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NEW DATA ON ASIAN DROSOPHILID FLIES (DIPTERA, DROSOPHILIDAE). PART 3

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Two new species: *Paraleucophenga emeiensis*, sp. n. (China) and *Leucophenga (Nankangomyia) philippinensis*, sp. n. (Philippines) are described. *Drosophila (Dorsilopha) neobusckii* Toda, *D. (Drosophila) nullilineata* Zhang et Toda, *D. (D.) ruberrima* Meijere, *D. (D.) sulfurigaster albostrigata* Wheeler, *D. (Sophophora) malerkotliana malerkotliana* Parshad et Paika, *Scaptomyza (Parascaptomyza) elmoi* Takada are recorded from Vietnam for the first time.

KEY WORDS: Diptera, Drosophilidae, new species, new records.

В.С. Сидоренко. Новые сведения об дрозофилидах (Diptera, Drosophilidae). Часть 3 // Дальневосточный энтомолог. 1998. N. 56. С. 1-8.

Описаны 2 новых вида: *Paraleucophenga emeiensis*, sp. n. (Китай) и *Leucophenga (Nankangomyia) philippinensis*, sp. n. (Филиппины). Из Вьетнама впервые указываются *Drosophila (Dorsilopha) neobusckii* Toda, *D. (Drosophila) nullilineata* Zhang et Toda, *D. (D.) ruberrima* Meijere, *D. (D.) sulfurigaster albostrigata* Wheeler, *D. (Sophophora) malerkotliana malerkotliana* Parshad et Paika и *Scaptomyza (Parascaptomyza) elmoi* Takada.

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INTRODUCTION

Based on the collection material from various parts of East Asia (Vietnam, Southern China and Philippines) two new species are described below. Six species, mainly from the *immigrans* species-group of the genus *Drosophila* Fallén, 1823, are firstly found in Vietnam. Types of new species described here are deposited in the Entomological Institute, Hokkaido University. Specimens from Vietnam are in collection of Zoological Institute (St. Petersburg).

DESCRIPTION OF NEW SPECIES

Paraleucophenga emeiensis Sidorenko, sp. n.

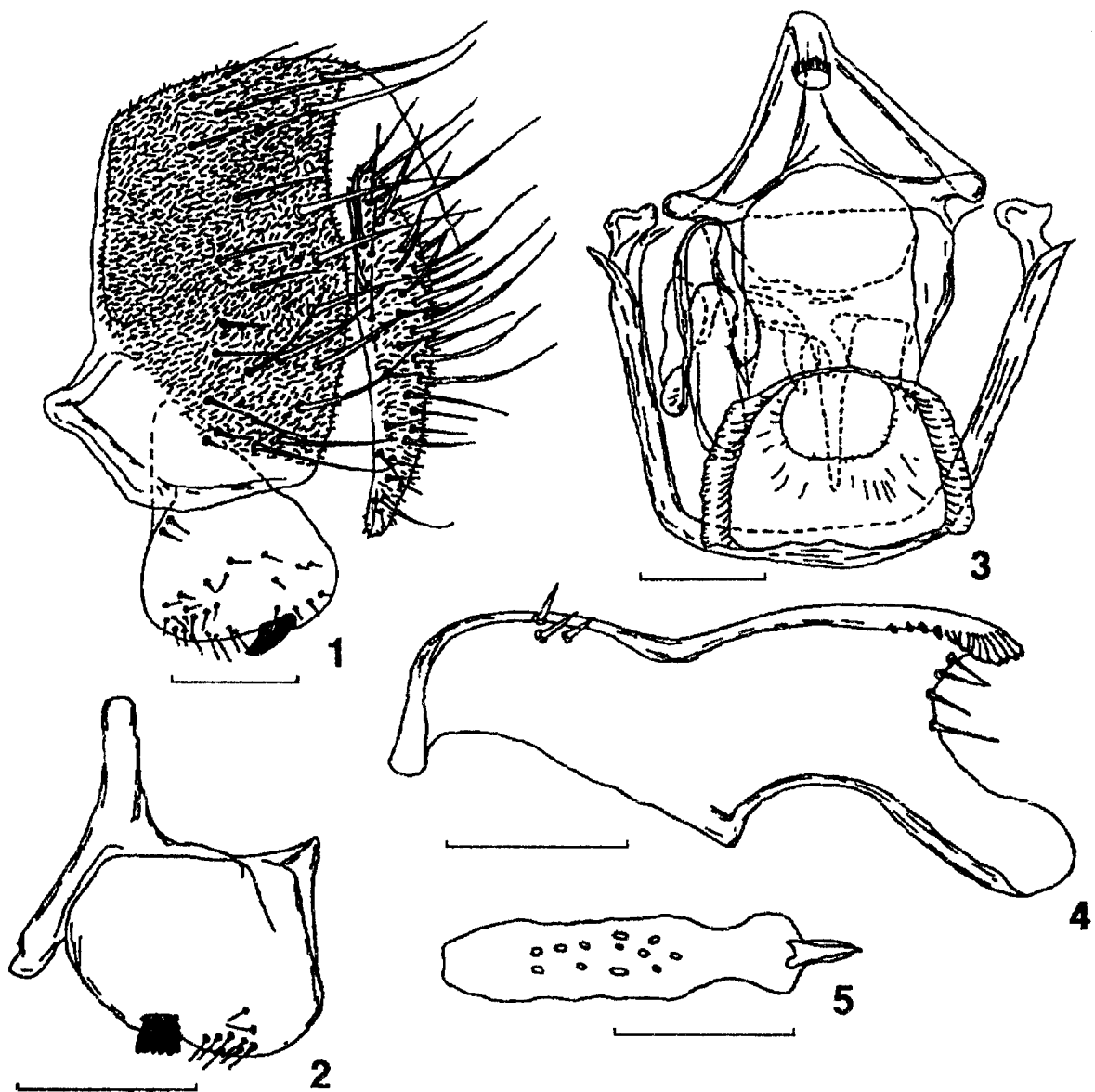
Figs 1–5

MATERIAL. Holotype – ♂, China, Sichuan Prov., Mt. Emei, 550 m, by sweeping, 15.VII 1992 (M.J. Toda).

DIAGNOSIS. Surstylus (Fig. 2) with *ca.* 6–7 chitinized prenisetae situated in slightly concave row. Aedeagus (Fig. 3) membranous, short, without crown. Parameres (Fig. 4) with *ca.* 7–8 sensillae and 3 processes.

DESCRIPTION. Head. Eyes red. Ocellar triangle brownish black; ocelli reddish. Pedicel yellowish brown; 1st flagellomere somewhat darker, rounded below. Arista with very fine branches ventrally. Frontal vitta yellowish brown, with *ca.* 14 interfrontal setulae. Fronto-orbital plate paler than frontal vitta. Clypeus yellow. Facial carina low and short, slightly prominent in upper part. Palpus brownish black, basally yellow, with 1 long subapical seta and 4–5 shorter ventral ones. Scutum and scutellum yellowish brown, yellowish laterally. Postpronotal lobe paler than scutum; postpronotal seta 1, long. Acrostichal setulae situated in 10 irregular rows. Apical scutellar setae convergent and crossed, basal divergent. Mesopleuron light brown, katepisternum dark brown. 3 katepisternal setae present. Wing pale brown, more darkened anteriorly. Crossveins slightly fuscous. C2 setae 2, equal in size. Halter pale yellow, knob of halter brown. Legs yellow. Preapical and apical dorsal setae on all tibiae. Fore and middle tarsomeres as long as other succeeding segments together. Abdomen. Tergites pale yellow, silvery shining dorsally, with dark brown spots: 2nd to 3rd tergites with somewhat quadrate lateral spots, 4th tergite with dark spots connected by dark caudal band, 5th to 6th tergites dark brown, anteromedially yellow. Sternites pale yellow. 7th sternite bicolorous: posterior half dark brown and widely broadened.

Male terminalia. Epandrium (Fig. 1) pubescent, with 23 setae; ventrally rounded and with long finger-like process directed inward. Cercus pubescent, elongated, submedially somewhat broadened, with *ca.* 40 setae. Surstylus (Fig. 2) somewhat quadrate, ventrally slightly broadened, with *ca.* 32 short setulae on outer and *ca.* 5 ones on inner surface. Basal processes of aedeagus claw-shaped, strongly chitinized. Aedeagus (Fig. 3) slightly chitinized, short, without round crown. Aedeagal apodeme narrowed below, bilobed. Parameres (Fig. 4) elongated, with 3 processes: dorsal one almost rectangular, with *ca.* 10 short finger-like processes, median one rounded, slightly chitinized; ventral one acuted. Hypandrium almost quadrate, anterior hypandrial lobe slightly chitinized. Gonopodes triangular basally, narrowed and with fine setae apically, curved to ventral part of cercus. Ejaculatory apodeme – Fig. 5.



Figs 1-5. *Paraleucophenga emeiensis* sp.n.: 1) periphallic organs in lateral view; 2) surstylus in lateral view; 3) male genitalia in ventral view; 4) paramere in lateral view; 5) ejaculatory apodeme. Scale-line = 0.1 mm.

MEASUREMENTS. BL = 4.06 mm; ThL = 2.2 mm; WL = 4.3 mm; WW = 1.95 mm.

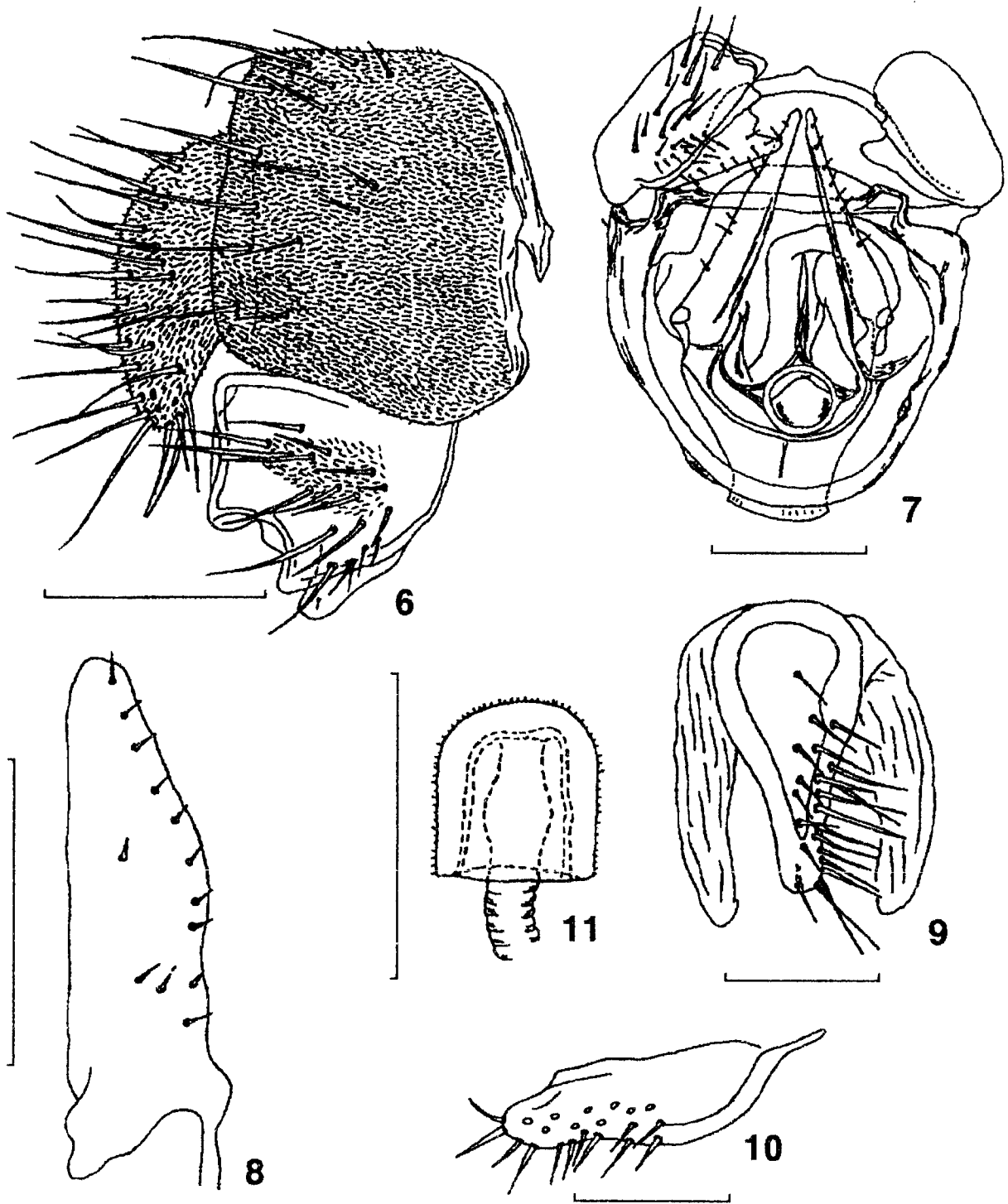
INDICES. FW/HW = 0.26; *ch/o* = 0.06; *prorb* = 0.77; *rcorb* = 0.69; *vb* = 0.25; *dcl* = 0.48; *presctl* = 0.52; *sctl* = 1.2; *sterno* = 0.65; *orbito* = 0.93; *dcp* = 0.34; *sctlp* = 1.06; *C* = 5.28; *4c* = 0.47; *4V* = 1.37; *5x* = 1.07; *C3F* = 0.44; *M* = 0.41; *ac* = 1.25.

Female unknown.

RELATIONSHIPS. New species closely related to *P. invicta* (Walker, 1857) in general appearance but differs from the later by chaetotaxy of epandrium and surstylus as well as shape of parameres.

DISTRIBUTION. China (Sichuan).

ETYMOLOGY. Toponym. Pertaining to the type locality.



Figs 6–11. *Leucophenga (Nankangomyia) philippinensis* sp.n.: 6) periphallic organs in lateral view; 7) male genitalia in ventral view; 8) paramere in lateral view; 9) oviscapt on dorsal view; 10) ditto in lateral view; 11) spermatheca in lateral view. Scale-line = 0.1 mm.

***Leucophenga (Nankangomyia) philippinensis* Sidorenko, sp. n.**

Figs. 6–11

MATERIAL. Holotype - ♂, Philippines, Luzon, Mt. Maquiling, ca. 500 m, ex banana trap, 21–28.I 1991 (K. Ichinose). Paratype - ♀, the same date as holotype.

DIAGNOSIS. Surstylus with 4 rounded processes. Aedeagus (Fig. 7) short, with lateral triangular processes. Parameres (Fig. 8) broad, lanceolate, rounded apically, with *ca.* 12–14 sensillae.

DESCRIPTION. Head. Eyes red. Ocellar triangle dark brown; ocellar setae long; ocelli reddish. Interfrontal setulae *ca.* 20. Frontal vitta and fronto-orbital plates yellowish brown, yellowish gray anteriorly. Facial carina slightly prominent in upper part. Clypeus yellowish brown. Gena yellow, yellowish brown at base of oral setae. Postgena yellow, somewhat broadened ventrally. Palpus yellow, with 1 subterminal long seta and 2–3 more short ventral. Pedicel yellowish brown; 1st flagellomere yellowish gray. Scutum and scutellum yellowish brown. Postpronotal lobe with 1 prominent seta. Acrostichal setulae in 10 irregular rows. Anterior dorsocentral setae rather short. Mesopleuron pale yellowish brown. Basal scutellar setae divergent, apicals convergent and crossed. Wing hyaline. Veins and crossveins yellow. Halter yellow. Legs yellow. Preapical and apical dorsal setae on all tibiae. Abdomen. Tergites: 1st and anterior half of 2nd yellowish gray, other dark brown, with black caudal bands. Sternites pale gray. Pleural membrane pale yellow.

Male terminalia. Epandrium (Fig. 6) rounded ventrally, with *ca.* 15 setae, pubescent, excluding posteroventral part. Cercus pubescent, elongated. Surstylus rounded below, with *ca.* 20 setae, ventrally with group of fine setulae, dorsally pubescent, with *ca.* 21 short setae ventrally. Genital orifice shifted near base of apodeme. Dorsal process of aedeagus slightly chitinized, subapically narrowed and curved anteriorly. Aedeagal apodeme short, broad, flattened dorsoventrally. Hypandrium broadly rounded below. Gonopodes semicircular, broad, medially notched.

Female terminalia. Hypoproct densely pubescent. Oviscapt (Figs. 9, 10) droplet-shaped (in ventral view), with *ca.* 40 sharply acuted setae. Spermatheca (Fig. 11) bell-shaped. Spermathecal duct introverted into capsule.

MEASUREMENTS. BL = 2.75 mm (2.9 mm in paratype); ThL = 1.23 mm (1.6 in paratype); WL = 2.1 mm (2.16 in paratype); WW = 1.25 mm.

INDICES. FH/HW = 0.42; *ch/o* = 0.08; *prorb* = 0.88; *rcorb* = 0.8; *vb* = 0.33; *orbito* = 0.73; *dcl* = 0.43; *presctl* = 0.55; *sctl* = 1.14; *sterno* = 0.69; *dcp* = 0.25; *sctlp* = 0.69; *C* = 2.9; *4c* = 0.89; *4V* = 1.96; *5x* = 0.88; *ac* = 1.67; *M* = 0.49; *C3F* = 0.78; *arb* = 8/6.

RELATIONSHIPS. New species resembles *L. (N.) academica* Máca et Lin, 1993 but may be easily distinguished from the latter by diagnostic characters. On the other hand, new species somewhat similar with *L. (N.) leucophengoides* (Sturtevant, 1927), tentatively replaced from the genus *Amiota* to *Leucophenga* Mik, 1886 by Máca & Lin (1993) in some morphological characters (coloration of head, one prominent vibrissa, quite narrow cheek) but can be separated from the latter by coloration of thorax and abdomen.

DISTRIBUTION. Philippines (Luzon).

ETYMOLOGY. Toponym. Pertaining to the type locality.

LIST OF SPECIES FIRSTLY RECORDED FROM VIETNAM

Drosophila (Dorsilopha) neobusckii Toda, 1986

Drosophila (Dorsilopha) neobusckii Toda, 1986a: 285.

MATERIAL. Vietnam: 1 ♂, 70 km NW Hanoi, Ba Vi, 400 m, forest, 22.XI 1990 (E. Nartshuk); 1 ♀, prov. Ha Son Binh, Ky Son, Kao Phong, 26.X 1990 (E. Nartshuk), 1 ♀, prov. Vinh Phu, 1000 m, 17.XI 1990 (E. Nartshuk).

DISTRIBUTION. Vietnam (new record), Myanmar.

Drosophila (Drosophila) nullilineata Zhang et Toda, 1988

Drosophila (Drosophila) nullilineata Zhang & Toda, 1988: 1101.

MATERIAL. Vietnam: 3 ♂, 2 ♀, , prov. Vinh Phu, Tam Dao, 1000 m, forest, 10–13.XI 1990 (E. Nartshuk).

DISTRIBUTION. Vietnam (new record), China (Yunnan).

Drosophila (Drosophila) ruberrima Meijere, 1911

Drosophila ruberrima Meijere, 1911: 403.

Spinulophila ruberrima: Duda, 1924: 210, 231.

Acanthophila (Drosophila) ruberrima: Duda, 1926: 82.

Drosophila (Drosophila) ruberrima: Sturtevant, 1942: 32.

MATERIAL. Vietnam: ♂, prov. Ha Son Binh, Mai Chou, forest near stream, 31.X 1990 (E. Nartshuk).

DISTRIBUTION. Vietnam (new record), China, Taiwan, Myanmar, Indonesia (Java, Sumatra).

Drosophila (Drosophila) sulfurigaster albostrigata Wheeler, 1969

Drosophila (Drosophila) sulfurigaster albostrigata Wheeler, in Wilson et al., 1969: 217.

MATERIAL. Vietnam: 1 ♂, prov. Ha Son Binh, Ky Son, Cao Phong, 26.X 1990 (E. Nartshuk); 2 ♂, prov. Ha Son Binh, Mai Chou, forest near stream, 31.X 1990 (E. Nartshuk).

DISTRIBUTION. Vietnam (new record), China, Philippines, Cambodia, Thailand, Myanmar, Malaysia, Singapore, Borneo.

Drosophila (Drosophila) spp.

MATERIAL. Vietnam: 5 ♀, prov. Ha Son Binh, Da Bac, Tuly, bamboo forest, 19–22.X 1990 (Belokobylskij, Nartshuk); 8 ♀, prov. Ha Son Binh, Ky Son, Cao Phong, 26–28.X 1990 (Nartshuk); 5 ♀, prov. Ha Son Binh, Mai Chou, forest near stream, 31.X.–2.XI 1990 (Nartshuk); 1 ♀, 70 km NW Hanoi, Ba Vi, 400 m, forest, 22.XI 1990 (Nartshuk).

NOTES. Females of the *nasuta* species-subgroup of the *D. immigrans* species-group are very hard or sometimes impossible to be identified to species (Toda, 1986b). Therefore collection records of these specimens from Vietnam are presented without identification of species.

***Drosophila (Sophophora) malerkotliana malerkotliana* Parshad et Paika, 1964**

Drosophila (Sophophora) malerkotliana Parshad & Paika, 1964: 235.

Drosophila (Sophophora) malerkotliana malerkotliana: Bock, 1971, Univ. Texas Publ., 7103: 274.

MATERIAL. Vietnam: 2♂, prov. Ha Son Binh, Mai Chou, forest, 31.X–2.XI 1990 (E. Nartshuk, S. Belokobylskij)

DISTRIBUTION. Vietnam (new record), Southern China, Thailand, Malaysia, Singapore, Philippines, Java, Borneo, Andaman Is, Nicobar Is, India, Sri Lanka, Brazil.

***Scaptomyza (Parascaptomyza) elmoi* Takada, 1970**

Scaptomyza (Parascaptomyza) elmoi Takada, 1970: 144.

MATERIAL. Vietnam: 1♀, prov. Ha Son Binh, Ky Son, Cao Phong, 25.X 1990 (E. Nartshuk); 1♂, 2♀, prov. Vinh Phu, Tam Dao, 1000 m, forest, 14–16.XI 1990 (E. Nartshuk); 1♂, 10♀, 70 km NW Hanoi, Ba Vi, 400 m, forest, 22.XI 1990 (E. Nartshuk).

DISTRIBUTION. Vietnam (new record), Japan, Taiwan, Hawaii, Australia.

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