

The genus *Bittacus* LATR. (Bittacidae, Mecoptera) in Yugoslavia and Albania

By Dušan DEVETAK, Maribor

Abstract

Two *Bittacus* species are reported from Yugoslavia and Albania. For *B. italicus*, variability in wing venation is described.

Key words: *Bittacus*, Mecoptera, wing venation, Yugoslavia, Albania.

The genus *Bittacus* LATR. includes cca. 113 recent species, of which only two occur in Europe (PENNY and BYERS 1979). Both species are poorly known in South and East Europe. *Bittacus italicus* was recorded from Dalmatia (BRAUER 1860), Slavonia and Vojvodina (MOCSÁRY 1899), Bosnia (ESBEN-PETERSEN 1921) and Kosovo (PONGRÁCZ 1923). In the recent times, the two European species have been reported from Slovenia (DEVETAK 1988). Morphological and taxonomical characters in the family Bittacidae are described by BRAUER (1860), Klapálek (1910), ESBEN-PETERSEN (1921), STITZ (1936) and WILLMANN (1989), biology and ethology were investigated by MICKOLEIT and MICKOLEIT (1978), GEPP (1982) and WILLMANN (1986).

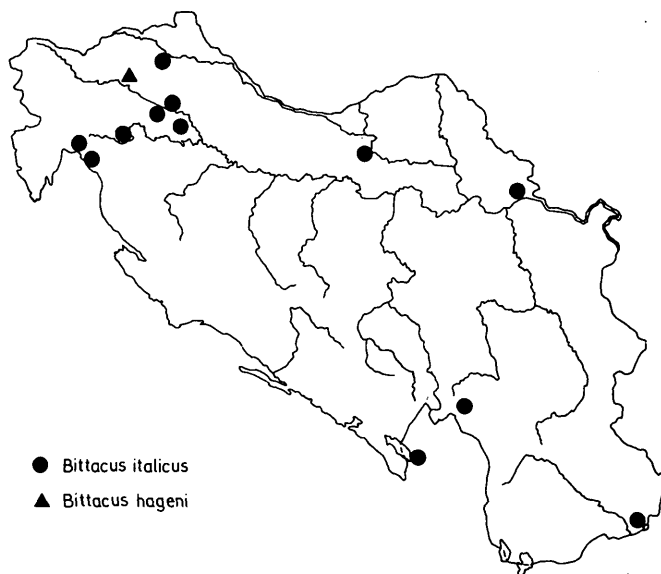


Fig. 1: The distribution of *Bittacus italicus* and *B. hageni* in Yugoslavia and Albania.

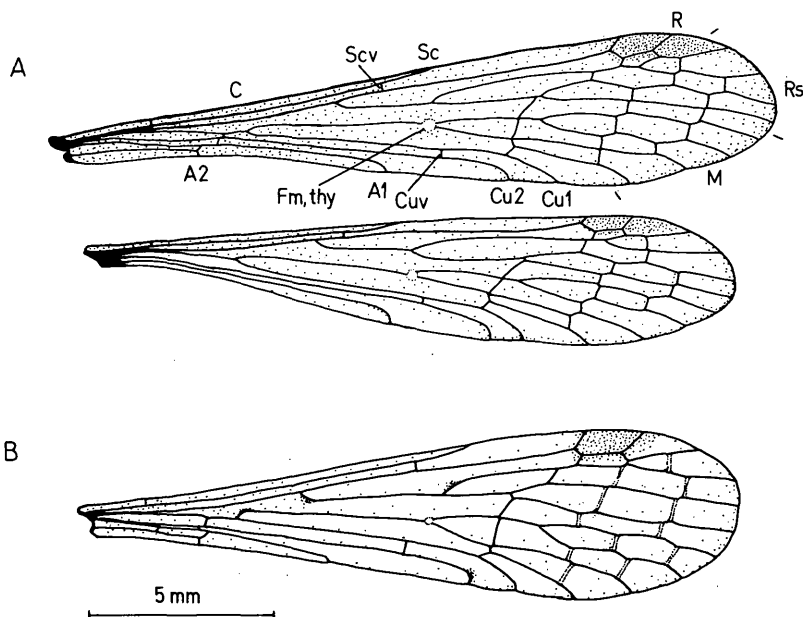


Fig. 2: Wings of *B. italicus* (A) and *B. hageni* (B). For explanation of the abbreviations see the text.

The material examined is deposited in the Entomological collection of the Croatian Natural History Museum in Zagreb (coll. Z) and in the author's collection (D. Devetak, Maribor) (coll. D).

Bittacus italicus (O. F. MÜLLER, 1766)

Distribution

Yugoslavia

Slovenia: Material examined: Majski vrh - Tržec, Podlehnik 6. 8. 1983, 1 ♀, L. Slana, M. Štangelj & T. Novak leg. (coll. D); Zilje - Vinica 17. 8. 1985, 1 ♂, L. Slana, M. Slana-Novak & T. Novak leg. (coll. D).

Croatia: The species was reported from Dalmatia (BRAUER 1860), Vukovar and Crikvenica (MOCSÁRY 1899).

Material examined: Bakar 16. 7. 1903, 1 ? (lacking abdomen), (coll. Z); Crikvenica 10.-15. 7. 1955, 1 ♀, Š. Michieli leg. (coll. D); Peščenica, Turropolje 16. 8. 1978, 1 ♂, F. Perović leg. (coll. Z); Samobor 10. 8. 1895, 1 ♂ (coll. Z); Zagreb 20. 7. 1893, 1 ♀, 5. 9. 1898, 1 ♂, 1 ♀ (all in coll. Z).

Serbia: Vojvodina: The species was reported from Grebenac (MOCSÁRY 1899); Kosovo: A male was reported from Peć ("Ipek") (PONGRÁCZ 1923).

Macedonia: Material examined: Dojransko ezero, Dojran 19.-24. 7. 1975, 1 ♂ (coll. D).

Albania

Material examined: Shkodër (= Skadar) 3. 8. 1918, 1 ♂, 1 ? (lacking abdomen) (coll. Z). The species is reported for the first time from Albania.

Bittacus hageni BRAUER, 1860

Distribution

Yugoslavia

Slovenia: Material examined: Lože - Globoko, Rimske toplice 14. 8. 1983, 1 ♀, L. Slana & T. Novak leg. (coll. D).

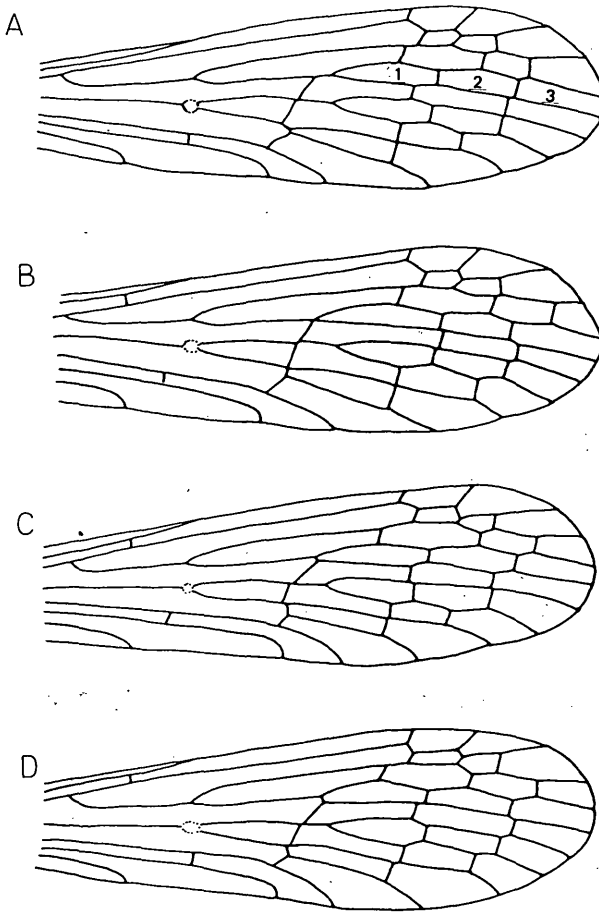


Fig. 3: Variability in wing venation of *B. italicus*. A, Samobor; B, Peščenica; C, Zagreb (5.9.1898); D, Zagreb (20.7.1893).

The distribution of the two species in Yugoslavia and Albania is shown in Fig. 1.

Variability in *B. italicus*

In Bittacidae, the variability of the wing morphology was studied by SETTY (1940), LONDT (1970) and WILLMANN (1989). In our material, great differences in body dimensions, coloration and wing venation were observed. In the forewing, the number of veins is more or less constant but their position varies considerably. Particularly variable is the position of the apical cross vein in the cubital area (Cuv in Fig. 2) and the position of the basal cross vein between Rs4 and M1. Cuv is opposite to (Fig. 3 a, d) or a little before fork of M (thyridium) (Fig. 3 b, c). The basal cross vein between Rs4 and M1 is in contact with the fork of Rs3 and Rs4 (Fig. 3 b) or it is a little before (a) or a little beyond the origin of the fork of Rs3 and Rs4 (c, d). Between Rs3 and Rs4 there are usually three cells (1, 2, 3 in Fig. 3 a), but in the female from Crikvenica there are four cells in the left forewing. In the same individual two apical cross veins in the subcostal area have been found (Scv in Fig. 2).

Acknowledgements

I am very grateful to Prof. Dr. Rainer Willmann (Kiel) for many suggestions and critical reading the manuscript. I wish to express my gratitude to Dr. Tone Novak (Slovenj Gradec) for collecting the material and to Mag. Franjo Perović (Croatian Natural History Museum, Zagreb) for allowing me to examine the Museum material.

REFERENCES

- BRAUER, F., 1860. *Bittacus hageni*, eine neue europäische Art, beschrieben und mit den verwandten Arten verglichen. – Verh. zool. bot. Ges. Wien 10 : 691 - 696.
- DEVETAK, D., 1988. The distribution of scorpionflies (Mecoptera, Insecta) in Slovenia. – Biol. vestn. 36 : 1 - 12.
- ESBEN-PETERSEN, P., 1921. Mecoptera. Monographic revision. – Coll. Zool. E. de Selys Longchamps 5 : 1 - 172.
- GEPP, J., 1982: Die Mecopteren Kärntens mit Bemerkungen über Lautäußerungen von *Bittacus italicus* (MÜLLER). – Carinthia II, 172/92 : 341 - 350.
- KLAPÁLEK, F., 1910. *Bittacus tipularius* L. – Přispěvek k morfologii genitálních segmentu. – Časopis České Společnosti Entomol. 7 : 114 - 119.
- LONDT, J.G.H., 1970. A new species of *Bittacus* from South Africa (Mecoptera: Bittacidae). – J. entomol. Soc. South Africa 33 : 53 - 57.
- MICKOLEIT, G., MICKOLEIT, E., 1978. Zum Kopulationsverhalten des Mückenhaftes *Bittacus italicus* (Mecoptera: Bittacidae). – Entomol. Gen. 5 : 1 - 15.
- MOCSÁRY, A., 1899. Ordo Neuroptera. – Fauna Regni Hungariae, Budapest 1899 : 33 - 44.
- PENNY, N.D., BYERS, G.W., 1979. A check-list of the Mecoptera of the World. – Acta Amazonica 9 : 365 - 388.
- PONGRÁCZ, S., 1923. Recésszárnnyúak. Neuropteroiden. – In: Csiki Ernő Állattani Kutatásai Albániában. Explorationes Zool. ab E. Csiki in Albania peractae. XI. A Magyar Tudományos Akadémia Balkán-Kutatásainak Tudományos Eredményei, Budapest 1 (1) : 143 - 166.
- SETTY, L.R., 1940. Biology and morphology of some North American Bittacidae (Order Mecoptera). – Am. Midland Naturalist 23 : 257 - 353.
- STITZ, H., 1936. Netzflügler, Neuroptera. – Die Tierwelt Mitteleuropas 6 : 1 - 24.
- WILLMANN, R., 1986. Der Beutefang des Mückenhaftes *Bittacus italicus*. – Natur Mus. 116 (8) : 245 - 252.
- WILLMANN, R., 1989. Evolution und Phylogenetisches System der Mecoptera (Insecta: Holometabola). – Abh. senckenberg. naturforsch. Ges. 544 : 1 - 153.

Address of the author: Dušan DEVETAK,
Pedagogical Faculty, University of Maribor,
Koroška 160,
YU - 62000 Maribor, Yugoslavia.

ZOBODAT - www.zobodat.at

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: [Zeitschrift der Arbeitsgemeinschaft Österreichischer Entomologen](#)

Jahr/Year: 1991

Band/Volume: [43](#)

Autor(en)/Author(s): Devetak Dusan

Artikel/Article: [The genus Bittacus \(Bittacidae, Mecoptera\) in Yugoslavia and Albania. 51-54](#)