



## Larval and pupal morphology of *Pyraconema nigripennis* Solier (Coleoptera: Lampyridae: Photinini) and comparative notes with other Photinini larvae

MIGUEL ARCHANGELSKY

CONICET-LIESA, Laboratorio de Investigaciones en Ecología y Sistemática Animal, Universidad Nacional de La Patagonia, San Juan Bosco, Sarmiento 849, 9200, Esquel, Chubut, Argentina. E-mail: hydrophiloidea@yahoo.com.ar

### Abstract

The last larval stage and pupal stage of *Pyraconema nigripennis* Solier, an endemic species from southern Chile and Argentina, are described and illustrated. *Pyraconema* Olivier is included in the tribe Photinini, Subtribe Lucidotina, and the larva and pupa of *P. nigripennis* are compared to those of *Lucidota atra* (Olivier) and related lampyrid genera.

**Key words:** Lampyridae, firefly, *Pyraconema*, Neotropical, larval morphology

### Introduction

The genus *Pyraconema* Olivier includes medium to large-size lampyrids distributed in southern South America. Following McDermott (1966), *Pyraconema* is placed in the subtribe Lucidotina (Lampyrinae, Photinini). The genus was revised 50 years ago by McDermott (1960), who recognized 12 species. Most species were described from Chile, but two are known to occur in Argentine Patagonia (McDermott, 1966): *P. albomarginata* Solier and *P. obscura* (Olivier) (in Tierra del Fuego). Very little is known about the biology of these beetles, and no detailed descriptions of their larvae have been published. McDermott (1960) mentioned only very general characters for *Pyraconema* larvae, which have little use in their identification.

Recently, I collected several larvae and adults of this genus in western Chubut Province, Argentina. Two larvae were reared to pupal and adult stages and identified as belonging to the *P. nigripennis* species-group. This group includes three species, distinguished in McDermott's (1960) key only by their size: *P. nigripennis* 14–19.5 mm, *P. bifenestrata* (Fairmaire & Germain) 10–15 mm, and *P. obscura* (Olivier) 5–11 mm. The reared adult (a female) keys to the *P. nigripennis* species-group, and its size (16.5 mm) falls within the range given for *P. nigripennis*. This female is larger than *P. obscura* females (ranging from 6–14 mm) and lacks the translucent areas (“windows”) on the pronotum that are characteristic of *P. bifenestrata*; therefore, it is identified here as *P. nigripennis* with a good degree of confidence.

The last larval instar and the pupa of *P. nigripennis* are described and illustrated for the first time. Larvae of this species are compared to those of *Lucidota atra* (Olivier), also belonging to the subtribe Lucidotina. Additional notes comparing known larvae of other species the tribe Photinini are also provided. This is also the first record of *P. nigripennis* for Argentina. This paper is intended to improve larval knowledge of lampyrids in order to provide new detailed larval descriptions that could be used in future phylogenetic studies.

### Material and methods

Last instar larvae were collected in a mountainous area in western Chubut Province in the Experimental Field of INTA (Instituto Nacional de Tecnología Agropecuaria) near Trevelin (43° 06' S, 71° 33' O). They were