

Addition to the knowledge of the Neuropterous insect fauna of Corsica. II.

By

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During the summer 1912 Mr. V. Budtz has forwarded to me large lots of Neuropterous insects, collected on Corsica, and as he not only has re-found several of the species described by Hagen, but also found undescribed species, it seems to me that his endeavours to encrease our knowledge to the fauna of the island are worth the following notes.

Odonata.

The number of species here recorded is not a great one, only 11 species are found in the collections. E. d. de Sélys-Longchamps quotes 24 species in his »Catalogue des Névroptères Odonates de la Corse« (Ann. Soc. ent. de France, 1864, pag. 35). Of the below cited species two are not included in the »Catalogue«, viz. *Æschna mixta* and *Agrion cærulescens*.

1. **Orthetrum brunneum Fonsc.** A fine series of males; I have not seen any female from Corsica.
2. **Orthetrum coerulescens Fabr.** Several specimens of both sexes.
3. **Crocothemis erythraea Brullé.** A good number of males were present, but only few females.
4. **Sympetrum striolatum Charp.** A long series of specimens of both sexes.

5. *Æschna mixta* Latr. One specimen, ♂. As far as I know, it is the first record of that species from Corsica.
6. *Calopteryx virgo* Lin. This species was well represented in the collection.
7. *Calopteryx hæmorhoidalis* v. d. L. There were present long rows of this beautiful species. The female is a very fine looking insect, especially when the dark colour at the tip of fore wing is present.
8. *Sympycna fusca* v. d. L. Several females and one male.
9. *Pyrrhosoma tenellum* Vill. Two specimens, males, were present.
10. *Ischnura genei* Pict. Of this very interesting species seven males and one female were found in the collections.
11. *Agrion cærulescens* Fonsc. One specimen, male, was found.

Ephemerida.

The Ephemerid fauna of Corsica seems to be a rich one, and it is very interesting that nearly all the species described by Hagen are re-found. Rev. A. E. Eaton has looked upon specimens of *Habrophlebia modesta* and *H. nervulosa*, and he communicates that they agree with the descriptions, but he has not had the opportunity of comparing them with the type-specimens, which are placed in the collection of the late R. MacLachlan.

1. *Habrophlebia budtzi* Peters.

(*Thraulius Budtzi* Petersen, Ent. Med. Kopenhagen, 1912, pag. 349). This species was described from a single specimen, male, the genitaliæ of which were shrivelled. As I have got four specimens more, I can see, that the species must be placed in *Habrophlebia*, and next to *Habrophlebia lauta* Mac Lachl., to which species it has much likeness, but from

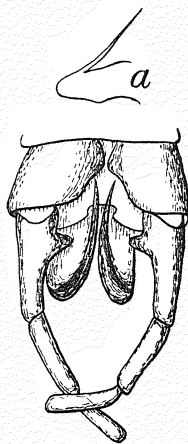


Fig. 1.
Habrophlebia budtzi.
Forceps and penis,
seen from above.
a penis, seen from side.

which it differs by the paler colour of thorax and tibiæ and by the strongly curved anal veins. I have in my collection a Spanish specimen of the species, received under the name *Habrophlebia fusca* Curt.

2. **Habrophlebia modesta** Hag. (*Potomanthus modestus* Hagen, Ann. Soc. Ent. Franc. 1864, pag. 39). In the collections of Budtz there were three males and one female, all imagines. The species is very easily recognizable by the strong yellowish tinge on the wings, especially along the front margin of the fore wings. Also the pitchy brown veins and its greater size are good specific characters. The costal area of fore wing contains about 11—13 well defined cross veins before the pterostigmatic space, while this contains about 10—12.
3. **Habrophlebia nervulosa** Eaton (A revision. Monogr. of recent Ephemeridae or Mayflies, 1883—88, pag. 117). Of this species hitherto only found in Portugal there is a long series. Although it is no easy matter to determine dried specimens of *Habrophlebia*, because the colours are liable to vary greatly with the direction, in which they are held to the light, what also Eaton has stated, I refer the specimens to this species. A good character, I think, may be found in the shape and nervation of hind wing, and of course also in the shape of anal appendages of the male.
4. **Baëtis pumilus** Burm. A large series of males and a few females.
5. **Baëtis binoculatus** Linn. A few specimens.
6. **Ephemerella ignita** Poda. Several specimens.
7. **Rhithrogena eatoni** Peters. (Ent. Medd. Kopenhagen, 1912, pag. 352). Of this species there was present a fine lot. It is the smallest known species of the genus.
8. **Rhithrogena insularis** n. sp. ♂ (dried). Thorax brownish black with some yellowish brown spots on the sides (in some specimens the colour of thorax is castaneous brown). The abdominal segments dorsally brown (with

a reddish tinge), becoming darker towards their hind margin, which as the front margin is bordered with yellowish white. The stigmatae are enclosed by a dark oblique spot, most distinct in the three apical segments. The 8th and 9th segments without yellowish white borders. The venter of abdomen paler than the dorsum; the 2 or 3 apical segments with a strongly yellowish red tinge and with a more or less darker marking in the centre of the segments. Forceps dark brown. The setae dark brown with indistinct blackish annulations at the joinings. Legs (held up against the light) pale yellowish brown with blackish knees, blackish apex of tibiae and tarsal joints, and with a brownish red band in the middle of the femorae. Wings hyaline with dark brown nervures (especially the costa, subcosta and radius in the fore wing). The cross veins in this area are crossed or forked.

♀. The thorax and the abdomen paler than in the male.

Length of body ♂ 7—11 mm; fore wing 9—12 mm; setae 29 mm. Length of body ♀ 7—10 mm; fore wing 10—12,5 mm; setae 14 mm.

Several males and a few females were present. The species has some likeness to *Rhithrogena alpestris* Eat.; but the distinctly banded femorae and the yellowish marginal area with the darker pterostigmatal region make it easily recognizable.

9. **Ecdyurus corsicus** Peters. (Ent. Medd. Kjøbenhavn, 1912, pag. 351). Several specimens of this species were present.
10. **Ecdyurus fallax** Hag. Two males and two females, all in poor condition, were present in the collections. The species is hitherto only known from Corsica (Hagen) and from Sardinia (Costa). The specimens agree very well with the descriptions given by H a g e n and E a t o n. In the female the venter of ninth segment is very much prolonged and formed as a spout.

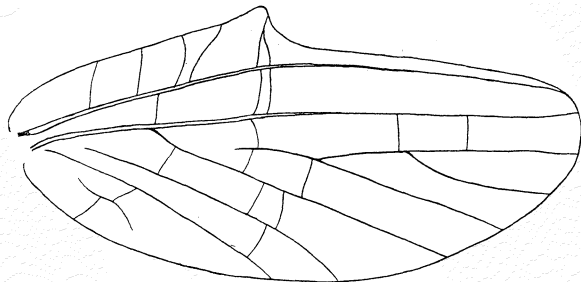


Fig. 3. *Habrophlebia modesta*.
Hind wing.

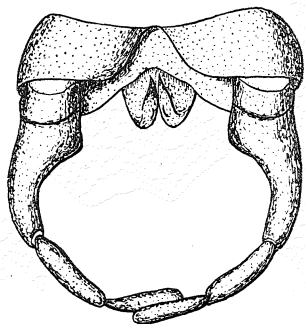


Fig. 4. *Habrophlebia nervulosa*.
Forceps and penis, seen from above.

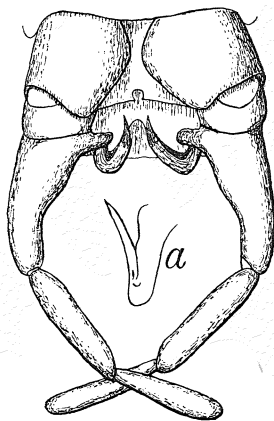


Fig. 2. *Habrophlebia modesta*.
Forceps and penis, seen from above;
a penis, seen from side.

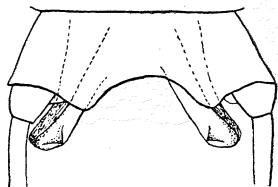


Fig. 6. *Rhithrogena insularis*.
Last abdominal segment,
seen from below.

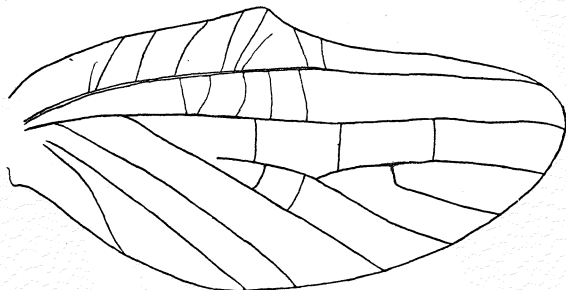


Fig. 5. *Habrophlebia nervulosa*.
Hind wing.

Plecoptera.

1. **Chloroperla grammatica Scop.** I refer three specimens to this species.
2. **Isopteryx burmeisteri Pict.** A long series of specimens were present.
3. **Nemura fumosa Ris.** A few males and several females were present. The five mentioned females (Ent. Medd. 1912, pag. 352) belong here. I have made microscopical preparations, mounted in Canadian balsam, of the anal parts of male and female, so I am sure in my determination.
4. **Leuctra budtzi Peters.** (*Leuctra Budtzi* Petersen, Ent. Medd. Kopenhagen 1912, pag. 352). Several specimens were present.

Copeognatha.

1. **Amphigerontia bifasciata Latr.** One specimen.
2. **Tricadenotecnum sexpunctatum Linn.** One specimen.

Trichoptera.

1. **Limnophilus auricula Curt.** Two specimens.
2. **Limnophilus affinis Curt.** One specimen.
3. **Limnophilus lunatus Curt.** One specimen, female.
4. **Limnophilus griseus Linn.** One specimen, male.
5. **Stenophylax permistus Mac Lachl.** One specimen, female.
6. **Potamorites budtzi Ulm.** One male; vide this volume pag. 17.
7. **Sericostoma clypeatum Hag.** Three males and four females.
8. **Micrasema togatum Hag.** Of this species, described by Hagen from a single male from Corsica, there were a few specimens.
9. **Silo sp.** One female.
10. **Plectrocnemia geniculata Mac Lachl.** One male and four females.
11. **Philopotamus ludificatus Mac Lachl.** One specimen, male.

12. **Philopotamus flavidus** Hag. Of this species, only known from Corsica, there is a male.
13. **Hydropsyche instabilis** Curt. Five females.
14. **Tinodes** sp. One female.
15. **Rhyacophila obliterated** Mac Lachl. Two females.

Megaloptera.

Raphidia insularis Albarda. Two males and six females are present; the species is only known from Corsica and Sicily.

Planipennia.

The most interesting discovery from this order is *Neurorthus fallax* and *Micromus gradatus*. N a v a s in »Quelques Névroptères de Corse recueillis par M. G. Bénard« (Insecta, Rennes, 1912, pag. 34) mentions also *Theleproctophylla australis* Fabr. and *Creagris ægyptiacus* Ramb., but I have not seen the two species from the island.

1. **Palpares libelluloides** Linn. Two specimens, females, captured at Ajaccio.
2. **Macronemurus appendiculatus** Latr. One female.
3. **Ascalaphus corsicus** Ramb. Three females.
4. **Osmylus maculatus** Fabr. A long series of fine specimens.
5. **Neurorthus fallax** Ramb. (*Mucropalpus fallax* Rambur, Histoire naturelle des Insectes, 1842, pag. 422; *Neurorthus iridipennis* Costa, Atti dell' Accademia di scienze fisiche e matematiche, Vol. 1, 1863, pag. 32, pl. III, fig. 7; *Sartena amoena* Hagen, Ann. Soc. Ent. de France, 1864, pag. 41).

Of this very interesting insect there is a fine series. The species was originally described by R a m b u r and C o s t a from Sardinian specimens, and later on by H a g e n from Corsican examples. Since R. M a c L a c h l a n (Trans. Ent. Soc. Lond. 1898, pag. 163) records it from Algeria and Bulgaria.

6. **Megalomus pyraloides** Ramb. A single specimen was present.

7. **Hemerobius micans Oliv.** Five specimens.
8. **Hemerobius nitidulus Fabr.** One specimen, female, has been found.
9. **Hemerobius inconspicuus Mac Lachl.** One specimen, male, of this very pretty insect is present; its size is small, and the expanse of fore wings is only 8,5 mm.
10. **Micromus variegatus Fabr.** Four specimens.
11. **Micromus gradatus Navas** (Broteria, Serie Zoologica fasc. II, 1912, pag. 112; Insecta, Rennes, 1912, pag. 34). In my former publication I stated that Mr. Budtz has found one male and two females of a new species of *Micromus*. Later on Navas has described the species under the name *gradatus*. In the collections from 1912 is a small series of specimens belonging to this species.
12. **Chrysopa vulgaris Schneid.** Several specimens.
13. **Chrysopa tenella Schneid.** Three specimens; the species is also recorded from Corsica by Hagen.
14. **Dilar sp.** Two females and eleven males are present of

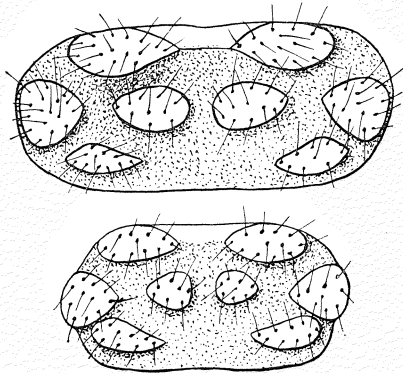


Fig. 7.

Prothorax (female and male) with protuberances of a species of *Dilar* from Corsica.

a species, which I think probably may be a new and undescribed one, and if so, I will propose to name it *budtzi*. The specimen mentioned as *D. nevadensis* in Ent. Medd.

1912, pag. 349 is included here. In »Mem. Real. Acad. Cienc. Art. de Barcelona« Vol. VII, 1909, pag. 636, N a v a s gives a monograph of the hitherto known species of *Dilaridae*, and there he describes amongst others a new species, *D. corsicus*, from a single female (Lond. Mus.) from Corsica. I have compared my specimens with his

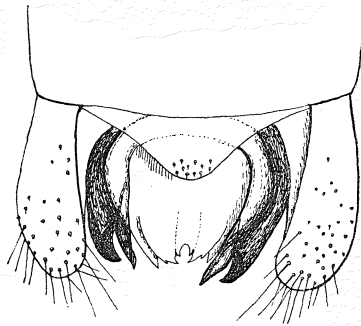


Fig. 8.
Genitalia (seen from below) of a male
of *Dilar* from Corsica.

description, and in the most parts they agree well with it, f. inst. in the shape, nervation, and colouring of wings; but the arrangement of protuberances on thorax is an other.

15. **Conwentzia pineticola** Endl. One specimen.
16. **Coniopteryx tineiformis** Curt. Seven specimens.