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Syrphid flies (*Diptera, Syrphidae*) from Mongolia collected by Polish expeditions

Abstract: The paper contains a list of 18 species of dipterans of the family *Syrphidae* collected by Polish expeditions to central Mongolia. Among them *Paragus compeditus* WIED. and *Eristalis abusiva* COLL. are recorded from this area for the first time. Also a new species of *Syrphidae* - *Paragus mongolicus* sp. n. is described and illustrated.

Key words: *Diptera, Syrphidae*, new species, Mongolia

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INTRODUCTION

The dipteran fauna of Mongolia, despite the many Russian, Hungarian, Czechoslovak, German and Polish scientific expeditions organized to date, is poorly known. A large proportion of the material still has not been examined. The search for dipteran material is very labour-consuming because of the large area of Mongolia and transport difficulties.

Intensive searches were carried out in this area of Asia in the 1960's. Their outcome was a number of papers about dipterans including *Syrphidae* (STACKELBERG 1964, 1974, 1975; BAŃKOWSKA 1968 a, b; PECK 1977 and STACKELBERG and PECK 1979). The last publication describes abundant *Syrphidae* material collected during Z. Kaszab's expeditions in Mongolia.

The material, including 104 individuals of Syrphid flies, is the result of the last Polish expedition to Mongolia, in 1971. It was collected by A. Draber-Mońko and B. Pisarski. A small proportion of the specimens were collected during the earlier Polish expeditions of 1962 (R. Bielawski and B. Pisarski) and 1963 (B. Burakowski and H. Szelegiewicz).

The specimens identified represent 18 species of Syrphid flies, two of which, *Paragus compeditus* WIED. and *Eristalis abusiva* COLL., are new to Mongolian fauna.

Additionally, a new species of the genus *Paragus* LATR. is identified and described.

LIST OF SPECIES

Family: SYRPHIDAE

Subfamily: Syrphinae

Episyrphus MATSUMURA et ADACHI, 1917

1. *Episyrphus balteatus* (DE GEER, 1776)

Material examined: Mongolia: aimak Övörhangay, Harhorin, 14.09.1971, 1 male.

Distribution: Cosmopolitan species. Reported from Mongolia (VIOLOVITSH 1960, BAŃKOWSKA 1968a, STACKELBERG 1975, STACKELBERG and PECK, 1978).

Melangyna VERRALL, 1901

2. *Melangyna umbellatarum* (FABRICIUS, 1794)

Material examined: Mongolia: aimak Övörhangay, Harhorin near Orhon river, 13.09.1971, 1 female.

Distribution: Holarctic Region. Known also from Mongolia (STACKELBERG 1975).

Eupeodes OSTEN-SACKEN, 1877

3. *Eupeodes lapponicus* (ZETTERSTEDT, 1838)

Material examined: Mongolia: aimak Töv, Zaisan near Ulaanbaatar, 5.09.1971, 1 male.

Distribution: Holarctic Region. Reported from Mongolia (BAŃKOWSKA 1968a, STACKELBERG and PECK 1978).

4. *Eupeodes corollae* FABRICIUS, 1794

Material examined: Mongolia: aimak Bulgan, Bajan nuur, 11.09.1971, 1 female; aimak Arhangay, Ugij nuur. 12.09.1971, 2 males, Harbalgas, 15.09.1971, 1 male; aimak Töv, Zaisan near Ulaanbaatar, 9.09.1971, 11 males; aimak Övörhangay, Harhorin, 13.09.1971, 10 males; aimak Dundgov, Lamyn-hure, 20, 09, 1971, 5 males.

Distribution: Palaearctic and Oriental Regions. Known also from Mongolia (VIOLOVITSH 1960, BAŃKOWSKA 1968 a,b, STACKELBERG 1964, 1975, PECK 1977, STACKELBERG and PECK 1978).

Syrphus FABRICIUS, 17755. *Syrphus ribesii* (LINNAEUS, 1758)

Material examined: Mongolia: aimak Töv, Zaisan near Ulaanbaatar, 5.09.1971, 1 male; aimak Övörhangay, Harhorin, 13.09.1971, 2 females.

Distribution: Holarctic Region. Known from Mongolia (VIOLOVITSH 1960, BAŃKOWSKA 1968a, STACKELBERG 1964, 1975, PECK 1977, STACKELBERG and PECK 1978).

6. *Syrphus torvus* OSTEN-SACKEN, 1875

Material examined: Mongolia: aimak Töv, Zaisan near Ulaanbaatar, 5.09.1971, 1 female; aimak Övörhangay, Husnt, 17. 09. 1971, 1 male.

Distribution: Holarctic and Oriental Regions. Common species, known from Mongolia (VIOLOVITSH 1960, BAŃKOWSKA 1968a, b, STACKELBERG 1975, STACKELBERG and PECK 1978).

Scaeva FABRICIUS, 18057. *Scaeva pyrastris* (LINNAEUS, 1758)

Material examined: Mongolia: aimak Arhangay, Harbalgas, 15.09.1971, 1 male, 2 females; aimak Töv, Zaisan near Ulaanbaatar, 4–9.09.1971, 2 males, 2 females, Sayhan-oo, 19.09.1971, 1 female, Tsaganhutul 50 km W Ulaanbaatar, 10.09.1971, 1 male, 1 female, Ulaanbaatar, 29.09.1971, 1 male, 1 female; aimak Övörhangay, Harhorin near Orhon river, 13–14.09.1971, 3 males, Husut, 17.09.1971, 1 male; aimak Dundgov, Tsagaan-delger, 23.09.1971, 1 male, 1 female.

Distribution: Holarctic Region. Very common species, known from Mongolia (VIOLOVITSH 1960, BAŃKOWSKA 1968 a, b, STACKELBERG 1975, STACKELBERG and PECK 1979).

8. *Scaeva selenitica* (MEIGEN, 1822)

Material examined: Mongolia: aimak Töv, Zaisan near Ulaanbaatar, 5.09.1971, 2 females, Tsaganhutul 50 km W Ulaanbaatar, 10.09.1971, 1 female; aimak Övörhangay, Harhorin near Orhon river, 13–14.09.1971, 2 males, 2 females.

Distribution: Palaearctic and Oriental Regions. Known from Mongolia (BAŃKOWSKA 1968 a)

Sphaerophoria LE PELETIER et SERVILLE, 18289. *Sphaerophoria rueppelli* (WIEDEMANN, 1830)

Material examined: Mongolia: aimak Töv, Sayhan-oo, 9.09.1971, 1 male, 2 females.

Distribution: Palaearctic Region. Reported from Mongolia (BAŃKOWSKA 1968a, STACKELBERG 1964, 1975, PECK 1977, STACKELBERG and PECK 1979).

10. *Sphaerophoria scripta* (LINNAEUS, 1758)

Material examined: Mongolia: aimak Arhangay, Harbalgas, 15.09.1971, 1 female; aimak Övörhangay, Harhorin, 13. 09. 1971, 5 females.

Distribution: Holarctic and Oriental Regions. Known from Mongolia (BAÑKOWSKA 1968a, PECK 1977, STACKELBERG and PECK 1979).

Platycheirus LE PELETIER et SERVILLE, 1828

11. *Platycheirus ambiguus* (FALLÉN, 1817)

Material examined: Mongolia: aimak Arhangay, 30 km N Harhorin; 15.09.1971, 2 females; aimak Övörhangay, Harhorin near Orhon river, 13.09.1971, 1 male, 13 females.

Distribution: Holarctic and Oriental Regions. Reported from Mongolia (BAÑKOWSKA 1968a, STACKELBERG 1964, 1975, PECK 1977, STACKELBERG and PECK 1979).

Paragus LATREILLE, 1804

subgenus *Pandasyopthalmus* STUCKENBERG, 1954

12. *P. Pandasyopthalmus haemorrhous* MEIGEN, 1822

Material examined: Mongolia: aimak Arhangay, Harbalgas, 15.09.1971, 2 males.

Distribution: Holarctic Region. Known from Mongolia (PECK 1977, STACKELBERG and PECK 1979).

13. *P. Pandasyopthalmus tibialis* (FALLÉN, 1817)

Material examined: Mongolia: aimak Töv, Zaisan near Ulaanbaatar, 24.05.1962, 2 males, 1 female.

Distribution: Palaearctic and Oriental Regions. Known from Mongolia (VIOLOVITSH 1960, BAÑKOWSKA 1968a, b, PECK 1977, STACKELBERG and PECK 1979).

subgenus *Paragus* LATREILLE, 1804

14. *P. Paragus compeditus* WIEDEMANN, 1830

Material examined: Mongolia: aimak Dornogov, Saynshand, 31.05.1962, 1 male.

Distribution: Palaearctic Region. Known from Iran, Afghanistan and China. Not reported from Mongolia.

15. *P. Paragus mongolicus* sp. n.

Holotype male.

Head: face yellow except slightly brownish on tubercle, with white pile. Oral margin distinctly darkened. Vertical triangle black with yellowish pile. Occiput brownish-black with grey pollen and greyish pile. Basal two segments of antenna brown, third segment 3 times as long as wide, yellow-grey, paler in basal part. Arista brownish, as long as third antennal segment.

Thorax: mesonotum entirely black and matt, without pale yellow stripes. Mesonotal hairs short, silvery-white. Sides of thorax shining black, pleural hairs long and silvery-white. Scutellum black basally, yellow on apical half. Squamae white with yellowish margin. Halteres white. Wings hyaline, veins

and stigma light brownish. Legs dark yellow, all femora in basal part black. Posterior tarsi brownish.

Abdomen: dorsum reddish-orange only first tergite black. On the hind margin of 2-4 tergites dark brown ovale spots (Fig. 1). All sternites reddish-yellow. Hairs of abdomen short and white-yellow. Male genitalia reddish-brown. Epandrium elongated, surstyli straight apically, narrow. Hypandium broad (Fig. 2), Paramere long and distinctly curved (Fig. 3).

Length of body 6 mm.

Paratype female.

Similar to male. Frons broad, shining black with two elongated side stripes of grey dust along eye margin. Face with broad black medial stripe, that is about 1/3 as wide as face. Antenna darker as in the male. Abdomen black, except of great reddish-orange patches on the central part of 2-4 tergites and on their lateral margins (Fig. 4). Distal part of 5 tergite also reddish-orange. Length of body 6.5 mm.

MATERIAL EXAMINED

Holotype male: Mongolia, aimak Töv, Sharin gol, 7.08.1963, coll. B. Bura-kowski and H. Szelęgiewicz. 1 paratype of male and 4 paratypes of females from same locality.

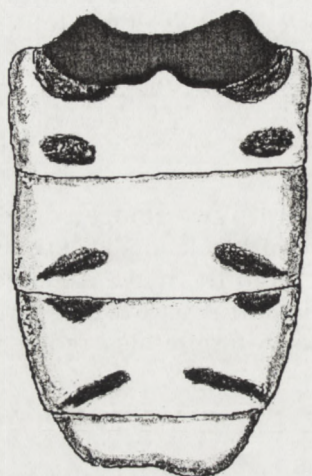
Holotype and all paratypes are deposited in Museum and Institute of Zoology PAS in Warsaw.

DISTRIBUTION

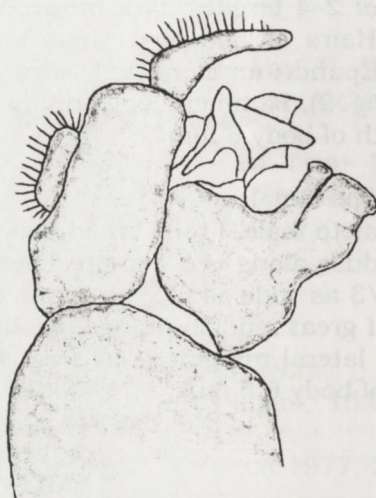
Central Mongolia.

SPECIFIC DIFFERENCES

Now described species *Paragus mongolicus* sp. n. belong to the *bicolor* group of the subgenus *Paragus* s. str. LATR. GOELDLIN's (1976) revision is based on 15 West Palearctic species. Among closely related species are also *P. hermonensis* KAPLAN, described by KAPLAN (1981) from Israel and also East Palearctic species *P. stackelbergi* BAŃK., *P. asiaticus* PECK and *P. flaviventris* PECK. completely different as to colour of body and genital apparatus of male. The revision of species from the genus *Paragus* LATR. from North America made by VOCKEROTH (1986) excludes the similarity of this new species with American ones. Closest similarity can be observed to the two species from Mongolia: *P. stackelbergi* BAŃK. (BAŃKOWSKA 1968c) and *P. flaviventris* PECK (PECK 1979) described earlier.



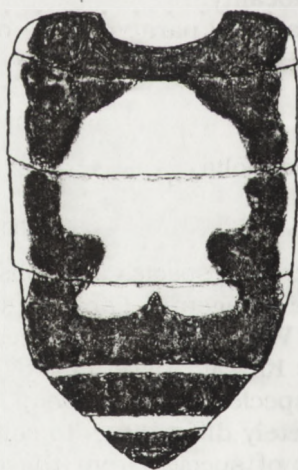
1



2



3



4

Figs 1-4. *Paragus mongolicus* sp. n.: 1. - abdomen of male, 2. - male genitalia (lateral view), 3. - paramere, 4. - abdomen of female.

These three species can be distinguished on the following basis:

1. Mesonotum black with two pale longitudinal stripes, extending from anterior margin to transverse suture. Antennae very long, 3rd segment 5 times as long as wide (PECK 1979, Figs 4, 5) *P. flaviventris* PECK.
 – Mesonotum entirely black, without pale longitudinal stripes. Antennae normally long, 3rd segment 3 times as long as wide 2.
2. Legs entirely yellow. Abdomen of male dark yellow, first tergite black, second with dark, slender line, remainder tergites yellow. Abdomen of female yellow, first tergite black remainder tergites with line on each side at the edge of the tergites. Genitalia of male: paramere large lobiform (BAŃKOWSKA 1968c, Figs 1–5) *P. stackelbergi* BAŃK.
 – Basal part of femora dark brown. Abdomen of male reddish-orange, first tergite black, remainder with large rounded brownish mark on hind margin (Fig. 1). Abdomen of female black and reddish-orange (Fig. 4). Genitalia of male: paramere long and curved (Figs 2, 3) *P. mongolicus* sp. n.

Subfamily: *Milesiinae*

Eristalis LATREILLE, 1804

16. *Eristalis abusiva* COLLIN, 1931

Material examined: Mongolia: aimak Töv, Zaisan near Ulaanbaatar, 5. 09. 1971, 2 males.

Distribution: Palaearctic Region. Known for Far East of Russia (Khabarovsk and Primorye ter.) and Korea (BAŃKOWSKA 1998). not mentioned from Mongolia.

17. *Eristalis rupium* FABRICIUS, 1805

Material examined: Mongolia: aimak Töv, Zaisan near Ulaanbaatar, 4.09.1971, 1 female.

Distribution: Holarctic Region. Widely distributed species. Known from Mongolia (STACKELBERG and PECK 1979).

Syritta LE PELETIER et SERVILLE, 1828

18. *Syritta pipiens* (LINNAEUS, 1758)

Material examined: Mongolia: aimak Töv, Zaisan near Ulaanbaatar, 5.09.1971. 1 female.

Distribution: Holarctic and Oriental Regions. Widely distributed species. Known from Mongolia (VIOLOVITSH 1960, STACKELBERG 1975).

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STRESZCZENIE

[Tytuł: *Syrphidae* (Diptera) Mongolii zebrane przez polskie ekspedycje].

Opracowany materiał *Syrphidae* został zebrany głównie podczas ekspedycji warszawskich entomologów do Mongolii w 1971 roku – A. Draber-Mońko i B. Pisarskiego. Do niniejszego opracowania włączono również nieliczne okazy złowione, podczas wcześniejszych wyjazdów do Mongolii, przez innych pracowników Instytutu Zoologii.

W badanym materiale wyodrębniono 18 gatunków muchówek z rodziny *Syrphidae*, z czego dwa z nich nie były dotychczas znane z obszaru Mongolii. Są to: *Paragus compeditus* WIED. i *Eristalis abusiva* COLL.

W pracy podano także opis nowego gatunku z rodzaju *Paragus* LATREILLE – *Paragus mongolicus* sp. n.