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A New Species of *Falsorhipidius* Pic, with Notes on the Genus (Col., Rhipiphoridae).

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During the Danish investigations made by the Noona Dan Expedition in the Bismarck Archipelago (Petersen 1966) a specimen was collected of the peculiar Rhipidiinae, a specialized subfamily of the Rhipiphoridae (Besuchet 1956:140). The specimen belongs to *Falsorhipidius* Pic, the most advanced genus of the group, with only one known species, viz. *arcuaticornis* Pic from Vietnam. An examination of one of the two syntypes of *F. arcuaticornis*, kindly lent me by Dr. Claude Besuchet, Lausanne, and the present specimen is the occasion of the following notes on the genus and the description of a new species, below.

I acknowledge with gratitude Dr. Besuchet for giving me the opportunity of studying material of *F. arcuaticornis*.

Comments on the genus *Falsorhipidius* Pic.

The description of the genus by Pic (1947:2) was greatly amended by Besuchet (1957:344) after a re-examination of the material of *F. arcuaticornis*. A few corrections and additions may still be appropriate, however, based on a better preserved material.

The scapes are virtually free from each other, not firmly united by their dorsal surfaces as said by Besuchet (1957: 344, 345). He uses the French wording "soudés ensemble", meaning soldered or welded, about the conditions of the scapes. However, they could be separated from one another in the borrowed syntype of *F. arcuaticornis* after soaking of the specimen; they were just kept together by some shrivelled dirt.

The rudiment of the maxillary palps is provided with two openings, one posteriorly on either side of the spherical structure (figs.

3, 5). The holes are probably closed by delicate membranes but these could not be recognized. They remind of the oval areas found in the second article of the maxillary palps in *Rhipidius quadriceps* Ab. (Besuchet 1956: 120, fig. 66).

The thorax as seen from above is described and figured by Besuchet whereas he left the lateral parts of thorax un-commented, probably because of the insufficient material at hand. The general appearance in *F. lemjaminensis* n. sp. can be seen from fig. 2, which roughly corresponds to the conditions in *arcuaticornis*, too. The anatomy is mainly as found in *Rhipidius* (Besuchet 1956). A triangular pro-episternum is clearly visible. Mesosternum is large and well defined whereas mesepisternum is a narrow, weakly sclerotized sclerite and mesepimeron is not clearly defined. The oval sclerite further backwards is in my opinion a secondary plate set off from the large metepisternum, separated from it by a fold. It is no doubt the same plate as the one called (v) by Besuchet (1956:122, figs. 74, 75) in *Rhipidius*. Apparently Besuchet finds that (v) belongs to mesothorax, however.

The wings of *Falsorhipidius* were not described in detail by Besuchet and only very roughly figured. A better and more correct impression of the wings may be obtained from fig. 2. The venation shows traces of both Sc and S and the better defined R-complex and M. The courses of the veins are mainly indicated by folds and pigmentation.

The abdomen is in general as shown in figs. 1 and 2 in both *arcuaticornis* and the new species described below. The large, concave first abdominal tergite is remarkable.

The terminalia can not be described in detail from the insufficient material at hand because of the delicate structure of the sclerites, but in general they seem to follow the same scheme as in *Rhipidius*. Aedeagus of both known species are shown in figs. 7 and 8; fig. 9 shows penis with its oval apical orifice.

***Falsorhipidius lemjaminensis* n. sp.**

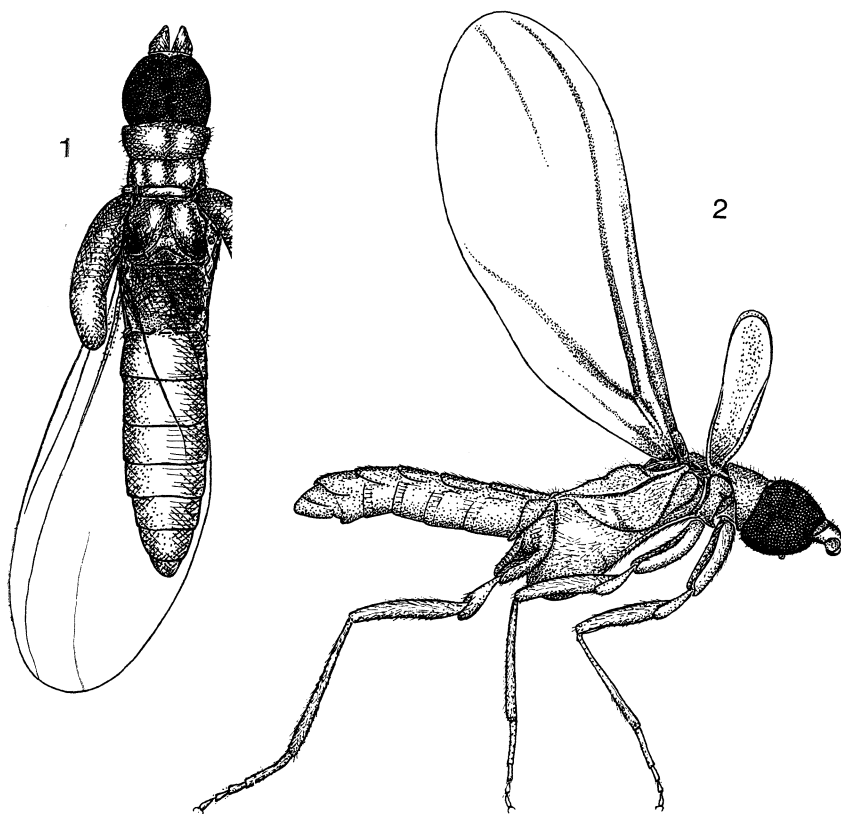
Type material:

Bismarck Islands. — NEW IRELAND: Lemkamin, Lelet Plateau, 900 m a.s.l., 1 ♂, holotype, 21 April 1962, caught in a Mercury light trap (Noona Dan Exped.); type in the Zoological Museum, Copenhagen, Denmark.

Description:

Size. Length of head and body 3 mm, of elytra 1 mm, and of wings 2.6 mm, approximately.

Colour in general dull brownish; meso- and metathorax palest. not much deviating from other parts of body but in con-



Figs. 1—2. *Falsorhipidius lemka-minensis* n. sp. ♂, holotype, in dorsal (1) and lateral (2) view. Nat. size of body, 3 mm. Outer antennal articles missing. Hairs only approximate and omitted in the wings in order to show the venation.

trast to the head covered by the large black eyes. Wings are also dark, smoky, due to a vestiture of blackish microthricia.

Sculpture not pronounced in any part of the specimen; in dried condition, however, in some areas, the cuticula looks as

irregularly reticulated, a shrinking phenomenon due to weak sclerotization.

Hairs are not conspicuous, although in some places rather long as indicated in fig. 2. They are mainly well spaced, shining, whitish grey.

Structure. The head is slightly broader than long (incl. antennal socket) and high (figs. 3—4). Antennal socket broadest anteriorly and half as broad as head. Its frontal edge curved seen from above and the tapered lateral parts ending well below the antennae. Second antennal segment, small, obliquely ring-shaped, its length shorter than widest diameter. Further parts of antennae lacking in the specimen apart from the scapes, which are broad at the distal curvature (fig. 3).

Thorax and abdomen are generally as in the other species of the genus and it seems unnecessary to present a lengthy description. The approximate dimensions can be measured from figs. 1 and 2 showing the specimen in moist condition, probably as in life; in dry condition shrinking disfigures the body extensively. The relative lengths in mid-line of pronotum, meso- and metathorax, first abdominal tergite, and the remainder of abdomen are approximately 5:5:9:9:32. First abdominal tergite nearly quadratic. Wings are about 2.6 times longer than broad: their weak venation is shown in fig. 2. Legs are long and slender; comparison of their different components can be made from fig. 2.

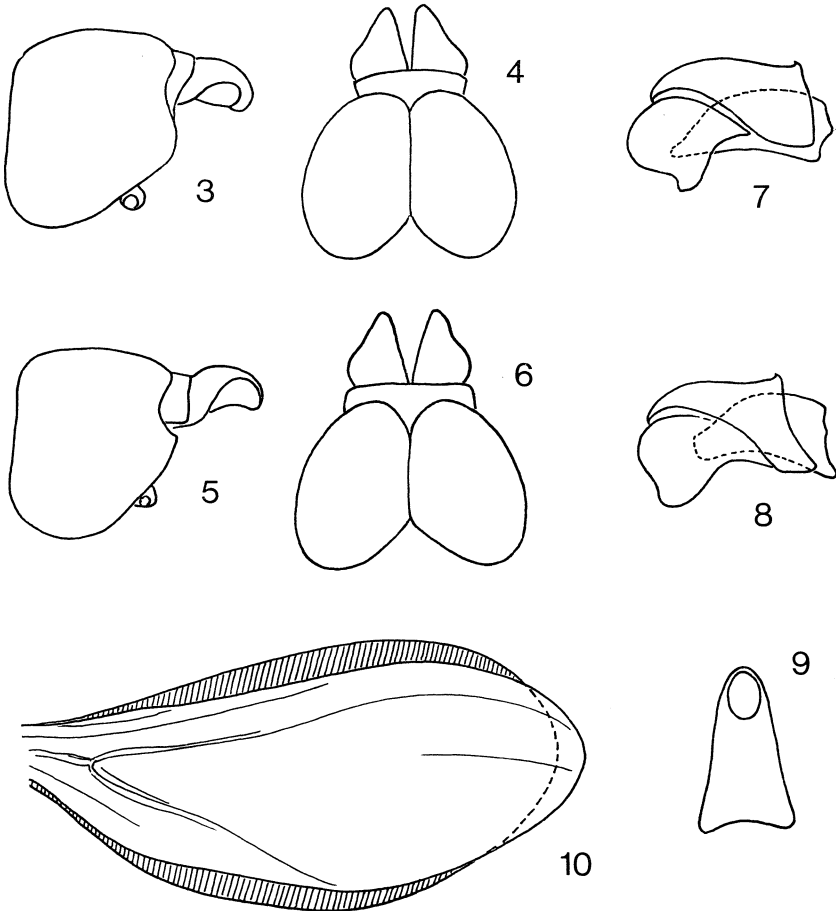
Aedeagus is shown in fig. 7. In lateral view, penis is bluntly pointed distally; in dorsal view it is as in fig. 9, with a large oval apical orifice lying dorsally before apex. Basal piece of tegmen with rather broad lateral flanges; parameres well marked off from basal piece, their lower distal corner triangularly pointed.

Female unknown.

Relationship:

Direct comparison of specimens shows evidently that *lemkaminiensis* n. sp. is very similar to the only other species of the genus, *arcuaticornis* Pic. *F. lemkaminiensis* is a slightly more slender insect than *arcuaticornis*, with narrower wings and thinner legs. Wings are compared in fig. 10; *arcuaticornis* has a larger anal area but especially the broader area before radius constitutes the difference. The differences in the thickness of legs in the two species may be illustrated by the ratio between the largest width

and the length of the femora (measured ventrally from trochanter to apex); they are in femur I, II and III respectively 1:4.1, 1:5.0 and 1:5.9 in *lemkaminensis* but 1:3.1, 1:3.7 and 1:4.3 in *arcuati-*



Figs. 3—6. Lateral and dorsal view of head of (3—4) *Falsorhipidius lemkaminensis* n. sp. and (5—6) *F. arcuaticornis* Pic. Figs. 7—8. Aedeagus of (7) *F. lemkaminensis* n. sp. and (8) *F. arcuaticornis* Pic. Fig. 9. Penis seen from above of *F. lemkaminensis* n. sp. Fig. 10. Comparison of the outline of the wings of *F. arcuaticornis* Pic and *F. lemkaminensis* n. sp. (the narrow wing).

cornis. The actual lengths are almost the same in the two specimens examined. Differences in shape of the head are rather intangible, but may be seen from figs. 3—6; important is the

difference in the shape of the antennal sockets, especially in lateral view: in *lemkaminensis* (fig. 4) the lateral parts are long and tapering in contrary to short and evenly broad parts in *arcuaticornis* (fig. 6). In aedeagus the best differences lay in the shape of penis and in the form of the lower posterior lobe of the parameres. The apex of penis is bluntly pointed in *lemkaminensis* but broadly truncate in *arcuaticornis*, and lower lobe of parameres is triangularly pointed in *lemkaminensis* in contrary to evenly curved lobes in *arcuaticornis*.

Summary.

A specimen from New Ireland is considered to belong to a new species of *Falsorhipidius* (Rhipidiinae), being the second species of this highly specialized genus formerly only known from Tonkin. An examination of a syntype of the type species *F. arcuaticornis* Pic is the occasion of some comments on the genus.

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