

## Phylogeny of the tribe Erotini (Coleoptera, Lycidae), with descriptions of new taxa

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## Abstract

A cladistic analysis of Erotini (Lycidae) is carried out, resulting in revalidation of Dictyopterini **nom. rev.**, proposal of Aferotini **tr. n.** and Flagraxina **subtr. n.** The genera *Proteros* **gen. n.** and *Pyrotes* **gen. n.** and eight new species: *Proteros sempiternus* **sp. n.**, *Taphomimus nanensis* **sp. n.**, *Dictyoptera gansuensis* **sp. n.**, *Helcophorus murzini* **sp. n.**, *H. gobindanus* **sp. n.**, *Greenarus belokobylskii* **sp. n.**, *Eropterus glebulus* **sp. n.** and *Propyropterus* (s. str.) *plateroides* **sp. n.** are described. *Benibotarus sanguinipennis* Nakane, **syn. n.** is placed in synonymy with *Lateralis oculata* (Gorham). *Lycoprogentes* Pic is transferred from Calochrominae to Taphini (Erotinae) and *Microcoloberos* Pic is transferred from Erotinae to Platerodinae. *Erotides* Waterhouse **nom. rev.** and *Glabroplatyis* Pic **nom. rev.** are revalidated from synonymy with *Platycis* Thomson. *Punicealis miranda* (Barovskij) **nom. rev.** is revalidated from synonymy with *Lateralis oculata* (Gorham). *Platycis sculptilis* (Say) is transferred to *Erotides* (s. str.), while *Platycis cosnardi* (Chevrolat), *P. nasuta* (Kiesenwetter), *P. schneideri* (Kiesenwetter), *P. taiwana* Kono, *P. kanoi* Nakane and *P. matsudai* Bocák are transferred to *Erotides* (*Glabroplatycis*); *Benibotarus nigripennis* Nakane & Ohbayashi is transferred to *Greenarus* Kazantsev and *Pyropterus himalejicus* Bourgeois to *Lycoprogentes*. *Helcophorus* Fairmaire, **stat. n.**, *Taphomimus* Kazantsev, **stat. n.**, *Punicealis* Kazantsev, **stat. n.**, *Lateralis* Kazantsev, **stat. n.**, and *Greenarus* Kazantsev, **stat. n.** are raised to the genus level, while *Paralopheros* Kazantsev is suppressed to subgeneric level within *Propyropterus* Nakane. The subgenus *Tricostaeptera* Kazantsev is transferred from *Kolibaceum* to *Lateralis*. *Kleineria* **nom. n.** is proposed for *Kleinella* Kazantsev, 1992 preoccupied by *Kleinella* Adams, 1860 (Mollusca). A key to the genera and subgenera and a check-list of Erotini and Dictyopterini of the World are provided.

**Key words:** Coleoptera, Lycidae, Erotinae, new tribe, new subtribe, new genera, new species, taxonomy, phylogeny.

## Introduction

After the status of Platerodini Kleine was raised to subfamilial level (Miller, 1997) the lycid subfamily Erotinae Leconte, where it used to belong, shrank to two tribes, Erotini and Taphini Bocák & Bocáková. Representatives of Erotinae are known to be distributed in all zoogeographic regions except the Neotropics, penetrating into the Papuan part of the Australian region as well. Several Neotropical species of *Eros* were described during a time when almost all not *Lycus*- or *Calopteron*-looking lycids were attributed to *Eros*, and almost certainly belong neither in this genus, nor in the Erotinae. The Taphini are known to be mostly Oriental and Papuan, penetrating into the Palaearctic region in its extreme southeast (Bocák & Bocáková, 1991), while the Erotini are found throughout the distribution area of the subfamily, i.e. in all zoogeographical regions except the Australian, being most abundant in the Holarctic.

The discovery of a new genus belonging to the Taphini from New South Wales, Australia, in the Darlington collection (MCZ) has, however, significantly expanded the distribution of the Erotinae onto the Australian continent proper. This new taxon is