

Short communication

First record of three pterophorid species (Lep.: Pterophoridae: Pterophorinae) from Iran

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چکیده

ضمن بررسی بال‌پولک‌داران خانواده Pterophoridae موجود در موزه حشرات هایک میرزایانس که طی چند سال گذشته جمع‌آوری شده‌اند، دو گونه از جنس *Hellinsia* Tutt و یک گونه از جنس *Merrifieldia* Tutt شناسایی شدند که برای اولین بار از ایران گزارش می‌شوند. این سه گونه، *H. carphodactyla* (Hübner, [1813])، *Hellinsia distinctus* (Herrich-Schäffer, 1855) و *Merrifieldia leucodactyla* (Denis & Schiffermüller, 1775) به زیرخانواده Pterophorinae تعلق دارند اما در دو قبیله مجزا جای می‌گیرند. دو گونه اول به قبیله Oidaematophorini و گونه سوم به قبیله Pterophorini تعلق دارند. با در نظر گرفتن این سه گونه، تعداد گونه‌های خانواده Pterophoridae در ایران به ۹۵ گونه می‌رسد.

The subfamily Pterophorinae, with a worldwide distribution, is by far the largest subfamily of the family Pterophoridae (Dugdale, *et al.*, 1998). To date 92 species of this family are known from Iran (Lederer, 1869, 1870; Staudinger & Rebel, 1901; Zerny, 1940; Amsel, 1959; Bigot, 1968; Bigot & Popescu-Gorj, 1974; Hannemann, 1977; Arenberger, 1981, 1995a, 1995b, 1999, 2005; Burmann, 1986; Sutter, 1991; Alipanah *et al.*, 2003; Alipanah & Ustjuzhanin, 2005, 2006, 2013; Alipanah & Gielis, 2010; Alipanah, 2014). While preparing a list of the pterophorid species of Hayk Mirzayans Insect Museum, we found three unrecorded species for the Iranian fauna. They belong to the genera *Hellinsia* Tutt and *Merrifieldia* Tutt in the tribes Oidaematophorini and Pterophorini, respectively. The Oidaematophorini is the richest tribe of the Pterophorinae in terms of species numbers, while the Pterophorini includes a lower number of species (Gielis, 2011a). Based on the available literature, a total of 228 species of the genus *Hellinsia* have been described (Gielis, 2011a), of which nearly 8% (30 species) are known from the Palearctic Region (Gielis, 2003, 2011a). But the genus *Merrifieldia* is mainly a Palearctic genus which 20 species out of its totally 22 described species occur in this region (Gielis, 2003, 2011b). The total Iranian recorded species of the genera *Hellinsia* and *Merrifieldia* increases to two and

seven species, respectively. The newly reported species are as follows:

- *Hellinsia distinctus* (Herrich-Schäffer, 1855)

Material examined – 1 ♀, Kermān Province: Jiroft, Dalfārd, N 29°00'14.3", E 057°36'45.3", 2112 m., 27.iv.2012, leg. Afsariān, Moghaddam & Mozaffariān.

Diagnosis – Wingspan 15-21 mm; forewing yellowish-brown, particularly brown in the basal parts, with a dark spot before the cleft and an oblique costal spot surrounded on both sides yellow; hindwing darker than the forewing. In the male genitalia, left sacculus thinner than the right one, significantly thinner than the aedeagus, and slightly longer than uncus; right sacculus process as a sclerotized denticle. In the female genitalia, corpus bursa with numerous needle-like sclerites in the lower area; caudal margin of sternite VII convex (Arenberger, 1995a).

Distribution – Throughout Europe (without any report from England and Spain) until well into the north, and east to Japan including Russia, Kirgizia, Afghanistan, India, China and Japan (Arenberger, 1995a).

- *Hellinsia carphodactyla* (Hübner, [1813])

Material examined – 2 ♂♂, 11 ♀♀, Golestān Province: Golestān National Park, Koylar, N 37°30'42.5", E 055°50'48.8", 1306 m., 2.xi.2009, leg. Ālipanāh & Buszko; 1 ♀, Golestān National Park, Ghushah

Cheshmeh vill. to Savār vill. Rd., N 37°31'02.4", E 055°44'43.4", 849 m., 1.ix.2009, leg. Ālipanāh & Buszko.

Diagnosis – Wingspan 16-22 mm; forewing yellowish brown with a brown spot at the base of cleft; costal margin of the first lobe with an oblique spot; hindwing and its fringes brown-grey. Crest, frons and labial palpus brown. In the male genitalia left valve wider than the right one; left sacculus shorter than uncus, wide at base and narrow distally at its half length; right sacculus with a hump-like dome. In the female genitalia corpus bursae without signa or sclerite, apophyses anterioris short, with bifurcated tips, and both of the forked ends bent (Arenberger, 1995a).

Distribution – Great Britain, Spain, Morocco, France, Sicily (Italy), Italy, Belgium, Luxemburg, Netherlands, Germany, Switzerland, Poland, Czech Republic, Malta, Estonia, Slovenia, Austria, Hungary, Croatia, Bosnia-Herzegovina, Macedonia, Bulgaria, Albania, Romania, Greece, Russia (Arenberger, 1995a; Gielis, 2003).

References

- Alipanah, H.** (2014) *Agdistis falkovitshi* Zagulaev (Lepidoptera: Pterophoridae: Agdistinae), a new record for the fauna of Iran. *Journal of Entomological Society of Iran* 34(2), 39-40.
- Alipanah, H., Ahmadian, H. A. & Pazuki, A.** (2003) Introduction of *Marasmarcha ehrenbergianus* (Zeller) (Lepidoptera: Pterophoridae) as first record for fauna of Iran. *Applied Entomology and Phytopatology* 71(1), 83-84.
- Alipanah, H. & Gielis, C.** (2010) Notes on the tribes Platyptiliini and Exelastini from Iran (Lepidoptera: Pterophoridae). *SHILAP Revista de Lepidopterologia* 38 (149), 57-63.
- Alipanah, H. & Ustjuzhanin, P.** (2005) An annotated list of the Pterophorinae (Oidaematophorini and Pterophorini) of Iran (Lepidoptera: Pterophoridae). *Entomologica Fennica* 16, 129-143.
- Alipanah, H. & Ustjuzhanin, P.** (2006) A new species, new synonymy and new distribution records of the genus *Agdistis* Hübner, [1825] in Iran (Lepidoptera, Pterophoridae: Agdistinae). *Nota Lepidopterologia* 29, 177-184.
- Alipanah, H. & Ustjuzhanin, P.** (2013) New findings of the tribe Oxyptilini Arenberger, 1995 in Iran (Lepidoptera, Pterophoridae, Pterophorinae). *SHILAP Revista de Lepidopterologia* 41(164), 559-563.
- Amsel, H. G.** (1959) Microlepidoptera aus Iran. *Stuttgarter Beiträge zur Naturkunde* 28, 29-30.
- Arenberger, E.** (1981) Die Pterophorus-Arten West- und Zentralasiens, 1. *Zeitschrift der Arbeitsgemeinschaft Österreichischer Entomologen* 32, 97-110.
- Arenberger, E.** (1995a) Pterophoridae. In Amsel, H. G., Gregor, F. & Reisser, H. (Eds) *Microlepidoptera Palaearctica*. Vol. 9. 258 pp. George Fromme, Vienna.
- Merrifieldia leucodactyla (Denis & Schiffermüller, 1775)**
- Material examined** – 1 ♀, Kordestān Province: Saghez-Bāneh Rd., 10 km. to Bāneh, Gardaneh-e Khān, N 36°04'13", E 045°59'31", 1976 m., 26.-27.vi.2009, leg. Rajāei, Meineke & Hofmann.
- Diagnosis** – Wingspan 11-25 mm; forewing yellowish white, costal margin with a dark brown stripe extended to the tip of the wing, without breaking; hindwing brown, only white in inner margin of the third lobe; Upper side of the antennae covered with black scales. Abdomen yellowish brown with one central and two lateral brown longitudinal lines. In the male genitalia, left sacculus process claw-like, twice the length of uncus and bent towards costal region; right sacculus process wide, as long as uncus. In the female genitalia, signa thin, stripe-shaped and in the long direction of corpus bursae; abdominal segment VII on the basis, with two flap-like membranous projections in different length (Arenberger, 1995a).
- Distribution** – Throughout the Palaearctic region (Arenberger, 1995a).

- Arenberger, E.** (1995b) Die Pterophoridae der österreichischen Turkmenistan-Expedition 1993. *Zeitschrift der Arbeitsgemeinschaft Österreichischer Entomologen* 47, 55-58.
- Arenberger, E.** (1999) Pterophoridae aus Zentralasien und angrenzenden Territorien, 2. Teil (Lepidoptera). *Quadrifina* (2), 215-226.
- Arenberger, E.** (2005) Pterophoridae III. Platyptiliinae: Platyptiliini: *Stenoptilia*. In Amsel, H. G., Gregor, F. & Reisser, H. (Eds) *Microlepidoptera Palaearctica*. Vol. 12. 191 pp. Goecke & Evers, Keltern.
- Bigot, L.** (1968) Les Pterophoridae de l'Iran (Lep.). *Arkiv for Zoologi* Band 20, Nr. 12, 8, 243-251.
- Bigot, L. & Popescu-Gorj, A.** (1974) Les Pterophoridae de la collection du Musée «Gr. Antipa» de Bucarest (II). *Travaux du Museum National d'Histoire Naturelle «Grigore Antipa»* 15, 221-232.
- Burmam, K.** (1986) Beiträge zur Microlepidopteren fauna Tirols. XI. Pterophoridae (Insecta: Lepidoptera). *Berichte des Naturwissenschaftlich-Medizinischen Vereins* 73, 133-146.
- Dugdale, J. S., Kristensen, N. P., Robinson, G. S. & Scoble, M. J.** (1998) The smaller microlepidoptera-grade superfamilies. pp. 217-233 in Kristensen, N. P. (Ed.) *Handbook of Zoology, Vol. 4, Arthropoda: Insecta, Part 35, Lepidoptera, moths and butterflies, Vol. 1, evolution, systematics and biogeography*. 491 pp. Walter de Gruyter: Berlin, Germany.
- Gielis, C.** (2003). *World catalogue of insects, Vol. 4, Pterophoroidea & Alucitoidea (Lepidoptera)*. 198 pp. Apollo Books.
- Gielis, C.** (2011a) Review of the Neotropical species of the family Pterophoridae, part II: Pterophorinae (Oidaematophorini, Pterophorini) (Lepidoptera). *Zoologische Mededelingen, Leiden* 85(10), 589-824.
- Gielis, C.** (2011b). Notes on some African Pterophoridae, with description of new species (Lepidoptera). *Boletín de la Sociedad Entomológica Aragonesa* 49, 33-63.
- Hannemann, H. J.** (1977) Kleinschmetterlinge oder Microlepidoptera. III. Federmotten (Pterophoridae), Gespinnstmotten (Yponomeutidae), Echte Motten (Tineidae). *Die Tierwelt Deutschlands* 63, 1-273.
- Lederer, J.** (1869) Verzeichniss der von Herrn Jos. Haberhauer bei Astrabad in Persien gesammelten Schmetterlinge. *Horae Societatis Entomologicae Rossicae* 6, 6-93.
- Lederer, J.** (1870) Nachtrag zum Verzeichnisse der von Herrn Jos. Haberhauer bei Astrabad in Persien gesammelten Schmetterlinge. *Horae Societatis Entomologicae Rossicae* 8, 3-28.
- Staudinger, O. & Rebel, H.** (1901) *Katalog der Lepidopteren des palaarktischen Faunengebietes* 2. 368 pp. Berlin.
- Sutter, R.** (1991) Beiträge zur Insektenfauna der DDR: Lepidoptera-Pterophoridae. *Beiträge zur Entomologie* 41, 27-121.
- Zerny, H.** (1940) Mikrolepidopteren aus dem Elburs-Gebirge in Nord-Iran. *Zeitschrift der Wiener Entomologen-Vereins* 25, 22.

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