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## Syrphid and conopid flies (*Diptera*) from Vietnam collected by Polish expeditions

**Abstract:** The paper contains a list of 24 species of flies of the family *Syrphidae* and 1 species of the family *Conopidae* collected by three Polish expeditions in Vietnam. The material of hover flies used in this study included five species rarely recorded at these latitudes: *Dideoides kempi* BRUN., *Spheginobaccha melancholia* HULL, *Sph. demejerei* VAN DOESBURG, *Eristalinus obtusus* HULL and *Xylota steyskali* THOMPS.

**Key words:** *Diptera*, *Syrphidae*, *Conopidae*, Vietnam

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### INTRODUCTION

*Syrphidae* and *Conopidae* fauna of the Oriental Region has been the subject of work of many dipterologists since colonial times. The outcome of investigations in the colonial period was systematic descriptions of the fauna of India and Sri Lanka (BRUNETTI 1908, 1915, 1923), Indochina and Malayan Peninsula (HERVÉ-BAZIN 1926, CURRAN 1928, 1931, 1942) and also some of the islands, including Taiwan (KERTÉSZ 1913 a, 1914, KROEBER 1913 i SACK 1913, 1922, 1927) or Sumatra (DE MEIJERE 1924). However, most papers deal with the entire Oriental region. These are usually systematic revisions of particular genera or lists of the contents of collections, often representing random assortments of specimens, found in various museums all around the world. Among them are papers by KERTÉSZ (1913 b), CHEN (1939), CURRAN (1927, 1930), HERVÉ-BAZIN (1923), HULL (1937, 1941) or SÉGUY (1935, 1948) as well as later contributions by CAMRAS (1957), COE (1964), DOESBURG (1968), HIPPA (1985a,b), KEISER (1958), ÔHARA & KUSIGEMATI (1985), SHIRAKI

(1963), SMITH (1958, 1966), STUCKENBERG (1954) and THOMPSON (1971). However, there is a lack of systematic data on the two families in Vietnam and available data are scattered among numerous papers on Oriental fauna, which is to a great extent, the result of prolonged fighting that destroyed the country.

The present paper contains a list of flies of the *Syrphidae* and *Conopidae* families collected by Polish entomologists of the PAS Institute of Zoology in Warsaw during three expeditions to Vietnam. The first expedition took place in 1966, and the other two in 1996 and 1997, following a long break. All of them focussed on northern Vietnam, involving chiefly the environs of Hanoi and Tam Dao National Park, situated 60 km away from the capital. The size of the material is small, a little more than 100 specimens, but it has turned out to be very interesting. Species identified comprised 24 species of syrphid flies and 1 species of conopid flies, of which 5 Oriental species are rare, their ranges of distribution still being largely unknown. For example, *Dideoides kempfi* has to date been recorded only from Assam (India), *Spheginobaccha demeijerei* has only been reported from Java and Sumatra, *Sph. melancholia* has been known from Vietnam and Thailand, *Eristalinus obtusus* has been described by HULL (1941) in Java, and *Xylota steyskali* has been reported from Taiwan by THOMPSON (1975). None of these species has been recorded at other localities. Most species described in this paper are typically Oriental forms with smaller or broader distribution ranges, and some, such as *Dideopsis aegrota* (FABR.) or *Allograpta javana* (WD.) reach as far as New Guinea and Australia. A large proportion of the species found in Vietnam are distributed, apart from the Oriental realm, in south-eastern Palaearctis: China, Korea, Russia (environs of Vladivostok) and Japan (incl. *Phytomia zonata* (FABR.) or *Eristalinus arborum* (FABR.)). Two of the 24 species of *Syrphidae*, namely, *Episyrphus balteatus* (DE GEËR) and *Eristalis tenax* (L.) are cosmopolitan.

The systematic arrangement of species in this paper was based on the catalogue by KNUTSON, THOMPSON, VOCKEROTH (1975).

#### LIST OF SPECIES

### Family: SYRPHIDAE

#### Subfamily: Syrphinae

#### *Allograpta* OSTEN-SACKEN, 1875

##### 1. *Allograpta javana* (WIEDEMANN, 1824)

Material examined: Vietnam: Ninh Binh prov., Cuc-phuong, 8.06.1966, 7 males, 4 females.

Distribution: Mongolia, China, Korea, Far East of Russia, Japan, Taiwan, India, Sri Lanka, Thailand, Borneo, Sumatra, Solomon Is, Hawaii, Fiji, New Guinea, Australia.



*Asarkina* MACQUART, 18422. *Asarkina porcina* (COQUILLET, 1898)

Material examined: Vietnam: Ninh Binh prov., Cuc-phuong, 6.06.1966, 1 male, Vinh Phu prov., Tam Dao National Park, 11-17.10.1996, 4 males, 1 female.

Distribution: India, Sri Lanka, China, Korea, Japan and Taiwan.

*Betasyrphus* MATSUMURA, 19173. *Betasyrphus serarius* (WIEDEMANN, 1830)

Material examined: Vietnam: Vinh Phu prov., Tam Dao National Park, 16.10.1996, 1 female.

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

*Dideoides* BRUNETTI, 19084. *Dideoides kempfi* BRUNETTI, 1923

Material examined: Vietnam: Vinh Phu prov., Tam Dao National Park, 16.10.1996, 1 female.

Distribution: India (Assam). Now it has been established also in Vietnam.

*Dideopsis* MATSUMURA, 19175. *Dideopsis aegrota* (FABRICIUS, 1805)

Material examined: Vietnam: Vinh Phu prov., Tam Dao National Park, 16.10.1996, 3 males.

Distribution: SE Asia and Oriental Region: India, Sri Lanka, Java, Sarawak, Borneo, Moluccas also New Guinea and Australia.

*Episyrphus* MATSUMURA and ADACHI, 19176. *Episyrphus balteatus* (DE GEER, 1776)

Material examined: Vietnam: Ninh Binh prov., Cuc-phuong, 6.06.1966, 1 female; Vinh Phu prov., Tam Dao National Park, 30.09.-18.10.1996, 2 males, 4 females.

Distribution: cosmopolitan species, widely distributed. Entire Oriental Region.

*Ischiodon* SACK, 19137. *Ischiodon scutellaris* (FABRICIUS, 1805)

Material examined: Vietnam: Hanoi, 15.05.1966, 1 male, Yen-so 10 km S ad Hanoi, 18.05.1966, 2 males.

Distribution: Middle Asia, Mongolia, S E Asia to Japan, Taiwan, India, Java, Philippines, Hawaii, Micronesia, New Caledonia, New Guinea and Australia.

*Metasyrphus* MATSUMURA, 19178. *Metasyrphus confrater* (WIEDEMANN, 1830)

Material examined: Vietnam: Vinh Phu prov., Tam Dao National Park, 16.10.1996, 1 female.

Distribution: China, Japan, entire Oriental Region, New Guinea.

*Melanostoma* SCHINER, 18609. *Melanostoma univittatum* (WIEDEMANN, 1824)

Material examined: Vietnam: Ninh Binh prov., Cuc-phuong, 8.06.1966, 2 females.

Distribution: India, Sri Lanka, Japan (Honshu), Taiwan, Malay Pen., Burma, Sumatra, Sarawak, Fiji, Samoa, New Caledonia, Australia.

*Paragus* LATREILLE, 180410. *Paragus serratus* (FABRICIUS, 1805)

Material examined: Vietnam: Hanoi, 15.05.1966, 1 female.

Distribution: Oriental Region: India, Afghanistan.

**Subfamily: Milesiinae***Spheginobaccha* DE MEJERE, 190811. *Spheginobaccha demejerei* VAN DOESBURG, 1968

Material examined: Vietnam: Ninh Binh prov., Cuc-phuong, 8.06.1966, 1 male.

Distribution: known from Java and Sumatra.

12. *Spheginobaccha macropoda* (BIGOT, 1883)

Material examined: Vietnam: Ninh Binh prov., Cuc-phuong, 8.06.1966, 1 female.

Distribution: India, Burma, Malaya, Laos, Thailand, China, Borneo and Java. Also known from Vietnam.

13. *Spheginobaccha melancholia* HULL, 1937

Material examined: Vietnam: Ninh Binh prov., Cuc-phuong, 8.06.1966, 1 female.

Distribution: Known from Vietnam and Thailand.

*Eristalinus* RONDANI, 184514. *Eristalinus arvorum* (FABRICIUS, 1787)

Material examined: Vietnam: Hanoi, 15.05.1966, 1 male, 1 female, Yen-so near Hanoi, 17.05.1966, 1 male, 1 female; Vinh Phu prov., Tam Dao National Park, 17-18.10.1996, 2 males, 2 females.

Distribution: S E Asia, India, Laos, China, Korea, Japan, Australia, Micronesia, Hawaii.



15. *Eristalinus quinquestriatus* (FABRICIUS, 1794)

Material examined: Vietnam: Hanoi, 15.05.1966, 1 male, Yen-so near Hanoi, 17–18.05.1966, 3 males, 1 female; Ninh Binh prov., Cuc-phuong, 9.06.1966, 1 male.

Distribution: Oriental Region, China, Japan.

16. *Eristalinus laetus* (WIEDEMANN, 1830)

Material examined: Vietnam: Hanoi, 15.05.1966, 1 male, 2 females, Yen-so near Hanoi, 17–18.05.1966, 1 male, 2 females.

Distribution: India, Sri Lanka, Malaya, China, Taiwan, Java, Philippines, Sumatra and Sumbawa.

17. *Eristalinus obtusus* (HULL, 1941)

Material examined: Vietnam: Hanoi, 3.05.1966, 1 female; Vinh Phu prov., Tam Dao National Park, 8–18.10.1996, 15 males, 5 females.

Distribution: previously known from Java.

*Eristalodes* MIK, 189718. *Eristalodes taeniops* (WIEDEMANN, 1818)

Material examined: Vietnam: Vinh Phu prov., Tam Dao Station, 7.10.1996, 1 female, Tam Dao National Park, 16–18.10.1996, 1 male, 1 female.

Distribution: Africa, Palaearctic Region, Nepal, Pakistan and India.

*Eristalis* LATREILLE, 180419. *Eristalis tenax* (LINNAEUS, 1758)

Material examined: Vietnam: Vinh Phu prov., Tam Dao, 8.04.1997, 1 female, Tam Dao National Park, 17.10.1996, 2 females.

Distribution: cosmopolitan species. Entire Oriental Region.

*Mesembrius* RONDANI, 185720. *Mesembrius wulpi* VAN DER GOOT, 1964

Material examined: Vietnam: Hanoi, 15.05.1966, 1 male, 1 female.

Distribution: Oriental Region: Taiwan, Philippines, Sulawesi, Java, Moluccas and New Guinea.

*Phytomia* GUÉRIN-MÉNEVILLE, 183421. *Phytomia errans* (FABRICIUS, 1787)

Material examined: Vietnam: Ninh Binh prov., Cuc-phuong, 6.06.1966, 1 female; Vinh Phu prov., Tam Dao National Park, 16–18.10.1996, 8 males, 6 females.

Distribution: India, China, SE Asia, Japan, Philippines and Java.

22. *Phytomia zonata* (FABRICIUS, 1787)

Material examined: Vietnam: Vinh Phu prov., Tam Dao National Park, 18.10.1996, 2 males.

Distribution: India, Pakistan, Far East of Russia, China, Korea, Japan and Philippines.

*Syritta* LEPELETIER and SERVILE

23. *Syritta orientalis* MACQUART, 1842

Material examined: Vietnam: Hanoi, 15.05.1966, 2 males, 10 km S ad Hanoi, 17–18.05.1966, 4 males.

Distribution: Sri Lanka, India, Malaya, China, Java, Sulawesi and Moluccas.

*Xylota* MEIGEN, 1822

24. *Xylota steyskali* THOMPSON, 1975

Material examined: Vietnam: Vinh Phu prov., Tam Dao, 10.04.1997, 1 female.

Distribution: previously known from Taiwan.

**Family: CONOPIDAE**

*Physocephala* SCHINER, 1861

1. *Physocephala obscura*, KROEBER, 1915

Material examined: Vinh Phu prov., Tam Dao National Park, 30.09.1996, 1 female.

Distribution: rare species, known from India (Assam), China, Japan and Far East of Russia (Vladivostok).

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STRESZCZENIE

[Tytuł: *Syrphidae* i *Conopidae* (Diptera) z Wietnamu zebrane przez polskie ekspedycje].

Opracowanie zawiera wykaz 24 gatunków z rodziny *Syrphidae* oraz jeden gatunek z rodziny *Conopidae* zebranych przez trzy polskie ekspedycje w północnej części Wietnamu w latach: 1966, 1996 i 1997. Wśród muchówek z rodziny *Syrphidae* wyróżniono kilka gatunków rzadko spotykanych, są to: *Dideoides kempfi*, *Spheginobaccha melancholia*, *Sph. demeijerei*, *Eristalinus obtusus* i *Xylota steyskali*.