

**STUDIES ON THE TIPULIDAE OF CHINA (DIPTERA)**

**I. On two species of *Pselliophora* from Hainan Island**

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SEPARATE FROM  
LINGNAN SCIENCE JOURNAL  
VOL. 11, No. 4, NOVEMBER, 1932  
[ISSUED NOVEMBER 15, 1932]

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CANTON, CHINA

LINGNAN SCIENCE JOURNAL  
(CONTINUATION OF LINGNAAM AGRICULTURAL REVIEW)

PUBLISHED BY

LINGNAN UNIVERSITY, CANTON, CHINA

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The Journal is issued four times each year. The subscription price is \$5.00 Mexican or \$3.00 Gold per volume, payable in advance. Issues sold singly at \$1.50 Mex. Payment by postal money order (domestic or international as the case requires) is preferred. If payment is made by personal check drawn on a bank outside of Canton, an additional twelve per cent must be added to defray cost of collection.

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\*Names arranged alphabetically.



## STUDIES ON THE TIPULIDAE OF CHINA (DIPTERA)

### I. On two species of *Pselliophora* from Hainan Island

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Our knowledge of the crane-flies of China is still very insufficient. The number of genera and species recorded from China is obviously incomplete when compared with the much better known countries of British India and Japan. However, this deficiency is being remedied by the capable efforts of a number of native and foreign residents of the country so that in the not distant future we may expect to have a frame-work upon which to proceed with a critical survey of the Tipulidae of China.

At this time I wish to discuss two species of *Pselliophora* Osten Sacken that were taken in the island of Hainan by Professor William E. Hoffmann. The beautiful crane-flies of this genus are among the most conspicuous crane-flies to be found in Eastern Asia. While numerous in species, the exact limits of the genus are still poorly understood, especially from the standpoint of sexual dimorphism. Although many new species will undoubtedly be discovered, it seems probable that some of the numerous forms already described will, upon further study, prove to be synonyms of still older names in the genus. I am very deeply indebted to my friend, Professor Hoffmann, for the opportunity to examine the material discussed herewith.

#### 1. *Pselliophora kershawi* Alexander

1923. *Pselliophora kershawi* Alexander; Proc. Hawaiian Ent. Soc., 5: 257—258.

One male, one female, from north of Nodda, August 15, 1929 (W. E. Hoffmann). The type was from the How-lik Mts., China.

The present specimens are somewhat smaller than the types. *Male*.—Length, about 16 mm.; wing, 13 mm. *Female*.—Length, about 19 mm.; wing, 14 mm. The details of the male hypopygium have not been adequately considered. Male hypopygium (fig. 1) with the tergite and sternite fused. Tergite (fig. 2) with the lateral angles produced, blackened, their apices obliquely truncated, separated from one another by a subquadrate notch. Appendage of ninth sternite complex, as figured, the dorsally-directed spine

acute, blackened. Caudal margin of eighth sternite and ventro-medial emargination of the ninth sternite with abundant long yellow hairs.

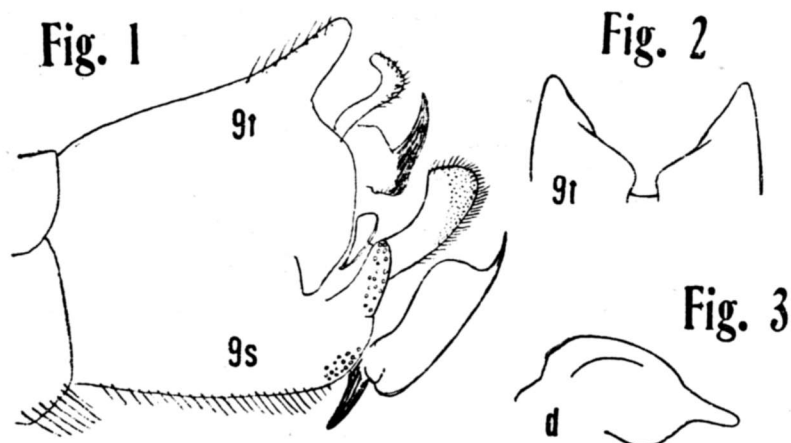


Fig. 1. *Pselliophora kershawi* Alexander; male hypopygium, lateral;

Fig. 2. The same; male hypopygium, 9th tergite, dorsal;

Fig. 3. The same; male hypopygium, inner dististyle, lateral.

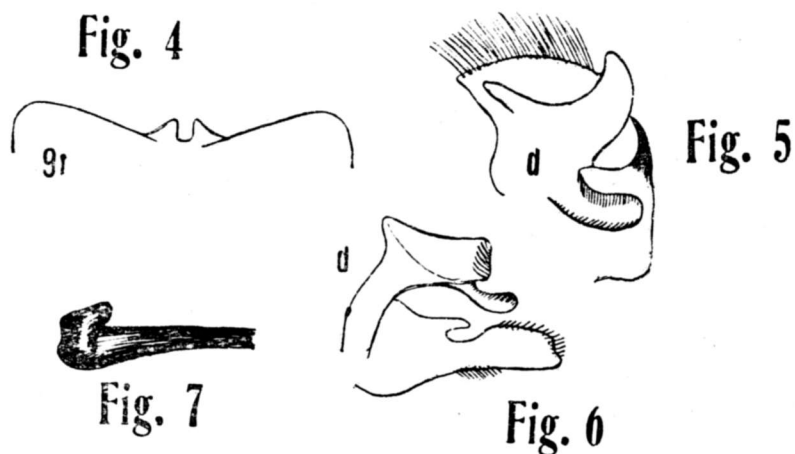


Fig. 4. *Pselliophora hoffmanni*, sp.n.; male hypopygium, 9th tergite, dorsal;

Fig. 5, 6. The same; male hypopygium, views of inner dististyle;

Fig. 7. The same; male hypopygium, gonapophysis.

(Symbols: *d*, dististyle; *g*, gonapophysis; *s*, sternite; *t*, tergite)

## 2. *Pselliophora hoffmanni* sp. n.

Antennae (male) very long, the branches similarly long and slender, clothed with conspicuous erect setae; frontal prolongation and front china-white; thorax variegated black and white; apices of knobs of halteres white; wings whitish, nearly immaculate, there being a restricted brownish black pattern in basal third of cell *C* and in the axillary region; intermediate abdominal segments orange-red, the terminal segments black.

*Male*.—Length, about 10 mm.; wing, 10 mm.; antenna, about 8 mm.

Frontal prolongation of head and the front china-white, the former darkened laterally, very short, with a short blunt nasus; palpi brown. Antennae unusually elongate, as shown by the measurements; flagellar branches unusually long and graceful; scape short and tumid, china-white; succeeding segments dark brown, paling to yellow at tips, the branches black; flagellar segments two to ten, inclusive, each with two pairs of branches; longest branches about one-fourth the entire organ, clothed with abundant erect setae throughout the length; basal pair of branches exceeding one-half the longest branch; terminal segment about equal in length to the last pair of branches. Vertex brownish black, the post-genae and occipital region pale.

Pronotum whitish medially, black laterally. Mesonotal praescutum almost covered by three black stripes, these quite confluent behind, the pale yellow ground-color restricted to humeral triangles; scutum black; scutellum and parascutella whitish-testaceous; post-notal mediotergite black. Pleura conspicuously checkered with china-white and black, the former including the dorso-pleural region, dorso-cephalic angle of sternopleurite and a conspicuous transverse girdle that involves the pteropleurite, anterior meron and the mid-coxa; the black areas include most of the sternopleurite, the anepisternum, pleurotergite, posterior meron and posterior coxa. Halteres with the base of stem and apex of knob white, the intermediate portion infuscated. Legs with the fore and middle coxae and trochanters white, the posterior coxa and trochanter black; a single leg (fore) remains; femur black, narrowly paler at base; tibiae black, with a broad conspicuous white ring at base; tarsi black. Wings whitish, with a restricted brownish black pattern, the dark color including the basal third of cell *C*; prearcular region, excepting in cell *C*; axillary angle; stigma; and a seam on anterior cord; narrow to scarcely apparent dark seams on some of the longitudinal veins beyond the cord, notably on  $R_4+5$  and  $M_1+2$ ; outer end of cell *C* and cells *Sc* and  $Cu_1$  somewhat paler brown; veins dark brown. Venation: Petiole of cell  $M_1$  subequal to or shorter than *m*.

Abdomen with the basal tergite black, pale basally; tergite two black, with a large whitish area on either side at near midlength; tergite three orange-red, blackened laterally; tergites four and five orange-red; sternities two and three black, four and five orange-red; remainder of abdomen, including hypopygium, black. Male hypopygium with the caudal margin of tergite broadly emarginate, fringed with long setae; a small glabrous tooth on either side of the

median line, separated from one another by a small square notch (fig. 4). Tergite and sternite fused basally. Dististyle complex in structure, as shown (fig. 5, 6). Sternite deeply notched, the emargination fringed with abundant black setae. Gonapophyses (fig. 7) appearing as polished black straight rods, the tips expanded. Aedeagus yellow.

*Hab.* Hainan Island.

*Holotype*, ♂, on trail, Fan Ta Chuen (Hung Mo Tung) to Poh Shaang, July 31—August 1, 1929 (W. E. Hoffmann).

Type returned to Professor Hoffmann.

*Pselliophora hoffmanni* is named in honor of the collector, my friend, Professor William E. Hoffmann. The species is very different from all described species in the unusually elongate antennae and flagellar branches of the male, in conjunction with the peculiar wing-pattern. In its general features of wing and body coloration, it agrees most nearly with *P. immaculipennis* Brunetti (Sylhet), differing very evidently in the details of coloration of the body, wings and legs. The wing-pattern is somewhat of the type of *P. plagiata* Edwards (Palawan) but with the markings so reduced as to be almost immaculate.



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