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A revision of *Pronomaea* ERICHSON. II. A new species from China and additional records (Coleoptera: Staphylinidae: Aleocharinae)

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A b s t r a c t : Additional records of four species of *Pronomaea* ERICHSON, 1837 are reported from the West Palaearctic region, among them the first record of *P. araxicola* REITTER, 1898 from Afghanistan. *Pronomaea maxima* nov.sp. from Yunnan (China) is described and illustrated. The genus is now represented in the Palaearctic region by seventeen species.

K e y w o r d s : Coleoptera, Staphylinidae, Aleocharinae, *Pronomaea*, Palaearctic region, China, taxonomy, new species, new records.

Introduction

The genus *Pronomaea* ERICHSON, 1837 is currently represented in the West Palaearctic region, including Middle Asia, by thirteen species (ASSING 2007a, b, 2011). Only three species have been recorded from the East Palaearctic: *P. nepalensis* PACE, 1989 from Nepal, *P. taiwanensis* PACE, 2007 from Taiwan, and the widespread *P. thaxteri* BERNHAUER, 1915 (Northeast India; Myanmar; Hongkong; China: Yunnan, Zhejiang; Thailand; Borneo; Sumatra; Java; Bali; Celébes; Malay Peninsula; Philippines; Singapore) (ASSING 2007a; BERNHAUER 1915; CAMERON 1936, 1939; PACE 1986, 1989, 2007, 2011; SMETANA 2004).

Since the previous revision (ASSING 2007a), more material of *Pronomaea* has been examined primarily from Iran. Moreover, an undescribed species was collected during a field trip to Yunnan (China) conducted in summer 2014.

Material, methods, and measurements

The material treated in this study is deposited in the following collections:

MNHUB..... Museum für Naturkunde der Humboldt-Universität, Berlin (J. Frisch, J. Willers)
cAss..... author's private collection

The morphological studies were conducted using a Stemi SV 11 microscope (Zeiss Germany) and a Jenalab compound microscope (Carl Zeiss Jena). The images of external

characters were created using a photographing device constructed by Arved Lompe (Nienburg) and CombineZ software. A digital camera (Nikon Coolpix 995) was used for the remaining photographs.

Body length was measured from the anterior margin of the labrum to the apex of the abdomen, the length of the forebody from the anterior margin of the labrum to the posterior margin of the elytra, the length of the elytra along the suture from the apex of the scutellum to the posterior margin of the elytra, and the length of the median lobe of the aedeagus from the apex of the ventral process to the base of the aedeagal capsule. The "parameral" side (i.e., the side where the sperm duct enters) is referred to as the ventral, the opposite side as the dorsal aspect.

Results

Pronomaea picea HEER, 1841

Material examined: Croatia: 1 ♂, Korčula, Brdo Sv. Marko, 250 m, soil beneath olive tree, 20.VI.2007, leg. Čeplík (cAss).

Comment: *Pronomaea picea* is one of the most widespread representatives of the genus in the West Palaearctic region, its Ponto-Mediterranean distribution ranging from Greece to Italy and France (ASSING 2007a).

Pronomaea araxicola REITTER, 1898

Material examined: Afghanistan: 1 ♂, Kabul province, Kabul City, IX.2010, leg. Reuter (MNHUB).

Comment: The previously known distribution of *P. araxicola* was confined to the Middle East (Cyprus, Iran, Lebanon, Turkey) and the Caucasus region (ASSING 2007a). The above specimen represents the first record from Afghanistan.

Pronomaea khnzoriani SEMENOV, 2003

Material examined: Iran: **T e h r a n**: 1 ex., N Tehran, Elburz Mts., Darake, Palanchal, 35°51'N, 51°23'E, 2250 m, 31.V.2010, leg. Frisch (cAss). **L o r e s t a n**: 12 exs., 15 km NE Alashtar, Mt. Garri, 33°58'N, 48°20'E, 1900 m, 16.X.2011, leg. Frisch (MNHUB, cAss); 1 ex., 35 km E Kuhdasht, Kashkan, 33°35'N, 47°53'E, 1010 m, 17.X.2011, leg. Frisch (cAss); 2 exs., 30 km E Kuhdasht, 33°35'N, 47°51'E, 1080 m, 17.X.2011, leg. Frisch (MNHUB); 43 exs., 20 km SW Borujerd, 33°46'N, 48°39'E, 1740 m, 15.X.2011, leg. Frisch (MNHUB, cAss). **K h u z e s t a n**: 2 exs., 44 km E Lali, 9 km NE Baba Achmad, 32°18'N, 49°20'E, 420 m, 20.X.2011, leg. Frisch (MNHUB, cAss). **K e r m a n**: 9 exs., pass Mahan-Sirch, 30°12'N, 57°24'E, 2800 m, 20.V.2010, leg. Frisch & Serri (MNHUB, cAss); 2 exs., Baft-Jiroft, 7 km NE Hanza, 29°21'N, 57°12'E, 2950 m, 24.V.2010, leg. Frisch (MNHUB, cAss); 3 exs., Bardsir-Baft, 10 km SE Qal'eh Askar, Mt. Lalehzar, 29°26'N, 56°45'E, 3360 m, 22.V.2010, leg. Frisch & Serri (MNHUB, cAss); 1 ex., Rayen-Darb Behesht, 2 km W Goruh, 29°21'N, 57°21'E, 2700 m, 28.V.2010, leg. Frisch (MNHUB); 1 ex., Ahmad Abad - Shahr-e-Babak road, Purkan, 30°22'N, 55°22'E, 2530 m, 18.V.2010, leg. Frisch & Serri (MNHUB); 1 ex., Kerman-Kuhpaye, Darbasiab, 30°31'N, 57°10'E, 2470 m, 19.V.2010, leg. Frisch & Serri (MNHUB).

Comment: *Pronomaea khnzoriani* is widespread and common in the Middle East and the Caucasus region (ASSING 2007a).

***Pronomaea procerula* ASSING, 2007**

Material examined: Iran: Ilam : 20 exs., Ilam-Darreh Shar, 30 km NW Abher-e Bala, 33°27'N, 46°47'E, 1080 m, 19.X.2011, leg. Frisch (MNHUB, cAss); 2 exs., 10 km S Ilam City, 33°34'N, 46°25'E, 1300 m, 19.X.2011, leg. Frisch (cAss). Ardabil : 2 exs., E Abi Beyglu, Saha Dam, 38°14'N, 48°40'N, 1470 m, X.2011, leg. Frisch (MNHUB).

Comment: The known distribution of *P. procerula* is confined to western Iran (ASSING 2007a, b).

***Pronomaea maxima* nov.sp. (Figs 1-8)**

Type material: Holotype ♂: "CHINA [20a] - Yunnan, mt. W Gejiu, mixed forest, 23°24'13"N, 103°07'28"E, 1990 m, 24.VIII.2014, V. Assing / Holotypus ♂ *Pronomaea maxima* sp.n. det. V. Assing 2014" (cAss). Paratypes: 4♂♂, 6♀♀: same data as holotype (cAss).

Etymology: The specific epithet is the superlative of the Latin adjective magnus (large) and alludes to the conspicuous size of the species.

Description: Body length 4.4-5.5 mm; length of forebody 2.1-2.5 mm. Habitus as in Fig. 1. Coloration: body black; legs reddish; antennae blackish-brown.

Head (Fig. 2) with dense, fine, and defined punctation; interstices narrower than diameter of punctures, without microsculpture. Eyes large, but weakly convex, distinctly longer than postocular region in dorsal view. Antenna 1.5-1.8 mm long, shaped as in Fig. 3.

Pronotum (Fig. 2) transverse, 1.35-1.40 times as broad as long and approximately 1.5 times as broad as head; posterior angles marked; with four deep puncture-like impressions at posterior margin, the median one connected by a more or less pronounced transverse furrow; punctation dense, finer and shallower than that of head; pubescence long, dark, and suberect.

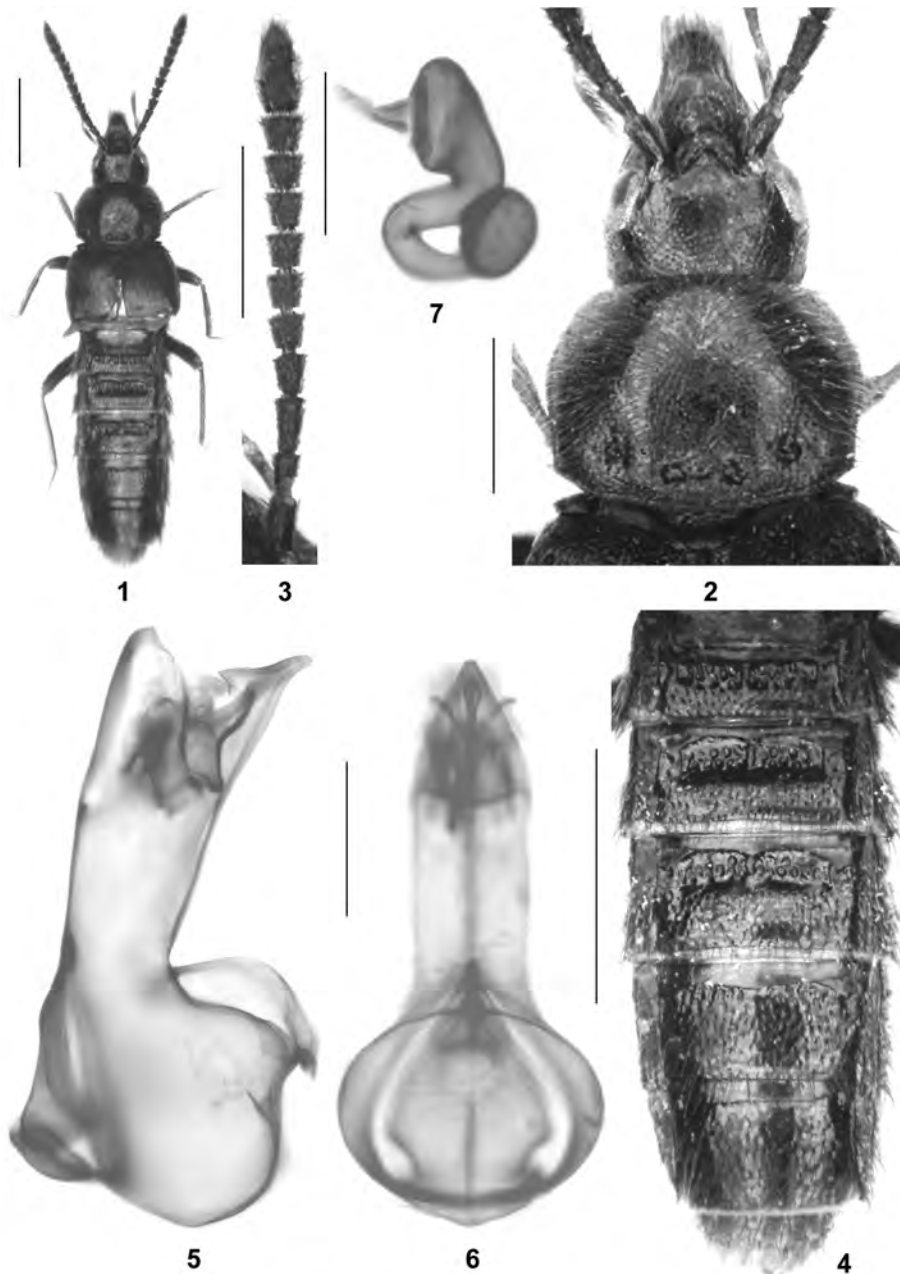
Elytra approximately 0.9 times as long as, and distinctly broader than pronotum; posterior margin distinctly sinuate near postero-lateral angles; punctation very dense, less fine than that of head and pronotum; pubescence dense, long, and suberect. Hind wings present. Metatarsomere I nearly as long as the combined length of II-IV.

Abdomen (Fig. 4) with pronounced anterior impressions of tergites III-V, these impressions with median keel and with very coarse and dense punctation; remainder of tergal surfaces with fine and rather dense punctation; interstices without microsculpture; posterior margin of tergite VII with palisade fringe; posterior margin of tergite VIII broadly convex.

♂: sternite VIII with strongly convex posterior margin; median lobe of aedeagus (Figs 5-6) approximately 0.75 mm long, symmetric and apically acute in ventral view; ventral process with pronounced median carina ventrally.

♀: sternite VIII with weakly convex posterior margin; spermatheca as in Fig. 7.

Comparative notes: The new species is distinguished from all other *Pronomaea* species known from the Palaearctic region not only by its primary sexual characters, but also by its conspicuously large size and robust body. Based on the morphology of the aedeagus and the similar external characters, it is most closely allied to *P. taiwanensis*, whose genitalia are illustrated in PACE (2007).



Figs 1-7: *Pronomaea maxima* nov.sp.: (1) habitus; (2) head and pronotum; (3) antenna; (4) abdomen; (5) median lobe of aedeagus in lateral view; (6) median lobe of aedeagus in ventral view; (7) spermatheca. Scale bars: 1: 1.0 mm; 2-4: 0.5 mm; 5-7: 0.2 mm.



Fig. 8: Type locality of *Pronomaea maxima* nov.sp. (photo: Michael Schülke)

Distribution and bionomics: The type locality (Fig. 8) is situated in a mountain to the west of Gejiu, southern Yunnan. The specimens were sifted from moist leaf litter in a mixed forest with dense undergrowth at an altitude of nearly 2000 m. Remarkably, all the specimens were in only one of a total of about 25 samples of sifted material, suggesting that they are confined to a special habitat.

Zusammenfassung

Weitere Nachweise von vier Arten der Gattung *Pronomaea* ERICHSON, 1837 werden aus der Westpaläarktis gemeldet, darunter ein Erstnachweis von *P. araxicola* REITTER, 1898 für Afghanistan. *Pronomaea maxima* nov.sp. aus Yunnan (China) wird beschrieben und abgebildet. Die Gattung ist damit derzeit in der Paläarktis mit 17 Arten vertreten.

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