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Pachybrachis salsuginosus n.sp. from Iran
(Coleoptera: Chrysomelidae: Cryptocephalinae)

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Abstract: A new species, *Pachybrachis salsuginosus* **n. sp.** from North-Iran, Province Tehran is described. The new species is similar to *P. kazakhstanicus* Lopatin, 1974 and *P. arnoldii* Lopatin, 1967. The male genitalia of the three species are illustrated.

Key words: Coleoptera, Chrysomelidae, Cryptocephalinae, Pachybrachini, *Pachybrachis*, new species, Palaearctic, Asia, Iran

Introduction

The genus *Pachybrachis* Chevrolat, 1832 is distributed with more than 350 species in the Palaearctic (WARCHAŁOWSKI 2008). For the purpose of determination, the species with yellowish or testaceous elytra without well-delimited black pattern except for a humeral spot only are grouped (*Pachybrachis glycyrrhizae*-species-group, BREIT 1921; group 1, BURLINI 1968; Group A, WARCHAŁOWSKI 2008). Within this group, the upper side of three species is covered with short, erect setae, i.e. *P. kazakhstanicus* Lopatin, 1974, *P. arnoldii* Lopatin, 1967 and *P. pubipennis* Lopatin, 1977. In this study, a new species from Iran similar to the before mentioned species is described.

Materials and Methods

Included in this study are specimens located in the following collections:

MESC = Matthias SCHÖLLER personal collection, Berlin, Germany.
NMEC = Naturkundemuseum Erfurt (Dr. Matthias HARTMANN).

Results

Pachybrachis (*Pachybrachis*) *salsuginosus* n. sp.

Holotype (male, NMEC): / N-Iran, Prov. Tehran, Karaj, w, Najmaabad, salt desert, 35.51.93N, 50.25.44E, 1150m, 06.VI.2008, leg. Dirk Frenzel [white] / Holotype *Pachybrachis salsuginosus* des. Matthias Schöller [red] /.

Type locality: Iran, Tehran, Karaj, Najmaabad (35°51.93'N, 50°25.44'E), 1150m.

Diagnosis

A medium-sized pale yellow species with blurred brown markings on pronotum, elytra with short white setae, without pattern and with puncturation confused except for some disturbed rows apically and laterally, apex of aedeagus with a narrow denticle at middle, and with two narrow lateral tooth-like processes bend inwards.

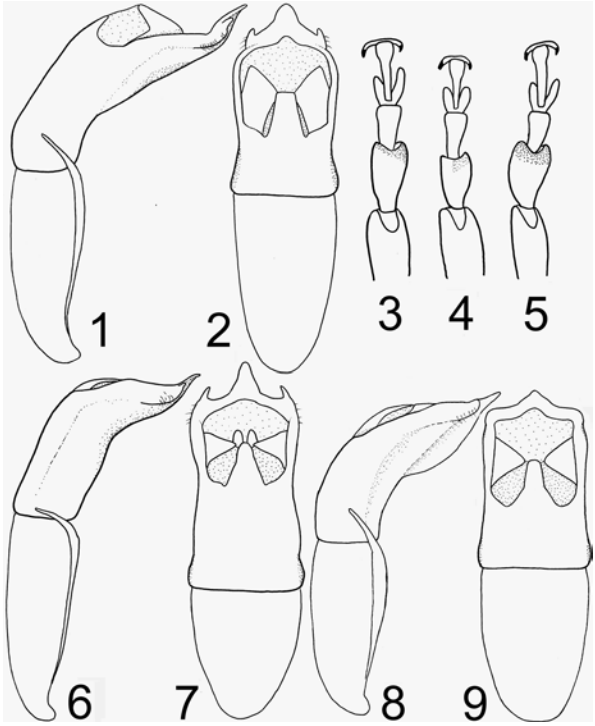
Description of holotype (male)

Habitus: Body medium-sized, shape cylindrical, size [mm]: length 3.0, width of elytra at humeri 1.5, length of pronotum 1.0, width 1.40.

Head: Pale yellow with an inverse Y-shaped black marking connecting mid of frons and antennal sockets, puncturation sparse and coarse, base of punctures brown, head above clypeus with long white setae, eyes large and upper lobes distant, therefore ratio of minimum distance between upper lobes to eye length 1 : 1; eyes with blunt canthus, broadly triangular, with ocular lines (sensu FALL 1915), antenna twice as long as pronotum, length 2.0 mm, antennal segments yellow, dorsally darkened, mandibles yellow with dark brown tip.

Thorax: pronotum transverse, width 1.4 times length, yellow with blurred brown markings, without transverse impression close to hind margin, glabrous, shiny, puncturation coarse and moderately dense on disc, laterally dense, i.e. diameter of punctures larger than distance between punctures, laterally yellow interstices elevated; along lateral margin a regular row of small punctures followed by a puncture-free area; prothorax yellow, meso- and metathorax black, epimeron of mesothorax yellow, venter covered with long white setae except for disc of metathorax; scutellum cinnamon-brown; elytra with short, hardly perceptible white setae, best visible at 70x on clivus, basal margin of elytra swollen, elytra only laterally with two regular rows of punctures, with punctures

completely confused in basal half, in apical half with disturbed rows of punctures, punctures brown at base, all interstices yellow, legs yellow, except for brownish apices of tarsomeres and claw segment, all coxae yellow, fore femur with a dorsal ridge, tibiae simple, fore- and mid-tibiae with tibial spurs, first segment of fore tarsus moderately widened (Fig. 4), first tarsomere of hind tarsus as long as following tarsomeres (without claw segment), hind tarsi as long as hind tibia.



Figs 1–9: *Pachybrachis* spp., 1) *P. kazakhstanicus*, aedeagus, lateral 2) aedeagus dorsal; 3) *P. salsuginosus* n. sp., left male fore tarsus; 4) *P. arnoldii*, left male fore tarsus; 5) *P. kazakhstanicus*, left male fore tarsus; 6) *P. salsuginosus* n. sp., aedeagus, lateral 7) aedeagus dorsal; 8) *P. arnoldii*, aedeagus, lateral 9) aedeagus dorsal.

Abdomen: Missing, length of aedeagus 1 mm, aedeagus in lateral view abruptly bent, apically with a blunt carina (Fig. 6), apex of aedeagus with a narrow denticle at middle, with two narrow lateral tooth-like processes bent inwards, a pair of lateral triangular frenulae present, a pair of small endosclerites visible (Fig. 7), aedeagus ventrally regularly vaulted.

Female: Not known.

Differential diagnosis: Similar to *P. kazakhstanicus* Lopatin, 1974, a species from NW Kazakhstan, differs by the partially regular rows of punctures on the apical half of elytra (completely confused in *P. kazakhstanicus*), the first tarsomere of the male fore-leg is less widened in *P. salsuginosus* n.sp., and the different shape of the aedeagus, i.e. the narrower apical denticle and the stronger inclination of the aedeagus in lateral view.

Etymology: Salsuginosus (latin) means salted, referring to the presence of the species in a salt desert.

Distribution and biology: So far known from the type locality only. No information on the biology is available.

***Pachybrachis kazakhstanicus* Lopatin, 1974**

Length of aedeagus 1.3 mm, aedeagus in lateral view almost regularly bent, apically with a blunt carina (Fig. 1), apex of aedeagus with a triangular denticle at middle, laterally with two short tooth-like processes, a pair of lateral subrectangular frenulae present (Fig. 2), aedeagus ventrally regularly vaulted; first male fore tarsomere strongly widened (Fig. 5) (male from Kazakhstan, MESC).

***Pachybrachis arnoldii* Lopatin, 1967**

Length of aedeagus 1 mm, aedeagus in lateral view apically convex, apically with a blunt carina (Fig. 8), apex of aedeagus with a short triangular denticle at middle, laterally with distinct shoulders, a pair of lateral triangular frenulae present (Fig. 9); first male fore tarsomere feebly widened, comparatively small (Fig. 4) (male from Mongolia, MESC).

Key to the dorsally setose pale species of Palaearctic *Pachybrachis*

1 Upper side entirely pale, elytral puncturation almost completely confused, length 2.8-3.0 mm, NW Kazakhstan ..... *P. kazakhstanicus* Lopatin, 1974

– Upper side, especially pronotum, with blurred brownish spots, elytral puncturation apically more regular 2

2(1) apical part of aedeagus in dorsal view with distinct shoulders, with or without two small, lateral tooth-like processes, in lateral view distinctly inclined 3

– apical part of aedeagus in dorsal view laterally regularly rounded, in lateral view almost straight, length 3.0 mm. Caucasus, Armenia ..... *P. pubipennis* Lopatin, 1977

3(2) elytral punctures forming basally some almost regular rows, apical part of aedeagus in dorsal view without lateral tooth-like processes, length 2.2–2.8 mm, described from Central Kazakhstan, recorded also from Mongolia ..... *P. arnoldii* Lopatin, 1967

– elytral punctures basally completely confused, apical part of aedeagus in dorsal view with two small, lateral tooth-like processes, N Iran ..... *P. salsuginosus* n.sp.

Discussion

Based on the shape of the aedeagus *P. salsuginosus* n.sp. is most similar to *P. kazakhstanicus*. The aedeagus of *P. arnoldii* shows a blunt ridge in lateral view similar to the two before-mentioned species. Based on the shape of the aedeagus, *P. pubipennis* might not belong to this group.

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