

Dilar golestani sp. n.
(Neuroptera, Dilaridae)
گونه‌ی جدید از ایران

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چکیده

در بررسی فون بالتوریهای پارک ملی گلستان جمعاً ۱۸ نمونه نر از یک بالتوری ناشناخته، با بهره‌گیری از تله نوری جمع‌آوری گردید، بررسی‌ها نشان داد که این بالتوری متعلق به جنس *Dilar* و از خانواده Dilaridae است و با هیچیک از گونه‌های شرح داده شده در منابع معتبر همخوانی ندارد، بنابراین به عنوان یک گونه‌ی جدید برای آقای H. Hölzel بالتوری شناس معتبر فرستاده شد، هولزل نیز این بالتوری را به عنوان گونه‌ی جدید تأیید کرد. این بالتوری جدید توسط نگارندگان *Dilar golestani* نامگذاری شد که شرح اصلی آن موضوع این مقاله است، در تشخیص این گونه علاوه بر صفات مختلف مرفولوژیک به ویژه از ژنیتالیای نر به عنوان صفت تاکسونومیک موثر بهره گرفته شده است. نوشتار حاضر اولین گزارش از وجود خانواده Dilaridae در ایران است.

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Dilar golestani sp. n.

(Neuroptera: Dilaridae)

from IRAN

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Abstract

Dilar golestani sp. n. from Golestan National Park (N. E. IRAN) is described and figured (head, antennae, wings, legs & ♂ genitalia) as new species for science and as new record of Dilaridae from Iran.

Key words: Neuroptera, Dilaridae, *Dilar golestani*, new species, new record, Golestan National Park, IRAN

Introduction

The family Dilaridae (Neuroptera) with nearly 50 known species (Zakharenko 1989) distributed in south Europe, north Africa, palearctic Asia and north and south America. During entomological surveys in Golestan National Park in 1996-1997, totally 19 ♂ specimens of an unknown *Dilar* species collected by light trap, that finally named as a new species, the biology of Dilarid larvae was not thoroughly studied, some few existing papers on this subject indicate that the larvae of some species live on trees, and feed on aphids while some others live on herbs and weeds. Pupae often make a cocoon and life cycle duration of this insects is approximately one year. This is the first report of Dilarid species from Iran.

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Materials and Methods

As above mentioned the collected specimens were captured by light trap, using a 200 W. electric lamp. They are preserved in 70% Ethyl alcohol. Genitalia were cleared in boiling 10% KOH for 2 hours, then prepared as slides. The genitalia and some other important part of body observed and drawn by camera lucida (drawing tube) under light stereomicroscope. These drawing compared with genitalia figures of 17 *Dilar* & 1 *Nallachius* species from different parts of the world, which illustrated in important literature. (Described and studied by Aspök, & Aspök, 1967, 1968 & 1980; Monsserat, 1986 & 1988 Zakharenko, A. V. 1989 & 1991). Finally, some specimens were sent to Herbert Hölzel (Austria), he has kindly confirmed them as an undescribed species.

We have used the Tjeder 1954 paper for terminology of genitalia and Aspök, 1991 for current classification of Neuroptera.

Result

Material examined:

19 (♂) N. E. IRAN, Golestan National Park

Holotype 1 ♂: Almehr, 29. VII. 1996.

Paratypes 18 ♂: 4 ♂, Golzar camping site, 18. VII. 1996; 4 ♂ Sharlegh, 31. VII. 1997; 10 ♂ Dasht, 22. VI. 1997.

Holotype and paratypes deposited in the insect Collection of College of Agriculture, Razi University, Kermanshah, IRAN.

Description:

Body coloration (abdomen, thorax, antennae) light brown. Length of body (head to end of abdomen) 6.18 mm; fore wing 9 mm., hind wing 7.8 mm. Antennae pectinate with 27 segments, 17 first segments out of 25 segments of flagellum have a laterall process, with different sizes (Fig. 1). Eyes dark brown, ocelli (simple eyes) absent. Prothorax on each side has a hair bearing tubercle (Fig. 1b); a brown line on each side of prothorax, unite in center and make an ellipse like formation.

Fore wing (Fig. 3) has some patchy brown pigmentation that is absent in hind wing; there is a round dark brown spot on central part of both fore & hind wing; subcostal vein (SC) in both wings has many cross veins; in fore wing the Median anterior (Ma) vein is forked basally with Radius (R); cubitus consist of 2 vein, namely cubitus anterior

(Cua) and cubitus posterior (Cu p) in fore wing; there are 3 Anal veins (A) in fore & hind wing namely A1, A2, A3.

Legs (Fig. 2): all tibiae at the end have 2 dark spurs; all tarsi are 5 segmented; in fore leg the tibia is 2.3 times longer than the first tarsal segment of the same leg and the first tarsal segment is 2.5 times more than the second ones; in all 3 pairs of legs, the first tarsal segment of each pair, is equal to the total length of 3rd, 4th, and 5th. tarsal segment of the same leg (Fig. 2a); length of mid tibia is 2.7 times more than the length of first tarsal segment and the first tarsal segment is 2 times longer than the second ones (Fig. 2b); the hind tibia is 3 times longer than first segment of hind tarsus (Fig. 2c).

Male genitalia (Fig. 4-5-): gonarcus, entoprocessus and paramer composes a complex structure (Fig 4); paramer-entoprocessus make a fin like formation in each side of gonarcus (Fig. 4b); supraanal plate (Fig. 4-B-b) is to be seen in dorsal view of gonarcus-paramer complex, located in basal part of that complex; in dorsal view of 9th tergite (Fig. 4A) dorsoprocessus is evident.

Acknowledgment

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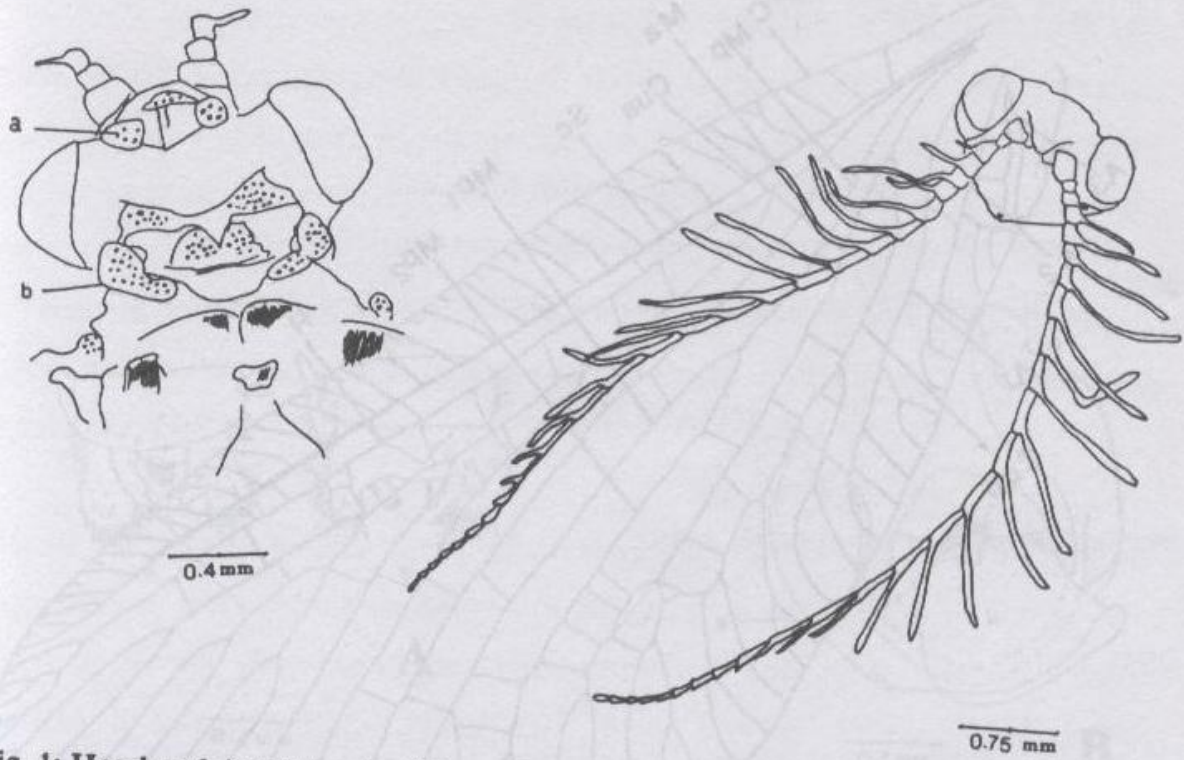


Fig. 1: Head and Antennae in *Dilar golestani*. a- tubercles located on epicranium. b- tubercles located on the sides of prothorax.

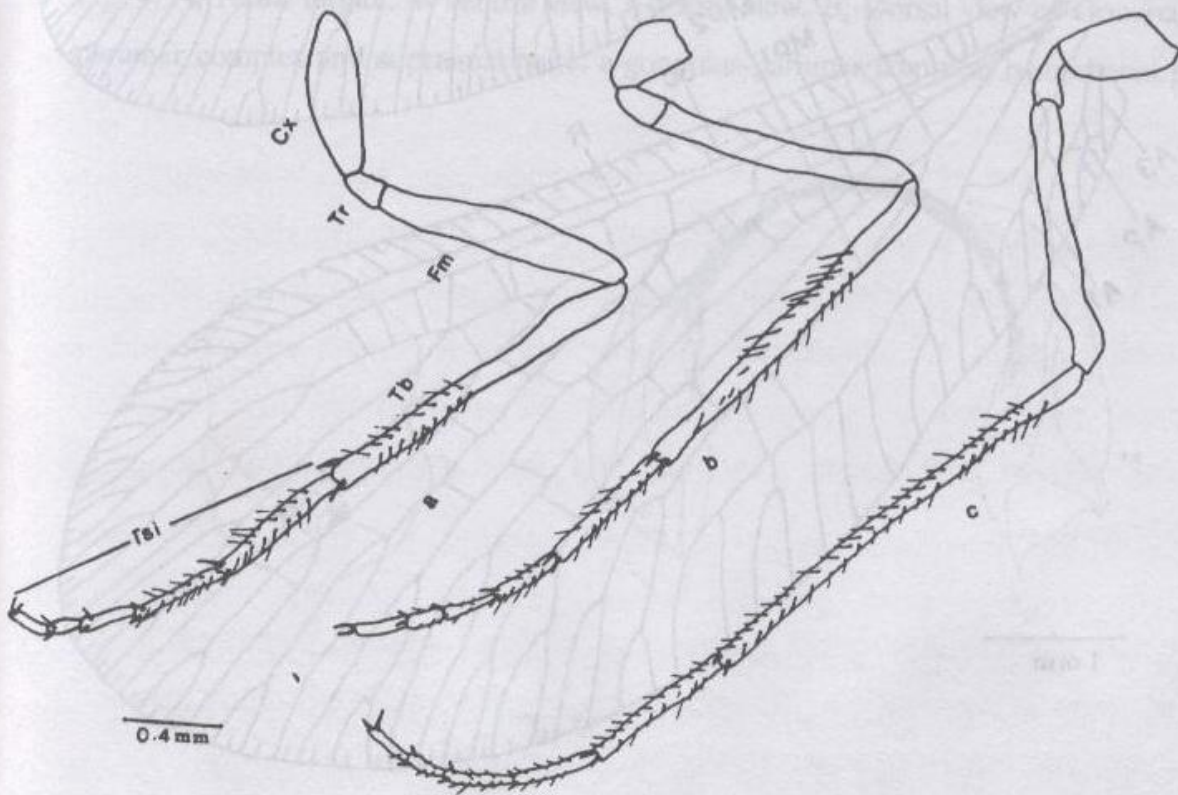


Fig. 2: Legs in *Dilar golestani*, a- foreleg b- median leg c- hind leg
Cx= coxa, Tr= trochanter, Fm= femur, Tb= tibia, Tsi= tarsi

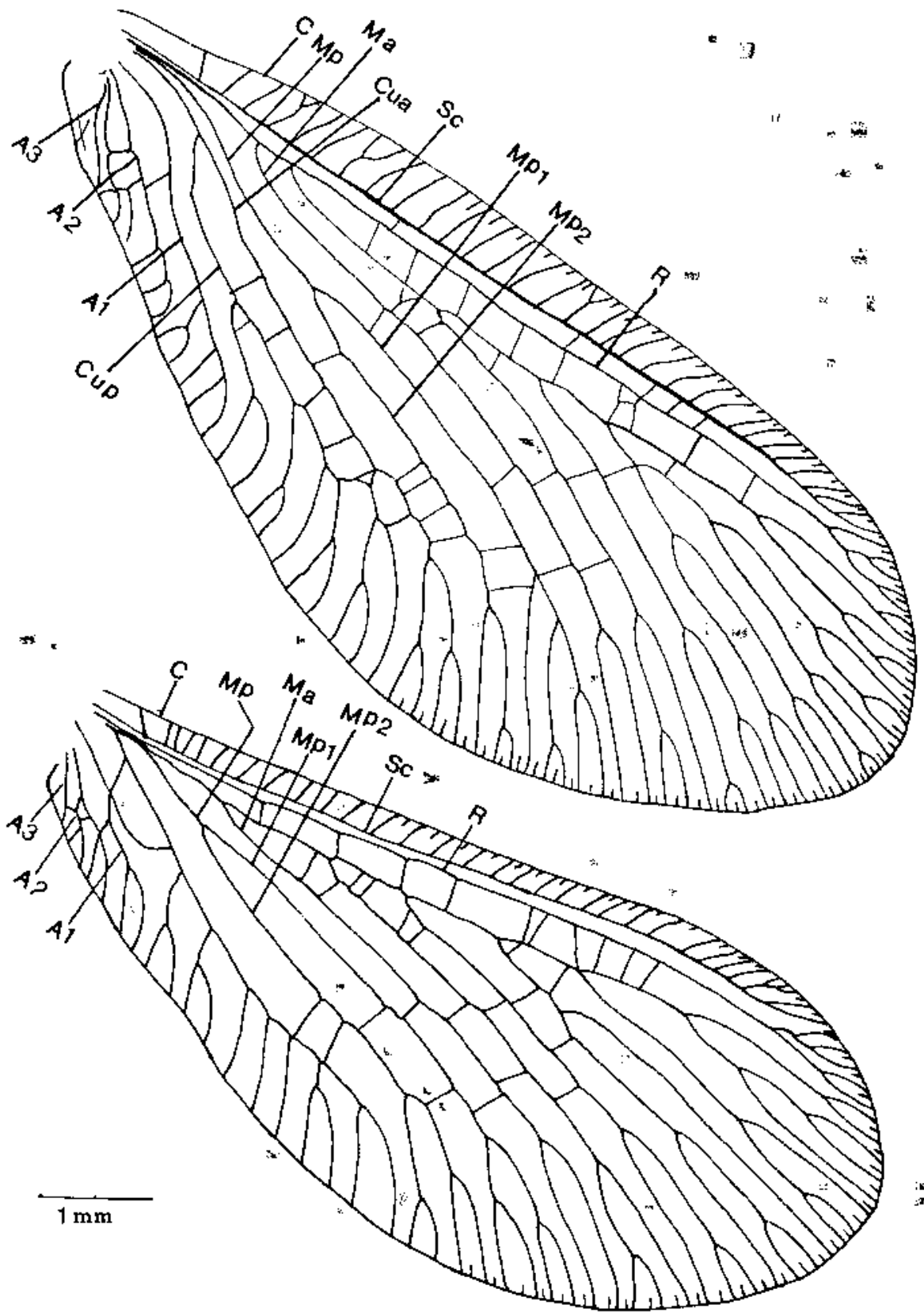


Fig. 3: Wings and wing venation in *Dilar golestani*. A1, A2, A3= Anal veins Ma= media anterior, Mp= media posterior, Mp1, Mp2= media posterior 1 & 2, R= Radius, Sc= subcosta.

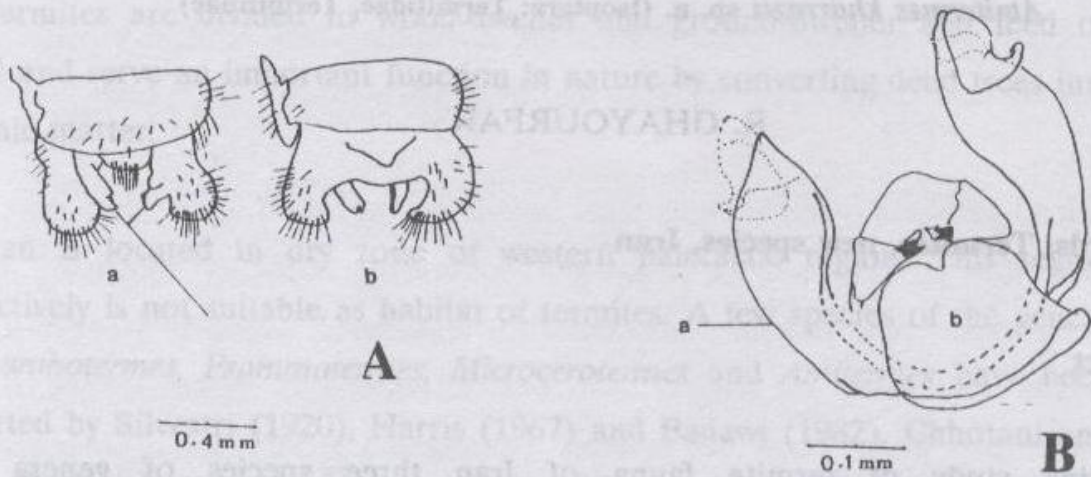


Fig. 4: A, Ninth tergite. a- ventral view, b-dorsal view. B, Dorsal view of Gonarcus and paramer complex and supraanal palte. a-gonarcus-paramer complex, b-supraanal plate.

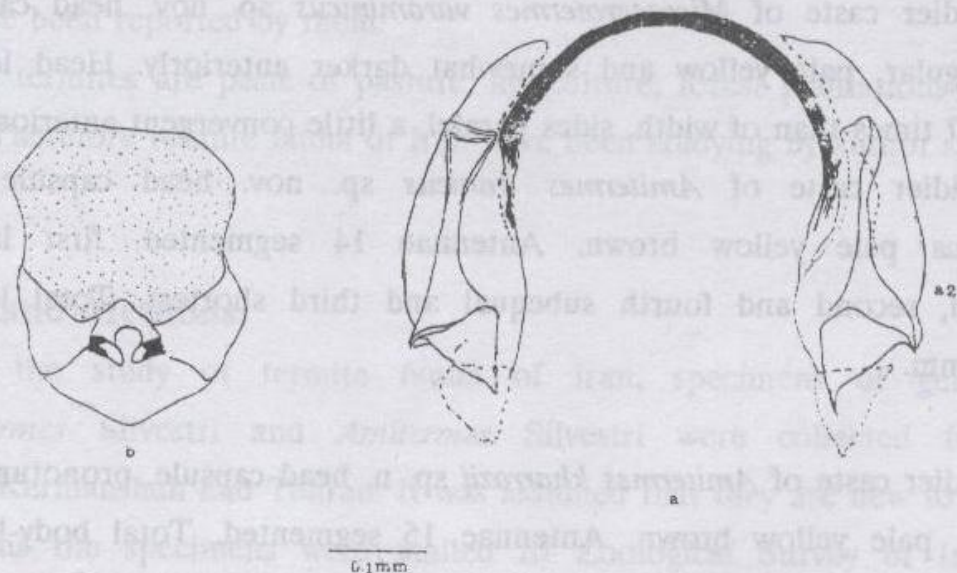


Fig. 5: ventral view of gonarcus- paramer complex (a) a1: gonarcus, a2: paramer-entoprocessus, b- dorsal view of supraanal plate