Zootaxa 2009: 1–26 (2009)
www.mapress.com/zootaxa/

Article

ISSN 1175-5326 (print edition)
ZOOTAXA
ISSN 1175-5334 (online edition)

Pristosia Motschulsky, 1865 from the Nepal Himalaya: Taxonomy and Biogeography (Coleoptera: Carabidae: Sphodrini)

JOACHIM SCHMIDT[1] & MATTHIAS HARTMANN[2]

[1]*Faculty of Geography, University of Marburg, Deutschhausstrasse 10, 35037 Marburg, Germany. E-mail: schmidt@agonum.de*
[2]*Naturkundemuseum Erfurt, Grosse Arche 14, 99084 Erfurt, Germany. E-mail: matthias.hartmann@erfurt.de*

Abstract

The genus *Pristosia* Motschulsky, 1865 was so far only known to be highly diverse in the North-Western Himalaya and present in the Eastern Himalaya. Only a single female specimen has been documented in the literature from the Nepal Himalaya and was described as *P. dahud* Morvan, 1994. During a study of comprehensive carabid beetle material collected throughout Nepal, which has been deposited at several museums and private collections, a large number of *Pristosia* specimens from six species have been identified. The only fully winged species *P. crenata* (Putzeys, 1873), which is widely distributed in South East Asia, was found near Dailekh and is herewith reported for the Nepalese fauna for the first time. The Eastern Himalayan species *P. amaroides* (Putzeys, 1877) is reported for the first time in Nepal as well and occurs in Eastern Nepal at several localities east of the Arun river. At least four species occur in the Western and Far Western Nepal Himalaya, of which three are described as new to science: *P. glabella* **sp. n.** and *P. nepalensis* **sp. n**. from the Api Himal, and *P. similata* **sp. n.** from the Saipal Himal. An presumably additional new species is known from the north-western slope of the Dhaulagiri Himal, but is represented by a single immature female specimen only, which does not allow for a sufficient species diagnosis. The male external and genital characters of *P. dahud* Morvan, 1994 are now described for the first time. This species is considered to be polytypic and the geographic subspecies *P. dahud polita* **ssp. n.** is described from the south slope of the Kanjiroba Himal. The species *P. atrema* (Andrewes, 1926) and *P. championi* (Andrewes, 1934), which occur in the Kumaon Himalaya close to the Nepalese border, are redescribed based on the examination of the type material. Diagnostic features, especially for the male genitalia of all taxa mentioned above, are figured and a key to the species from Nepal is presented. Instead of a phylogenetic analysis, which is needed for *Pristosia* but not achievable at present, preliminary species groups for species dealt with are proposed: The Eastern Himalayan *P. amaroides* species group (monotypic), the *P. atrema* species group with six species from the Kumaon and Western Nepal Himalaya, the *P. championi* species group with two species from the Kumaon and Western Nepal Himalaya, and the South East Asian *P. crenata* species group (monotypic). Based on the distributional and ecological data presented in this study, species of the genus *Pristosia* with reduced hind wings seem to be absent from the entire Central Nepal Himalaya, and the only Eastern Nepalese species, *P. amaroides*, prefers largely different habitat conditions compared to the species from Western Nepal. Based on biogeographical hypotheses of other Himalayan carabid beetle genera presented in previous studies by the senior author, the observed species groups of *Pristosia* are considered to be further examples for Tertiary Tibetan faunal components of the Himalaya. Following a diversification of the genus within the Tertiary of Southern Tibet, speciation occurred and these species groups originated from founder populations that moved into the Nepal Himalaya. The colonization of the geologically younger High Himalaya has taken place independently for each of the terminal groups via different dispersal routes and during different periods of mountain uplift.

Key words. Species groups, new species, redescription, India, Tertiary Tibetan faunal component

Accepted by W. Moore: 1 Dec. 2008; published: 11 Feb. 2009