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A New and a Newly Recorded Species of *Drosophila*
(*Sophophora*) (Diptera, Drosophilidae) from China

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Abstract A new species of *Drosophila* (*Sophophora*) closely related to *D. (S.) khaoyana* BOCK et WHEELER is described and *D. (S.) trapezifrons* OKADA is newly recorded from China.

Drosophila (Sophophora) constricta CHEN, SHAO et FAN, sp. n.

(Fig. 1 A-C)

♂, ♀. Body about 2.5 mm in length. Head slightly broader than thorax. Arista with 4 branches above, 3 below and a small terminal fork. Front brown, length of orbital bristles in ratio 5:2:5. Carina strongly ridged, broad below. Ocelli orange. Eyes red, thickly pilose. Maximum width of cheek equal to 0.1 maximum diameter of eye. Thorax dark brown, darker laterally. Acrostichal hairs in 8 rows in front of dorsocentral bristles, 4-6 rows between dorsocentrals. Ratio in length of anterior/posterior dorsocentrals 0.6; distance between anterior and posterior dorsocentrals two-fifths distance between anterior pair. Anterior scutellars convergent, slightly shorter than posteriors, which are nearer to each other than to anteriors. Sterno-index about 0.6; median sternopleural one-fifth as long as posteriors. Legs yellow; preapicals on all legs; apicals on fore and mid legs. Sex-combs of male longitudinal along entire lengths of metatarsus and second tarsal joint; metatarsal comb consisting of about 21 teeth, smaller above, lowermost 2 slightly displaced from the axis of the remaining teeth; comb of second tarsal joint consisting of about 12 uniform teeth. Wings hyaline, crossveins clear. Approximate indice: Costal index 2.0-3.0; 4V-index 2.5; 4C-index 1.3; 5x-index 2.2; C1-bristles two, subequal; C3-fringe 1/2. Halteres yellow. Abdominal tergites of female yellowish; each with broad apical black band; fifth tergite completely black dorsally, sixth completely black. Basal 3 tergites of male yellowish, each

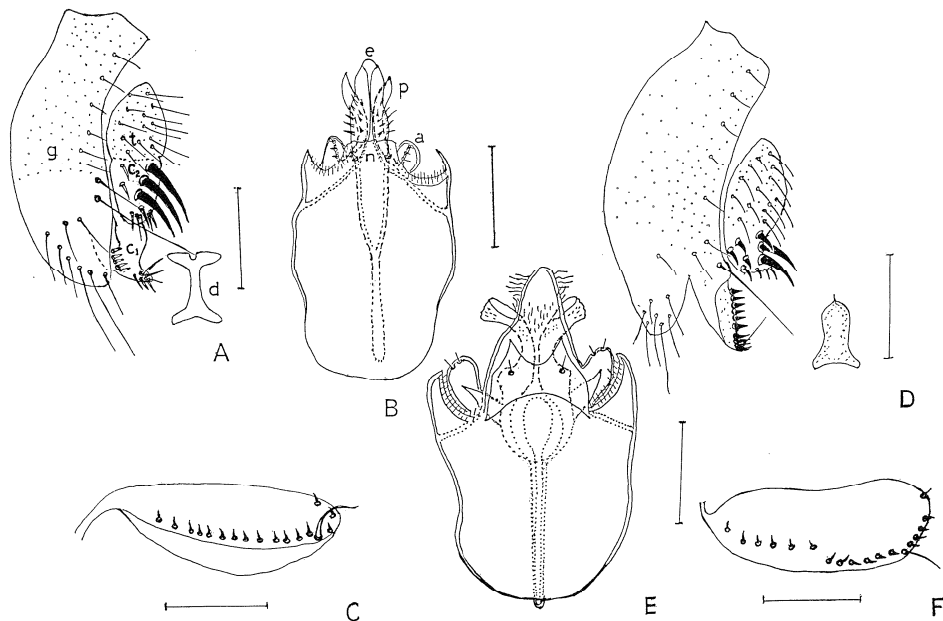


Fig. 1. A–C, *Drosophila (Sophophora) constricta*; D–F, *D. (S.) trapezifrons*. — A, D, Periphallallic organs; B, E, phallic organs; C, F, egg-guide (ovipositor). a, anterior paramere; c₁, primary clasper (surstylus); c₂, secondary clasper; d, decasternum; e, aedeagus; g, genital arch (epandrium); n, novasternum (hypandrium); p, posterior paramere; t, anal plate (cercus). Scale 0.1 mm.

with broad black apical band; remainder of male tergites shiny black.

Periphallallic organs (Fig. 1 A): Genital arch (epandrium) broad, dark yellowish at lower one-third, caudoventral corner gently pointed. Primary clasper (surstylus) yellowish, proximally with about 5 teeth, distally narrowing and with several setae. Secondary clasper fused to anal plate, with 3 very large black teeth and a few short black teeth. Anal plate (cercus) oval, setigerous, separated from genital arch. Decasternum yellowish, medially constricted in I-shape, thus the specific name. Phallic organs (Fig. 1 B): Aedeagus slender, subapically slightly constricted, medioventrally with fine hairs. Anterior parameres triangular, with sensilla; posterior parameres elongate, curved. Caudal margin of novasternum (hypandrium) truncate, with a pair of short stout submedian spines. Egg-guide (ovipositor) (Fig. 1 C) yellowish brown, oblong, with about sixteen black pointed marginal teeth, ultimate tooth well removed from penultimate. Subterminal hair distinct. Basal isthmus 0.15 length of lobe.

Holotype ♂, Mt. Hei Shi Ding, 1,200 m, Guangdong Province, China, 12. V. 1984 (CHEN, LIU, FAN); allotype ♀; paratypes 10 ♂ and 10 ♀, same data as holotype. All deposited in Fudan University.

Relationship. This species closely resembles *D. (S.) khaoyana* BOCK et WHEELER, 1972, in general structure and male genitalia, but it differs from the latter in having posterior parameres separated from each other (fused in *khaoyana*) and aedeagus more slender.

***Drosophila (Sophophora) trapezifrons* OKADA**

(Fig. 1 D-F)

Drosophila (Sophophora) trapezifrons OKADA, 1966, 93 (Nepal).

♂, ♀. Body about 2.0 mm in length, yellowish brown. Arista with four dorsal and two ventral branches and a small terminal fork. Frons anteriorly about two-thirds as broad as head width. Length of orbital bristles in ratio 3:1:3. Thoracic pleura paler below. Acrostichal hairs in 6 rows. Anterior dorsocentrals half as long as posteriors. Anterior scutellars divergent, slightly shorter than posteriors, which are nearer to each other than to anteriors. Sterno-index about 0.6. Sex-combs longitudinal, composed of about twenty-one black teeth on metatarsus and eighteen similar teeth on second tarsal joint. C-index about 2.8; 4V-index 3.2; 4C-index 1.4; 5x-index 3.4; C3-fringe 3/7. Halteres yellow. Abdominal tergites yellowish brown, with broad black cross bands caudally. Periphallallic organs (Fig. 1 D) with decasternum greyish brown, campanulate. Phallic organs (Fig. 1 E) with posterior parameres broadened apically. Egg-guide (Fig. 1 F) with about seventeen black marginal teeth.

Specimens examined. 7 ♂, 5 ♀, Mt. Lushan, 1,800 m, Jiangxi Province, China, 20-24. V. 1986 (CHEN, SHENG, TONG).

Distribution. Nepal, China (n. loc.), Formosa.

Remarks. In the original illustrations of this species (OKADA, 1966, *loc. cit.*), the male decasternum is bottle-shaped and the posterior parameres distally tapering. However, re-examination of a male paratype from Nepal shows that the decasternum is campanulate and the posterior parameres are broadened apically as mentioned above.

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