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# NOTES ON KOREAN SPECIES OF THE CANACEIDAE, WITH DESCRIPTIONS OF TWO NEW SPECIES

(DIPTERA : CANACEIDAE)

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Through the kindness of Dr. W. W. Wirth of the U.S. National Museum, Washington, D.C., I have had the opportunity to examine 33 specimens of the Canaceidae occurring in Korea. So far as I am aware, no species of the family has been previously known from Korea. Having examined these specimens, I have classified them into five species, of which two are new to science and one new to Korea. The other two species which belong to *Procanace* are, however, not stated in the present paper, since they are represented only by female specimens. The holotypes of these new species are deposited in the collection of the U.S. National Museum.

I wish to express my heartiest thanks to Prof. C. Watanabe for his constant guidance and encouragement. Thanks are also due to Dr. W. W. Wirth for his kindness in offering the valuable material and in reading through this manuscript.

## Genus *Chaetocanace* Hendel

*Chaetocanace* Hendel, Suppl. Ent. 3: 98, 1914. [Type-species: *Canace biseta* Hendel, 1913].

This genus is represented in Korea solely by the type-species which was described from Formosa.

### *Chaetocanace biseta* Hendel

*Chaetocanace biseta* Hendel, Suppl. Ent. 3: 98, 1914.

Specimens examined: ♂ (paratype, U.S.N.M.), Tainan, Formosa, April 1919, Sauter leg.; 1♂ & 2♀♀, Seoul, Korea, June 1955.

Having examined a paratype of *C. biseta*, I have come to the conclusion that the Korean specimens should be identified with *biseta*.

In the male, the genital processes of the ninth tergum are constricted at the base, then expanded and terminated in two lobes, which are different in size and blunt at the apex; the ventral one of these lobes is larger, with some long setae marginally and the dorsal one smaller, with numerous very fine setae apically. Three or four long, fine setae are present on the basal part of the outer surface of the ventral lobes (fig. 1, D, E).

In the female, the dorsal lamellae of ovipositor are long, black on the apical half and pointed at the apex, with a short, upcurved, subapical, dorsal spine (fig. 1, C). Lobes of the eighth sternum with five to six spine-like setae arranged in a row at the apex.

Distribution: Formosa; Korea.

Genus *Xanthocanace* Hendel

*Xanthocanace* Hendel, Suppl. Ent. 3: 98, 1914. [Type-species: *Canace ranula* Loew, 1874].

*Dinomyia* Becker, in Lindner, Flieg. Palaearkt. Reg. 56: 107, 1926. [Type-species: *Canace ranula* Loew].

*Myioblax* Enderlein, Sitzb. Ges. Naturg. Freunde Berlin: 235, 1935. [Type-species: *Canace ranula* Loew, 1874].

Up to the present, five species of this genus have been described from Formosa, Friesian Island, Australia and South Africa. In this paper two new species will be described from Korea.

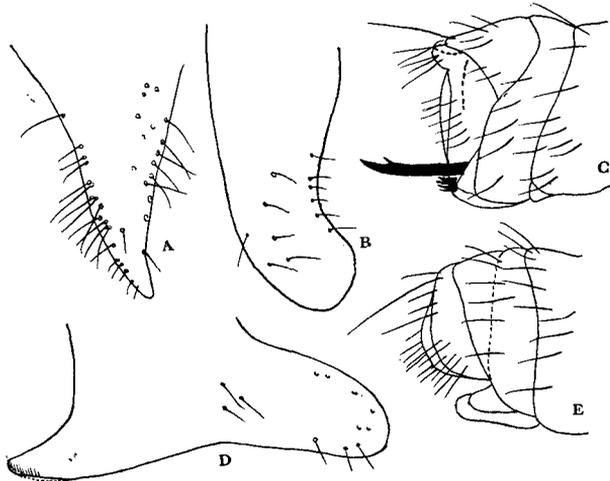


Fig. 1. A: *Xanthocanace pollinosa*, sp. nov., male, lobe of ninth tergite; B: *Xanthocanace seoulensis*, sp. nov., male, lobe of ninth tergite; C: *Chaetocanace biseta* Hendel, female, apical segments; D: ditto, male, lobe of ninth tergite; E: ditto, male, apical segments (all in lateral view).

*Xanthocanace seoulensis*, sp. nov.

Male: Frons black, glossy and shining; antennae and arista blackish-brown with whitish pubescence; cheeks, clypeus, pleura and abdomen with ash-gray pollen; palpi yellowish-brown with four or five yellow fine setae. Mesonotum and scutellum with brown pollen; halteres yellow. Wings hyaline and veins yellowish-brown. Coxae, femora and tibiae with ash-gray pollen; femora and tibiae basally and apically and tarsi wholly yellow. Bristles and hairs all very weak and yellow.

Frons plain with numerous fine whitish setae in whole; five fronto-orbitals, ocellars, postocellars, and inner and outer verticals, all inconspicuous. Third segment of antennae oval; face excavated; clypeus prominent; four or five genal bristles moderate, whitish, upcurved, and arranged in an oblique line from vibrissal angle to middle of lower eye margin.

Four dorsocentrals, two supra-alars, one presutural, one humeral, two notopleurals, one mesopleural and one sternopleural, all weak and hardly distinguishable from their neighbouring hairs in size. Mesonotum with many fine setae. Four marginal scutellars moderate with several fine setae. Wings hyaline with yellowish-brown veins; fourth vein arcuate. Legs with many fine hairs, without conspicuous bristles. Abdomen with first tergum widest; all the abdominal segments with many fine and inconspicuous hairs. Genital processes of ninth tergum forming thumb-like lobes, which are obliquely truncated at the apex and sparsely scattered with weak setae (Fig. 1, B).

Length 2.0 mm., wing 1.8 mm.

Female: Similar to the male in colour, but frons not so shining. Lamellae of ovipositor with a small, black, subapical, dorsal spine.

Length 2.1 mm., wing 1.9 mm.

Holotype (♂) & Paratypes (1♂, 2♀♀), Seoul, Korea, June 1955.

Remarks: On account of its colouration, this species is much similar to *X. nigrifrons* Malloch, 1924, from Australia. It differs from the latter mainly by the body much smaller and less hairy. Moreover, its lamellae and spines of the ovipositor are shorter than those of *X. nigrifrons*.

***Xanthocanace pollinosa*, sp. nov.**

Male: Frons and antennae blackish-brown with grayish pollen; face, cheeks, mesonotum, scutellum, pleura and abdomen with whitish-gray pollen in whole; halteres pale yellow. Wings hyaline with brownish-yellow veins; fourth vein arcuate. Legs brownish-yellow; femora and tibiae with grayish pollen; tarsi with ventral spines reduced and yellowish. Bristles and hairs all yellowish-white.

Frons nearly triangular in dorsal view, with several minute setae. Three fronto-orbitals, ocellars and postocellars, and inner and outer verticals, all inconspicuous; four or five up-curved genal bristles strong, with a few weak bristles around. Three dorsocentrals very weak; presutural, supra-alars, four marginal scutellars with several fine setae, one humeral, and two notopleurals, all not conspicuous. Mesonotum with very dense fine setae, without bristles. Legs with many fine hairs; mid femora with posteroventral row of five to ten small black spines; genital processes of ninth tergum long, tapering towards the apex, with many fine hairs (Fig. 1, A).

Length 2.5 mm., wing 2.2 mm.

Female: Similar to the male in colour. Ventral side of middle femora without spines. Dorsal lamellae of ovipositor down-curved, bearing a long slender, black spine apically, and a short, yellow one dorsally.

Length 2.4 mm., wing 2.2 mm.

Holotype (♂) & Paratypes (4♂♂, 9♀♀), Seoul, Korea, June 1955.

Remarks: Judging from the literature, this species is closely similar to *X. ranula* (Loew) by its colouration and chaetotaxy, but is remarkably different, in the male, by having five to ten small black spines on the posteroventral side of the mid femora and by the peculiar shape of the lobes.

In conclusion, the two new species are readily distinguishable by the following key which has been accomplished by the kind assistance of Dr. W. Wirth.

**Key to the species of *Xanthocanace***

1. Large species, wing 4 mm.; female frons shining; tibiae gray. . . . . *magna* (Hendel).
- Small species, wing 2–3 mm. . . . . 2.
2. Male mid femora with posteroventral comb of 5–10 small black spines on distal half. . . . . 3.
- Male mid femora without armature. . . . . 4.
3. Mesofrons dull in male and female; tibiae grayish. . . . . *pollinosa*, sp. nov.
- Mesofrons shining in male and female. . . . . *orientalis* (Hendel).
4. Mesofrons dull in male and female; large species. . . . . *capensis* Wirth.
- Mesofrons shining in male. . . . . 5.
5. Female mesofrons shining. . . . . *ranula* (Loew).
- Female mesofrons dull. . . . . 6.
6. Large species; tibiae yellow; bristles well developed. . . . . *nigrifrons* Malloch.
- Small species; tibiae grayish; bristles reduced. . . . . *seoulensis*, sp. nov.

**APPENDIX I**

Having examined Japanese specimens at hand I have found that two species, *Chaetocanace biseta* and *Xanthocanace pollinosa*, also occur in Japan.

***Chaetocanace biseta*** Hendel

Specimens examined: 30 exs., Abashiri, Hokkaido, 14, July 1962; 15 exs., Tôfutsu-ko, Hokkaido, 15, July 1962; 5 exs., Ogawanuma, Kantô Prov., Honshu, 22, Aug. 1962; 5 exs., Karihama, Ehime Pref., Shikoku, 11, Sept. 1962; 27 exs., Iriomote-jima, Ryukyu, 16, Apr. 1962; 2 exs., Kagoshima, Kyushu, 30, Apr. 1963, S. Takagi leg.

This species is somewhat variable in size and colour. In general, northern specimens are a little larger and darker than the southern. I have collected the material around estuaries and salt water lakes.

***Xanthocanace pollinosa*** Miyagi

Specimens examined: 13 exs., Saroma-ko, Hokkaido, 15, July 1962.

The specimens agree well enough with the type, but are somewhat larger and hairier. This species was found in abundance on the water surface of salt ponds on the sea shore and salt marsh of the lake Saroma.

**APPENDIX II**

I take this opportunity to give a list of all mentioned species of the genus *Xanthocanace*.

1. ***Xanthocanace ranula*** (Loew)

*Canace ranula* Loew, Berlin Ent. Zeit. 18: 81 (1874).

*Xanthocanace ranula*: Hendel, Ent. Suppl. 3: 98 (1914); Wirth, Occ. Pap. Bishop Mus. 20: 250 (1951).

*Dinomyia ranula*: Becker, in Lindner, Flieg. Palaearkt. Reg., Ephydridae: 107 (1926).

*Myioblax ranula*: Enderlein, Sitzb. Ges. Naturf. Freunde: 235 (1935); Tierwelt Mitteleur. 16: 172 (1936).

Distribution : Europa (East Friesien Is.).

2. ***Xanthocanace magna*** (Hendel)

*Canace magna* Hendel, Suppl. Ent. 2: 95 (1913).

*Xanthocanace magna*: Hendel, Suppl. Ent. 3: 98 (1914).

Distribution : Formosa.

3. ***Xanthocanace orientalis*** (Hendel)

*Canace orientalis* Hendel, Suppl. Ent. 2: 94 (1913).

*Xanthocanace orientalis*: Hendel, Suppl. Ent. 3: 98 (1914); Wirth, Occ. Pap. Bishop Mus. 20: 251 (1951).

Distribution : Formosa ; China ; India.

4. ***Xanthocanace nigrifrons*** Malloch

*Xanthocanace nigrifrons* Malloch, Linn. Soc. N. S. Wales Proc. 49: 334 (1924).

Distribution : Australia.

5. ***Xanthocanace capensis*** Wirth

*Xanthocanace capensis* Wirth, J. Ent. Soc. S. Afr. 19: 47 (1956).

Distribution : South Africa.

6. ***Xanthocanace seoulensis*** Miyagi (sp. nov.)

Distribution : Korea (Seoul).

7. ***Xanthocanace pollinosa*** Miyagi (sp. nov.)

Distribution : Korea (Seoul); Japan.

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