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*Research Article*

# Data on the Dusty Lacewing Fauna of Northwestern Argentina with Description of a New Species (Neuroptera: Coniopterygidae)

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Coniopterygidae material collected in two northwestern provinces of Argentina contained six described and one hitherto undescribed species. A list of the determined coniopterygids and the description of a new *Incasemidalis* species is given. Distinctive features of the species belonging to subgenus *Stangesemidalis* also are discussed.

## 1. Introduction

The number of coniopterygid species hitherto known from Argentina is only 20, which, considering the size of the country and the great variety of habitats and climatic zones, is rather low. Moreover, 8 of them were described recently [1]. On the other hand, almost all of the Coniopterygidae species reported from Argentina (including the recently described one) are present in the northwestern part of the country. On a recent collecting trip to this region, nearly 60 dusty lacewing specimens (mostly males) were collected by M. E. Irwin in two northwestern provinces of Argentina with Malaise traps. The captured coniopterygids belong to six described and to a previously undescribed species. As the country and collector were the same in all cases, these names are not given with the collecting data repeatedly, with the exception of type material of the new species. On the other hand, the main distinguishing features of the three species of *Parasemidalis (Stangesemidalis)* are given, as their recently resolved separation was supported and enhanced by the investigation of the present material. The holotype of the new species is deposited in the entomological collection of the Foundation Miguel Lillo, Tucuman, Argentina. Otherwise the examined material is deposited in the collection of California Academy of Sciences, in the La Plata Museum, Argentina, in the entomological collection of the Foundation Miguel Lillo and in collection of Hungarian Natural History Museum.

## 2. Distribution Records and Description of a New Species

### *2.1. Pampoconis glencrosi Sziráki, 2009*

*Examined Material.* 1 male, Salta province, 4 km W of Cafayate; 26°04.6′S, 66°00.3′W, 1760 m above sea level (a.s.l.), steep, sandy hillside, 4-5. X. 2009; 1 male, Salta province, 9 km NE of Cafayate; 26°03.0′S, 65°53.8′W, 1586 m a.s.l., dune system, 1–4. X. 2009, l.

Hitherto this species was known only from the holotype from the Calilegua National Park (Jujuy Province, Argentina).

### *2.2. Coniopteryx (Coniopteryx) callangana Enderlein, 1906*

*Examined Material.* 3 males, Salta province, 4 km W of Cafayate; 26°04.6′S, 66°00.3′W, 1760 m a.s.l., steep, sandy hillside, 26-27. IX. 2009; 1 male, Salta province, 8 km S of Cafayate; 26°08.9′S, 66°57.3′W, 1650 m a.s.l., semi stable dunes, 27. IX-1. X. 2009; 1 male, same data, but 1–3. X. 2009.

This species is widely distributed in the Neotropical Region. In Argentina it is known from Buenos Aires and from the northwestern provinces.

*2.3. Coniopteryx (Scotoconiopteryx) chilensis Meinander, 1990*

*Examined Material.* 1 male, Salta province, 4 km W of Cafayate; 26°04.6′S, 66°00.3′W, 1760 m a.s.l., steep, sandy hillside, 30. IX-1. X. 2009; 2 males, Salta province, 29 km NE of Cafayate; 25°58.5′S, 65°45.7′W, 1525 m a.s.l., river basin, 26. IX-2. X. 2009.

The known distribution of the species is Chile and Argentina (Salta province).

*2.4. Coniopteryx sp.*

*Examined Material.* 1 female, Salta province, 4 km W of Cafayate; 26°04.6′S, 66°00.3′W, 1760 m a.s.l., steep, sandy hillside, 30. IX-1. X. 2009; 1 female, Salta province, 8 km S of Cafayate; 26°08.9′S, 66°57.3′W, 1650 m a.s.l., semi stable dunes, 3–5. X. 2009.

In light of our present lack of knowledge for determination of females for extra-European species of this genus, it is impossible to identify these specimens.

*2.5. Parasemidalis (Stangesemidalis) enriquei Sziráki, 2009*

*Examined Material.* 6 males, Salta province, 8 km S of Cafayate; 26°08.9′S, 66°57.3′W, 1650 m a.s.l., semi stable dunes, 27. IX-1. X. 2009; 2 males, same data, but 1–3. X. 2009; 4 males, 5 females, same data, but 3–5. X. 2009; 3 males, 3 females, Salta province, 9 km NE of Cafayate; 26°03.0′S, 65°53.8′W, 1586 m a.s.l., dune system, 1–4. X. 2009.

Taxonomic rank of *Stangesemidalis* Gozález Olazo, 1984 was reduced recently to a subgenus of *Parasemidalis* Enderlein, 1905, simultaneously with description of the given species and recognition of three species of the subgenus [1]. In addition, Figures 12(A)–12(D) of Meinander [2] also suggest with high probability that he referred to *P. (S.) enriquei* and not *P. (S.) subandina*. Investigation of present material supports the validity of all three species belonging to the subgenus *Stangesemidalis*. The most important features of *P. (S.) enriquei* are the very dark (usually black) thoracal sutures, hypandrium with deep, V-shaped incision in caudal view, the truncated paramere, and the ectoproct with several rather strong bristles caudally. (See also the corresponding key in work of Sziráki [3]). Distribution: northwestern provinces of Argentina.

*2.6. Parasemidalis (Stangesemidalis) principiae Sziráki et Greve, 2001*

*Examined material.* 1 male, Salta province, 4 km W of Cafayate; 26°04.6′S, 66°00.3′W, 1760 m a.s.l., steep, sandy hillside, 4-5. X. 2009; 1 male, Prov. Salta, 8 km S of Cafayate; 26°08.9′S, 66°57.3′W, 1650 m a.s.l., semi stable dunes, 1–3. X. 2009; 3 males, Salta province, 29 km NE of Cafayate; 25°58.5′S, 65°45.7′W, 1525 m a.s.l., river basin, 2–4. X. 2009. The most important features of *P. (S.) principiae* are the light brown thoracic sutures, hypandrium with deep, V-shaped incision in caudal view, the truncate paramere, and the ectoproct with a single prominent bristle caudally. Distribution: Chile and northwestern provinces of Argentina.

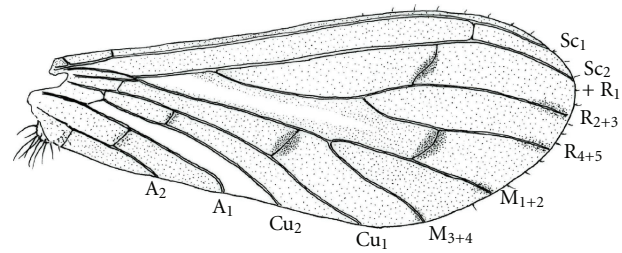


Figure 1: *Incasemidalis lineatellus* sp. n., fore wing.

*2.7. Parasemidalis (Stangesemidalis) subandina (González Olazo, 1984)*

*Examined Material.* 5 males, Salta province, 8 km S of Cafayate; 26°08.9′S, 66°57.3′W, 1650 m a.s.l., semi stable dunes, 27. IX-1. X. 2009; 5 males, same data, but 1–3. X. 2009.

The most important features of *P. (S.) subandina* are the slightly hooked and in lateral view gradually widened paramere, hypandrium, with wide, U-shaped caudal part in caudal view, and the ectoproct with a few rather strong bristles caudally. (The mentioned shape of the paramere may be recognized in the otherwise somewhat schematic illustration of the original description of the species [4]). Distribution: northwestern provinces of Argentina.

*2.8. Parasemidalis (Stangesemidalis) sp.*

*Examined Material.* 1 female Salta province, 8 km S of Cafayate; 26°08.9′S, 66°57.3′W, 1650 m a.s.l., semi stable dunes, 27. IX-1. X. 2009.

The specimen may be either *P. (S.) enriquei* or *P. (S.) subandina*.

*2.9. Incasemidalis lineatellus sp. n. (Incasemidalis sp. 1 [3])*

*Examined Material: Holotype.* male, Argentina, Tucuman Province, 22 km SE of Amaicha de Valle, 26°41.5′S, 65°48.4′W, 2900 m a.s.l., steep, dry ravine, 25. IX-1. X. 2009, Malaise trap, leg.: M.E. Irwin; deposited in the entomological collection of the Foundation Miguel Lillo, Tucuman. Paratypes: 5 males, same data as holotype; three of the paratypes are deposited in the collection of California Academy of Sciences, while two others are in Hungarian Natural History Museum, Budapest.

*Diagnosis.* Membrane of wings moderately spotted. Posterior part of fused stylus + gonarcus plate-like, hypandrium with nearly rectangular caudal projection, main structure of penis in ventral view rectangular.

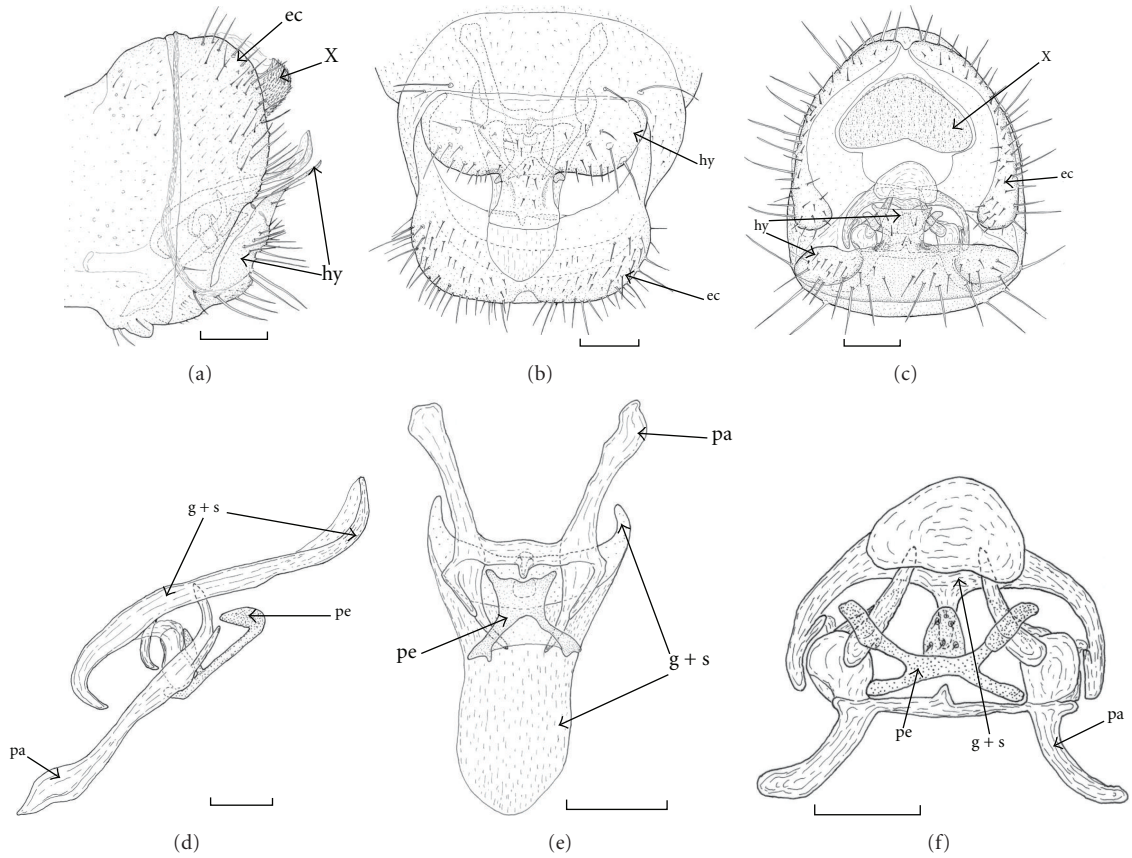


Figure 2: *Incasemidalis lineatellus* sp. n., male genitalia. Terminalia in lateral view (a), terminalia in ventral view (b), terminalia in caudal view (c), internal genitalia in lateral view (d), internal genitalia in ventral view (e), internal genitalia in caudal view (f). Abbreviations: ec = ectoproct, g + s = fused gonarcus + stylus, hy = hypandrium, pa = paramere, X = tenth sternite. Scale = 0.06 mm.

*Description.* Relatively large coniopterygid; body length 3.6–4.0 mm. Frons light brown, vertex medium brown posterior part of head capsule dark brown. Palpi medium brown. Antennae 1.9–2.1 mm, dark brown, 36–41 segmented. Scape about as long as broad, pedicel 1.4 times as long as broad, median flagellar segments 2.7 times as long as broad. Large part of thorax light ochreous, but sutures, large shoulder spots and legs dark brown. Length of fore wing 4.1–4.6 mm, of hind wing 3.5–4.2 mm. Large part of membrane of both wings light brown, but fore wing somewhat darker than hind wing and almost hyaline stripes between Rs-stem of M-$Cu_2$. Additional dark brown stripes at distal ends of veins $R_{2-3}$, $R_{4+5}$ and $M_{1+2}$; distinct narrow, oval spots (which seem to be short dark stripes at low magnification) at cross veins $R_1$–$R_{2+3}$, $R_{4+5}$-$M_{1+2}$ and stem of M-$Cu_1$ and less marked stripes at the cross veins $Cu_1$-$Cu_2$ and $An_1$-$An_2$ (Figure 1), as well as at some cross veins of hind wings. (The rather indistinct pattern of hind wing has no taxonomic importance). Wing venation typical for genus, however, on left fore wing of one paratype exist two aberrations, namely, a short longitudinal vein arises from middle of cross vein $R_{4+5}$-$M_{1+2}$, while $M_{1+2}$ vein forked for a very short distance just before its end. (Otherwise, the wing venation is of no value in distinguishing among the known species of this genus).

Male genitalia (Figure 2) well sclerotized. Ectoproct short, without any caudal projection. Tenth sternite prominent, with dense short hairs. Hypandrium bears a thin, plate-like, nearly rectangular projection caudally. Dorsal sclerite of internal genitalia, which is regarded by Meinander [5] as the gonarcus, rather may be interpreted as fused gonarcus + styli. Posterior part of this sclerite is plate like, and curved upwards, while its anterior part bears a median and two lateral projections curved ventrally. The lateral projections are connected membraneously to the parameres. Parameres caudally forked, pointed, and ventrally connected by medially knobbed bridge, which probably developed from stylus part of stylus + gonarcus sclerite complex. (It is worth mention that the same bridge ventrally of paramere in some other coniopterygids is generally regarded as a part of the fused styli).

Penis is a nearly quadrate plate, with larger posterior and smaller anterior pair of lateral projections, and dorsally directed hairy median lobe.

*Incasemidalis lineatellus* sp. n. resembles *I. chilensis* Meinander, 1990 because of the dark spots at some cross veins, the similarity of the stylus + gonarcus sclerite, the presence of the hairy dorsal process of the penis, and because of the presence of a caudal projection of the hypandrium.

The most important diagnostic features of the new species are

(i) presence of dark stripes at the endings of some longitudinal veins and absence between them;

(ii) absence of a caudal knob on the ectoproct;

(iii) presence of a prominent, well-sclerotized tenth sternite;

(iv) the large, plate-like projection of the hypandrium;

(v) presence of a ventral bridge between the parameres;

(vi) the nearly quadrate structure of the penis, with anterior and posterior lateral projections.

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