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A New Palearctic Genus of Cremastine Wasps from the Flats of the Danube Delta (Hymenoptera: Ichneumonidae, Cremastinae)

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Abstract

A new palearctic genus of Cremastinae (Hymenoptera, Ichneumonidae), *Pycnoflatsor* NAROLSKY & SCHÖNITZER **gen. nov.**, including 2 species is described. *Pycnoflatsor* is closely related to the Nearctic genus *Pseuderipternus* VIERCECK, 1917. *Pycnoflatsor annae* NAROLSKY & SCHÖNITZER **sp. nov.** is described. *Pycnoflatsor pokozii* (NAROLSKY & PROTZENKO, 1993) **comb. nov.** is transferred from the genus *Cremastus* GRAVENHORST, 1829. The male of the latter species is described for the first time.

Zusammenfassung

Eine neue paläarktische Gattung der Cremastinae (Hymenoptera, Ichneumonidae), *Pycnoflatsor* NAROLSKY & SCHÖNITZER **gen. nov.**, mit zwei Arten, wird beschrieben. *Pycnoflatsor* ist mit der Gattung *Pseuderipternus* VIERCECK, 1917 nahe verwandt. *Pycnoflatsor annae* NAROLSKY & SCHÖNITZER **sp. nov.** wird beschrieben. *Pycnoflatsor pokozii* (NAROLSKY & PROTZENKO, 1993) **comb. nov.** wurde bisher in der Gattung *Cremastus* GRAVENHORST, 1829 geführt. Das Männchen letzterer Art wird erstmals beschrieben.

Introduction

A long series of *Cremastus pokozii* NAROLSKY & PROTZENKO, 1993, previously described by one female, collected in Kazakhstan (NAROLSKY & PROTZENKO, 1993), and also seven female specimens of another species similar to it, were found among material collected by Dr. Dmitry KASPARYAN (Zoological Institute of Russian Academy of Sciences, St. Petersburg, Russia) and by Dr. Anatoly KOTENKO (Schmalhausen Institute of

Zoology, Kiev, Ukraine) in the Danube Flats Natural Reserve on *Phragmites australis* reed. The latter species is described as new in the present communication. Morphological peculiarities of these two species gave evidence that they should be placed into a new genus, which is closely related to the Nearctic genus *Pseuderipternus* VIREECK, 1917.

Type specimens are deposited in the collections of the Zoological Institute of Russian Academy of Sciences, St. Petersburg (ZISP), in the Schmalhausen Institute of Zoology, Kiev (SIZK) and in Zoologische Staatssammlung München, Germany (ZSM).

***Pycnoflatsor* NAROLSKY & SCHÖNITZER gen. nov.**

Type species: *Pycnoflatsor annae* NAROLSKY & SCHÖNITZER sp. nov.

Description. Large species, front wing length 8 - 10 mm; head thickly punctured, 2.0 as wide across temples as across eyes; face 1.7 - 2.1 times wider than high; cheek short, malar space 0.34 - 0.4 basal width of mandible; mandible not elongated, moderately broad; upper tooth of mandible slightly but distinctly longer and broader than lower tooth (upper tooth often grinding); clypeus narrow, 2.35 - 2.66 wider than high, convex in lateral view, its apical margin straight; frons with broad and extremely deep groove, inner margins of frons strongly convex between upper ring of antennal fovea and eye (Figs 6a, 6b); lateral ocelli weakly enlarged; occipital carina widely arched and interrupted medially; flagellum with 39 - 42 segments.

Thorax elongate, 1.93 - 2.1 times longer than high, extremely rough punctate except pronotum laterally; collar of pronotum with 2 foveae separated by keel; notauli present, extended beyond middle of mesoscutum, anterior part transversally striated; speculum impunctate, shiny; scutellum flattened, completely punctate and laterally thickly carinated at base to apex; postscutellum and propodeum rugose-punctate; propodeum elongate, strongly carinated; areola elongate, 1.61 - 2.4 times longer than wide, completely disposed on horizontal part of propodeum (Figs 11a, 11b).

Stigma narrow; radial cell 4.54 - 4.79 times longer than wide; second abscissa of radius basally sinuous in male and strongly sinuous in female (exactly as in *Cremastus gigas* HEINRICH, 1953); nervulus interstitial.

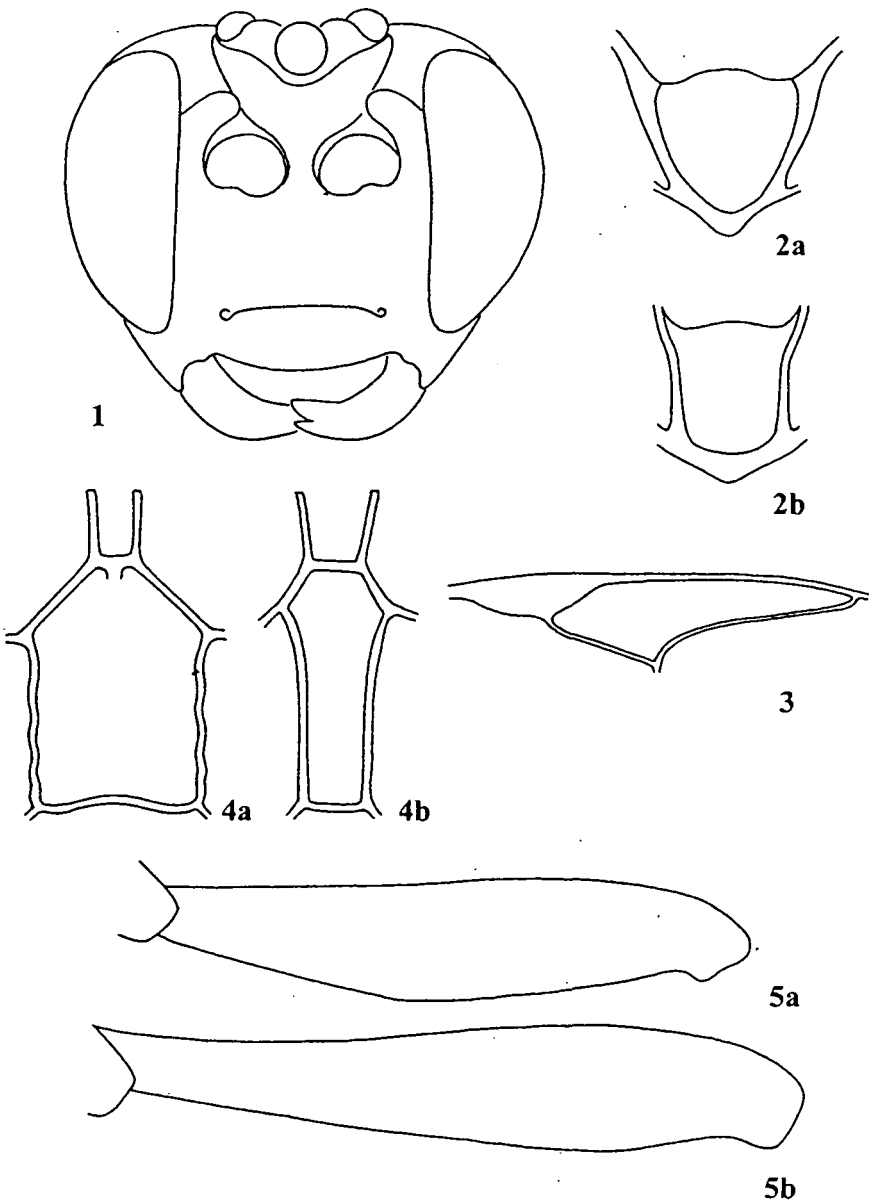
Petiole weakly or moderately heavily curved in dorsal profile, tergal margins of petiole parallel, widely separated ventrally; glimma elongate and moderately deep; tergite 2 shagreened, without coarse striate, 1.66 - 3.02 times longer than wide; remaining tergites of abdomen strongly compressed. Ovipositor moderate stout, elongate, very slightly arched upcurved, its tip weakly downcurved.

Legs slender, femur length 4.75 - 5.62 of width, without ventral tooth; claws enlarged and elongate, lacking teeth (Fig. 10).

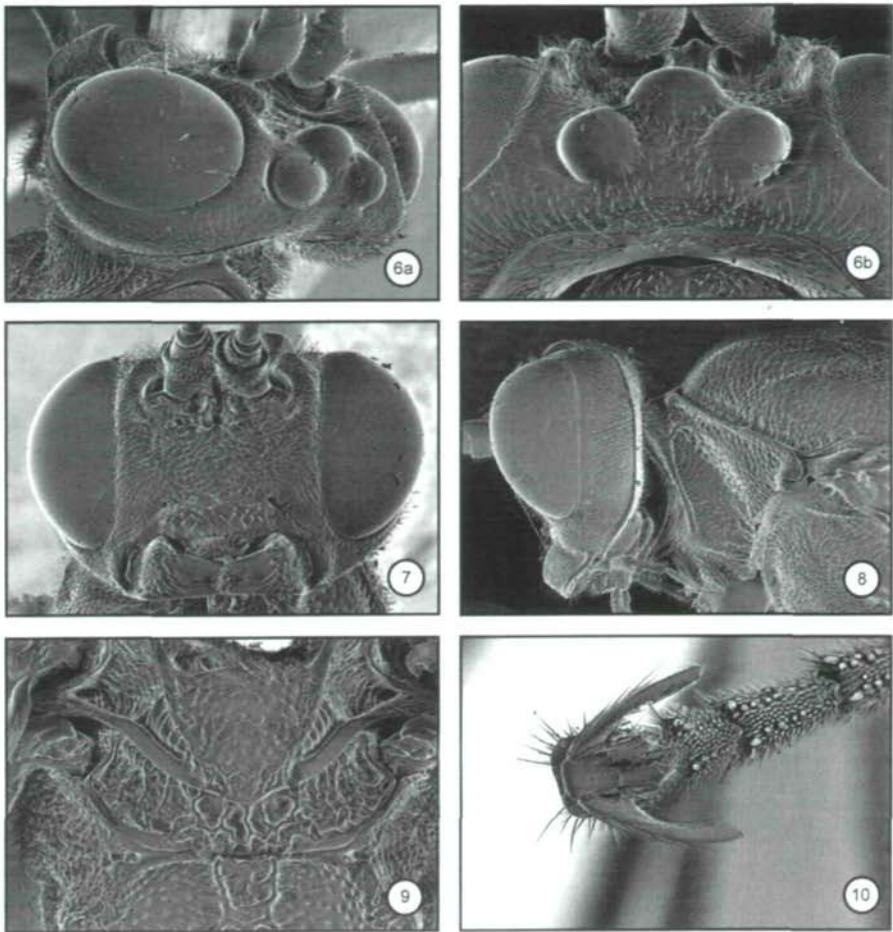
Thorax and abdomen black, partly or full wax colored; head, thorax, coxa and femur covered with comparatively long and dense hair.

Hosts. Apparently associated with *Phragmites australis* reed. PROTZENKO reported it to be reared from *Pontia daplidice* L. (Pieridae), but this record needs reconfirmation (NAROLSKY & PROTZENKO 1993).

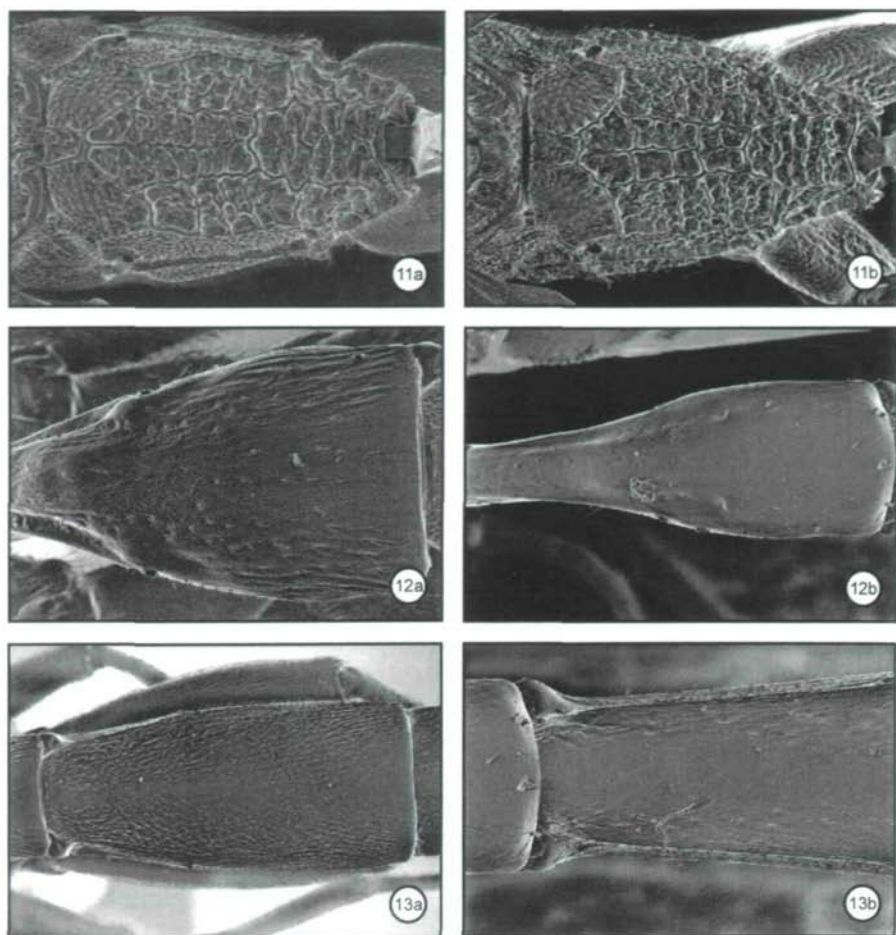
Etymology. "Pycno" from the Greece refers to the punctuation of the thorax, "flatsor" refers to the english name of *Phragmites australis* reed ("flats" or reed-covered). The grammatical gender of *Pycnoflatsor* is to be treated as masculine.



Figs 1, 2a, 3, 4a, 5a: *Pycnoflatsor annae*; Figs 2b, 4b, 5b: *Pycnoflatsor pokozii*.
Fig. 1 face; Fig. 2: Scutellum; Fig. 3: Radial cell of wing; Fig. 4: Areola of propodeum;
Fig. 5: Hind femur from lateral.



Figs 6a, 7, 8: Head of *Pycnoflatsor annae*; Fig. 6b: Vertex of *Pycnoflatsor pokozii*; Fig. 9: Scutellum and postscutellum of *Pycnoflatsor annae*; Fig 10: Claw of middle leg of *Pycnoflatsor annae*.



Figs 11a, 12a, 13a: *Pycnoflatsor annae*; Figs 11b, 12b, 13b: *Pycnoflatsor pokozii*.
Fig. 11: Propodeum; Fig. 12: Postpetiolus; Fig. 13: First tergite, from dorsal, each.

Comparison. *Pycnoflatsor* shares many characters with the genus *Pseuderipternus* which includes two nearctic species (DASCH 1979), i.e. *Pseuderipternus brevicauda* CUSHMAN, 1917, and *P. radiolatus* PROVANCHER, 1875: thorax elongate, carinal triangle fully separated from metapleuron with deep groove, claws enlarged and elongate, head, thorax, coxa and femur covered with hairs, hosts associated with subaquatic insects.

The differences between the two genera are compiled in the following table:

<i>Pseuderipternus</i>	<i>Pycnoflatsor</i>
Medium-sized species, front wing length 4.5 - 6.3 mm (DASCH 1979)	Very large species, front wing length 8 - 10 mm
Mandible and upper tooth narrower and elongated	Mandible not elongated, moderately broad, upper tooth weakly enlarged
Frons not with broad and deep groove	Frons with very broad and deep groove
Collar of pronotum without 2 grooves separated by keel	Collar of pronotum with 2 foveae separated by keel
Thorax finely and very densely punctate	Thorax and especially propodeum rugose-punctate
Head, mesopleurum and mesosternum covered with very short, dense and silvery pile	Head, thorax, coxa and femur covered with long and rather dense hairs

Pycnoflatsor pokozii (NAROLSKY & PROTZENKO, 1993) comb. nov.

Cremastrus pokozii NAROLSKY & PROTZENKO, 1993. Vestnik Zoologii 3: 82. Holotypus ♀: Kazakhstan, Kustanais region, near Pritobolsky, 25.VI.1991, leg. PROTZENKO (SIZK).

Material. 3♀ (SIZK), Ukraine, Odessa reg., Desantnoe, Stentsovski flats, 28.VI.1995 on reed, leg. A. KOTENKO; 1♀ 1♂ (ZISP), same locality, collected 9.VI.1996; 1♀ 1♂ (ZSM), Ukraine, Danube Delta, Stambulski Island, sea shore, 8.VII.1997 on reed, leg. D. KASPARYAN; 23♀ 17♂♂ (ZISP), 7.-10.VII.1997, all same locality, leg. D. KASPARYAN; 1♀ (SIZK), same locality, collected 8.VII.1997, leg. A. KOTENKO; 1♀ 2♂♂ (SIZK), Danube Flats Natural Reserve, Kubanu Island, 12.VIII.1996, leg. A. KOTENKO.

Female (Figs 2b, 4b, 5b, 6b, 11b, 12b, 13b). Major characters as indicated in the description of the genus. Front wing length 8 - 10 mm; head 2.0 times as wide across temples as across eyes; temple weakly narrowed behind eye in dorsal view; malar space 0.4 basal width of mandible; clypeus 2.35 times as wide as high; face 1.71 as wide as high; groove of frons weakly but clearly wrinkled laterally; OOL = 1.0; POL = 0.76; flagellum with 39 segments, subapical segments longer than wide.

Thorax elongate, 2.1 times longer than high; lateral surface of pronotum sparsely punctated; lateral margins of scutellum almost parallel in dorsal view; areola elongate, 2.4 times longer than wide, narrowed posteriorly, completely disposed on horizontal part of propodeum, which also strongly elongate.

Stigma narrow; radial cell 4.54 times longer than wide; nervulus interstitial; nervellus interstitial, not broken.

First abdominal segment shorter than tergite 2, last one strongly enlarged, 3.02 times longer than wide; glimma elongate and deep; ovipositor 2.0 longer than hind tibia. Legs slender, femur 5.62 times longer than wide.

Body black; antennae, legs and tergites 1-3 completely wax colored; flagellum dorsally, bases of tergites 1-3, dorsal longitudinal strip on base of tergite 2, hind coxa basally, trochanter I of hind legs and apex of hind tibia black; tegulae and scutellum reddish; external margins partly and frontal margin of eyes yellowish-white.

Male. Body structure and sculpture as in female; inner orbits of eyes slightly divergent ventrally; coloration brighter than in female; face, cheek, mandible, coxae and trochanters of fore and mid legs, prothorax and mesothorax ventrally yellowish-white. The male was not described previously.

Hosts. *Pontia daplidice* L. (Pieridae) (unconfirmed host).

Distribution. Kazakhstan (Kustanay region) and Ukraine (Danube Delta).

Pycnoflatsor annae NAROLSKY & SCHÖNITZER sp. nov.

Holotype. ♀ (SIZK), Ukraine, Odessa reg., Desantnoe, Stentsovski flats, 28.VI.1995, on reed, leg. A. KOTENKO; **Paratypes.** 2♀♀ (ZISP, SIZK), same locality as the holotype; 1♀ (SIZK), Ukraine, Odessa reg., 3-4 km east of Vilково, Zhebrjanskaja ridge, 2.VII.1995, leg. A. KOTENKO; 1♀ (ZSM), Ukraine, Danube Delta, Stambulski Island, sea shore, 8.VII.1997 on reed, leg. D. KASPARYAN; 2♀♀ (ZISP), 8.-9.VII.1997 same data.

Female (Figs 1, 2a, 3, 4a, 5a, 6a, 7, 8, 9, 10, 11a, 12a, 13a). Major characters as indicated in the description of the genus. Fore wing length 10 mm; head 2.0 times as wide across temples as across eyes; malar space 0.34 basal width of mandible; clypeus 2.66 times as wide as high; face 2.25 times wider than high; groove of frons polished; OOL = 1.0; POL = 0.8; temple with parallel sides behind eye in dorsal view; flagellum with 42 segments, subapical segments longer than wide.

Thorax elongate, 1.93 times longer than wide; lateral surface of pronotum sparsely punctated, major part of this surface is weakly tubercle-like convex; scutellum triangular in dorsal view; areola 1.61 times longer than wide, completely dispose on horizontal part of propodeum, its lateral margins parallel.

Stigma narrow; radial cell length 4.79 width (Fig. 3); nervulus interstitial; nervellus inclival, basally broken.

Abdominal segment 1 shorter than tergite 2; glimma elongate; dorsolateral carinae sharp and obtain the spiracle; 2nd tergite 1.66 times longer than wide, remaining tergites strongly compressed, shagreened; ovipositor 2.0 longer than hind tibia.

Legs slender; femur 4.75 times longer than wide; claws enlarged and elongate, teeth lacking.

Body completely wax colored except frons, ocellar field, temple dorsal, base of tergite 2 and apex of hind femur black; external orbit partly, coxae and trochanters of fore and mid legs yellowish-white.

Male. Unknown.

Host. Probably associated with *Phragmites australis* reed.

Etymology. This species is called according to the daughters of the two authors who by chance have the same first name: Anna.

Key to the species of *Pycnoflatsor* gen. nov.

- 1 (2) Lateral margins of scutellum almost parallel in dorsal view (Fig. 2b); length of second tergite 3.02 times exceeding its width; areola 2.4 times longer than wide (Figs 4b, 11b); hind femur see Fig. 5a.
..... *Pycnoflatsor pokozii* (NAROLSKY & PROTZENKO, 1993) **comb. nov.**
- 2 (1) Scutellum triangular in dorsal view (Fig. 2a); length of second tergite 1.66 times exceeding its width; areola 1.61 times longer than wide (Figs 4a, 11a); hind femur see Fig. 5a. *Pycnoflatsor annae* NAROLSKY & SCHÖNITZER **sp. nov.**

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