

New Neotropical Bibionidae in the Naturhistorisches Museum, Vienna

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(With 4 figures)

Eingegangen 29. Juni 1956

While studying the Bibionidae in the Naturhistorisches Museum, the following species were found. I am indebted to the Museum for his generous cooperation in lending specimens for study.

Plecia impensa nov. spec. (Figs. 1—2)

A large black species which runs to couplet 15 in my key to New World species (Hardy, 1945, Univ. Kans. Sci. Bul., v. 30 (2), p. 392). It is not close to either of the species in this couplet and is more nearly related to *P. nigra* Philippi, from Chili. It differs from *nigra* by having the mesonotum gray pollinose; by being two times larger; by the absence of a median projection on hind margin of ninth sternum; and by the very different development of the ninth sternum and claspers (cf. fig. 1 below with fig. 154 C, op. cit., p. 533).

Male. Mouthparts folded beneath the face and inconspicuous. Antennae black, tip segments broken off on the specimen at hand. Ocellar tubercle prominent. Thorax entirely black, mesonotum gray pollinose, coarsely rugose on the sides. Halteres entirely brown to black. Wings dark brown fumose along costal margin and at base, otherwise faintly fumose; the stigma is concolorous with the surrounding membrane. Vein R_{2+3} is strongly arched and enters the costa at about a 45° angle to R_{4+5} . Abdomen shining black on the venter and dull black above.

Genitalia: Ninth tergum narrow, the hind margin almost straight and the front margin rather deeply concave (fig. 2). The ninth sternum is folded dorsally at the sides around the genital chamber. The posterior lateral margins are produced into a rounded lobe on each side, these are vertical in position as seen from direct ventral view, the hind margin is also produced into a short rounded lobe just outside each clasper and a rather broad lobe extending between the claspers, this is very slightly cleft in the middle at apex; the median and posterior lateral lobes of the sternum are densely covered with long brown hair. The claspers are slender, curved outward, and subacutely pointed at apices (fig. 1).

Length: body, 9.5 mm; wings, 11.5 mm.

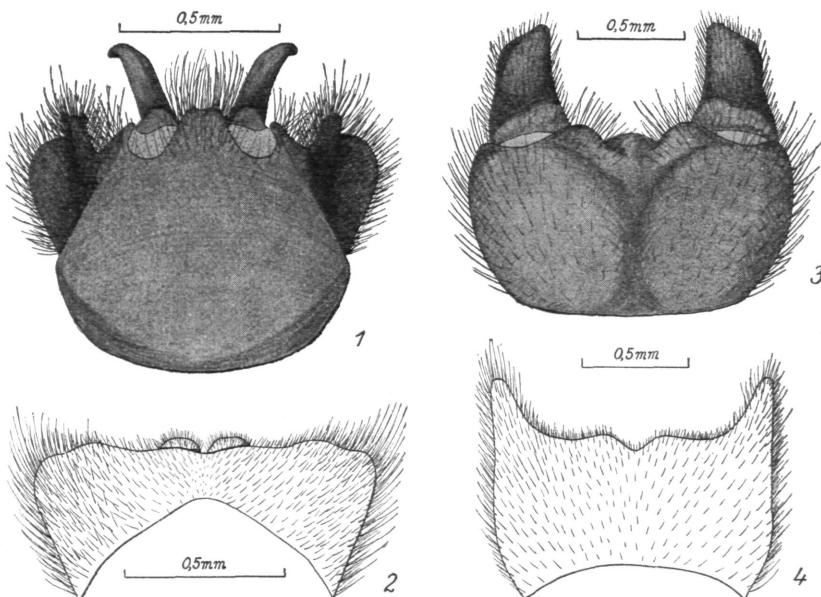
Female unknown.

Holotype male, Bilimek, Mexico, 1883.

Type returned to the Naturhistorisches Museum, Vienna.

Plecia platystylus nov. spec. (Figs. 3—4)

This species fits near *P. grisea* Edwards, in couplet 15 of my key to the New World *Plecia* (loc. cit.). It is distinguished from this species by having the posterior lateral margins of the ninth tergum produced into sharp pointed lobes and the posterior median margin with a small „v“ shaped cleft, rather than the posterior lateral margins being broad and rounded and the median



Figs. 1—2. *Plecia impensa* nov. spec.

Fig. 1. Male genitalia ventral view. — Fig. 2. Genitalia dorsal view.

Figs. 3—4. *Plecia platystylus* nov. spec.

Fig. 3. Male genitalia ventral. — Fig. 4. Genitalia dorsal.

portion lacking such a cleft (cf. fig. 4 below and fig. 144 B, op. cit., p. 529). The male claspers are also shorter, more broad and not so sharply pointed in *platystylus* as in *grisea*.

Male. An entirely dark opaque brown to black species, dull gray pollinose on the thorax. The mouthparts are normal in development and folded beneath the face when not in use. The antennae are made up of only seven clearly visible segments, these are closely joined. Stems of halteres reddish brown, knobs dark brown. Legs normal, hind basitarsus slender, not at all thickened, two and one-half times longer than the second segment and about one-third as

long as tibia. Wings lightly brownish fumose, the stigma scarcely darker than the other wing membrane. Vein R_{2+3} just slightly curved almost vertical in position.

Genitalia: Ninth sternum about one-half wider than long, the posterior lateral margins not produced and median margin with a slight, hairy, lobe just inside each clasper and with a small rounded median lobe. Claspers broad, about one-half longer than wide and each terminating in an obtuse point at inner apex (fig. 3). Ninth tergum nearly one-half wider than long. Otherwise as described above and as shown in fig. 4.

Length: body, 4.5 mm; wings, 4.7 mm.

Female. Like the male except for sexual characters, also the antennae are nine segmented, the front has a distinct ridge extending to the ocellar triangle, the eye is two-thirds longer than that portion of head behind eyes, and vein R_{2+3} is more curved and enters the costa at about a 65° angle with vein R_{4+5} .

Length: body, 5.0 mm; wings, 6.0 mm.

Holotype male and allotype female, on one pin, labeled Venezuela 1857.

Both returned to the Naturhistorisches Museum, Vienna.

Buchbesprechung

Döring, Ewald: Zur Morphologie der Schmetterlingseier. 154 Seiten, 61 Tafeln mit 2645 Abb. Akademie-Verlag, Berlin. 1955. Geb. DM 33,—.

Das vorliegende Werk ist das Ergebnis einer mehrere Jahrzehnte währenden Untersuchungstätigkeit über Gestalt, Struktur und Zeichnung der Eier von Schmetterlingen. Der Verfasser hat damit einen sehr wertvollen Überblick geschaffen, den die Lepidopterologie bis heute entbehren mußte und der es dem Interessenten gestattet, eine Bestimmung der Eier von Schmetterlingen — zumindest der Mehrzahl der bekannteren Arten — durchführen zu können.

Einleitend werden die Methoden der Eiablage angeführt und es wird darauf verwiesen, daß schon die Art und Weise, wie ein Falterweibchen seine Eier an die Futterpflanze der Raupe ablegt, gewisse Schlüsse bei der Determination zulassen. Die folgenden Kapitel bringen die Entstehung der Strukturen, Begriffsbestimmungen, Färbung bzw. Verfärbung sowie eine beschreibende Übersicht der Eiformen und Strukturelemente. Besonders hervorzuheben für den Systematiker ist der Hinweis des Verfassers in seinen Bemerkungen zur Systematik unter Berücksichtigung der äußeren Eigestaltung, daß die heute gebräuchlichen Systeme die Verwandtschaft der Falter, die sich aus der Ähnlichkeit der Estrukturen ergibt, nicht berücksichtigen und er daher empfiehlt, diese in Zukunft doch zu beachten. Den wesentlichen Textteil des Buches nimmt eine Bestimmungstabelle der Schmetterlingseier nach Arten ein, die gleichzeitig auch die Beschreibung der Eier von 622 Arten enthält (88 Tagfalter, 31 Zygänen und Bärenspinner, 68 Spinner und andere, 12 Schwärmer, 313 Eulen und 110 Spanner). Die vielen Abbildungen erleichtern in wertvoller Weise die Determinationsarbeit nach der Bestimmungstabelle. Sie zeigen jeweils das Ei in Draufsicht und im Profil, die Mykopylenzone und ein Stückchen der Eihaut mit ihrer Feinstruktur. Ein Register der beschriebenen Eier in systematischer Reihenfolge unter Berücksichtigung der Nomenklatur nach neuen Forschungen bildet eine sehr begrüßenswerte Vervollständigung des Werkes.

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Zeitschrift/Journal: [Annalen des Naturhistorischen Museums in Wien](#)

Jahr/Year: 1957

Band/Volume: [61](#)

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