

LOS INSECTOS DE LAS ISLAS JUAN FERNANDEZ

33. E P H Y D R I D A E (Diptera)

(Supplementary Report)

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En este suplemento se determinan las especies de Ephydriidae colectadas por el Rev. P. Dr. G. Kuschel en las Islas Juan Fernández entre Dic. 1954 y Feb. 1955. De este material se describen cuatro nuevas especies: *Scatella apicalis*, *S. brunnea*, *S. fuscivenosa* y *S. skottsbergi*.

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Again it has been my privilege to examine a splendid collection of ephydrid flies made by the Reverend Guillermo Kuschel of the University of Chile during a third expedition to the Juan Fernández Islands. The Ephydriidae collected during the two previous expeditions were reported upon in Vol. 4, pp. 51-72, of this journal (1955). On his third expedition Father Kuschel spent three months in the islands, from December 1954 to February 1955, in company with Professor Carl J. Skottsberg of the University of Göteborg, Sweden whose earlier studies of Juan Fernández natural history proved a great stimulus to biogeographers and systematists the world over. On this trip most of Father Kuschel's time was devoted to the study of the soil fauna, using the sifter method, which was very successful in recovering the brachypterous *Scatella*. General collecting, however, also yielded four new species of the strange endemic group of long-winged *Scatella*.

For a detailed account of the Juan Fernández Ephydriidae, including keys for identification, the reader is referred to my previous paper (1955 loc. cit.) in this series. The present supplement will be confined to new locality records and additional biological notes from Father Kuschel, who collected all the material, and descriptions of the new species encountered. The types and some of the paratypes of the new species will be deposited in the collection of the University of Chile at Santiago, and a share of the paratypes are retained in the U. S. National Museum in Washington, D. C.

Hyadina certa Cresson

Masafuera, Quebrada de las Casas, 20 January 1955, - 3.

Dimecoenia caesia (van der Wulp)

Masatierra, Puerto Francés, 15 January 1955, - 16.

Santa Clara, Bahía de la Gallina, 30 December 1954, - 8.

Scatophila fernandeziana Wirth

Masafuera, La Correspondencia, 1150-1400 meters, 26-29, January 1955, - 3.

Masatierra, Bahía Cumberland, 23 December 1954, - 2.

Santa Clara, Bahía de la Gallina, 30 December 1954, - 122.

Not previously found on Masafuera or Masatierra.

Scatophila medifemur Wirth

Masatierra; Bahía Cumberland, 23 December 1954, - 1; Puerto Francés, 15 January 1955, - 2.

Scatella angustipennis Wirth

Masafuera, Inocentes Altos, 1200 meters, 20 February 1955, - 1 (soil sample 36).

"In a fern wood of *Dicksonia externa*, with a few *Drimys confertifolia* among them, under that some *Histiopteris incisa* and *Lophosoria quadri-pinnata*, many mosses and lichens, very damp. The ground was entirely hollowed out by the galleries of two different species of procellarians."

Scatella decemguttata Wirth

Masafuera, Quebrada de las Casas, 20 January 1955, - 2.

Masatierra: Bahía Cumberland, 23 December 1954, - 1; Corrales de Molina, 9 January 1955, - 1; Camote 9 January 1955, - 1; Juanango, 11 January 1955 - 1; Salto del Pangal, 14 January 1955, - 6.

Santa Clara, Bahía de la Gallina, 30 December 1954, - 20.

Scatella fernandezensis Wirth

Masatierra: Alto Inglés, 28 February 1955, - 3; Camote, 9 January 1955, - 1; Piedra Agujereada, 500 meters, 12 March 1955, - 1.

Scatella kuscheli Wirth

Masatierra; Bahía Cumberland, 23 December 1954, - 2; Puerto Francés, 15 January 1955, - 48.

Scatella minima Wirth

Masatierra: Alto Francés, 16 January 1955, - 4. Alto Inglés, 600 meters 28 February 1955, - 2 (soil sample 38); "very wet under *Drimys confertifolia*, many different shrubs and ferns". Alto Pangal, 650 meters, Corrales de Molina, Villagra side, 5 March 1955, - 2; (soil sample 42); "very wet under trees of *Drimys*, *Nothomyrcia* and *Juania*, with ferns under them". Bahía Cumberland, 200 meters, 23 December 1954, - 4 (soil sample 2); "rather dry soil under *Aristotelia chilensis* bushes, mixed with some trees of *Nothomyrcia fernandeziana*, *Fagara mayu*, *Drimys confertifolia* and ferns." Camote, 600 meters, 28 December 1954, - 10 (soil sample 6); "very moist soil in fallen leaves of *Blechnum cycadifolium*, *B. chilense*, *B. schotti*, *Pteris berteriana*, *Nothomyrcia fernandeziana*, *Rhetinodendron berterii*, *Robinsonia gayana*, *R. gracilis*, *Gunnera peltata*, *G. bracteata*, *Drimys confertifolia*, *Megalanchne fernandeziana*, *Dicksonia bertoana* and *Coprosma hookeri*." Yunque, 6 March 1955 - 1 (soil sample 46). Guindal de la Pólvora, 220 meters, near Miradero de Selkirk, 24 December 1954, - 2 (soil sample 3); "in very moist foliage piled up, 2 meters from water." Guindal de la Pólvora, northern slope, 300 meters, 24 December 1954, - 8 (soil sample 4); "moderately moist soil, mainly among ferns *Polystichum vestitum* and *P. berterianum*, in woods of *Nothomyrcia fernandeziana*, *Drimys confertifolia*, *Rhaphithamnus venustus* and *Coprosma pyriforme*." Juanango, 200 meters, 11 January 1955, - 1 (soil sample 16); "moderately moist soil with many ferns in a stand of woods of *Nothomyrcia fernandeziana*, *Boehmeria excelsa*, *Drimys confertifolia* and *Fagara mayu*."

Plazoleta del Yunque, 3 March 1955, - 1.

This species, described from only a single male collected in 1951 at Pie del Yunque on Masatierra, has the most reduced wings of all the Juan Fernández *Scatella*. By using the improved soil-sampling method Father Kuschel took several of this species at ten localities, as listed above. These collections indicate a definite correlation between the reduction of wings and the secretive habits of these flies, in moist or wet soil under leavers and ferns in the dense woods of *Nothomyrcia*, *Drimys*, *Fagara*, etc.

Scatella nanoptera Wirth

Masatierra, Alto Francés, 16 January 1955, - 1.

Scatella pilimana Wirth

Masafuera, Inocentes Bajos, 20 February 1955, - 4 (soil sample 37).

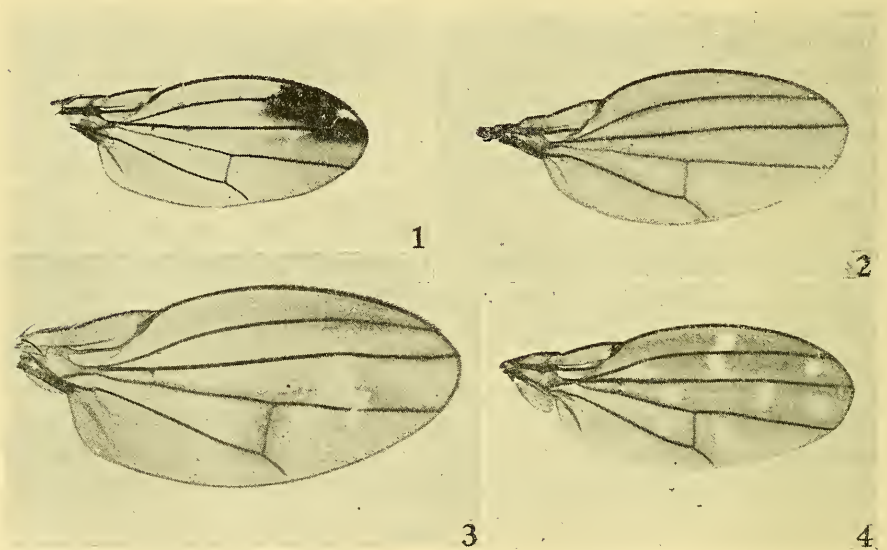
Scatella vittata Wirth

Masatierra: Camote, 28 December 1954, - 1; Pirámide, 800 meters, 5 January 1955, - 1.

Scatella apicalis Wirth, new species (Figure 1)

Male. Length about 2 mm., wing 2.2 mm. long.

Subshining brownish black; face whitish pollinose; medifrons dull; third antennal segment yellowish; halter yellowish white. Wing grayish



Figures 1-4, Photographs of wings of species of *Scatella*.

1. *apicalis*, 2. *brunnea*, 3. *fuscivenosa*, 4. *skottsbergi*.

hyaline, with pattern as figured, consisting of a dark apical cloud over apices of marginal, submarginal and first posterior cells, cloud entire except for a small irregular hyaline spot in the anterior half of the apex of submarginal cell; obscure paler spots in middle of submarginal cell and just distad in first posterior cell. Chaetotaxy normal, three pairs of strong facials, no postsutural acrostical setulae; lateral scutellars very strong, apical pair broken off. Fore legs unmodified. Fifth tergum as long as third and fourth combined.

Holotype male, Masatierra, Pirámide, 750 meters, 5 January 1955.

Resembling *fernandezensis* Wirth in facial characters and dull medifrons, but in that species the antennae are dark and the wing has only a faint pattern, with obscure pale spots. The wing pattern of *apicalis* is very similar to, but even more striking than that of *nubeculosa* Tonnoir and Malloch from New Zealand. In the presence of the apical dark cloud on the wing and the pale second antennal segment *apicalis* also resembles *marginalis* Wirth and *discalis* Wirth from Masatierra but these species have additional pale wing spots over the rest of the wing. This species will key out to *lutea* Wirth in my 1955 key to Juan Fernández *Scatella*, but *lutea* is a much larger, yellowish species and has additional pale wing spots distributed over the wing.

***Scatella brunnea* Wirth, new species (Figure 2)**

Female. Length about 2.4 mm., wing 2.5 mm. long.

Subshining grayish brown; face whitish pollinose, third antennal segment blackish; medifrons subshining; halter yellowish gray. Wing grayish hyaline, with only a faintest indication of two hyaline spots (figure 2), one at about midlength of first posterior cell and the second in discal cell proximad of posterior crossvein. Chaetotaxy normal, bristles of body well developed, long; three pairs of long facials; no postsutural acrostical setulae, the presutural setulae very short; lateral scutellars about 0.6 as long as apical pair.

Holotype female, Masatierra, Alto Pangal, 6 March 1955.

This species is closely related to *pallida* Wirth, but lacks the prominent wing spots of that species and the face and antennae are darker.

***Scatella fuscivenosa* Wirth, new species (Figure 3)**

Male, female. Length about 3 mm., wing 3.1 mm. long.

Subshining brown, third antennal segment yellowish; face thinly whitish pollinose, medifrons slightly shining; halter yellowish. Wing brownish infumated, with obscure pattern as figured; veins margined with dark brown, especially prominent along distal half of second vein and over posterior crossvein; a distinct transverse pale spot at distal third of first posterior cell, indistinct pale spots may be present (not visible in some specimens) at apices of submarginal and first posterior cells, at base of first posterior cell and just proximad and just distad of posterior crossvein. Bristles of body very long and well developed; three pairs of strong facials, a pair of strong bristle-like sutural or slightly postsutural acrostical setae, the presutural thoracic setae sparse but also bristle-like; lateral scutellars nearly as long as apical pair.

Holotype male, allotype female, Masatierra, Corrales de Molina, 120 meters, 9 January 1955. Paratype, 1 male, Mastierra, Juanango, 200 meters, 11 January 1955.

This species greatly resembles *lutea* Wirth, to which it keys in my 1955 paper, in

size and general features, especially the striking development of bristles of the body, but the color is a darker brown than in *lutca* and the wing cloud is confined to the margins of the veins.

Scatella skottsbergi Wirth, new species (Figure 4)

Male. Length about 2.1 mm., wing 2.5 mm. long.

Subshining brownish black; antennal foveae densely whitish pollinose; medifrons paler brown, subshining; third antennal segment blackish. Wing brownish with nine small pale spots as figured, no spot in third posterior cell, spot in marginal cell placed about half its length beyond spot in middle of submarginal cell. Chaetotaxy normal, three pairs of strong facials; lateral scutellars about a third as long as apical pair; no postsutural acrostical setulae. Fore tarsi normal, without long ventral cilia; fifth tergum as long as third and fourth combined.

Holotype male, Masafuera, Quebrada de las Casas, 20 January 1955. Paratypes: 1 male, Masafuera, La Correspondencia, 30 January 1955; 1 male, Masafuera, Inocentes Bajos, 20 February 1955.

This species keys out to *masatierrensis* Wirth in my 1955 key, but that species, which is known only from Masatierra, is larger, has postsutural acrostical setulae and has pale spot in the marginal cell located completely past the one in the submarginal cell. *Scatella pilimana* Wirth from Masafuera is also very closely related, but has the face all brown and the male fore tarsus bears long ventral cilia.

This species is dedicated to Professor Carl J. Skottsberg of the University of Göteborg, in honor of his great contributions to Juan Fernández natural history.