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Morphometry and redescription of *Parahelichus granulosis* (Delève, 1974) with description of *P. pseudogranulosus*, a new cryptic species of Long-toed Water Beetles (Coleoptera: Dryopidae) from Indochinese peninsula, and proposal of a new synonym for *Praehelichus sericatus* (Waterhouse, 1881) from China

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Abstract

A new species of *Parahelichus* Löbl & Smetana, 2006 is described from Laos and Thailand: *P. pseudogranulosus*. A similar species, *P. granulosis* Delève, 1974, which was originally described only from a single specimen, is redescribed and morphometric data are provided from 442 specimens from Vietnam and Laos. Habitus views, illustrations of important characters as well as results of morphometric analyses are presented and discussed. *Praehelichus sinensis* (Fairmaire, 1888) is proposed as a new junior synonym of *P. sericatus* (Waterhouse, 1881).

Key words: Coleoptera, Dryopidae, *Parahelichus*, *Praehelichus*, taxonomy, morphometry, Indochinese peninsula, China

Introduction

The taxonomy of dryopids associated with the name *Helichus* Erichson, 1847 is historically complicated and rather confusing. Bollow (1940) established two new subgenera within *Helichus*: the subgenus *Parahelichus* including *Pomatinus angulicollis* Reitter, 1887; *Dryops fenyesi* Reitter, 1894; *Helichus hintoni* Bollow, 1940 and *H. koltzei* Bollow, 1940; and the subgenus *Praehelichus* with *Parnus asiaticus* Motschulsky, 1845; *Dryops sericatus* Waterhouse, 1881; *Helichus sinensis* Fairmaire, 1888 and *Dryops solskyi* Zaitzev, 1908. Both subgenera were raised to generic rank and used as valid by Nelson (1990), although the type species were not designated. Löbl & Smetana (2006: 61) formally designated *Pomatinus angulicollis* as the type species of *Parahelichus* and *Dryops sericatus* as the type species of *Praehelichus*. Most of known species of these genera, except for the African *Parahelichus fenyesi*, occur mainly in central Asia and China (Kodada & Jäch 2006) and to date only one oriental species, *P. granulosis* (Delève, 1974), is known from Vietnam.

The description of *P. granulosis* was originally based only on a single male specimen collected using a light (Delève 1974). Examination of material from several sampling trips to Vietnam, Thailand and Laos as well as a detailed comparison with holotype of *P. granulosis* revealed that there are several hundred specimens of this species, and that there is a new rare cryptic species. Thus, the more numerous material allowed us to conduct morphometrical analyses, to redescribe the insufficiently known *P. granulosis*, and to describe a new species, *P. pseudogranulosus*. Further, examination of type material of *Dryops sericatus* and *Helichus sinensis*, both coming from China, showed that they are conspecific. Therefore, *H. sinensis* is proposed here as a new junior synonym of *D. sericatus*.

Material, methods and abbreviations

The material examined is deposited in the following collections: **CKB**—Collection of Ján Kodada, Bratislava, Slovakia; **MHNG**—Muséum d'Histoire Naturelle, Genève, Switzerland; **MTMB**—Magyar Természettudományi

***Praehelichus sericatus* (Waterhouse, 1881)**

Dryops sericatus C.O. Waterhouse, 1881: 410

Helichus sinensis Fairmaire, 1888: 115 **syn. nov.**

Examination of the types of *D. sericatus* (NHML) and *H. sinensis* (NHNP) reveals that both specimens are conspecific. Therefore, the name *H. sinensis* is proposed as a new junior synonym of *P. sericatus*.

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References

- Bollow, H. (1940) Monographie der palaearktischen Dryopidae, mit Berücksichtigung der eventuell transgredierenden Arten. (Coleoptera). *Mitteilungen der Münchener Entomologischen Gesellschaft*, 30 (1), 24–71.
- Delève, J. (1974) *Helichus granulosus* (Coleoptera, Dryopidae) une nouvelle espèce du Vietnam. *Annales Historico-Naturales Musei Nationalis Hungarici*, 66, 171–172.
- Fairmaire, L. (1888) Notes sur les Coléoptères des environs de Pékin (2^e Partie). *Revue d'Entomologie*, 7, 111–160.
- Kodada, J. & Jäch, M.A. (2006) Family Dryopidae Billberg, 1820. In: Löbl, I. & Smetana, A. (Eds.), *Catalogue of Palaearctic Coleoptera. Vol. 3. Scarabaeoidea – Scirtoidea – Dascilloidea – Buprestoidea – Byrrhoidea*. Apollo Books, Stenstrup, pp. 441–443.
- Löbl, I. & Smetana, A. (2006) New nomenclatorian and taxonomic acts, and comments. Dryopidae. In: Löbl, I. & Smetana, A. (Eds.), *Catalogue of Palaearctic Coleoptera. Vol. 3. Scarabaeoidea – Scirtoidea – Dascilloidea – Buprestoidea – Byrrhoidea*. Apollo Books, Stenstrup, pp. 61.
- Motschulsky, V. de. (1845) Remarques sur la collection de Coléoptères Russes. 1^{er} Article. *Bulletin de la Société Impériale de Naturalistes de Moscou*, 18 (1–2), 3–127 + errata.
- Nelson, H.G. (1990) *Pomatinus*, a name reclaimed for *Helichus substriatus* (Ph. Müller) (Coleoptera: Dryopidae). *The Coleopterists Bulletin*, 44 (2), 233–234.
- Reitter, E. (1887) Neue Coleopteren aus Europa, den angrenzenden Landern und Sibirien, mit Bemerkungen über bekannte Arten. 3. Teil. *Deutsche Entomologische Zeitschrift*, 31 (1), 241–288.
- Reitter, E. (1894) Übersicht der Arten der Gattung *Dryops* Oliver. *Wiener Entomologischen Zeitung*, 13 (10), 313.
- Waterhouse, C.O. (1881) Description of a new species of the Coleopterous genus *Dryops* from Pekin (Family Parnidae). *The Annals and Magazine of Natural History*, Series 5, 7, 410–411.
- Zaitzev, F.A. (1908) Catalogue des Coléoptères aquatiques des familles des Dryopidae, Georyssidae, Cyathoceridae, Heteroceridae et Hydrophilidae. *Horae Societatis Entomologicae Rossicae*, 38 (1907–1908), 283–420.