

## New grasshopper species of the genus *Conophyma* (Orthoptera: Acrididae) from the Pamirs

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Abstract: *Conophyma poimazaricum* sp.n., is described from the north-eastern Pamirs (Vanch Range). The new species is a member of the southern group of this genus and resembles some forms from the Darvaz Range.

Key words: Orthoptera, Acrididae, grasshopper, taxonomy, Pamirs.

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The genus *Conophyma* includes about 90 described species inhabiting the mountains of Central Asia from Elburz to the Western Himalayas and from Dzungarian Alatau to Baluchistan (MIST-SHENKO 1952; SERGEEV 1992, 1993, 1995). Almost all the species of this genus are montane endemics of this area. Its taxonomy is highly complicated. In fact, the genus *Conophyma* should be revised after studying male and female genitalic complexes. Unfortunately, epiphallic sclerites of only a few species are described to date.

The new species described below is a member of the southern Pamiro-Allay group of *Conophyma*. The holotype is deposited in the Zoological Institute, Russian Academy of Sciences (St. Petersburg), while the remaining paratypes are in the Zoological Museum of the Institute for Systematics and Ecology of Animals SB RAS (Novosibirsk) and in the Department of General Biology, Novosibirsk State University.

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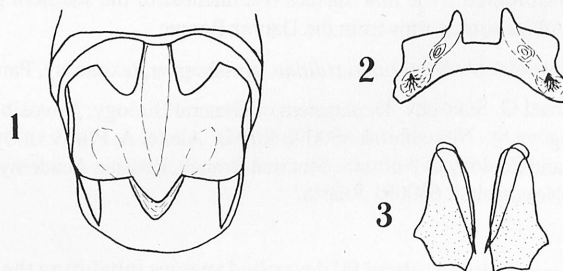
*Conophyma poimazaricum* SERGEEV & POKIVAJLOV, sp.n.

(Figs 1-3)

M a l e. Body small, relatively slender. Width of vertex between eyes 1.5-1.8 times greater than that of frontal ridge between antennae. Vertex seen from above slightly tapered without median carinula. Eye medium, almost rounded. Antenna relatively thin; its median segments 1.5-1.7 times as long as broad; antennal length usually almost equal to that of head and pronotum combined. Pronotum subcylindrical; prozona long, about 2.4-2.6 times as long as metazona; its

anterior margin straight; posterior margin of metazona slightly emarginate in the middle; dorso-lateral and median carinae slightly elevated and broken; lateral pronotal carinae bowed inwards caudad in prozona. Prosternum with acute conical process. Mesosternal interspace transverse, its maximum width 2.1-2.3 times greater than its length. Width of metasternum is 0.8-1.0 of combined length of mesosternum and metasternum. Fore and middle femorae relatively stout. Hind femora stout, about 3.2-3.4 times as long as broad. Hind tibia with 9-10 outer and 9-10 internal dorsal spines. Arolium of hind tarsus reaches middle of claw. Last abdominal tergum with separated large triangle furculae (Fig. 1); top of furcula rounded. Supra-anal plate almost parallel-sided, 1.1-1.2 times as wide as long, with wide median groove, two holes near posterior angles, and median tip. Cercus straight, conical, about 3 times as long as wide, almost reaching apex of subgenital plate. Subgenital plate conical; its apex conical. Body dark brown with light dorsal stripes along prosternal carinae and abdominal tergites. Furculae and supra-anal plate light brown. Hind femora light brown beneath; hind tibia dirty yellow, its spines light with black apices.

Phallic complex (Figs 2, 3). Epiphallus bridge-shaped, with long pointed ancorae; epiphallic bridge relatively narrow; anterior lobe of lophus small; its posterior lobe strong, long and conical; anterior projection broadly rounded; posterior short, rounded. Cingulum with long straight apodemes; ramus triangular, relatively narrow; zygoma broadly rounded; zygomal plate relatively small. Apex of cingular valve viewed from above broad (Fig. 3). Apex of apical aedeagal valve pointed.



Figs 1-3. *Conophyma poimazaricum*, sp.n., male: 1 – end of abdomen, dorsal view; 2 – epiphallus, dorsal view; 3 – apex of phallus, dorsal view.

**F e m a l e.** Similar to male, but larger. Width of vertex between eyes 2.3 times greater than width of frontal ridge between antennae. Eye small. Pronotum subcylindrical; prozona long, about 2.1 times as long as metazona; its anterior margin straight; posterior margin of metazona slightly emarginate in the middle. Mesosternal interspace transverse, its maximum width 2.6 times greater than its length. Hind femora stout, about 3.5 times as long as broad. Supra-anal plate triangular, with very weak longitudinal median groove. Cercus straight, conical, and short. Subgenital plate elongate; posterior margin distinctly triangular in the middle. Lower margin of ventral valve of ovipositor with strong pointed tooth near base. Body and legs brown, hind tibia reddish yellow.

**L e n g t h.** Body of male 13.0-15.6 mm, female 20.0 mm; pronotum of male 3.0 mm, female 3.6 mm; hind femora of male 8.2-8.5 mm, female 10.4 mm.

**M a t e r i a l.** Tajikistan: East Pamirs, Vanch Range near Kishlak Poimazar, northern slope, upper part, 2700-3400 m, xerophilous vegetation, 10.08.1991 (SERGEEV, POKIVAJLOV) 3 m (including holotype), 2 f.

**E t y m o l o g y.** From the name of the principal type locality.

**D i a g n o s i s.** *C. poimazaricum*, sp.n., resembles a group of species inhabiting the Darvaz Range (*C. argutum* L. MISTSH., *C. validum* L. MISTSH., *C. geminum* L. MISTSH., and *C. darvazicum* L. MISTSH.). The diagnostic characteristics of these species are compared in the Table I. Females of the new species are typical for this group of *Conophyma* and do not differ from similar forms.

Table I

Comparison of males of the *Conophyma* species of the Darvaz and Vanch Ranges

<i>C. poimazaricum</i> , sp.n.	<i>C. argutum</i>	<i>C. validum</i>	<i>C. geminum</i>	<i>C. darvazicum</i>
vertex wide	vertex narrow	vertex wide	vertex narrow	vertex very wide
mesosternal interspace transverse	mesosternal inter-space square	mesosternal inter-space transverse	mesosternal inter-space square	mesosternal inter-space square
hind tibia yellow	hind tibia yellow	hind tibia yellow	hind tibia yellow	hind tibia red
furculae large triangular, separated	furculae medium-sized, triangular, almost joined	furculae long, narrow, separated	furculae small, separated	furculae large, broadly rounded, separated
supra-anal plate transverse, parallel-sides	supra-anal plate almost square	supra-anal plate almost square	supra-anal plate trapezoidal	supra-anal plate almost square
subgenital plate without keel	subgenital plate with median keel	subgenital plate without keel	subgenital plate without keel	subgenital plate without keel

**E c o l o g i c a l   r e m a r k s.** The new species inhabits different types of montane xerophilous vegetation with dominance of *Prangos pabularia*, *Artemisia* sp., *Ephedra* sp., *Geranium* sp.

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