

**DITROPINOTUS CRAWFORD, 1907 (HYMENOPTERA:  
TORYMYDAE: MICRODONTOMERINI) SPECIES FROM  
TURKEY, WITH DESCRIPTIONS OF NEW SPECIES**

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ABSTRACT: In Turkey 2 species of *Ditropinotus* Crawford, 1907 (Hymenoptera: Torymidae), were found in the Southeastern and Central Anatolia of Turkey. The species, *D. golbasinensis* n.sp. from Adıyaman, Gölbaşı and *D. karatayensis* sp. nov. from Sakyatan, Karatay, Konya were described, diagnostic characters were illustrated, and compared with the Holarctic *D. aureoviridis* Crawford, 1907, and an identification key was provided.

KEY WORDS: *Ditropinotus* spp., Torymidae, Turkey.

The genus *Ditropinotus* was described by Crawford (1907) having type species *Ditropinotus aureoviridis* Crawford, 1907 by monotypy. Grissell (1995) recorded *Ditropinotus* as valid genus in the tribe Microdontomerini (Torymidae), and recorded two species, *D. aureoviridis* as holarctic one and *Ditropinotus obscurus* Nikol'skaya 1952 as Palearctic species, from Russia. Gahan (1912) described *Ditropinotus flocoxus* from USA and later Gahan (1921) synonymized *D. flocoxus* with *D. aureoviridis* and gave a discussion. Only host record has been given for *D. aureoviridis* as parasitoid of *Tetramesa* sp. (Eurytomidae) and *Mayetiola destructor* (Cecidomyiidae) (Grissell, 1995, and Noyes, 2015). Nikol'skaya (1952) gave an identification key for 3 species of *Ditropinotus* and named two new species, *D. obscurus* and *D. flavus*, by given their key characters in the key. Boucek (1965) combined *D. flavus* Nikol'skaya as species of *Pseuderimerus* Gahan, 1919.

In this work morphological characters of the *Ditropinotus* species from Turkey were studied and the species were described and compared with the holarctic *D. aureoviridis* Crawford, 1907, and an identification key was provided for the world species.

#### MATERIAL AND METHOD

This study is based upon examination and identification of the specimens collected from Adıyaman and Konya 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. Wings and antennae of the holotypes were slide-mounted in Canada balsam.

The species were identified by following the keys of Nikol'skaya (1952) and Grissell (1995). Photographs of diagnostic characters of the species were taken by using of Leica DM 500 microscopes with a digital Leica ICC 50 camera attached to it.

The figures of *D. aureoviridis* were taken from the figures given by Grissell (1995), and the characters were taken from Crawford (1907) and from the figures 115, 125, 126, 403, 412, 428, 429 of Grissell (1995), and the characters of *D. obscurus* were taken from the key characters and from the figure 176 given by Nikol'skaya (1952) by re-drawn as figs. 1j-1.

#### 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, F1-6 = funicular segments.

## RESULTS AND DISCUSSION

### *Ditropinotus* Crawford, 1907

*Ditropinotus* Crawford, 1907: 178-179. Type species *Ditropinotus aureoviridis* Crawford (orig. desig. and monotypic USNM. The synonym list, distribution and host records were given by Grissell (1995), the characters summarized by Nikol'skaya (1952).

**Diagnostic characters:** Propodeum with 2 complete submedian carinae. Hind femur ventrally minutely serrate or scalloped, the teeth sometimes produced as slender, sharp barbs that difficult to see except at 50-100x; Hind tibia with 2 apical spur, outer spur small. Antennae with 1 anellus, 7 funicular and 3 club segments; apical funicular segments slightly larger than 2nd funicular segment, funicular segments often somewhat separated; male with club and funicular segments lacking micropilosity, in dorsal view, apical half of flagellum cylindrical (Holarctic) (Grissell, 1995).

### Key to the species of *Ditropinotus*

- 1- Ovipositor (Fig. 1a) less than 1/3 of metasoma, about 0.25x as long as metasoma, ovipositor index 0.66. Body dark bronze, with coppery luster, metasoma black, sometimes brownish at base. Base of scape, apex of femora, sometimes entire femora and tibiae rusty-yellow, tarsi yellow, funicle dark brown below, light distally. Antenna (Fig. 1b) with flagellum filiform; first 3 funicular segments longer than wide, last 3-4 funicular segments wider than long; F1- F3 1.55x as long as width, F4-F7 1.6x as wide as long, club twice as long as width. Fore wings (Fig. 1c) slightly darkened, with marginal vein 2.5x stigmal vein and 1.66x postmarginal vein.....*D. obscurus* Nikol'skaya
- Ovipositor (Fig. 1d) at least 0.38x metasoma, and ovipositor index about 0.94, metasoma yellow; other characters variable.....2
- 2-Mesosoma (Fig. 1d) black. Ovipositor (Fig. 1d) 0.41x metasoma, and ovipositor index 0.94 Head 1.1x as wide as height; antenna (Fig. 1e) with flagellum filiform, pedicel plus flagellum 2.3x as long as scape; 4.14x as long as pedicel, 1.45x as long as club; first 3 funicular segments transverse, others almost quadrate; F1- F2 twice, F3 1.88x, F4 1.23x, F5-F6 1.4x, F7 1.6x as wide as long, club twice as long as width. Fore wing (Fig. 1f) with marginal vein 3.48x stigmal vein and 1.6x postmarginal vein; hind femora (Fig. 1g) large, 2.72x as long as wide, ventrally broadly c-shaped, in apical half having one big, triangular and some smaller teeth apically, hind tibia almost as long as hind femora; propodeum (Fig. 1h) with the area between spiracles 5.18x as long as propodeum medially.....
- .....*D. karatayensis* Doğanlar sp. nov.
- Body (Fig. 2a) bicolored, head, mesonotum and scutellum dorsally green with metallic reflexion, and ventrally yellow, propodeum mostly brown, apically yellow; length of ovipositor variable.....3

3-Ovipositor (Fig. 2a) 0.38x metasoma, and ovipositor index 0.94. Head 1.25x as wide as height; antenna (Fig. 2b) with flagellum clavate, pedicel plus flagellum 3.15x as long as scape; 2.65x as long as pedicel, 1.28x as long as club; anellus transverse, funicular segments mostly slightly transverse, F1 1.22x as wide as long, F2-F3 quadrate, F4-F5 1.4x, F6 1.67x, F7 1.6x as wide as long, club 1.67x as long as width. Fore wing (Fig. 2c) with distinct maculae, marginal vein 1.76x stigmal vein and 1.26x postmarginal vein; propodeum (Fig. 2d) with the area between spiracles 3.66x as long as propodeum medially; hind femora (Fig. 2e) large, 2.34x as long as wide, having ventrally triangular enlargement with in apical 1/3 having one big, triangular, 3 sharper and longer, 3 smaller teeth apically, hind tibia 1.26x as long as hind femora.....*D. golbasinensis* Doğanlar sp. nov.  
 - Fore wing hyaline. Ovipositor about half of metasoma. Head 1.32x as wide as height; antenna (Fig. 3a) with flagellum clavate, pedicel plus flagellum 2.64x as long as scape; the latter 3.13x as long as pedicel, 1.2x as long as club; funicular segments distinctly transverse, F1 1.7x, F2 1.62x, F3 1.4x, F4 1.44x, F5 1.27x, F6 1.36x, F7 1.42x as wide as long, club twice as long as width. Fore wing (Fig. 3b) with marginal vein 2.5x stigmal vein and 1.5x postmarginal vein; propodeum (Fig. 3c) with the area between spiracles 4.86x as long as propodeum medially; hind femora (Fig. 3d) large, 2.73x as long as wide, ventral margin of hind femora with two asymmetrically enlarged lobes, basal one small, apical one bigger, apical lobe with some smaller teeth, but apical ones bigger than others.....*D. aureoviridis* Crawford

### ***Ditropinotus obscurus* Nikol'skaya**

(Figs. 1 a-c)

*Ditropinotus obscurus* Nikol'skaya, 1952: 140-141. No type, Central Asia.

**Diagnostic characters:** Ovipositor less than 1/3 of metasoma, about 0.25x as long as metasoma, ovipositor index 0.66. Body dark bronze, with coppery luster, metasoma black, sometimes brownish at base. Base of scape, apex of femora, sometimes entire femora and tibiae rusty-yellow, tarsi yellow, funicle dark brown below, light distally. Fore wings slightly darkened. Antenna with flagellum filiform; anellus transverse, first 3 funicular segments longer than wide, last 3-4 funicular segments wider than long; F1- F3 1.55x as long as width, F4-F7 1.6x as wide as long, club twice as long as width. Fore wing with marginal vein 2.5x stigmal vein and 1.66x postmarginal vein.

#### **Description:**

**Female:** Length 2.0-2.7 mm. Body dark bronze, with coppery luster, metasoma black, sometimes brownish at base. Base of scape, apex of femora, sometimes entire femora and tibiae rusty-yellow, tarsi yellow, funicle dark brown below, light distally. Fore wings slightly darkened.

**Head:**(Fig. 1a,b) 1.5x as wide as length, 1.56x as wide as mesosoma; PoL 2.33x OOL; OOL equal diameter of lateral ocellus. Antenna (Fig. 1b) with flagellum filiform; anellus transverse, first 3 funicular segments longer than wide, last 3-4 funicular segments wider than long; F1- F3 1.55x as long as width, F4-F7 1.6x as wide as long, club twice as long as width.

**Mesosoma:**(Fig. 1a) 1.9x as long as width. Fore wing (Fig. 1c) with marginal vein 2.5x stigmal vein and 1.66x postmarginal vein. Hind femora large, 1.3x as long as hind tibia; propodeum with the area between spiracles 4.66x as long as propodeum medially.

**Metasoma:**(Fig. 1a) almost as long as mesosoma. Ovipositor (Fig. 1a) less than 1/3 of metasoma, about 0.25x as long as metasoma, ovipositor index 0.66.

**Materials:** No types designated.

**Distribution:** Central Asia (Nicol'skaya, 1952; Noyes, 2015).

**Host:** unknown.

**Remarks:** Female of *Ditropinotus obscurus* Nikol'skaya differs from *Ditropinotus* spp. in having ovipositor 0.25x as long as metasoma and ovipositor index about 0.66 (in *Ditropinotus golbasinensis* sp. nov., *D. karatayensis* sp. nov. ovipositor about 0.4x as long as metasoma and ovipositor index about 0.94 and in *Ditropinotus aureoviridis* Crawford ovipositor about half of metasoma), propodeum with the area between spiracles 4.66x as long as propodeum medially (in *D. golbasinensis* sp. nov. propodeum with the area between spiracles 3.66x as long as propodeum medially, in *D. karatayensis* sp. nov. 5.18x as long as propodeum medially, and in *D. aureoviridis* 4.86x as long as propodeum medially).

***Ditropinotus karatayensis* Doğanlar sp. nov.**

(Figs. 1 d-h)

**Etymology:** The name is derived from the name of Karatay, Konya, from where the Holotype was collected.

**Diagnostic characters:** Fore wing hyaline; body bicolored, head and mesosoma black, metasoma yellow, legs yellow, coxae concolorous with mesosoma, except fore coxae yellow; antenna yellow; ovipositor 0.41x metasoma; ovipositor index 0.94. Antenna with flagellum filiform, pedicel plus flagellum 2.3x as long as scape; the latter reaching slightly below lower edge of median ocellus, 4.14x as long as pedicel, 4.46x as long as broad, 1.45x as long as club; anellus transverse, first 3 funicular segments transverse, others almost quadrate; F1- F2 twice, F3 1.88x, F4 1.23x, F5-F6 1.4x, F7 1.6x as wide as long, club twice as long as width. Fore wing with marginal vein 3.48x stigmal vein and 1.6x postmarginal vein; hind femora large, 2.72x as long as wide, ventrally broadly c-shaped, in apical half having one big, triangular and some smaller teeth apically, hind tibia almost as long as hind femora.

**Description:**

**Female.** Length 2.74 mm+ovipositor 0.64 mm. Body (Fig. 1c) bicolored, head and mesosoma black, metasoma yellow, legs yellow, coxae concolorous with mesosoma, except fore coxae yellow; antenna yellow. Fore wing hyaline; veins yellow.

**Head:** in dorsal view as wide as mesoscutum, width to length 38:20; POL 2.14x OOL; OOL 1.4x diameter of lateral ocellus. Head in frontal view as wide as high in ratio 38:35; dorsal margin of torulus distinctly above level of lower edge of eyes; malar space consists 0.47x height of eye; external margin of clypeus straight; face with fine sculpture. Antenna (Fig. 1d) with flagellum filiform, pedicel plus flagellum 2.3x as long as scape; the latter reaching slightly below lower edge of median ocellus, 4.14x as long as pedicel, 4.46x as long as broad, 1.45x as long as club; anellus transverse, first 3 funicular segments transverse, others almost quadrate; F1- F2 twice, F3 1.88x, F4 1.23x, F5-F6 1.4x, F7 1.6x as wide as long, club twice as long as width.

**Mesosoma:** (Fig. 1c) moderately bulged in profile, propodeum declined, distinctly visible from above; sculpture of pronotum, mesoscutum and scutellum with distinct reticulation; pronotum 0.34x as long as mesoscutum; propodeum with fine reticulation. All coxae with fine reticulation. Forewing (Fig. 1h) with basal cell closed, bare; speculum closed, narrow, below marginal vein with sparse setae; marginal vein 3.48x stigmal vein and 1.6x postmarginal vein; hind femora (Fig. 2b) large, 2.72x as long as wide, slightly swollen and finely toothed type, in apical half having one big, triangular and some smaller teeth apically, hind tibia almost as long as hind femora. Propodeum (Fig. 2e) with the area between spiracles 5.18x as long as propodeum medially.

**Metasoma:** (Fig. 1c) excluding ovipositor slightly longer than rest of body; tip of hypopygium about  $3/4$  length metasoma; ovipositor (Fig. 1c) 0.41x metasoma; ovipositor index 0.94.

**Material examined: Holotype, female,** Turkey: Konya, Karatay, Sakyatan, 26 km from Konya to Karatay, 23.vi.2011, M. Doğanlar, swept from pasture, on card, forewing slide mounted in Canada balsam, deposited in the Insect collection of Research Station of Biological Control, Adana.

**Male:** unknown

**Distribution:** Turkey: Konya, Karatay.

**Host:** unknown.

**Remarks:** Female of *Ditropinotus karatayensis* sp. nov. differs from *Ditropinotus golbasinensis* sp. nov. and *Ditropinotus aureoviridis* Crawford in having mesosoma black, (in *D. golbasinensis* sp. nov. and *D. aureoviridis* mesosoma dorsally green with metallic reflexion, and ventrally yellow), and shape of hind femora slightly swollen and finely toothed type (in *D. golbasinensis* sp. nov. having ventrally triangular enlargement with in apical  $1/3$  having one big, triangular, 3 sharper and longer, 3 smaller teeth apically, and (in *D. aureoviridis* fore wing hyaline; hind femora having ventrally two wavy enlargements, basal one small, apical one bigger, having some smaller teeth, but apical ones bigger than others).

### ***Ditropinotus golbasinensis* Doğanlar sp. nov.**

(Figs. 2 a-e)

**Etymology:** The name is derived from the name of Gölbaşı, Adıyaman, from where the Holotype was collected.

**Diagnostic characters:** Fore wing with distinct maculae; body bicolored, head mesonotum and scutellum dorsally green with metallic reflexion, and ventrally yellow, propodeum mostly brown, apically yellow, metasoma yellow, ovipositor black, legs yellow, except coxae basally green with metallic reflexion; antenna with scape and club yellow, pedicel and funicular segments brown, except F6, F7 testaceous; ovipositor 0.38x metasoma; ovipositor index 0.94. Antenna with flagellum clavate, pedicel plus flagellum 3.15x as long as scape; scape; the latter reaching slightly below lower edge of median ocellus, 2.65x as long as pedicel, 4.5x as long as broad, 1.28x as long as club; anellus transverse, F1 1.22x as wide as long, F2-F3 quadrate, F4-F5 1.4x, F6 1.67x, F7 1.6x as wide as long, club 1.67x as long as width. Fore wing with marginal vein 1.76x stigmal vein and 1.26x postmarginal vein; hind femora large, 2.34x as long as wide, having ventrally triangular enlargement with in apical  $1/3$  having one big, triangular, 3 sharper and longer, 3 smaller teeth apically, hind tibia 1.26x as long as hind femora.

#### **Description:**

**Female.** Length 3.6 mm+ovipositor 0.76 mm. Body (Fig. 1a) bicolored, head mesonotum and scutellum dorsally green with metallic reflexion, and ventrally yellow, propodeum mostly brown, apically yellow, metasoma yellow, ovipositor black, legs yellow, except coxae basally green with metallic reflexion; antenna with scape and club yellow, pedicel and funicular segments brown, except F6, F7 testaceous; Fore wing with distinct maculae below marginal vein; veins dark brown.

**Head:** (Fig. 1a) 0.6x as long as height in lateral view, 0.66x as wide as mesoscutum, width to length 40:20; POL 2.66x OOL; OOL 2.25x diameter of lateral ocellus. Head in frontal view 1.25x as wide as high in ratio 40:32; dorsal margin of torulus distinctly above level of lower edge of eyes; malar space consists 0.4x height of eye; external margin of clypeus straight; face with fine sculpture.

Antenna (Fig. 1b) with flagellum clubbed, funicular segments almost filiform, pedicel plus flagellum 3.15x as long as scape; the latter reaching slightly below lower edge of median ocellus, 2.65x as long as pedicel, 4.5x as long as broad, 1.28x as long as club; anellus transverse, funicular segments mostly slightly transverse, F1 1.22x as wide as long, F2-F3 quadrate, F4-F5 1.4x, F6 1.67x, F7 1.6x as wide as long, club 1.67x as long as width; linear sensilla in a single row on each funicle segment.

**Mesosoma:** (Fig. 1a) slightly bulged in profile, mesoscutum and scutellum almost flat, propodeum declined, distinctly visible from above; sculpture of pronotum, mesoscutum and scutellum with distinct reticulation; pronotum 0.44x as long as mesoscutum; propodeum with fine reticulation. All coxae with fine reticulation. Forewing (Fig. 1c) with basal cell closed, bare; speculum closed, narrow, below marginal vein with sparse setae; marginal vein 1.76x stigmal vein and 1.26x postmarginal vein. Propodeum (Fig. 1d) with the area between spiracles 3.66x as long as propodeum medially; hind femora (Fig. 1e) large, 2.34x as long as wide, having ventrally triangular enlargement with in apical 1/3 having one big, triangular, 3 sharper and longer, 3 smaller teeth apically, hind tibia 1.26x as long as hind femora.

**Metasoma** (Fig. 1a) excluding ovipositor slightly longer than rest of body; tip of hypopygium about 3/4 length metasoma; ovipositor (Fig. 1a) 0.38x metasoma; ovipositor index 0.94.

Male: unknown

**Material examined:** **Holotype, female**, Turkey: Adıyaman, Gölbaşı, 13.vii.2006, M. Doğanlar, swept from pasture, on card, forewing and left antenna slide mounted in Canada balsam, deposited in the Insect collection of Research Station of Biological Control, Adana.

**Male:** unknown.

**Distribution:** Turkey: Adıyaman, Gölbaşı,

**Host:** unknown.

**Remarks:** Female of *Ditropinotus golbasinensis* sp. nov. is similar to *Ditropinotus aureoviridis* Crawford in having body coloration. But it differs from *D. aureoviridis* in having fore wing with pale brown maculae below marginal vein; hind femora having ventrally triangular enlargement with in apical 1/3 having one big, triangular, 3 sharper and longer, 3 smaller teeth apically (in *D. aureoviridis* fore wing hyaline; hind femora having ventrally two wavy enlargements, basal one small, apical one bigger, having some smaller teeth, but apical ones bigger than others).

### ***Ditropinotus aureoviridis* Crawford**

(Figs. 3 a-e)

*Ditropinotus aureoviridis* Crawford, 1907: 178-179. Lectotype female, Hudson, Michigan, USA; 7 females. 6 males paralectotypes, same as lectotype (USNM) (Grissell 1995).

**Synonym:** *Ditropinotus flavicoxus* Gahan, 1912: 5-6. Lectotype Female, Prince Georges County, Maryland, USA, (USNM); 5 females, 2 males paralectotypes, same as lectotype (Grissell, 1995). Synonymized by Gahan, 1921: 236.

**Taxonomic and biologic notes:** The taxonomy, host and biology records were given by Grissell (1995).

**Diagnostic characters:** Fore wing hyaline; body bicolored, head and mesosoma golden green, pleurae more or less, under sides and abdomen dark honey color; antennae dark, scape more or less and club almost orange color; legs testaceous, hind femora, except tips, and hind tibiae, except apices, almost the color of

abdomen; front coxae testaceous; middle coxae slightly and hind almost entirely, greenish; Head 1.32x as wide as height; antenna with flagellum clavate, pedicel plus flagellum 2.64x as long as scape; the latter 3.13x as long as pedicel, 5.55x as long as width, 1.2x as long as club; anellus transverse, funicular segments distinctly transverse, F1 1.7x, F2 1.62x, F3 1.4x, F4 1.44x, F5 1.27x, F6 1.36x, F7 1.42x as wide as long, club twice as long as width. Fore wing with marginal vein 2.5x stigmal vein and 1.5x postmarginal vein; hind femora large, 2.73x as long as wide, ventral margin of hind femora with two asymmetrically enlarged lobes, basal one small, apical one bigger, apical lobe with some smaller teeth, but apical ones bigger than others; propodeum with the area between spiracles 4.86x as long as propodeum medially; ovipositor about half of metasoma.

#### **Description:**

**Female.** Length 3.0-3.5 mm. Body bicolored, head and mesosoma golden green, pleurae more or less, under sides and abdomen dark honey color; antennae dark, scape more or less and club almost orange color; fore wing hyaline; legs testaceous, hind femora, except tips, and hind tibiae, except apices, almost the color of abdomen; front coxae testaceous; middle coxae slightly and hind almost entirely, greenish.

**Head:** 1.32x as wide as height; antenna (Fig. 3 a) with flagellum clavate, pedicel plus flagellum 2.64x as long as scape; the latter 3.13x as long as pedicel, 5.55x as long as width, 1.2x as long as club; anellus transverse, funicular segments distinctly transverse, F1 1.7x, F2 1.62x, F3 1.4x, F4 1.44x, F5 1.27x, F6 1.36x, F7 1.42x as wide as long, club twice as long as width.

**Mesosoma:** Fore wing (Fig. 3b) with marginal vein 2.5x stigmal vein and 1.5x postmarginal vein. Propodeum (Fig. 3c) with the area between spiracles 4.86x as long as propodeum medially. Hind femora (Fig. 3d) large, 2.73x as long as wide, ventral margin of hind femora with two asymmetrically enlarged lobes, basal one small, apical one bigger, apical lobe with some smaller teeth, but apical ones bigger than others;

**Metasoma:** ovipositor about half of metasoma.

**Male:** Entirely green. not so yellowish in color as the female, antennae as seen Fig. 3e; all segments dark, legs testaceous, coxae and femora except pices green; sculpture of abdomen coarser than female. Length about 2 mm.

**Materials:** Lectotype female, Hudson, Michigan, USA; 7 females. 6 males paralectotypes, same as lectotype (Grissell, 1995). As *Ditropinotus flavicoxus* Gahan, 1912:5-6. Lectotype Female, Prince Georges County, Maryland, USA, 5 females, 2 males paralectotypes, same as lectotype (Grissell, 1995).

**Distribution:** USA, Chile, Russia (Noyes, 2015).

**Host:** *Tetramesa* sp. (Eurytomidae), *M. destructor* (Cecidomyiidae) (Grissell, 1995, and Noyes, 2015)

**Remarks:** Female of *Ditropinotus aureoviridis* Crawford differs from *Ditropinotus golbasinensis* sp. nov. and *Ditropinotus karatayensis* sp. nov. in having hind femora 2.73x as long as wide, ventral margin of hind femora with two asymmetrically enlarged lobes, basal one small, apical one bigger, apical lobe with some smaller teeth, but apical ones bigger than others; propodeum with the area between spiracles 4.86x as long as propodeum medially (in *D. golbasinensis* sp. nov. hind femora large, 2.34x as long as wide, having ventrally triangular enlargement with in apical 1/3 having one big, triangular, 3 sharper and longer, 3 smaller teeth apically, hind tibia 1.26x as long as hind femora; propodeum with the area between spiracles 3.66x as long as propodeum medially), and (in *D. karatayensis* sp. nov. hind femora large, 2.72x as long as wide, ventrally broadly c-shaped, in apical half having one big, triangular and some smaller teeth apically,

hind tibia almost as long as hind femora; propodeum with the area between spiracles 5.18x as long as propodeum medially).

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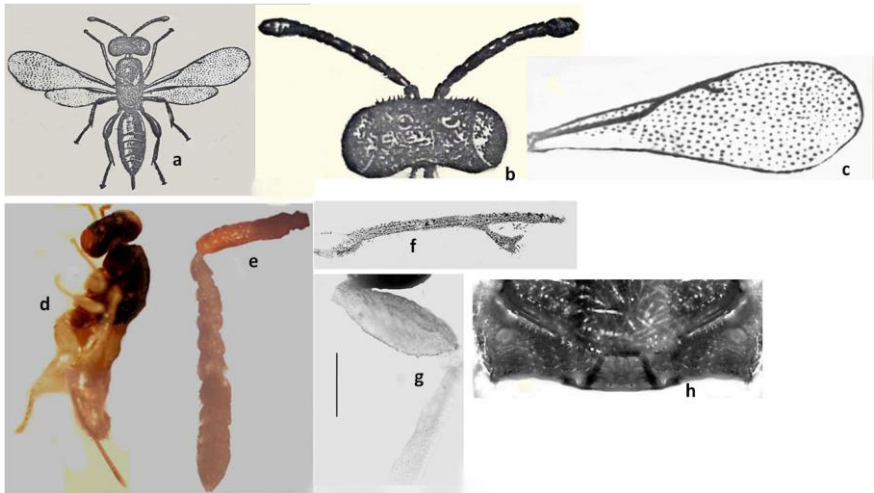


Figure 1. *Ditropinotus* spp., a. b. c. *Ditropinotus obscurus* Nikol'skayaa. body, in dorsal view; b. head with antenna; c. fore wing; d-h. *Ditropinotus karatayensis* Doğanlar sp.nov. d. body in lateral view; e. antennae; f. fore wing veins; g. hind leg; h. propodeum. (scale bar for a= 1 mm, for b= 0.26 mm, for c= 0.36, for d= 0.74 mm; for e, f= 0.3 mm; for g=0.74 mm; for h= 0.5 mm).



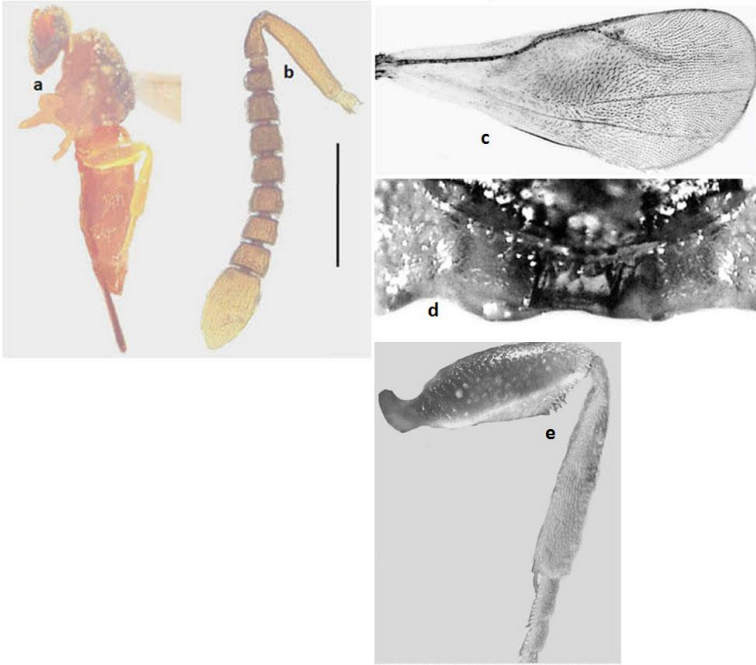


Figure 2. *Ditropinotus golbasinensis*, Doğanlar sp.nov. a. body, in lateral view; b. antenna; c. fore wing; d. propodeum; e. hind leg. (scale bar for a= 0.7 mm, for b= 0.25 mm, for c,e = 0.3 mm, for d= 0.65 mm).

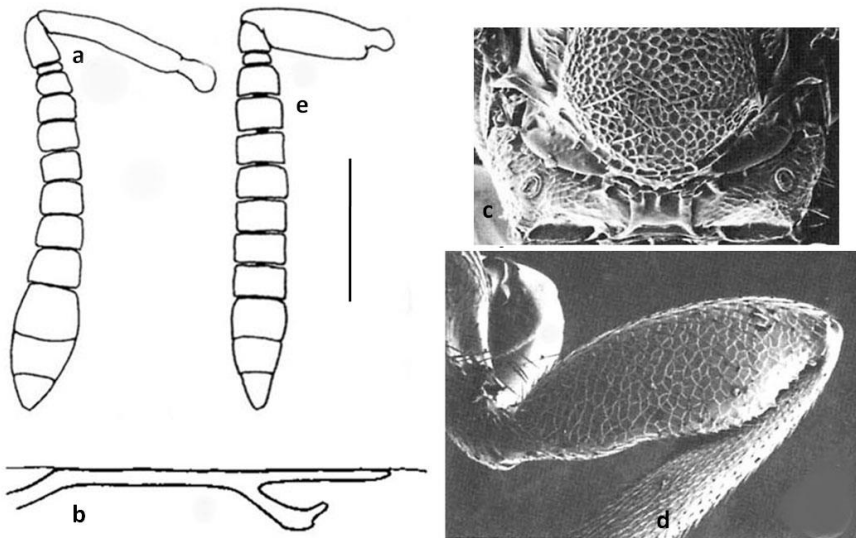


Figure 3. *Ditropinotus aureoviridis* Crawford a. female antenna; b. fore wing veins; c. propodeum; d. hind leg; e. male antenna. (Scale bar for a,e= 0.42 mm; for b= 0.3 mm, for c,d= 0.25 mm).