

LOS INSECTOS DE LAS ISLAS JUAN FERNANDEZ

26. BRACONIDAE (Hymenoptera)

G. E. J. NIXON

Commonwealth Institute of Entomology
London

Seis especies de Braconidae se han recolectado en Juan Fernández, cuatro nuevas para las ciencias y dos conocidas. Pertenecen a los géneros *Opius*, *Apanteles*, *Aphidius* y *Aphaereta*. Las especies de *Opius* son extraordinariamente abundantes en las comunidades de los helechos, sobre todo de *Histiopteris incisa*.

* * *

The following short paper is a response to a request by Dr. Kuschel that I should study a small collection of Braconidae collected by him on the islands of Juan Fernández. Four species are described as new and two others are given provisional identifications.

***Opius kuscheli* sp. n.**

♂ ♀. Virtually entirely black except that the abdomen is sometimes pitchy and the mesoscutum posteriorly and the scutellum occasionally show a reddish suffusion. Legs, including the hind coxae entirely yellow except for the usually slight tarsal infuscation and a faint darkening towards the apex of the hind tibiae. Clypeus yellowish.

♀. Head transverse, of simple form. Clypeus completely closing the mouth. Face smooth, shining, with sparse, rather long, decumbent hairs. Ocelli in a small equilateral triangle. Antenna with 22—25 segments.

Mesoscutum with a few long hairs restricted to the imaginary course of the notaulices; these indicated anteriorly as short, costate furrows; posteriorly the mesoscutum shows a small pit. Propodeum densely punctate-reticulate with a faint overlay of surface sculpture; anteriorly the raised rugosities tend to arrange themselves longitudinally. Mesopleura with a short, rugose furrow; median part of mesopleura sometimes with a fine overlay of reticulate surface sculpture. Fore wing: (fig. 2).

Tergite 1 narrow, petioliform, about $2\frac{1}{4}$ times as long as apically wide, its sculpture consisting of close, parallel, rounded ridges with an excessively faint overlay of surface sculpture; rest of abdomen smooth, the segments with a sparse fringe of hairs. Ovipositor distingly projecting beyond the apex of the abdomen.

♂. Antenna with 25—26 segments. The surface sculpture sometimes occurring on mesopleura of females tends to be better and more frequently developed in the male.

Length: ♂ ♀, 1,6—1,8 mm.

MASAFUERA, La Correspondencia, 1.300 m., 20.I.1952; Q. de las Casas, 13.I.1952, 19.VII.1952; Inocentes Altos, 1.300 m., 22.I.1952; Q. de las Vacas, 17.I.1952, Q. de la Calavera, 15.I.1952, (G. Kuschel).

MASATIERRA, B. Cumberland, 1.I.1952; El Rabanal, 27.II.1951 (G. Kuschel). (47 specimens).

Type: ♀, La Correspondencia, 20.I.1952.

Type in the University of Santiago, Chile.

The most significant characteristic of this species seems to lie in the curious and distinctive appearance of the sculpture of the petiole.

Opius scabriventris sp. n.

♂ ♀. Black with tergite (2+3) sometime suffused with brownish red. Legs somewhat dingy yellow; hind coxae pale; all the tarsi faintly infuscated.

♀. Head smooth and shining, of simple form. Ocelli in a triangle with base very distinctly longer than sides. Clypeus not closing the mouth. Face smooth and shining, very sparsely hairy and without trace of a median keel. Antenna with 22—24 segments.

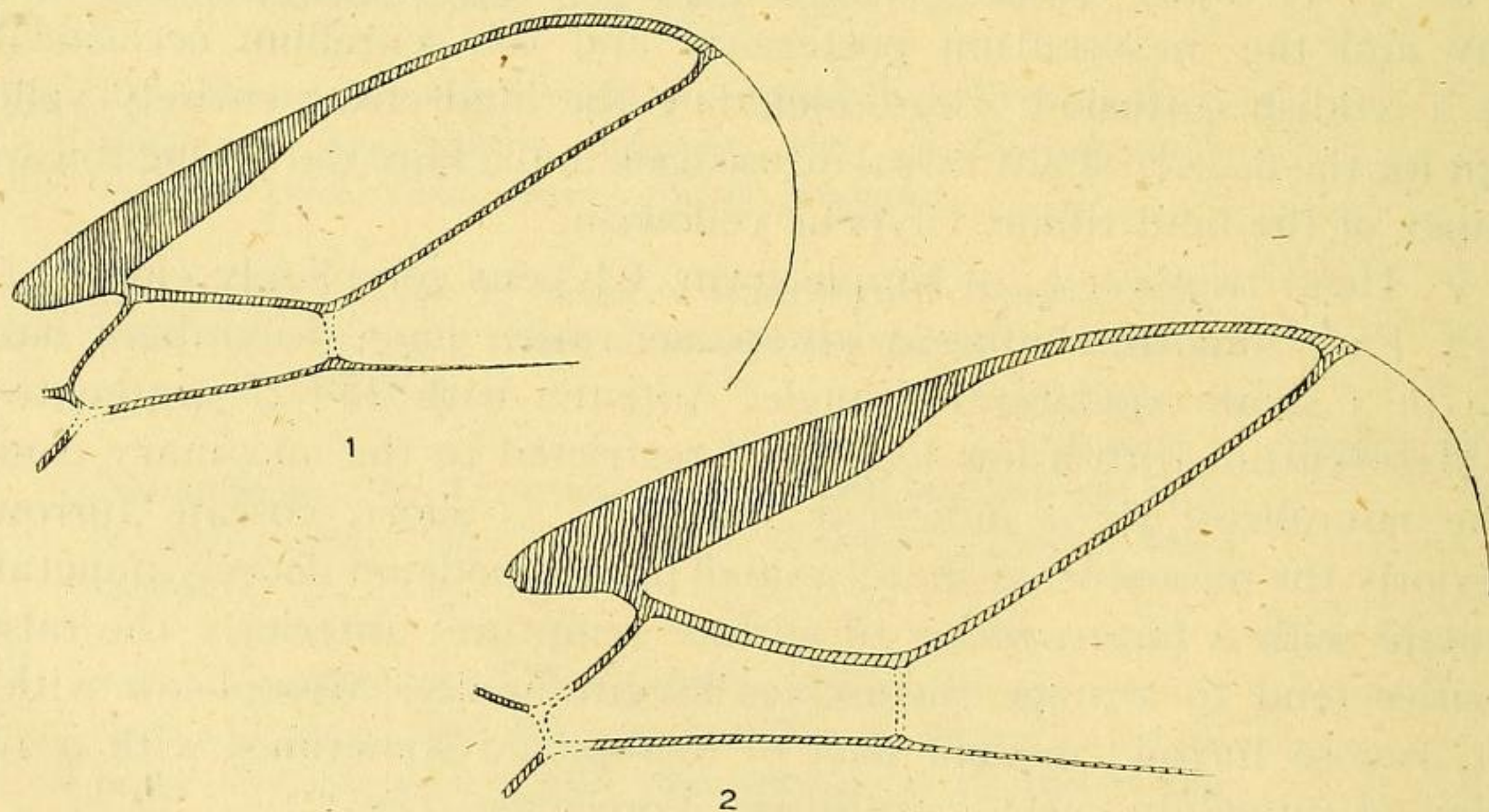


Fig. 1. Forewing of *Opius scabriventris* sp. n.

Fig. 2. Forewing of *Opius kuscheli* sp. n.

Mesoscutum highly polished, almost hairless and with no trace of a posterior fovea; notaulices hardly indicated, even anteriorly. Propodeum evenly convex, smooth, shining and with only the merest trace of sculpture

around the spiracle. Mesopleura highly polished and with a short, rugose furrow. Hind tarsus a little shorter than its tibia, 8: 9. Fore wing (fig. 1).

Tergite 1 triangularly dilated, $1\frac{1}{2}$ times longer than apically wide, rugose reticulate; rather strongly raised in apical half; tergite (2+3) with a well defined second suture in the form of a furrow which is margined in front; the whole of this tergite, and to a much less extent tergite 4, is covered with a vague, rough scaly-reticulation; at the base of tergite (2+3), arising from the mid-point of tergite, there is a short, oblique impression on each side. Ovipositor projecting slightly beyond the apex of the abdomen.

♂. Antenna with 23 segments (only 1 specimen available). Otherwise like the female.

Length: ♂ ♀, 1,4—1,5 mm.

MASATIERRA, B. Cumberland, 31.XII.1951, 1.I.1952; Q. La Laura, 1.III.1951; Miradero, 30.XII.1951 (G. Kuschel).

Type: ♀, B. Cumberland, 31.XII.1952.

Type in the University of Santiago, Chile.

This species seems to be distinctive on the structure and sculpture of tergite (2+3).

Apanteles morroensis sp. n.

♀. Black. Stigma pale brownish yellow with a darker border. Front femora black but becoming brownish yellow apically; hind femora entirely black; hind tibiae brownish yellow but becoming faintly darker apically.

Head from in front almost circular. Mouth parts not in the least elongated. Face shiny with only the faintest trace of roughness. Antenna shorter than the body, thin, with the two preapical segments about $1\frac{1}{3}$ times longer than wide. Frons and vertex almost smooth but faintly dull. Posterior ocelli separated from the eye margin by a distance equal to the longer diameter of one of them.

Mesoscutum with a dull shimmer and with a dense but faint superficial punctation along the notaulic courses; this punctation expands posteriorly into two large full areas in which the punctures are larger and more clearly defined. Scutellum with a dull shimmer similar to that of mesoscutum; towards sides with ill defined punctation. Suture between scutellum and mesoscutum narrow, groove-like and minutely foveate. Propodeum for the most part smooth and shining; without costulae or areola. Hind spurs subequal. Wings: (figs. 3 - 4); metacarp hardly longer than the distance between its tip and the apex of the radial cell.

Tergite 1 turned over in about apical third; its horizontal surface strongly narrowed to apex, strongly shining and with a faint trace of punctation. Enclosed area of tergite (2+3) in the form of a low triangle

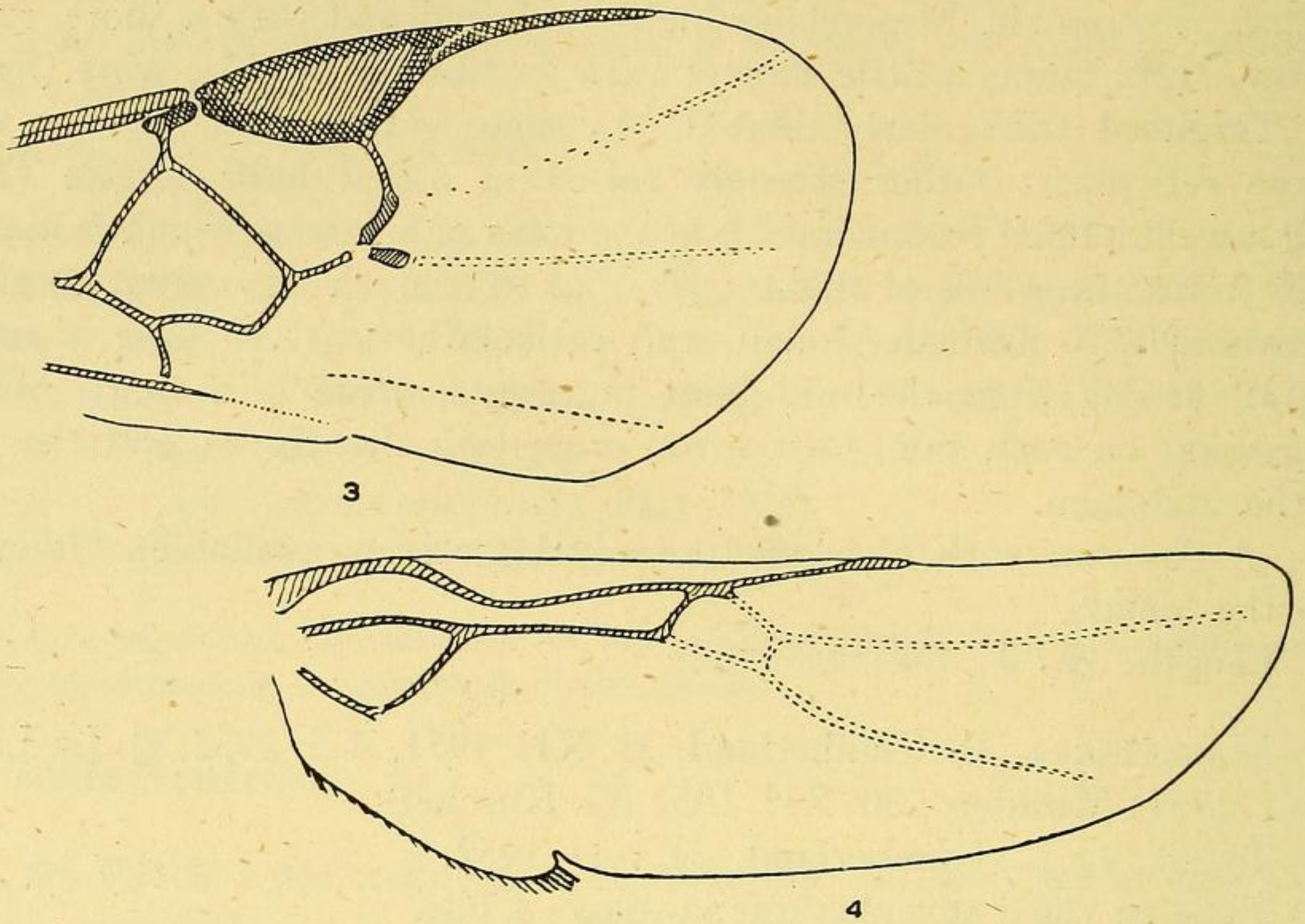


Fig. 3, 4. Wings of *Apanteles morroensis* sp. n.

with base more than twice as long as sides; smooth and shining (fig. 5). Hypopygium sharply pointed and with a small apical area, roughly triangular as seen from the side and delimited from the rest of the sternite by being much less heavily sclerotised. Ovipositor sheaths as long as the two basal segments of the hind tarsus.

♂. Almost certainly correctly associated with the single female. Like the female but the antenna longer than the body, very thin. As in

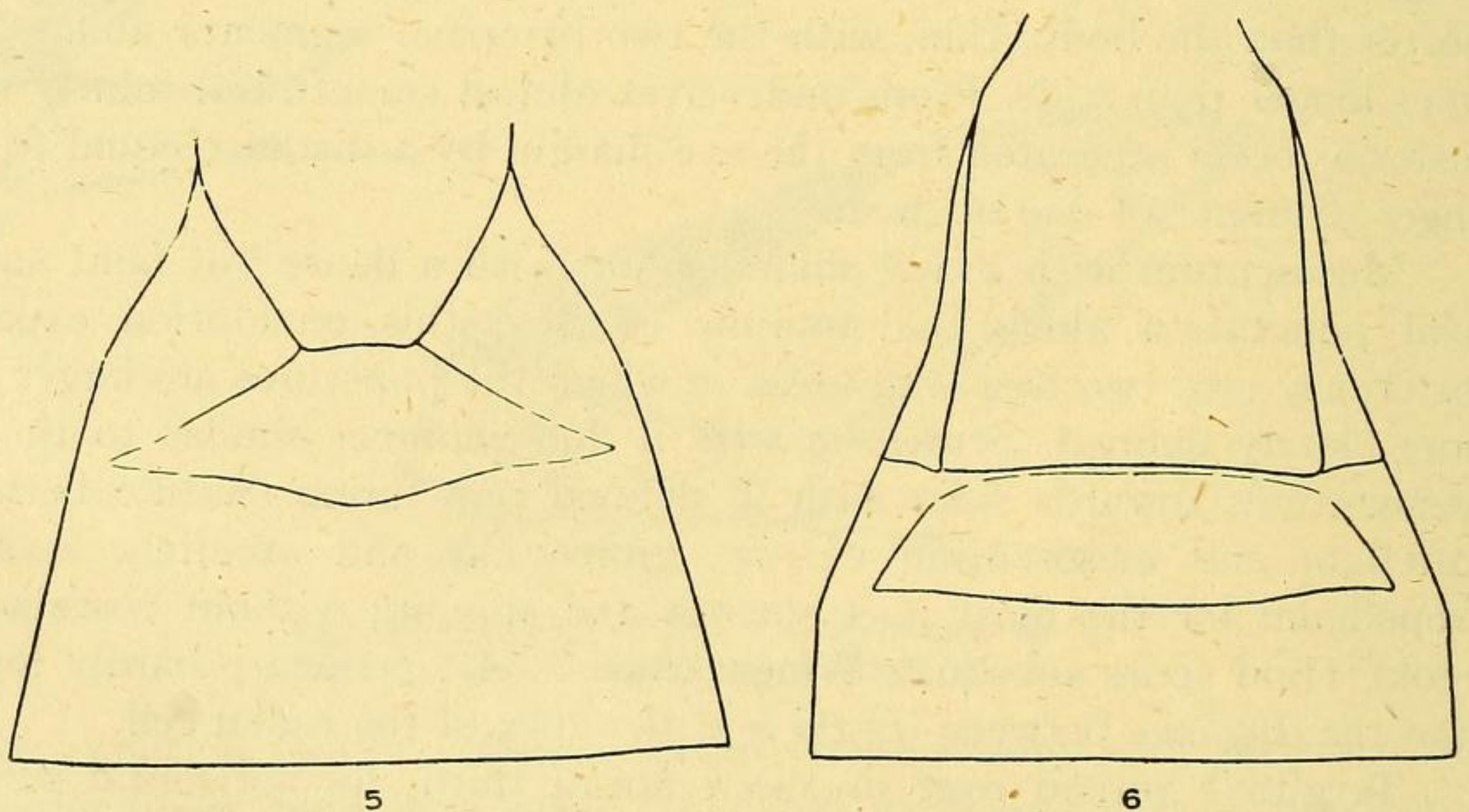


Fig. 5. Tergites 1 and (2+3) of *Apanteles morroensis* sp. n.
 Fig. 6. Tergites 1 and (2+3) of *Apanteles evadne* sp. n.

the female, the pale hind tibiae contrast rather sharply with the blackened hind femora.

Length: ♂ ♀, ca. 3 mm. without ovipositor of female.

SANTA CLARA, El Morro, 6.I.1952, 1 ♀, the type, 7 ♂♂ (G. Kuschel).

Type in the University of Santiago, Chile.

This species seems to be closely related to the European *metacarpalis* Thomson. But Thomson's species has the sculpture of the mesoscutum finer and quite even, the base of the triangular area of tergite (2+3) shorter in proportion to the length of its sides and the ovipositor sheaths slightly shorter.

In Muesebeck's key to the North American species of *Apanteles*, *morroensis* runs to *scutellaris* Muesebeck, a paratype of which has been available for examination in the British Museum. Muesebeck's species has the propodeum considerably roughened; tergite 1 is less narrowed to apex and the enclosed area of tergite (2+3) is more transverse and much less obviously triangular. Although this species has a short metacarp like *morroensis*, I do not think the two species are very closely related.

Apanteles evadne sp. n.

♀. Black but not intensely so. Tegulae pale (Cerro Alto) to dark (Inocentes Altos). Wings faintly yellowish; stigma pale fuscous with a faint, paler cloud at base. Legs variable in colour but the hind coxae entirely black; hind femora varying from entirely black (Inocentes Altos) to blackish with reddish suffusions along each side (Cerro Alto).

Head of simple form; transverse seen from in front and without any approach to a triangular shape as thus seen. Mouth parts not in the least elongated. Preapical segment of the antenna varying from as long as wide to $1\frac{1}{3}$ times longer than wide. Posterior ocelli separated from the eye-margin by twice the diameter of one of them.

Mesoscutum strongly shining, rather sparsely and superficially punctate, the punctures tending to fade out posteriorly. Scutellum polished and virtually impunctate. Propodeum without a trace of costulae and with a vague U-shaped depression medially within which the surface is rather densely rugose; outside, the surface shows vague rugulosity more especially towards the postero-lateral corners but elsewhere it becomes smoother, more shiny and shows traces of punctation. Wings: metacarp much longer than the stigma; a well defined angle between the 1st abscissa of the radius and the transverse cubitus; cubitellan cell of the hind wing very distinctly longer than wide, the veins delimiting it brownish. Hind spurs subequal.

Horizontal part of tergite 1 slightly longer than wide at apex, parallel-sided or imperceptibly widened towards apex, dull, finely and densely rugose; towards sides and apex the sculpture consists of fine broken aci-

culation while the surface towards the posterior hump becomes more or less shagreened. Tergite (2+3) with the enclosed area dull and finely rugose (fig. 6). Ovipositor sheaths narrow, slightly downcurved towards apex abd about as long as the hind tibia plus half the length of the basal segment of the hind tarsus.

♂. The single male that I confidently associate with the two females has the hind tibiae entirely black except for a paler basal ring, as in the female from Inocentes Altos, and the hind femora black with a touch of testaceous at apex.

The flagellum is very slender but the apical segments are broken off. Tergite 1 narrower than in the female, the apical horizontal part being $1\frac{1}{2}$ times as long as apically wide; the enclosed area of tergite (2+3) shows much the same proportions as the female.

Length: ♂ ♀, 3 mm., without ovipositor of female.

MASATIERRA, Cerro Alto, 600 m., 1.II.1952, 1 ♀ (the type); Miradero, 31.XII.1951, 1 ♂.

MASAFUERA, Inocentes Altos, 1.300 m., 22.I.1952, 1 ♀ (G. Kuschel). Type in the University of Santiago, Chile.

I have examined a female that I doubtfully refer to this species (Masatierra, Villa-gra, 21.II.1951). It differs from the typical species as follows: Hind femora entirely reddish yellow with at most a faint darkening along the upper surface. Stigma evenly yellowish fuscous without a paler basal cloud. Apical antennal segments shorter, the two preapical segments slightly transverse. Tergite 1 slightly more rugose and without the shagreened sculpture midbasally that is characteristic of the two typical females.

Apanteles evadne falls within the late D. S. Wilkinson's group U. Comparing it with what American material is in the British Museum I find it to be related fairly closely to *clavatus* Prov. (det. Muesebeck) and *bushnelli* Muesebeck (det. Muesebeck). Both these species have the spurious veins of the hind wing quite colourless and the cubitellan cell not longer than wide; in both these species, too, the 1st abscissa of the radius and the transverse cubitus do not meet at a distinct angle. Both the North American species have more affinity with the European *laevigatus* Ratz., than either has with *evadne*.

Aphidius sp. (? *matricariae* Haliday).

MASATIERRA, B. Cumberland, 31.XII.1951, 2 ♂ ♂; Miradero, 30.XII.1951, 1 ♂ (G. Kuschel).

It is well known that the males of *Aphidius* are extremely difficult to separate. Nevertheless, in the colour, sculpture and shape of petiole, the venation and the number of antennal segments, I can find no difference between these specimens and European males of *matricariae* Hal.

Aphaereta minuta (Ns.)

MASATIERRA, Plazoleta del Yunque, 20.II.1951, 1 ♀; B. Cumberland, 1.I.1952, 1 ♀ (G. Kuschel).

References

- NIXON, G. E. J., 1939, *Notes on Alysiinae with descriptions of three new species*, Proc. R. ent. Soc. Lond. (B) 8: 61.
- MUESEBECK, C. F. W., 1920, *A Revision of the North American species of Ichneumon-flies belonging to the genus Apanteles*, Proc. U. S. N. Mus., 58: N.º 2349, 483-576.
- SPINOLA in Gay, 1851, Hist. de Chile, 6: 526.
- WILKINSON, D. S., 1932, *A Revision of the Ethiopian Species of the Genus Apanteles*, Trans. Ent. Soc. Lond. 80: 301.