TAXONOMIC DATA ON FAMILY ASILIDAE (DIPTERA) IN THE CANARY ISLANDS. I.

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On décrit le mâle de Habropogon pertusus Beck et la femelle de Saropogon punctipennis Frey, et on figure les genitalia de ces espèces pour la première fois chez les deux sexes.

The Canary Archipelago is made up of 7 volcanic islands situated between 90 and 380 km from the southern coast of Morocco.

This zone, recognized by its endemisms, has been one of our concerns for 10 years now, as a result of Dr. Marcos Baez’s solicitation to identify a material of Asilidae collected by himself from all the 7 islands.

The research proved to be very hard because of the summary descriptions, insufficient for a correct identification of the specimens, to which was added the difficulty that we did not have the type specimens of that zone.

Until 1981, when we published our first results (Baez, Weinberg), only three authors mentioned and described species of Asilidae in their papers on the Diptera of the Canary Islands.

The first mentions are due to Macquart, in 1839. He recorded there 11 species 6 of which were new to science (very briefly described and all assigned to genus Asilus). From that year until 1908, when Becker mentioned species of Asilidae among other Diptera, there was not any other paper. Becker (op. cit.) described in his paper 7 species new to science. That was the first paper that included more complete data as concerns both the description of the new species and the redescriptions of the ones previously mentioned from that zone, which he grouped within genera.

Becker (op. cit.) established that only 14 species were known from the Canary Islands. Becker’s data were taken over by Engel (1938) in the Palaeartic monograph of the Asilidae.

The third author who contributed to the knowledge of the Asilidae of the Canary Islands was Frey. He published two papers: the first, in 1936, in which he mentioned 16 species (3 new to science) and the second, in 1958, in which he completed the existing data on the basis of the material collected by Håkan Lindberg and described a new species and a form.
From that paper up to the publication of our first results Baez, Weinberg (op. cit.), we also mention the specifications made by Tsacas (1968) for 2 species, within the Palaeartic revision of genus Neomochtherus.

The study of Tsacas (op. cit.) based on genitalia gave us (Weinberg, Baez, 1988) the possibility of describing two species from the Canary Islands, new to science.

Taking into account the characters used in diagnoses as well as the incomplete descriptions, it becomes imperative to complete the diagnosis of all the species of the zone, with the description of the genitalia components and the data relative to variability.

In the present paper, we aim at bringing up-to-date the data referring to 2 genera belonging to 2 subfamilies of Asilidae.

**MATERIAL**

We had at our disposal 29 specimens collected in the Lanzarote and Fuerteventura Islands, from 1974 to 1977, and we identified 2 species that had been previously described after one sex.

In both species, we describe the unknown sex and in one species, making a study on a sufficient number of specimens from both islands, we eliminate the taxonomic error recently registered in the Catalogue of Palaeartic Diptera (Lehr, 1988).

**RESULTS**

We present below the species according to their phyletic order, like in the recently published catalogue (Lehr, op. cit.).

Subfam. STENOPOGONINAE

*Habropgon pertusus* Becker, 1903

(Fig. 1)


*Remarks*. Becker (op. cit.) described the female from the Teneriffe Island, from Guimar, where he collected it in June. Those data were taken over by Engel (op. cit.) and Frey (1936).

Besides enlarging the distribution area of this species in the Archipelago, we complete the diagnosis of the ♀ in which we figure the component parts of ovipositor (Fig. 1) and we describe the male.

*Genitalia*. ♀ Ovipositor short with 8 acaenephorites (Fig. 1, A). Gonapodem is horseshoe-shaped, strongly chitinous (Fig. 1, G) and the 3 spermatothecae are short and pyriform (Fig. 1, SP).

*Description of the male*

Small-sized species, brick-red, with silver powder; wings transparent with dominantly greenish iridiscence.
Fig. 1 — Habropogon pertusus Beck. Hypopygium and ovipositoro
Head. Eyes large, frons and face powdered, the following parts are shiny black, not powdered: ocellar triangle, a V-shaped area situated above the antennae and with the tip on the base of antennae, the opened side being directed towards the ocellar triangle and on the upper side of the gibbosity. Antennae yellow, with the 2 basal articles, equal in length. The 3-rd article is yellow only on its base; the remainder is brown and longer than the 2 basal articles taken together.

Pilosity of head is yellowish white, with several black fine lateral hairs on: frons, ocellar triangle and occipital zone.

Thorax brown, abundantly powdered, laterally silvery and medianly golden. Humeral and alar calluses, yellow.

Yellow pilosity is dominant, but dorsocentrals, acrosticals and bristles on the base of wings are black.

Abdomen with first three tergites brown, the rest being brick-red. The powder all over its surface is silver and pilosity is yellow.

Wings yellowish, with brown veins which in the light are strongly iridescent. Halteres yellow all along.

Legs yellow, with white pilosity. Femora with a black band that occupies almost all their surface, leaving only posteriorly, on f₁ and f₂, the yellow colour visible all along. Black band on f₂ occupies the posterior side and the yellow colour is present on the whole anterior side. The third pair of legs with darker tibiae and tarsi. Coxae, yellow, laterally with a black area; trochanters are linearly black on their posterior side.

Genitalia. Hypopygium small, black, with pilosity of the same colour and epandrium with the 2 parts reniform (Fig. 1, EP). Dististyles exceed in length basistyles (Fig. 1, G). Hypandrium and aedeagus of simple shape (Fig. 1, H, AE).

According to the shape of aedeagus, this species belongs to the subgroup striatus (Weinberg, Tsecas, 1973).

This is the second record since the description of the species, which is thus being known in the Canary Archipelago, from the Teneriffe Island (Becker, op. cit.) and now from Fuerteventura.

The material is preserved in the Marcos Baez collection.

Subfam. DASYPOGONINAE

Saropagon punctipennis Frey, 1958

(Figs 2—4)


Remarks. Frey (1958) described only the ♂ after a small number of specimens. He considered the material collected in the Lanzarote island as a from and named it nigriventris.

Although he had only 5 specimens at his disposal, he noted that the colour of legs, of abdomen and antennae was highly variable.
Fig. 2 — Saropogon punctipennis Frey. Hypopygium.
Fig. 3 — Saropagon punctipennis Frey. Hypopygium.
Fig. 4 — Saropogon punctipennis Frey. Ovipositor
Analysing the specimens collected in the two islands and having at our disposal enough specimens, we noticed that on both islands there were individuals with the colour of antennae, of abdomen and legs equally variable and that the form named by F r e y (op. cit.) was present in both islands.

Accordingly, among the males of the Fuerteventura Island we found specimens with black abdomen and brick-red sides of tergites, with femora apically and basally black and, among those of the Lanzarote Island, specimens with brick-red abdomen and dominantly yellow legs. As concerns the antennae, they may have the first two articles yellow, antennal article 2 dark or the whole antenna black, like in the form named by F r e y (op. cit.).

We studied the genitalia in all these individuals.

We complete the ♂ diagnosis (Fig. 2, 3) with the genitalia components. We figured all the parts of the male of Fuerteventura, where from F r e y (op. cit.) described the species (Fig. 2) and of Lanzarote, where from he described the form nigriventris (Fig. 3), choosing a specimen which corresponded to the characters indicated by F r e y (op. cit.). In these specimens, one remarks a few differences which become insignificant when several genitalia are studied. Moreover, specimens from both islands that show the characters of the species or of the form named by F r e y (op. cit.) may have a larger or smaller process of basistyle, intermediary forms also existing.

Additionally, it is noteworthy that this species also shows variability in the size of the genitalia components.

We wish to remark that, taking into account that we found, from both islands, specimens with the characters of the type species and of the form, it is erroneous to erect the form to a subspecies rank, as L e h r (1988) did.

Finally, we give below some characters completing the male diagnosis.

**Torax** shows a variability of the yellow colour as well as of chetotaxy. On post-alar calluses, in some specimens, the black hairs are prevailing while in some others, the yellow ones are dominant.

The wide variability of this species being known, we figure the female ovipositor (Fig. 4) and give some characters registered in the 2 available females, (from the 4 ♀♀ collected in both islands), that were not registered in the males.

**Thorax.** Humeral calluses yellow, a colour that laterally extends up to abdomen, being present in front and on the side of scutellum. Pleurae are black, but post-alar calluses are yellow.

Thorax with a silver powder anteriorly and laterally, all around and brown on median side.

**Abdomen** medianly brick-red and laterally black in one female; in the other the brick-red colour dominates, the black being restricted to the lateral triangles, on tergites.

**Wings** with slight shades on anastomoses r₄ and r₅, on r-m, on the base and the apex of discal cell. This colour is more pronounced in the males. Halteres yellow, with the base a little darker.

**Legs** show the same variability as in the males. One of the females has dark femora, apically and dorsally and in the other one, femora are completely black, only the femuro-tibial joint is yellow.
Genitalia. Ovipositor (Fig. 4) with 6 yellow acanthophorites. Spermathecae extend up to the level of abdominal segment 5.

In the ♀, no differences have been registered in the shape and size of genitalia.

CONCLUSIONS

These two genera, each one represented by a single species, are endemic in the Canary Islands. Habropogon pertusus Beck. is now recorded a second time, like Saropogon punctipennis Frey, which proves that few studies have been made on that area which is so interesting from a faunistic point of view.

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DATE TAXONOMICE PRIVIND FAMILIA ASILIDAE (DIPTERA) DIN INSULELE CANARE. I.

REZUMAT

Se face un istoric privind semnalarea dipterei Asilidae in Insulele Canare începând cu anul 1839, după care se dau date taxonomice noi pentru speciile Habropogon pertusus Becker și Saropogon punctipennis Frey. La ambete specii se completează diagnoza cu sexul necunoscut și cu date privind componentele genitale la ambele sexe.

Atit datele fenologice, cît și cele privind repartiția lor sînt îmbogățite.

Se infirmă statutul de subspecie a lui Saropogon punctipennis nigriventris, rang la care a fost ridicată de către L e h r (1988) forma nigriventris descrisă de Frey.

REFERENCES


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