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Drosophila Survey of Hokkaido, XXIX.
On *Amitoa trochlea* sp. nov. (Drosophilidae)
with supplementary notes on Diastatidae from Japan

by

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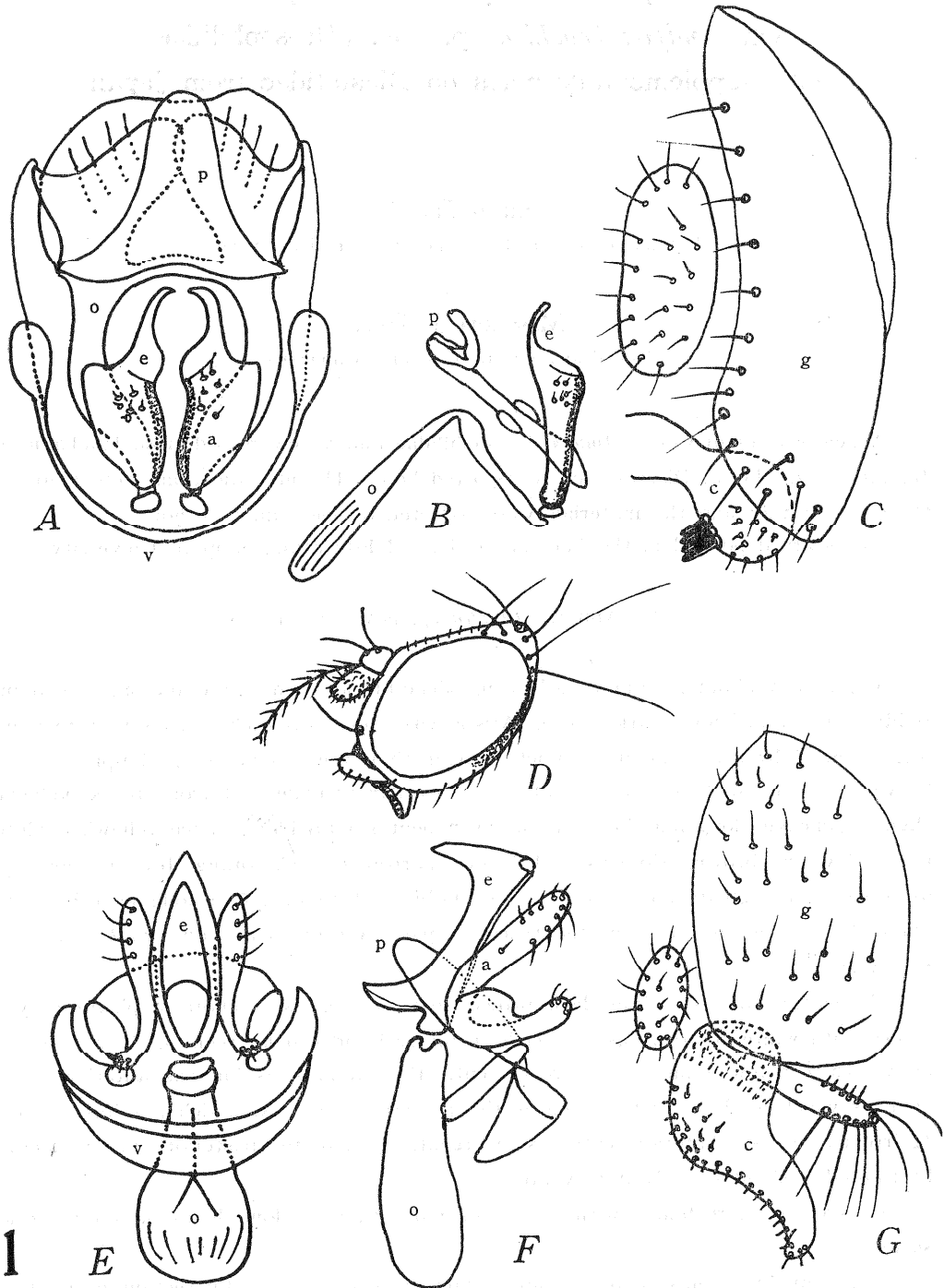


Fig. 1 *Amiota* (*Amiota*) *trochlea* Takada & Toda. A. Phallic organs; B. Lateral aspect of Phallic organs; C.Periphallic organs. *Diastata vagans* Loew. D. Head; E. Phallic organs (Ventral aspect); F. Lateral aspect of Phallic organs; G. Periphallic organs.

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A new species of Genus *Amiota*, Drosophilidae and a new record from Hokkaido on *Diastata vagans* Loew, Diastatidae are reported here. The identifications were made by the senior author and the materials were collected by the junior author.

Types are deposited in the Faculty of General Education, Sapporo University.

✓ *Amiota* (*Amiota*) *trochlea* sp. nov. (Fig. 1, A-C)

✓ Male: Body about 2.8 mm, dark brown. Head black, eye dark red and bare. Antenna reddish brown, 3rd joint dark brown. Arista with about 9 branches including a terminal fork, ventral branches about 3, much shorter than the dorsal ones. Palpi yellowish brown, fusiform, with a few ventral hairs. Ocellar triangle and front black, velvety, slightly concave along mid-line, without prominent frontal hairs. Face yellowish white. Carina low and brown. Clypeus dark brown, narrow. Cheeks orange brown, about 2/9 as broad as the greatest diameter of eye. Orbitals-2 about 4/5 as long as orb-1, and about 2/3 as long as orb-3, situated twice as apart from orb-1 as from orb-3. Only one prominent oral.

Mesonotum and scutellum dark brown, somewhat glossy. Thoracic pleura greyish brown with white elliptical spot at each of humeral and subalar regions. Humerals one, above which a few minute hairs are present. Prescutellars as long as anterior dorso-centrals which is about half as long as the posterior ones. Acrostichal hairs in about 12 irregular rows. Anterior scutellars divergent, equal to the posterior ones in length. Sterno-index about 0.7. Halteres white.

Legs yellow, fore femur with a row of more than 10 long hairs on its posterior surface.

Wings hyaline, veins yellow, about 2.5 mm in length, 3rd costal section with about 20 minute wart-like bristles at its apical half. Radius 2+3 slightly curved forward at tip, R4+5 and media 1 exceedingly convergent at tip. Cx-index* being about 0.5. Costal-index about 2.1, 4V-index about 3.0, 4C-index about 1.6, 5x-index about 1.7. 1st

* Cx-index (Okada, 1960. Mushi. Vol. 34, 3:90)

costal section with 2 apical bristles, upper one slightly longer, the portion of the third costal section covered by the heavier, darker costal fringe on basal 3/5.

Abdominal tergites pale brown, 1st to 2nd segments yellowish at middle. Abdominal sternites yellowish grey.

Periphallic organs: Genital arch seems to have been contiguous merely by a short cross bar at mid-dorsal line, narrowing above. Clasper globular, distally with a row of four teeth, lower teeth being longest.

Phallic organs: Aedeagus brown, paired, distally pointed to inside, crane-like shape, posteriorly fused with anterior paramere, basally becoming slender rods. Anterior paramere brown, distally broadened, subapically with about 6-7 sensilla. Posterior paramere fused with each other to compose an equilateral triangular shaped plate. Ventral fragma is a narrow semicircular loop.

Holotype. ♂, Misumai, Sapporo, Sept. 2, 1971 (Toda).

Paratype. 1♂, Misumai, Sapporo, July 11, 1971 (Toda).

Distribution. Hokkaido.

Relationships. Resembles *A. (A.) dispina* Okada from Tokyo, but distinguished from the present ^{*dispina*} species in having aedeagus crane-like shape and wing-indices ^{*big*} rather larger than the former, sterno-index about 0.7, mesonotum and scutellum dark brown, somewhat glossy.
 (*0.8 in dispina*) (*not brownish black in dispina*)

✓ *Diastata vagans* Loew (Fig. 1, D-G)

Diastata vagans Loew, 1864. Berl. entom. Zeitscher., 8: 362.

Diastata vagans Loew: Okada, 1956. Syst. study of Drosophilidae and allied families of Japan: 12. Okada, 1960. Kontyu, 28: 165.

Body dark brown, male about 3.8 mm and female about 4.0 mm in length. Acrostichal hairs about 8 rows. Humerals one. Posterior scutellars upright, convergent. Anterior and posterior verticals long, equal in size. Dorsocentrals and anterior scutellars long. Sterno-index about 0.3.

Wings of male about 3.0 mm and female about 3.4 mm in length. Posterior cross vein, costal cell and upper half of marginal cell fuscous. Costal index about 4.3, 4V-index about 1.0, 4C-index about 0.4, 5x-index about 0.7; C1-bristles 2, long and equal in size; C3-fringe on basal 3/4.

Legs yellow, fore femur with a row of short fine teeth on inner side. Preapicals on all three tibiae, middle and hind ones strong. Apicals on middle and hind tibiae.

Periphallic organs: Genital arch dark brown, broad and rounded below. Clasper two set, lower one elongated downwards with macrotrichia distributed outer margin.

Phallic organs: Aedeagus medially concaved dorsally. Phallosomal index about 0.7. Specimens examined: 2♂, 2♀, Misumai, Sapporo, Aug. 5, 1971 (Toda, collected by net).

Distribution. Hokkaido (new record), Honshu, Amami-oshima, Europe and North America.

Remarks. The aedeagus of Okada's figures (1956) has medially convex dorsally (concaved in this specimens) and the phallic and periphallic organs are of different proportion or shape from those shown.

Abbreviations used in figures

a. anterior paramere; c. Clasper; e. aedeagus; g. genital arch;
o. apodeme of aedeagus; p. posterior paramere; v. ventral fragma.