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Notes on the Taxonomy of the New Zealand Glow-worm,
Arachnocampa luminosa (Skuse). (Dipt: Mycetophilidae)

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Abstract

THE name of the New Zealand glow-worm is reaffirmed as *Arachnocampa luminosa* (Skuse). It is placed in the subfamily Ceroplatinae mainly on the basis of larval characters. A description of all stages of the insect is given and all locality data are recorded. One species of the genus *Arachnocampa* is known from New Zealand.

INTRODUCTION

A summary of the investigations on the New Zealand glow-worm up to 1946 was made by Hudson (1950). The insect seems to have been regarded as a difficult insect both biologically and taxonomically. Most early workers were hindered by a shortage of material, a situation which need never have occurred, because the insect is very common throughout New Zealand. Only recently has a complete and accurate description of its life history and general biology been published (Richards, 1960). Other recent papers on the biology (Gatenby 1959, 1960) have tended to add to the confusion of the early work by recording erroneous facts. These points have been discussed by Richards (*loc. cit.*).

Confusion has also recently been introduced into accounts of the taxonomy of the fly. Originally the insect was described as *Bolitophila luminosa* by Skuse (1890). Edwards (1924) following sound taxonomic procedures created a new genus *Arachnocampa* for this species. This designation had not been queried until Gatenby (1959) referred the insect back to the genus *Bolitophila*. The reasons given by Gatenby for this reversion to *Bolitophila* are: "there appears no good reason for basing the classification of the glow-worm on its larval characters, by which Edwards must have meant the externals of the head. Hudson disliked such a classification based on the characters of a larva with peculiar habits, and was not satisfied with the erection of a new genus *Arachnocampa**; he preferred Skuse's original term *Bolitophila*, based on wing venation which is usual. In standard books . . . such as those of Imms, Harvey, Tillyard and Wigglesworth, the name

* Hudson does not appear to state this in any of this work.