, M. Day 11.viii.78; M273 on path, alluvial forest. Camp 5 16.viii.78; M311 on litter approx. 2 km S of Long Berar 19.viii.78.

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OF THE GUNUNG MULU NATIONAL PARK, SARAWAK, BORNEO

by

J.G.E. Lewis
Dover College, Dover, Kent.

The Gunung National Park, Sarawak, contains four main land types: 1) Gunung Mulu sandstone/shale massif, 2) Limestone (Gunung Api and Benaret), 3) Alluvial plains and 4) Setap shales/Mentawai drainage (Hanbury—Tenison and Jermy, 1979). During the Royal Geographical Society/Sarawak Government Expedition in 1978 millipedes were collected in the first three land types. They are virtually absent from the Gunung Mulu massif but are common on the limestone (Lewis, 1981). Specimens longer than 20 mm are conspicuously absent from litter and humus in the alluvial forest but such larger specimens, although by no means common, occur on the surface of litter and logs. The four species for which data are given here were confined to the alluvial forest and virtually limited to land at or below 150 m. They were not found on limestone, in kerangas or on Gunung Mulu. Figure 2 shows the distribution of *Pseudodesmus*, that of the other three species is very similar.

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The faeces of five specimens were examined. All contained amorphous organic material, four contained mineral particles, three contained traces of fungal hyphae and spores and two contained fibrous or cellular phanerogam remains.

The evidence suggests that this species is a ground-living litter and humus feeder.