

Coniopterygidae from South Africa (Neuroptera)

Martin Meinander

Abstract

MEINANDER, MARTIN: Coniopterygidae from South Africa (Neuroptera). — Notulae Entomol. 55:81—85, 1975.

Six species are recorded from the Cape Province and Transvaal. Three of them are described, *Nimboa transvaalensis* sp. n., *Coniopteryx (Xeroconiopteryx) latilobis* sp. n. and *Semidalis maculipennis* sp. n., and the female genitalia of one of them, *Aleuropteryx argentata* Tjeder, are drawn.

Author's address: Dr. Martin Meinander, Zoological Museum, N. Järnvägs-gatan 13, SF-00100 Helsingfors 10, Finland.

Smithsonian Institution, Washington D.C. 20560, U.S.A.

Sixteen species of Coniopterygidae have been recorded from the Republic of South Africa. Recently, when examining some small collections of Coniopterygidae, I found three new species and one species not previously recorded from the Republic, which brings the total number of species up to 20. In addition one species is known from Lesotho and one from South-West Africa.

All the previous records are listed in MEINANDER 1972, and for the morphological terminology, the reader is referred to that work. The institutions in which the material is deposited are abbreviated as follows:

- MZH — Universitetets Zoologiska Museum, N. Järnvägs-gatan 13, SF-00100 Helsingfors 10, Finland.
NM — Natal Museum, Loop Street, Pietermaritzburg 3201, Republic of South Africa.
UCR — Department of Entomology, Citrus Research Center and Agricultural Experiment Station, University of California, Riverside, Cal. 92502, U.S.A.
USNM — Department of Entomology,

Acknowledgements: My thanks are due to the following curators for kindly letting me investigate material belonging to their institutions: Dr. Oliver S. Flint Jr. (USNM), Dr. I. Frommer (UCR), J. C. Hall (UCR) and Dr. B. R. Stuckenberg (NM).

Aleuropteryx argentata Tjeder, 1957

Aleuropteryx argentata Tjeder. MEINANDER 1972: 58.

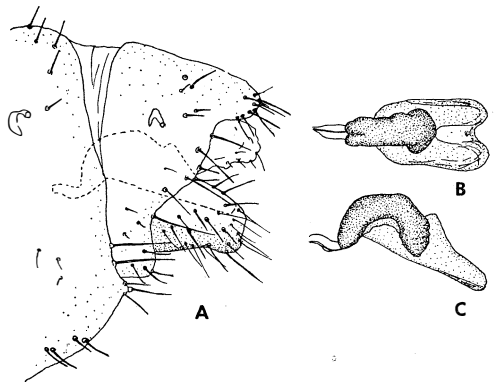


FIG. 1. Female of *Aleuropteryx argentata*. A. terminal abdominal segments in lateral view, B. internal genitalia in ventral view, C. ditto in lateral view.

The present specimen agrees well with the holotype. Length of fore wing 2.5 mm, of hind wing 2.2 mm.

The genitalia of the female, which have not been described before, are shown in figs. 1A—C. Comparatively well sclerotized large subgenital plate present. Bursa copulatrix a strongly sclerotized curved tube with two lateroventral apodemes.

The male genitalia of *A. argentata* are quite different from those of the other *Aleuropteryx* species but the female genitalia are of the same basic type as in all the known species.

Distribution: The holotype was collected in South-West Africa.

Present material: South Africa, Cape Prov., 22 mi N Nelspoort, 1968-03-03, 1 ♀, P. Spangler (USNM).

Nimboa transvaalensis Meinander,
sp. n.

Type: ♂ holotype; S. Africa, Transvaal; NM.

Head ochreous brown. Frons ending carinate between antennae, with large unsclerotized area including antennal sockets. Ventral border of frons, clypeus and palpi blackish brown. Eyes black, small and narrow, 0.23 mm high and 0.15 mm wide in male, 0.20 mm and 0.13 mm in female. Scape and pedicel pale yellowish white, flagellar segments greyish brown, darker towards tip. Basal

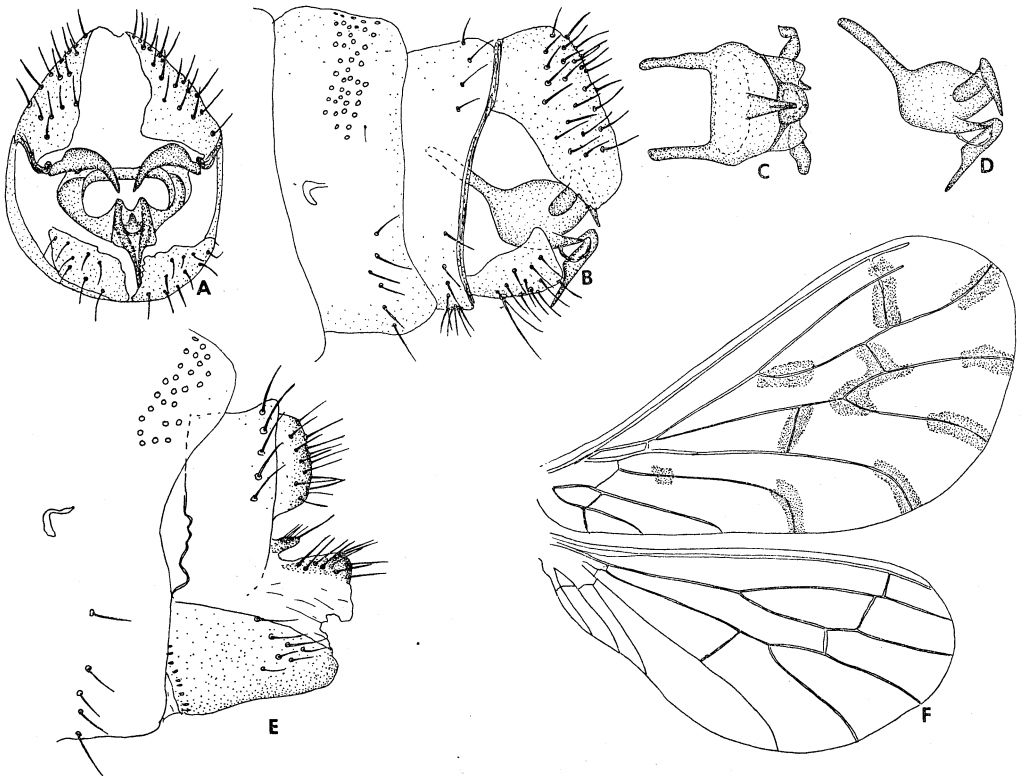


FIG. 2. *Nimboa transvaalensis*. A. terminal abdominal segments of male in caudal view, B. ditto in lateral view, C. male internal genitalia in ventral view, ditto in lateral view, E. terminal abdominal segments of female in lateral view, F. wings.

flagellar segments of male about as long as broad, distal flagellar segments of male and all flagellar segments of female slightly longer than broad.

Thorax pale brown with ochreous grey rather large shoulder spots.

Wings, Fig. 2F. Membrane of both wings hyaline, fore wing with dark greyish brown markings as shown in the drawing. Apex of *Rs* curved forwards, apices of M_{1+2} , M_{3+4} , Cu_1 and Cu_2 curved backwards. Length of fore wing 2.5–2.8 mm, of hind wing 2.0–2.2 mm.

Male genitalia, figs. 2A–D. Penis ending in a single downwards directed spine. Paramere ring broad. Styli unforked, falcate.

Female genitalia, figs. 2F, of the common *Nimboa* type. No sclerotized bursa copulatrix seen.

Four species with spotted wings are known, *N. basipunctata* Withycombe, *N. capensis* Tjeder, *N. guttulata* Navas and *N. natalensis* Tjeder. *N. transvaalensis* can be separated from all four by the very dark colour of its wing spots and the almost black palpi and dark antennae. The male genitalia of *N. transvaalensis* resemble those of *N. natalensis*, the most distinct difference being the triangular appendix dorsally on the penis of *N. natalensis*, which is lacking in *N. transvaalensis*.

Specimens examined: S. Africa Transvaal, Entabeng Forestry Reserve, Zoutpansberg, 1600 m, 1975-01, ♂ holotype, 3 ♀♀, B. R. Stuckenberg (NM), 2 ♀♀, B. R. Stuckenberg (MZH).

Coniopteryx (Xeroconiopteryx) bicuspis Tjeder, 1957

Coniopteryx (Xeroconiopteryx) bicuspis Tjeder
MEINANDER 1972:227.

Distribution: Tanganyika, Rhodesia and South Africa.

Present material: South Africa, Cape Prov., 22 mi N. Nelspoort, 1968-03-05, 1 ♀, P. J. Spangler (USNM); Wilderness, 1968-03-12--13, 1 ♀, P. J. Spangler (USNM); Transvaal, Leteba, 1975-02-13, 3 ♂ 5 ♀, J. & P. McMortru (UCR).

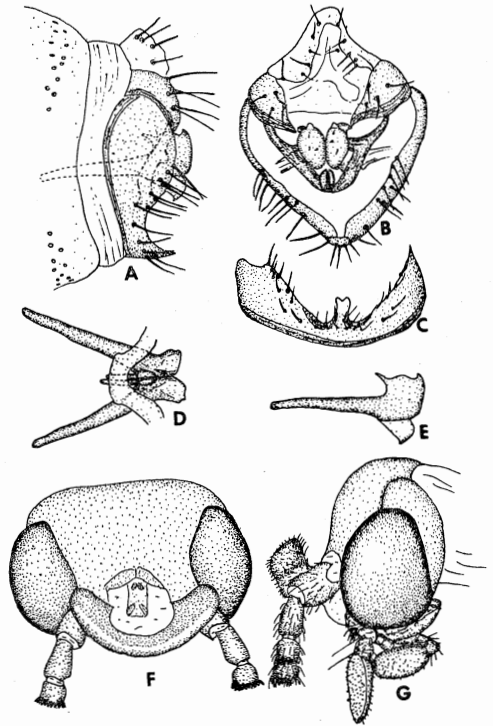


FIG. 3. Male of *Coniopteryx latilobis*. A. terminal abdominal segments in lateral view, B. ditto in caudal view, C. hypandrium in ventral view, D. internal genitalia in ventral view, E. paramere and penis in lateral view, F. head in dorsal view, G. ditto in lateral view.

Coniopteryx (Xeroconiopteryx) latilobis Meinander, sp.n.

Type: ♂ holotype; South Africa, Cape Province; USNM.

Head (figs. 3F–G.) greyish brown. Vertex raised. Frons dorsally between antennae with an upwards bent broad transverse lobe, which terminates in lateral knobs dorsally of the scapes. Dorsally of the lobe, frons weakly sclerotized except for a longitudinal band, which ventrally terminates in small lateral outwards directed plates. Antennae fuscous, 26-segmented. Scale-like hairs on apex of flagellar segments. Basal flagellar

segments slightly broader than long, middle and distal segments about as long as broad. Ordinary hairs in two rather regular whorls. No setae on flagellar segments.

Thorax brown with dark brown shoulder spots. Membrane of wings light greyish. Length of fore wing 1.9 mm, of hind wing 1.6 mm.

Male genitalia, figs. 3A—E. Hypandrium in lateral view very narrow, tapering ventrad. An apodeme along the anterior margin. Processus terminales fused into a single narrow process, which apically has a shallow incision. No processus laterales present but dorsal and caudal margins of hypandrium forming a continuous smoothly curved margin. Gonarcus basally broad, tapering towards apex and ending in an unciform tooth. Styli with a fork, the outer branches being very short, the inner ones forming an arch below the parameres. Parameres without any distinct processus ventrales. Processus dorsales in lateral view broad, with an anterior and a posterior tooth. Penis prominent, consisting of two parallel apically downwards bent rods.

Female unknown. Biology unknown.

C. latilobis can be separated from all the described species of *Xeroconiapteryx* by the presence of a lobe on the frons. The male genitalia are also distinct, and the species can be separated from the closely allied South African species *C. (X.) bicuspis* and *C. (X.) stuckenbergi* by the prominent fused processus terminales of the hypandrium and the presence of a fork on the styli.

Present material: South Africa, Cape Prov., 22 mi N. Nelspoort, 1968-03-03, ♂ holotype, P. Spangler (USNM).

Conwentzia capensis Tjeder, 1969

Conwentzia capensis Tjeder. MEINANDER 1972: 299.

Distribution: The type series was collected in the Cape Province.

Present Material: South Africa, Transvaal, Zebediellia Estate, 1975-02-10, 3 ♂♂ 2 ♀♀, J. & P. McMortru (UCR).

Semidalis meridionalis Kimmins, 1935

Semidalis meridionalis Kimmins. MEINANDER 1972:323.

Distribution: South Africa.

Present material: South Africa, Cape Prov., 2 mi NE Hopetown, 1968-10-09, 1 ♂, S. J. Liversedge (USNM); 1 ♂, S. J. Liversedge (MHZ); Cape Town, 1924-08-28, 1 ♂, E. W. Rust (UCR).

Semidalis maculipennis Meinander, sp. n.

Type: ♀ holotype; S. Africa, Transvaal; NM.

Head ochreous brown, genae with small scattered darker spots. Scape and pedicel light yellowish, flagellar segments dark greyish brown. Palpi dark

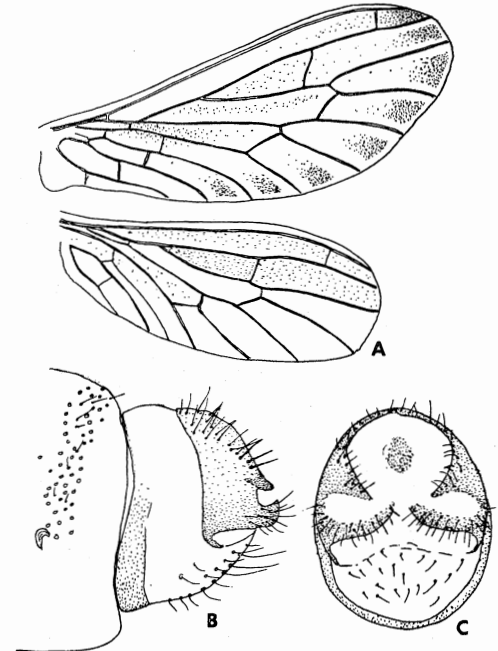


FIG. 4. Female of *Semidalis maculipennis*. A. wings, B. terminal abdominal segments in lateral view, C. ditto in caudal view.

greyish brown. Antennae broken, 29 segments left on both antennae.

Thorax pale ochreous brown. Membrane of both wings testaceous, partly hyaline, as indicated in fig. 4A. Marginally in the cells of the fore wing there are eight dark greyish brown spots. Length of fore wing 3.9 mm, of hind wing 3.1 mm.

Male unknown.

Female genitalia, figs. 4B—C. Ninth segment ventrally anteriorly strongly sclerotized. Gonapophyses laterales fused with ectoprocts.

The genus *Semidalis* contains a large number of species, which can generally be recognized only by investigating the male genitalia. However, *S. maculipennis* is easily separated from the all known species by the wing markings, and for this reason I decided to name it,

although a male specimen is not available. Three species with distinct wing markings are known, *S. marginalis* (Banks) (Cuba), *S. palmensis* (Klingstedt) (Canary Islands) and *S. teneriffae* Meinander (Canary Islands), but their markings differ clearly from those of *S. maculipennis*. The sclerotized ventral part of the ninth abdominal segment is a character that has not been reported for any other species in which the female genitalia have been investigated.

Specimen examined: South Africa, Transvaal, Entabon Forestry Reserve, Zoutpansberg, 1600 m, 1975-01, ♀ holotype, B. R. Stuckenberg (NM).

Reference

- MEINANDER, M. 1972: A revision of the family Coniopterygidae (Planipennia). — Acta Zool. Fennica 136:1—357.