REICHENBACHIA
Staatliches Museum für Tierkunde Dresden

Band 32 Ausgegeben: 15. September 1998 Nr. 50

Two new *Elachiptera* species from Bulgaria (Insecta: Diptera: Chloropidae)

With 5 Figures

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Abstract. From Bulgaria, two new species of genus *Elachiptera* MACQUART are announced: *E. brevipennis* (MEIGEN) is new for the fauna of this country, and *E. agricola* spec. nov. is described as new for science.

Introduction

Seven species are known from genus *Elachiptera* MACQUART, 1835 for Bulgaria (BESCHOVSKI, 1985). By the revision of the old entomological collection from the Bulgarian Black Sea coast, as well by the identification of a new material from the genus we established three specimens belonging to two species, namely: *Elachiptera brevipennis* and *Elachiptera agricola* spec. nov. These two species are the object of this publication.

Material and methods

The only specimens from *E. brevipennis* is collected and conserved by the late coleopterologist N. KARNOZHITSKI who worked fifty years ago on halophilous coleoptera along the Bulgarian Black sea coast.
The specimens from *E. agricola* spec. nov. are hatched from the living but damaged wheat stems, collected from the corn fields of the Plant-Protection Institute, Kostinbrod, near Sofia and put under laboratory conditions. As the external features of the male specimens are not well preserved, the description is given chiefly by the female, that is in very good condition. The material is preserved in the entomological collection of the Institute of Zoology, Bulgarian Academy of Sciences, Sofia.

Results

Elachiptera brevipennis (MEIGEN, 1830) (Figs. 4+5)

Material studied: 1 ♂, locality Maksuda, near Varna, a meadow on the shore of the Varna lake (Varnensko ezero), 10.01.1951, leg. KARNOZHITSKI.

It is interesting that the specimen is collected in January on the sea shore with a note „meadow" on the label. It is not clear if the specimen is collected with an entomological net or it is obtained from dead

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grass as a hibernated or hatched specimen. KARNOZHITSKI was in the habit of collecting the small coleoptera, sifting the different dead vegetable material in laboratory condition.

Distribution: Central Europe, European part of Russia, and Kazahstan. From the neighbour countries it is known for Romania. – New for the Balkan Peninsula.

Elachiptera agricola spec. nov. (Figs. 1–3)

Material studied: Two specimens from Kostinbrod, ex damaged wheat stems: ♂, holotype, 26.IV 1996; paratype: 1 ♀, 04.04.1994.

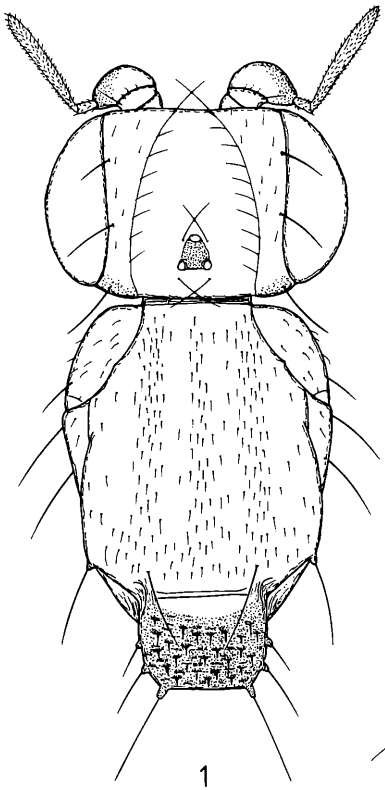
Diagnosis: Head and thorax orange-yellowish, ocellar spot, scutellum and abdomen black, scutellum almost square.

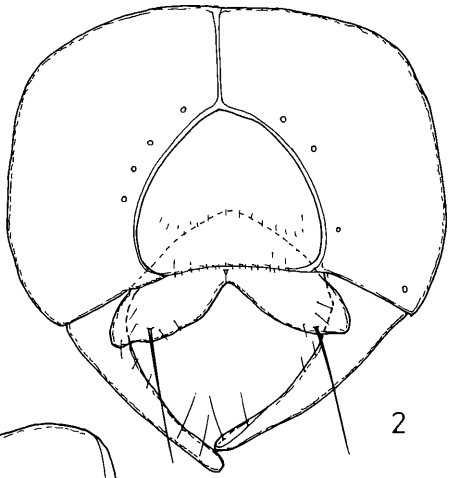
Description: Head lightly orange-yellowish, laterally as high as long. Antennae yellow-brown. The third antennal segment with elongated apico-dorsal corner, and black-brown upper one-third. Arista dark brown, sword-like widened (Fig. 1), its apical part about 4 times longer than the basal one. The antennal basis widely set apart. Frons square, wide as the half of the head's width. Frontal triangle large, covering about two-third of the frons, shining, with convex sides, reaching forward the front edge of the head. Ocellar spot small, dark brown. Bristles: 2 postocellar convergent, 2 ocellars divergent, outer vertical bristles well developed, inner ones – unnoticeable; two orbital bristles: the first one short, the second about 2.5 times longer than the first. Intrafrontal setae small, situated outside of the frontal triangle, the first pair longer, cruciate before the frons. The eye large, 2.5 times higher than heigth of the gena.The first flagellomer 1.4 times higher than the smallest heigth of the gena. The vibrissal angel widely rounded with long vibrissi. The proboscis and palpi dark-brown, the front part of the proboscis and the basis of labellum – dark.
Thorax orange-yellowish, shining with brownish hairs, isolated in 3 stripes: 1 medial (with 2–3 unclear rows of setae) and two laterales (each one with 3–4 rows of setae), all stripes enlarged backward before the scutellum (Fig 1). Chaetotaxy is congeneric. Scutellum short wide, almost square dark-brown, only in the basal part with yellow-brown transverse half-moon-like spot, transverse microsculptured, and with rare situated short brown setae. Scutellar bristles, arising from small warts, longer than their diameter; apical scutellars widely set apart (Fig. 1), almost at the apico-lateral angels of square scutellum; two pairs of lateral scutellar bristles, both pairs shorter than apical, and the first pair shorter than the second (Fig. 1). Pleurae orange-yellowish. Legs yellow-brownish, the first tibiae dark brown, only basal part yellowish, the first tarsi dark brown, too. Wings normally long, lightly brownish with brown veins. *R* and *M1* parallel. The mid part of *M1* equal to the *CuA1*, and 2.5 times longer than *rm-cu*. Halteres light.
Abdomen black, mat shining with brown hairs. The terga almost equal to each other in length, but terga 3 and 4 a little longer than the rest.
Male genitalia (Fig. 2, 3) with short cerci, almost screened in epandrium in apical view widely spread with blunt angle between them (Fig. 2).
Length: body – 2.8 mm, wing – 2.0 mm.
Female: Like the male, but more lightly coloured. Length: body – 2.9 mm, wing – 2.25 mm.

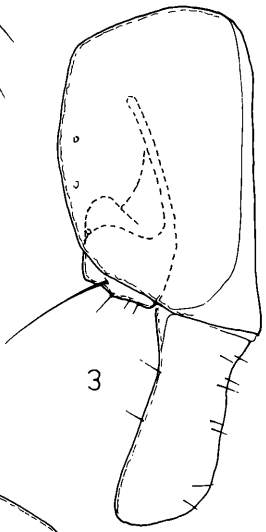
Biological notes: Both specimens are received from living but damaged wheat stems, collected from fields, and put in labotatory conditions.The pupa of the female specimen is found in the damaged stem, too. No other insects are hatched, or not any remains from other insects are found in the stems. That give us the reason to decide that the specimens of *Elachiptera agricola* spec. nov. appear here as a pest of wheat stems.

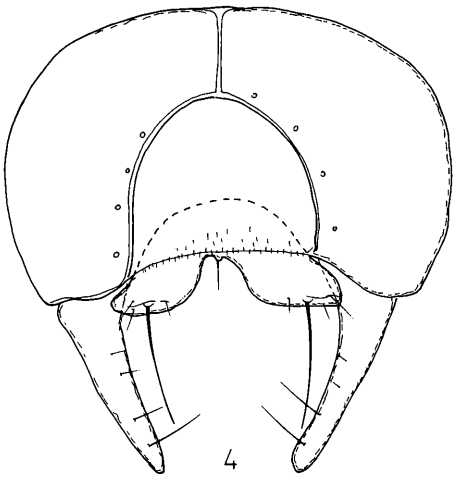
Etymology: The species is named by the peculiarity of its locality – the agricultural fields.

Comparative diagnosis: By the appearance (excluding the wings), chiefly the orange-yellowish head and thorax, square, dark scutellum and black abdomen the species is very similar to









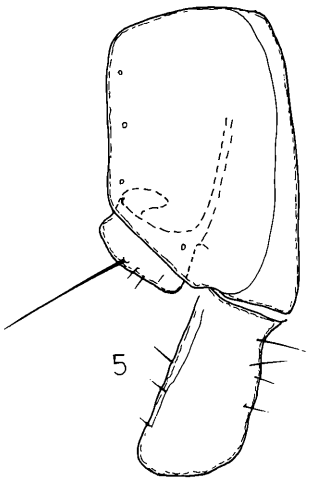


Fig. 1: *Elachiptera agricola* spec. nov.; head and thorax, dorsal view. – Figs. 2–5: Male genitalia of *Elachiptera agricola* spec. nov. (2, 3) and *E. brevipennis* (4, 5); 2, 4 – epandrium, view apical; 3, 5 – epandrium, view lateral.

E. brevipennis. But in the last species the apical side of scutellum is a little more narrow than in the new species. The angle between both cerci of *Elachiptera agricola* spec. nov. in posterior view is closer to those of *E. brevipennis* figured by ANDERSSON (1977) than to the specimens from the Bulgarian Black sea coast (Fig. 4). There are not any essential differences between male genitalia of both species in lateral view (Fig. 3 and Fig. 5) either. It is known that the male genitalia in most of Oscinellinae do not have considerable taxonomic value. The most important taxonomic feature here appears the normal length of the wings of the species described as new. The wing polymorphism of *E. brevipennis* is expressed in the existence of two forms: brachypterous and micropterous (NARTSHUK, 1966). But the length of the wings in both forms is shorter than abdomen. In our specimens the length of wings is normal and passes with about one sixth of their length behind the abdominal apex. There is no information about the presence of *E. brevipennis* with normal wings. That is why we consider that both specimens with long wings belong to a species new for science, named *E. agricola* spec. nov.

Conclusion

With these two taxa, the number of Bulgarian *Elachiptera* species are already nine at the present.

References

ANDERSSON, H. (1977): Taxonomic and phlegmatic studies on Chloropidae (Diptera) with special reference to Old World genera. – Entomological scandalmonger, Supplement 8, 200 pp.

BESCHOVSKI, A. (1985): Chloropidae. In: Fauna Bulgaria, Vol. 14. B.A.N., Sofia, 220 pp.

NARTSHUK, E.P. (1966): On reduction and loss of wings in Chloropidae (Diptera). – Zool. Zhurnal XIV, 8: 1187–1195 (Russ., engl. summary).

(Received on August 13, 1997)