

***Lathrolestes* (Hymenoptera, Ichneumonidae) from Turkey with Description of Three New Species and New Synonymy**

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ABSTRACT

Lathrolestes is recorded from Turkey for the first time. Three new species are described and illustrated: *Lathrolestes acinaces* Reshchikov sp. nov., *L. fascialis* Reshchikov sp. nov., *L. zoticus* Reshchikov sp. nov. *Lathrolestes citrofrontalis* Schmiedeknecht, 1912 is considered as junior synonym with *L. unguaricus* (Thomson, 1883).

Key words: Ichneumonidae, Ctenopelmatinae, Perilissini, *Lathrolestes*, taxonomy, Turkey.

INTRODUCTION

The genus *Lathrolestes* Förster, 1869 (Hymenoptera, Ichneumonidae) is a large genus with 75 described species (Yu *et al.*, 2005; Reshchikov *et al.*, 2010; Reshchikov, 2011). Of these, 37 species occur in the Nearctic region (Barron, 1994; Reshchikov *et al.*, 2010), 26 species in the Palearctic region, predominantly Europe (Yu *et al.*, 2005), 1 species in the Afrotropical region, Congo (Benoit, 1955), 4 species in the Neotropics, Costa Rica (Gauld *et al.*, 1997), and 7 species in the Oriental region (Uchida, 1932; 1940; Reshchikov, 2010).

The examined specimens were collected in North West of the Black Sea region (Bolu province) and in southern Turkey (Hatay Province). *Lathrolestes* is recorded from Turkey for the first time. Only 17 species of the tribe Perilissini are known from there (Fahringer & Friese, 1921; Kolarov, 1989; Kolarov & Beyarslan, 1994; Kolarov *et al.*, 1997; Aubert, 2000; Özbek *et al.*, 2000; 2002). Three species of the genus *Lathrolestes* described here as new. During studying of the type of *L. citrofrontalis* Schmiedeknecht, 1912 this species was determined as junior synonym of *L. unguaricus* (Thomson, 1883) as well as several studied specimens labeled as *L. citrofrontalis* Schmiedeknecht, 1912 from the collection of Zoological Institute of Russian Academy of Science and The Bavarian State Collection of Zoology (Zoologische Staatssammlung, Munich, Germany). *Lathrolestes citrofrontalis* Schmiedeknecht, 1912 syn. nov. is synonymized here with *L. unguaricus* (Thomson, 1883).

MATERIAL AND METHODS

This work was made on the basis of the material from the Süleyman Demirel University, Isparta, Turkey and American Entomology Institute (AEI), Gainesville, FL, USA. The type specimens of crucial species were examined. Terminology for sculpture follows Eady (1968); morphological terminology used in the study largely follows that of Townes (1970). The specimens are deposited in the Zoological Institute of Russian Academy of Science (ZIN) and American Entomology Institute. The descriptions are illustrated with figures (Figs. 1 - 12). The digital pictures were taken using a stereomicroscope Olympus SZX16 attached to an Olympus E520 digital camera, and combined using Helicon Focus ®.

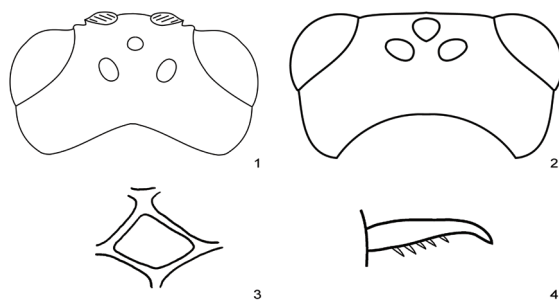
TAXONOMY

Lathrolestes acinaces Reshchikov sp. nov. (Figs. 1, 3 - 6)

Diagnosis. This species differs from the close related *L. ensator* (Brauns, 1898) by not swollen temple; cypeus not separate from the face by transverse groove; lower part of mesopleuron with rugosity, and body mostly brownish.

Description (Holotype ♀). Body length 6 mm. Antennal flagellum with 21 articles. Width to length ratio of scapus 0.7. Head not swollen (Fig. 1). Maximal length of temple to transverse eye diameter ratio 0.74; minimal length of temple to transverse eye diameter ratio 0.58. Width of face to longitudinal eye diameter ratio 1.3 (Fig. 5). Face convex with bulge. Clypeus separate from face by transverse impression; at apex projecting slightly anteriorly. Clypeal foveae small. Malar space as wide as 0.5 of basal mandible width. Occipital carina complete complete. Lower mandible tooth longer than upper. Head shiny; face and clypeus granulate.

Mesosoma dimly shining. Notaulus defined at base. Lower part of mesopleuron with rugosity, shining. Tarsal claws pectinate (Fig. 4). Apical tarsal article not enlarge. Stigma intercepted by radius at its middle. Areolet petiolate, large (Fig. 3). Second recurrent vein with a single bulla. Nervellus intercepted below middle. Propodeal carinae absent.



Figs. 1 - 4. 1) Head, dorsal view. *Lathrolestes acinaces* sp. nov. 2) head, dorsal view. *L. zoticus* sp. nov. 3) areolet. *L. acinaces* sp. nov. 4) tarsal claw. *L. acinaces* sp. nov.

Metasoma mat. First metasomal tergum with median longitudinal impression; lateral longitudinal carinae present. Ovipositor longer than metasoma, curved up, with apical teeth and nodus (Fig. 6).

Body brownish; maculae on head, apical margin of clypeus, and legs yellowish.

Etymology: The species epithet, *acinaces*, refers to the shape of the ovipositor.

Distribution: Turkey

Material examined: Holotype, Turkey, Abant, Bolu, 30.07.1965, J. Klupperich, 1 ♀, (AEI).

***Lathrolestes zoticus* Reshchikov sp. nov. (Figs. 2, 7, 8, 11)**

Diagnosis. This species differs from the close related *L. ensator* (Brauns, 1898) and *L. verticalis* (Brischke, 1871) by apical margin of clypeus straight and cut (Fig. 7); large clypeal foveae; head rather narrowed behind the eyes; head and lower part of mesopleuron with distinct rare punctures; metasomal terga with fine deep punctures.

Description (Holotype ♂). Body length 8 mm. Antennal flagellum with 27 articles. Width to length ratio of scapus 0.65. Head rather narrowed behind the eyes (Fig. 2). Maximal length of temple to transverse eye diameter ratio 0.78; minimal length of temple to transverse eye diameter ratio 0.53. Width of face to longitudinal eye diameter ratio 0.9. Face flat, with slightly convex middle part, without bulge. Clypeus separate from face by transverse impression, trapeze-shape; at apex projecting slightly anteriorly; apical margin of clypeus straight and cut (Fig. 7). Clypeal foveae large. Malar space as wide as 0.33 of basal mandible width. Occipital carina complete, not interrupted above. Lower mandible tooth longer than upper. Head matt.

Mesosoma matt. Notaulus absent. Prepectal carina close to prepectus, obliterated at upper part (this character state refers to *Mesoleius*). Lower part of mesopleuron with distinct rare punctures, shining, and smooth. Tarsal claws pectinate. Apical tarsal article not enlarge. Forewing with areolet not petiolate. Stigma intercepted by radius at its middle. Second recurrent vein with a single bulla. Nervellus intercepted rather below middle. Nervulus postfurcal. Propodeal carinae absent (Fig. 11).

Metasoma matt, with fine deep punctures. First metasomal tergum width to length ratio 0.7; arched; with shallow median longitudinal impression; longitudinal carinae absent. Parameres broad at base. Parameres broad, slightly protruding beyond apex of metasoma.

Face, clypeus, malar space, propleuron, lower part and upper edge of mesopleuron, fore edges of mesonotum, tegulae, legs (except middle and hind tarsi) and lateral parts of metasomal terga yellow. The rest body black (Fig. 8).

Etymology: The species epithet, *zoticus*, refers to the name of Saint Zoticus, Priest and patron of the poor, who journeyed to Constantinople (modern Istanbul, Turkey) where he founded a hospital for the poor and defended orthodox Christianity.

Distribution: Turkey

Material examined: Holotype. Turkey, Hatay, Habibi Neccar, N36°11'E36°10', 106m., 18.06.2008, M. F. Gürbüz, 1 ♂, (ZIN RAS). Paratype: Turkey, Hatay, Habibi Neccar, N36°11'E36°10', 106m., 18.06.2008, M.F. Gürbüz, 1 ♂, (ZIN RAS).

***Lathrolestes fascialis* Reshchikov sp. nov.** (Figs. 9, 10, 12)

Diagnosis. This species differs from similar *L. unguarlis* (Thomson, 1883) by present apical lateral fields of propodeum (Fig. 12); more smooth sculpture of propodeum; slightly shagreened and polished mesopleuron and metasoma; larger, slightly oblique teeth of claws; maculae on face and behind the eyes fused in single yellow band (Fig. 9), parapsidal part of notum colored in reddish-yellow, postscutellum yellow, metasomal tergum with widely reddish-yellow hind margin.

Description (Holotype ♀). Body length 5 mm. Antennal flagellum with 26 articles. Width to length ratio of scapus 0.5. Head not narrowed behind the eyes, mat. Maximal length of temple to transverse eye diameter ratio 0.58; minimal length of temple to transverse eye diameter ratio 0.52. Face almost as wide as longitudinal eye diameter; very convex, with bulge. Clypeus separate from face by transverse groove; at apex projecting slightly anteriorly; apical margin of clypeus moderately thick. Clypeal foveae small. Malar space as wide as 0.4 of basal mandible width. Occipital carina complete, not interrupted above. Lower mandible tooth longer than upper. Head matt.

Mesosoma matt. Notaulus distinct. Lower part of mesopleuron with punctures, slightly polished, shagreened. Tarsal claws short, strongly curved at apex, with large slightly oblique teeth. Forewing with areolet petiolate. Second recurrent vein with a single bulla. Nervellus intercepted below middle. Nervulus postfurcal. Apical lateral fields of propodeum present (Fig. 12). Propodeum with smooth surface.

Metasoma polished, pubescent with white hairs. First metasomal tergum width to length ratio 0.5; without shallow median longitudinal impression; bordered by lateral longitudinal carinae; median longitudinal carinae absent. Second metasomal tergum transverse. Ovipositor straight, thin, very gradually tapered from base to apex, without notch (Fig. 10).

Color. ♀. Body mostly black (Fig. 10). Maculae on face and behind the eyes fused in single band (Fig. 9), postscutellum yellow; parapsidal part of notum, legs except 5th tarsal article, hind margins of metasomal terga reddish-yellow.

Etymology: The species epithet, *fascialis*, refers to the coloration of head.

Distribution: Turkey

Material: Holotype. Turkey, Hatay: Kengerlidüz, 36°56'N; 36°24'E; 1650m., 14-21.06.2007, M.F.Gürbüz, 1 ♀, (ZIN RAS).

***Lathrolestes unguarlis* (Thomson, 1883)**

Lathrolestes citrofrontalis Schmiedeknecht, 1912 syn. nov.

The type of *L. citrofrontalis* Schmiedeknecht, 1912 belongs to *L. unguarlis* (Thomson, 1883) as well as several studied specimens determined as *L. citrofrontalis* Schmiedeknecht, 1912 from the collection of ZIN RAS. *Lathrolestes citrofrontalis* Schmiedeknecht, 1912 syn. nov. is synonymized with *L. unguarlis* (Thomson, 1883).

Distribution: Western Palearctic.

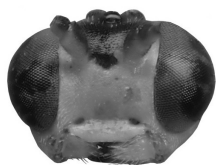
Material: Holotype ♀, Sweden, Lund (Zoological Institute, Lund, Sweden); Ukraine, Kyiv, Theophania, 24.06.1974, 1 ♀, D.R. Kasparyan; Moldova, NW Bendery, 9.06.1974, 1 ♀, D. R. Kasparyan; Azerbaijan, Lerik distr., 41st km, 02.06.1981, 1 ♀, A. Kotenko (ZIN RAS)



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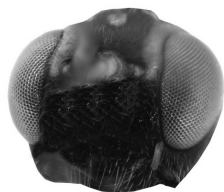
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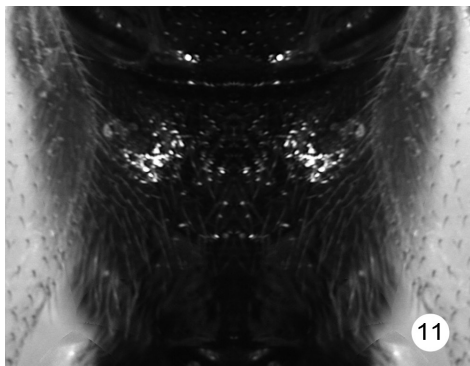


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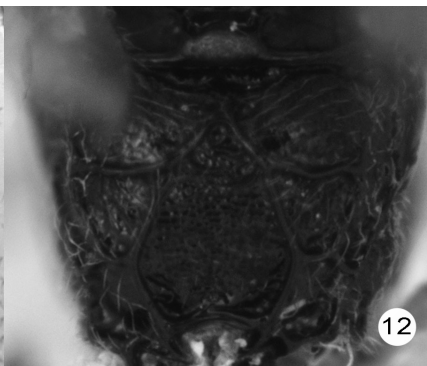


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Figs. 5 - 10. 5) face. *Lathrolestes acinaces* sp. nov. 6) habitus. *L. acinaces* sp. nov. 7) face. *L. zoticus* sp. nov. 8) habitus. *L. zoticus* sp. nov. 9) face. *L. fascialis* sp. nov. 10) habitus. *L. fascialis* sp. nov.



11



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Figs. 11- 12. Propodeums, 11) *Lathrolestes zoticus* sp. nov. 12) *L. fascialis* sp. nov.

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