

# FRAGMENTA FAUNISTICA

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## Notes on syrphid flies (*Diptera, Syrphidae*) of Japan

**Abstract:** The paper contains a list of 21 species of flies of the family *Syrphidae* collected on the Japanese islands of Honshu and Hokkaido. A few rare species were identified, namely: *Chrysotoxum sapporensis* MATS., *Cheilosia latifaciella* (SHIR.), *Microdon japonicus* YANO, *Dideoides latus* (COQ.) and *D. coquilletti* VAN DER GOOT.

**Key words:** *Syrphidae*, *Diptera*, Japan

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### INTRODUCTION

The material presented in this paper was collected during one trip to Japan in 1970 by Prof. Józef Razowski of the Institute of Systematic and Evolution of Animals, PAS, Cracow. Syrphid flies were collected on two large Japanese islands: Honshu and the northernmost island of Hokkaido. The size of the material is not big, with only 21 hover fly species identified, and probably would not be worth publishing were it not for some rare species found in it. These are: *Chrysotoxum sapporensis* MATS., *Cheilosia latifaciella* (SHIR.), *Microdon japonicus* YANO, recorded from a small number of locations in Japan, and *Dideoides latus* (COQ.) and *D. coquilletti* VAN DER GOOT, also rare species of flies, for which Hokkaido is the northernmost locality. Other equally interesting species in this collection are *Mesembrius flaviceps* MATS., *Dasysyrphus bilineatus* (MATS.) or *Helophilus virgatus* COQ. Apart from the islands of Japan, they have been found in eastern Asia. The other species have quite broad distribution ranges and represent mainly Palaearctic, Holarctic or Cosmopolitan element. Some, such as *Betasyrphus serarius* (WD.), are distributed throughout the Oriental region and in the south-eastern part of Palaearctis.

Others, such as *Sphaerophoria macrogaster* (TH.) have even broader ranges as they are also found in New Guinea, New Caledonia and Australia.

Japan is probably the best studied area in the Far East with respect to *Syrphidae* fauna, with earlier papers by LOEW (1858), HERVÉ-BAZIN (1914), KIMURA (1953), MATSUMURA (1904, 1918, 1919, 1931) and numerous contributions by SHIRAKI (1930, 1949, 1952, 1953, 1954, 1956), culminating in the volumes of his monograph of *Syrphidae* (1968). A few faunistic and taxonomical papers on *Syrphidae* date from later periods, including a monograph of the genus *Platycheirus* LEP. (ÔHARA, 1980). Characteristically, all these papers mention a large number of endemic species, implying a rather unique character of the Japanese fauna. However, as investigations of the fauna of adjacent regions in Eastern Asia and neighbouring islands advance, the ranges of certain species previously regarded as endemic turn out to extend to other areas, too. One example is *Chrysotoxum sapporensis*, reported by MATSUMURA in 1919 from Hokkaido and later found in Korea and Russian Primorye (VIOLOVITSCH, 1974).

#### SPECIES COMPOSITION

### Family: SYRPHIDAE

#### Subfamily: Syrphinae

#### *Betasyrphus* MATSUMURA, 1917

##### 1. *Betasyrphus serarius* (WIEDEMANN, 1830)

Material examined: Japan: Honshu, Kinki, 9. 05. 1970, 1 female.

Distribution: Far East of Russia (Khabarovsk, Primorye, Sakhalin, Kuril Is), China, Korea, Japan, Oriental Region, New Guinea, Australia.

#### *Dasysyrphus* ENDERLEIN, 1938

##### 2. *Dasysyrphus bilineatus* (MATSUMURA, 1917)

Material examined: Japan: Honshu, Kinki, 9. 05. 1970, 1 female.

Distribution: Far East of Russia (Primorye, Sakhalin, Kuril Is), Korea, Japan (Hokkaido, Honshu), Taiwan.

#### *Dideoides* BRUNETTI, 1908

##### 3. *Dideoides latus* (COQUILLET, 1898)

Material examined: Japan: Hokkaido, Sapporo, 4. 06. 1970, 2 males, 1 female.

Distribution: Japan (Honshu, Kyushu), Taiwan, China.

##### 4. *Dideoides coquilletti* (VAN DER GOOT, 1964)

Material examined: Japan: Hokkaido, Sapporo, 4. 06. 1970, 1 female.

Distribution: China, Korea, Japan (Honshu, Kyushu), Taiwan.

*Episyrphus* MATSUMURA et ADACHI, 19175. *Episyrphus balteatus* (DE GEER, 1776)

Material examined: Japan: Hokkaido, Sapporo, 4. 06. 1970, 3 females.

Distribution: cosmopolitan species, widely distributed, Known from Japan.

*Sphaerophoria* LE PELETIER et SERVILLE, 18286. *Sphaerophoria indiana* BIGOT, 1884

Material examined: Japan: Hokkaido, Sapporo, 4. 06. 1970. 12 males, 4 females.

Distribution: Sri Lanka, India, Afghanistan, Mongolia, China, Korea, Far East of Russia, Japan and Oriental Region.

7. *Sphaerophoria macrogaster* (THOMSON, 1869)

Material examined: Japan: Hokkaido, Sapporo, 4. 06. 1970, 2 males; Honshu, Sakai, 20-30. 05. 1970, 4 males, 2 females.

Distribution: Sri Lanka, India, Nepal, China, Mongolia, Far East of Russia, Korea, Oriental Region, New Caledonia, New Guinea, Australia.

*Syrphus* FABRICIUS, 17758. *Syrphus ribesii* (LINNAEUS, 1758)

Material examined: Japan: Hokkaido, Sapporo, 4. 06. 1970, 3 females.

Distribution: Holarctic Region. Widely distributed species. Mentioned in Japan.

*Chrysotoxum* MEIGEN, 18039. *Chrysotoxum sapporense* MATSUMURA, 1916

Material examined: Japan: Hokkaido, Sapporo, 4. 06. 1970, 3 females.

Distribution: Japan, Far East of Russia (Primorye), Korea.

*Melanostoma* SCHINER, 186010. *Melanostoma mellinum* (LINNAEUS, 1758)

Material examined: Japan: Hokkaido, Sapporo, 4-5.06.1970, 2 females.

Distribution: widely distributed species in Holarctic Region. Known from Japan.

**Subfamily: Milesiinae***Cheilosia* MEIGEN, 182211. *Cheilosia canicularis* (PANZER, 1801)

Material examined: Japan: Hokkaido, Sapporo, 4. 06. 1970, 1 female.

Distribution: common species, widely distributed in Palearctic Region.

12. *Cheilosia latifaciella* SHIRAKI, 1930

Material examined: Japan: Hokkaido, Sapporo, 4. 06. 1970, 1 female.

Distribution: rare species, known only from Japan.

*Eristalinus* RONDANI, 184513. *Eristalinus sepulchralis* (LINNAEUS, 1758)

Material examined: Japan: Honshu, Kinki, 9. 05. 1970, 1 male, 1 female.

Distribution: widely distributed species in Palaearctic and Oriental Regions.

*Lathyrophthalmus* MIK, 189714. *Lathyrophthalmus aeneus* (SCOPOLI, 1763)

Material examined: Japan: Honshu, Kinki, 9. 05. 1970, 1 male, 3 females.

Distribution: Palaearctic, Nearctic, Afrotropical, Oriental Regions and Australia.

*Eristalis* LATREILLE, 180415. *Eristalis cerealis* FABRICIUS, 1805

Material examined: Japan: Hokkaido, Sapporo, 4. 06. 1970, 1 male, 2 females.

Distribution: Asia and Oriental Region. Known from China, Far East of Russia, Korea and Japan.

16. *Eristalis tenax* (LINNAEUS, 1758)

Material examined: Japan: Hokkaido, Sapporo, 4. 06. 1970, 1 female.

Distribution: Cosmopolitan species.

*Helophilus* MEIGEN, 182217. *Helophilus virgatus* COQUILLET, 1898

Material examined: Japan: Hokkaido, Sapporo, 4. 06. 1970, 1 female.

Distribution: Far East of Russia (Primorye, Sakhalin, Kuril Is), China and Japan.

*Mesembrius* RONDANI, 185718. *Mesembrius flaviceps* (MATSUMURA, 1905)

Material examined: Japan: Honshu, Kinki, 9. 05. 1970, 1 male, 4 females.

Distribution: Far East of Russia (Primorye), Korea, Japan.

*Syritta* LE PELETIER et SERVILLE, 182819. *Syritta pipiens* (LINNAEUS, 1758)

Material examined: Japan: Honshu, Kinki, 9. 05. 1970, 3 males, 2 females.

Distribution: widely distributed species in Palaearctic, Nearctic and Oriental Regions.

*Temnostoma* LE PELETIER et SERVILLE, 182820. *Temnostoma vespiforme* (LINNAEUS, 1758)

Material examined: Japan, Hokkaido, Sapporo, 4. 06. 1970, 1 female.

Distribution: Holarctic Region. Recorded from Japan (Hokkaido).

Subfamily: *Microdontinae**Microdon* MEIGEN, 180321. *Microdon japonicus* YANO, 1915

Material examined: Japan: Hokkaido, Sapporo, 4. 06. 1970, 2 males.

Distribution: recorded only from Japan.

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## STRESZCZENIE

[Tytuł: Notatki o bzygowatych (Diptera, Syrphidae) z Japonii].

Materiał badanych muchówek został zebrany na dwu japońskich wyspach – Honsiu i Hokkaido w 1970 roku przez prof. Józefa Razowskiego. Wyróżniono 21 gatunków *Syrphidae*, wśród których jest kilka rzadko spotykanych: *Chrysotoxum sapporense*, *Cheilosia latifaciella*, *Microdon japonicus*, *Dideoides latus* i *D. coquilletti*.