



## Studies on Prionoceridae (Coleoptera: Cleroidea). II. A revision of the genus *Prionocerus* Perty, 1831

MICHAEL GEISER

Natural History Museum, Entomology, Augustinergasse 2, CH-4001 Basel, Switzerland. E-mail: michael.geiser@stud.unibas.ch

### Table of contents

Abstract .....	2
Introduction .....	2
Systematic part .....	3
Genus <i>Prionocerus</i> Perty, 1831 .....	3
<i>Prionocerus coeruleipennis</i> Perty, 1831 .....	6
<i>Prionocerus bicolor</i> Redtenbacher, 1868 .....	22
<i>Prionocerus paiensis</i> <b>n. sp.</b> .....	33
<i>Prionocerus viridiflavus</i> Geiser, 2007 .....	34
<i>Prionocerus malaysiacus</i> <b>n. sp.</b> .....	35
<i>Prionocerus championi</i> <b>n. sp.</b> .....	36
<i>Prionocerus opacipennis</i> (Pic, 1920) <b>n. comb.</b> .....	38
<i>Prionocerus wittmeri</i> <b>n. sp.</b> .....	39
Key to species of <i>Prionocerus</i> .....	41
Unidentified specimens .....	41
Other species described as <i>Prionocerus</i> .....	42
<i>Idgia huegeli</i> (Redtenbacher, 1868) .....	42
<i>Idgia thibetana</i> (Obenberger, 1918) .....	42
<i>Idgia hirta</i> (Walker, 1871) nomen dubium .....	42
Discussion .....	44
Phylogeny .....	44
Zoogeography .....	45
Ecology and life history of <i>Prionocerus</i> .....	46
Acknowledgements .....	47
References .....	47

## Abstract

The genus *Prionocerus* Perty, 1831 is revised. Eight species are recognised: *P. coeruleipennis* Perty, 1831 (= *P. coeruleipennis* var. *diversicollis* Pic, 1920, n. syn.); *P. bicolor* Redtenbacher, 1868 (= *P. pertii* Castelnau, 1836, n. syn.); *P. opacipennis* (Pic, 1920) (transferred from *Idgia* Castelnau, 1836); *P. viridiflavus* Geiser, 2007 and four new species: *P. paiensis* n. sp. (Thailand); *P. malaysiacus* n. sp. (Malaysia); *P. championi* n. sp. (Indonesia) and *P. wittmeri* n. sp. (Indonesia). All previous synonymies of taxa under *P. coeruleipennis* and *P. bicolor* could be confirmed through study of the relevant types. *Prionocerus pertii* Castelnau, 1836 was found to be conspecific with *P. bicolor* Redtenbacher, 1868, but this senior synonymy was submitted to the ICZN proposing it as *nomen oblitum*. *Prionocerus thibetanus* Obenberger, 1918 is newly synonymised with *Idgia viridescens* Gorham, 1895. *Prionocerus huegeli* Redtenbacher, 1868 and *P. hirtus* Walker, 1871 are confirmed to belong to *Idgia*, the latter has to be treated as a *nomen dubium*. The infrageneric phylogeny of *Prionocerus*, its relationships to other Prionoceridae, as well as its life history, ecology and biogeography are discussed.

**Key words:** Taxonomy, Cleroidea, Prionoceridae, *Prionocerus*, *Idgia*, taxonomy, new species, new synonymy, Oriental region

## Introduction

This is the first part of a revision of the very poorly known Old-world family Prionoceridae, a group closely related to Melyridae in wider sense, and sometimes considered as a subfamily. Prionoceridae contains three extant genera: *Idgia* Castelnau, 1836 with about 135 described species, *Prionocerus* Perty, 1831 currently containing 4 species (including the very dubious *P. pertii* Castelnau, 1836, not mentioned in Geiser 2007) and *Lobonyx* Jacquelin du Val, 1857 currently containing 11 species, according to the recent (partial) revision by Constantin (2009). A fourth generic name, *Prionocerites*, was recently established for a fossil larva of uncertain generic placement by Lawrence & al., 2008. Of these genera, only *Lobonyx* is well defined, while the delimitation and phylogeny of the two other ones is somewhat questionable. The last (partial) taxonomic revision of *Idgia* and *Prionocerus* was published by Champion (1919), but, although its quality was very good for this time, it is now outdated due to the describing activity of Maurice Pic (e.g. Pic 1920a; 1920b). After Pic, taxonomy of Prionoceridae was almost completely neglected, apart from two important papers about morphology and family-level phylogeny (Majer 1987; 1994).

The species assigned to *Prionocerus* are distributed throughout the Oriental region, including some Palearctic border areas, with one species also occurring in Africa and two species extending to Wallacea and New Guinea. Two of the most common and widespread species of the family are members of *Prionocerus*: *P. coeruleipennis* and *P. bicolor*. They are comparatively well known among entomologists, often collected, but nevertheless only rarely mentioned in literature. Apart from them, there is one recently described species from Indonesia, *P. viridiflavus*, and a number of undescribed species with relatively small distribution ranges and a low number of specimens ever collected.

The aim of this study is to revise the taxonomic status of all taxa in *Prionocerus*, including synonyms and "varieties", describe the new species and provide more information on morphology, variability, phylogeny and distribution of the species, as well as on the delimitation of *Prionocerus* as a genus.

## Material and methods

Over 3000 specimens were studied using a binocular microscope with a maximum magnification of 100 x. Male and female genitalia of many specimens were extracted and dry mounted on a card below the specimen. Some more male and female genitalia were treated in hot, highly concentrated KOH solution for one hour or more, then embedded in Polyphenyle-Lactophenole. A very large material of identified and unidentified