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New records of flies from the Canary islands (Diptera)

By

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Abstract: Locality data of 24 dipterous species of eight families (mainly sphaerocerids) are given. Bibio elmoi sp.n. is described from Tenerife.

Through the courtesy of Professor Dr. H. FRANZ (Vienna) I had the opportunity to work on a small material of Diptera comprising 15 families, which was collected on the Canary Islands (Hierro, Gran Canaria, Tenerife). The families were represented by one or two species (except for sphaerocerids). The species of Asilidae, Empididae, Syrphidae, Phoridae, Calliphoridae, Sarcophagidae and Tachinidae were left unnamed, 15 species of eight families were identified, of which six species proved to be new to science. Five species have been described elsewhere (SOÓS, 1979, PAPP and ROHÁČEK, 1981), the sixth new species, Bibio elmoi sp.n. is described below. Though this small material is obviously a by-product of Prof. FRANZ's extensive collectings of other insect groups (first of all of beetiee), the high percentage of new species can be regarded as a sign of the inadequate knowledge of the dipterous fauna of the Canary Islands, contrarily to efforts that have been made in this respect (BECKER, 1908, FREY, 1936, 1958, etc.).

The material from Prof. FRANZ's collectings was well supplemented by another material of sphaerocerids (34 specimens) collected by Señor M. BÁEZ (Tenerife) on the Canary Islands. Among the 12 species found in this latter material there is no new one (not even for the Canary Is.) but it is interesting to have numerous new records from five islands (Lanzarote, Fuerteventura, Hierro, Gran Canaria and Tenerife). Altogether 24 species of eight families were found.

Acknowledgements: I should like *to* express my most sincere thanks to Prof. Dr. H. FRANZ (Vienna) and to Señor M. BÁEZ (Universidad de la Laguna, Departamento de Zoológia, Tenerife) for making the interesting materials available for elaboration. I am greatly indebted to Dr. Á. SOÓS for his identifying the specimens of Lonchaeidae and Trixoscelididae, and to Dr. Á. DELY-DRASKOVITS for the identification of the chloropid specimen in the present material.

BIBIONIDAE

Dilophus minor Becker, 1908 - 3 ♂, 2 ♀: Tenerife, Teide, N-Hang, 1000-1600 m, Sp. 1033, leg. H. FRANZ. Numerous previous records. Endemic for the Canary Is.

Bibio elmoi sp.n.

Measurements in mm: body length (from antennal base to caudal end) 7.15 (holotype), 6.6-7.0 (paratype males), 7.1-7.2 (paratype females); wing length 6.65 (holotype), 6.3 (paratype male), 7.3 (paratype female); wing width: 2.15 (holotype), 2.23 (paratype male), 2.65 (paratype female); length of hairs on eyes of males: 0.37 (holotype), 0.35 (paratype); length of hind femur: 3.32 (holotype), 3.09 (paratype male), 2.65 (paratype female).

Body black or at least dark brown, including female abdominal sclerites. Hairs of males on head, thorax, abdomen and coxae and also calyptrae characteristicaily grey and not black as in

marci, nor partly white as in hortulanus, nor rufous as in hortulanus females. Ocellar triangle shining hlack, strongly projecting, 0.20 mm long. Apical segment of palpi of males flat, 0.31 mm long and 0.08 mm wide on holotype. Thorax subshining. Wings tinged yellowish grey, radial veins light brown, m-s and cu-s colourless, costal spot dark brown. Veins m_1 and m_2 extending to margin. Vein br 0.46 mm on holotype, 0.60 mm on a paratype female, t_a 0.15 mm on holotype, 0.23 mm on a paratype female, i.e. hr thrice or almost thrice longer than t_a. Halteres dark grafite-grey, calyptrae dark grey. Spurs on fore tibia sharply pointed. Also male legs hlack except for fore tarsomeres on their apical parts. Dorsal apical spur of male fore tibia about twice longer than ventral thorn. Basal half of male hind femur thin, thickening only at middle (in marci at proximal 2/51). Longest hairs on male fore coxa 0.86 mm. Male hind basitarsus 0.91 mm long (holotype) and only 0.17 mm wide, i.e. not swollen.

Female tihiae and tarsi somewhat lighter, i.e. dark hrown with some rufous hue, hairs of hody and hairs on other parts white or yellowish, frons shining. Costal spot of wings elongated reaching conjointment of r_5, m and cu veins ochreous. Female cerci not much longer (0.34 mm) than wide (0.24 mm). Flagellum of antennae with 7 segments in both sexes,

Male 9th abdominal tergum (Fig. F and G) caudally with a deep hut wide emargination of characteristical shape, highly different from that of B. marci L. (Figs. A and D). Bristles on mnle cerci as long as length of cerci. Surstyli (claspers) (Fig. H) much smaller than those of marci (Figs. B-C and E), their apical part thinner.

Holotype mnle: Tenerife, Teide - N-Hang, 1000-1600 m (on the other side of label in blue ink: "Sp 1033"; 2/ "Bibio Marci LINN.?" Det 1978 D.E. HARDY.

Paratypes: 3 ♂, 3 ♀: data sanie as for holotype.

The holotype and two male and female paratypes each are deposited in Prof. H. FRANZ's collection, one male paratype in the Hungarian Natural History Museum, one male and one female paratypes are in the collection of Prof. D.E. HARDY in Hawaii. There was an additional female spccimen of Bibio in this material: "El Hierro, Umg. San Andras" 2/ Kanarische Inseln, leg. H. FRANZ "Sp. 1363"; this may helong to this species but considerably higger (9.65 mm!), so it was not involved in the tppe-series.

Bibio elmoi sp.n. belongs to the marci-hortulanus species-group (vein br much longer than t_a, cu_1 reaching wing margin, outer apical spur on male fore tibia twice longer than inner spur, etc.); its closest relative is probably B. marci L. but it is smaller, hairs of male body and legs are grey (black in marci). The reliable differentiating characteristics are the shape of tergum 9 and the male surstyli (claspers). The posteromedial cleft of tergum 9 of marci is rather normal U-shaped (Figs. A and D). The shape is somewhat variahle but the tergum 9 of the Hungarian specimens seems essentially the same as that of the specimens from the European part of the USSR (see KRIVOSHEINA, 1970: 1: 438, Fig. 254/2) and much different from that of B. hortulanus (ibid., Fig. 254/3). The tergum 9 of B. elmoi sp.n. is not as wide but the cleft is deeper and different in shape (Figs. F and C). The shape and armature of male surstyli (claspers) of the new species (Fig. H) are rather different from those of marci: the apical half of surstyli is more slender and somewhat more curved (cf. Figs.B-C and E).

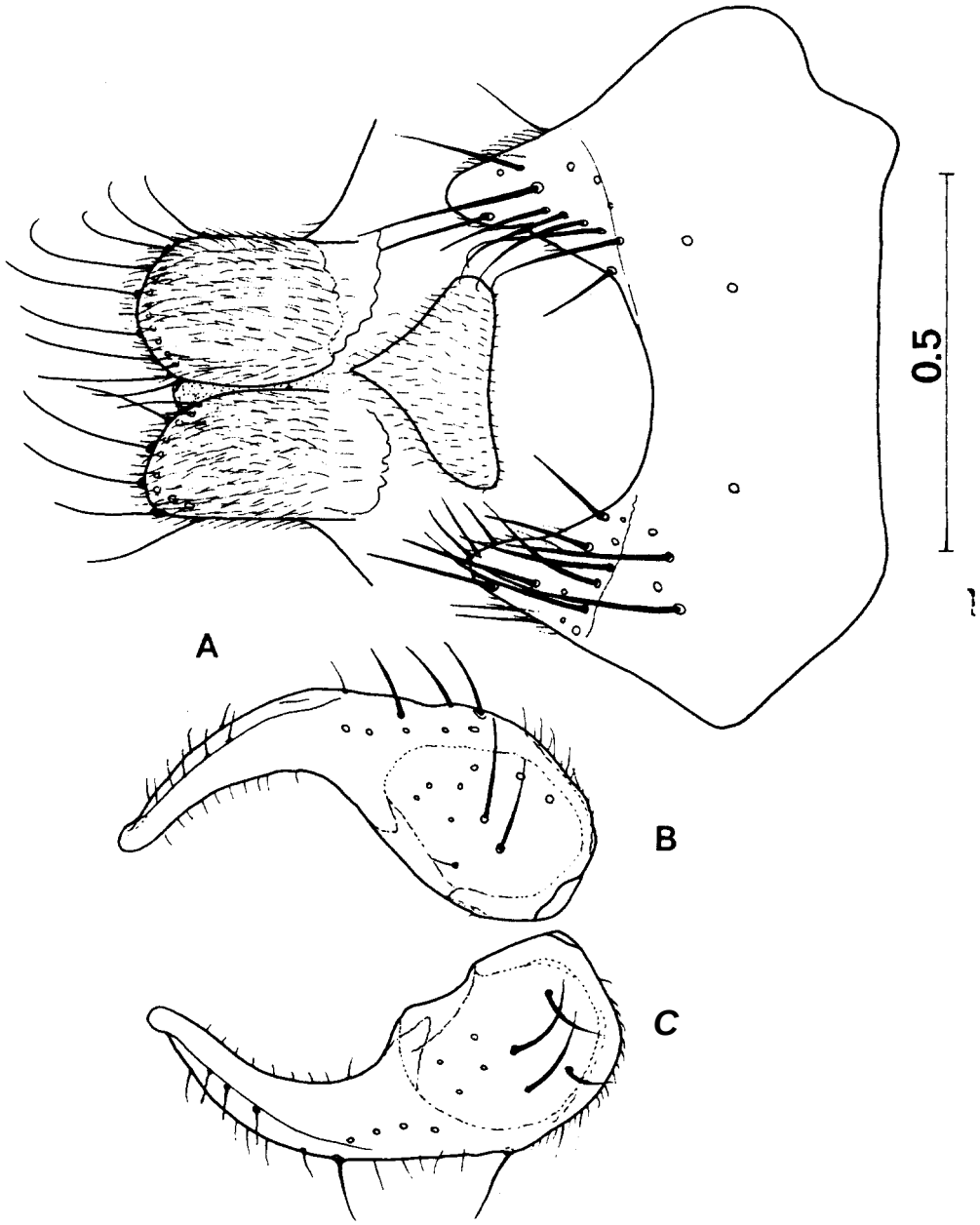
1 dedicate the new species to Professor D. Elmo HARDY, University of Hawaii, Department of Agriculture, one of the leading dipterists of the world, who is an excellent specialist also on bibionids.

Remark. As early as in 1960, HARDY and TAKAHASHI noted that "the common bibionid species of Europc are ohviously not so widely distributed as has been previously thought". We are still in need of a modern revision of the European bihionids, first of all as regards the species related to the above new species, namely the Mediterranean and South Palearctic forms, which were regarded or described as "varieties" by DUDA (1930). The first steps have been made hv KRIVOSHEINA (1970), who puhlished drawings of male genitalia of numerous European species.

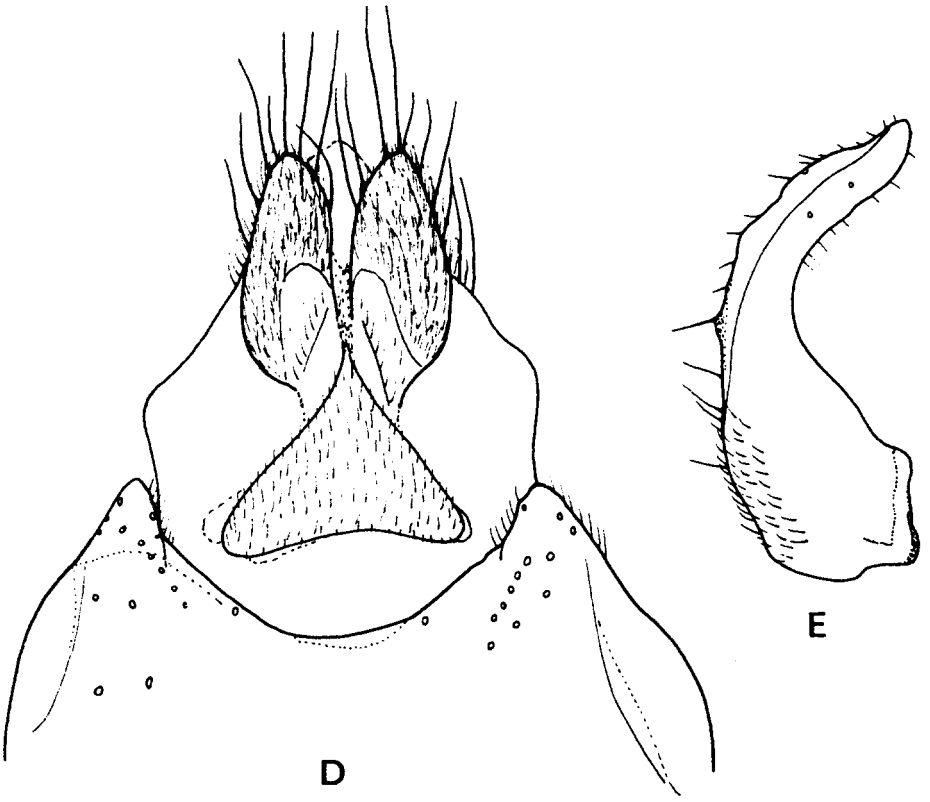
LONCHAEIDAE*

Lamprolonchaea aurea (Macquart, 1850) - 2 ♀: Isla del Hierro, Las Playas, leg. FRANZ, Sp. 1355, "um Euphorbia regis jubae". It is a widely distributed species in the Canaries (FREY, 1958).

* Determined by Dr. Á. SOÓS.



Figs A–C. Bihio marci (Linnaeus) males from Hungary, Bakony Mts. – A: tergum 9 with cerci – B: right surstylus (clasper) – C: left surstvlus (scale: 0.5 mm)



Figs D-E. Bibio marci (Linnaeus) male (Hungary, Tiszatarján). - D: tergum 9 with cerci - E: left surstylus (clasper) (scale same as for Fig. A)

TRIXOSCELIDIDAE

Trixoscelis franzi Soós, 1979 - Holotype ♀: Isla del Hierro, Las Playas, leg. FRANZ, 19.2. 1978. Described from the present material.

HELCOMYZIDAE

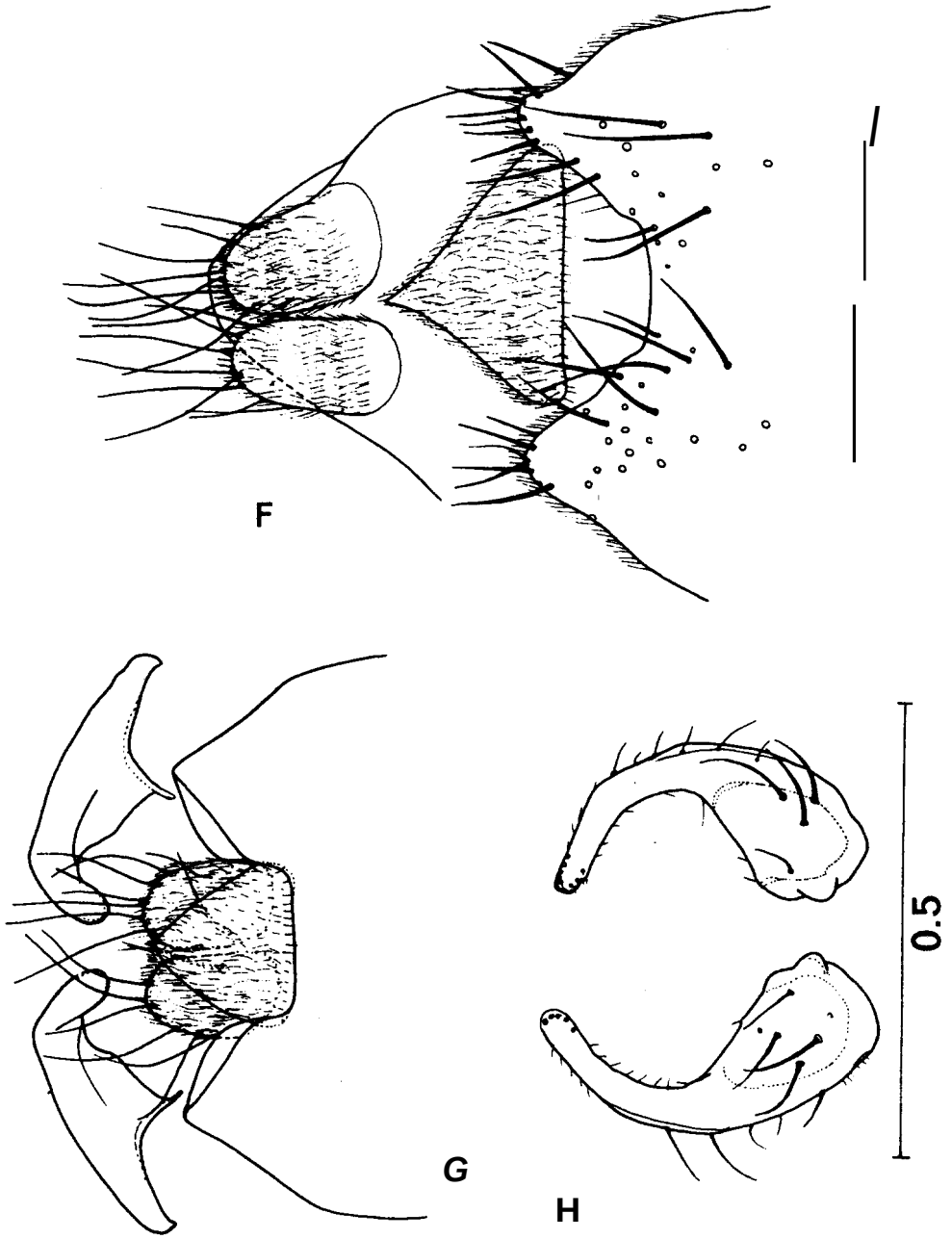
Malacomyia sciomyzina (Haliday, 1833) - 1 ♀: Tenerife, Playa de San Marco, Sp. 1040, leg. H. FRANZ. Wldespread on the seashores of Central and South Europe and of the Atlantic islands, known also from the Canaries (see FREY, 1958, as fucorum Zett.).

EPHYDRIDAE

Parydra hecate Haliday, 1830. - 1 ♀: Anagageb., Tenerife, leg. H. FRANZ, Sp. 1304. This is a somewhat damaged female specimen, which cannot be identified without some doubt but I am quite sure that it is conspecific with hecate (its wings are the same as those of the hecate specimens from Hungary), or perhaps it belongs to a new species very close to hecate. The shape of its abdominal sterna is within the variability of hecate females.

SPHAEROCERIDAE

Copromyza (Olinea) atra (Meigen, 1830) - 1 ♂: Gran Canaria, Barranco de Firgas, leg. H. FRANZ, Sp. 1093. 1 ♂, 1 ♀: Gran Canaria, Tejada, 9.III.77, M. BÁEZ. For previous records see species-list in PAPP, 1977.



Figs F-H. Bibio elmoi sp.n., paratype males. - F: tergum 9 with cerci - G: tergum 9 with cerci and surstyli of another paratype, dorsal view - H: right and left surstyli (claspers) (scale: 0.5 mm)

Coproica ferruginata (Stenhammar, 1854) - 1 ♂, 1 ♀: Hierro, Frontera, 29.XI.1978, M.BÁEZ; 1 ♂: Tenerife, Benijos, 29.X.1978, bl. BÁEZ; 1 ♀: Hierro, Mte Gorgo, 29.V.76, M.BÁEZ. Cosmopolitnn, synanthrop species. Though all the above data are'new for its known distribution on the Canaries, it seems widespread also here.

Elachisoma euphorbiae L. Papp, 1977 - 1 ♂, 1 ♀: Tcnerife, Iquestes Andrés, 26.3.1978, M. BÁEZ. - En Euphorbia canarensis. Described from Tenerife and there found again. I must correct the description in one respect, namely the costal index of wings is not 2.1-2.5 hut its reciprocal value, i.e. 0.43-0.40.

Leptocera nigra Olivier, 1813 (= curvinervis (Stenhammar, 1854)) - 1 ♂: Gran Canaria, Tafira Alto, 8.III.77, M. BÁEZ; 1 ♀: Tenerife, Stn Ursula, 14.IV.76, M. BÁEZ. For earlier records (under several names) see PAPP, 1977: 126.

Leptocern (Rachispoda) freyi (Hackman in FREY, 1958) 1 ♂, 1 ♀: Gomera, Cuadernas, 16. VIII.77, M. BÁEZ leg.; 1 ♂: Tenerife, Alur, 5.III.78, M. BÁEZ. Not found since its description. New for Gomera. The genitalia of these specimens were studied and it was found that it is a distinct species in the hreviceps spccies-group.

Opacifrons coxata (Stenhammar, 1854) - 1 ♂: Tenerife, Mte los Silos, 17.VI.76, M. BÁEZ; 1 ♀: Gomera, Las Mesetas, 13.1X.77, M. BÁEZ leg. New for Gomera. For previous records on the Canaries see Hackman iii FREY, 1958: 51.

Opacifrons humida (Haliday, 1836) - 1 ♂: Tenerife, Pedro Alvarez, 5.III.78. hl. BÁEZ; 1 o: Tenerife, Alur, 5.III.78, M. BÁEZ; 3 ♀: Gomera, Mora Gaspar, 12.1X.77, M. BÁEZ. New for Gomern, widespread also in the Canary Is.

Pteremis canaria (L. Pnpp, 1977) 1 ♂: Gran Canaria, Barranco de Firgas, leg. H. FRANZ, Sp. 1093; 1 ♂: Hierro, Mte Golfo, 29.V.76, M. BÁEZ; 1 ♀: Tenerife, Realejo Alto, 19.1X.1978, M. BÁEZ. Dcscrihed from Tenerife, new for Hierro and Gran Canaria. It is an easily recognizable species but its life-habits are wholly unknown.

Limosina baezi L. Pnpp, 1977 - 1 ♂: Hierro, El Pinar, 27.V.76, M. BÁEZ; 1 ♂: Gran Canaria, Las Lagunetas, 9.III.77, Al. BÁEZ. Described froni Tenerife, new for Hierro and Gran Canaria. Its life-hahits is still unknown; this will hinder the understanding of its distribution on thr separate islands and also its evolution, since it seems cndemic for the Canaries.

Limosina heteroneura Hnlidav, 1836 - 1 ♂, 2 ♀: Lanzarote, Tahayesco, 21.2.1979, hl. BÁEZ. New for Lanzarote but anyway it seems widespread also on the Canaries; it is an almost cosmopolitan species, hreeding mninly in dung heaps.

Limosina plumosula Roudani, 1880 - 1 ♂: Tenerife, Benijos, 29.X.1978, M. BÁEZ; 3 ♂: Gomern, Cuadernas, 16.VIII.77, M. BÁEZ leg.; 2 ♀: Gomera, Acerbiños, 5.VIII.77. M. BAEZ leg. A common Old World species, known also from the Canaries.

Paralimosina beckeri (Duda, 1918) - 1 ♂: Anagageb., Tenerife, leg. H. FRANZ, Sp. 1155; 1 ♀: Isla del Hierro, El Golfo, leg. H. FRANZ (on the other side of lahel: Sp. 1387); 1 ♀: Tenerife, Bco. del Agus, 16.4.1978, P. ORORJI. Endemic in the Canary Islands. Formerly (PAPP, 1977) it was regarded as a very rare species. Though it is surely not a common one but it was found in one or two speciniens in almost all collectings of Diptera in the Canaries. For detailed morphology of genitalia see PAPP and ROHÁČEK, 1981.

Paralimosinn ñnaptern L. Papp and Roháček, 1981, P. franzi L. Papp and Roháček, 1981, P. gomerensis L. Papp and Roháček, 1981, P. spinifemorata L. Papp and Roháček, 1981. - Five new species of flightless, brachypteroiis sphaerocerids were found in the present material (all of them are closely relnted to P. beckeri (DUDA)). One of the species was represented by a single female only, the other four were described recently in a separate paper. It seems worth mentioning also here that on the base of the type-localities and affinities in the male genitalia, we are convinced that there must he some more species to he described in the separate islands of the Cnnnrics (see also PAPP and ROHÁČEK, 1931).

CHLOROPIDAE*

Thaumatomyia notata (Meigen, 1830) - 1 ♀: Isla del Hierro, Las Playas, leg. FRANZ, Sp. 1361. A well-known Palaearctic species, foiind also on several points of the Canaries (Frey, 1958).

* Determined by Dr. Á. DELY-DHASKOVITS.

MUSCIDAE

Muscina stabulans (Fallén, 1817) - 1 8: Isla del Hierro, Las Playas, leg. FRANZ, 19.2.78. It is a cosmopolitan species owing to anthropophoresy (breeding in stables, in dung heaps, in compost, etc.). This specimen was carefully compared with some Hungarian specimens (not only esternal features but also male surstyli).

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