

New Records of Bee Flies (Diptera: Bombyliidae) from Albania

Patrik Katona

Department of Evolutionary Zoology and Human Biology, University of Debrecen, Egyetem tér 1, H-4032 Debrecen, Hungary;
E-mail: patrikkatona@gmail.com

Abstract: Six bee fly species from six localities are reported from Albania. *Eclimus gracilis* Loew, 1844 (subfamily Ecliminae) and *Defilippia minos* (Meigen, 1804) (subfamily Anthracinae) are the first records from Albania. *Eclimus gracilis* represents a new subfamily (Ecliminae) while *Defilippia minos* represents a new genus for the Albanian fauna.

Key words: Balkans, *Eclimus*, *Defilippia*, Ecliminae, Anthracinae

Introduction

Bombyliids or bee flies (Diptera: Bombyliidae) are globally distributed with more than 4500 described species. They are found on all continents except in Antarctica and the family is among the most diverse groups of Diptera (EVENHUIS & GREATHEAD 1999). In Europe, there are 335 species of the family Bombyliidae (PAPE *et al.* 2015). There are 55 known species in five subfamilies which have been reported from Albania (EVENHUIS & GREATHEAD 2015). Considering the data of the surrounding countries, at least 50 more species are expected to occur in the country.

Materials and Methods

The specimens were collected in 2013–2015 during four fieldtrips in Albania. The flies were caught by net and killed by chloroform. The specimens were identified using stereomicroscope and keys by ENGEL (1938), TÓTH (1977), GREATHEAD & EVENHUIS (1997) and EL-HAWAGRY & EVENHUIS (2008).

The voucher specimens are deposited in the Diptera Collection of the Hungarian Natural History Museum, Budapest.

Results and Discussion

Hereby, six bee fly species from six localities (Fig. 1) are reported from Albania. Two of them proved to be new to the Albanian fauna. *Eclimus gracilis* represents a new subfamily while *Defilippia minos* represent a new genus for the fauna of Albania.

The following are the records collected by the author during his ongoing surveys of the bee flies of Albania. Each species is annotated with its known distribution data.

Subfamily Phthiriinae

TRIBE PHTHIRIINI

Phthiria gaedii Wiedemann in Meigen, 1820

Distribution: Most of Europe (as far north as Estonia), Northern Africa (Egypt), South-western and Central Asia (eastwards reaching Afghanistan). (EVENHUIS & GREATHEAD 2003, 2015).

Material examined: Albania, Përmet County, Mt. Golikut, N 40.2155°, E 20.1638°, 1700 m a.s.l., 16.08.2015, leg. P. Katona, 1 ♂; Albania, Korça County, Gjergjevicë, stream bank, N 40.5827°, E 20.5898°, 1321 m a.s.l., 24.08.2015, leg. P. Katona, 1 ♀.

Subfamily Bombyliinae

Tribe Bombyliini

Bombylius fulvescens Wiedemann in Meigen, 1820

Distribution: Western Palaearctic, distributed from Europe (except the northern parts) and Northern Africa to Central Asia, southwards reaching Saudi Arabia and eastwards possibly reaching China (EVENHUIS & GREATHEAD 2003, 2015).

Material examined: Albania, Përmet County, Mt. Golikut, N 40.2155°, E 20.1638°, 1700 m a.s.l., 30.06.2014, leg. P. Katona, 1 ♂ and 1 ♀; Albania, Gjirokastër County, Selckë, stream bank, N 40.0977°, E 20.2980°, 376 m a.s.l., 01.07.2014, leg. P. Katona, 1 ♀.

Tribe Conophorini

Conophorus virescens (Fabricius, 1787)

Distribution: Central, Southern and Eastern Europe (northwards to Estonia and Central Russia), Northern Africa and Western Asia eastwards reaching Afghanistan. (EVENHUIS & GREATHEAD 2003, 2015).

Material examined: Albania, Përmet County, Mt. Golikut, N 40.2155°, E 20.1638°, 1700 m a.s.l., 30.06.2014, leg. P. Katona, 1 ♂.

Subfamily Ecliminae

Eclimus gracilis Loew, 1844

Distribution: So far this species is found exclusively in the Mediterranean region, including Southern Europe, Northern Africa and Turkey (EVENHUIS & GREATHEAD 2003, 2015).

Material examined: Albania, Gjirokastër County, Suhë, N 40.0889°, E 20.2709°, 440 m a.s.l., 25.05.2013, leg. P. Katona, 1 ♀.

Note: This is the first record of the genus *Eclimus* Loew and subfamily Ecliminae in Albania.

Subfamily Anthracinae

TRIBE EXOPROSOPINI

Defilippia minos (Meigen, 1804)

Distribution: Most of Central, Southern and Eastern Europe, Northern Africa, South-western and Central Asia eastwards to Kyrgyzstan (ČELECHOVSKÝ 2007, EVENHUIS & GREATHEAD 2003, 2015).

Material examined: Albania, Gjirokastër County, Çajup, N 40.1990°, E 20.1754°, 1301 m a.s.l., 16.08.2015, leg. P. Katona, 1 ♀.

Note: This is the first record from Albania.

Exoprosopa jacchus (Fabricius, 1805)

References

- ČELECHOVSKÝ A. 2007. Bombyliidae. In: Faunistic records from CZ and SK. *Acta Zoologica Universitatis Comenianae* 47(2): 254.
- EL-HAWAGRY M. S. & EVENHUIS N. L. 2008. An updated key to the genera of Egyptian bee flies (Diptera: Bombyliidae). *Egyptian Journal of Biology* 10: 104-121.
- ENGEL E. O. 1938. Bombyliidae. In: Lindner E. (Ed.): Die Fliegen der Palaearktischen Region. Band IV. E. Schweizerbart'sche Verlagsbuchhandlung, Stuttgart, 619 p.
- EVENHUIS N. L. & GREATHEAD D. J. 1999. World catalog of bee flies (Diptera: Bombyliidae). Backhuys Publishers, Leiden. xlviii + 756 p.
- EVENHUIS N. L. & GREATHEAD D. J. 2003. World catalog of Bee Flies (Diptera: Bombyliidae): Corrigenda and Addenda. *Zootaxa* 300: 1–64.
- EVENHUIS N. L. & GREATHEAD D. J. 2015. World catalog of bee flies (Diptera: Bombyliidae). Revised September 2015, <http://hbs.bishopmuseum.org/bombcat/bombcat-revised2015.pdf>. Accessed 15.03.2016.
- GREATHEAD D. J. & EVENHUIS N. L. 1997. Family Bombyliidae. In: PAPP L. & DARVAS B. (Eds.): Contributions to a Manual of Palaearctic Diptera. Vol. 2. Nematocera and Lower Brachycera. Science Herald, Budapest, pp. 487–512.



Fig. 1. Map of Albania with indication of collecting sites (black marks)

Distribution: Palaearctic species, distributed in Northern Africa, Europe and Asia (except their northern areas) eastwards reaching the region of Ningxia in China (EVENHUIS & GREATHEAD 1999, 2003, 2015).

Material examined: Albania, Dibër County, Zall-Reç, N 41.8691°, E 20.3226°, 420 m a.s.l., 24.05.2015, leg. P. Katona, 1 ♀.

Acknowledgements: I am grateful to David J. Gibbs for his kind help in the identification and to Gábor Kardos for his valuable suggestions on the manuscript. This study was supported by the *National Talent Program (NTP-EFÖ-P-15-0341)* by the Hungarian Ministry of Human Resources.

- PAPE T., BEUK P., PONT A. C., SHATALKIN A. I., OZEROV A. L., WOŹNICA A. J., MERZ B., BYSTROWSKI C., RAPER C., BERGSTRÖM C., KEHLMAIER C., CLEMENTS D. K., GREATHEAD D., KAMENEVA E. P., NARTSHUK E., PETERSEN F. T., GELLER-GRIMM F., BÄCHIL G., WEBER G., VAN DE WEYER G., TSCHORSNIG H-P., DE JONG H., VAN ZUIJLEN J-W., VAÑHARA J., ROHÁČEK J., ZIEGLER J., MAJER J., HÜRKA K., HOLSTON K., ROGNES K., GREVE-JENSEN L., MUNARI L., DE MEYER M., POLLET M., SPEIGHT M. C. D., EBEJER M. J., MARTINEZ M., CARLES-TOLRÁ M., FÖLDVÁRI M., CHVÁLA M., BARTÁK M., EVENHUIS N. L., CHANDLER P. J., CERRETTI P., MEIER R., ROZKOŠNÝ R., PRESCHER S., GAIMARI S. D., ZATWARNICKI T., ZEEGERS T., KORNEYEV V. A., RICHTER V., MICHELSEN V., TANASIJTSCHUK V. N., MATHIS W. N., HUBENOV Z. & DE JONG Y. 2015. Fauna Europaea: Diptera – Brachycera. *Biodiversity Data Journal* 3: 1–31.
- TÓTH S. 1977. Bee flies – window flies (Bombyliidae – Scenopiniidae). In: Magyarország Állatvilága. Fauna Hungariae Vol. 14. Part 12, Akadémiai Kiadó, Budapest, 87 p. (In Hungarian).
- YEATES D. K. & GREATHEAD D. J. 1997. The evolutionary pattern of host use in the Bombyliidae (Diptera): a diverse family of parasitoid flies. *Biological Journal of the Linnean Society* 60: 149–85.

Received: 24.03.2016
Accepted: 28.09.2016