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Abstract. A monograph of the Madagascan endemic genus *Physodeutera* Lacordaire, 1843, (Coleoptera, Cicindelidae) is presented. More than 2400 specimens including relevant type material were examined. As a result of the revision, the monograph basically maintains the last infrageneric classification of the genus as given by Rivalier (1967), but modified to reflect new results, which includes establishment of an additional subgenus. The present monograph distinguishes 65 species with six subspecies arranged into eight subgenera. The subgenera are as follows: *Homospila* Rivalier, 1967, *Coeliphora* Rivalier, 1967, *Axinomera* Jeannel, 1946, *Microlepidia* Rivalier, 1967, *Toxoma* Rivalier, 1967, *Diarrhiza* Jeannel, 1946, *Physodeutera* s. str. and newly described *Minideutera* **subgen. n.** Seven new species, *Ph. (Coeliphora) taniae* **sp. n.**, *Ph. (Toxoma) conturbata* **sp. n.**, *Ph. (Diarrhiza) ranomafanensis* **sp. n.**, *Ph. (Ph.) consimilis* **sp. n.**, *Ph. (Ph.) truncatipennis* **sp. n.**, *Ph. (Ph.) cassolai* **sp. n.** and *Ph. (Ph.) subrufosignata* **sp. n.**, are described here. *Physodeutera (Diarrhiza) perrieri* Rivalier, 1967 **stat. n.** is classified as a subspecies of *Ph. (Ph.) pokornyi* (Mañan, 1942). Three subspecies are reinstated as separate species: *Ph. (Toxoma) breviformis* (W. Horn, 1904) **stat. rediv.**, *Ph. (T.) dubia* (Mañan, 1942) **stat. rediv.**, and *Ph. (Ph.) komoroussi* (Mañan, 1942) **stat. rediv.** In addition, *Ph. (Ph.) minima apicesignata* Moravec, 1998 is regarded as a distinct species, *Ph. (Minideutera) apicesignata* Moravec, 1998 **stat. n.** Furthermore, *Ph. (Ph.) flammigera* Rivalier, 1967 **syn. n.** is considered a junior synonym of *Ph. (Ph.) parcepunctata* (Jeannel, 1946) and *Ph. (Ph.) intermedia* Rivalier, 1967 **syn. n.** a junior synonym of *Ph. (Ph.) adonis* (Laporte de Castelnau, 1835). Six originally infraspecific taxa, *Ph. (A.) flagellicornis perfecta* Rivalier, 1967 **syn. n.**, *Ph. (Ph.) rufosignata anale* Jeannel, 1946 **syn. n.**, *Ph. (Ph.) r. nigrescens* Jeannel, 1946 **syn. n.**, *Ph. (Ph.) r. obsoleta* Rivalier, 1967 **syn. n.**, *Ph. (Ph.) r. imitator* Rivalier, 1967 **syn. n.**, and *Ph. (Ph.) fairmairei hajni* (Mañan, 1942) **syn. n.** are considered merely synonyms. The introductory part comprises chapters on the history of the taxonomy and nomenclature of *Physodeutera*, its biology and distribution in Madagascar including the behaviour of adults supplemented with the author's own experience obtained in the course of five excursions to different areas of Madagascar, history of the research, relations with other genera, detailed morphology, material and methods. The dichotomous key to subgenera and keys to species of each subgenus are compiled. Each species is described in detail and illustrated with original line drawings of important characters and colour photographs.