

## NEW HOST RECORDS OF JAPANESE TACHINIDAE (Diptera: Calyptrata)

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NEW HOST RECORDS OF JAPANESE TACHINIDAE  
(Diptera : Calyptrata)

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Still little has been known on the host insects of the Japanese Tachinidae. In this paper I report the host insects of 24 species of the Japanese Tachinidae, of which 2 species are newly recorded. All of the host insects reported here belong to Lepidoptera. Twenty-nine host species are newly recorded, and some of them were attacked by 2 or 3 Tachinid species.

In this paper the date indicates the day of emergence of fly. The host species are listed only when they are newly recorded. In the host list "L" indicates the fly emerged from host larva, "Pr" from host prepupa and "P" from host pupa.

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Subfamily Tachininae  
Tribe Tachinini

1. *Tachina mikado* (Kirby) セスジハリバエ

Specimen examined: 1 ♀, Toso, Kagoshima City, 20. ii. 1966, reared from *Leucania separata* by K. Kanmiya.

This large, bristly and reddish Tachinid is common in Japan. This species has been known as a parasite of *Barathra brassicae* and another species is added here to its host list.

Host: *Leucania separata* Walker (アワヨトウ).

Subfamily Exoristinae  
Tribe Exoristini

2. *Exorista humilis* Mesnil

Specimens examined: 1♂, Sasayama, Tanba (Hyogo Pref.), 10. x. 1956, reared from *Canephora asiatica* by K. Iwata; 5♂♂ 2♀♀, Sasayama, Tanba, 30. vi. 1960, reared from *Clania minuscula* by K. Iwata; 1♀, Haru-machi, Fukuoka City, 6. x. 1971, reared from *Eurukuttarus nigraplaga* by T. Saigusa; 3♂♂ 4♀♀, 13. x. 1971, same locality and same host species as the preceding by T. Saigusa; 2♂♂, same locality as the preceding, 21. x. 1971, reared from a pupa of same host species as the preceding by T. Saigusa; 3♀♀, same data as the preceding, reared from a pupa of same host species as the preceding by T. Saigusa.

This rather small blackish species was first described on a single ♂ specimen obtained in Kou-Ling, Hanoi and then recorded from Chinese Continent and Ina, Nagano Pref., Japan. Besides the above specimens I could examine many specimens obtained in Fukuoka Pref., Tsushima Is. and Kagoshima City. As far as I know only Psychid moths are the host insects of this species.

*Neophryxe psycoidalis* Townsend was described as a new genus and species on a single ♀ specimen "emerged from Psychid cases coll. on Azaleas from Japan at Riverton, New Jersey, March 25, 1915" (Townsend, 1917). This species was reported as a parasite of *Canephora asiatica* from Osaka, Japan (Koizumi, 1964). Though I have not examined the type specimen of *N. psycoidalis*, it may be the same species as *E. humilis* judging from the original description by Townsend.

All of the host insects of *E. humilis* are newly recorded.

Hosts: *Canephora asiatica* Staudinger (ミノガ); *Clania minuscula* Butler (チャミノガ); *Eurukuttarus nigraplaga* Wileman (P) (ネグロミノガ).

3. *Exorista sorbillans* (Wiedemann) クワゴヤドリバエ

Specimens examined: 1♀, Ropponmatsu, Fukuoka City, 6-8. xii. 1963, reared from a pupa of *Papilio xuthus* by T. Shirôzu; 1♂, Yonaguni Is., Ryukyus, 19. viii. 1969, reared from *Attacus atlas* by S. Azuma; 1♂, Yonaguni Is., 4. ix. 1969, reared from *Anomis fulvida* by S. Azuma.

This species is broadly distributed in the Old World and has been known as an injurious parasite of *Bombyx mori*. Three host species are newly recorded here.

Hosts: *Anomis fulvida* Guénée (ミヤコオオアカキリバ); *Attacus atlas* Linné (ヨナグニサン); *Papilio xuthus* Linné (P) (アゲハ).

4. *Exorista japonica* (Townsend) ブランコヤドリバエ

Specimens examined: 1♂ 1♀, Sasayama, Tanba (Hyogo Pref.), 10. vii. 1960, reared from *Clania minuscula* by K. Iwata; 1♀, Daizudo-machi, Kohoku, Yokohama City, 20-23. viii. 1966, reared from a pupa of *Parnara guttata* by K. Ogura.

This species is known as one of the commonest Tachinids and a very

polyphagous species. Thirty host species have been recorded in Japan and 2 species are newly added.

Hosts: *Clania minuscula* Butler (チャミノガ); *Parnara guttata* Bremer et Grey (P) (イチモンジセセリ).

5. *Bessa fugax* (Rondani) ムラタヒゲナガハリバエ

Specimens examined: 1 ♂, Hakoziaki, Fukuoka City, 22. v. 1967, reared from *Pryeria sinica* by H. Shima; 5 ♂♂ 1 ♀, same locality as the preceding, 29-31. v. 1971, reared from prepupae of same host species as the preceding by K. Yamaguchi; 1 ♂, Uearata-cho, Kagoshima City, 7. v. 1966, reared from a larva of *Illiberis tenuis* by K. Kanmiya; 1 ♀, 17. v. 1966, same locality and a larva of same host species as the preceding by K. Kanmiya.

This small blackish species is similar in appearance to *Pseudoperichaeta insidiosa*, but can be distinguished by very weak 1st postsutural intraalar bristle on mesonotum. Thirteen host species have been already recorded and 2 new records are added.

Hosts: *Pryeria sinica* Moore (Pr) (ミノウスバ); *Illiberis tenuis* Butler (L) (ブドウスカシクロバ).

Tribe Blondeliini

6. *Compsilura concinnata* (Meigen) ノコギリハリバエ

Specimens examined: 1 ♂, Mt. Hiko, Fukuoka Pref., 8. vi. 1971, reared from *Diaphania perspectalis* by K. Takeno; 1 ♀, 14. vi. 1971, same locality and same host species as the preceding by K. Takeno.

This species is known as one of the most polyphagous Tachinids in the world. About 200 species of Lepidoptera are recorded as the host of this species. In Japan only 9 host species are known. A new host species is added here.

Host: *Diaphania perspectalis* Walker (ツゲノメイガ).

Tribe Siphonini

7. *Ceromyia pruinosa* Shima

Specimen examined: 1 ♀, Mt. Nagamine, 15. vii. 1970, reared from *Dendrolimus undans flaveola* by T. Tsukiyama.

This very small yellowish species was described in 1970 from Hokkaido. This is the first host record of the Japanese *Ceromyia*.

Host: *Dendrolimus undans flaveola* Motschulsky (クヌギカレハ).

Tribe Carceliini

8. *Eucarcelia excisa* (Fallén) キナコハリバエ

Specimens examined: 1 ♂ 1 ♀, Okano-mura, Taki-gun, Tanba (Hyogo Pref.), 17.

vi. 1952, reared from a larva of *Ladoga camilla japonica* by K. Nohara; 1 ♀, same locality and host species as the preceding, 18. vi. 1952, by K. Nohara.

In Europe many species of Lepidoptera have been recorded as the hosts of this species. This is the fourth record of host insects in Japan.

Host: *Ladoga camilla japonica* Ménétériès (L) (イチモンジチョウ).

9. *Eucarcelia kockiana* (Townsend) ナカジロハリバエ  
= *Carcelia evolans* (Wiedemann)

Specimens examined: 1 ♀, Kitano Shrine, Kyoto, 30. iv. 1960, reared from *Perinephela lancealis* by K. Iwata; 1 ♂, Sasayama, Hyogo, 20-23. ix. 1968, reared from *Clostera anastomosis tristis* by O. Yata; 1 ♀, Kagoshima, 13. x. 1970, reared from *Pelopidas mathias oberthueri* by K. Kusigemati.

This species is broadly distributed in the tropical and subtropical Asia and Africa. In Japan only 2 host species were recorded. Following 3 species are newly added to its host list.

Hosts: *Clostera anastomosis tristis* Staudinger (セグロシャチホコ); *Pelopidas mathias oberthueri* Evans (チャバネセセリ); *Perinephela lancealis* Denis et Schiffermüller (キイロノメイガ).

10. *Carcelia bombylans* Robineau-Desvoidy カクモンヤドリバエ

Specimens examined: 2 ♀♀, 29. vi. 1965, 1 ♀, 11. vi. 1971, 1 ♂, 14. vi. 1971, 1 ♂, 16. vi. 1971, all of them were reared from pupae of *Euproctis flava* collected at Ikenoue, Yamato-cho, Saga Pref. by H. Maebara; 1 ♂, 17. vi. 1971, 1 ♀, 18. vi. 1971, 1 ♂, 19. vi. 1971, 1 ♂ 1 ♀, 24. vi. 1971, all of them were reared from *Euproctis similis* collected at Ikenoue, Yamato-cho, Saga Pref. by H. Maebara.

Two species of *Euproctis* are added to the 3 known hosts of this species.

Hosts: *Euproctis flava* Bremer (P) (ドクガ); *Euproctis similis* Fuessly (モンシロドクガ).

11. *Carcelia excavata* (Zetterstedt)

Specimen examined: 1 ♀, Uearata-cho, Kagoshima City, 28. v. 1970, reared from *Malacosoma neustria testacea* by K. Matsumoto.

This species is well known as a parasite of *M. neustria* in Europe. Besides the above specimen I could examine many specimens of this species reared from *M. neustria testacea* collected and examined by Messrs. M. Shiga and A. Nakanishi in 1966 at Ropponmatsu, Fukuoka City.

This greyish Tachinid has very large and densely haired eyes, and in appearance it is similar to the preceding species. This species is distinguishable from the latter by 2 or 3 strong anterodorsal setae of mid-tibia.

The host species is newly recorded from Japan.

Host: *Malacosoma neustria testacea* Motschulsky (オビカレハ).

12. *Argyrophylax apta novella* Mesnil

Specimens examined: 2 ♂♂, Sasayama, Tanba (Hyogo Pref.), 27. viii. 1965

reared from *Polytrems pellucida* by K. Iwata; 1 ♀, Shiroyama, Kagoshima City, 29. v. 1971, reared from a larva of *Potanthus flavum* by H. Tanaka.

Two Hesperid butterflies have been already recorded as the hosts of this species. The third Hesperid butterfly is added here.

Host: *Polytrems pellucida* Murray (オオチャバネセセリ).

#### Tribe Winthemiini

##### 13. *Winthemia venusta* (Meigen)

Specimen examined: 1 ♀, Koseki, Yamanashi Pref., 18. v. 1960, reared from a larva of *Stauropus fagi persimilis* by R. Morimoto.

The ♂ of this species has shining black mesonotum and entirely whitish or yellowish white abdomen. This species hitherto has not been recorded from Japan, but it is rather common in Japan. Host species is newly recorded.

Host: *Stauropus fagi persimilis* Butler (L) (シャチホコガ).

##### 14. *Nemosturmia amoena* (Meigen)

Specimen examined: 1 ♂, Sasayama, Tanba (Hyogo Pref.), 10. vii. 1959, reared from *Drymonia chaon* (= *D. dodonides*) by K. Iwata.

In Europe this species is known as a specific parasite of *Panolis flammea* Schiffermüller et Denis. This species has haired gena as the preceding species, but the abdomen of this species is more blackish. Only one species, *Arctia caja phaeosoma* has been known as a host of this species. Another one is recorded here.

Host: *Drymonia dodonides* Staudinger (トビモンシャチホコ).

##### 15. *Nemorilla floralis* (Fallén) ギンガオハリバエ

Specimen examined: 1 ♀, Sasayama, Tanba (Hyogo Pref.), 27. vi. 1965, reared from *Sparganothis pilleriana* by K. Iwata.

This rather small blackish species is common in Japan. One Tortricid and 4 Pyralid moths (Pyraustinae) have been recorded as the host species in Japan. Another Tortricid moth is newly added.

Host: *Sparganothis pilleriana* Schiffermüller (テングハマキ).

#### Tribe Sturmiini

##### 16. *Pales pavida* (Meigen) カイコノクロウジバエ

Specimens examined: 1 ♂, Ikenoue, Yamato-cho, Saga Pref., 6. vi. 1971, reared from *Euproctis pseudoconspersa* by H. Maebara; 1 ♀, Uearata-cho, Kagoshima City, 27. v. 1971, reared from *Malacosoma neustria testacea* by K. Matsumoto.

This and the following 3 species are microoviparous Tachinid flies. This species is well known as an injurious parasite of silkworm, and about

18 species of Lepidoptera have been recorded as the hosts of this species in Japan. Here 1 species is added to its host list.

Host: *Euproctis pseudoconsersa* Strand (チャドクガ).

17. *Sturmia bella* (Meigen)

Specimens examined: 1 ♂, Kamigamo, Kyoto, 3. vi. 1964, reared from *Nymphalis xanthomelas japonica* by K. Iwata; 1 ♂ 1 ♀, 4. vi. 1964, same locality and same host species as the preceding by K. Iwata; 2 ♂♂, Mt. Nyugasa, Nagano Pref., 29. viii. 1969, reared from a pupa (or pupae) of *Inachus io geisha* by K. Fujimoto; 1 ♂ 2 ♀♀, 31. viii. 1969, same locality and same host species as the preceding by K. Fujimoto.

In Europe this species has been known as a parasite of Nymphalid butterflies (especially Nymphalinae). Six species of butterflies have been known from Japan and a Nymphalid is newly added to its host list.

Host: *Nymphalis xanthomelas japonica* Stichel (L) (ヒオドシチョウ).

18. *Blepharipa zebina* (Walker) カイコノウジバエ

Specimens examined: 1 ♀, Suwa Shrine, Nagasaki City, 5. vii. 1971, reared from *Graphium doson albidum* by M. Ezima; 2 ♂♂, Ropponmatsu, Fukuoka City, 15. xi. 1970, reared from pupae of *Papilio xuthus* by T. Shirôzu; 2 ♂♂ 4 ♀♀, same locality as the preceding, 17. xi. 1970, reared from pupae of *P. xuthus* by T. Shirôzu.

This species is well known as one of the most injurious parasites of silkworm. Two Papilionid butterflies are newly recorded here as the hosts of this species.

Hosts: *Graphium doson albidum* Wileman (ミカドアゲハ); *Papilio xuthus* Linné (P) (アゲハ).

19. *Blepharipa schineri* (Mesnil)

Specimens examined: 1 ♀, Sasayama, Tanba (Hyogo Pref.), 10. v. 1960, reared from *Clostera anastomosis tristis* by K. Iwata; 1 ♀, same locality as the preceding, 10. v. 1960, reared from *Drymonia chaon* (= *D. dodonides*) by K. Iwata; 1 ♂, 15. iv. 1960, reared from *Ochrostigma manleyi* by K. Iwata.

The host insect of this species has been entirely unknown in Japan. Three lepidopterous hosts are newly recorded.

Hosts: *Clostera anastomosis tristis* Staudinger (セグロシャチホコ); *Drymonia dodonides* Staudinger (トビモンシャチホコ); *Ochrostigma manleyi* Leech.

20. *Isosturmia picta* (Baranov) ドクガヤドリバエ

Specimens examined: 1 ♂ 2 ♀♀, Ikenoue, Yamato-cho, Saga Pref., 7. vii. 1971, reared from *Euproctis pseudoconsersa* by H. Maebara; 2 ♂♂, 10. v. 1971, same locality and same host species as the preceding by H. Maebara.

This species is distributed in the Oriental Region. In Japan *Euproctis flava* and *E. pseudoconsersa* are known as the hosts of this species, and the former was also reported from Ceylon.

21. *Zygothria atropivora* (Robineau-Desvoidy) イモムシヤドリバエ

Specimens examined: 4 ♂♂ 3 ♀♀, Chinen, Okinawa Is., Ryukyus, 9. viii. 1969, reared from *Psilogramma increta* by S. Azuma.

This species is very widely distributed in the Old World. Two lepidopterous hosts have been recorded in Japan. Another one is newly recorded here from the Ryukyus.

Host: *Psilogramma increta* Walker (シモフリスズメ).

22. *Pseudoperichaeta insidiosa* (Robineau-Desvoidy)

Specimens examined: 1 ♀, Okano, Sasayama, Tanba, 7. vi. 1960, reared from *Adoxophyes orana* by T. Okutani; 1 ♂, Mt. Hiko, Fukuoka Pref., 8. vi. 1971, reared from *Diaphania perspectalis* by K. Takeno; 1 ♂, Tsuya, Fukuoka Pref., 9. viii. 1971, reared from *Cnaphalocrocis medinalis* by Y. Yoneda; 1 ♂, 13. xi. 1967, Hakozaki, Fukuoka City, reared from same host species as the preceding by Y. H. Shin.

This rather small black species is common in Japan. Eight species have been recorded in Japan, and 3 are newly recorded here.

Hosts: *Adoxophyes orana* Fischer von Röslerstamm (コカクモンハマキ); *Cnaphalocrocis medinalis* Guénéée (コブノメイガ); *Diaphania perspectalis* Walker (ツゲノメイガ).

## Tribe Masicerini

23. *Phryxe vulgaris* (Fallén) エゾシロヤドリバエ

Specimen examined: 1 ♂, Karuizawa, Nagano Pref., 6. ix. 1962, reared from *Colias erate poliographus* by T. Maenami.

This is a very common Tachinid fly in Japan. Six butterflies have been recorded as the hosts of this species in Japan and another one is newly added here.

Host: *Colias erate poliographus* Motschulsky (モンキチョウ).

24. *Zenillia dolosa* (Meigen)

Specimen examined: 1 ♂, Hoya City, Tokyo, iv. 1970, reared from *Pieris rapae crucivora* by F. Nagayama.

This species has not been recorded from Japan. This is the first record of this and its host species from Japan. This species is very closely related to *Zenillia libatrix*. But the 3rd antennal segment of this species is longer and ♂ genitalia are entirely different.

*Zenillia nox* Holl, which has been known as a parasite of *Pristiphora erichsoni* in Japan, was synonymized as *Myxexoristops blodeli* (Robineau-Desvoidy) (Koizumi, 1964; Sabrosky & Arnaud, 1965).

Host: *Pieris rapae crucivora* Boisduval (モンシロチョウ).

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