

A contribution on the subfamily Agathidinae (Hymenoptera: Braconidae) in Diyarbakır, Mardin, and Şanlıurfa provinces of Turkey

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Abstract: In this study, 5 parasitic wasp species (Hymenoptera: Braconidae: Agathidinae) belonging to 2 genera are recorded from Diyarbakır, Mardin, and Şanlıurfa provinces in the Southeast Anatolia Region of Turkey. All are new records for the Southeast Anatolia Region; that of *Agathis persephone* Nixon, 1986 is a new record for Turkey and its second distribution record in the world.

Key words: Agathidinae, Braconidae, Southeast Anatolia Region, new record, fauna

Agathidinae is a moderately large subfamily of Braconidae with 1047 described species worldwide and 81 in the West Palearctic region (Yu et al., 2006). The subfamily has a worldwide distribution, and members are found in most terrestrial habitats. Though all known species are koinobiont endoparasitoids of lepidopteran larvae, life history traits vary considerably. Depending on the species, they may be nocturnal or diurnal, gregarious or solitary, attack exposed or concealed hosts, and attack any larval instar. In general, they are solitary, attack first-instar Lepidoptera larvae in concealed microhabitats such as leaf rolls or stems, and emerge from the last larval instar of the host after it has spun its cocoon (Sharkey et al., 2009).

Works on the agathidines of Turkey have gradually increased in recent years. To date, 5 genera and 39 species have been assigned to the subfamily Agathidinae from Turkey (Nixon, 1986; Zettel and Beyarslan, 1992; Çetin and Beyarslan, 2001; Güçlü and Özbek, 2002; Çetin Erdoğan and Beyarslan, 2004, 2006, 2009; Çetin Erdoğan, 2005, 2010, 2013; Çetin Erdoğan et al., 2009). The aim of the present study is to document the agathidine fauna in Southeast Anatolia and to contribute some records to the braconid fauna of Turkey.

The samples were collected by means of sweeping nets, Malaise traps, and light nets on grass-type plants in Diyarbakır, Mardin, and Şanlıurfa provinces between 2010 and 2011. The host records and distribution of each species was given according to Yu et al. (2006), Nixon (1986), Zettel and Beyarslan (1992), Simbolotti and van

Achterberg (1992, 1999), Çetin and Beyarslan (2001), Beyarslan et al. (2002a, 2002b), and Çetin Erdoğan and Beyarslan (2004, 2006, 2009).

The specimens were identified mostly using the keys by Simbolotti and van Achterberg (1992, 1999) and Nixon (1986) and were deposited in the collection of the Zoological Museum of the Department of Biology, Trakya University.

Agathis anglica Marshall, 1885

Material: Diyarbakır, 30 km, 16.06.2011, 1 ♀, leg. Beyarslan.

Palaearctic; known from Adana, Aegean Region, Amasya, Antakya, Artvin, Bartın, Bayburt, Bolu, Bursa, Çankırı, Edirne, Elazığ, Erzincan, Erzurum, Gaziantep, Gümüşhane, Hakkari, Isparta, İçel (Mersin), Kahramanmaraş, Kırklareli, Konya, Malatya, Nevşehir, Niğde, Ordu, Rize, Samsun, Sivas, Şanlıurfa, Tokat, Trabzon, and Zonguldak in Turkey.

Agathis malvacearum Latreille, 1805

Material: Mardin-Mazıdağı-Arıköy, 31.05.2011, 1 ♀, leg. Beyarslan; Mardin-Mazıdağı-Arıköy, 31.05.2011, 1 ♀, leg. Gözüaçık; Mardin-Mazıdağı-Evlice, 31.05.2011, 1 ♀, leg. Beyarslan.

Palaearctic; known from Adıyaman, Aegean Region, Amasya, Artvin, Bolu, Edirne, Elazığ, Erzurum, Kırklareli, Malatya, Mersin, Ordu, Samsun, Tokat, Trabzon, Tunceli, and Zonguldak in Turkey.

Agathis persephone Nixon, 1986

Material: Şanlıurfa-Hilvan-Kubeli, 13.05.2011, 1 ♂, leg. Gözüaçık.

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This species was described from France (Nixon, 1986). It is a new record for Turkey. After the type locality, Şanlıurfa (Turkey) is the first record for this species.

***Agathis rufipalpis* Nees, 1812**

Material: Şanlıurfa-Hilvan-Kırbaşı, 13.5.2011, 1 ♀, 3 ♂♂, leg. Gözüaçık.

Palaearctic; known from Aegean Region, Amasya, Antakya, Antalya, Artvin, Bilecik, Bolu, Burdur, Bursa, Çanakkale, Çankırı, Edirne, Elazığ, Erzurum, Isparta, Kırklareli, Malatya, and Tokat in Turkey.

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***Bassus tumidulus* (Nees, 1812)**

Material: Mardin-Mazıdađ- Arıköyü-Evlice, 2.6.2011, 1 ♀, leg. Beyarslan.

Palaearctic; known from Antalya, Burdur, Çanakkale, Erzurum, İçel (Mersin), İstanbul, and Tekirdađ in Turkey.

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