

**REVIEW OF THE SPECIES OF *CONOMORIUM* MASI
(HYMENOPTERA: PTEROMALIDAE), WITH DESCRIPTIONS
OF NEW SPECIES FROM TURKEY**

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ABSTRACT: World species of *Conomorium* Masi, 1924 were studied. By this work 13 species of *Conomorium*, 7 of them as new species from Turkey, were found from several regions of the world. They are *Conomorium amplum* (Walker, 1835), *Conomorium patulum* (Walker, 1835), *Conomorium pityocampae* Graham, 1992, *Conomorium pelor* Bouček, 1993, *Conomorium equilaterale* Xiao & Huang, 2000, *Conomorium cuneae* Yang & Baur, 2004, and the new ones: *C. turhalensis* n. sp., *C. goelbasinensis* n. sp., *C. guenemekensis* n. sp., *C. tashcayensis* n. sp., *C. helvacioyluae* n. sp., *C. kayserinensis* n. sp., *C. hacipasanensis* n. sp. The new species are described and the species recorded from Turkey are given. An identification key was provided for the species of the world.

KEY WORDS: *Conomorium*, Hymenoptera, Pteromalidae, new species, World

Conomorium Masi, 1924 (Chalcidoidea: Pteromalidae) is a small genus with only six Holarctic species. Up to now two species of *Conomorium*, *C. patulum* (Walker) (Doğanlar, 1985) and *C. pityocampae* Graham (Graham, 1992) and their hosts were recorded from Turkey. Graham (1992) recognized three European species and gave an identification key for the species, but subsequently Bouček (1993) described *C. pelor* from North America, Xiao & Huang (2000) *C. equilaterale* and Yang & Baur (2004) *C. cuneae* from China. The genus is easily recognized by having the characters given by (Graham 1969, 1992) as follows: in female "head protuberant at level of antennal toruli, with vertex curving over into the occiput and at most forming a vague ridge where the two surfaces join, genae moderately to strongly compressed, usually sharp near the bases of the mandibles. Antennae with first funicular segment subconical, constricted in its proximal half, about as long as the second and third segments together; anelli short and strongly transverse. Fore wing with a broad bare strip below the marginal vein, extending to the stigmal vein and broken by at most a few scattered hairs on the lower surface of the wing; marginal vein of fore wing only 1,2 to 1,4 times as long as the stigmal vein. Gaster subcircular, obtuse apically, the ovipositor sheaths, sometimes project very slightly and in male mesosternum posteriorly, just in front of the trochantal lobes, clothed with long whitish hairs which stand out almost vertically. Antennae with first funicular segment about 1,5 times as long as the second segment, and at least 1,5 times as long as broad. Propodeal nucha represented only by a ridge; usually defined anteriorly by a sharp edge.

The available evidence suggests that the species of *Conomorium* are parasitoids of Lepidoptera pupae (Noyes 2019).

By this work, 7 new species of *Conomorium* were found, which are described, illustrated and two known species were given. An identification key is provided for the world species.

MATERIAL AND METHODS

This study is based upon examination and identification of the specimens collected from several parts of Turkey. The examined specimens and types of the new species were deposited in Insect Museum of Biological Control Station, Yüreğir, Adana, Turkey (IMBC). Some of the 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 and one species were reared from the host larvae. The specimens were card mounted and, antenna and/or forewings of some species were slide mounted in Canada balsam for further morphological studies.

The species were identified by following the key of Graham (1969, 1992). Some of the characters were taken from their original description taken from the figures and descriptions given by Boucek & Rasplus (1991), Graham (1992), Boucek (1993), Xiao & Huang (2000) and Yang & Baur (2004).

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.

Terminology and abbreviations:

Morphological terminology follows that of Gibson et al. (1997) and Graham (1969, 1992).

Abbreviations used in the key and descriptions are:

POL: distance between posterior ocelli

OOL: distance between hind ocellus and eye

Ohm: shortest distance between hind ocellus and occiput

F1-7 : funicular segments

C1-C3 : Club segments

(A): ratio the distance between tip of temple and the distance between levels of hind tip of temple and midpoint of occiput.

RESULTS AND DISCUSSION

Key to species of *Conomorium*

FEMALES

- 1- Metasoma acuminate, 1.76x as long as breadth; pronotal collar rounded, without carina; propodeum with spiracle almost touching to posterior edge of metanotum; plicae distinct in posterior half, postspiracular sulci deep and with transverse costulae.....*C. pelor* Boucek, 1993
- Metasoma subcircular or at most oblong; pronotal collar with carina, at least medially.....2
- 2- Mesosoma in lateral view moderately strongly bent, dorsellum and propodeum sloping at an angle of about 40-50° with respect to dorsal plane of mesoscutum and scutellum. Lower face receding at an angle of about 50-65° with respect to the upper face. Forewing with area between post marginal vein and stigmal vein bare without setae.....10
- Mesosoma dorsally depressed, so that mesoscutum, scutellum and propodeum slightly bent, dorsellum and propodeum sloping at an angle of at most 30°. Lower face receding at an angle of about 75-90° with respect to the upper face; Forewing with area between post marginal vein and stigmal vein with or without setae on upper side.....3
- 3- Forewing with area between post marginal vein and stigmal vein with 4-5 setae on upper side; angle between stigmal vein and postmarginal vein 53°; marginal vein 1.23 times as long as postmarginal vein and 1.1x as long as stigmal vein, the latter 1.1x as long as post marginal vein; Head in dorsal view with temple forming a slightly obtuse angle (90°) with occiput and 1.73x as broad as long; POL 1.23x OOL; and 1.42x Ohm; eyes separated by 1.26 times their height; (A) = 4.83; temple 0.6x eye length; malar space 0.23 times eye height; latter 1.75x eye width; antenna with scape 7.86x as long as width, pedicellus plus flagellum 0.88x head width and 1.44x as long as scape; first funicular segment 1.57x

- as long as apical wide, 3.66x as long as basal wide; 1.22x as long as pedicellus; 6th 1.5x as broad as long; clava 1.74x as long as width; propodeum with spiracle separated from posterior edge of metanotum by its diameter.....*C. turhalensis* n. sp.
- Forewing with area between post marginal vein and stigmal vein bare without setae on upper side; other characters variable.....4
- 4-Metasoma wholly yellow or with a yellow spot at base; malar space 0.22-0.25 times eye height; antenna with scape about as long as an eye; pedicellus 2.0x as long as broad in lateral view.....5
- Metasoma dark; other characters variable.....7
- 5-Metasoma yellow; fore wing with angle between stigmal vein and postmarginal vein 55°; marginal vein 2.22 times as long as postmarginal vein; 1.2 times as long as stigmal vein, the latter 1.35x as long as postmarginal vein; Head in dorsal view with temple forming a slightly obtuse angle (90°) with occiput and 2.1x as broad as long; 1.25x as width as height; temple 0.33x eye length; POL 1.1x OOL and 1.44x Ohm; mouth 2.6x malar space; eyes separated by 1.36 times their length; (A) = 4.8; temple as long as eye length; malar space 0.22x eye height, the latter 1.83x eye width; antenna with scape 7.7x as long as broad; pedicellus plus flagellum 0.8x head width; 1.72x as long as scape; first funicular segment 1.42 times as long as apical wide, 2.8x as long as basal wide, as long as pedicellus, 0.8x as long as clava; following segments slightly transverse, 6th 1.6x as broad as long; clava 1.75x as long as broad; spiracle separated from posterior edge of metanotum by half of its shortest diameter.....*C. goelbasinensis* n. sp.
- Metasoma with a yellow spot at base; fore wing with marginal vein 1.42-1.45x as long as stigmal vein; spiracle separated from posterior edge of metanotum by its longest diameter.....6
- 6-Fore wing with angle between stigmal vein and postmarginal vein 48°; marginal vein 1.86 times as long as postmarginal vein; stigmal vein 1.3x as long as postmarginal vein; Head in dorsal view with temple forming a slightly obtuse angle (90°) with occiput and 2.0x as broad as long; 1.1x as width as height; temple 0.52x eye length; POL 1.5x OOL and 1.9x Ohm; mouth 2.0x malar space; eyes separated by 1.32 times their length; (A) = 4.8; temple 0.52x as long as eye length; malar space 0.27x eye height, the latter 1.44x eye width; antenna with scape 7.5x as long as broad; pedicellus plus flagellum 1.1x head width; twice as long as scape; first funicular segment 1.6 times as long as apical wide, 3.5x as long as basal wide, 1.3x as long as pedicellus, 1.1x as long as clava; following segments slightly transverse, 6th 1.3x as broad as long; clava twice as long as broad.....*C. guenemekensis* n. sp.
- Fore wing with angle between stigmal vein and postmarginal vein 45°; marginal vein 1.6 times as long as postmarginal vein; stigmal vein 1.12x as long as postmarginal vein; Head in dorsal view with temple forming a slightly obtuse angle (105°) with occiput and 1.93x as broad as long; 1.3x as width as height; temple 0.43x eye length; POL 1.2x OOL and 1.45x Ohm; mouth 3.14x malar space; eyes separated by 1.4 times their length; eye 1.62x width, (A) = 3.57; malar space 0.25x eye height, the latter 1.9x eye width; antenna with scape 8.6x as long as broad; pedicellus plus flagellum 0.83x head width; 1.72x as long as scape; first funicular segment 1.8 times as long as apical wide, 3.6x as long as basal wide, 1.4x as long as pedicellus, as long as clava; following segments slightly transverse, 6th 1.5x as broad as long; clava 2.35x as long as broad.....*C. tashcayensis* n. sp.
- 7-Fore wing with marginal vein at least 1.6x as long as postmarginal vein.....8
- Fore wing with marginal vein at most 1.27 times as long as postmarginal vein.....9
- 8- Fore wing with angle between stigmal vein and postmarginal vein 40°; marginal vein 1.6 times as long as postmarginal vein; 1.35x stigmal vein the latter 1.2x as long as postmarginal vein; Head in dorsal view with temple forming a slightly obtuse angle (110°) with occiput and 2.12x as broad as long; 1.3x as width as height; temple 0.33x eye length; POL 1.24x OOL and 1.3x Ohm; mouth 3.33x malar space; eyes separated by 1.26 times their length; eye 1.5x width, (A) = 6.43; malar space 0.23x eye height, the latter 1.46x eye width; antenna with scape 7.16x as long as broad; pedicellus plus flagellum 0.94x head width; 1.86x as long as scape; first funicular segment 1.6 times as long as apical wide, 2.66x as long as basal wide, as long as pedicellus, 0.8x as long as clava; following segments slightly transverse, 6th 1.25x as broad as long; clava 1.9x as long as

- broad; spiracle separated from posterior edge of metanotum by its longest diameter.....
*C. helvaciogluae* n. sp.
- Fore wing with angle between stigmal vein and postmarginal vein 40°; marginal vein 1.72 times as long as postmarginal vein; 1.1x stigmal vein the latter 1.55x as long as postmarginal vein; Head in dorsal view with temple forming a slightly obtuse angle (95°) with occiput and 1.9x as broad as long; 1.23x as wide as height; temple 0.57x eye length; POL 1.1-1.17x OOL and 1.0x Ohm; mouth 2.0-2.3x malar space; eyes separated by 1.44-1.52 times their length; eye height 1.8x width; (A) = 5.5; malar space 0.27-0.31 eye height; antenna with scape 8.4x as long as broad; pedicellus plus flagellum 0.75-0.8x head width; 1.62x as long as scape; first funicular segment 1.54 times as long as apical wide, 2.86x as long as basal wide, a little shorter than or as long as clava; 6th 1.5x as broad as long; clava 1.33x as long as broad; spiracle separated from posterior edge of metanotum by its shortest diameter.....*C. pityocampae* Graham, 1992
- 9- Fore wing with angle between stigmal vein and postmarginal vein 35°; with marginal vein stigmal vein and post marginal vein equal in length; Head in dorsal view with temple forming a slightly obtuse angle (115°) with occiput and twice as broad as long; 1.3x as width as height; temple 0.54x eye length; POL 1.17x OOL and 1.67x Ohm; mouth 3.45x malar space; eyes separated by 1.43 times their length; eye height 1.6x width; (A) = 4.33; malar space 0.26 eye height; antenna with scape 9.4x as long as broad; pedicellus plus flagellum equal to head width; 2.02 as long as scape; first funicular segment 1.87 times as long as apical wide, 3.75x as long as basal wide, 1.5x as long as pedicellus; as long as clava; 6th 1.75x as broad as long; clava 2.14x as long as broad; spiracle big, placed midpoint of posterior and anterior edges of metanotum.....*C. kayserinensis* n. sp.
- Fore wing with angle between stigmal vein and postmarginal vein 40-50°; with marginal vein 1.1-1.27 times as long as postmarginal vein; 0.92-1.27x as long as stigmal vein; the latter 0.84x as long as postmarginal vein; Head in dorsal view with temple forming an obtuse angle (93°) with occiput and 1.7-2.0 as broad as long; 1.25-1.3x as width as height; temple 0.6-0.7x eye length; POL 1.1-1.4x OOL and 1.4-1.5x Ohm; mouth 2.35-3.07x malar space; eyes separated by 1.28-1.58 their length; eye height 1.62-1.66x width; (A) = 4.8-5.0; malar space 0.26-0.28x eye height; antenna with scape 6.7-7.1x as long as broad; 0.96-1.05x eye length; pedicellus plus flagellum 0.7-0.8x head width; 1.83-2.02 as long as scape; first funicular segment 1.1-1.33x as long as apical wide, 2.6-2.75x as long as basal wide; 1.0-1.2x as long as pedicellus; 0.75-0.9x as long as clava; 6th 1.8-2x as broad as long; clava 1.9x as long as broad; spiracle separated from posterior edge of metanotum by its longest diameter.....*C. hacipasanensis* n. sp.
- 10- Metasoma with a yellow spot at base; head in dorsal view with temple forming a slightly acute angle (80°) with occiput; eyes small, 1.47-1.55 times as high as wide, separated by 1.35-1.45 times their height; fore wing with angle between stigmal vein and post marginal vein 47°; anterior margin of clypeus narrowly and rather deeply emarginate, more or less angulate medially, with a depression touching the emarginated edge. Female: pedicel in lateral view 2.07-2.15 times as long as wide; POL 1.14x OOL and 1.64x Ohm; pedicellus plus flagellum 0.8-0.9x head breadth; spiracle separated from posterior edge of metanotum by its shortest diameter..*C. cuneae* Zhong-Qi & Baur, 2004
- Metasoma dark; head in dorsal view with temple forming a right or slightly obtuse angle (110°) with occiput; eyes large, 1.66-1.83 times as high as wide; POL at least 1.4x OOL and at most 1.45x Ohm; other characters variable; head 1.3x as width as height.....11
- 11- Fore wing with marginal vein 1.8x as long as postmarginal vein and stigmal vein 1.4x as long as post marginal vein; angle between stigmal vein and postmarginal vein 30°; Head in dorsal view with temple forming a slightly obtuse angle (110°) with occiput; head 2.12x as broad as long; Anterior margin of clypeus broadly and shallowly emarginate, median depression indistinct; temple 0.36x eye length; POL 1.42x OOL and 1.33x Ohm; eyes separated by 1.36 times their length; eye height 1.66x width; malar space 0.25 times eye height; antenna with scape 6.5-7.5x as long as broad; pedicel in lateral view 2.4 times as long as wide; pedicellus plus flagellum 0.85-0.95x head width; 2.2x as long as scape; first funicular segment 1.33 times as long as apical wide, 2.66x as long as basal wide, 1.3x length of pedicellus, 0.84x as long as clava; 6th 2.0x as broad as long; clava 1.9x as long as broad; spiracle separated from posterior edge of metanotum by more than its longest diameter.....*C. amplum* (Walker, 1835)

- Fore wing with marginal vein at most 1.4x as long as postmarginal vein and 1.24x as long as stigmal vein; anterior margin of clypeus broadly and deeply emarginate, median depression distinct; head in dorsal view with temple forming right angle (90°) with occiput; temple 0.6x eye length; malar space 0.23 times eye height; pedicellus plus flagellum 1.7x as long as scape; first funicular segment 1.36x length of pedicellus.....12
- 12-Fore wing with marginal vein 1.4x as long as postmarginal vein and 1.24x as long as stigmal vein, the latter 1.14x as long as post marginal vein; angle between stigmal vein and postmarginal vein 42°; head 1.66x as broad as long; POL 1.55x OOL, and 1.45x Ohm; eyes separated by 1.3 times their length; eye height 1.7x own width; antenna with scape 7.2x as long as broad; pedicel in lateral view 1.7 times as long as wide; pedicellus plus flagellum 0.91x head width; First funicular segment 1.4 times as long as apical wide, 2.25x as long as basal wide, 0.81x as long as clava; 6th 2.0x as broad as long; clava 1.72x as long as broad; spiracle separated from posterior edge of metanotum by its shortest diameter.....*C. patulum* (Walker, 1835)
- Fore wing with marginal vein 1.33x as long as postmarginal vein and as long as stigmal vein, the latter 1.33x as long as post marginal vein; angle between stigmal vein and postmarginal vein 35°; head 2.06x as broad as long; POL 1.23x OOL; Eyes separated by 1.84 times their length; eye height 1.4x own width; antenna with scape 8.33x as long as broad; pedicel in lateral view 2.17 times as long as wide; first funicular segment 1.8 times as long as apical wide, 3.6x as long as basal wide, as long as clava; 6th 1.66x as broad as long; clava 1.8x as long as broad; spiracle separated from posterior edge of metanotum by its longest diameter.....*C. equilaterale* Xiao & Huang, 2000

MALES

- 1-Head with temples forming a slightly acute angle with edge of occiput. Antenna: scape about 0.9-0.95 times as long as eye height; scape slightly shorter than an eye, reaching to about level of middle of median ocellus, its ventral shiny plaque extending over upper 0.45 to 0.6; funicular segments decreasing gradually in length, sixth hardly longer than broad. Eye 1.7-1.75x as long as broad; malar space 0.33-0.38x eye height. Fore wing with marginal vein 1.05-1.20 times as long as stigmal vein.....*C. patulum* (Walker, 1835)
- Head with temples forming a right angle or slightly obtuse angle with edge of occiput. Antenna: scape slightly longer than an eye, virtually reaching level of vertex or even a little above it, with ventral shiny plaque extending over upper 0.7-0.75; funicular segments sometimes otherwise. Eye 1.4-1.55x as long as broad.....2
- 2- Head with temples forming an right angle with edge of occiput; Antenna with scape as long as eye height; pedicel 1.7-1.85 times as long as wide; metatibiae slightly infuscate medially; first gastral tergite mostly without a pale mark. pedicellus plus flagellum somewhat greater than breadth of head; funicular segments distinctly longer than broad, except occasionally the sixth which may be quadrate; F1 1.2-1.3x as long as pedicellus and 1.6-2.35x as long as broad; clava nearly or about 3x as long as broad; scape 6-7x as long as broad.....*C. amplum* (Walker, 1835)
- Head with temples forming a slightly obtuse angle with edge of occiput.....3
- 3- Antenna with pedicellus plus flagellum at most 0.92x breadth of head.....4
- Antenna with pedicellus plus flagellum at least 1.1 x breadth of head.....5
- 4-Antenna with pedicellus plus flagellum 0.75-0.80x breadth of head; funicular segments relatively shorter sixth quadrate; F2-F5 at most slightly longer than broad; F1 1.0-1.15x as long as pedicellus and 1.5-1.7x as long as broad; clava 2.2-2.5x as long as broad; scape 5.0-5.5x as long as broad, with a shiny area ventrally extending over its upper 0.7-0.75; metasoma oblong to oval, about as long as mesosoma; having basal tergite with a narrow yellowish transverse band along hind margin.....*C. pityocampae* Graham, 1992
- Antenna with pedicellus plus flagellum 0.92x as long as breadth of head; scape 1.11x eye height; pedicel 1.66x as long as wide; first funicular segment 1.73 times as long as wide, 1.73 times as long as second segment and 1.37 times as long as pedicel; second funicular segment about 1.14 times as long as wide; F2-F6 equal in length and width; clava acuminate, 2.23 times as long as wide, 1.15x as long as two preceding funicular segments combined; body bluish-black, legs pale yellow, except coxae concolorous with body; first gastral tergite with a transverse broad, pale band along its hind margin; metasoma

- oblong, about 1.44 times as long as wide, as long as mesosoma; hind margin of first tergite straight.....*C. taslicayensis* n. sp.
- 5- Antenna with pedicellus plus flagellum 1.3x as long as breadth of head; scape distinctly longer than eye height; 1.11-1.20x eye height; pedicel 1.5-1.55x as long as wide; first funicular segment 2.2-2.4 times as long as wide, 1.3-1.4 times as long as second segment and 1.5-1.6 times as long as pedicel; second funicular segment about 1.8 times as long as wide and up to 1.15 times as long as sixth segment; sixth funicular segment 1.7-1.8 times as long as wide; clava acuminate, 3.5-3.75 times as long as wide, about as long as two preceding funicular segments combined; metatibiae bright testaceous; first gastral tergite with a transverse pale band along its hind margin; forewing with marginal vein 1.27-1.45 times as long as stigmal vein which is about 1.1 times as long as postmarginal vein; stigma slightly capitate, separated by about twice or slightly more its height from posterior edge of postmarginal vein; metasoma oblong, about 2.1 times as long as wide, 1.1-1.2 times as long as mesosoma, lateral margins parallel; hind margin of first tergite straight.....*C. cuneae* Zhong-Qi & Baur, 2004
- Antenna with pedicellus plus flagellum 1.1x as long as breadth of head.....6
- 6- Antenna with scape 1.20 times eye height; pedicel 2x as long as wide; first funicular segment 2.0 times as long as wide, 2x as long as second segment and 1.3 times as long as pedicel; second funicular segment about 1.1 times as long as wide; sixth funicular segment as long as wide; clava acuminate, 1.8 times as long as wide, about 1.14x as long as two preceding funicular segments combined; body bluish-black, legs pale yellow, except coxae concolorous with body; first gastral tergite with a transverse pale band along its hind margin; metasoma oblong, about 1.55 times as long as wide, 0.93 times as long as mesosoma, lateral margins parallel; hind margin of first tergite straight. metatibiae slightly infuscate medially; first gastral tergite with a transverse pale band along its hind margin.....*C. helviciogluae* n. sp.
- Antenna with scape as long as eye height; pedicel 1.7x as long as wide; first funicular segment 1.75 times as long as wide, 1.4 times as long as second segment and 1.16 times as long as pedicel; second funicular segment about 1.25 times as long as wide and 1.33 times as long as sixth segment; sixth funicular segment 1.14 times as long as wide; clava acuminate, 2.33 times as long as wide, 1.3x as long as two preceding funicular segments combined; body bluish-black, legs pale yellow, except coxae concolorous with body; first gastral tergite pale yellow; metasoma oblong, about 1.38 times as long as wide, 0.93 times as long as mesosoma, lateral margins narrowing to tip; hind margin of first tergite straight.....*C. turhalensis* n. sp.

***Conomorium turhalensis* n. sp.**

(Figs. 1a, 2a1, a2, 3a, 4a1, a2)

Etymology. The name is derived from the name of Turhal, Tokat from which the types were collected.

Type material. Holotype ♀, Tokat, Turhal, Şenköy, 13.iv.1987, swept from leaves *Prunus avium* (H. Çam); Paratype, ♂, Tokat, 28.ix.1984, swept from pasture in cherry orchard, (M. Doğanlar). The types were deposited in Insect Museum of Biological Control Station, Yüreğir, Adana, Turkey (IMBC).

Description female. Body length 2.1 mm. Head and mesosoma dark blue-black with metallic lustre. Antenna with scape pale yellow, pedicel and anelli testaceous, flagellum fuscous. Setae on mesosoma dark. Coxae concolorous with body, rest of legs testaceous, wings hyaline, venation brownish testaceous; petiole and first tergite of metasoma pale testaceous, other part metallic dark brown to black.

Head (Fig. 1a) about 1.2 times as wide as mesoscutum, in dorsal view about 1.73 times as broad as long; vertex moderately convex; POL 1.23 OOL; A) = 4.8; temple 0.6 times as long as eye length, forming a right angle with occiput. Eyes 1.42 times as high as wide, separated by 1.26 times their height, inner orbits

very slightly divergent ventrally; malar sulcus superficial but traceable, malar space 0.23 times eye height. Head in frontal view about 1.35 times as wide as high; lower margin of toruli at or slightly below level of lower ocular line; Head in lateral view with lower face receding at an angle of about 90 with respect to upper face. Head reticulate, meshes largest on gena and temple; clypeus finely striate, its anterior margin narrowly and rather deeply emarginate. Antenna (Fig. 2a1) with scape extending to slightly above level of middle of anterior ocellus; scape about 7.86 times as long as wide; pedicel in lateral view 2.12 times as long as wide; combined length of pedicel plus flagellum 0.88 times head width; both anelli strongly transverse and subequal in length; first funicular segment 1.57x as long as apical wide, 3.66x as long as basal wide; 1.22x as long as pedicellus, distal third with a row of longitudinal sensillae; the subsequent funicular segments transverse, the sixth about 1.5 times as wide as long, each segment with one row of longitudinal sensilla and densely covered with short setae; clava 1.72 times as long as wide and about as long as first funicular segment.

Mesosoma about 1.4 times as long as wide, in lateral view moderately strongly bent dorsellum and propodeum sloping at an angle of about 28° with respect to dorsal plane of mesoscutum and scutellum. Pronotum short, distinctly narrower than mesoscutum; pronotal collar about 0.2x as long as mesoscutum, broadly reticulate, its anterior edge distinctly carinate in whole front margin; hind margin of pronotum with a smooth and shiny strip and a row of moderately long setae. Mesoscutum about 2.1 times as wide as long; notauli superficial and extending about two thirds length of mesoscutum; mesoscutum finely reticulate, meshes rather high, areoles small and only slightly enlarged in median part of sclerite. Scutellum 1.13x as long as wide, almost flat in lateral view; reticulation on scutellum about as strong and coarse as on posterior part of mesoscutum, areoles more or less isodiametric; sculpture on frenum the same as on rest of scutellum, frenal line indicated by one or two rows of smaller and more superficial areoles; scutellum on each side with 5 setae anterior to frenal line; sculpture on inner half of axilla as strong as on scutellum, reticulation on outer half distinctly weaker but still slightly raised. Dorsellum with anterior margin slightly raised its surface with short longitudinal carinulae. Reticulation on meso- and metapleuron about as strong as on mesoscutum, except on upper mesepimeron, which is smooth or only very superficially reticulate. Fore wing (Fig. 3a), 2.2 times as long as wide; basal cell bare; costal cell bare on upper surface, lower surface with about 8-11 hairs in distal half, hair line widely spaced medially; wing disc on upper surface with sparse and minute hairs beyond speculum; area between post marginal vein and stigmal vein with 4-5 setae; angle between stigmal vein and postmarginal vein 53°; with marginal vein 1.23 times as long as postmarginal vein and 1.1x as long as stigmal vein, the latter 1.1x as long as post marginal vein; stigma small, space between post marginal vein and stigma about twice of length of stigma. Propodeum 0.56 times as long as scutellum; median area twice as wide as long; median carina strong and straight; plica bent inwards in anterior two fifths and strong, but absent posteriorly; inner corner of plica anteriorly with a depression; median area evenly reticulate, its sculpture as strong as on mesoscutum; spiracle separated from posterior edge of metanotum by its diameter, the area between spiracle and plica convex; postspiracular sulcus extremely superficial, almost missing; callus covered with numerous long setae; nucha without setae, forming a lunate, transversely aciculate strip, whose length occupies about one third median length of propodeum.

Petiole as long as wide. Metasoma (Fig. 4a1) subcircular, 1.1 times as long as wide, about 1.13 times as wide as mesoscutum and about 1.1x as long as

mesosoma; gastral tergites dorsally slightly sunken, first tergite occupying 0.28x length of gaster, its hind margin slightly curved backwards medially; tergites 1-4 smooth and shining, tergites 4-6 alutaceous laterally, the syntergite entirely so. Ovipositor sheaths slightly projecting.

Description male. Body length 2.1 mm. Similar to female, except as follows: Head and mesosoma black with metallic blue tints; antenna pale yellow. Legs pale yellow, except coxae concolorous with mesosoma. Petiole and metasoma in basal 1/3 part pale testaceous, other part metallic dark brown to black.

Head having antenna (Fig. 2a2) with scape as long as eye height and about 4.5 times as long as wide, extending above vertex; ventral shiny. plaque extending over upper three fourths of the length of scape; combined length of pedicel plus flagellum 1.1 times as long as head width; pedicel in lateral view 1.7 times as long as wide; flagellum filiform, first funicular segment slightly constricted basally and about 1.13 times as wide as subsequent segments; 1.4 times as long as second segment and 1.16 times as long as pedicel; second funicular segment about 1.25 times as long as wide and 1.33 times as long as sixth segment; sixth funicular segment 1.14 times as long as wide; clava acuminate, 2.33 times as long as wide, 1.3x as long as two preceding funicular segments combined.

Petiole about 0.7 times as wide as long, moderately widening posteriorly. Metasoma (Fig. 4a2) oblong, about 1.38 times as long as wide, 0.93 times as long as mesosoma, lateral margins narrowing to tip; hind margin of first tergite straight.

Biology. Unknown.

***Conomorium goelbasinensis* n. sp.**

(Figs. 1b, 2b, 3b, 4b)

Etymology. The name is derived from the name of Gölbaşı, Adıyaman from which the types were collected.

Type material. Holotype ♀, Adıyaman, from Gölbaşı to Malatya 25 km, 19.V.2010, swept from pasture, (M. Doğanlar), deposited in Insect Museum of Biological Control Station, Yüreğir, Adana, Turkey (IMBC).

Description female. Body length 2.1 mm. Head and mesosoma dark blue-black with metallic lustre. Antenna with scape, pedicel and anelli pale yellow, flagellum testaceous, club dirty yellow. Setae on mesosoma dark. Coxae concolorous with body, rest of legs testaceous, wings hyaline, venation brownish testaceous; petiole and metasoma pale testaceous.

Head (Fig. 1b) about 1.16 times as wide as mesoscutum, in dorsal view about 2.1 times as broad as long; vertex moderately convex; POL 1.1 OOL; (A) = 4.8; temple 0.33 times as long as eye length, forming a right angle with occiput. Eyes 1.83 times as high as wide, separated by 1.36 times their height, inner orbits very slightly divergent ventrally; malar sulcus superficial but traceable, malar space 0.22 times eye height. head in dorsal view 2.1x as broad as long; in frontal view 1.25x as width as height; lower margin of toruli slightly below level of lower ocular line; Head in lateral view with lower face receding at an angle of about 73° with respect to upper face. Head reticulate meshes largest on gena and temple; clypeus finely striate, its anterior margin narrowly and rather deeply emarginate. Antenna (Fig. 2b) with scape extending to slightly below level of middle of anterior ocellus;

scape about 7.7 times as long as wide; pedicel in lateral view 1.9 times as long as wide; combined length of pedicel plus flagellum 0.8 times head width; both anelli strongly transverse and subequal in length; First funicular segment 1.42 times as long as apical wide, 2.8x as long as basal wide, as long as pedicellus, 0.8x as long as clava; following segments slightly transverse, 6th 1.6x as broad as long; clava 1.75x as long as broad.

Mesosoma about 1.32 times as long as wide, in lateral view moderately strongly bent, dorsellum and propodeum sloping at an angle of about 25° with respect to dorsal plane of mesoscutum and scutellum. Pronotum short, distinctly narrower than mesoscutum; pronotal collar about 0.2x as long as mesoscutum, broadly reticulate, its anterior edge distinctly carinate in whole front margin; hind margin of pronotum with a smooth and shiny strip and a row of moderately long setae. Mesoscutum about 1.8 times as wide as long; Scutellum 1.12x as long as wide, moderately convex in lateral view; reticulation on scutellum about as strong and coarse as on posterior part of mesoscutum, areoles more or less isodiametric; sculpture on frenum the same as on rest of scutellum, frenal line indicated by one or two rows of smaller and more superficial areoles; scutellum on each side with 4 setae anterior to frenal line; sculpture on inner half of axilla as strong as on scutellum, reticulation on outer half distinctly weaker but still slightly raised. Forewing (Fig. 3b) 2.5 times as long as wide; area between postmarginal vein and stigmal vein without setae; angle between stigmal vein and postmarginal vein 55°; marginal vein 2.22 times as long as postmarginal vein; 1.2 times as long as stigmal vein, the latter 1.35x as long as postmarginal vein; stigma small, space between post marginal vein and stigma about twice of length of stigma. Propodeum 0.52 times as long as scutellum; median area 1.67x as wide as long; median carina strong and straight; spiracle separated from posterior edge of metanotum by half of its shortest diameter; nucha without setae, forming a lunate, transversely aciculate strip, whose length occupies about one third median length of propodeum.

Petiole as long as wide. Metasoma (Figs. 4b) subcircular, 1.18 times as long as wide, about 1.13 times as wide as mesoscutum and about 1.1x as long as mesosoma; gastral tergites dorsally slightly sunken, first tergite occupying 0.26x length of gaster, its hind margin straight; tergites 1-4 smooth and shining, tergites 4-6 alutaceous laterally, the syntergite entirely so. Ovipositor sheaths slightly projecting.

***Conomorium guenemekensis* n. sp.**

(Figs. 1c, 2c, 3c, 4c)

Etymology. The name is derived from the name of Gümenek, Tokat from which the types were collected.

Type material. Holotype ♀, Tokat, Gümenek, 27.ix.86, swept from pasture, (M. Doğanlar) deposited in Insect Museum of Biological Control Station, Yüreğir, Adana, Turkey (IMBC).

Description female. Body length 2.3 mm. Head and mesosoma black with greenish reflection. Antenna with scape and anelli pale yellow, pedicel slightly testaceous, flagellum testaceous, club slightly paler. Setae on mesosoma pale. Coxae concolorous with body, rest of legs testaceous, wings hyaline, venation brownish testaceous; petiole yellow, metasoma with first tergite having a yellow

circular spot at base, other sides of the tergite and gaster medially brown, with apical tree segments testaceous.

Similar to *C. goelbasinensis* n. sp. excepts as follows:

Head (Fig. 1c) about 1.19 times as wide as mesoscutum, in dorsal view about 1.9 times as broad as long; vertex moderately convex; POL 1.5 OOL; (A) = 4.8; temple 0.52 times as long as eye length, forming 95° angle with occiput. Eyes 1.44 times as high as wide, separated by 1.32 times their height, malar space 0.27 times eye height. head in dorsal view 2.0x as broad as long; in frontal view 1.1x as width as height; Head in lateral view with lower face receding at an angle of about 93° with respect to upper face. Antenna (Fig. 2c) scape about 7.5 times as long as wide; pedicel in lateral view twice as long as wide; combined length of pedicel plus flagellum 1.1 times head width, twice as long as scape; first funicular segment constricted in its proximal half, 1.6 times as long as apical wide, 3.5x as long as basal wide, 1.3x length of pedicellus, 1.1x as long as clava; following segments slightly transverse, 6th 1.3x as broad as long; clava 2x as long as broad.

Mesosoma about 1.36 times as long as wide, in lateral view moderately strongly bent, dorsellum and propodeum sloping at an angle of about 33° with respect to dorsal plane of mesoscutum and scutellum. Pronotum with pronotal collar about 0.17x as long as mesoscutum, Mesoscutum about 1.93 times as wide as long; Scutellum 1.11x as long as wide, Fore wing (Fig. 3c) 2.23 times as long as wide; angle between stigmal vein and postmarginal vein 48°; marginal vein 1.86 times as long as postmarginal vein; 1.42 times as long as stigmal vein, the latter 1.3x as long as postmarginal vein; stigma big, space between post marginal vein and stigma about 1.43x length of stigma. Propodeum 0.7 times as long as scutellum; median area 2.25x as wide as long; spiracle separated from posterior edge of metanotum by its longest diameter.

Petiole distinctly wider than long. Metasoma (Fig. 4c) subcircular, 1.1 times as long as wide, about 1.22 times as wide as mesoscutum and about 1.1x as long as mesosoma; gastral tergites dorsally slightly sunken, first tergite occupying 0.37x length of gaster.

***Conomorium tashcayensis* n. sp.**

(Figs. 1d, 2d1, d2; 3d, 4d1, ad2)

Etymology. The name is derived from the name of Taşlıçay, Ağrı from which the types were collected.

Type material. Holotype ♀, TR. Ağrı, Taşlıçay, 14.vii.2010, swept from pasture, (M. Doğanlar). Paratype ♂, same locality as the holotype, 18.vii.2012. swept from pasture, (M. Doğanlar). The types were deposited in Insect Museum of Biological Control Station, Yüreğir, Adana, Turkey (IMBC).

Description female. Body length 3.32 mm. Head and mesosoma -black with bluish reflection. Antenna with scape, pedicel and anelli yellow, flagellum testaceous, club slightly paler. Setae on mesosoma pale. Coxae concolorous with body, rest of legs testaceous, wings hyaline, venation brownish testaceous; petiole black, metasoma brown.

Similar to *C. guenemekensis* n. sp. excepts as follows:

Head (Fig. 1d) about 1.18 times as wide as mesoscutum, in dorsal view about 2.0 times as broad as long; POL 1.2 OOL; (A) = 3.57; temple 0.43 times as long as eye length, forming 100° angle with occiput. Eyes 1.62 times as high as wide, separated by 1.38 times their length, malar space 0.25 times eye height. head in

dorsal view 1.93x as broad as long; in frontal view 1.3x as width as height; Head in lateral view with lower face receding at an angle of about 65° with respect to upper face. Antenna (Fig. 2d1) scape about 8.6 times as long as wide; pedicel in lateral view 2.1 as long as wide; combined length of pedicel plus flagellum 0.83 times head width, 1.72x as long as scape; first funicular segment slightly constricted in its proximal half, 1.8x as long as apical wide, 3.6x as long as basal wide; 1.4x as long as pedicellus; following segments distinctly transverse, 6th 1.5x as broad as long; clava 2.35x as long as broad.

Mesosoma about 1.5 times as long as wide, in lateral view moderately bent, dorsellum and propodeum sloping at an angle of about 34° with respect to dorsal plane of mesoscutum and scutellum. Pronotum with pronotal collar about 0.22x as long as mesoscutum, Mesoscutum about 1.96 times as wide as long; Scutellum as long as wide, Forewing (Fig. 3d) 2.15 times as long as wide, with marginal vein 1.6 times as long as postmarginal vein, 1.45x as long as stigmal vein; the latter 1.12x as long as post marginal vein; angle between stigmal vein and postmarginal vein 45°; stigma big, space between post marginal vein and stigma about 2.5x length of stigma. Propodeum 0.5 times as long as scutellum; median area 2.6x as wide as long; spiracle separated from posterior edge of metanotum by its longest diameter.

Petiole distinctly wider than long. Metasoma (Fig. 4d1) ellipsoidal, 1.4 times as long as wide, about 1.1 times as wide as mesoscutum and about 1.1x as long as mesosoma; gastral tergites dorsally slightly sunken, first tergite occupying 0.43x length of gaster.

Description male. Body length 2.5 mm. Similar to female, except as follows: Head and mesosoma bluish-black, legs pale yellow, except coxae concolorous with body; first gastral tergite with a transverse broad, pale band along its hind margin; other part metallic dark brown to black.

Head with antenna (Fig. 2d2) with scape 1.11x as long as eye height and about 4.4 times as long as wide, extending above vertex; ventral shiny. plaque extending whole length of scape; combined length of pedicel plus flagellum 0.92 times as long as head width; pedicel in lateral view 1.6 times as long as wide; flagellum filiform, first funicular segment 1.73 times as long as wide, 1.73 times as long as second segment and 1.37 times as long as pedicel; second funicular segment about 1.14 times as long as wide; F2-F6 equal in length and width; clava acuminate, 2.23 times as long as wide, 1.15x as long as two preceding funicular segments combined.

Petiole about 0.5 times as long as wide. Metasoma (Fig. 4d2) oblong, about 1.44 times as long as wide, as long as mesosoma; hind margin of first tergite straight.

***Conomorium helvacioğluae* n. sp.**

(Figs. 1e, 2e1, e2; 3e, 4e1, e2)

Etymology. The name is derived from the name of Dr. Özge Helvacioğlu who reared the types of the new species.

Type material. Holotype ♀, TR. Sakarya, 04.viii.2019, reared from pupae of *Sesamia nonagrioides* Lef. (Lepidoptera: Noctuidae) (Ö. Helvacioğlu). Paratypes 15♀♀, 7♂♂, same locality as the holotype, reared from pupae of *S. nonagrioides* and of *Ostrinia nubilalis* Hbn. (Lepidoptera: Crambidae), 18.vii.- 05.ix.2019. (Ö.

Helvacıoğlu). The types were deposited in Insect Museum of Biological Control Station, Yüreğir, Adana, Turkey (IMBC).

Description female. Body length 2.3-2.4 mm. Head and mesosoma -black with bluish reflection. Antenna with scape and pedicel yellow, anelli pale testaceous, flagellum black. Setae on mesosoma brown. Coxae concolorous with body, rest of legs dirty yellow, wings hyaline, venation brownish testaceous; petiole black, metasoma brown.

Similar to *C. tashcayensis* n. sp. excepts as follows:

Head (Fig. 2e) about 1.28 times as wide as mesoscutum, in dorsal view about 2.12 times as broad as long; in frontal view 1.28x as width as height; Head in lateral view with lower face receding at an angle of about 70° with respect to upper face. POL 1.24 OOL and 1.3x Ohm; (A) = 4.25; temple 0.33 times as long as eye length, Head in dorsal view with temple forming a slightly obtuse angle (110°) with occiput; Eyes 1.5 times as high as wide, separated by 1.26 times their length, malar space 0.23 times eye height. antenna (Fig. 2e1) with scape about 7.43x as long as broad; pedicellus plus flagellum 0.94x head width; F1 1.6 times as long as apical wide, 2.66x as long as basal wide, 0.8x as long as clava; following segments slightly transverse, 6th 1.25x as broad as long; clava 1.9x as long as broad.

Mesosoma about 1.5 times as long as wide, in lateral view moderately bent, dorsellum and propodeum sloping at an angle of about 27° with respect to dorsal plane of mesoscutum and scutellum. Pronotum with pronotal collar about 0.25x as long as mesoscutum, Mesoscutum about 1.6 times as wide as long; Scutellum 0.9x as long as wide, Fore wing 2.18 times as long as wide, with marginal vein 1.6 times as long as post marginal vein, 1.35x as long as stigmal vein; the latter 1.2x as long as post marginal vein; angle between stigmal vein and post marginal vein 42°; stigma big, space between post marginal vein and stigma about 1.43x length of stigma. Propodeum 0.6 times as long as scutellum; median area 2.2x as wide as long; spiracle separated from posterior edge of metanotum by its longest diameter.

Petiole distinctly wider than long. Metasoma (Fig. 4e1) circular, 1.1 times as long as wide, about 1.16 times as wide as mesoscutum and about 1.15x as long as mesosoma; gastral tergites dorsally slightly sunken, first tergite occupying 0.3x length of gaster.

Description male. Body length 2.0-2.2 mm. Similar to female, except as follows: Head and mesosoma bluish-black, legs pale yellow, except coxae concolorous with body; metatibiae slightly infuscate medially; first gastral tergite with a transverse narrow pale band along its hind margin; other part metallic dark brown to black.

Head with antenna (Fig. 2e2) with scape 1.2x as long as eye height and about 5 times as long as width, extending above vertex; ventral shiny. Plaque extending almost whole length of scape; combined length of pedicel plus flagellum 1.1 times as long as head width; pedicel in lateral view twice as long as wide; flagellum filiform, first funicular segment 2 times as long as wide, twice as long as second segment and 1.3 times as long as pedicel; second funicular segment about 1.1 times as long as wide; F6 equal in length and width; clava acuminate, 1.8 times as long as wide, 1.14x as long as two preceding funicular segments combined.

Petiole about 0.5 times as long as wide. Metasoma (Fig. 4e2) oblong, about 1.55 times as long as wide, 0.93x as long as mesosoma; hind margin of first tergite straight.

***Conomorium pityocampae* Graham, 1992**

Conomorium pityocampae Graham, 1992. Holotype ♀, and some paratypes ♀ ♂, Yugoslavia, France, Cyprus, and Turkey: Orhaneli, 25.vii. to viii.1959. Ex cocoon of *Thaumetopoea pityocampae* Den.& Schiff. (E. Can) (BMNH).

Studied material. TR: Tokat, 1♀, 31.x.1986, (2.8mm), 1♀, 28.xi.1986, (2.7 mm); 1♀, 27.xi.1987 (2.8 mm); Almus, Çevreli, 27.v.1998, (3.0 mm), swept from leaves of *Purunus mahalep* (H.Çam).

***Conomorium kayserinensis* n. sp.**

(Figs. 1f, 2f, 3f, 4f)

Etymology. The name is derived from the name of Kayseri, from which the types were collected.

Type material. Holotype ♀, TR. Kayseri, Sarız, 08.vi.2008, swept from pasture (M. Doğanlar). The types were deposited in Insect Museum of Biological Control Station, Yüreğir, Adana, Turkey (IMBC).

Description female. Body length 2.3-2.4 mm. Head and mesosoma -black with bluish reflection. Antenna with scape, pedicel and anelli yellow, flagellum fuscous, club dirty yellow. Setae on mesosoma brown. Coxae concolorous with body, rest of legs dirty yellow, wings hyaline, venation brownish testaceous; petiole yellow, metasoma brown.

Similar to *C. helvaciogluae* n. sp. excepts as follows:

Head (Fig. 1f) about 1.28 times as wide as mesoscutum, in dorsal view about 1.95 times as broad as long; in frontal view 1.3x as width as height; Head in lateral view with lower face receding at an angle of about 68° with respect to upper face. POL 1.17x OOL and 1.67x Ohm; (A) = 6.25; temple 0.54 times as long as eye length, head in dorsal view with temple forming a slightly obtuse angle (100 °) with occiput; eyes 1.6 times as high as wide, separated by 1.43 times their length, malar space 0.26 times eye height. antenna (Fig. 2f) with scape about 9.4x as long as broad, and as long as eye length; pedicellus plus flagellum equal head width and twice length of scape; F1 1.43x as long as pedicellus, 1.8 times as long as apical wide, 3.6x as long as basal wide, 1.06x as long as clava; following segments slightly transverse, 6th 1.43x as broad as long; clava 2.2x as long as broad.

Mesosoma about 1.44 times as long as wide, in lateral view moderately bent, dorsellum and propodeum sloping at an angle of about 33° with respect to dorsal plane of mesoscutum and scutellum; pronotum with pronotal collar about 0.22x as long as mesoscutum, the latter about 2.2 times as wide as long; scutellum 0.9x as long as wide, fore wing 2.1 times as long as wide, with marginal vein stigmal vein and post marginal vein equal in length; angle between stigmal vein and postmarginal vein 35°; stigma big, space between post marginal vein and stigma about 1.57x length of stigma. Propodeum 0.8 times as long as scutellum; median area 2.0x as wide as long; spiracle big, placed midpoint of posterior and anterior edges of metanotum.

Petiole 1.66x as long as broad. Metasoma (Fig. 4f) oblong, 1.1 times as long as wide, about as wide as mesoscutum and about 0.93x as long as mesosoma; gastral tergites dorsally slightly sunken, first tergite occupying 0.28x length of gaster.

***Conomorium hacipasanensis* n. sp.**

(Figs. 1g, 2g, 3g, 4g)

Etymology. The name is derived from the name of Hacipaşa, Altınözü, Hatay, from which the types were collected.

Type material. Holotype ♀, TR. Hatay, Altınözü, Hacipaşa, 25.vi.1998, swept from pasture, (M. Doğanlar); Paratypes: 3♀♀, same data as the holotype; 1♀, Altınözü, Center, 14.iv.2008; 1♀, Altınözü, Kozkalesi, 08.v.2007, all of the paratypes were swept from pasture, (M. Doğanlar); The types were deposited in Insect Museum of Biological Control Station, Yüreğir, Adana, Turkey (IMBC).

Description female. Body length 2.5-2.7 mm. Head and mesosoma -black with bluish reflection. Antenna with scape, pedicel and anelli yellow, flagellum fuscous, club dirty yellow. Setae on mesosoma white. Coxae concolorous with body, rest of legs dirty yellow, wings hyaline, venation brownish testaceous; petiole and metasoma black and brown.

Similar to *C. helvaciogluae* n. sp. excepts as follows:

Head (Fig. 1g) about 1.1 times as wide as mesoscutum, in dorsal view about twice as broad as long; in frontal view 1.25x as width as height; head in lateral view with lower face receding at an angle of about 60-70° with respect to upper face. POL 1.1-1.4x OOL and 1.4-1.5x Ohm; (A) = 5.0; temple 0.6-0.7 times as long as eye length; head in dorsal view with temple forming a slightly obtuse angle (100 °) with occiput; eyes 1.62-1.66 times as high as wide, separated by 1.25-1.32 times their length, malar space 0.24 times eye height. antenna (Fig. 2f) with scape about 6.7-7.1x as long as broad, and 0.87x as long as eye length; pedicellus plus flagellum 0.7-0.8 head width and 1.83-2.02x length of scape; first funicular segment 1.1-1.33x as long as apical wide, 2.6-2.75x as long as basal wide; 1.0-1.2x as long as pedicellus; 0.96x as long as clava; 6th 1.75x as broad as long; clava 1.57x as long as broad.

Mesosoma about 1.4 times as long as wide, in lateral view moderately bent, dorsellum and propodeum sloping at an angle of about 30-34° with respect to dorsal plane of mesoscutum and scutellum; pronotum with pronotal collar about 0.2x as long as mesoscutum, the latter about 2.0 times as wide as long; scutellum 0.94x as long as wide; forewing (Fig. 3f) with marginal vein 1.1-1.27 times as long as postmarginal vein; 0.92-1.27x as long as stigmal vein; the latter 0.84x as long as postmarginal vein;; angle between stigmal vein and postmarginal vein 40-50°; stigma big, space between post marginal vein and stigma about 1.57-1.8x length of stigma. Propodeum 0.46 times as long as scutellum; median area 2.0x as wide as long; spiracle separated from posterior edge of metanotum by its longest diameter.

Petiole 0.65x as long as broad. Metasoma (Fig. 4f) circular, as long as wide, 1.18 as wide as mesoscutum and about as long as mesosoma; gastral tergites dorsally slightly sunken, first tergite occupying 0.31x length of metasoma.

***Conomorium patulum* (Walker, 1835)**

Pteromalus patulus Walker, 1835: 479.♀.

Conomorium patulum (Walker): Graham, 1969: 821.

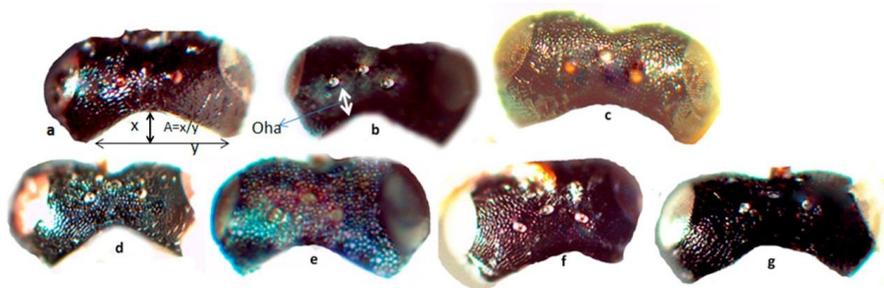
Studied materials: 1♀, Erzurum, 12.viii.1982 (Ö. Aloğlu); 13 ♀♀, 27-28.ix.1987, swept from pasture (H. Çam).

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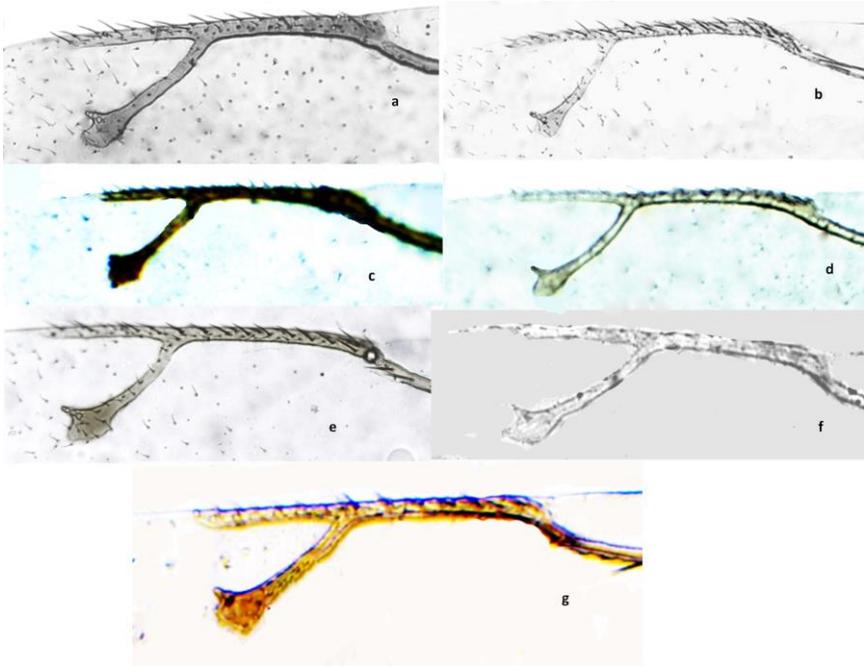
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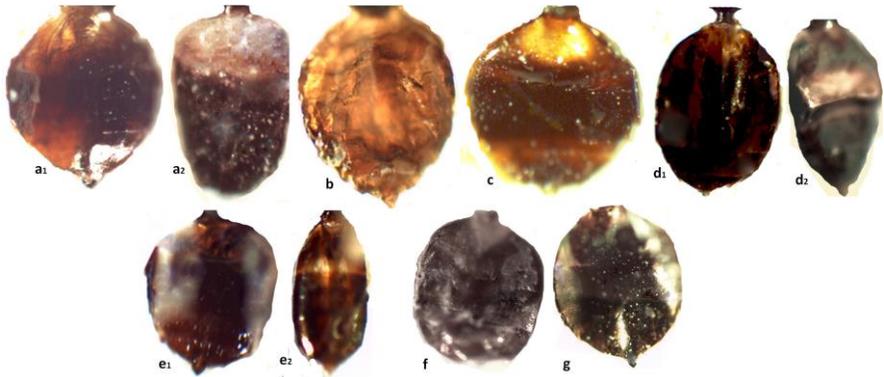
Figures 1. Heads of *Conomorium* Masi, 1924: a. *C. turhalensis* n. sp., b. *C. goelbasinensis* n. sp., c. *C. guenemekensis* n. sp., d. *C. tashcayensis* n. sp., e. *C. helvaciogluae* n. sp., f. *C. kayserinensis* n. sp., g. *C. hacipasanensis* n. sp.



Figures 2. Antennae of *Conomorium* Masi, 1924: a. *C. turhalensis* n. sp., b. *C. goelbasinensis* n. sp., c. *C. guenemekensis* n. sp., d. *C. tashcayensis* n. sp., e. *C. helvaciogluae* n. sp., f. *C. kayserinensis* n. sp., g. *C. hacipasanensis* n. sp.



Figures 3. Forewings of *Conomorium* Masi, 1924: a. *C. turhalensis* n. sp., b. *C. goelbasinensis* n. sp., c. *C. guenemekensis* n. sp., d. *C. tashcayensis* n. sp., e. *C. helvaciogluae* n. sp., f. *C. kayserinensis* n. sp., g. *C. hacipasanensis* n. sp.



Figures 4. Metasoma of *Conomorium* Masi, 1924: a. *C. turhalensis* n. sp., b. *C. goelbasinensis* n. sp., c. *C. guenemekensis* n. sp., d. *C. tashcayensis* n. sp., e. *C. helvaciogluae* n. sp., f. *C. kayserinensis* n. sp., g. *C. hacipasanensis* n. sp.