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## NEW SPECIES OF THE GENUS *MICROLEPTES* (HYMENOPTERA: ICHNEUMONIDAE) FROM PRIMORSKY KRAI

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**Summary.** *Microleptes scabrum* Humala, **sp. n.** is described and illustrated based on one female specimen from Primorsky Krai. The new species is compared with known congeners. Unlike other species of the genus it has an unusually coarsely sculptured body.

**Key words:** Darwin wasps, parasitoids, biodiversity, taxonomy, new species, East Palaearctic.

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**Резюме.** Из Приморского края по одной самке описан и проиллюстрирован *Microleptes scabrum* **sp. n.** Новый вид сравнивается с известными представителями рода. Он значительно отличается от остальных видов грубой скульптурой тела.

### INTRODUCTION

Microleptinae is a small subfamily of Darwin wasps distributed in the Holarctic and Oriental regions with most species reported from the Palaearctic region (Yu *et*

*al.*, 2016) and placed among ichneumoniformes groups of subfamilies (Santos, 2017; Bennett *et al.*, 2019). Genus *Hyperacmus* Holmgren, 1858 was excluded from Microleptinae and considered now within subfamily Cylocheriinae (Broad, 2004; Humala, 2007; Quicke *et al.*, 2009). However the synonymy of *Cushmaniana* Humala, 2007 and *Hyperacmus* does not seem convincing. The genus *Microleptes* Gravenhorst, 1829 is distributed in Holarctic and Oriental regions; according to the World Catalogue of Ichneumonidae (Yu *et al.*, 2016) 19 species were known, and eleven species were known in Russia (Humala, 2003, Khalaim *et al.*, 2019). Recently the genus was reviewed with description of five new Oriental species from India and Thailand and providing a key to species (Ranjith *et al.*, 2024).

The present study reports the new species from the Russian Far East and provides its description and illustration.

## MATERIAL AND METHODS

The morphological terminology generally follows Broad *et al.* (2018). Photographs of the new species were taken at the Forest Research Institute KRC RAS with a LOMO MC-6.3 digital camera attached to a Leica MZ9.5 stereomicroscope. Multifocus-images were combined with Helicon Focus Pro software (ver. 8). Holotype of the new species has been deposited in the collection of Zoological Institute of Russian Academy of Sciences, St Petersburg, Russia (ZISP).

## DESCRIPTION OF NEW SPECIES

**Family Ichneumonidae Latreille, 1802**

**Subfamily Microleptinae Townes, 1958**

**Genus *Microleptes* Gravenhorst, 1829**

***Microleptes scabrum* Humala, sp. n.**

<https://zoobank.org/NomenclaturalActs/5476D7D4-C531-4706-888C-A529ED9615F9>

Figs 1–8

TYPE MATERIAL. Holotype – ♀, **Russia**: Primorsky Krai, 20 km SE Ussuriysk, Gornotayozhnoe, 19–20.VII 1999, Mikhailovskaya leg. (ZISP).

DESCRIPTION. Female. Body length 6.8 mm, fore wing length 4.9 mm (Figs 1, 8).

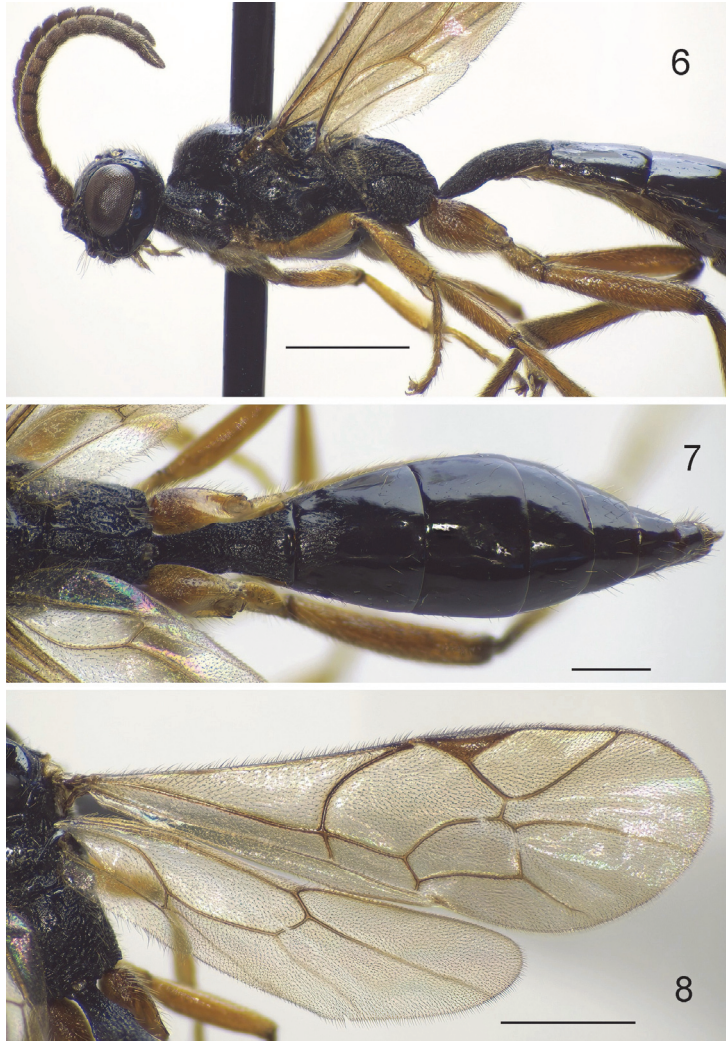
*Head.* Head  $1.2 \times$  as wide as high, ventrally with angular corners (Fig. 3). Face  $0.5 \times$  as wide as head; frontal orbits subparallel, facial orbits slightly divergent ventrally. Antennal sockets strongly protruding anteriorly forming nearly  $90^\circ$  in profile between frons and face (Fig. 4), face almost flat, divided from frons by a distinct transverse rib. Clypeus transverse,  $1.9 \times$  as wide as high, well separated from face, considerably projecting prominently (Fig. 4), nearly smooth and strongly

punctate; ventral margin weakly convex (Fig. 3) with very long setae; malar space  $0.6 \times$  basal width of mandible; subocular sulcus distinct; mandible stout, bidentate; upper tooth longer and wider than lower tooth (Fig. 5). Occipital carina incomplete ventrally, not connected to hypostomal carina; vertex and temples polished, rarely



Figs 1–5. *Microleptes scabrum* Humala, **sp. n.**, female, holotype: 1 – habitus, lateral view; 2 – head and base of mesoscutum, dorsal view; 3 – head, frontal view; 4 – head, and base of mesosoma, lateral view; 5 – head and propleuron, ventro-lateral view. Scale bars: 0.5 mm for 2, 3, 4, 5; 1.0 mm for 1.

punctate with sparse long setae, temple  $0.7 \times$  as long as eye in dorsal view (Fig. 2); eyes with sparse setae (Fig. 3). Ratios oculo-ocellar line : maximum diameter of lateral ocellus : postocellar line = 42:40:52 (Fig. 2). Antenna short, nearly as long as mesosoma, moniliform with 14 flagellomeres; scape subcylindrical, pedicel nearly globular (Figs 3, 4); first flagellomere  $1.5 \times$  as long as wide, narrowed basally; second flagellomere  $1.5 \times$  longer than wide; flagellomeres in apical half of antenna nearly quadrate (Fig. 6).



Figs 6–8. *Microleptes scabrum* Humala, **sp. n.**, female, holotype: 6 – head, mesosoma and base of metasoma, lateral view; 7 – propodeum and metasoma, dorsal view; 8 – right wings. Scale bars: 0.5 mm for 7; 1.0 mm for 6, 8.

*Mesosoma*. Mesosoma elongate,  $2.0 \times$  as long as high (Fig. 6); pronotum widened at the lower part from dorsal view, dorso-lateral pronotum polished, crenulated medially lateral pronotum smooth and polished (Fig. 4); propleuron punctate (Fig. 5); epomia lacking. Mesoscutum smooth, strongly and sparsely punctate, setose; notauli well developed (Fig. 2); scutellum polished, sparsely punctate; mesopleuron subpolished in central part, more roughly sculptured at the edges (Fig. 6); epicnemial carina present, joined with subtegular ridge (Figs 4, 6); sternaulus lacking; metapleuron coriaceous, its upper division densely covered with whitish setae (Fig. 6). Propodeum with irregular rough sculpture, area superomedia subparallel, costulae lacking, pleural carina complete, posterior transverse carina present (Fig. 7).

*Legs*. Hind coxa punctate (Fig. 6); hind femur  $4.9 \times$  as long as wide; hind tibia  $6.0 \times$  as long as wide with apical fringe of dense long setae on the inner side, spurs weak; hind basitarsus  $7.8 \times$  as long as wide,  $0.5 \times$  as long as hind tibia; hind tarso-meres ratios as 44:18:13:10:14, claw simple without basal lobe.

*Wings*. Fore wing vein  $2r+RS$  originating slightly anterior to the middle of pterostigma,  $2.4 \times$  as long as  $2rs-m$  (Fig. 8); pterostigma  $3.8 \times$  as long as wide; fore wing vein  $2rs-m$   $1.3 \times$  as long as  $M$  between  $2rs-m$  and  $2m-cu$ ; fore wing vein with nervulus ( $1cu-a$ ) interstitial, second recurrent vein ( $2m-cu$ ) with one bulla (Fig. 8); nervellus in hind wing ( $CU$ ) intercepted in lower third, discoidella weak.

*Metasoma*. First tergite strongly coriaceous with carinae lacking (Figs 7, 8),  $2.0 \times$  as long as its maximum width posteriorly, sternite fused to tergite, spiracle situated at 0.6 of tergite length (Fig. 6); second tergite  $0.9 \times$  as long as posteriorly wide, predominantly polished with anterior third longitudinally rugulose in the middle, sparsely punctate; thyridium indistinct, epipleurae separated from tergite by a crease; third tergite  $0.66 \times$  as long as posteriorly wide (Fig. 7). Third and subsequent metasomal tergites polished, sparsely covered with setae, more densely posteriorly; hypopygium straight posteriorly; ovipositor hardly exposed (Fig. 1).

*Color*. Body predominantly black; palps, fore leg excluding tibia and tarsus, hind leg excluding tarsus, yellowish brown; antenna, tegula, and mandible excluding teeth brown; flagellomeres 1–4, fore tibia and tarsus, mid leg, hind tarsus, posterior margin of hypopygium yellow. Wings slightly tinted (Fig. 8).

Male. Unknown.

**DIAGNOSIS.** The new species is close to East Palaearctic *M. tibialis* Humala, 2003, but can be distinguished from it by larger size, slenderer hind femur, and not inflated hind tibia. Following the recent key to species (Ranjith *et al.*, 2024) it comes close to *M. orientalis* Humala, 2003 by comparatively slender hind femur and first flagellomere shorter than second flagellomere but differs by stout moniliform antenna with median flagellomeres nearly quadrate, first and second flagellomeres almost equal in length. The new species is easily distinguished from all known species of *Microleptes* by the coarse sculpture of the body.

**DISTRIBUTION.** The new species is currently known only from the type locality in the Russian Far East (south part of Primorsky Krai).

**ETYMOLOGY.** The species is named after its strong rough body sculpture, differing from other known congeners.

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