

**SPECIES OF *PSEUDOTORYMUS* MASI IN TURKEY
(HYMENOPTERA: TORYMIDAE: MICRODONTOMERINI)**

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[Doğanlar, M. 2016. Species of *Pseudotorymus* Masi in Turkey (Hymenoptera: Torymidae: Microdontomerini). Munis Entomology & Zoology, 11 (2): 393-433]

ABSTRACT: In Turkey 21 species of *Pseudotorymus* Masi (Hymenoptera: Torymidae), were found in several parts of Turkey. The species are: *P. sapphyrinus* (Fonscolombe, 1832), *P. verbasci* Erdős, 1955, *P. leguminus* Ruschka, 1923, *P. papaveris* (Thomson, 1876), *P. pannonicus* (Mayr, 1874), *P. bollinensis* Askew, 2002 and, 15 of them as new species: *P. adananensis* sp. nov., *P. nigdenensis* sp. nov., *P. celikhanensis* sp. nov., *P. lutfiyeae* sp. nov., *P. haliti* sp. nov., *P. keçikuyusunensis* sp. nov., *P. aratdaginensis* sp. nov., *P. dogubayezitensis* sp. nov., *P. samsatensis* sp. nov., *P. ispirlii* sp. nov., *P. aladagensis* sp. nov., *P. bedirlinensis* sp. nov., *P. ocaklii* sp. nov., *P. sivasensis* sp. nov., *P. pazarcikensis* sp. nov.. Type locality of *Pseudotorymus juniperi* Zerova, 2007 was given by following Zerova et al. (2012). The Turkish species were described and diagnostic characters were illustrated, and an identification key for the 58 species of *Pseudotorymus* was provided.

KEY WORDS: *Pseudotorymus* spp., Torymidae, key, Turkey

The genus *Pseudotorymus* was provided as objective replacement name for *Holaspts* Mayr nec Gray, 1863 by Masi (1921) in having type species *Torymus militaris* Boheman (desig. by Ashmead, 1904: 242, 377). Grissell (1995) recorded *Pseudotorymus* as valid genus in the tribe Microdontomerini (Torymidae), and gave its synonyms, such as: *Senegalella* Risbec 1951, *Thiesia* Risbec 1951. Doğanlar (2016) studied hypopigia of some species of *Pseudotorymus* from Turkey. Up to now, fifty-one species of *Pseudotorymus* are distributed worldwide, 38 of them were present in the Palaearctic (28 spp. from Europe, 5 spp. from the Middle East, 5 spp. from other regions) (Erdős, 1955; Askew, 2002; Askew et al., 2006; Vikberg & Askew, 2010; Noyes, 2015) 9 spp. from Afrotropical, Central Africa and North Africa (Risbec, 1951); 10 species from Oriental Region (Masi, 1921; Narendran, 1994; Narendran, 2006a,b); a single species from the Nearctic Region (Ashmead, 1890). Eleven species have been recorded from Ukraine and 10 spp. from adjacent countries (Zerova & Seryogina, 1999) and only tree species have been recorded from Turkey, such as: *Pseudotorymus pannonicus* (Mayr), *P. militaris* (Boheman) (Doğanlar, 1984; Öncüer, 1991; Grissell, 1995), and *Pseudotorymus sapphyrinus* (Fonscolombe) (Gencer, 2003).

The species have a broad host association including Bruchinae and Curculioninae (Coleoptera: Curculionidae), Cecidomyiidae (Diptera), Eurytomidae and Cynipidae (Hymenoptera) and Pyralidae (Lepidoptera) (Narendran, 1994; Grissell, 1995; Zerova & Seryogina, 1999).

In this work morphological characters of the *Pseudotorymus* species from Turkey, were studied and the new species were described. By aids of some morphological characters a new identification key was provided for the most species of *Pseudotorymus* of the world, except several regions of Africa.

MATERIAL AND METHOD

This study is based upon examination and identification of the specimens collected from several parts of Turkey. The examined specimens and types were deposited in Insect Museum of Biological Control Station, Yüreğir, Adana, Turkey (IMBC). Specimens were collected by sweeping net and putting the whole contents of the swept materials directly in 96 % ethanol. After sorting the material, individuals were mounted on cards for further morphological studies. The species were identified by following the keys of Zerova & Seryogina (1999), and a new identification key for the most species of *Pseudotorymus* was provided by using key characters given by Ruschka (1923), Hoffmeyer (1930, 1931), Szelenyi (1973), Narendran (1994), Zerova & Seryogina (1999), Xiao (2007) and from the descriptions of species given by their authors (Mayr, 1874; Ashmead, 1904; Zerova & Seryogina, 1992; Askew, 2002; Askew et al., 2006; Narendran, 2006a,b). Wings and antennae of some Holotypes and paratypes were slide-mounted in Canada balsam. Photographs of diagnostic characters of the genera were taken by using of Leica DM 500 microscopes with a digital Leica ICC 50 camera attached to it.

Terminology and abbreviations

Morphological terminology follows Gibson (1997). Abbreviations used in the key and descriptions are: OOL= shorter distance between ocello-ocular line POL= distance between posterior ocelli, F1-7 = funicular segments.

Acronyms of the museum:

IMBC: Insect Museum of Biological Control Station, Yüreğir, Adana, Turkey.

ZIKU: Schmalhausen Institute of Zoology(National Academy of Sciences of Ukraine).

RESULTS AND DISCUSSION

Pseudotorymus Masi, 1921

Holaspis Mayr, 1874:83 Type species *Torymus militaris* Boheman (desig. by Ashmead 1904: 242, 377). (Preocc. by Gray, 1863 (Reptilia).

Pseudotorymus Masi, 1921: 235. Objective replacement name for *Holaspis* Mayr nec Gray, 1863.

The synonym list, distribution and host records were given by Grissell (1995).

Diagnostic characters: Marginal vein long 3-7x length of postmarginal vein and at least 6x length of stigmal vein; occipital carina present its lateral edges extending at least in line with dorsum of hypostomal foreman; antenna with 1 anellus, though exceptionally small specimens of a population may sometimes have 2 anelli; hind femur setae changes from simple to angle and to tooth; in females, metaterga 2 and 3 are at most somewhat emerginate, (Grissell 1995).

Key to most species of *Pseudotorymus Masi*

1- Ovipositor at least slightly longer than the length of the body.....2
 -- Ovipositor almost equal to the length of the body or shorter.....3

2- Ovipositor much longer than the length of the body, the latter about 2.5x longer than gaster; hind tibia without tooth; propodeum smooth, rugulose on sides, with shallow pits on anterior margin; mv Forewing 5x pmv; stv more than 3/5 pmv; Antenna with scape a

- little shorter than 3x F1, funicular segments distinctly longer than wide; POL a little shorter than 3x OOL; scape, tibiae and tarsi yellow.....*P. salamensis* Narendran, 1994
 -- Ovipositor slightly longer than the length of the body; wings hyaline; scape rufous, flagellum black; apex of femora, tibiae and tarsi pale yellow. Reared from gall in the buds of *Mesembryanthemum* sp.....*P. mesembryanthemumi* (Cameron, 1904)
- 3- Ovipositor almost equal (0.95-1x) to the length of the body (Fig. 1a); hind femora with distinct tooth at apex (Figs. 1b).....4
 -- Ovipositor at most equal to total length of the gaster and mesosoma; hind femora with or without tooth.....5
- 4- Hind tibiae metallic blue-green (Fig. 1b). Ovipositor (Fig. 1a) almost equal to the length of the body, pale brown. Body blue-violet. Propodeum with fine carina, finely reticulated; callus hairy; antenna (Fig. 1c). with scape and pedicel metallic, pedicel as long as anellus plus F1, flagellum filiform; funicular segments F1-F2 slightly longer than wide, F3-F5 quadrate F6-F7 distinctly transverse, slightly widening towards tip, F7 1.6x as wide as F1; club almost twice as long as wide. Forewing (Fig. 1f). with marginal vein 3.33- 3.6x as long as postmarginal vein, and 7.2-7.5x stigmal vein; postmarginal vein 2.25- 1.4x as long as stigmal vein. Ovipositor index: 3.1.....*P. sapphyrinus* (Fonscolombe, 1832) (Forewing with dusky discal ciliae, mesosomaic dorsum very finely, densely punctured, entirely dull.....*P. sapphyrinus mongolicus* Szelenyi, 1973)
 -- Tibiae and tarsi almost white; Ovipositor almost equal (0.95-1x) to the length of the body; propodeum without carina; scape yellow; scape as long as first 3 funicle segments, pedicel as long as F1, funicular segments almost quadrate, towards apex slightly broader and shorter; ovipositor brown, extrem tip white.....*P. africanus* Crosby, 1909
- 5- Ovipositor sheath equal 2.6x gaster length; Propodeum with median carina; hind coxae dorsally bare; marginal vein less than 4x stigmal vein.....*P. carinatus* Xiao & Zhao, 2007
 -- Ovipositor sheath at most equal 2x gaster length.....6
- 6- Ovipositor sheath almost equal 2x gaster length (Fig. 2a).....7
 -- Ovipositor sheath at most equal 1.6x gaster length (Fig. 3a).....10
- 7- Fore and mid tibiae dark, with yellowish apices, hind tibia and tarsi of all legs yellow; Propodeum with indistinct reticulations, without carina; Ovipositor equal to total length of the gaster and mesosoma; Pedicel 1.5x longer than wide; club 2x as long as width; antennae with scape and pedicel yellow; F1-F3 quadrate, other flagellar segments slightly transverse; hind femora with very small dentations, forewing with marginal vein 2.25x as long as postmarginal vein, and 6.75x stigmal vein; postmarginal vein 3.0x as long as stigmal vein. Ovipositor index: 2.86.....*P. rosarum* (Zerova & Seryogina, 1995)
 -- Legs with tibiae and tarsi yellow; hind femora (Fig. 2b) without tooth.....8
- 8- Forewing (Fig. 2f) with marginal vein 2.93x as long as postmarginal vein, and 6.0x stigmal vein; postmarginal vein 2.0x as long as stigmal vein. POL 3.75x OOL. Antenna (Fig. 2c) with scape, pedicel, tibiae and tarsi yellow; scape equal to pedicel plus anellus and F1+F2 combined; pedicel 1.3x as long as width; anellus 2.6x as wide as long; funicular segments slightly transverse, with dense longitudinal sensillae (4-7); gradually widening apically, F7 1.2x as wide as F1; F1-F5 in same width and length, slightly transverse; 1.15-1.2x as wide as long; F6 1.54x, F7 1.58x as wide as long; club 1.63x as long as wide; Ovi. index: 3.15.....*P. adananensis* sp. nov.
 -- Forewing with marginal vein at least 4.23x as long as postmarginal vein.....9
- 9- Forewing with marginal vein 4.8x as long as postmarginal vein, and 6.2x stigmal vein; postmarginal vein 1.3x as long as stigmal vein. Antenna with pedicel as long as wide; F1 transverse; F2 subquadrate; F3-F7 transverse; POL 3x OOL; scape, ventral half of pedicel, tibiae and tarsi yellow, wings hyaline;. Propodeum with weak median carina. Ovi. index 3.1. Length 2mm; O.1.1.82 mm.....*P. ephedrae* Narendran & Prabha Sharma, 2006
 -- Forewing with marginal vein 4.23x as long as postmarginal vein, and 6.9x stigmal vein; postmarginal vein 1.6x as long as stigmal vein. scape, pedicel, tibiae and tarsi yellow POL

- 3.33x OOL. Antenna (Fig. 1 of Narendran, 2006a) with scape equal to pedicel plus anellus and first 2 flagellar segments; pedicel 1.5x as long as width; anellus 2x as wide as long; funicular segments slightly transverse, with dense longitudinal sensillae (4-7); gradually widening apically, F7 1.39x as wide as F1; F1-F5 in same width and length, slightly transverse; 1.12-1.19x as wide as long; F6 1.33x, F7 1.6x as wide as long; club 1.54x as long as wide; Propodeum with weak median carina ; hind coxa with a few widely spaced dorsal sensillae; Ovi. index 2.95. Length 4.51 mm.....*P. annamalicus* Narendran, 2006
- 10- Ovipositor at most equal to total length of the gaster and mesosoma.....11
 -- Ovipositor slightly longer than gaster or shorter.....16
- 11- Ovipositor equal to total length of gaster plus propodeum.....12
 -- Ovipositor at least equal to total length of the gaster and half of mesosoma; ovipositor equal 1.5x to the length of the gaster.....14
- 12- Hind femora indistinct tooth at the apex; Ovipositor equal approximately to the length of the gaster with the propodeum. body blue-violet. Parapsidal groove shallow. From gall of *Wachtliella stachidis* on *Stachys* sp. 1,8-2 mm (Fig. 32, 1-3 of Zerova & Seryogina, 1999).....
*P. stachidis* (Mayr, 1874)
 -- Hind femora with distinct tooth.....13
- 13- Ovipositor sheath about 1.25 as long as gaster; Propodeum without submedian carinae; Parapsidal groove shallow; scape blue?, body is blue-green with the violet reflexion. forewing with marginal vein 4.0x as long as postmarginal vein, and 8x stigmal vein; postmarginal vein 2.0x as long as stigmal vein. From gall of gall midges and sawflies on *Salix* spp. 2,8 - 3 mm. O.l. 2.0 mm.....*P. salicis* Ruschka, 1923
 -- Ovipositor almost equal to length of gaster plus propodeum; body, including tegulae green; hypopygium nearly reaches apex of gaster; forewing basal cell closed below in distal half and with a row of hairs on upper surface behind marginal vein. Parapsidal groove deep. From several larvae of *Apion* and *Bruchidius* on the bean. 1,6- 2,2 mm.....
*P. arvernicus* (Walker, 1833) (*P. dubius* (Nees) (= *apionis* Mayr)
- 14- Hind femora (Fig. 3b) without distinct tooth at the apex, 4.37x as long as width. Ovipositor (Fig. 3 a) equal to total length of the gaster and mesonotum; mesosoma (Fig. 3d) finely reticulated; propodeum (Fig. 3e) without median carina, smooth, spiracle touching metanotum ; antenna (Fig. 3 c) with scape equal to pedicel plus anellus and F1+F2 plus 1/3 of F3 combined; pedicel 1.7x longer than wide; anellus 2x as wide as long; funicular segments with one row of sparse setae (2-6), funicular segments slightly transverse, F1 1.38x; F2-F4 1.33x, F5-F6 1.55x; F7 1.9x as wide as long; F7 1.36x as wide as F1; club slightly wider than F7, 2.1x as long as wide; Body blue with greenish reflexion, antenna with scape and pedicel concolorous with body, flagellum brown, legs concolorous with body, except tips of tibiae and basal 3 segments of tarsi yellow; forewing (Fig. 3f) with marginal vein 2.94x as long as postmarginal vein, and 7.0x stigmal vein; postmarginal vein 2.43x as long as stigmal vein. Ovipositor index: 2.27.....*P. nigdenensis* sp. nov.
 -- Hind femora with distinct tooth at the apex. coxae and femora dark, tibiae pale yellow
 Ovipositor equal to total length of the gaster and half of mesosoma.....15
- 15- Funicular segments with two rows of sensillae; mesosoma minutely reticulated.....
*P. regalis* Askew, 2006
 -- Funicular segments with one row of sensillae; mesosoma rugose granulate. Propodeum without median carina, smooth, sidely faintly rugulose; hind coxae dorsally hairy; Forewing with marginal vein more than 6x stigmal vein, a little more than 3x postmarginal vein, postmarginal vein 2.5x as long as stigmal vein; antenna with scape equal to pedicel plus anellus and F1+F2 plus 1/2 of F3 combined; pedicel 1.2x longer than wide; anellus 2x as wide as long; F1-F3 slightly transverse, 1.25x as wide as long; F4-F5 1.4x, F6 1.6x, F7 1.86x as wide as long; club almost 1.6x as long as wide.....*P. harithavarnus* Narendran, 1994
- 16- Ovipositor slightly longer than gaster or somewhat longer. If ovipositor very slightly longer than gaster, then hind femora with deep emargination after the tooth.....17

- Ovipositor is almost equal to the length of the gaster, or shorter.....20
- 17- Parapsidal grooves shallow; body brilliant green; femora green, tibiae black, tarsi yellow; ovipositor slightly longer than gaster.....*P. capreae* (Walker, 1833)
- Parapsidal grooves deep; body green, by places are dark-blueish or bronze; ovipositor at most 1.1x longer than gaster (Fig. 5a).....18
- 18- Hind femora without tooth; funicular segments transverse; POL 2.5X OOL; tegulae brown; scape, tibiae and tarsi yellow, pedicel and flagellum yellowish brown, wings hyaline.....*P. amuthae* Narendran, 1994
- Hind femora with indistinct tooth.....19
- 19- Tegulae yellow with the black spot; body (Fig. 5a) dark-blue with coppery reflection, base of the gaster dark-blue; antenna (Fig. 5c) with scape equal to pedicel plus first 3 flagellar segments; pedicel 1.5x longer than wide; anellus 2x wider than long; funicular segments with one row of setae, funicular segments transverse, filiform, F7 as wide as F1; club 1.62x as long as wide; mesosoma (Fig. 5d) finely wrinkled with some reticulations, with parapsidal groove deep; propodeum (Fig. 5e) without carina, with longitudinal reticulation medially. Forewing (Fig. 5f) with marginal vein 3.1x as long as postmarginal vein, and 5.6x stigmal vein; postmarginal vein 1.8-2x as long as stigmal vein. Ovipositor index: 2.16.....*P. sanguinalis* Erdős, 1957
- Tegulae dark-blue; body green, by places dark-blue, 1-2 segments of the gaster cupery-red; mesosoma thin wrinkled, propodeum with two very thin complete keel in the middle; pedicel longer than wide. 2.8 -3 mm. O.l 1.6 mm.....
-*P. frontinus* (Walker, 1851) (= *frontalis* (Walker, 1851 = *carinata* Mayr, 1874)
- 20- Ovipositor at least 0.66x length of gaster (Fig. 4a).....21
- Ovipositor at most 0.55x length of gaster (Figs. 18-20a).....49
- 21- Hind femora without tooth or with indistinct tooth.....22
- Hind femora with distinct tooth (Figs. 11-20b).....34
- 22- Hind femora with indistinct tooth (Figs. 4-5b).....23
- Hind femora without tooth (Figs. 6-7b).....27
- 23- Ovipositor at most equal to 0.75x lengths of the gaster.....24
- Ovipositor at least 0.85x length of the gaster.....25
- 24- Ovipositor (Fig. 4a) equal to 0.7x lengths of the gaster; Antenna (Fig. 4c) with scape equal to pedicel plus anellus and F1+F2; pedicel 1.55x longer than wide; anellus 1.6x wider than long; funicular segments with one row of sensillae, funicular segments with F7 1.12x as wide as F1; club 1.6x as long as wide; mesonotum (Fig. 4d) with distinct fine reticulation; with parapsidal groove deep; propodeum (Fig. 4e) without carina, medially smooth, laterally with fine reticulation. forewing (Fig. 4f) with marginal vein 3.2x as long as postmarginal vein, and 4.4x stigmal vein. Ovipositor index: 1.1.....*P. celikhanensis* sp. nov.
- Ovipositor (Fig. 31, 4 of Zerova & Seryogina, 1999) equal at least 0.75x length of the gaster; Antenna with scape equal to pedicel plus anellus and F1+F2, and 1/2 F3 combined; pedicel 1.9x longer than wide; anellus about 2.17x wider than long; funicular segments with F7 1.5x as wide as F1; club 1.73x as long as wide. Forewing with marginal vein 4.0x as long as postmarginal vein, and 6.4x stigmal vein; postmarginal vein 1.6x as long as stigmal vein. Body golden- green. Mesosoma in basal half with deep punctations and broad reticulations, scutellum transversely wrinkled; In gall of gall midges on *Salvia pratensis* L. 2-2,5 mm (Fig. 31, 4-6 of Zerova & Seryogina, 1999).....*P. salviae* Ruschka, 1923
- 25- Ovipositor 0.85x length of the gaster (O.l. 1.65 mm); Antenna with 1-3 funicular segments almost quadrate, remaining transverse; Mesonotum wholly transversely wrinkled; deep punctations present only on scutellum; postmarginalvein 1.6x stigmal vein, stigma small, with short uncus; area between postmarginal vein and stigma more than half width of

- stigma. In gall of gall midges from *Dasyneura* spp. on many forms of bean. 3 mm (Fig. 31, 1-3 of Zerova & Seryogina, 1999).....*P. medicaginis* (Mayr, 1874)
 -- Ovipositor (Fig. 5a) slightly shorter (0.96x) than the gaster.....26
- 26- Antenna (Fig. 5c) with scape equal to pedicel plus anellus and F1 and half of F2; pedicel 1.25x longer than wide; anellus 2x wider than long; F7 as wide as F1; club 1.5x as long as wide; propodeum (Fig. 5e) without carina, having fine longitudinal reticulation. Forewing (Fig. 5f) with marginal vein 6.6x stigmal vein; postmarginal vein 2.4x as long as stigmal vein. Ovipositor index: 1.7.....*P. lutfiyeae* sp. nov.
 -- Antenna with scape equal to pedicel plus anellus and F1+F2; pedicel 1.4x longer than wide; anellus 2.5x wider than long; F7 1.83x as wide as F1; club 1.7x as long as wide; body bluish-green. propodeum with submedian carinae. Forewing with marginal vein 3.54x stigmal vein; postmarginal vein 1.4x as long as stigmal vein; 2 mm; 1,5 -1,9 mm (Fig. 33, 1-3 of Zerova & Seryogina, 1999).....*P. salicinus* Erdős, 1955
- 27- Ovipositor at most 0.70x length of gaster (Figs. 6a, 8a). Anellus 2x wider than long.....28
 -- Ovipositor at least 0.75x length of gaster (Fig. 31, 4 of Zerova & Seryogina, 1999).....30
- 28- Antenna (Fig. 8c) with scape equal to pedicel plus anellus and F1+F2; pedicel 1.6x longer than wide; funicular segments with one row of dense (7-9) sensillae, funicular segments distinctly transverse, slightly widening towards tip, F1 slightly transverse 1.14x as wide as long, following ones almost 1.6-2.0x as wide as long, F7 1.33x as wide as F1; club broad, 1.64x as long as wide, and about 1.47x as wide as F7; mesonotum (Fig. 8d) with transversely wrinkled; with parapsidal groove deep; propodeum (Fig. 8e) without carina, reticulated. Forewing (Fig. 8f) with marginal vein 3.0x as long as postmarginal vein, and 4.7x stigmal vein; postmarginal vein 2.25x as long as stigmal vein, stigma broad, with long uncus. Ovipositor index: 1.33.....*P. keçikuyusunensis* sp. nov.
 -- Antenna (Fig. 6c) with scape equal to pedicel plus anellus and F1+F3.....29
- 29- Ovipositor (Fig. 6a) 0.63x length of gaster; Antenna (Fig. 6c) with pedicel 1.33x longer than wide; funicular segments with one row of dense sensillae (4-7), funicular segments distinctly transverse, F1 short, almost half length of F2, 3x as wide as long, F2 2.3x; F3-F5 2.3x; F6-F7 2.86x as wide as long, slightly widening towards tip, F7 2.86x as wide as F1; club broad, 1.26x as long as wide, and about 1.5x as wide as F7; mesonotum and scutellum (Fig. 6d) with fine reticulation; with parapsidal groove deep. Forewing (Fig. 6f) with marginal vein 3.36x as long as postmarginal vein; postmarginal vein 1.83x as long as stigmal vein, stigmal vein broad, long, stigma small, with long uncus. Hind femora (Fig. 6b) 3.53x as long as width. Ovipositor index: 1.5.....*P. haliti* sp. nov.
 -- Ovipositor 0.70x length of gaster (Figs. 7-8a). Antenna (Fig. 7c) with pedicel 1.5x longer than wide; funicular segments with one row of sparse (2-4) sensillae, funicular segments slightly transverse, slightly widening towards tip; F1 2x as wide as long, following ones almost 0.6-0.7x as wide as long; , F7 1.2x as wide as F1, club broad, 1.5x as long as wide, and about 1.3x as wide as F7. mesonotum (Fig. 7d) with coarsely wrinkled, between them with deep pits; with parapsidal groove shallow. Forewing (Fig. 7f) with marginal vein 4.0x as long as postmarginal vein; postmarginal vein 1.6x as long as stigmal vein, stigmal vein broad, short: stigma broad, with long uncus. Ovipositor index:1.4. In gall of gall midges, *Asphondilia verbasci* on *Verbascum* spp. 2.7mm (Fig. 35, 1-3 of Zerova & Seryogina, 1999).....*P. verbasci* Erdős, 1955
- 30- Ovipositor (Fig. 9a) equal length of the gaster.....31
 -- Ovipositor at most 0.8x length of the gaster.....32
- 31- Body (Fig. 9a) blue-green, antennae with scape and pedicel metallic blue, flagellum brown; legs colorous with body, except tibiae, and tarsi yellow, except last segment of tarsi black (Fig. 9b); wing hyaline, veins yellow. Antenna (Fig. 9c) with scape equal to pedicel plus anellus and F1+F2 combined; pedicel 1.4x longer than wide; anellus about 2x wider than long; funicular segments with one row of sparse sensillae (3-4), funicular segments distinctly transverse, slightly widening towards tip, F7 1.1-1.17x as wide as F1;

- club slightly wider than F7, 1.9x as long as wide; mesonotum (Fig. 11d) with distinct fine reticulation. Forewing (Fig. 9f) with marginal vein 3.1x as long as postmarginal vein, and 6.0x stigmal vein; postmarginal vein 1.4x as long as stigmal vein. Hind femora (Fig. 9b) 5.1x as long as width. Ovipositor index: 2.0.....*P. horasanensis* sp. nov.
- Body (Fig. 1 of Zerova & Seryogina, 2007) with head and dorsal part of thorax bluish-green, mesepimeron with bluish-green round spot, rest of thorax, legs and abdomen yellow, eyes and ocelli are dark brown; scape and flagellum brown, wings with distinct dark cloud under stigmal vein ovipositor sheaths brown. Antenna (Fig. 3 of Zerova & Seryogina, 2007) with scape equal to pedicel plus anellus and F1+1/3 F2 combined; pedicel 2x longer than wide; anellus slightly wider than long (5/4); funicular segments F1-F3 longer than width; F4-F5 quadrate; F6-F7 slightly wider than long (12/9), flagellum distinctly widening towards tip, F7 2.2x as wide as F1; club slightly wider than F7, 2.15x as long as wide. Forewing (Fig. 5 of Zerova & Seryogina, 2007) with marginal vein 2.75x as long as postmarginal vein, and 5.13x stigmal vein; postmarginal vein 1.9x as long as stigmal vein. Hind femora (Fig. 4 of Zerova & Seryogina, 2007) 4.0x as long as width. Ovipositor index: 1.67.....*P. juniperi* Zerova, 2007
- 32- Postmarginal vein (Fig. 32, 6 of Zerova & Seryogina, 1999) slightly longer than stigmal vein; gaster as long as mesosoma; Antenna (Fig. 32, 7 of Zerova & Seryogina, 1999) with scape equal to pedicel plus anellus and F1-F2+1/3 F3 combined; pedicel 1.5x as long as width; anellus 2.8x wider than long; funicular segments distinctly transverse and distinctly widening towards tip, F7 1.9x as wide as F1; club slightly wider than F7, 1.86x as long as wide; propodeum (Fig. 32, 4 of Zerova & Seryogina, 1999) basally with two incomplete keels; malar space shorter than half of eye height. Hind femora 4.4x as long as width. Ovipositor index: 1.53. 2 mm.....*P. cupreus* Erdős, 1955
- Postmarginal vein at least 1.7x stigmal vein; Antenna with scape equal to pedicel plus anellus and F1-F2+1/3 F3 combined.....33
- 33- Postmarginal vein (Fig. 35, 6 of Zerova & Seryogina, 1999) 1.7x stigmal vein; Ovipositor equal to 0.8x lengths of the gaster (Fig. 35, 4 of Zerova & Seryogina, 1999); Antenna with pedicel almost quadrate; anellus 1.8x wider than long; club 1.54x as long as wide; Body emerald-vividly green. Mesonotum grainy-cellular, by places tuberosus. Forewing with marginal vein 3.5x as long as postmarginal vein, and 6.5x stigmal vein; postmarginal vein 2.0x as long as stigmal vein. Hind femora 3.9x as long as width. Ovipositor index: 1.1. Gall of gall-midges from *Dasyneura* spp. on *Euphorbia* spp. 2,7-3 mm.....*P. euphorbiae* Zerova & Seryogina, 1999
- Postmarginal (Fig. 10f) vein 2.25x as long as stigmal vein. Antenna (Fig. 10c) with pedicel 1.4x longer than wide; anellus 2.4x wider than long; club 2.3x as long as wide; mesonotum (Fig. 10d) with distinct fine reticulation; parapsidal groove deep; propodeum (Fig. 10e) without carina, laterally with fine reticulation. Forewing (Fig. 10f) with marginal vein 2.7x as long as postmarginal vein, and 6.0x stigmal vein; postmarginal vein 2.25x as long as stigmal vein. Hind femora (Fig. 10b) 3.43x as long as width. Ovipositor index: 0.82.....*P. dogubayezitensis* sp. nov.
- 34- Ovipositor 0.58x length of gaster; body blue-green scape green; flagellum 1.5x as broad as pedicellus, F1-F7 distinctly transverse, clava longer than 3 proceeding segments combined. Propodeum reticulated, frequently incomplete keels; Ovipositor slightly longer than 1/2 abdomens (0.58x).....*P. hirsuticornis* Szelenyi, 1973
- Ovipositor at most equal to length of gaster.....35
- 35-- Ovipositor at most equal to 0.66x lengths of the gaster.....36
- Ovipositor at least 0.7x length of gaster.....40
- 36- Ovipositor about 0.6x length of the gaster.....37
- Ovipositor about 0.65x length of the gaster.....38
- 37- Forewing (Fig. 29, 2 of Zerova & Seryogina, 1999) with marginal vein 4.0x as long as postmarginal vein, and 7.4x stigmal vein; postmarginal vein 1.86x as long as stigmal vein. Antenna (Fig. 29, 2 of Zerova & Seryogina, 1999) with funicular segments slightly

transverse, except F1 quadrate, flagellum slightly widening towards tip, F7 1.38x as wide as F1; club 1.1x as wide as F7, 2x as long as wide; Hind femora (Fig. 29, 1 of Zerova & Seryogina, 1999) 4.0x as long as width. Panel of mesoscutum and scutellum finely transversely wrinkled; body blue-green. Ovipositor index: 1.0; 2-2.5 mm.....

.....*P. militaris* (Boheman, 1834) (= *parellinus* Boheman)
 - Forewing (Fig. 34, 4-5 of Zerova & Seryogina, 1999) with marginal vein 3.0x as long as postmarginal vein, and 4.3x stigmal vein; postmarginal vein 1.43x as long as stigmal vein. Antenna (Fig. 34, 6 of Zerova & Seryogina, 1999) with funicular segments distinctly transverse, distinctly widening towards tip, F1-F2 1.4x, F7 1.83x as wide as long, and 1.83x as wide as F1; club 1.5x as long as wide. Propodeum reticulated, frequently with incomplete keels. Hind femora (Fig. 34, 7 of Zerova & Seryogina, 1999) 3.9x as long as width. Ovipositor index: 0.7. 2 mm.....*P. semicarinatus* Erdős, 1955

38- Antenna (Fig. 11c) with scape yellow. Forewing (Fig. 11f) with marginal vein 3.0x as long as postmarginal vein, and 6.0x stigmal vein; postmarginal vein 2.0x as long as stigmal vein. Antenna (Fig. 11c) with scape equal to pedicel plus anellus and F1-F2+1/3 F3; pedicel 1.55x longer than wide; anellus 1.6x wider than long; funicular segments with one row of sensillae, funicular segments slightly transverse, slightly widening towards tip, F7 1.1x as wide as F1; club 1.6x as long as wide; mesonotum (Fig. 11d) with distinct fine reticulation; with parapsidal groove deep; propodeum (Fig. 11e) without carina, basally with fine incomplete keels, medially smooth. Hind femora (Fig. 11a) 3.6x as long as width. Ovipositor index: 0.9.....*P. samsatensis* sp. nov.
 -- Antenna with scape and pedicel green.....39

39- Mesonotum roughly wrinkled, scutellum finely reticulated, at the apex smooth; propodeum basally with two incomplete keels. Forewing (Fig. 34, 11 of Zerova & Seryogina, 1999) with marginal vein 3.72x as long as postmarginal vein, and 6.1x stigmal vein; postmarginal vein 1.5x as long as stigmal vein. Femora and tibiae green, tips of tibiae and tarsi yellow. Antenna with scape and pedicel green, flagellum dark brown, anellus and funicular segments quadrate. In gall of *Dasyneura* spp. on *Salix* spp. 2,3- 2,6 mm; ovipo. 1,6-1.7 mm.....*P. krygeri* Hoffmeyer, 1931

-- Mesonotum (Fig. 12d) broadly reticulated; with parapsidal groove shallow; propodeum (Fig. 12e) without carina, smooth, basally with 3 foveae. Forewing (Fig. 12f) with marginal vein 3.44x as long as postmarginal vein, and 6.2x stigmal vein; postmarginal vein 1.8x as long as stigmal vein, the latter short, stigma broad, without brown cloud. Body (Fig. 12a) including antennae blue-violet. Antenna (Fig. 12c) with scape slightly longer than pedicel plus anellus and F1+F2 combined; pedicel 1.3x longer than wide; anellus 2x wider than long; funicular segments distinctly transverse, F1 1.27x slightly widening towards tip, F7 1.1.6x as wide as long and as wide as F1; club 1.43x wider than F7, 1.65x as long as wide; hind femora (Fig. 12b) 4.0x as long as width. Ovipositor index: 0.94.....*P. leguminus* Ruschka, 1923

40- Propodeum reticulate, with longitudinally rugulose, frequently incomplete keels; Ovipositor shorter than gaster; funicular segments not enlarged gradually; malar space equal to or slightly longer than half of eye height; funicular segments with one row of sensilla.....*P. reticulatus* Szelenyi, 1973
 -- Propodeum smooth, or medially smooth, at most laterally with fine reticulation.....41

41- Ovipositor equal to 0.7x length of gaster. Sscape equal to pedicel plus anellus and F1-F2, and 1/3 F3 combined.....42
 -- Ovipositor equal to at least 0.78x lengths of the gaster.....43

42- Ovipositor index: 1.2. Antenna (Fig. 13c) with scape yellow; funicular segments with one row of dense sensillae (4-9); pedicel 1.5x longer than wide; anellus 2.33x wider than long; funicular segments distinctly widening towards tip, F7 0.9x as wide as F1; club 1.4x as long as wide; mesonotum (Fig. 13d) distinctly wrinkled; with parapsidal groove deep; propodeum (Fig. 13e) medially smooth, laterally with fine reticulation. Forewing (Fig. 13f) with marginal vein 8.3x stigmal vein; postmarginal vein 2.3x as long as stigmal vein.....
*P. ispirlii* sp. nov.

-- Ovipositor index: 1.32. Antenna (Fig. 14c) with scape blue; funicular segments with one row of sparse sensillae (3-4). pedicel 1.22x longer than wide; anellus about 2x wider than long; funicular segments slightly widening towards tip, F7 1.3x as wide as F1; club 1.35x as long as wide; mesonotum (Fig. 14d) finely wrinkled; parapsidal groove shallow; propodeum (Fig. 14e) smooth; forewing (Fig. 14f) with marginal vein 6.0x stigmal vein; postmarginal vein 1.8x as long as stigmal vein.....*P. aladagensis* sp. nov.

43- Ovipositor 0.78x length of gaster; scape basally yellow, apically metallic; Antenna (Fig. 15c) with scape equal to pedicel plus anellus and F1-F2 combined; pedicel 1.9x longer than wide; anellus almost quadrate; funicular segments with one row of dense sensillae (4-9), funicular segments slightly transverse, slightly widening towards tip, F7 1.24x as wide as F1; club 1.17x wider than F7, 1.86x as long as wide, clava not quite as long as 3 preceding segments combined; mesonotum and scutellum (Fig. 15d) with fine reticulation; parapsidal groove deep; propodeum (Fig. 15e) with very fine and weak longitudinal reticulation and a row of 8-10 small anterior foveae, frequently incomplete keels. Forewing (Fig. 15f) with 8.0x stigmal vein; postmarginal vein 2.75x as long as stigmal vein; Ovipositor index: 1.27. Reared from cecidomyiid feeding on seeds of *Geranium pratense* (M. Cranesbill).....

.....*P. bollinensis* Askew, 2002
 -- Ovipositor at least 0.82x length of the gaster (Fig. 16a).....44

44- Ovipositor at most 0.84x length of the gaster.....45

-- Ovipositor at least 0.94x length of the gaster.....46

45- Ovipositor index: 1.53; mesonotum and scutellum (Fig. 16d) with small shallow pits, parapsidal groove deep. Antenna (Fig. 16c) with scape equal to pedicel plus anellus and F1-F2 combined; pedicel 1.43x longer than wide; anellus 1.83x wider than long; funicular segments F1 1.55x, F7 1.83x as wide as long, F7 1.3x as wide as F1; club 1.14x wider than F7, 1.68x as long as wide; Forewing (Fig. 16f) with postmarginal vein 1.81x as long as stigmal vein, radial vein thin, short; stigma broad, with long uncus, width of stigma 1.4x as long as space between uncus and postmarginal vein; hind femora (Fig. 16b) with width of femora at level of tooth equal to space between tooth and its apical tip.....*P. bedirlinensis* sp. nov.

-- Ovipositor index: 1.4. mesonotum and scutellum (Fig. 17d) without pits, parapsidal groove shallow. Antenna (Fig. 17c) with scape equal to pedicel plus anellus and F1-F2+1/3 F3 combined; pedicel 1.6x longer than wide; anellus 1.5x wider than long; funicular segments F1 1.75x, F7 1.67x as wide as long, F7 1.43x as wide as F1; club 1.3x wider than F7, 1.2x as long as wide; Forewing (Fig. 17f) with postmarginal vein 2.86x as long as stigmal vein, radial vein broad, short; stigma broad, with long uncus, width of stigma 1.67x as long as space between uncus and postmarginal vein; hind femora (Fig. 17b) with width of femora at level of tooth 1.2x to space between tooth and its apical tip.....*P. ocaklii* sp. nov.

46- Forewing having short brown cloud, with the radial vein short, stigma broad; body green, by places blue; scape metallic-green; Forewing with marginal vein 4.75x as long as postmarginal vein, and 9.5x stigmal vein; postmarginal vein 2.0x as long as stigmal vein. In gall of gall midges, predominantly *Dasyneura* spp. on some Cruciferae. 2- 2.5 mm (Fig. 34, 8-10 of Zerova & Seryogina, 1999).....

.....*P. napi* (Amerling & Kirshner, 1860) (= *brassicae*, Ruschka)
 --Forewing hyaline.....47

47- Funicular segments not enlarged gradually; malar space equal to or slightly longer than half of eye height; funicular segments with one row of sensilla.....*P. indicus* (Mani, 1942)

-- Funicular segments slightly widening towards tip. Ovipositor almost as long as gaster (Fig. 18a).....48

48- Body wholly green; scape mostly yellow; Forewing (Fig. 18f) with marginal vein 2.2x as long as postmarginal vein, and 4.9x stigmal vein; postmarginal vein 2.22x as long as stigmal vein; radial vein long, stigma small, with long uncus; width of stigma 1.14x as long as space between uncus and postmarginal vein. Antenna (Fig. 18c) with pedicel 1.54x longer than wide; funicular segments slightly transverse, F7 1.17x as wide as F1; club 1.25x wider than

- F7, 1.6x as long as wide. Hind femora (Fig. 18b) with width of femora at level of tooth 1.2x to space between tooth and its apical tip. Ovipositor index: 1.43.....*P. papaveris* (Thomson, 1876)
 -- Body greenish-bronze, partly coppery and golden green, scape basally yellow, flagellum brown. Forewing with marginal vein 3.5x as long as postmarginal vein, and 6x stigmal vein; postmarginal vein 1.71x as long as stigmal vein; radial vein and stigma broad, with short uncus, width of stigma equal as long as space between uncus and postmarginal vein; Antenna with pedicel 1.3x as long as width; funicular segments distinctly transverse, 1.4x as wide as long, gradually widening towards tip. Hind femora with width of femora at level of tooth 1.32x to space between tooth and its apical tip. Length 2.95 mm, ovipositor 0.75 mm.....*P. pulchellus* Masi, 1929
- 49- Ovipositor slightly longer than half length of gaster (0.53-0.55).....50
 -- Ovipositor at most half length of gaster (0.50).....51
- 50- Ovipositor equal 0.55 lengths of gaster, shorter than hind tibia (O.l. 0.8 mm); Forewing basal vein pilose with at least 5 hairs; basal cell closed below in distal half or more, with hairs on upper surface behind marginal vein; costal cell with a row of upper surface hairs in apical third, venation testaceous; thoracic dorsum flattened, notauli shallow; antennae black, clavate; head in dorsal view 2.1x as wide as long; propodeal spiracle not raised.....*P. nephthys*, Walker, 1848
 -- Ovipositor (Fig. 19a) 0.53x length of the gaster. Antenna with scape and pedicel metallic blue, flagellum testaceous; mesonotum (Fig. 19d) distinctly wrinkled, between them finely reticulated with deep punctures; with parapsidal groove deep; propodeum (Fig. 19e) without carina, slightly and transversally striated. Forewing (Fig. 19f) with marginal vein 4.2x as long as postmarginal vein, and 6.25x stigmal vein; postmarginal vein 1.7x as long as stigmal vein. Head in dorsal view 2.94x as wide as long; Hind femora (Fig. 19b) with distinct tooth; Ovipositor index: 0.74.....*P. sivasensis* sp. nov.
- 51- Ovipositor equal to 0.5 gaster.....52
 -- Ovipositor shorter than half of the gaster.....55
- 52- Ovipositor 0.61x length of the gaster. POL 3.5x OOL Antenna with F1 quadrate, F2-F3 slightly transverse, 1.22x, F4-F5 1.47x and F6-F7 about twice as wide as long; funicular segments slightly widening towards tip, F7 1.2x as wide as F1; Funicular segments with two rows of sensillae (Fig. 5 of Narendran et al., 2006); club as wide as F7, 1.8x as long as wide; mesonotum strongly punctate and reticulated; with parapsidal groove deep; propodeum without carina, finely reticulated. Forewing with marginal vein 4.15x as long as postmarginal vein, and 4.5x stigmal vein; postmarginal vein 1.1x as long as stigmal vein. Body blue-green, including legs, tips of tibiae and tarsi yellow; antenna with scape yellowish brown, pedicel and anellus dark brown, flagellum brown. forewing hyaline; legs dark. Hind femora without tooth, 3.4x as long as width; Ovipositor index: 0.87.....*P. grisselli* Narendran & Girish Kumar, 2006
 -- Funicular segments with one row of sensillae.....53
- 53- Hind femora with distinct tooth; propodeum sculptured; mesosoma sufficiently roughly wrinkled; body purple, the gaster at base almost black. 2.3 mm.....*P. vittiger* Ruschka, 1923
 -- Hind femora without tooth or weakly indicated tooth.....54
- 54- Hind femora without tooth; Scape metallic; tibiae pale yellow, coxae and femora dark; mesosomaic dorsum finely reticulated, without rugosity; mesosoma short (1.3-1.4x as long as broad).....*P. amethytinus* Steffan, 1962
 -- Hind femora with weakly indicated tooth; Propodeum smooth; Scape yellow; F1-F3 subsquare, club shorter than 3 proceeding segments combined; ovipositor equal to 1/2 gaster.....*P. ignisplendes* Szelenyi, 1973
- 55- Propodeum almost smooth. ovipositor of 1/3 lengths of the gaster; body is green, mesosoma and the gaster with bronze reflection. 2,9 mm.....*P. brevicaudis* Erdős, 1955
 -- Propodeum sculptured.....56

56- Ovipositor of 0.25x length of the gaster. Propodeum finely reticulated, this sculpture arranged on both sides in concentric rows; Forewing with a brownish cloud below tip of submarginalis and around stigmalis; marginal vein 3.0x as long as postmarginal vein, and 6.0x stigmal vein; postmarginal vein 2.0x as long as stigmal vein. Head and mesosoma green with coppery luster, gaster bluish green, apically basally green in apical half coppery; legs green, knees, tip of tibiae and fore tarsi brown, basal segments of mid and hind tarsi yellow, following segments gradually darkening, claw segment black. Antenna with scape a little longer than pedicel plus anellus and F1 together; F1 and F2 slightly, other funicular segments distinctly transverse, club a little longer than combined length of two preceding segments; hind femora with distinct tooth. 2.3mm.....*P. unidentatus* (Szelenyi, 1973)
-- Ovipositor about 0.42x length of the gaster (Figs. 21a, 22a); hind femora (Fig. 20b) with distinct tooth.....57

57- Antenna (Fig. 20c) with anellus 2x wider than long; funicular segments having F1 small, about half length of F2, about twice as wide as long; F2-F7 slightly widening towards tip, F7 1.33x as wide as F1; funicular segments with one row of very sparse sensillae (1-3); club 1.33x wider than F7, twice as long as wide; mesonotum (Fig. 20d) with distinct fine reticulation; with parapsidal groove deep; propodeum (Fig. 20e) without carina finely reticulated. Forewing (Fig. 20f) with marginal vein 2.2x as long as postmarginal vein, and 4.6x stigmal vein; postmarginal vein 2.1x as long as stigmal vein. Body (Fig. 20a) blue-green, the gaster at base bronze. Ovipositor 0.42x length of the gaster (Fig. 20a); Ovipositor index: 0.55. 2.5 mm.....*P. pannonicus* (Mayr, 1874)
-- Antenna (Fig. 21c) with anellus 1.6x wider than long; funicular segments slightly transverse, slightly widening towards tip, F7 1.25x as wide as F1; F1 1.33x, F7 1.67x as wide as long; funicular segments with one row of dense sensillae (5-7); club 1.13x wider than F7, twice as long as wide; mesonotum (Fig. 21d) with distinct fine reticulation; with parapsidal groove shallow; propodeum (Fig. 21e) without carina, densely and longitudinally striated. Forewing (Fig. 21f) with marginal vein 3.6x as long as postmarginal vein, and 7.3x stigmal vein; postmarginal vein 2.0x as long as stigmal vein. Body (Fig. 21 a) blue-green, including legs, tips of tibiae and tarsi yellow; antenna scape yellow pedicel and flagellum brown. Ovipositor (Fig. 21a) 0.44x length of the gaster; Ovipositor index: 0.88.....*P. pazarcikensis* sp. nov.

Pseudotorymus species of Turkey

Pseudotorymus sapphyrinus (Fonsocolombe, 1832)

(Figs. 1a-f)

Diagnosis. Ovipositor almost equal to the length of the body. Antenna with pedicel as long as anellus plus F1, flagellum filiform; funicular segments F1-F2 slightly longer than wide, F3-F5 quadrate F6-F7 distinctly transverse, slightly widening towards tip, F7 1.6x as wide as F1; club almost twice as long as wide. Body blue-violet, hind tibiae metallic blue-green, scape and pedicel metallic, ovipositor pale brown. propodeum with fine carina, finely reticulated; callus hairy Forewing with marginal vein 3.6x as long as postmarginal vein, and 7.2x stigmal vein; postmarginal vein 1.4x as long as stigmal vein. Ovipositor index: 3.1.

Description:

Female. Body (Fig. 1a) blue-violet, with greenish reflection, antennae with scape and pedicel metallic, flagellum pale brown; leg metallic blue, except femora and tibiae apically, tarsi yellow; wing hyaline, veins yellow. Length 2.2 mm + ovipositor 1.8 mm.

Head in dorsal view 1.14x as wide as mesoscutum, width to length 38:18; POL 2.5 OOL; OOL 1.16x diameter lateral ocellus. Head in frontal view slightly wider than high in ratio 38:35; dorsal margin of torulus distinctly above level of lower orbit; malar space consists 0.4x height of eye. Face with fine sculpture. Antenna (Fig. 1c) with pedicel as long as anellus plus F1, flagellum filiform; funicular segments F1-F2 slightly longer than wide, F3-F5 quadrate F6-F7 distinctly

transverse, slightly widening towards tip, F7 1.6x as wide as F1; linear sensilla in a single row on each funicle segment; clava almost twice as long as wide.

Mesosoma (Fig. 1a) bulged in profile, propodeum slightly visible dorsally; mesoscutum (Fig. 1d) and scutellum widely wrinkled; parapsidal groves deep; pronotum 0.8x as long as mesoscutum; propodeum (Fig. 1e) with fine carina, finely reticulated, callus hairy. All coxae reticulated. Forewing (Fig. 1f) with, marginal vein 3.6x as long as postmarginal vein, and 7.2x stigmal vein; postmarginal vein 1.4x as long as stigmal vein, having very short and light pubescence. Hind femora (Fig. 1b) 4.37x as long as wide, with distinct tooth.

Metasoma (Fig. 1a) excluding ovipositor almost equal rest of body; basal 3 tergites with posterior margin distinctly incised medially; tip of hypopygium at two-thirds gaster length; Ovipositor almost equal to the length of the body. Ovipositor index: 3.1.

Male. Unknown.

Material examined: Turkey: Tokat: 1 female, Necip village, 11.v.1989, M. Doğanlar; 1 female, Taşçıftlık, 28.iv.1989, H. Çam; 1 female, Hatay, Altınözü, 23.iv.2006, M. Doğanlar; 1 female, Gaziantep, Oğuzeli; 1 female, Keçikuyusu, 28.iv.2012; 1 female, Sekili, 02.v.2010, swept from pasture, M. Doğanlar; 1 female, Siverek, 16.iv.2013, swept from lent field, M. Doğanlar. The specimens were deposited in the Insect collection of Research Station of Biological Control, Adana.

Distribution: Turkey: Atçana, Antakya, Hatay.

Host: Reared from cecidomyiid gall on stems of *Eryngium* sp., Gall of *Thomasiella eryngii* on *Eryngium campestre* L. (Zerova & Seryogina, 1999).

***Pseudotorymus adananensis* sp. nov.**

(Figs. 2a-f)

Diagnosis. Ovipositor sheath equal 1.95x gaster length; scape, pedicel, tibiae and tarsi yellow; hind femora without tooth; POL 3.75x OOL. Antenna with scape equal to pedicel plus anellus and first 2 flagellar segments; pedicel 1.3x as long as width; anellus 2.6x as wide as long; funicular segments slightly transverse, with dense longitudinal sensillae (4-7); gradually widening apically, F7 1.2x as wide as F1; F1-F5 in same width and length, slightly transverse; 1.15-1.2x as wide as long; F6 1.54x, F7 1.58x as wide as long; club 1.63x as long as wide; Forewing with marginal vein 2.93x as long as postmarginal vein, and 6.0x stigmal vein; postmarginal vein 2.0x as long as stigmal vein. Ovi. index 3.15.

Description:

Female. Body (Fig. 2a) blue-violet, antenna and legs concolorous with body, except tibiae, tarsi and ovipositor yellow; antenna with scape, pedicel, yellow, flagellum brown (Fig. 2b); wing hyaline, veins yellow. Length 2.38 mm + ovipositor 2.25 mm.

Head in dorsal view as wide as mesoscutum, width to length 45:13; POL 3.75x OOL; OOL 0.8 diameter of lateral ocellus. Head in frontal view slightly wider than high in ratio 44:30; dorsal margin of torulus distinctly above level of lower orbit; malar space consists 1/3 height of eye; face with fine sculpture. Antenna with scape equal to pedicel plus anellus and first 2 flagellar segments; pedicel 1.3x as long as width; anellus 2.6x as wide as long; funicular segments slightly transverse, with dense longitudinal sensillae (4-7); gradually widening apically, F7 1.2x as wide as F1; F1-F5 in same width and length, slightly transverse; 1.15-1.2x as wide as long; F6 1.54x, F7 1.58x as wide as long; club 1.63x as long as wide.

Mesosoma (Fig. 2a) distinctly bulged in profile, propodeum slightly visible dorsally; mesosoma and scutellum (Fig. 2d) with fine reticulations; propodeum

(Fig. 2e) without median carina, with fine longitudinal striae. All coxae reticulated. Forewing with marginal vein 2.93x as long as postmarginal vein, and 6.0x stigmal vein; postmarginal vein 2.0x as long as stigmal vein. Hind femora without tooth, hind femora large 3.71x as long as wide.

Metasoma (Fig. 2a) excluding ovipositor as long as rest of body; basal 3tergite with posterior margin distinctly incised medially; tip of hypopygium at 0.8x gaster length; Ovipositor (Fig. 2a) almost equal to total length of gaster and mesosoma, ovipositor equal 1.95x length of gaster; Ovipositor index: 3.15.

Male. Unknown.

Material examined: Holotype, female, Turkey: Adana, 22.v. 1982, swept from pasture, M. Doğanlar. Paratypes: 1 female, same data as holotype; 1 female, Hatay, Antakya, 15-27.viii.1995, reared from Cecidomyiidae gall on *Diplolepis muralis* L., M. Doğanlar. All of the types were deposited in the Insect collection of Research Station of Biological Control, Adana (IMBC).

Distribution: Turkey: Adana.

Host: Reared from Cecidomyiidae gall on *Diplolepis muralis* L.

Male: Unknown.

Comments: *Pseudotorymus adananensis* sp. nov. is similar to *P. rosarum* (Zerova & Seryogina, 1995) and *P. ephedrae* Narendran & Prabha Sharma, 2006, in having ovipositor sheath almost equal 2x gaster length, hind femora without distinct tooth at apex. The new species differs from *P. rosarum* in having fore and mid tibiae yellow, postmarginal vein 2.0x as long as stigmal vein and antenna with funicular segments slightly transverse (in *P. rosarum* fore and mid tibiae dark, with yellowish apices; postmarginal vein 3.0x as long as stigmal vein and antennae with F1-F3 quadrate, other flagellar segments slightly transverse). and differs from *P. ephedrae* in having forewing with marginal vein 2.93x as long as postmarginal vein and propodeum without carina (in *P. ephedrae* forewing with marginal vein at least 4.23x as long as postmarginal vein and propodeum with weak median carina).

***Pseudotorymus nigdenensis* sp. nov.**

(Figs. 3a-f)

Etymology. The name is derived from the name of place from where the holotype was collected.

Diagnosis. Ovipositor equal to total length of the gaster and mesonotum, and equal 1.5x to the length of the gaster; antenna with scape equal to pedicel plus anellus and F1+F2 plus 1/3 of F3 combined; pedicel 1.7x longer than wide; anellus 2x as wide as long; funicular segments with one row of sparse setae (2-6), funicular segments slightly transverse, F1 1.38x; F2-F4 1.33x, F5-F6 1.55x; F7 1.9x as wide as long; F7 1.36x as wide as F1; club slightly wider than F7, 2.1x as long as wide; mesosoma finely reticulated; propodeum without median carina, smooth, spiracle touching metanotum. Body blue with greenish reflexion, antenna with scape and pedicel concolorous with body, flagellum brown, legs concolorous with body, except tips of tibiae and basal 3 segments of tarsi yellow; forewing with marginal vein 2.94x as long as postmarginal vein, and 7.0x stigmal vein; postmarginal vein 2.43x as long as stigmal vein. Hind femora without distinct tooth, 4.37x as long as width; Ovipositor index: 2.27.

Description:

Female. Body blue with greenish reflexion, antenna with scape and pedicel concolorous with body, flagellum brown, legs concolorous with body, except tips of tibiae and basal 3 segments of tarsi yellow (Fig. 4b); wing hyaline, veins yellow. Length 2.13 mm + ovipositor 1.5 mm.

Head in dorsal view almost as wide as mesoscutum, width to length 38:18; POL 3x OOL; OOL 1.55 diameter of lateral ocellus. Head in frontal view slightly wider than high in ratio 38:35; dorsal margin of torulus distinctly above level of lower orbit; malar space consists 0.4 height of eye; face with fine sculpture; antenna (Fig. 3c) with scape equal to pedicel plus anellus and F1+F2 plus 1/3 of F3 combined; pedicel 1.7x longer than wide; anellus 2x as wide as long; funicular segments with one row of sparse setae (2-6), funicular segments slightly transverse, F1 1.38x; F2-F4 1.33x, F5-F6 1.55x; F7 1.9x as wide as long; F7 1.36x as wide as F1; club slightly wider than F7, 2.1x as long as wide.

Mesosoma (Fig. 3a) distinctly bulged in profile, propodeum slightly visible dorsally; mesosoma (Fig. 3d) finely reticulated; propodeum (Fig. 3e) without median carina, smooth, spiracle touching metanotum All coxae reticulated. forewing (Fig. 3f) with marginal vein 2.94x as long as postmarginal vein, and 7.0x stigmal vein; postmarginal vein 2.43x as long as stigmal vein. Hind femora without distinct tooth, 4.37x as long as width.

Metasoma (Fig. 3a) excluding ovipositor 0.896x as long as rest of body; basal 3tergite with posterior margin distinctly incised medially; tip of hypopygium at 0.83x gaster length; Ovipositor equal to total length of the gaster and mesonotum, and equal 1.5x to the length of the gaster (Fig. 3a); Hind femora without distinct tooth, 4.37x as long as width; Ovipositor index: 2.27.

Male. Unknown.

Material examined: Holotype, female, Turkey: Niğde, Ulukışla, Gümüş, 07.vi.2008, swept from pasture, M. Doğanlar, deposited in the Insect collection of Research Station of Biological Control, Adana (IMBC).

Distribution: Turkey: Niğde, Ulukışla.

Host: Unknown.

Comments: Female: *Pseudotorymus nigdenensis* sp. nov. is similar to *P. regalis* Askew and *P. harithavarnus* Narendran in having ovipositor at least equal to total length of the gaster and half of mesosoma; ovipositor equal 1.5x to the length of the gaster. But the new species differs from both species by having hind femora without distinct tooth at the apex, and ovipositor (Fig. 3a) equal to total length of the gaster and mesonotum; (in both species hind femora with distinct tooth at the apex, ovipositor equal to total length of the gaster and half of mesonotum). *Pseudotorymus nigdenensis* sp. nov. also differs from *P. regalis* in having funicular segments with one row of sparse setae (2-6) (in *P. regalis* funicular segments with two rows of sensillae), and from *P. harithavarnus* in having forewing with marginal vein 2.94x as long as postmarginal vein, and 7.0x stigmal vein; postmarginal vein 2.43x as long as stigmal vein (in *P. harithavarnus* forewing with marginal vein a little more than 3x postmarginal vein, more than 6x stigmal vein, postmarginal vein 2.5x as long as stigmal vein).

***Pseudotorymus celikhanensis* n.sp.**

(Figs. 4 a-g)

Etymology. The name is derived from the name of place from where the holotype was collected.

Diagnosis. Ovipositor equal to 0.7x lengths of the gaster; Antenna with scape equal to pedicel plus anellus and F1+F2; pedicel 1.55x longer than wide; anellus 1.6x wider than long; funicular segments with one row of sensillae, funicular segments distinctly transverse, distinctly widening towards tip, F7 1.12x as wide as F1; club 1.6x as long as wide; mesonotum with distinct fine reticulation; with parapsidal groove deep; propodeum without carina, medially smooth, laterally with fine reticulation. forewing with marginal vein 3.2x as long as postmarginal

vein, and 4.4x stigmal vein; postmarginal vein 1.4x as long as stigmal vein. Hind femora with indistinct tooth. Ovipositor index: 1.1.

Description:

Female. Body (Fig. 4a) bronze with metallic green reflection, antennae with scape and pedicel metallic blue, flagellum brown; legs concolorous with body, except basal tip of tibiae, and tarsi yellow, except last segment of tarsi black (Fig. 4b); wing hyaline, veins yellow. Length 2.5 mm + ovipositor 0.63 mm.

Head in dorsal view 1.16x as wide as mesoscutum, width to length 50:27; POL 2.85x OOL; OOL 1.17x diameter lateral ocellus. Head in frontal view distinctly wider than high in ratio 50:38; dorsal margin of torulus distinctly above level of lower orbit; malar space consists 0.3 height of eye; face with fine sculpture. Antenna (Fig. 4 c) with scape equal to pedicel plus anellus and F1+F2; pedicel 1.55x longer than wide; anellus 1.6x wider than long; funicular segments with one row of sensillae, funicular segments distinctly transverse, slightly widening towards tip, F7 1.12x as wide as F1; club 1.6x as long as wide.

Mesosoma (Fig. 4a) bulged in profile, propodeum slightly visible dorsally; mesonotum and scutellum (Fig. 4d) with distinct fine reticulation; with parapsidal groove deep; propodeum (Fig. 4e) without carina, medially smooth, laterally with fine reticulation, basally with some foveae. Forewing (Fig. 4f) with marginal vein 3.2x as long as postmarginal vein, and 4.4x stigmal vein; postmarginal vein 1.4x as long as stigmal vein. Hind femora with indistinct tooth (Fig. 4b), 3.9x as long as wide.

Metasoma (Fig. 4a) excluding ovipositor 0.62x rest of body; basal 3 tergite with posterior margin deeply incised medially; tip of hypopygium at 0.7x gaster length; Ovipositor 0.7x as long as gaster. Ovipositor index: 1.1.

Male. Beside gaster similar to female except antenna. Antenna (Fig. 4g) with pedicel 1.25x longer than wide; anellus 3.0x wider than long; funicular segments slightly transverse, slightly widening towards tip, F7 1.25x as wide as F1; club twice as long as wide.

Material examined: Holotype, female, Turkey: Adiyaman, Çelikhan, 24.5.2007, swept from pasture, M. Doğanlar. Paratypes: 6 males, same data as holotype. All of the types were deposited in the Insect collection of Research Station of Biological Control, Adana (IMBC).

Distribution: Turkey: Adiyaman, Çelikhan.

Host: Unknown.

Comments: Female: *Pseudotorymus celikhanensis* sp. nov. is similar to *P. medicaginis* (Mayr) in having hind tibia with indistinct tooth and antennae with scape and pedicel metallic blue, but it differs from *P. medicaginis* in having ovipositor equal to 0.7x lengths of the gaster, Ovipositor index: 1.1; funicular segments distinctly transverse; mesonotum with distinct fine reticulation (in *P. medicaginis* ovipositor 0.85x length of the gaster, Ovipositor index: 1.66; 1-3 funicular segments almost quadrate, remaining transverse; mesonotum wholly transversely wrinkled; deep punctations present only on scutellum).

***Pseudotorymus lutfiyeae* sp. nov.**

(Figs. 5a-f)

Etymology. The name is derived from the name of the place from where the holotype was collected.

Diagnosis. Ovipositor slightly shorter (0.96x) than the gaster. Antenna with scape equal to pedicel plus anellus and F1 and half of F2; pedicel 1.25x longer than wide; anellus 2x wider than long; funicular segments with one row of sensillae, funicular segments F1 quadrate, F2-F4 slightly, F5-F7 distinctly transverse,

slightly widening towards tip, F7 as wide as F1; club 1.5x as long as wide. Body mesonotum with distinct reticulation, with parapsidal groove deep; propodeum without carina, having fine longitudinal reticulation. forewing with marginal vein 2.8x as long as postmarginal vein, and 6.6x stigmal vein; postmarginal vein 2.4x as long as stigmal vein. Hind femora with indistinct tooth. Ovipositor index: 1.7.

Description:

Female. Body (Fig. 5a) blue with metallic green reflection, antenna and legs concolorous with body, except fore tibiae with two yellow stripe, tip of other tibiae and tarsi yellow (Fig. 5b); wing hyaline, veins yellow. Length 2.25 mm + ovipositor 0.82 mm.

Head in dorsal view 1.15x as wide as mesoscutum, width to length 46:18; POL 2x OOL; OOL 1.25x diameter of lateral ocellus. Head in frontal view slightly wider than high in ratio 46:43; dorsal margin of torulus distinctly above level of lower orbit; malar space consists 1/4 height of eye; face with fine sculpture. Antenna (Fig. 5c) with scape equal to pedicel plus anellus and F1 and half of F2; pedicel 1.25x longer than wide; anellus 2x wider than long; funicular segments with one row of sensillae, funicular segments F1 quadrate, F2-F4 slightly, F5-F7 distinctly transverse, slightly widening towards tip, F7 as wide as F1; club 1.5x as long as wide.

Mesosoma (Fig. 5a) slightly bulged in profile, propodeum distinctly visible dorsally; mesosoma (Fig. 5d) transversally striated between them with fine reticulation and deep pits, and scutellum (Fig. 5d) reticulated, with some deep pits; pronotum 0.32x as long as mesoscutum; propodeum (Fig. 5e) without median carina, with some fine longitudinal striae, with some deep foveae anteriorly. All coxae reticulated. Forewing (Fig. 5f) with apical part with very short and brown pubescence marginal vein 2.8x as long as postmarginal vein, and 6.6x stigmal vein; postmarginal vein 2.4x as long as stigmal vein. Hind femora with indistinct tooth, large 3.7x as long as wide.

Metasoma (Fig. 5a) excluding ovipositor 0.64x as long as rest of body; basal 3 tergite with posterior margin distinctly incised medially; tip of hypopygium at 0.9x of gaster length; ovipositor slightly shorter (0.96x) than the gaster. Ovipositor index: 1.7.

Male. Unknown.

Material examined: **Holotype, female**, Turkey: Sivas, Paşabahçe, 06.vi.1992, swept from pasture, L. Gençer. Paratype: 1 female, Sivas, Campus of Cumhuriyet Univ., 26.5.92, swept from pasture, L. Gençer. All of the types were deposited in the Insect collection of Research Station of Biological Control, Adana (IMBC).

Distribution: Turkey: Sivas.

Host: Unknown.

Comments: Female: *Pseudotorymus luftiyeeae* sp. nov. is similar to *P. salicinus* Erdős in having hind femora with indistinct tooth, ovipositor slightly shorter (0.96x) than the gaster. But the new species differs from *P. salicinus* by having antenna with scape equal to pedicel plus anellus and F1 and half of F2; funicular segments F1 quadrate, F2-F4 slightly, F5-F7 distinctly transverse (in *P. salicinus* antenna with scape equal to pedicel plus anellus and F1+F2 combined; basal 3 funicular segments longer than wide).

***Pseudotorymus haliti* sp. nov.**

(Figs. 6a-d)

Etymology. The name is derived from the name of prof. Dr. Halit Çam who collected the holotype.

Diagnosis. Ovipositor 0.63x length of gaster; Antenna with scape equal to pedicel plus anellus and F1+F3; pedicel 1.33x longer than wide; anellus 1.8x wider than long; funicular segments with one row of dense sensillae (4-7), funicular segments distinctly transverse, F1 short, almost half length of F2, 3x as wide as long, F2 2.3x; F3-F5 2.3x; F6-F7 2.86x as wide as long, slightly widening towards tip, F7 2.86x as wide as F1; club broad, 1.26x as long as wide, and about 1.5x as wide as F7; mesonotum and scutellum with fine reticulation, parapsidal groove deep; propodeum without carina, smooth. Forewing with marginal vein 3.36x as long as postmarginal vein, and 6.2x stigmal vein; postmarginal vein 1.83x as long as stigmal vein, stigmal vein broad, long, stigma small, with long uncus. Hind femora without tooth, 3.53x as long as width. Ovipositor index: 1.5.

Description:

Female. Body (Fig. 6a) bronze with metallic blue reflection, antennae with scape and pedicel metallic blue, flagellum brown; legs concolorous with body, except tarsi yellow, except last segment black (Fig. 6b); wing hyaline, veins brown. Length 1.82 mm + ovipositor 0.55 mm.

Head in dorsal view almost as wide as mesoscutum, width to length 36:17; POL 3.0x OOL; OOL 1.25x diameter lateral ocellus. Head in frontal view 1.2x wider than high in ratio 36:30; dorsal margin of torulus distinctly above level of lower orbit; malar space consists 1/3 height of eye; face with fine sculpture. Antenna (Fig. 6c) with scape equal to pedicel plus anellus and F1+F3; pedicel 1.33x longer than wide; anellus 1.8x wider than long; funicular segments with one row of dense sensillae (4-7), funicular segments distinctly transverse, F1 short, almost half length of F2, 3x as wide as long, F2 2.3x; F3-F5 2.3x; F6-F7 2.86x as wide as long, slightly widening towards tip, F7 2.86x as wide as F1; club broad, 1.26x as long as wide, and about 1.5x as wide as F7.

Mesosoma (Fig. 6a) bulged in profile, propodeum slightly visible dorsally; mesonotum and scutellum (Fig. 6c) with finely reticulated; with parapsidal groove deep; propodeum (Fig. 6e) without carina, smooth. All coxae reticulated. Forewing (Fig. 6f) with marginal vein 3.36x as long as postmarginal vein, and 6.2x stigmal vein; postmarginal vein 1.83x as long as stigmal vein, stigmal vein broad, long, stigma small, with long uncus. Hind femora (Fig. 6b) without tooth, 3.53x as long as width.

Metasoma (Fig. 6a) excluding ovipositor almost as long as rest of body; basal 3 tergite with posterior margin deeply incised medially; tip of hypopygium at 0.57x gaster length; Ovipositor 0.63x as long as gaster. Ovipositor index: 1.5.

Male. Unknown.

Material examined: Holotype, female, Turkey: Tokat, Taşlıçiftlik, 14.iv.1989, swept from pasture, H. Çam. Doğanlar. Paratype: 1 female, same data as holotype; All of the types were deposited in the Insect collection of Research Station of Biological Control, Adana (IMBC).

Distribution: Turkey: Tokat, Taşlıçiftlik.

Host: Unknown.

Comments: Female: *Pseudotorymus haliti* sp. nov. is similar to *P. verbasci* Erdős and *P. keçikuyusunensis* sp. nov. in having hind femora without tooth. But the new species differs from both species by having ovipositor 0.63x length of gaster and mesonotum and scutellum with fine reticulation (in both species ovipositor 0.70x length of gaster; mesonotum with coarsely wrinkled, between them with deep pits in *P. verbasci* and mesonotum transversely wrinkled in *P. keçikuyusunensis* sp. nov.). *Pseudotorymus haliti* sp. nov. differs from *P. verbasci* in having antenna with funicular segments with one row of dense sensillae (4-7), funicular segments distinctly transverse, F1 short, almost half

length of F2, 3x as wide as long, F2 2.3x; F3-F5 2.3x; F6-F7 2.86x as wide as long, slightly widening towards tip, F7 2.86x as wide as F1. (in *P. verbasci* antenna with funicular segments with one row of sparse sensillae (2-4); funicular segments slightly transverse, slightly widening towards tip; F1 2x as wide as long, following ones almost 0.6-0.7x as wide as long; , F7 1.2x as wide as F1). *Pseudotorymus haliti* sp. nov. differs from *P. keçikuyusunensis* sp. nov. in having antenna with scape equal to pedicel plus anellus and F1-F3 combined; propodeum smooth (in *P. keçikuyusunensis* sp. nov. antenna with scape equal to pedicel plus anellus and F1+F2; propodeum reticulated).

***Pseudotorymus verbasci* Erdős, 1955**

(Figs. 7a-f)

Diagnosis. Ovipositor equal to 0.7x lengths of the gaster; Antenna with scape equal to pedicel plus anellus and F1-F3 combined; pedicel 1.5x longer than wide; anellus 2x wider than long; funicular segments with one row of sparse (2-4) sensillae, funicular segments distinctly transverse, slightly widening towards tip; F1 2x as wide as long, following ones almost 0.6-0.7x as wide as long; , F7 1.2x as wide as F1, club broad, 1.5x as long as wide, and about 1.3x as wide as F7; mesonotum with coarsely wrinkled, between them with deep pits; with parapsidal groove shallow; propodeum almost smooth, with some fine striae, and deep foveae on anterior border. forewing with marginal vein 4.0x as long as postmarginal vein, and 6.0x stigmal vein; postmarginal vein 1.6x as long as stigmal vein, stigma broad, with long uncus. Hind femora without tooth; Ovipositor index: 1.4.

Description:

Female. Body (Fig. 7a) bronze with metallic green reflection, antennae with scape yellow and pedicel and flagellum brown; legs concolorous with body, except tips of femora and tibiae, and tarsi yellow, except last segment tibiae black (Fig. 7b); wing hyaline, veins yellow. Length 1.95 mm + ovipositor 0.7 mm.

Head in dorsal view 1.08x as wide as mesoscutum, width to length 38:18; POL 2.2x OOL; OOL 1.67x diameter lateral ocellus. Head in frontal view slightly wider than high in ratio 38:33; dorsal margin of torulus distinctly above level of lower orbit; malar space consists 1/3 height of eye; face with fine sculpture. Antenna (Fig. 7c) with scape equal to pedicel plus anellus and F1-F3 combined; pedicel 1.5x longer than wide; anellus 2x wider than long; funicular segments with one row of sparse (2-4) sensillae, funicular segments distinctly transverse, slightly widening towards tip; F1 2x as wide as long, following ones almost 0.6-0.7x as wide as long; F7 1.2x as wide as F1, club broad, 1.5x as long as wide, and about 1.3x as wide as F7.

Mesosoma (Fig. 7a) bulged in profile, propodeum distinctly visible dorsally; mesonotum and scutellum (Fig. 7d) with coarsely wrinkled, between them with deep pits; with parapsidal groove shallow; propodeum (Fig. 7e) almost smooth, with some fine striae, and deep foveae on anterior border. All coxae reticulated. Forewing (Fig. 7f) with marginal vein 4.0x as long as postmarginal vein, and 6.0x stigmal vein; postmarginal vein 1.6x as long as stigmal vein, stigma broad, with long uncus. Hind femora without tooth, 3.5x as long as wide.

Metasoma (Fig. 7a) excluding ovipositor 0.77x rest of body; basal 3 tergite with posterior margin deeply incised medially; tip of hypopygium at 0.54x gaster length; Ovipositor 0.82x as long as gaster. Ovipositor index: 1.4.

Male. Unknown.

Material examined: 1 female, Turkey: Tokat, 24.vii.1989, swept from pasture, H. Çam; 2 females, 31.v. 1989, swept from pasture, H. Çam; 1 female, Sivas, Campus of Cumhuriyet Univ. 26.v. 1992, swept from pasture, L. Gençer. All of the

specimens were deposited in the Insect collection of Research Station of Biological Control, Adana (IMBC).

Distribution: Turkey: Tokat.

Host: In gall of gall midges, *Asphondilia verbasci* on *Verbascum* spp.

***Pseudotorymus kecikuyusunensis* sp. nov.**

(Figs. 8a-f)

Etymology. The name is derived from the name of the place from which the holotype was collected.

Diagnosis. Ovipositor equal to 0.7x lengths of the gaster. Antenna with scape equal to pedicel plus anellus and F1+F2; pedicel 1.6x longer than wide; anellus 2x wider than long; funicular segments with one row of dense (7-9) sensillae, funicular segments distinctly transverse, slightly widening towards tip, F7 0.83x as wide as F1; club 1.2x as long as wide; mesonotum with transversely wrinkled; with parapsidal groove deep; propodeum without carina, reticulated. forewing with marginal vein 3.0x as long as postmarginal vein, and 4.7x stigmal vein; postmarginal vein 2.25x as long as stigmal vein, stigma broad, with long uncus. Hind femora without tooth. Ovipositor index: 1.33.

Description:

Female. Body (Fig. 8a) bronze with metallic green reflection, antennae with scape yellow and pedicel and flagellum brown; legs concolorous with body, except tips of femora and tibiae, and tarsi yellow, except last segment tibiae black (Fig. 8b); wing hyaline, veins yellow. Length 2.62 mm + ovipositor 0.87 mm.

Head in dorsal view 1.22x as wide as mesoscutum, width to length 55:25; POL 3.0x OOL; OOL 1.25x diameter lateral ocellus. Head in frontal view slightly wider than high in ratio 55:45; dorsal margin of torulus distinctly above level of lower orbit; malar space consists 2/5 height of eye; face with fine sculpture. Antenna (Fig. 8c) with scape equal to pedicel plus anellus and F1+F2; pedicel 1.6x longer than wide; anellus 2x wider than long; funicular segments with one row of dense (7-9) sensillae, funicular segments distinctly transverse, slightly widening towards tip, F7 0.83x as wide as F1; club 1.2x as long as wide.

Mesosoma (Fig. 8a) bulged in profile, propodeum distinctly visible dorsally; mesonotum and scutellum (Fig. 8c) with transversely wrinkled; with parapsidal groove deep; propodeum (Fig. 8e) without carina, reticulated. All coxae reticulated. forewing (Fig. 8f) with marginal vein 3.0x as long as postmarginal vein, and 4.7x stigmal vein; postmarginal vein 2.25x as long as stigmal vein, stigma broad, with long uncus. Hind femora without tooth, 3.5x as long as wide.

Metasoma (Fig. 8a) excluding ovipositor 0.77x rest of body; basal 3 tergite with posterior margin deeply incised medially; tip of hypopygium at 0.54x gaster length; Ovipositor 0.82x as long as gaster. Ovipositor index: 1.4.

Male. Unknown.

Material examined: **Holotype, female,** Turkey: Gaziantep, Oğuzeli, Keçikuyusu, 19.v.2010, swept from pasture, M. Doğanlar. Paratypes: 2 females, same data as holotype; 1 male, same data as holotype, except 13.v. 2011. All of the types were deposited in the Insect collection of Research Station of Biological Control, Adana (IMBC).

Distribution: Turkey: Gaziantep, Oğuzeli.

Host: Unknown.

Comments: Female: *Pseudotorymus kecikuyusunensis* sp. nov. is similar to *P. verbasci* Erdős. in having hind femora without tooth, and ovipositor equal to 0.7x lengths of the gaster. But the new species differs from *P. verbasci* by having antenna with scape equal to pedicel plus anellus and F1+F2; funicular segments

with one row of dense (7-9) sensillae; funicular segments distinctly transverse, slightly widening towards tip, F1 slightly transverse 1.14x as wide as long, following ones 1.6-2.0x as wide as long; , F7 1.33x as wide as F1; club broad, 1.64x as long as wide, and about 1.47x as wide as F7 (in *P. verbasci* antenna with scape equal to pedicel plus anellus and F1-F3 combined; funicular segments with one row of sparse (2-4) sensillae; funicular segments slightly transverse, slightly widening towards tip; F1 2x as wide as long, following ones almost 0.6-0.7x as wide as long; , F7 1.2x as wide as F1, club broad, 1.5x as long as wide, and about 1.3x as wide as F7.

***Pseudotorymus horasanensis* sp. nov.**

(Figs. 9a-f)

Etymology. The name is derived from the name of the place from which the holotype was collected.

Diagnosis. Ovipositor equal to lengths of the gaster. Antenna with scape equal to pedicel plus anellus and F1+F2 combined; pedicel 1.4x longer than wide; anellus about 2x wider than long; funicular segments with one row of sparse sensillae (3-4), funicular segments distinctly transverse, slightly widening towards tip, F7 1.1-1.17x as wide as F1;; club slightly wider than F7, 1.9x as long as wide; mesonotum with distinct fine reticulation; parapsidal groove deep; propodeum without carina, medially smooth, laterally with fine reticulation. forewing with marginal vein 3.1-4.3x as long as postmarginal vein, and 6.0-6.6x stigmal vein; postmarginal vein 1.4-1.7x as long as stigmal vein. Body blue-green. Hind femora without tooth. Ovipositor index: 2.0.

Description:

Female. Body (Fig. 9a) blue-green, antennae with scape and pedicel metallic blue, flagellum brown; legs concolorous with body, except tibiae, and tarsi yellow, except last segment of tarsi black (Fig. 9b); wing hyaline, veins yellow. Length 2.38 mm + ovipositor 1.05 mm.

Head in dorsal view 1.1x as wide as mesoscutum, width to length 42:20; POL 1.62x OOL; OOL 1.67x diameter lateral ocellus. Head in frontal view distinctly wider than high in ratio 42:37; dorsal margin of torulus distinctly above level of lower orbit; malar space consists 0.35 hight of eye; face with fine sculpture. Antenna (Fig. 9c) with scape equal to pedicel plus anellus and F1+F2 combined; pedicel 1.4x longer than wide; anellus about 2x wider than long; funicular segments with one row of sparse sensillae (3-4), funicular segments distinctly transverse, slightly widening towards tip, F7 1.1-1.17x as wide as F1;; club slightly wider than F7, 1.9x as long as wide.

Mesosoma (Fig. 9a) bulged in profile, propodeum slightly visible dorsally; mesonotum and scutellum (Fig. 9c) with distinct fine reticulation; with parapsidal groove deep; propodeum (Fig. 9e) without carina, medially smooth, laterally with fine reticulation, basally with some fovae, spiracle wide apart from metanotum about half length of spiracle. Forewing (Fig. 9f) with marginal vein 3.1x as long as postmarginal vein, and 5.33x stigmal vein; postmarginal vein 1.7x as long as stigmal vein. Hind femora without tooth, 5.23x as long as wide.

Metasoma (Fig. 9a) excluding ovipositor 0.72x rest of body; basal 3 tergite with posterior margin deeply incised medially; tip of hypopygium at 0.74x gaster length; Ovipositor as long as gaster. Ovipositor index: 2.0.

Male. Unknown.

Material examined: Holotype, female, Turkey: Erzurum, Horasan, Karakurt, 12.vii.2012, swept from pasture, M. Doğanlar. Paratypes: 3 females, same data as the holotype; 1 female, Ağrı, Arat Dağı, 4.vii.2009, swept from lent

field, M. Doğanlar. All of the types were deposited in the Insect collection of Research Station of Biological Control, Adana (IMBC).

Distribution: Turkey: Erzurum, Horasan, Karakurt, Ağrı, Arat Dağı.

Host: Unknown.

Comments: Female: *Pseudotorymus horasanensis* sp. nov. is similar to *P. salviae* Ruschka in having ovipositor equal length of the gaster and ovipositor index: 2.0. But the new species differs from *P. salviae* in having antenna with scape equal to pedicel plus anellus and F1+F2 combined; pedicel 1.4x longer than wide; flagellum slightly widening towards tip, F7 1.1-1.17x as wide as F1; club slightly wider than F7, 1.9x as long as wide, and mesonotum and scutellum with distinct fine reticulation (in *P. salviae* Antenna with scape equal to pedicel plus anellus and F1+F2, and 1/2 F3 combined; pedicel 1.9x longer than wide; flagellum distinctly widening towards tip, F7 1.5x as wide as F1; club 1.33x wider than F7, 1.73x as long as wide, and mesosoma in basal half with deep punctations and broad reticulations, scutellum transversely wrinkled).

***Pseudoyorymus juniperi* Zerova, 2007**

(Figs. 1-5 of Zerova & Seryogina, 2007)

Pseudoyorymus juniperi Zerova 2007: 85-86. Holotype female, Paratypes 32 females, Ukraine, no type locality.

The types of *Pseudotorymus juniperi* Zerova were deposited in ZIKU, Kiev, Ukraine (Zerova et al., 2012).

Male: Unknown.

Host: Cecidomyiid galls (*Oligotrophus* sp.) on *Juniperus excelsa* (Vasilieva).

***Pseudoyorymus dogubayezitensis* sp. nov.**

(Figs. 10a-f)

Etymology. The name is derived from the name of place from which the holotype was collected.

Diagnosis. Ovipositor 0.82x length of the gaster. Antenna with scape equal to pedicel plus anellus and F1-F2+1/3 F3 combined; pedicel 1.4x longer than wide; anellus 2.4x wider than long; funicular segments with one row of sparse sensillae (3-4), funicular segments slightly transverse; slightly widening towards tip, F7 1.3x as wide as F1; club as wide as F7, 2.3x as long as wide; mesonotum with distinct fine reticulation; parapsidal groove deep; propodeum without carina, with fine striae longitudinally, spiracle touch to metanotum. Forewing with marginal vein 2.7x as long as postmarginal vein, and 6.0x stigmal vein; postmarginal vein 2.25x as long as stigmal vein. Hind femora without tooth, 3.3x as long as width. Ovipositor index: 0.82.

Description:

Female. Body (Fig. 10a) blue-green., antennae with scape and pedicel metallic blue, flagellum brown; legs concolorous with body, except tips of tibiae, and tarsi yellow, except last segment of tarsi black (Fig. 10b); wing hyaline, veins yellow. Length 1.6 mm + ovipositor 0.7 mm.

Head in dorsal view 1.1x as wide as mesoscutum, width to length 36:23; POL 2.5x OOL; OOL 2x diameter lateral ocellus. Head in frontal view distinctly wider than high in ratio 36:33; dorsal margin of torulus distinctly above level of lower orbit; malar space consists 0.3 height of eye; face with fine sculpture. Antenna (Fig. 10c) with scape equal to pedicel plus anellus and F1-F2+1/3 F3 combined; pedicel 1.4x longer than wide; anellus 2.4x wider than long; funicular segments with one row of sparse sensillae (3-4), funicular segments slightly transverse;

slightly widening towards tip, F7 1.3x as wide as F1; club as wide as F7, 2.3x as long as wide.

Mesosoma (Fig. 10a) bulged in profile, propodeum slightly visible dorsally; mesonotum and scutellum (Fig. 10d) with distinct transverse striae, lateral lobes with reticulation, parapsidal groove deep; propodeum (Fig. 10e) without carina, with fine striae longitudinally, spiracle touch to metanotum. Forewing (Fig. 10f) with marginal vein 2.7x as long as postmarginal vein, and 6.0x stigmal vein; postmarginal vein 2.25x as long as stigmal vein Hind femora without tooth, 3.3x as long as width.

Metasoma (Fig. 10a) excluding ovipositor 0.83x rest of body; basal 3 tergite with posterior margin deeply incised medially; tip of hypopygium at 0.75x gaster length; ovipositor 0.82x length of the gaster. Ovipositor index: 0.82.

Male. Unknown.

Material examined: Holotype, female, (No:2 on card) Turkey: Ağrı, 20km from Ağrı to Doğubayezit. 4.vii.2010, swept from *Medicago* field, M. Doğanlar. Paratypes: 2 females, same data as holotype. All of the types were deposited in the Insect collection of Research Station of Biological Control, Adana (IMBC).

Distribution: Turkey: Ağrı, 20km from Ağrı to Doğubayezit.

Host: Unknown.

Comments: Female: *Pseudoyorymus dogubayezitensis* sp. nov. similar to *P. euphorbiae* Zerova & Seregina in having ovipositor almost equal to 0.8x lengths of the gaster, hind femora without tooth and antenna with scape equal to pedicel plus anellus and F1-F2+1/3 F3 combined, but it differs from *P. euphorbiae* in having ovipositor index: 0.82, pedicel 1.4x longer than wide; anellus 2.4x wider than long; club 2.3x as long as wide, forewing with marginal vein 2.7x as long as postmarginal vein, mesonotum with distinct transverse striae, lateral lobes with reticulation, parapsidal groove deep propodeum with fine striae longitudinally (in *P. euphorbiae* ovipositor index: 1.1, pedicel almost quadrate; anellus 1.8x wider than long; club 1.54x as long as wide, forewing with marginal vein 3.5x as long as postmarginal vein, mesonotum grainy-cellular, by places tuberosus).

***Pseudotorymus samsatensis* sp. nov.**

(Figs. 11a-f)

Etymology. The name is derived from the name of the place from which the holotype was collected.

Diagnosis. Ovipositor equal to 0.65x lengths of the gaster. Forewing with marginal vein 2.2x as long as postmarginal vein, and 5.8x stigmal vein; postmarginal vein 2.7x as long as stigmal vein; Antenna with scape yellow, equal to pedicel plus anellus and F1-F2+1/3 F3; pedicel 1.55x longer than wide; anellus 1.6x wider than long; funicular segments with one row of sensillae, funicular segments slightly transverse, slightly widening towards tip, F7 1.1x as wide as F1; club 1.6x as long as wide; mesonotum with distinct fine reticulation; with parapsidal groove deep; propodeum without carina, basally with fine striae, medially smooth. Hind femora with distinct tooth, 3.6x as long as width. Ovipositor index: 0.9.

Description:

Female. Body (Fig. 11a) blue with greenish reflection, gaster brown with greenish reflection, antennae with scape yellow, flagellum testaceous; femora and tibia concolorous with body, except 1/6 of both tips of tibiae and tarsi yellow, except last segment black (Fig. 13b); wing hyaline, veins yellow. Length 2.75 mm + ovipositor 0.75 mm.

Head in dorsal view as wide as mesoscutum, width to length 53:22; POL 2.6x OOL; OOL 1.1x diameter lateral ocellus. Head in frontal view distinctly wider than high in ratio 55:35; dorsal margin of torulus distinctly above level of lower orbit; malar space consists 0.4 high of eye; face with fine sculpture. Antenna (Fig. 11c) with scape yellow, equal to pedicel plus anellus and F1-F2+1/3 F3; pedicel 1.55x longer than wide; anellus 1.6x wider than long; funicular segments with one row of sensillae, funicular segments slightly transverse, slightly widening towards tip, F7 1.1x as wide as F1; club 1.6x as long as wide.

Mesosoma (Fig. 11a) distinctly bulged in profile, propodeum slightly visible dorsally; mesonotum and scutellum (Fig. 11d) distinct broadly wrinkled, with some shallow pits, parapsidal groove deep; propodeum (Fig. 13e) without carina, medially smooth, basally with fine crenulae?, spiracle touch to metanotum. Forewing (Fig. 11f) with marginal vein 2.2x as long as postmarginal vein, and 5.8x stigmal vein; postmarginal vein 2.7x as long as stigmal vein. Hind femora with distinct tooth, 3.6x as long as width.

Metasoma (Fig. 11a) excluding ovipositor 0.72x rest of body; basal 3 tergite with posterior margin deeply incised medially; tip of hypopygium at 0.75x gaster length; Ovipositor equal to 0.65x lengths of the gaster. Ovipositor index: 0.9.

Male. Unknown.

Material examined: **Holotype, female**, Turkey: Adiyaman, Samsat, 11.5.2008, M. Doğanlar. **Paratypes:** 1 female, same data as the holotype; 2 females, Hasankendi, 07.vi. 2008, swept from *Onobrychis* sp. field, M. Doğanlar. All of the types were deposited in the Insect collection of Research Station of Biological Control, Adana (IMBC).

Distribution: Turkey: Adiyaman, Samsat, Hasankendi.

Host: Unknown.

Comments: Female: *Pseudoyorymus samsatensis* sp. nov. similar to *P. semicarinatus* Erdős in having hind femora with distinct tooth and forewing with marginal vein 3.0x as long as postmarginal vein. But the new species differs from *P. semicarinatus* in having forewing with marginal vein 6.0x stigmal vein; postmarginal vein 2.0x as long as stigmal vein, propodeum without carina, basally with fine short striae, medially smooth, antenna with pedicel 1.55x longer than wide; anellus 1.6x wider than long, funicular segments slightly transverse, slightly widening towards tip, F7 1.1x as wide as F1 (in *P. semicarinatus* forewing with marginal vein 4.3x stigmal vein; postmarginal vein 1.43x as long as stigmal vein, propodeum reticulated, frequently with incomplete keels, antenna with pedicel 1.4x longer than wide; anellus 2.6x wider than long, funicular segments distinctly transverse, distinctly widening towards tip, F7 1.83x as wide as F1).

***Pseudotorymus leguminus* Ruschka, 1923**

(Figs. 12a-f)

Diagnosis. Ovipositor 0.67x length of gaster; antenna with scape slightly longer than pedicel plus anellus and F1+F2 combined; pedicel 1.5-1.62x longer than wide; anellus 2x wider than long; funicular segments with one row of dense sensillae (6-9), funicular segments slightly transverse, slightly widening towards tip, F7 1.1x as wide as F1; club 1.4x wider than F7, 1.25-1.62x as long as wide; mesonotum rugulose with irregular sculpture; with parapsidal groove deep; propodeum without carina, smooth, with 3 fovae. Forewing with marginal vein 3.25x as long as postmarginal vein, and 5.8-6.5x stigmal vein; postmarginal vein 2.0x as long as stigmal vein, the latter short, stigma broad, without brown cloud. hind femora with distinct tooth. Ovipositor index: 0.94-1.03.

Description:

Female. Body (Fig. 12a) blue-violet with greenish reflection, antennae, femora, tibiae, concolorous with body, except tips of tibiae and tarsi yellow (Fig. 12b); wing hyaline, veins yellow. Length 3.2 mm + ovipositor 0.8 mm.

Head in dorsal view as wide as mesoscutum, width to length 36:15; POL 2.6x OOL; OOL 1.2 diameter lateral ocellus. Head in frontal view slightly wider than high in ratio 36:35; dorsal margin of torulus distinctly above level of lower orbit; malar space consists 0.3 height of eye. face with fine sculpture. Antenna (Fig. 12c) with scape slightly longer than pedicel plus anellus and F1+F2 combined; pedicel 1.5x longer than wide; anellus 2x wider than long; funicular segments with one row of dense sensillae (6-9), funicular segments distinctly transverse, slightly widening towards tip, F7 1.1x as wide as F1; club 1.1x wider than F7, 1.62x as long as wide.

Mesosoma (Fig. 12a) bulged in profile, propodeum distinctly visible dorsally; mesonotum and scutellum (Fig. 12d) transversally reticulated, with parapsidal groove shallow; propodeum (Fig. 12e) without carina, longitudinally striated, with 3 foveae basally. Forewing (Fig. 12f) with marginal vein 3.25x as long as postmarginal vein, and 6.5x stigmal vein; postmarginal vein 2.0x as long as stigmal vein, the latter short, stigma broad, without brown cloud. hind femora with distinct tooth, 3.55x as long as width.

Metasoma (Fig. 12a) excluding ovipositor 0.74x rest of body; basal tergite with posterior margin weakly incised medially; tip of hypopygium at 0.63 gaster length; Ovipositor 0.67x length of gaster; Ovipositor index: 0.94-1.03.

Male. Unknown.

Material examined: Turkey: Tokat, 3 females, 13-30.iv.1989; 2 females, 29.v.1989; 1 female, 25.viii. 1989; 4 females, 15.ix.1989; 2 females, Taşlıçiftlik, 2.v. 1989; 2 females, Fidanlık, 16-24.iv.1989, swept from pasture, H. Çam. All of the specimens were deposited in the Insect collection of Research Station of Biological Control, Adana (IMBC).

Distribution: Turkey: Tokat.

Host: From gall of gall midges on the bean and legumes. 2.5-3 mm. (Zerova & Seryogina, 1999).

***Pseudotorymus ispirlii* sp. nov.**

(Figs. 13a-g)

Etymology. The name is derived from the name of my friend, Mr. Mustafa İspirli who has helped collecting the sample during my work.

Diagnosis. Ovipositor equal to 0.7x lengths of the gaster; Antenna with scape equal to pedicel plus anellus and F1-F2, and 1/3 F3 combined; pedicel 1.5x longer than wide; anellus 2.33x wider than long; funicular segments with one row of dense sensillae (4-7), funicular segments distinctly transverse; flagellum distinctly widening towards tip, F7 0.9x as wide as F1; club 1.4x wider than F7, 1.4x as long as wide; mesonotum distinctly wrinkled; with parapsidal groove deep; propodeum without carina, medially smooth, laterally with fine reticulation. Forewing with marginal vein 3.6x as long as postmarginal vein, and 8.3x stigmal vein; postmarginal vein 2.3x as long as stigmal vein. hind femora with distinct tooth, 3.64x as long as width.. Ovipositor index: 1.2.

Description:

Female. Body (Fig. 13a) green, metallic reflexion, antennae with scape in basal 1/5 yellow, flagellum brown; femora and tibia concolorous with body, except fore tibiae and tarsi yellow, except last segment brown (Fig. 13b); wing hyaline, veins yellow. Length 2.75 mm + ovipositor 0.82 mm.

Head in dorsal view almost as wide as mesoscutum, width to length 46:22; POL 3.25x OOL; OOL equal diameter lateral ocellus. Head in frontal view distinctly wider than high in ratio 46:37; dorsal margin of torulus distinctly above level of lower orbit; malar space consists 0.3 height of eye; face with fine sculpture. Antenna (Fig. 13c) with scape equal to pedicel plus anellus and F1-F2, and 1/3 F3 combined; pedicel 1.5x longer than wide; anellus 2.33x wider than long; funicular segments with one row of dense sensillae (4-7), funicular segments distinctly transverse; flagellum distinctly widening towards tip, F7 0.9x as wide as F1; club 1.4x wider than F7, 1.4x as long as wide.

Mesosoma (Fig. 13a) slightly bulged in profile, propodeum distinctly visible dorsally; mesonotum (Fig. 13d) distinctly wrinkled; with parapsidal groove deep, scutellum apically almost smooth; propodeum (Fig. 13e) without carina, with fine reticulation. Forewing (Fig. 13f) with marginal vein 3.6x as long as postmarginal vein, and 8.3x stigmal vein; postmarginal vein 2.3x as long as stigmal vein. hind femora with distinct tooth, 3.64x as long as width.

Metasoma (Fig. 13a) excluding ovipositor 0.7x rest of body; basal 3 tergite with posterior margin deeply incised medially; tip of hypopygium at 0.77x gaster length; Ovipositor equal to 0.7x lengths of the gaster; Ovipositor index: 1.2.

Male. Beside gaster similar to female except antenna. Antenna (Fig. 13g) with scape equal to pedicel plus anellus and F1-F2 combined; pedicel 1.4x longer than wide; anellus 3x wider than long; funicular segments with one row of sparse sensillae (2-4), flagellum distinctly widening towards tip, F7 1.77x as wide as F1; club 1.1x wider than F7, 1.5x as long as wide.

Material examined: Holotype, female, Turkey: Tokat, Fidanlık, 10.iv.1989, swept from pasture, H. Çam. Paratypes: 3 females, same locality with the holotype, 24.iv. 1989; Taşçıftlık, 2 females, 21.vi.1989; 1 females, 28.iv.1989; 3 females, 02.v.1989; 1 female, 17.viii.1989; 1 female, Tokat, 1.vi.1989; 1 female, 2 males, 24.vii.1989, swept from pasture, H. Çam. All of the types were deposited in the Insect collection of Research Station of Biological Control, Adana(IMBC).

Distribution: Turkey: Tokat.

Host: Unknown.

Comments: Female: *Pseudoyorymus ispirlii* sp. nov. is similar to *P. aladagensis* sp. nov. in having hind femora with distinct tooth and ovipositor equal to 0.7x lengths of the gaster. But the new species differs from *P. aladagensis* sp. nov. in having funicular segments with one row of dense sensillae (4-9), tibiae yellow, scape yellow, F7 0.9x as wide as F1; club 1.4x wider than F7, 1.4x as long as wide, mesonotum with parapsidal groove deep (in *P. aladagensis* sp. nov. funicular segments with one row of sparse sensillae (3-6), scape metallic blue, F7 1.3x as wide as F1; club 1.43x wider than F7, 1.35x as long as wide, mesonotum with parapsidal groove shallow).

***Pseudotorymus aladagensis* sp. nov.**

(Figs. 14a-f)

Etymology. The name is derived from the name of place from which the holotype was collected.

Diagnosis. Ovipositor equal to 0.7x lengths of the gaster; Antenna with funicular segments with one row of sparse sensillae (3-4), Scape and tibiae metallic blue; antenna with scape equal to pedicel plus anellus and F1-F2, and 1/3 F3 combined; pedicel 1.22x longer than wide; anellus about 2x wider than long; funicular segments distinctly transverse, slightly widening towards tip, F7 1.3x as wide as F1; club 1.43x wider than F7, 1.35x as long as wide; mesonotum finely wrinkled; parapsidal groove shallow; propodeum without carina, smooth; forewing with

marginal vein 3.9x as long as postmarginal vein, and 6.0x stigmal vein; postmarginal vein 1.8x as long as stigmal vein. Body dark-blueish, bronze, except gaster blue-green. hind femora with distinct tooth, 3.5x as long as width. Ovipositor index: 1.32.

Description:

Female. Body (Fig. 14a) dark-blueish, bronze, except gaster blue-green., Scape metallic blue; femora and tibiae concolorous with body, except tips of tibiae and tarsi yellow, except last segment black (Fig. 14b); wing hyaline, veins yellow. Length 2.0mm + ovipositor 0.6 mm.

Head in dorsal view almost as wide as mesoscutum, width to length 40:18; POL 3x OOL; OOL as diameter lateral ocellus. Head in frontal view slightly wider than high in ratio 40:35; dorsal margin of torulus distinctly above level of lower orbit; malar space consists 1/3 height of eye. external margin of clypeus straight; face with fine sculpture. Antenna (Fig. 14c) with funicular segments with one row of sparse sensillae (3-4), Scape and tibiae metallic blue; antenna with scape equal to pedicel plus anellus and F1-F2, and 1/3 F3 combined; pedicel 1.22x longer than wide; anellus about 2x wider than long; funicular segments distinctly transverse, slightly widening towards tip, F7 1.3x as wide as F1; club 1.43x wider than F7, 1.35x as long as wide.

Mesosoma (Fig. 14a) slightly bulged in profile, propodeum distinctly visible dorsally; mesonotum and scutellum (Fig. 14d) finely wrinkled; parapsidal groove shallow; propodeum (Fig. 14e) without carina, smooth; forewing (Fig. 14f) with marginal vein 3.9x as long as postmarginal vein, and 6.0x stigmal vein; postmarginal vein 1.8x as long as stigmal vein; hind femora with distinct tooth, 3.5x as long as width.

Metasoma (Fig. 14a) excluding ovipositor 0.65x shorter than rest of body; basal 3 tergite with posterior margin weakly incised medially; tip of hypopygium at 0.7 gaster length; Ovipositor equal to 0.7x lengths of the gaster; Ovipositor index: 1.32.

Male. Unknown.

Material examined: Holotype, female, Turkey: Adana, Aladağ. 16.vii.2001, swept from pasture, M. Doğanlar, deposited in the Insect collection of Research Station of Biological Control, Adana (IMBC).

Distribution: Turkey: Adana, Aladağ.

Host: Unknown.

Comments: Female: *Pseudoyorymus aladagensis* sp. nov. similar to *P. fidanlikensis* sp. nov. and *P. pazarensis* sp. nov.. The discussions were given under above species.

***Pseudotorymus bollinensis* Askew, 2002**

(Figs. 15a-f)

Diagnosis. Ovipositor 0.78x length of gaster.; Body blue-green; scape basally yellow, apically metallic; mesonotum and scutellum with fine reticulation, Antenna with scape equal to pedicel plus anellus and F1-F2 combined; pedicel 1.9x longer than wide; anellus almost quadrate; funicular segments with one row of dense sensillae (4-9), funicular segments slightly transverse, slightly widening towards tip, F7 1.24x as wide as F1; club 1.17x wider than F7, 1.86x as long as wide, clava not quite as long as 3 preceding segments combined; mesonotum and scutellum with fine reticulation; parapsidal groove deep; propodeum with very fine and weak longitudinal reticulation and a row of 8-10 small anterior foveae, frequently incomplete keels. Forewing with marginal vein 2.9x as long as postmarginal vein, and 8.0x stigmal vein; postmarginal vein 2.75x as long as

stigmal vein; stigmal vein short, stigma small, with long uncus; width of stigma 1.6x as long as space between uncus and postmarginal vein; hind femora with distinct tooth. Ovipositor index: 1.27.

Description:

Female. Body blue-green; scape basally yellow, apically metallic; coxae, femora and tibiae concolorous with body, except both tips of tibiae and tarsi yellow, except last segment black (Fig. 17b); wing hyaline, veins brown. Length 3.5 mm + ovipositor 1.2 mm.

Head in dorsal view slightly wider than mesoscutum, width to length 55:15; POL 2.7x OOL; OOL 1.8 as diameter lateral ocellus. Head in frontal view 1.22x wider than high in ratio 55:45; dorsal margin of torulus distinctly above level of lower orbit; malar space consists 0.4 height of eye; face with fine sculpture. Antenna with scape equal to pedicel plus anellus and F1-F2 combined; pedicel 1.9x longer than wide; anellus almost quadrate; funicular segments with one row of dense sensillae (4-9), funicular segments slightly transverse, slightly widening towards tip, F7 1.24x as wide as F1; club 1.17x wider than F7, 1.86x as long as wide, clava not quite as long as 3 preceding segments combined.

Mesosoma (Fig. 17a) distinctly bulged in profile, propodeum slightly visible dorsally; mesonotum and scutellum with fine reticulation; parapsidal groove deep; propodeum with very fine and weak longitudinal reticulation and a row of 8-10 small anterior foveae, frequently incomplete keels. Forewing with marginal vein 2.9x as long as postmarginal vein, and 8.0x stigmal vein; postmarginal vein 2.75x as long as stigmal vein; stigmal vein short, stigma small, with long uncus; width of stigma 1.6x as long as space between uncus and postmarginal vein; hind femora with distinct tooth, 3.33x as long as width.

Metasoma (Fig. 17a) excluding ovipositor 0.7x shorter than rest of body; basal 3 tergite with posterior margin weakly incised medially; tip of hypopygium at 0.73 gaster length; Ovipositor equal to 0.78x length of the gaster. Ovipositor index: 1.27.

Male. Unknown.

Material examined: Turkey: Tokat, 1 female, 23.iv.1986, swept from pasture, M. Doğanlar; 1 female, Taşlıçiftlik, 02.v.1989; 1 female, Gümenek, 12.iv.1989, swept from pasture, H. Çam. All of the specimens were deposited in the Insect collection of Research Station of Biological Control, Adana (IMBC).

Distribution: Turkey: Tokat.

Host: Unknown.

***Pseudotorymus bedirlinensis* sp. nov.**

(Figs. 16a-f)

Etymology. The name is derived from the name of place from which the holotype was collected.

Diagnosis. Ovipositor index: 1.53; Ovipositor 0.82x length of the gaster; Body wholly blue-green, including scape and pedicel, except scape at base yellow, flagellum brown; coxae and femora concolorous with body, tibiae testaceous, tarsi yellow, except last segment brown; mesonotum and scutellum with fine wrinkled, with small shallow pits, side lobes with fine reticulation. Antenna with scape equal to pedicel plus anellus and F1-F2 combined; pedicel 1.43x longer than wide; anellus 1.83x wider than long; funicular segments with one row of sparse sensillae (3-6), funicular segments slightly transverse, slightly widening towards tip, F1 1.55x, F7 1.83x as wide as long, F7 1.3x as wide as F1; club 1.14x wider than F7, 1.68x as long as wide; Mesosoma distinctly sloping, propodeum slightly visible from dorsal view; mesonotum finely wrinkled; with parapsidal

groove deep; propodeum without carina, smooth. Forewing with marginal vein 3.85x as long as postmarginal vein, and 7.1x stigmal vein; postmarginal vein 1.81x as long as stigmal vein, radial vein thin, short; stigma broad, with long uncus, width of stigma 1.4x as long as space between uncus and postmarginal vein; hind femora with distinct, small tooth, width of femora at level of tooth equal to space between tooth and its apical tip.

Description:

Female. Body (Fig. 16a) wholly blue-green, including scape and pedicel, except scape at base yellow, flagellum brown; coxae and femora concolorous with body, tibiae testaceous, tarsi yellow, except last segment brown (Fig. 16b); wing hyaline, veins yellow. Length 2.32 mm + ovipositor 0.9 mm.

Head in dorsal view almost as wide as mesoscutum, width to length 40:20; POL 3.3x OOL; OOL 1.16 as diameter lateral ocellus. Head in frontal view 1.22x as wide as high, in ratio 44:36; dorsal margin of torulus distinctly above level of lower orbit; malar space consists 1/3 height of eye. face with fine sculpture. Antenna (Fig. 16c) with scape equal to pedicel plus anellus and F1-F2 combined; pedicel 1.43x longer than wide; anellus 1.83x wider than long; funicular segments with one row of sparse sensillae (3-6), funicular segments slightly transverse, slightly widening towards tip, F1 1.55x, F7 1.83x as wide as long, F7 1.3x as wide as F1; club 1.14x wider than F7, 1.68x as long as wide.

Mesosoma (Fig. 16a) distinctly sloping, propodeum slightly visible from dorsal view; mesonotum and scutellum (Fig. 16d) finely wrinkled; with parapsidal groove deep; propodeum (Fig. 16e) without carina, smooth. Forewing (Fig. 16f) with marginal vein 3.85x as long as postmarginal vein, and 7.1x stigmal vein; postmarginal vein 1.81x as long as stigmal vein, radial vein thin, short; stigma broad, with long uncus, width of stigma 1.4x as long as space between uncus and postmarginal vein; hind femora (Fig. 16b) with distinct, small tooth, width of femora at level of tooth equal to space between tooth and its apical tip.

Metasoma (Fig. 16a) excluding ovipositor 0.85x shorter than rest of body; basal 3 tergite with posterior margin weakly incised medially; tip of hypopygium at 0.8 gaster length; Ovipositor 0.82x length of the gaster; hind femora with distinct tooth, 4.1x as long as width. Ovipositor index: 1.53.

Male. Unknown.

Material examined: Holotype, female, Turkey: Sivas, Bedirli, 22.v.2005, swept from pasture, M. Doğanlar, deposited in the Insect collection of Research Station of Biological Control, Adana (IMBC).

Distribution: Turkey: Sivas, Bedirli.

Host: Unknown.

Comments: Female: *Pseudoyorymus bedirlinensis* sp. nov. similar to *P. bollinensis* Askew, and *P. ocaklii* sp. nov., in having ovipositor about 0.8x length of the gaster, hind femora with distinct tooth. But the new species differs from *P. bollinensis* and *P. ocaklii* sp. nov. in having anellus distinctly transverse (1.83x wider than long) (in *P. bollinensis* anellus almost quadrate to longer than wide and, ovipositor index 1.27; in *P. ocaklii* sp. nov. anellus 1.5x wider than long; ovipositor index: 1.4), and differs from *P. papaveris* (Thomson) in having ovipositor about 0.8x length of the gaster and ovipositor index: 1.53 (in *P. papaveris* ovipositor 0.94x length of the gaster, ovipositor index: 1.43).

***Pseudotorymus ocaklii* sp. nov.**

(Figs. 17a-f)

Etymology. The name is derived from the name of my friend, Mr. Atilla Ocaklı, who helped me during collecting the types.

Diagnosis. Ovipositor 0.84x length of the gaster; Antenna with scape equal to pedicel plus anellus and F1-F2+1/3 F3 combined; pedicel 1.58x longer than wide; anellus 1.5x wider than long; funicular segments with one row of sparse sensillae (2-6), Body wholly blue-green, including scape and pedicel, except scape at base yellow, flagellum brown; coxae and femora concolorous with body, tibiae testaceous, tarsi yellow, except last segment brown; mesonotum and scutellum finely wrinkled, without pits, side lobes with fine reticulation, with parapsidal groove shallow; propodeum without carina, smooth. Forewing with marginal vein 3.35x as long as postmarginal vein, and 8.4x stigmal vein; postmarginal vein 2.86x as long as stigmal vein, radial vein broad, short; stigma broad, with long uncus, width of stigma 1.67x as long as space between uncus and postmarginal vein; hind femora with distinct tooth, width of femora at level of tooth 1.2x to space between tooth and its apical tip. Ovipositor index: 1.4.

Description:

Female. Body (Fig. 17a) wholly blue-green, including scape and pedicel, except scape at base yellow, flagellum brown; coxae and femora concolorous with body, tibiae testaceous, tarsi yellow, except last segment brown (Fig. 17b); wing hyaline, veins yellow. Length 1.63-2.05 mm + ovipositor 0.65-0.70 mm.

Head in dorsal view almost as wide as mesoscutum, width to length 35:14; POL 2x OOL; OOL 1.67 as diameter lateral ocellus. Head in frontal view slightly wider than high in ratio 35:33; dorsal margin of torulus distinctly above level of lower orbit; malar space consists 1/4 height of eye. face with fine sculpture. Antenna (Fig. 17c) with scape equal to pedicel plus anellus and F1-F2+1/3 F3 combined; pedicel 1.58x longer than wide; anellus 1.5x wider than long; funicular segments with one row of sparse sensillae (2-6), funicular segments moderately transverse, distinctly widening towards tip, F1 1.75x, F7 1.67x as wide as long, F7 1.43x as wide as F1; club 1.3x wider than F7, 1.2x as long as wide.

Mesosoma (Fig. 17a) distinctly sloping, propodeum slightly visible from dorsal view; mesonotum (Fig. 17d) finely wrinkled; with parapsidal groove shallow; propodeum (Fig. 17e) without carina, smooth. Forewing (Fig. 17f) with marginal vein 3.35x as long as postmarginal vein, and 8.4x stigmal vein; postmarginal vein 2.86x as long as stigmal vein, radial vein broad, short; stigma broad, with long uncus, width of stigma 1.67x as long as space between uncus and postmarginal vein. Hind femora with distinct tooth, 3.67x as long as width; width of femora at level of tooth 1.2x to space between tooth and its apical tip.

Metasoma (Fig. 17a) excluding ovipositor 0.72x shorter than rest of body; basal 3 tergite with posterior margin weakly incised medially; tip of hypopygium at 0.8 gaster length; Ovipositor equal to 0.82x lengths of the gaster. Ovipositor index: 1.4.

Male. Unknown.

Material examined: **Holotype, female**, Turkey: Tokat, Pazar, Soner Çiftlik. 04.vii.1989, reared from seed capsules of *Papaver* sp., M. Doğanlar. Paratype: 1 female, Tokat, Taşlıçiftlik, 28.iv. 1989, swept from pasture, H. Çam. All of the types were deposited in the Insect collection of Research Station of Biological Control, Adana (IMBC).

Distribution: Turkey: Tokat, Taşlıçiftlik; Pazar.

Host: Reared from seed capsules of *Papaver* sp.

Comments: Female: *Pseudotorymus ocaklii* sp. nov. similar to *P. berdirlinensis* sp. nov.. The discussions were given under above species.

***Pseudotorymus papaveris* (Thomson, 1876)**

(Figs. 18a-g)

Diagnosis. Ovipositor 0.94x length of the gaster; Body blue-green; scape mostly yellow; mesonotum and scutellum with broad reticulation, Antenna with scape equal to pedicel plus anellus and F1-F2 combined; pedicel 1.54x longer than wide; anellus 1.43x wider than long; funicular segments with one row of sparse sensillae (2-6), funicular segments slightly transverse, slightly widening towards tip, F7 1.17x as wide as F1; club 1.25x wider than F7, 1.6x as long as wide; mesonotum finely wrinkled, mesonotum and scutellum with broad deep pits; with parapsidal groove deep; propodeum without carina, smooth. Forewing with marginal vein 2.2x as long as postmarginal vein, and 4.9x stigmal vein; postmarginal vein 2.22x as long as stigmal vein; radial vein long, stigma small, with long uncus; width of stigma 1.14x as long as space between uncus and postmarginal vein; hind femora with distinct tooth. Ovipositor index: 1.43.

Description:

Female. Body (Fig. 18a) blue- green; scape mostly yellow; coxae, femora and tibiae concolorous with body, except both tips of tibiae and tarsi yellow, except last segment black (Fig. 18b); wing hyaline, veins yellow. Length 2.13 mm + ovipositor 1.0 mm.

Head in dorsal view almost as wide as mesoscutum, width to length 42:18; POL 2.2x OOL; OOL 1.3 as diameter lateral ocellus. Head in frontal view slightly wider than high in ratio 42:35; dorsal margin of torulus distinctly below level of lower orbit; malar space consists 1/3 hight of eye; face with fine sculpture. Antenna (Fig. 18c) with scape equal to pedicel plus anellus and F1-F2 combined; pedicel 1.54x longer than wide; anellus 1.43x wider than long; funicular segments with one row of sparse sensillae (2-6), funicular segments slightly transverse, slightly widening towards tip, F7 1.17x as wide as F1; club 1.25x wider than F7, 1.6x as long as wide.

Mesosoma (Fig. 18a) slightly bulged in profile, propodeum distinctly visible dorsally; mesonotum and scutellum (Fig. 17d) with broad deep pits; with parapsidal groove deep; propodeum (Fig. 18e) without carina, transversally striated. Forewing (Fig. 18f) with marginal vein 2.2x as long as postmarginal vein, and 4.9x stigmal vein; postmarginal vein 2.22x as long as stigmal vein; radial vein long, stigma small, with long uncus; width of stigma 1.14x as long as space between uncus and postmarginal vein. Hind femora with distinct tooth, 4.0x as long as width.

Metasoma (Fig. 18a) excluding ovipositor 0.65x shorter than rest of body; basal 3 tergite with posterior margin weakly incised medially; tip of hypopygium at 0.86 gaster length; Ovipositor equal to length of the gaster; Ovipositor index: 1.43.

Male. Beside gaster similar to female except antenna. Antenna (Fig. 18g) with pedicel 1.33x longer than wide; anellus 1.67x wider than long; club 1.17x wider than F7.

Material examined: Turkey: Erzurum, 2 males, 18.vi.1982, 2 females, 06-17.vi.1984, swept from pasture, M. Doğanlar; 15 females, 13 males, Tokat, Artova, 15-18.vii.1990, reared from seed capsules of *Papaver* sp., M. Doğanlar; Tokat, 1 male, 12.iv.1989, H. Çam; 3 males, 05.-30.v. 1989; 1 female, 1 male, 28.vii.1989; 2 females, 3 males, 01-28.viii.1989; 2 females, 05-15.v. 1989; Necip, 2 females, 11.v.1989; Fidanlık, 3 females, 24.iv.1989; Taşlıciftlik, 7 females, 1 male, 14.-28.iv.1989; 4 females, 4 males, 02.v. 1989; 1 female, 1 male, 07.ix.1989, swept from pasture, H. Çam. All of the specimens were deposited in the Insect collection of Research Station of Biological Control, Adana (IMBC).

Distribution: Turkey: Erzurum.

Host: From the gall midges and, possibly, gall-flies on *Papaver* spp.

***Pseudotorymus sivasensis* sp. nov.**

(Figs. 19a-f)

Etymology. The name is derived from the name of place from which the holotype was collected.

Diagnosis. Ovipositor 0.53x length of the gaster. Antenna with anellus 2.16x wider than long; funicular segments distinctly transverse, distinctly widening towards tip, F7 1.45x as wide as F1; F1 1.47x, F7 2.3x as wide as long; funicular segments with one row of dense sensillae (4-9); club 1.27x wider than F7, 1.47x as long as wide; mesonotum distinctly wrinkled, between them finely reticulated with deep punctures; with parapsidal groove deep; propodeum without carina, slightly and transversally striated. Forewing with marginal vein 4.2x as long as postmarginal vein, and 6.25x stigmal vein; postmarginal vein 1.7x as long as stigmal vein. Body blue-green, including legs, tips of tibiae and tarsi yellow; antenna with scape and pedicel metallic blue, flagellum brown. Hind femora with distinct tooth; Ovipositor index: 0.74.

Description:

Female. Body (Fig. 19a) blue-green, including legs, tips of tibiae and tarsi yellow; antenna with scape and pedicel metallic blue, flagellum brown. wing hyaline, veins yellow. Length 2.75 mm + ovipositor 0.5 mm.

Head in dorsal view 1.1x as wide as mesoscutum, width to length 50:17; POL 3x OOL; OOL as diameter lateral ocellus. Head in frontal view 1.3x wider than high in ratio 50:38; dorsal margin of torulus distinctly below level of lower orbit; malar space consists 0.4 height of eye. Face with fine sculpture. Antenna (Fig. 19c) with anellus 2.16x wider than long; funicular segments distinctly transverse, distinctly widening towards tip, F7 1.45x as wide as F1; F1 1.47x, F7 2.3x as wide as long; funicular segments with one row of dense sensillae (4-9); club 1.27x wider than F7, 1.47x as long as wide.

Mesosoma (Fig. 19a) slightly bulged in profile, propodeum distinctly visible dorsally; mesonotum (Fig. 19d) distinctly wrinkled, between them finely reticulated with deep punctures; with parapsidal groove deep; propodeum (Fig. 19e) without carina, slightly and transversally striated. Forewing (Fig. 19f) with marginal vein 4.2x as long as postmarginal vein, and 6.25x stigmal vein; postmarginal vein 1.7x as long as stigmal vein. Hind femora with distinct tooth, 3.86x as long as width.

Metasoma (Fig. 19a) excluding ovipositor 0.6x shorter than rest of body; basal 4 tergite with posterior margin weakly incised medially; tip of hypopygium at 0.77 gaster length; Ovipositor equal to 0.53x lengths of the gaster; Ovipositor index: 0.74.

Male. Unknown.

Material examined: Holotype, female, Turkey: Sivas, Hara, 30.5.92, swept from pasture, M. Doğanlar. **Paratypes:** 2 females, same data as holotype. All of the specimens were deposited in the Insect collection of Research Station of Biological Control, Adana (IMBC).

Distribution: Turkey: Sivas.

Host: Unknown.

Comments: *Pseudotorymus sivasensis* sp. nov. is similar to *P. nephthys* Walker in having ovipositor (Fig. 19a) 0.53x length of the gaster. But it differs from *P. nephthys* in having forewing (Fig. 19f) with basal cell open, and thoracic dorsum bulged (in *P. nephthys* forewing basal vein pilose with at least 5 hairs; basal cell closed below in distal half or more, and thoracic dorsum flattened).

***Pseudotorymus pannonicus* (Mayr, 1874)**

(Figs. 20a-f)

Diagnosis. Antenna with anellus 2x wider than long; funicular segments having F1 small, about half length of F2, about twice as wide as long; F2-F7 slightly widening towards tip, F7 1.33x as wide as F1; funicular segments with one row of very sparse sensillae (1-3); club 1.33x wider than F7, twice as long as wide; mesonotum with distinct fine reticulation; with parapsidal groove deep; propodeum without carina finely reticulated. Forewing with marginal vein 2.2x as long as postmarginal vein, and 4.6x stigmal vein; postmarginal vein 2.1x as long as stigmal vein. Body blue-green, the gaster at base bronze. Hind femora with distinct tooth; ovipositor 0.4 the length of the gaster; Ovipositor index: 0.55.

Description:

Female. Body (Fig. 20a) dark-blueish, bronze. Scape and flagellum testaceous; coxae and femora concolorous with body, except 1/3 apical part of femora, tibiae and tarsi yellow, except last segment brown (Fig. 20b); wing hyaline, veins yellow. Length 1.5 mm + ovipositor 0.25 mm.

Head in dorsal view 1.3x as wide as mesoscutum, width to length 26:12; POL 2x OOL; OOL 2x as diameter lateral ocellus. Head in frontal view slightly wider than high in ratio 26:23; dorsal margin of torulus distinctly below level of lower orbit; malar space consists 0.36 height of eye. face with fine sculpture. Antenna (Fig. 20c) with anellus 2x wider than long; funicular segments having F1 small, about half length of F2, about twice as wide as long; F2-F7 slightly widening towards tip, F7 1.33x as wide as F1; funicular segments with one row of very sparse sensillae (1-3); club 1.33x wider than F7, twice as long as wide.

Mesosoma (Fig. 20a) slightly bulged in profile, propodeum slightly visible dorsally; mesonotum and scutellum (Fig. 20d) with distinct fine reticulation; with parapsidal groove deep; propodeum (Fig. 20e) without carina, finely longitudinally reticulated. Forewing (Fig. 20f) with marginal vein 2.2x as long as postmarginal vein, and 4.6x stigmal vein; postmarginal vein 2.1x as long as stigmal vein. Hind femora with distinct tooth, 3.9x as long as width.

Metasoma (Fig. 20a) excluding ovipositor 0.76x shorter than rest of body; basal 3 tergite with posterior margin weakly incised medially; tip of hypopygium at 0.73 gaster length; Ovipositor equal to 0.4x lengths of the gaster; Ovipositor index: 0.55.

Male. Unknown.

Material examined: 2 females, Turkey: Erzurum, 17.vi.1964, swept from pasture, M. Doğanlar. All of the specimens were deposited in the Insect collection of Research Station of Biological Control, Adana (IMBC).

Distribution: Turkey: Erzurum.

Host: Unknown.

***Pseudotorymus pazarcikensis* sp. nov.**

(Figs. 21a-g)

Etymology. The name is derived from the name of place from which the holotype was collected.

Diagnosis. Antenna with anellus 1.6x wider than long; funicular segments slightly transverse, slightly widening towards tip, F7 1.25x as wide as F1; F1 1.33x, F7 1.67x as wide as long; funicular segments with one row of dense sensillae (5-7); club 1.13x wider than F7, twice as long as wide; mesonotum with distinct fine reticulation; with parapsidal groove shallow; propodeum without carina, distinctly longitudinally striated. Forewing with marginal vein 3.6x as long as postmarginal vein, and 7.3x stigmal vein; postmarginal vein 2.0x as long as stigmal vein. Body

blue-green, including legs, tips of tibiae and tarsii yellow; antenna scape yellow pedicel and flagellum brown. Hind femora with distinct tooth, 3.62 x as long as width; ovipositor 0.44x length of the gaster. Ovipositor index: 0.88.

Description:

Female. Body (Fig. 21a) blue-green, including legs, tips of tibiae and tarsii yellow; antenna scape yellow pedicel and flagellum brown (Fig. 20c); wing hyaline, veins yellow. Length 2.62 mm + ovipositor 0.58 mm.

Head in dorsal view as wide as mesoscutum, width to length 52:22; POL 2.33x OOL; OOL 1.5x as diameter lateral ocellus. Head in frontal view slightly wider than high in ratio 52:48; dorsal margin of torulus distinctly below level of lower orbit; malar space consists 0.43 height of eye. Face with fine sculpture. Antenna (Fig. 21c) with anellus 1.6x wider than long; funicular segments slightly transverse, slightly widening towards tip, F7 1.25x as wide as F1; F1 1.33x, F7 1.67x as wide as long; funicular segments with one row of dense sensillae (5-7); club 1.13x wider than F7, twice as long as wide.

Mesosoma (Fig. 21a) slightly bulged in profile, propodeum distinctly visible dorsally; mesonotum with distinct fine reticulation; with parapsidal groove shallow; propodeum (Fig. 21e) without carina, distinctly longitudinally striated. Forewing (Fig. 21f) with marginal vein 3.6x as long as postmarginal vein, and 7.3x stigmal vein; postmarginal vein 2.0x as long as stigmal vein. Hind femora with distinct tooth, 3.62x as long as width.

Metasoma (Fig. 21a) excluding ovipositor 0.7x shorter than rest of body; basal 3 tergite with posterior margin weakly incised medially; tip of hypopygium at 0.83 gaster length; Ovipositor equal to 0.44x lengths of the gaster Ovipositor index: 0.88.

Male. Beside gaster similar to female except antenna: Antenna (Fig. 21c) with anellus 1.6x wider than long; funicular segments slightly transverse, slightly widening towards tip, F7 1.25x as wide as F1; F1 1.33x, F7 1.67x as wide as long; funicular segments with one row of dense sensillae (5-7); club 1.13x wider than F7, twice as long as wide.

Material examined: Holotype, female, Turkey: Kahramanmaraş. 24.v.2007, swept from pasture, M. Doğanlar. **Paratypes:** 9 females, 3 males, same data as holotype. All of the specimens were deposited in the Insect collection of Research Station of Biological Control, Adana (IMBC).

Distribution: Turkey: Erzurum.

Host: Unknown.

Comments: *Pseudotorymus pazarcikensis* sp. nov. similar to *P. pannonicus* (Mayr) in having ovipositor about 0.42x length of the gaster, hind femora with distinct tooth and postmarginal vein about twice as long as stigmal vein. But it differs from *P. pannonicus* in having antenna with anellus 1.6x wider than long; funicular segments with F1 almost in same size with F2, 1.67x as wide as long; F7 1.25x as wide as F1; F1 1.33x, F7 1.67x as wide as long; funicular segments with one row of dense sensillae (5-7); mesonotum with parapsidal groove shallow; propodeum without carina, densely and longitudinally striated. Forewing with marginal vein 3.6x as long as postmarginal vein, and 7.3x stigmal vein (in *P. pannonicus* antenna with anellus 2x wider than long; funicular segments having F1 small, about half length of F2, about twice as wide as long; F2-F7 slightly widening towards tip, F7 1.33x as wide as F1; funicular segments with one row of very sparse sensillae (1-3); mesonotum with parapsidal groove deep; propodeum without carina finely reticulated. Forewing with marginal vein 2.2x as long as postmarginal vein, and 4.6x stigmal vein).

ACKNOWLEDGEMENTS

The author wishes to thank to Dr. M. D. Zerova for given possibility to work on the types of *Pseudotorymus* spp. in ZIKU: Schmalhausen Institute of Zoology (National Academy of Sciences of Ukraine) when the author was working there, and her invaluable advise in identifications of the some species.

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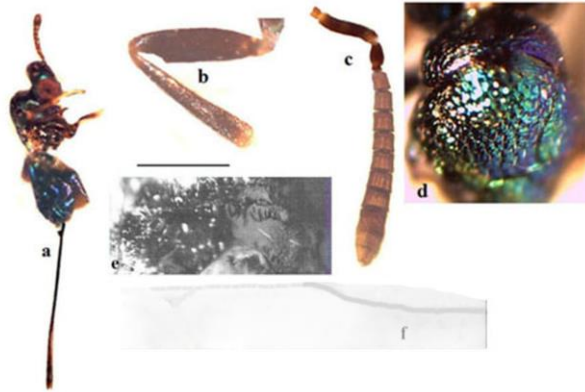


Figure 1. *Pseudotorymus sapphyrinus* (Fonscolombe). a. body; b. hind femora and tibia; c. antenna; d. mesonotum; e. propodeum; f. forewing veins. Scale bare for a = 1.0 mm; for b = 0.39 mm; for c = 0.26 mm; for d = 0.34 mm; for e = 0.44 mm; for f = 0.31 mm.



Figure 2. *Pseudotorymus adananensis* sp. nov. a. body; b. hind femora and tibia; c. antenna; d. mesosoma; e. propodeum; f. forewing veins. Scale bare for a = 1.86 mm; for b = 0.64 mm; for c = 0.18 mm; for d = 0.43 mm; for e = 0.36 mm; for f = 0.45 mm.

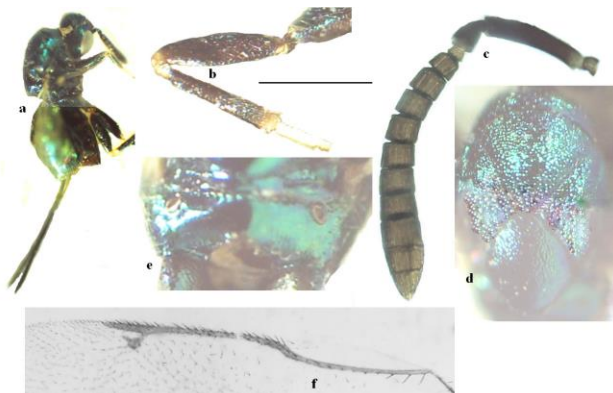


Figure 3. *Pseudotorymus nigdenensis* sp. nov. a. body; b. hind femora and tibia; c. antenna; d. mesosoma; e. propodeum; f. forewing veins. Scale bare for a = 1.28 mm; for b = 0.47 mm; for c = 0.20 mm; for d, f = 0.42 mm; for e = 0.3 mm.

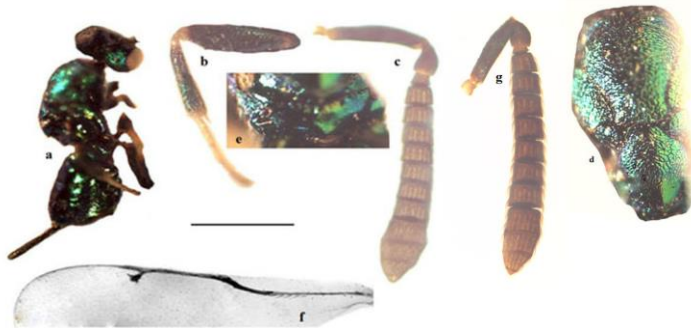


Figure 4. *Pseudotorymus celikhanensis* sp. nov. a. body; b. hind femora and tibia; c. antenna; d. mesosoma; e. propodeum; f. forewing veins; g. male antenna. Scale bare for a = 1.1 mm; for b = 0.36 mm; for c-e, g = 0.28 mm; for f = 0.63 mm.

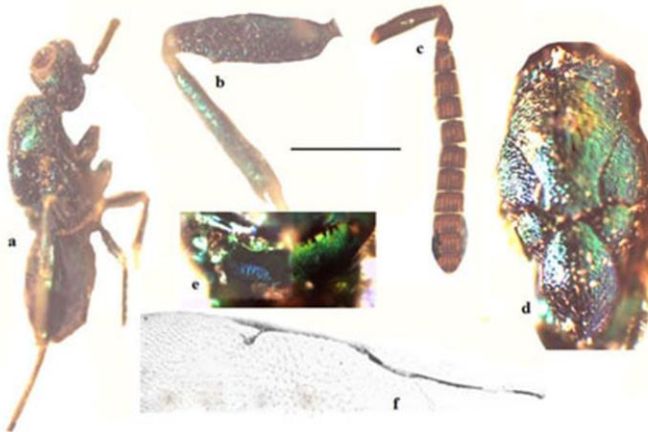


Figure 5. *Pseudotorymus lutfiyeeae* sp. nov. a. body; b. hind femora and tibia; c. antenna; d. mesosoma; e. propodeum. f. forewing veins. Scale bare for a = 0.97 mm; for b,c = 0.27 mm; for d = 0.40 mm; for e = 0.16 mm; for f = 0.52 mm.

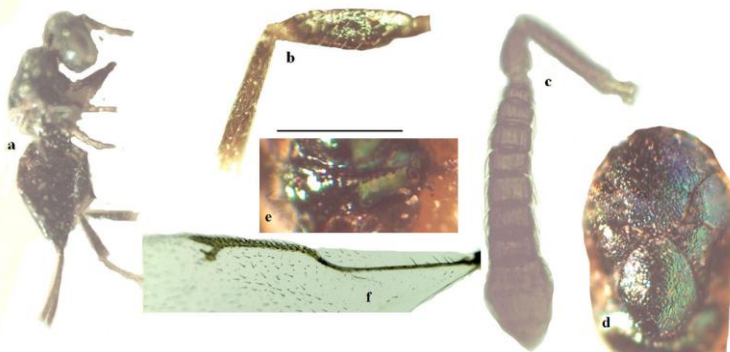


Figure 6. *Pseudotorymus haliti* sp. nov. a. body; b. hind femora and tibia; c. antenna; d. mesosoma; e. propodeum. f. forewing veins. Scale bare for a = 1.0 mm; for b = 0.4 mm; for c = 0.2 mm; for d = 0.4 mm; for e = 0.3 mm; for f = 0.67 mm.



Figure 7. *Pseudotorymus verbasci* Erdős. a. body; b. hind femora and tibia; c. antenna; d. mesosoma; e. propodeum. f. forewing veins. Scale bare for a = 0.9 mm; for b = 0.5 mm; for c = 0.2 mm; for d = 0.6 mm; for e = 0.4 mm; for f = 0.53 mm.

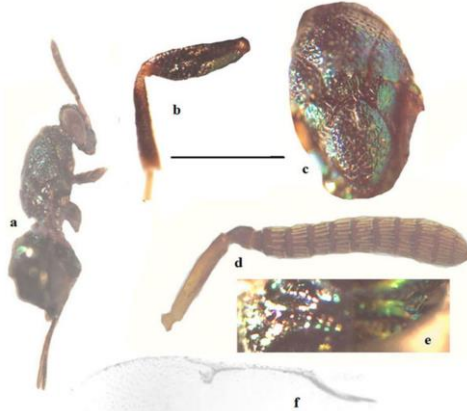


Figure 8. *Pseudotorymus kecikuyusunensis* sp. nov. a. body; b. hind femora and tibia; c. antenna; d. mesosoma; e. propodeum. f. forewing veins. Scale bare for a = 1.26 mm; for b = 0.57 mm; for c = 0.6 mm; for d = 0.33 mm; for e, f = 0.63 mm.



Figure 9. *Pseudotorymus horasanensis* sp. nov. a. body; b. hind femora and tibia; c. antenna; d. mesosoma; e. propodeum. f. forewing veins. Scale bare for a = 1.73 mm; for b = 0.62 mm; for c = 0.36 mm; for d = 0.35 mm; for e, f = 0.32 mm.

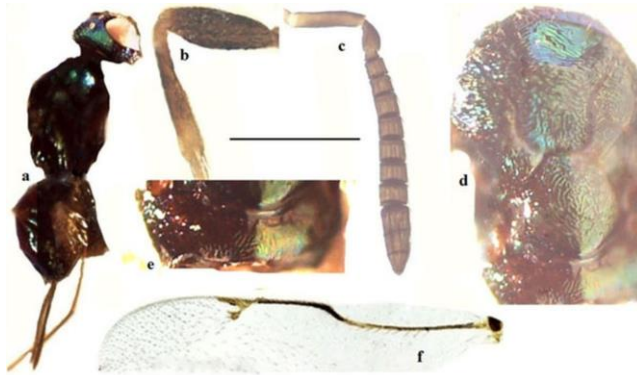


Figure 10. *Pseudotorymus dogubayezitensis* sp. nov. a. body; b. hind femora and tibia; c. antenna; d. mesosoma; e. propodeum. f. forewing veins. Scale bare for a = 1.03 mm; for b = 0.57 mm; for c = 0.30 mm; for d, e = 0.44 mm; for f = 0.61 mm.

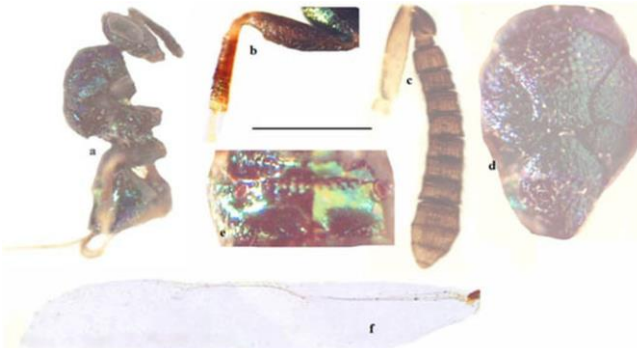


Figure 11. *Pseudotorymus samsatensis* sp. nov. a. body; b. hind femora and tibia; c. antenna; d. mesosoma; e. propodeum. f. forewing veins. Scale bare for a = 0.97 mm; for b = 0.6 mm; for c = 0.48 mm; for d = 0.44 mm; for e = 0.39 mm; f = 0.41 mm.

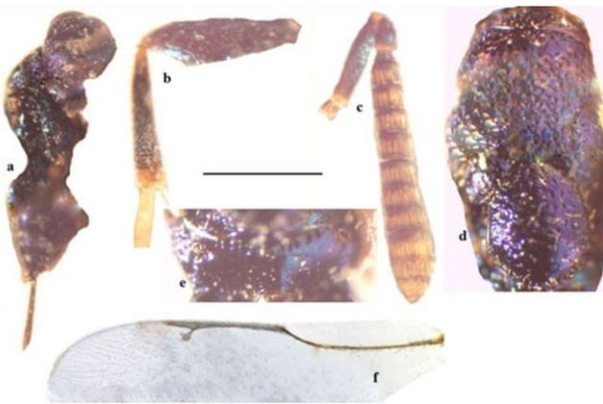


Figure 12. *Pseudotorymus leguminus* Ruschka. a. body; b. hind femora and tibia; c. antenna; d. mesosoma; e. propodeum. f. forewing veins. Scale bare for a = 1.4 mm; for b = 0.68 mm; for c = 0.36 mm; for d = 0.45 mm; for e = 0.4 mm; f = 0.86 mm.

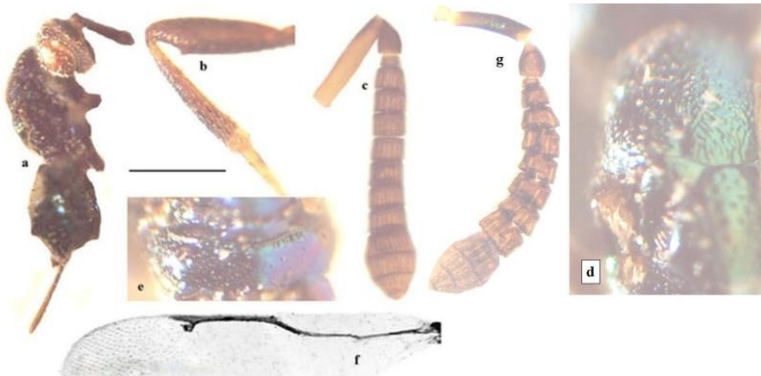


Figure 13. *Pseudotorymus ispirlii* sp. nov. a. body; b. hind femora and tibia; c. antenna; d. mesosoma; e. propodeum. f. forewing veins; g. male antenna. Scale bare for a = 1.05 mm; for b = 0.42 mm; for c-g = 0.24 mm; for d, e = 0.42 mm; f = 0.61 mm.

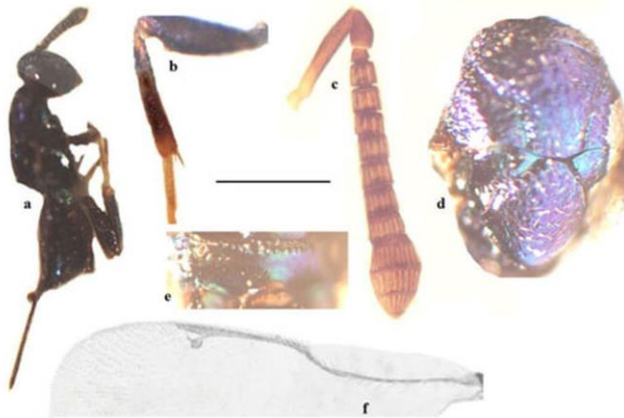


Figure 14. *Pseudotorymus aladagensis* sp. nov. a. body; b. hind femora and tibia; c. antenna; d. mesosoma; e. propodeum. f. forewing veins. Scale bare for a = 0.78 mm; for b = 0.41 mm; for c = 0.16 mm; for d, e = 0.30 mm; for f = 0.46 mm.



Figure 15. *Pseudotorymus bollinensis* Askew. a. body; b. hind femora and tibia; c. antenna; d. mesosoma; e. propodeum. f. forewing veins. Scale bare for a = 2.12 mm; for b = 1.03 mm; for c = 0.43 mm; for d, e = 0.68 mm; for f = 0.1.0 mm.

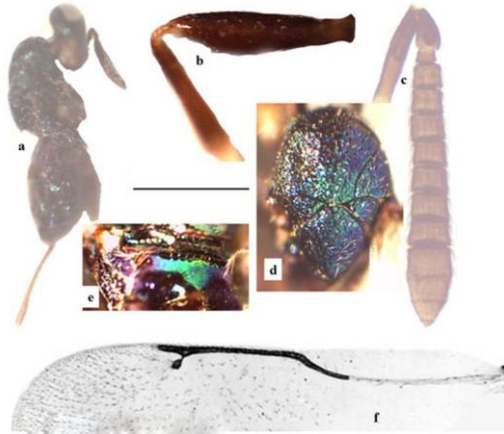


Figure 16. *Pseudotorymus bedirlinensis* sp. nov. a. body; b. hind femora and tibia; c. antenna; d. mesosoma; e. propodeum. f. forewing veins. Scale bare for a = 1.22 mm; for b = 0.51 mm; for c = 0.25 mm; for d, e = 0.65 mm; for e = 0.49 mm; for f = 0.53 mm.



Figure 17. *Pseudotorymus ocaklii* n.sp. a. body; b. hind femora and tibia; c. antenna; d. mesosoma; e. propodeum. f. forewing veins. Scale bare for a = 0.7 mm; for b = 0.35 mm; for c = 0.20 mm; for d = 0.39 mm; for e = 0.35 mm; for f = 0.9 mm.



Figure 18. *Pseudotorymus papaveris* (Thomson). a. body; b. hind femora and tibia; c. antenna; d. mesosoma; e. propodeum. f. forewing veins. g. male antenna. Scale bare for a = 1.08 mm; for b = 0.46 mm; for c, g = 0.26 mm; for d, e = 0.33 mm; for f = 0.77 mm.

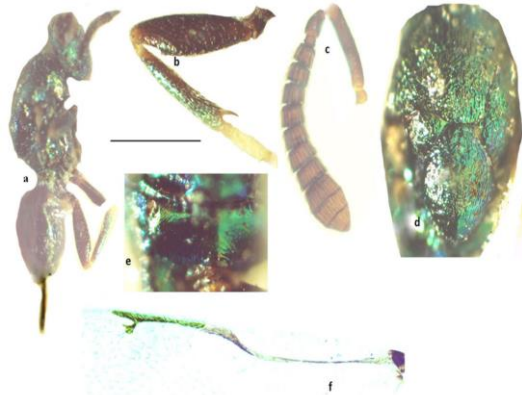


Figure 19. *Pseudotorymus sivasensis* sp. nov. a. body; b. hind femora and tibia; c. antenna; d. mesosoma; e. propodeum. f. forewing veins. Scale bare for a = 1.1 mm; for b = 0.53 mm; for c = 0.32 mm; for d = 0.51 mm; for e = 0.46 mm; for f = 0.5 mm.



Figure 20. *Pseudotorymus pannonicus* (Mayr). a. body; b. hind femora and tibia; c. antenna; d. mesosoma; e. propodeum. f. forewing veins. Scale bare for a = 0.62 mm; for b = 0.28 mm; for c = 0.20 mm; for d = 0.30 mm; for e = 0.24 mm; for f = 0.8 mm.



Figure 21. *Pseudotorymus pazarcikensis* sp. nov. a. body; b. hind femora and tibia; c. antenna; d. mesosoma; e. propodeum. f. forewing veins. Scale bare for a = 1.2 mm; for b = 0.48 mm; for c = 0.38 mm; for d = 0.5 mm; for e = 0.6 mm; for f = 0.75 mm; for g = 0.37 mm.