

# A new species of *Monorthocaeta* Blood (Hymenoptera: Chalcidoidea, Trichogrammatidae) from Adana, Türkiye

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## Summary

A new species, *Monorthocaeta adanaensis* n.sp. (Hymenoptera: Chalcidoidea, Trichogrammatidae), is described, its diagnostic characters are given and discussed with that of other species of the genus.

**Key words:** *Monorthocaeta adanaensis* n.sp., Adana, Turkey, Chalcidoidea, Trichogrammatidae

**Anahtar sözcükler:** *Monorthocaeta adanaensis* n.sp., Adana, Türkiye, Chalcidoidea, Trichogrammatidae

## Introduction

The works on the genus, *Monorthocaeta* Blood, 1923 (Hymenoptera: Chalcidoidea, Trichogrammatidae) are not many. After description of the genus and its type species, *M. nigra* Blood, by Blood (1923), again *M. nigra* was described by Blood & Kryger (1928). Nowicki (1940) discussed the status of the genus in the family and described two new species, *M. galatica* Nowicki and *M. obscuriceps* Nowicki, the latter was given as a synonym of *M. galatica* by Douth & Viggiani (1968). Nikol'skaya (1952) and Nikol'skaya & Tryapitzin (1978) gave the diagnostic characters and distribution of the genus, and created an identification key to its European species. Peck et al., (1964) keyed the genera of Trichogrammatidae, and gave the European species of *Monorthocaeta*, *M. nigra* and *M. galatica*. Douth & Viggiani (1968) discussed the characteristics of the genus, *Monorthocaeta*, in the key to the genera of Trichogrammatidae and gave the species and their general distributions.

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Up to now, *Monorthocaeta* has three species, *M. nigra* from Europe, *M. galatica* from Europe and Turkey and *M. platensis* (DeSantis, 1957) (the latter was transferred from *Ufens* by Doult & Viggiani (1968) (Noyes, 1998). Recently, I received some parasitoids obtained from eggs of *Cassida rubiginosa* Mull. (Coleoptera, Chrysomelidae) on *Cynara scolymus* L. from Adana, Turkey for identification. They are recognized as a new species of *Monorthocaeta*.

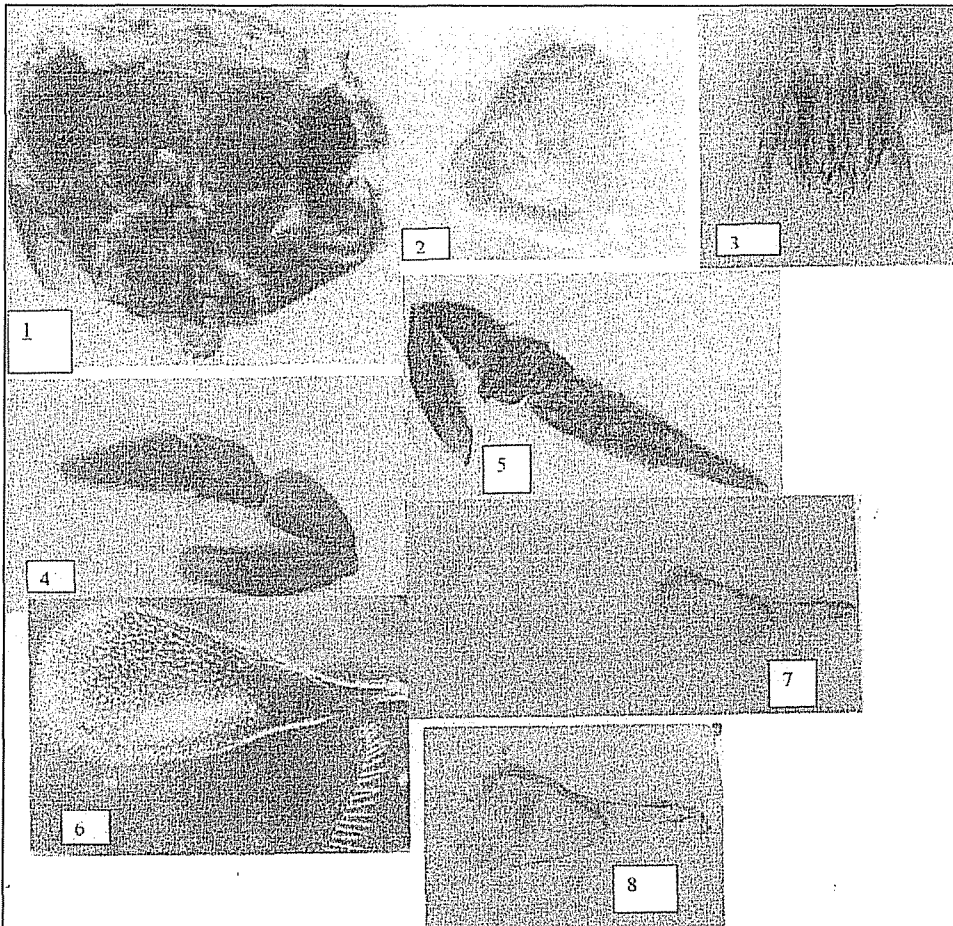
## Material and Methods

The material was sent by Mr. M.D. Ghawami, Adana, Turkey for identification. The holotype and some of the paratypes were mounted on glass slides by following the way of Doult & Viggiani (1968). Some of the body parts having diagnostic characters were photographed by using stereoscopic microscope. The diagnostic characters of the species of the genus were discussed (except *M. platensis* not known to me). The new species was named and described.

## Results

### *Monorthocaeta adanaensis* n.sp. (Figs. 1-15)

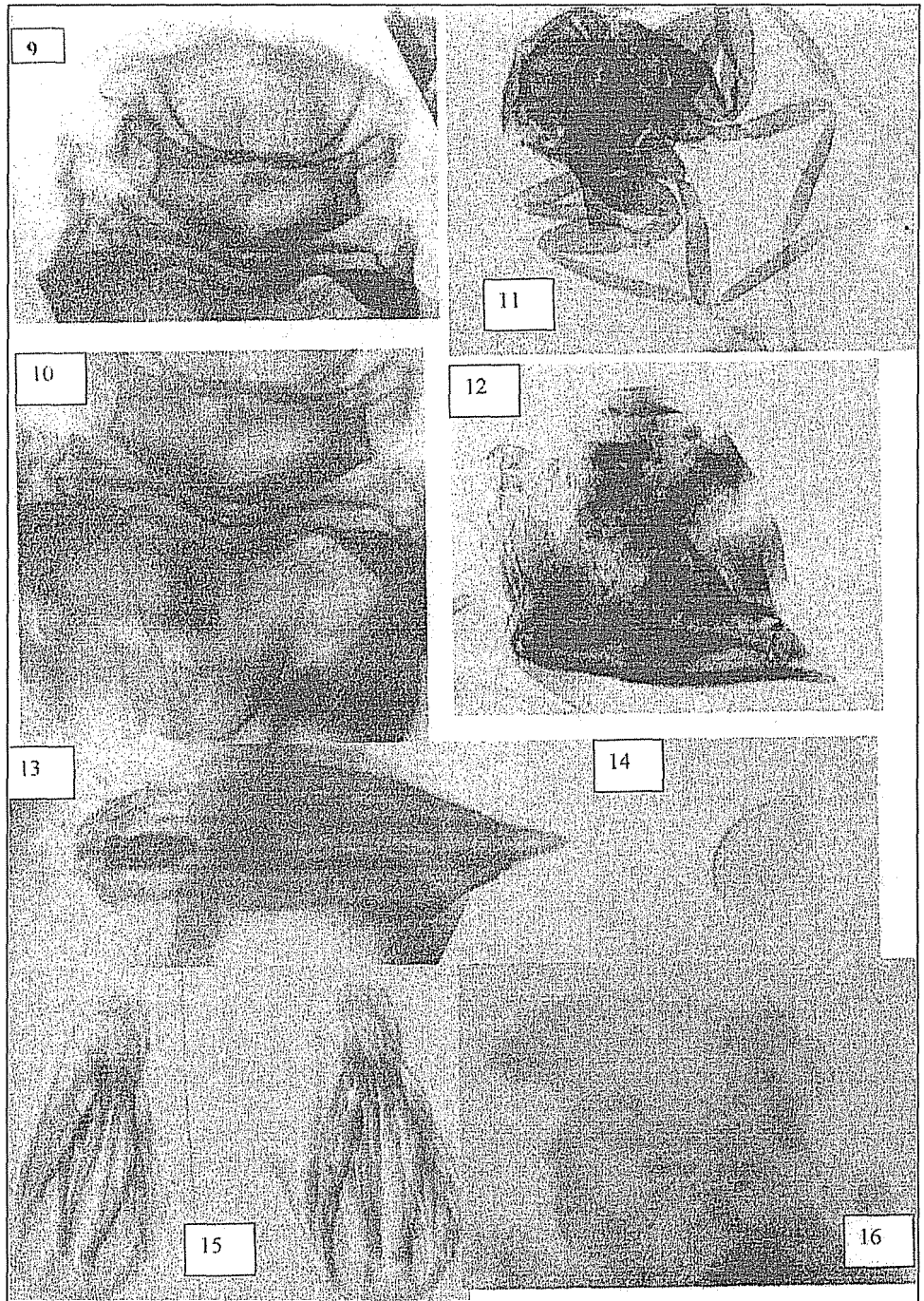
**Female:** Length 1.15-1.20 mm. Body brownish black, except legs brown, forewing with a dark cloud basally up to below stigmal vein, other parts hyaline; veins darker; eyes reddish. Head (Fig. 1) slightly broader than height, relative measurements (made from a slide mounted specimen) POL 33, OOL 18, eyes height 48, width of eye (frontal view) 28, malar space 20, antennal toruli-eye distance 17, distance between toruli 7, toruli diameter 7, toruli-lower margin of clypeus 18, lower edge of antennal toruli slightly above level of ventral edge of the eyes, mandible tridentate (Fig. 2), maxillary palpi and labial palpi unisegmented (Fig. 3). Antenna (Fig. 5) with scape and pedicel carinated ventrally, with two ring segments, two funicular segments, three segmented club; relative measurement of the segments: 11/3; 6/3; 0.6/0.1; 0.8/0.2; 2/5; 3/5; 5/3.5; 7/2.8; 6/2. Apical segment of club with a spine about 0.21 length of third claval segment. Thorax (Fig. 9-10) shorter than gaster (3: 5.8), pronotum short, mid lobe of mesoscutum broader than length and distinctly longer than scutellum (1.1: 0.8), mid lobe of mesonotum and scutellum with two pairs of setae, and longitudinally striated; axillae each with one seta, dorsellum reticulated, propodeum half of scutellum medially, phragma inserted about one third of gaster. Forewing (Fig. 6-7) 2.4 times as long as width; vein ratios: submarginal 14; parastigma 10; marginal 10; stigmal 5; stigmal vein with a distinct neck, rounded apically; parastigma with a long radial process (Fig. 8); discal setae randomly distributed, only a few rows originated from stigmal vein as in Fig. 6; marginal fringe short, about 0.14 times as long as width of wing; hind wing blade-shaped with three rows of setae on the disc, fringe almost as long as wing-width apically. Legs slim, surfaces of coxae and femora reticulated, tibiae longer than femora; tarsal segments in ratio: foretarsi 8 : 5 : 5.5; mid tarsi 12 : 5 : 5; hind tarsi 11 : 5 : 5 (Fig. 11). Gaster (Fig. 12) robust, distinctly longer than thorax; ovipositor originates almost from base of abdomen and extends slightly beyond abdominal apex. Ovipositor and egg as seen in Figs. 13 and 14, respectively.



Figures 1-8. *Monorthocaeta adanaensis* n.sp. 1. head, frontal view; 2. mandibula; 3. maxillae and labium; 4. male antenna; 5. female antenna; 6-8. forewing of female.

**Male:** Length 1.05 mm. Unlike the female in following respects: apterous, antennae with two segmented club, body robust, gaster wider and longer than thorax. Antenna (Fig. 4) relative measurements of the segments: 7: 3; 4: 2.5; 0.7: 2; 0.5: 2; 1.5: 3; 2: 3; 2.5: 3; 4: 2.6. Apical segment of club distinctly tapering like spine. Thorax slightly wider than long (20:22), pronotum long about half of mesonotum, the latter 1.5 times as long as scutellum. Gaster about 1.5 times as long as broad, and 2.25 times as long as thorax; phragma incerted into gaster about one fourth the length of gaster. Male genitalia as seen in several views in Fig.15.

**Material examined:** Holotype female, Balcalı, Adana, Turkey, reared from larvae of *Cassida rubiginosa* feeding on leaves of *Cynara scolymus*, August, 1999, (Coll. M.D. Ghavami); allotype male, same data as the holotype. Holotype and allotype in same slide. Paratypes 8 females, 8 males, same data as the holotype. Type materials were deposited in the author collection at the Entomology



Figures 9-16. *Monorthocaeta adanaensis* n.sp. 9-10. thorax; 11. legs; 12. gaster; 13. ovipositor; 14. egg; 15. male genitalia; 16. mandibles of host larva.

Museum of Mustafa Kemal University, Agriculture Faculty, Department of Plant Protection, Antakya, Hatay, Turkey.

**Comments:** The new species, *M. adanaensis* n.sp., close to the European species, *M. nigra*, in having apterous male and two segmented male club, but it differs from the latter in having female and male clubs with third segment tapering like spine, and male club with the second segment twice as long as the first segment and club twice as long as broad (in *M. nigra* without a spine on tips of club segments, male club with the second segment slightly longer than the first segment and club slightly longer than broad). The other species have pterous males and three segmented club in male.

**Biology:** All of the specimens were reared from the larvae of *Cassida rubiginosa* feeding on leaves of *Cynara scolymus*. The mandibles of host larva (Fig.16) was obtained from the specimen of parasite during preparation of the paratypes slides.

### Özet

**Adana, Türkiye'den elde edilen yeni bir *Monorthocaeta* türü (Hymenoptera; Chalcidoidea, Trichogrammatidae)**

*Monorthocaeta adanaensis* n.sp. (Hymenoptera, Chalcidoidea, Trichogrammatidae) isimlendirilmiş ve tanımı yapılmıştır. Yeni tür ile cinsin diğer türleri karşılaştırılmıştır ve önemli ayırt edici özelliklerinin resimleri verilmiştir.

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