

Chapter 8

Insects of the Nakauvadra Range, Ra Province, Fiji

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SUMMARY

In November 2008, an entomological survey of the Nakauvadra Range, Viti Levu was conducted. The entomological qualitative surveys included: light trapping to target nocturnal insects, leaf litter sampling, tree beating, butterfly collections and opportunistic surveys. The surveys were conducted for a period of 10 consecutive days however, adverse weather conditions on some of the days did not allow for insect sampling.

The order Coleoptera (beetles) was the most common insect order encountered through the surveys with a total 18 families. Rare families encountered during the surveys included: Cerambycidae, Lucanidae and Buprestidae. The greatest diversity of insects sampled from the Nakauvadra Range using nocturnal searches, tree beating and butterfly surveys was located within relatively intact, lowland forest near the confluence of the Nabiya and Volivoli Creeks. The highlight of the survey was the discovery of two stick insects known to be endemic and very rare in the Fiji islands, with virtually nothing known about either species: *Nisyrus spinulosus* (syn. *Cotylosoma*) and *Phasmotaenia inermis* (syn. *Hermarchus*) and a shy scorpion *Liocheles australasiae*. These were also found within the lowland forested area.

The isolation of the forest system, and hence the insect fauna, due to the high mountain ranges separating it from neighboring forest systems explains much of the uniqueness and great diversity of insects from the Nakauvadra Range.

INTRODUCTION

The Nakauvadra Range is located on the northern side of Viti Levu and south of Rakiraki town. It runs parallel to the coast about 7 km inland with the highest elevation reaching 866 m a.s.l. The range is comprised of andesitic rocks formed from the eroded rim of the large Rakiraki volcano (Terry 2007).

To date there have been no entomology surveys or records from the Nakauvadra Range. Consequently, the main aims of this survey were to: (a) conduct a baseline entomology survey of the Nakauvadra Range using a variety of survey techniques, (b) identify significant species or taxa (including accurate GPS positions for any significant findings) and (c) collect voucher specimens to be housed at the SPR Herbarium, USP.