

## Three New Species of Drosophilidae from Japan (Diptera)

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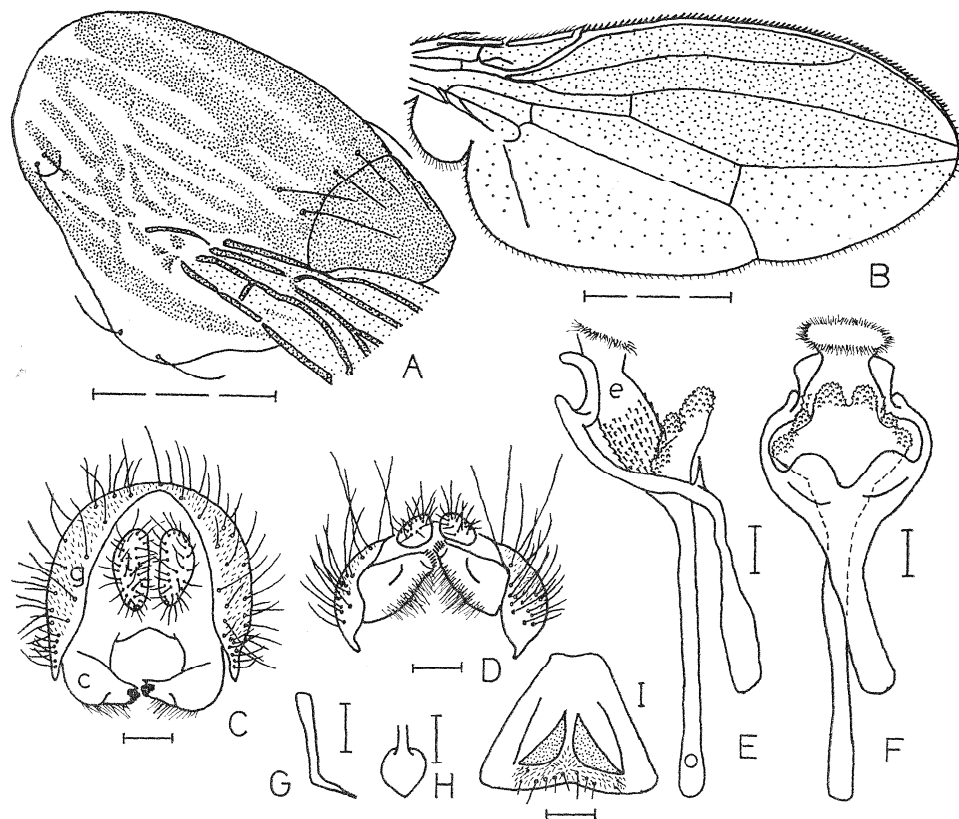
**Synopsis** *Stegana* (*Steganina*) *ctenaria* sp. n., *Amiota* (*Amiota*) *onchopyga* sp. n. and *Scaptomyza* (*Scaptomyza*) *acuta* sp. n. are described and illustrated.

*Stegana* (*Steganina*) *ctenaria* sp. n. (Fig. 1)  
[Jap. name. Kushi-kabuto-shôjôbae]

**Male and female:** Body 3.5-4.5 mm. Eyes bare, red, with a obscure whitish stripe. Third antennal joint grey. Arista with eight to nine upper and six to seven lower branches beside a fine fork. Palpi yellow. Ocellar triangle black. Periorbits brown, narrowing anteriorly. Clypeus pale brown. Anterior one-fifth of front dark brown, next one-fifth pale brown, posterior three-fifths dark brown except around ocellar triangle, which is pale brown. Face yellow, with two black cross bands on its medium and near buccal margin, lower cross band narrowing medially. Carina short. Cheek yellow, rather broad. Anterior reclinate orbital two-thirds as long as other orbitals, three-fifths as apart from proclinate as from posterior reclinate. Vibrissa long and strong, more than twice longer than other orals.

Mesoscutum yellow, with brownish black longitudinal markings as in Fig. 1 A. Thoracic pleura white, with a broad black longitudinal stripe above. Humerals two, lower longer. Scutellum brownish black. Acrostichal hairs in ten to twelve irregular rows. Anterior dorsocentrals about two-thirds as long as posteriors, distance between anterior and posterior pairs one-fourth distance between posterior pair. Prescutellars as long as anterior dorsocentrals. Sterno-index 0.9 to 1.0. Legs white, mid knee joints broadly black, fore and hind knee joints fuscous. Preapicals on all three tibiae, apicals prominent on mid. Wing (Fig. 1 C) black, paler toward caudal margin, apically yellow. C-index 2.0; 4V-index 1.8; 5X-index 1.5; Ac-index 10.0. C3-fringe on basal three-fourths. Abdominal tergites entirely black, subshining.

Periphallic organs (Fig. 1 C, D): Epandrium (genital arch) brownish black, obtuse triangular below. Cerci (anal plate) fuscous. Surstylus (clasper) dark brown, tapering apically, with seven flat apical teeth and long hairs ventrally. Phallic organs (Fig. 1 E, F): Aedeagus cylindrical, apically with hair crown, medially serrated, with large and complicated processes ventrally. Ejaculatory apodeme as in Fig. 1 G, H. Egg-guides (Fig. 1 I) pale, pubescent caudally and with rather fine bristles near caudal margin.



Figs. 1. *Stegana (Steganina) ctenaria* sp. n. ♂, ♀. A. Mesonotum, B. Wing, C. Peripheral phallic organs (caudal aspect), D. Periphallic organs (ventral aspect), E. Phallic organs (lateral aspect), F. Phallic organs (ventral aspect), G, H. Ejaculatory apodeme, I. Egg-guide. c, surstylus; e, aedeagus; g, epandrium; o, apodeme of aedeagus; t, cerci. Scales 1.0 mm in mesonotum and wing, 0.1 mm in other figs.

Holotype: ♂, Nagafusamachi, Hachioji, Tokyo, 20 VIII 1975 (NISHIHARU). Paratypes: 1 ♂, 1 ♀, collected together with the holotype (NISHIHARU), 1 ♀, *ibid.* 28 V 1977, 1 ♀, *ibid.* 28 VI 1977 (NISHIHARU).

**Relationships:** Closely resembles *S. unidentata*, especially in the shape of surstylus, but differs in having comb-like teeth on surstylus and in the shape of phallic organs. Egg-guide somewhat resembles *S. excavata* but differs in having entirely fused lobes.

*Amiota (Amiota) onchopyga* sp. n. (Fig. 2)  
[Jap. name: Kagio-mematoi]

**Male.** Body about 2.5 mm in length, black. Head (Fig. 2 A) slightly broader

than thorax. Eyes oval, red, without piles. Antenna dark brown. Arista with six dorsal and three ventral long branches in addition to a small fork. Palpi yellowish brown, broad, with several rather fine setae. Ocellar triangle black. Periorbits brownish black. Front black, paler anteriorly. Clypeus black. Carina low but long. Face greyish brown, with a milky white cross band below. Cheek pale yellow, narrow. Anterior reclinate orbital two-thirds as long as proclinate, posterior reclinate nearer to verticals than to proclinate. One strong vibrissa, other orals fine.

Mesoscutum, scutellum, and thoracic pleura black. White spots on humerus

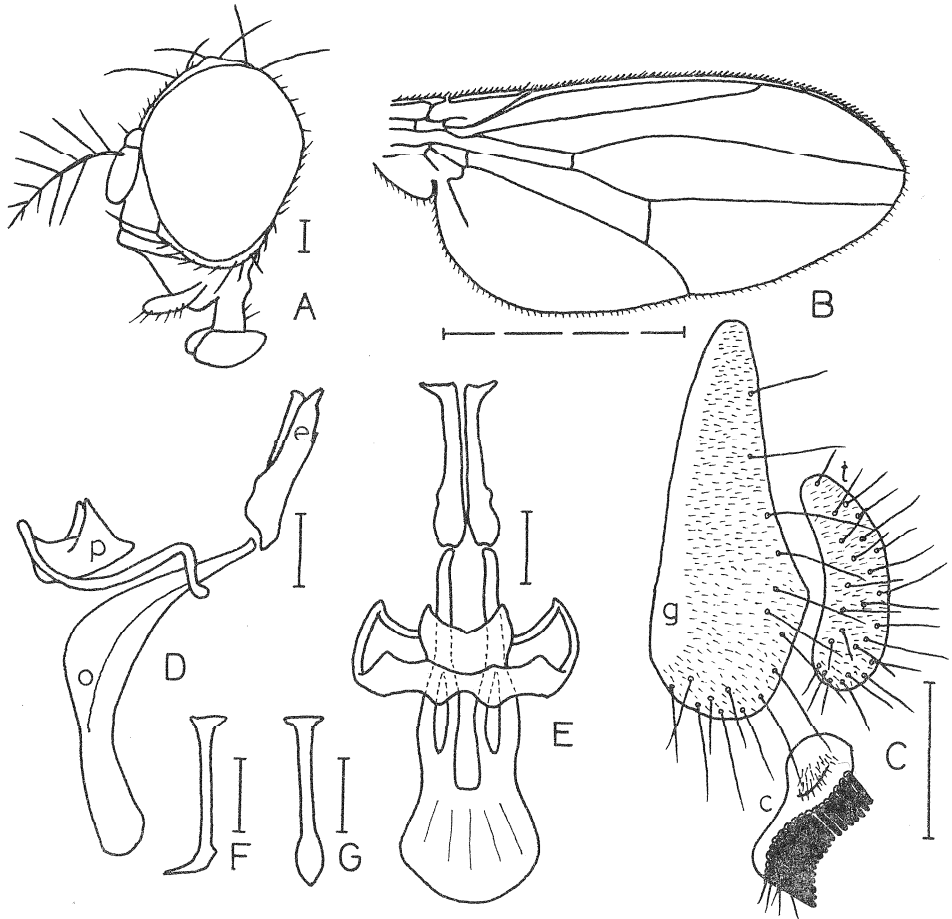


Fig. 2. *Amiota (Amiota) onchopyga* sp. n. ♂. A. Head, B. Wing, C. Peripheral phallic organs (lateral aspect), D. Phallic organs (lateral aspect), E. Phallic organs (caudal aspect), F, G. Ejaculatory apodeme. Scales 1.0 mm in wing, 0.1 mm in other figs. Signs as in Fig. 1. p, posterior paramere.

and wing base. Humeral one. Prescutellars as long as anterior dorsocentrals, which are about half as long as posteriors. Anterior scutellars divergent, a little longer than posteriors, which are as apart to each other as to anteriors. Sterno-index 0.9. Legs pale yellow. Preapicals on all three tibiae, apicals on fore and mid. Wings (Fig. 2 B) hyaline, crossveins clear,  $R_{2+3}$  slightly curved to costa apically,  $R_{4+5}$  and M gently convergent distally. C-index 1.5; 4V-index 2.8; 5X-index 1.6; Ac-index 5.4. C3-fringe on basal two-thirds. Halteres white. Abdominal tergites black.

Periphallalic organs (Fig. 2 C): Epandrium (genital arch) brownish black, evenly rounded below, mid-dorsally constricted but not interrupted. Cerci (anal plate) fuscous, oblong. Surstylus (clasper) large, fuscous, with a concave row of about eighteen long black teeth. Phallic organs (Fig. 2 D, E): Aedeagus lobe and anterior paramere fused, black and long, apically with lateral processes. Apodeme of aedeagus large, fan shaped. Posterior parameres with a pair of conical processes ventroapically. Ejaculatory apodeme as in Fig. 2 F, G.

Holotype: ♂, Nagafusamachi, Hachioji, Tokyo, 3 VII 1975 (NISHIHARU). Paratypes: 12 ♂, ibid. 17 VII 1975, 9 ♂, ibid. 11 VIII 1975, 1 ♂, ibid. 5 VIII 1975, 3 ♂, ibid. 24 VIII 1977, 1 ♂, ibid. 27 VIII 1977 (NISHIHARU).

**Relationships:** Resembles *A. flagellata* in having concave row of long teeth on surstylus, ventrally broadly rounded epandrium, and a pair of conical processes of posterior paramere, but differs in the shape of aedeagus.

*Scaptomyza (Scaptomyza) acuta* sp. n. (Fig. 3)

[Jap. name: Togari-hime-shôjôbae]

**Male and female.** Body about 3.0 mm in length, slender and black. Head (Fig. 3 A) as broad as thorax. Eyes red, with piles. Antenna with second joint slightly greyish yellow, third yellow and with rather long hairs in male and with second joint brown, third grey except basally and inner half and with rather long hairs in female. Arista with five dorsal branches and a fork, without ventral branches. Palpus black, large, slender, with two stout and several rather fine setae apically. Ocellar triangle black. Periorbits black except anteriorly. Clypeus black. Front orange, but black at the margin of ocellar triangle. Face yellow. Carina long but low, black in female, greyish yellow in male. Cheek yellow, one-fifth as broad as the greatest diameter of eye. Anterior reclinate orbital five-eighths as long as posterior reclinate, situated just outside proclinate, which is nearly as long as posterior reclinate. Vibrissa long, about two times as long as second oral.

Mesoscutum, scutellum and thoracic pleura black. Humerals two, upper longer. Acrostichal hairs in four rows. Anterior dorsocentrals five-ninths as long as posteriors, distance between anterior and posterior pairs one-half distance between posterior pair. Anterior scutellars slightly divergent, posteriors seven-

fifths as apart from anteriors as from each other. Sterno-index 0.6. Legs yellow, distal tarsal joints fuscous. Preapicals on all tibiae, apicals prominent on mid. Wings (Fig. 3 B) hyaline, long, crossveins clear.  $R_{2+3}$  gently curved to C at apex,  $R_{4+5}$  and M parallel. C-index 3.8; 4V-index 1.3; 4C-index 0.6; 5X-index 1.4; Ac-index 2.3. Cl-bristles two, subequal. C3-fringe on basal half. Halteres white. Abdominal tergites black.

Periphallic organs (Fig. 3 C, D) black. Epandrium (genital arch) obtuse triangular and setigerous below, pubescent mid-dorsally. Surstylus (clasper) large, tapering below, with about 14 stout black teeth arranged in a sinuated row, and with about five long bristles on lower inner surface, upper six or seven teeth

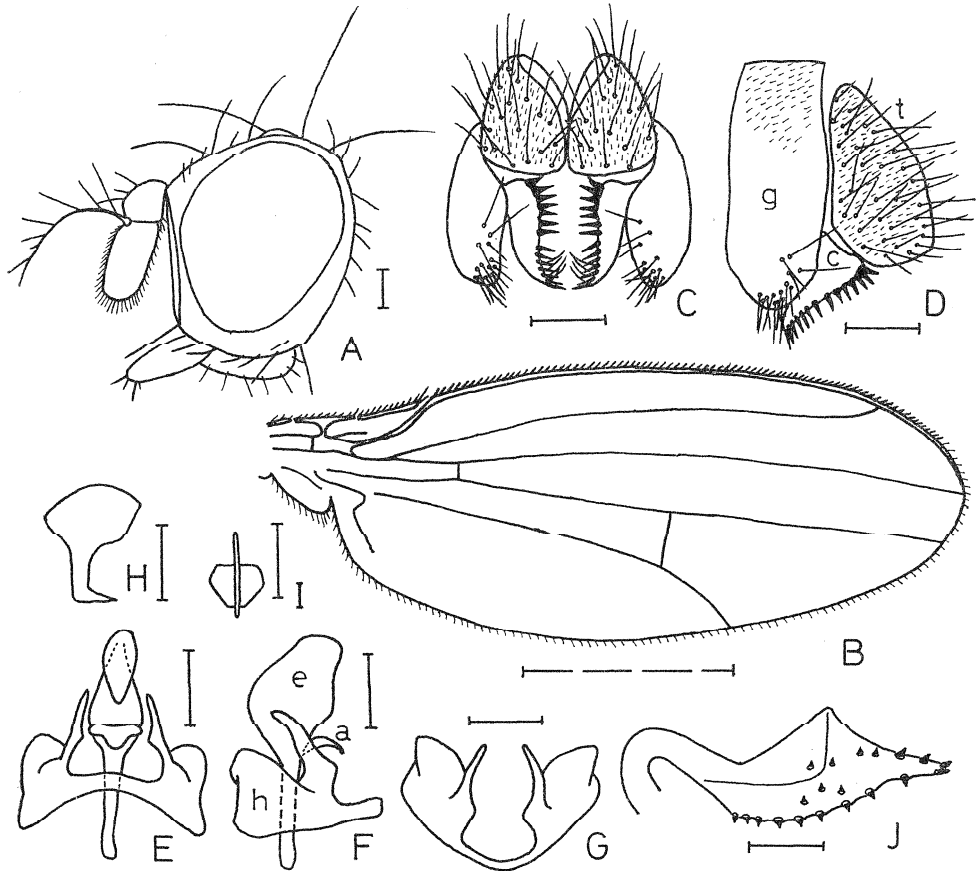


Fig. 3. *Scaptomyza (Scaptomyza) acuta* sp. n. ♂, ♀. A. Head, D. Wing, C. Periphallal organs (ventral aspect), E. Phallic organs (ventral aspect), F. Phallic organs (lateral aspect), G. Hypandrium (caudal aspect), H. I. Ejaculatory apodeme, J. Egg-guide. Scales 1.0 mm in wing, 0.1 mm in other figs. Signs as in Fig. 1. a, anterior paramere; h, hypandrium.

united with each other on their bases. Cerci (anal plate) truncate below, setigerous and pubescent. Phallic organs (Fig. 3 E, F, G) brown. Aedeagus massive, sub-medially swollen, apodeme rod shaped. Anterior paramere dull triangular. Hypandrium with long slightly sinuated processes mid-caudally, and large but dull triangular processes dorsally. Ejaculatory apodeme (Fig. 3 H, I) dark brown, plate hexagonal, stalk very broad and fan-shaped upper. Egg-guide (Fig. 3 J) light brown, robust, apically acutely pointed, with about thirteen marginal and seven discal stout black teeth. Basal isthmus broad but very short.

Holotype: ♂, Nagafusamachi, Hachioji, Tokyo, 26 I 1977 (NISHIHARU), collected by sweeping. Paratypes: 1 ♀, *ibid.* 8 II 1977 (NISHIHARU), 2 ♂, Suyama, Shizuoka Pref., 15 X 1972 (NAKAMURA).

**Relationships:** Belonging to the *flaveola-graminum* species group of the subgenus *Scaptomyza*. The acutely pointed Egg-guide of the present species is unique among the known species of this subgenus.

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The type specimens are deposited at the Department of Biology, Faculty of Science, Tokyo Metropolitan University.

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