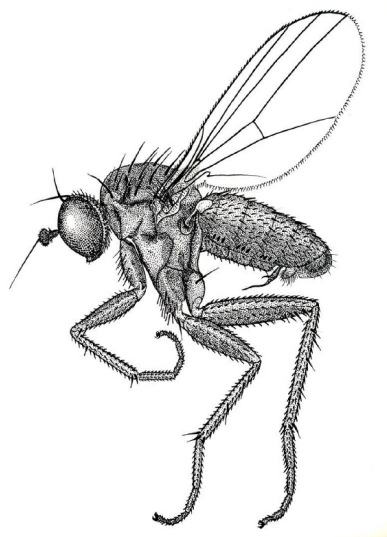


**ВЕСТНИК
ЗАЩИТЫ РАСТЕНИЙ**
Приложение

PLANT PROTECTION NEWS
Supplement

**Fauna and taxonomy of
Dolichopodidae (Diptera)**

Collection of papers



**St.Petersburg
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Фауна и таксономия хищных мух Dolichopodidae (Diptera). Сборник научных работ. Под редакцией И.Я. Гричанова и О.П. Негрובה. Санкт-Петербург: ВИЗР РАСХН, 2013. 96 с. (Приложение к журналу «Вестник защиты растений»).

Fauna and taxonomy of Dolichopodidae (Diptera). Collection of papers. Igor Ya. Grichanov & Oleg P. Negrobov, editors. St.Petersburg: VIZR RAAS, 2013. 96 p. («Plant Protection News, Supplement»).

Сборник включает обзорные статьи по фауне и таксономии хищных мух-зеленушек семейства Dolichopodidae. Описаны новые виды, приведены новые указания для видов из Палеарктической, Ориентальной и Афротропической зоогеографических областей. Составлены региональные определители видов из родов *Asyndetus* и *Syntormon*. Впервые составлен справочный список 52 родов, 735 видов и подвидов семейства Dolichopodidae, отмеченных на территории Российской Федерации. Сборник будет полезен специалистам – энтомологам и экологам, интересующимся энтомофагами, студентам и аспирантам учебных и научных учреждений.

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SYSTEMATIC NOTES ON WEST-PALAEARCTIC SPECIES OF THE GENUS *SYNTORMON* LOEW (DIPTERA: DOLICHOPODIDAE)

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Systematic information on the West-Palaeartic species of the sympycnine genus *Syntormon* Loew, 1857 is reviewed. A new species *Syntormon pilitibia* sp. n. from Israel and a new subspecies *S. macula mediterraneus* ssp. n. from Greece and Israel are described. The taxonomic status and characters of some species of the genus are discussed. Lectotype and paralectotypes are designated for *S. cilitibia* Stackelberg, 1947. A check list of West-Palaeartic species of *Syntormon* is compiled, as well as a revised key to 21 species and 5 firstly defined species groups (combining 18 poorly distinguishable species) based mainly on male secondary sexual characters.

KEY WORDS: Dolichopodidae, *Syntormon*, Palaeartic, Greece, Israel, new species, new records, key.

И.Я. Гричанов. Заметки по систематике западно-палеарктических видов рода *Syntormon* Loew (Diptera: Dolichopodidae)

Обобщены данные по систематике западно-палеарктических видов рода *Syntormon* Loew, 1857 из подсемейства мух-зеленушек Sympycninae. Описаны новый вид *Syntormon pilitibia* sp. n. из Израиля и новый подвид *S. macula mediterraneus* ssp. n. из Греции и Израиля. Обозначены лектотип и паралектотипы для *S. cilitibia* Stackelberg, 1947. Составлен каталог описанных западно-палеарктических видов и определитель 21 вида и 5 групп видов (включающих 18 слабо различимых видов), основанный главным образом на вторичнополовых признаках самцов.

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Introduction

Syntormon Loew, 1857 is an unrevised genus of the subfamily Sympycninae and includes about 110 species, of which more than 50 were described in the Palaeartic Region. An outdated key of Becker (1918) comprised 16 Palaeartic species, and Parent (1938) diagnosed in his key 21 mainly European species. Negrobov (1975) keyed males of 35 Palaeartic species, of which I recognize 29 West-Palaeartic species inhabiting Europe, North Africa, West and Central Asia.

Later a number of new species were described from the Palaeartic (Vaillant, 1983; Negrobov & Shamshev, 1984, 1985; Pârnu, 1985, 1989; Negrobov & Zhilina, 1986; Yang, 1998, 1999; Yang & Saigusa, 2000; Negrobov & Kechev, 2012), and Wang et al. (2008) published a key to males of Chinese species. Speight et al. (1995) synonymised *Bathycranium* Strobl, 1892 and *Syntormon*.

The West-Palaeartic species of *Syntormon* now cannot be distinguished reliably based on the key published by Negrobov (1975), which was based largely on the variable characters and outdated nomenclature, with several missing old species. Here I recognize 41 (including new) West-Palaeartic species of the genus, though some of them may be placed in synonymy after a future revisional work. Two species are known from females only.

In this paper a new species *Syntormon pilitibia* sp. n. from Israel and a new subspecies *S. macula mediterraneus* ssp. n. from Greece and Israel are described. The taxonomic status and characters of some species of the genus are discussed. A check list of

West-Palaeartic species of *Syntormon* is compiled. Below I give also a revised key to 21 species and 5 firstly defined species groups (combining 18 poorly distinguishable species) based mainly on male secondary sexual characters.

Material and methods

The holotypes and paratypes of the new species and new subspecies and other material cited are housed at the Zoological Museum of Moscow State University, Russia (MZUM), at the Zoological Institute of the Russian Academy of Sciences, St. Petersburg, Russia (ZIN) and at the Department of Zoology, Tel Aviv University, Israel (TAU).

Specimens were studied and illustrated with a ZEISS Discovery V-12 stereomicroscope and an AxioCam MRc5 camera. Morphological terminology and abbreviations follow Grichanov (2007) and Cumming & Wood (2009). The relative lengths of the podomeres should be regarded as representative ratios and not measurements. Body length is measured from the base of the antenna to the tip of abdominal segment 7. Wing length is measured from the base to the wing apex. Male genitalia were macerated in 10% KOH. Figures showing the male genitalia in lateral view are oriented as they appear on the intact specimen, with the morphologically ventral surface of the genitalia facing up, dorsal surface down, anterior end facing right and posterior end facing left. Photos were made by the author of this paper. Information on world distribution for each species listed follows Grichanov (2003–2013).

Systematics

Family Dolichopodidae Subfamily Sympycninae Genus *Syntormon* Loew

Syntormon Loew, 1857: 35; Negrobov, 1975: 652; Speight et al., 1995: 356; Grichanov et al., 2011: 35. Type species: *Rhaphium metathesis* Loew, 1850 (designation by Coquillett, 1910: 611)

Plectropus Haliday, 1832: 353 (nec Kirby, 1826). Type species: *Musca pallipes* Fabricius, 1794 (designation by Westwood, 1840: 134).

Synarthrus Loew, 1857: 35; Schiner, 1862: 192. Type species: *Musca pallipes* Fabricius, 1794 (monotypy).

Eutarsus Loew, 1857: 45 (nec Hessling, 1852); Dyte, 1969: 46 (as synonym of subgenus *Drymonoeca* Becker); Negrobov, 1975: 653. Type species: *Porphyrops aulica* Meigen, 1824 (monotypy).

Bathycranium Strobl, 1892: 103; Speight et al., 1995: 351. Type species: *Dolichopus bicoloratus* Zetterstedt, 1843 (monotypy).

Drymonoeca Becker, 1907: 108; Becker, 1922: 155 (as synonym of *Eutarsus* Loew). Type species: *Drymonoeca calcarata* Becker, 1907 [= *Syntormon aulicus* (Meigen, 1824)] (monotypy).

Diagnosis. Usually small species; antennal scape with or without dorsal setation; pedicel with a finger-like apical process projected into basal inner concavity of postpedicel; male postpedicel distinctly elongated, rarely short (short in females); arista-like stylus apical or subapical (sometimes dorsal in females); male tarsi often modified and/or ornamented; metepimeron more or less haired (in contrast to bare metepimeron

in closely related Nearctic *Parasyntormon* Wheeler, 1899 and West-Palaearctic *Ceratos* Vaillant, 1952).

Remarks. Proposing a new genus, Loew (1857: 35) definitely changed the name *Rhaphium tarsatum* (gender neuter) into *Syntormon tarsatus* (gender masculine), using subsequently the latter gender (e.g., Loew, 1869, 1873). Later many scientists followed the masculine gender of the genus; nevertheless, some others used the neuter gender for the *Syntormon* species, sometimes explaining their position (e.g., Chandler, 1998). As a result, many national list compilers were recently confused, inserting species of the genus in their lists with both neuter and masculine gender endings. I follow here original (Loew's) proposal, using the masculine gender for all species names.

Review of West-Palaearctic species of the genus *Syntormon*

Syntormon abbreviatus Becker, 1918: 272. Type locality: Tunisia: Bel-Mehtia, Aegndraham. Distribution: Hungary, Tunisia, Turkey.

Remarks: Excluded from Afrotropical Region by Grichanov (2001: 183). Here excluded from Canary Is. because *S. brevicornis* is here restored from synonymy to species status (see below). A record from Hungary needs confirmation.

Syntormon aulicus (Meigen), 1824: 48 (*Porphyrops*); Meigen, 1838: 154 (*Argyra*); Zetterstedt, 1843: 615 (*Dolichopus*); Loew, 1857: 45 (*Eutarsus*); Negrobov, 1975: 654 (*Syntormon*). Type locality: not given. Distribution: Algeria, Austria, Azerbaijan, Belgium, Bulgaria, Czech, Denmark, France, Germany, Greece, Ireland, Italy, Morocco, Poland, Russia (Moscow), Spain, Sweden, Tunisia, Turkey, UK, "Middle Asia". =*calcaratus* (Becker), 1907: 109 (*Drymonoeca*). Type locality: Tunisia: Ain-Dram, Zaghouan.

Material: 1♂, [France]: Cherbourg / *Eutarsus aulicus* Meig., det. O. Parent [ZIN].

Syntormon bicolor (Zetterstedt), 1843: 617 (*Dolichopus*); Haliday: in Walker et al., 1851: 212 (*Porphyrops*); Strobl, 1892: 103 (*Bathycranium*); Kowarz, 1889: 175 (*Sympycnus*); Schiner, 1862: 184 (*Xanthochlorus*); Speight et al., 1995: 356 (*Syntormon*); Grichanov, 2006: 183. Type locality: «Suecia meridionali et media, Scania ad Esperod, Gottlandia ad Martebo, Dania» (Sweden, Denmark). Distribution: Austria, Belgium, Czech, Denmark, Estonia, Finland, France, Germany, Hungary, Ireland, Latvia, ?Mongolia (female only), Netherlands, Norway, Poland, Romania, Russia (Leningrad, Lipetsk, Moscow, Vologda, Voronezh), Slovakia, Sweden, UK. =*bicolor* (Zetterstedt), 1843: 617 (*Argyra*) [«Staeger in litt.»].

Material: 1♂, Sweden: Uppsala, 11.VII.2002, Grichanov [ZIN]; 1♂, [France]: Aire, VI.1921 / *Bathycranium bicolor* Zett., det. O. Parent [ZIN]; 4♀, [Russia]: Yashchera, Luzhskii Distr., Leningrad Region, 21.VIII, 2.IX.1966, 14, 31.VIII.1967, Stackelberg [ZIN]; 1♂, 1♀, Finland: Helsinki env., lake shore, 5.IX.2003, Grichanov [ZIN].

Syntormon brevicornis Frey, 1936: 67, **nom. ressur.**; Negrobov, 1975: 654; Negrobov, 1991: 53 (as synonym of *S. abbreviatus*); here restored to species status. Type locality: «Canaria: Tafira, Tümpel; Palma: La Caldera». Distribution: Spain (Canary Is.)

Remarks: Negrobov (1991) placed the species in synonymy to *S. abbreviatus* without explanation. Negrobov (1975) in his key placed *S. brevicornis* near *S. rufipes* (=S.

pumilus). However, Frey (1936) compared his new species with *S. denticulatus*, distinguishing *S. brevicornis* (body length is 2-3 mm) in shorter postpedicel (as long as high), shorter and stronger curved hooks on posterior basitarsus. Therefore, I restore *S. brevicornis* from synonymy.

Syntormon bulgariensis Negrobov et Kechev, 2012: 93. Type locality: Bulgaria: Pamporovo, Rhodopes Mts. Distribution: Bulgaria.

Syntormon cilitibia Stackelberg, 1947: 96, 100. Type locality: [Tajikistan]: Khorog on Gunt River, Shugnan (originally published as Hissar range, Kondara; Varzob valley near Stalinabad; Chorog, W. Pamirs). Distribution: Afghanistan, Kyrgyzstan, Tajikistan, Uzbekistan.

Material (Fig. 1): Lectotype: ♂, [Tajikistan]: Khorog on Gunt River, Shugnan, 2000 m, 25.IX.1943, Stackelberg [ZIN]. Paralectotypes: 3♂, same locality [ZIN]. Additional material: 1♂, Tajikistan: Kondara Gorge, 1100 m, Varzob Valley, Gussakovskii, 13.IX.1939 [ZIN]; 1♂, [Uzbekistan]: Shakhimardan / 8 [yellow label; ex coll. A.P. Fedtshenko 1871; ZIN]; 1♂, [Uzbekistan]: Sangy Dzhaman / 5 [orange label; ex coll. A.P. Fedtshenko 1871; ZIN].

Remarks: Lectotype and paralectotypes are here designated to fix the current taxonomic concept and ensure consistent future interpretation. They fully correspond to the original description. Stackelberg (1947: 96) listed 8 males under *S. cilitibia* description, including 3 males collected in the Varzob Valley (on 18.IX.1938 and 9.X.1943) and 5 males collected at Khorog (on 25.IX.1943). A male collected on 18.IX.1938 is entirely destroyed, but bearing a white label hand-written by A.A. Stackelberg: «*Syntormon cilitibia* sp.n.» A male collected on 9.X.1943 was not found. The other pins had no any identification label. One male collected at Khorog is also destroyed. A.A. Stackelberg treated also A.P. Fedtshenko collection (probably before 1927) that contains (in addition to listed material from Shakhimardan and Sangy Dzhaman) three empty pins with labels «Sangy Dzhaman» and «5»; one of those pins has identification label written by A.A. Stackelberg: *Syntormon* [unpublished name] sp.n. Shakhimardan (or Shohimardon) is a small exclave of Uzbekistan in Fergana Province, surrounded by Kyrgyzstan. So, this is a first record of the species from Uzbekistan and Kyrgyzstan.

Syntormon codinai Parent, 1924: 9. Type locality: Morocco: Tanger, Cabo Espartel. Distribution: Morocco, Spain, Turkey. Excluded from Afrotropical Region (Grichanov, 2001: 183).

Syntormon denticulatus (Zetterstedt), 1843: 478; Loew, 1857: 34-35 (*Syntormon*). Type locality: Sweden: Scania. Distribution: Abkhazia, Afghanistan, Armenia, Azerbaijan, Belorussia, Bulgaria, Estonia, Finland, France, Germany, Greece, Israel, Italy, Kyrgyzstan, Norway, Poland, Romania, Russia (Adygea, Alania, Kabardino-Balkaria, Karelia, Leningrad, Moscow, Murmansk, Stavropol'), Sweden, Tajikistan, Turkey, UK, Ukraine, «North Africa».

=*aculeatus* (Zetterstedt), 1843: 479 (*Rhaphium*); Becker, 1902: 54 (*Syntormon*); Grichanov, 2006: 183 (synonymised by Becker, 1918: 273). Type locality: Sweden: Ostrogothia, Haradshammar.

=*biseriatus* (Loew), 1850: 123 (as a variation of *Rhaphium denticulatum* Zetterstedt, 1843); Loew, 1873: 249 (*Syntormon*) (Haliday, in Walker et al., 1851: 204

[*Rhaphium*)). Type locality: Germany.

=*pumilus* Parent, 1925: 50 (nec Meigen, 1824; misident.) (Collin, 1940: 267).

Material: 1♂, [France]: Cotenin, VIII.1925 / *Syntormon denticulatus* Zett., det. O. Parent [ZIN]; 6♂, [Tajikistan]: Stalinabad, Dyushambinka Valley, 9-25.X.1943, Stackelberg [det. A. Stackelberg] [ZIN]; 1♂, [Kyrgyzstan]: Alai / 21 [yellow label; ex coll. A.P. Fedtshenko 1871; ZIN]; 1♂, [Kyrgyzstan]: Taka [pass] / 8 [blue label; ex coll. A.P. Fedtshenko 1871; ZIN]; 2♂, 1♀, Russia: Sochi, Mt. Akhun, 22, 28.X.2006, N. Vikhrev [MZUM].

Remarks: The species was previously recorded from «Middle Asia». So, this is a first record of the species from Kyrgyzstan and Tajikistan.

Syntormon filiger Verrall, 1912: 58 (nom. nov. for *Rhaphium rufipes* Zetterstedt, 1849, nec Meigen, 1824, nec Zetterstedt, 1838). Type locality: Denmark: ad Hafniam, ube in Amager (automatic). Distribution: Austria, Belgium, Bulgaria, Czech, Denmark, Finland, France, Germany, Greece (North Aegean), Hungary, Kazakhstan (Astana), Russia (Astrakhan, Rostov, Novosibirsk), Netherlands, Poland, Sweden, UK, Ukraine (Crimea).

=*rufipes* (Zetterstedt), 1849: 3060 (*Rhaphium*); Verrall, 1912: 58 (*Syntormon*). Type locality: Denmark: «ad Hafniam, ube in Amager».

=*obscurifrons* Parent, 1932: 229 (synonymised by Parent, 1938: 453). Type locality: Austria: Burgenland, Apetlon.

Material: 1♂, [Kazakhstan]: Tselinograd env., Novoishimka, 8.VI.1989, Grichanov [ZIN].

Syntormon francoisi Meuffels et Grootaert, 1999: 291 (nom. nov. for *Syntormon parvus* Vaillant, 1983, nec Vanschuytbroeck, 1951). Type locality: France: Alps, cascade de Ray, vallée de la Gordolasque (automatic). Distribution: France.

=*parvus* Vaillant, 1983: 274 (nom. preoccupied, nec Vanschuytbroeck, 1951). Type locality: France: Alps, cascade de Ray, vallée de la Gordolasque.

Remarks: The species may represent the true species or be placed in synonymy to either *S. fuscipes* or *S. spicatus* as there are no clear differences between the species concepts. Describing his new species from the Maritime Alps, Vaillant (1983) compared it with a male of «*S. spicatus*» taken from the Romanian Carpathians, whereas the type locality of *S. spicatus* is probably western Poland, and that of *S. fuscipes* – southern Germany. See also remarks under *S. spicatus*.

Syntormon freymuthae Loew, 1873: 252; Becker, 1918: 276 (as a variation of *S. denticulatus*), rest. by Parent, 1927: 91-92. Type locality: Russia: «Nischegrod'schen Gouvernement; bei Malaja Arja in Moskauer Gouvernement». Distribution: Estonia, Russia (Leningrad, Moscow, Nizhnii Novgorod), «Middle Asia».

Material: 1♂, [Russia]: Sablino, Petrograd. Gub., 9.V.1923, Stackelberg [det. A. Stackelberg] [ZIN].



Fig. 1. *Syntormon cilitibia* Stackelberg, habitus.



Fig. 2. *Syntormon pennatus* Ringdahl, habitus (Kabardino-Balkaria, compared with types).



Fig. 3. *Syntormon turanicus* Stackelberg, habitus (holotype).

Syntormon fuscipes (von Roser), 1840: 56 (*Porphyrops*); Denninger, 1950: 45 (*Syntormon*). Type locality: not given (Germany: Württemberg). Distribution: Abkhazia, Andorra, Austria, Belgium, Bulgaria, Czech, Denmark, France, Germany, Greece, Hungary, Netherlands, Poland, Romania, Russia (Krasnodar), Slovakia, Spain, Sweden, Turkey, UK, Ukraine (Carpathians, Crimea), «Yugoslavia»; Afrotropics: Burundi, Kenya.

=*spicatus* Becker, 1918: 283 (nec Loew, 1857; misident.).

Material: 1♂, Abkhazia: Musserskii reserve, 12.VI.1978, V. Rikhter [ZIN].

Remarks: Becker (1918: 219) considered *Porphyrops fuscipes* as doubtful species known from Germany only. Denninger (1950) synonymised *Porphyrops fuscipes* and *Syntormon spicatus* sensu Becker, not giving redescription or figures for a type of the former species. Becker (1918: 283) gave exact illustration of what he thought *S. spicatus* that was considered typical by all consequent researchers. The material cited by Becker was collected from «Silesia, Hungary, Corfu and France» and may belong to different species. The origin of specimen(s) from which his figures were made is unclear. Therefore, I restore *S. spicatus* from synonymy and consider distributional records for this species belonging to *S. fuscipes*. See also remarks under *S. spicatus* and *S. francoisi*. Two phenotypes of the species were recognized in the Afrotropical Region (Grichanov, 2001). They may represent different species or subspecies, and their real degree of separation from *S. fuscipes*, *S. francoisi* or *S. spicatus* may require molecular investigation. This is a first record of the species from Abkhazia.

Syntormon giordanii Negrobov, in Negrobov et Matile, 1974: 842. Type locality: Iran: «Khorramshahr, Stagno Porco Com. Mar.». Distribution: Iran.

Remarks: Negrobov (1991) erroneously recorded Italy as the species type locality (in fact, it is a country of types' depository and motherland of a collector). Therefore, Grichanov (2007) excluded this species from the fauna of Europe. See also remarks under *S. samarkandi*.

Syntormon iranicus Negrobov, in Negrobov et Matile: 1974: 842. Type locality: Iran: «Qars-i-Shirin, 40 km Est». Distribution: Iran.

Syntormon latitarsis Negrobov et Shamshev, 1984: 49. Type locality: Russia: Caucasus, 14 km N of Krasnaya Polyana, Chugush Mt. Distribution: Russia (Krasnodar).

Syntormon luteicornis Parent, 1927: 61. Type locality: France: Apt, Vaucluse. Distribution: France.

Remarks: The species was originally described by a single female from southern France. Speight et al. (1995) redescribed the holotype and doubted records of the species from other countries (Belgium, Czech, Romania, Spain). The specimen may represent an aberrant or juvenile form of a related *Syntormon* species with the two setae on female face (e.g. *S. tabarkae*) or a female of *Ceratopos seguyi* Vaillant, 1952, described from northern Algeria.

Syntormon macula Parent, 1927: 57 (as *macula* Oldenberg). Type locality: Romania: Mehadia, Alpes de Transylvanie (Hongrie). Distribution: ?Bulgaria, Germany, Hungary, Italy, Romania, Switzerland, UK.

Remarks: The species was originally described by a single female from the Transylva-

nian Alps, later recorded from several more countries. Its male was included in a key to British dolichopodid flies by d'Assis Fonseca (1978), but seems to be described after single immature male only (d'Assis Fonseca, 1949). See diagnosis of *S. macula mediterraneus* ssp. n.

Syntormon metathesis (Loew), 1850: 118 (*Rhaphium*); Loew, 1857: 34-35 (*Syntormon*). Type locality: Germany. Distribution: Austria, Belgium, Czech, Estonia, Finland, France, Germany, Hungary, Latvia, Netherlands, Poland, Romania; Russia (Krasnodar, Leningrad, «Ural», Voronezh), Spain, Sweden, Switzerland, Slovakia, Turkey.

=*simplicipes* Frey, 1915: 42; Becker, 1918: 279. Type locality: Finland: Karislojo, bei Pellonkyla.

=*dobrogicus* Pârvu, 1985: 151; Grichanov, 2007: 70. Type locality: Romania: Dobrogea, Babadag.

Remarks: Comparing surstylus drawn by Pârvu (1985: Fig. 3C and 1989: Fig. 4A) for *S. dobrogicus*, I suppose that the pictures belong to different species.

Syntormon miki Strobl, 1899: 126. Type locality: Spain: Algeciras. Distribution: Czech, France incl. Corsica, Greece incl. Crete, Ireland, ?Israel, Italy, Morocco, Poland, Portugal, Spain, «Yugoslavia», ?Slovenia, Sweden, Tunisia, UK.

=*florentinus* Becker, 1918: 279 (as *florentinus* Oldenberg in litt.) (nom. nud.).

Syntormon monilis (Haliday), in Walker et al., 1851: 205 (*Rhaphium*); Loew, 1859: 15 (*Synarthrus*); Becker, 1918: 279 (*Syntormon*). Type locality: England; Ireland. Distribution: Algeria, Austria, Belgium, Bulgaria, Czech, Denmark, France, Germany, Hungary, Ireland, Italy, Latvia, Morocco, Netherlands, Poland, Romania; Russia (Kabardino-Balkaria, Krasnodar, Leningrad, Moscow, Ural), Slovakia, Sweden, Switzerland, Tunisia, Turkey, UK, «Yugoslavia».

Material: 1♂, [Russia]: Petrograd. Gub., Kartashevka, 3.VII.1926, Stackelberg [det. A. Stackelberg] [ZIN]; 1♂, Russia: Kabardino-Balkaria, 5 km W Zalukodes, 21.VI.2000, Grichanov [ZIN].

Original description (Walker et al., 1851: 205). Male. Long. 1¼; alar. 2½ lin. *Brassy-green. Front bluish.* Antennae half as long as the thorax; arista nearly as long as the antennae. Wings narrowed towards the base. Abdomen with the second segment usually yellowish beneath and at the sides. Legs and fore coxae yellow; tarsi and hind femora dusky at the tip; fore metatarsus slightly dilated at the tip, *last two joints of the middle tarsi dilated; hind metatarsus armed at the base beneath with a sharp hooked tooth, fringed with some short curved bristles.* Rare. (E. I.).

Remarks: This short Haliday's description was for a long time considered exact to distinguish the species from other close relatives. It is worth noting that Haliday was probably the first who noted individual variability of abdomen colour in the genus *Syntormon* («Abdomen with the second segment *usually* yellowish...»). Most of the subsequent redescrptions of *S. monilis* (e.g. Loew, Becker, Parent) noted entirely dark abdomen, although I keep a photo of a true Swedish *S. monilis* with yellow at base abdomen, and M. Pollet found the same phenotype in Belgium (see Pârvu, 2009). Unfortunately, the coloration of abdomen (and legs) was considered a key character by many *Syntormon* key compilers, that caused creation of some new synonymic names or names to be synonymised in the genus.

Also, the Haliday's description did not mention the modification of the 2nd seg-

ment of fore tarsus, but describing the «fore metatarsus [=protarsus, =basitarsus, =segment 1] slightly dilated at the tip». However, in Dolichopodidae the apical dilation of one tarsomere always corresponds to basal dilation of an adjacent tarsomere. As a result, Pârnu (1989) did not take this rule into account and described *S. silvianus* that has no significant differences from the species concept of *S. monilis* except for the coloration of abdomen and hind femur. The 2nd segment of fore tarsus of *S. monilis* was described as globular («kugelförmig») by Loew (1859) and «swollen at base» by Parent (1938), but was considered simple (not swollen) by Pârnu (2009) who used a disputable note by Hodge (1993) on the presence of two forms of *S. monilis* in Britain (with or without swelling on fore tarsomere 2). Judging from a brief comparison of the two forms, I can suppose that Hodge's 'Species A' is a colour variation of true *S. monilis* described under the name *S. silvianus*, whereas his 'Species B' belongs to *fuscipes* group of species with simple fore tarsus (see my remarks under *S. spicatus*). Pârnu (2009) erroneously regarded *S. monilis* to be a rare endemic of the British Isles, whereas *S. silvianus* to be a widely distributed species in many countries of West Palaearctic. At present I consider the latter species as a doubtful Romanian endemic with uncertain relation to both *S. monilis* and Caucasian *S. submonilis* that was diagnosed also by variable colour characters (Negrobov, 1975: 654). Key characters of all the three species must be redescribed and accurately figured in order to define their true relations.

Syntormon mutillatus Becker, 1918: 280. Type locality: France: «Gabas, Lamus, West-Pyrenaen». Distribution: France.

Syntormon obscurior Parent, 1938: 452 (in key, as a variation of *S. sulcipes*) (described by Parent, 1927: 93, as unnamed variation of *S. sulcipes*); Negrobov, 1975: 657 (in key, as a subspecies of *S. sulcipes*); Negrobov, 1991: 56 (as a synonym to *S. sulcipes*); **stat. n.** Syntypes (males and females) in M. Zerny's collection (probably, Naturhistorisches Museum Wien, Austria). Type locality: Albania.

Remarks: The name *obscurior* was validated by Negrobov (1975) according to ICZN, 45.6.4.1 as published before 1981. Negrobov (1991) placed the name in synonymy to *S. sulcipes*, supposing that the variety originated from France. However, describing a new variety, Parent (1927) stated that the material was collected in Albania.

Syntormon pallipes (Fabricius), 1794: 340 (*Musca*); Fabricius, 1805: 266 (*Dolichopus*); Meigen, 1824: 55 (*Porphyrops*); Haliday, 1832: 353 (*Plectropus*); Haliday, in Walker et al., 1851: 204 (*Rhaphium*); Loew, 1857: 35 (*Synarthrus*); Schiner, 1862: 192 (*Syntormon*); Grichanov, 2001: 186. Type locality: Germany. Distribution: Abkhazia, Afghanistan, Algeria, Armenia, Austria, Azerbaijan, Belgium, Bulgaria, China, Czech, Denmark, Egypt, Estonia, Finland, France, Georgia, Germany, Greece incl. Crete, Hungary, Iceland, Iran, Iraq, Ireland, Israel, Italy, Jordan, Kyrgyzstan, Latvia, Morocco, Netherlands, Norway, Poland, Portugal incl. Madeira, Azores, Romania, Russia (Adygea, Albania, Kabardino-Balkaria, Karachai-Cherkessia, Krasnodar, Leningrad, Murmansk, Rostov, Voronezh), Slovakia, ?Slovenia, Spain, Sweden, Switzerland, Tajikistan, Tunisia, Turkey, UK, Ukraine (Crimea, Kherson, Odessa), Uzbekistan, «Yugoslavia»; Oriental: China; Afrotropics: Madagascar, Tanzania, Yemen, St Helena (?introduced). =*hamatus* (Zetterstedt), 1843: 475 (*Rhaphium*); Becker, 1918: 281 (*Syntormon*); Grichanov, 2006: 199. Type locality: Scandinaviae (Lund, Scania, Ostrogothia, Thynaes, Norvegiae), Dania [Sweden, Norway, Denmark].

=*pseudospicatus* Strobl, 1899: 126; Becker, 1918: 281 (as a variation of *S. pallipes*); Negrobov, 1975: 659 (as a species); Grichanov, 2001: 182 (as a synonym of *S. pallipes*). Type locality: Spain: Algeciras.

=*uncitarsis* Becker, 1902: 53; Becker, 1918: 281 (as a variation of *S. pallipes*); Negrobov, 1991: 55 (as a synonym of *S. pseudospicatus*). Type locality: Egypt: Fayûm [=Al Fayyûm]; Mitte März.

=*immaculatus* Santos Abreu, 1929: 414 (as a variation of *S. pallipes*); Negrobov, 1991: 55 (as a subspecies of *S. pallipes*). Type locality: Spain: Canary Is., La Palma.

=*longistylus* Grichanov, 2001: 187 (as a subspecies of *S. pallipes*). Type locality: Madagascar: Manyakatomp.

Material: 1♂, 1♀, Greece: Crete, Heraklion env., 7.VI.2000, Shamshev [VIZR]; 1♂, 1♀, [Ukraine: Crimea]: Karadag, Krym, 3-12.IX.1987, Tanasiichuk [ZIN]; 1♂, 1♀, Tajikistan: Sangvor, 10.VI.1977, Zlobin [ZIN]; 4♂, 1♀, Tajikistan: Kondara Gorge, Kvak tract, 12.VII.1977, Zlobin [ZIN]; 1♀, [Kyrgyzstan:] Osh Region, Bazar-Kurgan district, 12 km W Arslanbob, Ak-Terek, 1800 m, 27.VIII.1986, Tanasiichuk [ZIN]; 1♂, [Uzbekistan: Samarqand Region], Peyshambe / 12 [orange label; ex coll. A.P. Fedtshenko 1871; ZIN].

Remarks: The recent Catalogs (e.g., Negrobov, 1991; Yang et al., 2006) regarded *S. pallipes* and *S. pseudospicatus* to be different species. Grichanov (2001) considered them as colour phenotypes of the same species and did not find morphological differences between the two forms. They were often collected together; therefore, they cannot be subspecies. The subspecies *S. p. longistylus* Grichanov, 2001 known from Madagascar does not differ from both phenotypes in hypopygium morphology, but being very distinct in length ratio of antennomeres; otherwise it is closer to *pseudospicatus* phenotype. First record from Kyrgyzstan.

Syntormon pennatus Ringdahl, 1920: 25; Grichanov, 2006: 199. Type locality: Norway: Narvik. Distribution: Norway, Russia (Kabardino-Balkaria).

Material (Fig. 2): 4♂♀, Kabardino-Balkaria, Ozen', 43°13'N, 43°19'E, 13.15.VI.2001, Grichanov; 6♂, Kabardino-Balkaria, Bezengi, 43°10'N, 43°14'E, 18-19.VI.2001, Grichanov [ZIN].

Remarks: The material from Kabardino-Balkaria was directly compared with *S. pennatus* types deposited in the Lund Zoological Museum. See also remarks under *S. turanicus*.

Syntormon pumilus (Meigen), 1824: 53 (*Porphyrops*); Loew, 1857: 34-35 (*Syntormon*). Type locality: not given. Distribution: Afghanistan, Armenia; Austria, Belarus, Belgium, Bulgaria, Czech, Denmark, ?Egypt; Estonia, Finland, France, Germany, Great Britain, ?Greece, Hungary, Ireland, ?Israel, Italy, Latvia, Morocco, Norway, Poland, Romania; Russia (Astrakhan, Kabardino-Balkaria, Kaluga, Karelia, Krasnodar, Kursk, Leningrad, Lipetsk, Moscow, Murmansk, Novosibirsk, Pskov, Stavropol', Vologda, Voronezh, Yakutia), Slovakia, ?Slovenia, Sweden, Spain (Canary Is.), Tunisia, Turkey, UK, Ukraine (Kherson, Odessa), «Yugoslavia»; «Middle Asia». (Some records may belong to *S. denticulatus* or *S. triangulipes* and should be confirmed).

=*longiseta* (Zetterstedt), 1843: 471 (*Rhaphium*); Loew, 1850: 119 (*Rhaphium*); Becker, 1918: 282 (*Syntormon*); Grichanov, 2006: 199. Type locality: Sweden: «Ostrogothia, ad Haradshammar».

=*pusillus* (Zetterstedt), 1859: 5034 (*Rhaphium*); Becker, 1918: 282 (*Syntormon*); Grichanov, 2006: 199. Type locality: Sweden: Scania, Lindholmen.

=*pumilio* (Zetterstedt), 1859: 5035 (*Rhaphium*); Becker, 1918: 282 (*Syntormon*). Type locality: Sweden: Scania, Lindholmen.

=*ibex* Bezzi, 1903: 332 («Loew, olim in litt.»).

=*tridens* (Becker), 1918: 253 (*Xiphandrium*); Negrobov, 1991: 56 (*Syntormon*). Type locality: «Warschau und Schlesien».

=*rufipes* auctt., nec Meigen, 1824 (misidentification) (Collin, 1940: 268).

Material: 1♂, Sweden: 7 km S Uppsala, 16.VI.1999, Grichanov [ZIN]; 1♂, [Russia]: Yashchera, Luzhskii Distr., Leningrad Region, 10.VII.1963, Stackelberg [det. A. Stackelberg as *S. rufipes*] [ZIN]; 1♂, [Russia]: Novosibirsk Region, Krasnoyarskoe, 21.VI.1988, Grichanov [ZIN]; 1♂, [Russia]: SW Yakutia, Biryuk River, 14 km upstream from Lena River, channel coast, on grasses at spruce forest, 16.VII.2008, A.K. Bagachanova [the Institute of Biological Problems of Cryolithozone, Siberian Branch of the Russian Academy of Sciences, Yakutsk].

Remarks: The species is firstly recorded from the Novosibirsk Region and Yakutia representing the easternmost point of its distribution.

Syntormon punctatus (Zetterstedt), 1843: 477 (*Rhaphium*); Becker, 1918: 276-277, 283 (as ?syn. of *Syntormon denticulatus*); Grichanov, 2006: 199. Type locality: Denmark. Distribution: Czech, Denmark, Germany, Norway, Poland, Russia (Leningrad, Moscow, Vologda), Sweden.

=*bisetosus* Becker, 1918: 275; Negrobov, 1991: 56. Type locality: Poland: «Nimptsch in Schlesien».

Material: 1♂, [Russia]: Sablino, Petrograd. Gub., 14.VIII.1924, Stackelberg [det. A. Stackelberg] [ZIN].

Syntormon rhodani Vaillant, 1983: 274. Type locality: France: «Alps, la vase de la cariaie de Saint-Benoît sur les bords du Rhône». Distribution: France.

Remarks: The species was incompletely described and illustrated, being a possible synonym to *S. metathesis*.

Syntormon samarkandi Negrobov, 1975: 659. Type locality: Uzbekistan: Kumak, Kat-takurgan distr., Samarkand region. Distribution: ?Iraq, Uzbekistan.

Remarks: Negrobov in his key to Palaearctic species (1975) misused the species name instead of *S. giordanii* Negrobov, 1974 (*S. samarkandi* was described with 5 strong black ventral bristles at base of fore femur, but was diagnosed in the key as bearing few long light hairs on the same place). Therefore, a record of *S. samarkandi* from Iraq (Olejnick et al., 1995) may belong to *S. giordanii*.

Syntormon setosus Parent, 1938: 464 (described by Parent, 1927: 59 as *Syntormon* «espèce X»); Speight & Meuffels, 1989: 94. Type locality: France: «Dunes de Lion-sur-Mer (Calvados)». Distribution: Ireland, France, Italy, UK.

Remarks: The species was originally described by a single female from northern France. Later females of *S. setosus* were reported from Italy and Ireland with its male remaining undescribed (see Speight & Meuffels, 1989). The latter authors supposed that *S. setosus* is a synonym of *S. miki*, distinguishing the two species by only variable colour characters.

Syntormon silvianus Pârnu, 1989: 57; Pârnu, 2000: 157; Grichanov, 2007: 70 (as synonym of *S. monilis*); Pârnu, 2009: 295 (restored). Type locality: Romania: Piatra Craiului Mountains, Southern Carpathians. Distribution: Romania.

Remarks: See remarks under *S. monilis*.

Syntormon smirnovi Stackelberg, 1952: 403. Type locality: Tajikistan: Gissar Ridge, Varzob Gorge, Ziddy. Distribution: Kazakhstan, Kyrgyzstan, Tajikistan.

Syntormon spicatus (Loew), 1857: 33 (*Rhaphium*), **nom. ress.**; Loew, 1857: 34-35 (*Syntormon*); Denninger, 1950: 45 (syn. of *Syntormon fuscipes*); here restored to species status. Type locality: Poland: «aus hiesiger Gegend» [= Meseritz]. Distribution: Poland.

Remarks: The species was synonymised with *S. fuscipes* (von Roser) by Denninger (1950) who studied a male type of the latter species and compared it with the Figs 202-204 provided by Becker (1918) for *S. spicatus*. However, Becker did not study Loew's types, but compared the material in his hands with the original description of the species and found some differences between them, e.g. in presence of antennal scape setation in *S. spicatus* sensu Loew and in hind tarsomere length ratio. Therefore, I consider Becker's description belonging to a different species (*S. fuscipes*), and restore *S. spicatus* from synonymy, as I consider Denninger's nomenclatural act to be based on Becker's misidentification (see remarks under *S. fuscipes* and *S. francoisi*). The distribution of *S. spicatus* Loew must be confined to the type locality, because all subsequent records of the species were made for *S. spicatus* sensu Becker.

Syntormon subinermis (Loew), 1869: 290 (*Synarthrus*); Becker, 1918: 284 (*Syntormon*). Type locality: Slovakia: Losoncz [=Lučenec]. Distribution: Austria, Czech, France, Georgia, Germany, Hungary, Israel, Kyrgyzstan, Romania, Russia (Kabardino-Balkaria, Pskov, Vologda), Slovakia, Sweden, Tajikistan, Turkey, Uzbekistan.

=*asiaticus* Negrobov, 1975: 663 (as a subspecies of *S. subinermis*). Type locality: Tajikistan: Gissar ridge.

Material: 1♂, Russia: Pskov Region, Velikie Luki, 30.VI.1997, Grichanov [ZIN]; 1♂, Russia: Kabardino-Balkaria, 2 km E Psynodakh, 21.VI.2000, Grichanov; 1♂, Tajikistan, Sangvor, 10.VI.1977, Zlobin [ZIN]; 1♂, Uzbekistan: N Navoi, Karatau Mts., 20 km WSW Langar, Gumbaz, 27.V.1984, Tanasiichuk [ZIN].

Remarks: First record from Uzbekistan.

Syntormon submonilis Negrobov, 1975: 662. Type locality: Russia: North Caucasus, Fisht, Tybga. Distribution: Russia (Krasnodar). Here excluded from Kabardino-Balkaria.

Remarks: The species was included in the key (Negrobov, 1975) as having dark spot at apex of hind femur in contrast to entirely yellow hind femur in *S. monilis*, though the last species was originally described with «hind femora dusky at the tip». See remarks under *S. monilis*.

Syntormon sulcipes (Meigen), 1824: 31 (*Rhaphium*); Becker, 1918: 284 (*Syntormon*). Type locality: not given. Distribution: Albania, Andorra, Austria, Belgium, Czech, France, Germany, Hungary, Romania, Russia (Karachai-Cherkessia), Switzerland, UK, «Middle Asia».

=*oedicnemus* (Loew), 1859: 15 (*Synarthrus*); Becker, 1918: 284 (*Syntormon*). Type locality: not given.

Syntormon tabarkae Becker, 1918: 285. Type locality: Tunisia: Tabarka. Distribution: France, Greece, Tunisia, «Yugoslavia».

Syntormon tarsatus (Fallén), 1823: 7 (*Hydrochus*); Zetterstedt, 1838: 713 (*Dolichopus*); Haliday, in Walker & al., 1851: 205 (*Rhaphium*); Kowarz, 1884: 109 (*Syntormon*); Becker, 1918: 286 (*Syntormon*); Grichanov, 2006: 183. Type locality: Sweden. Palaearctic: Austria, Belarus, Belgium, Czech, Denmark, Estonia, Finland, France, Germany, Hungary, Ireland, Latvia, Netherlands, Norway, Poland, Romania, Russia (Buryatia, Karelia, Kamchatka, Leningrad, Pskov), Slovakia, Sweden, UK, Ukraine (Kherson).

=*gratiosus* (Meigen), 1824: 100 (*Dolichopus*); Loew, 1857: 35 (*Syntormon*); Becker, 1917: 140; 1918: 286 (*Syntormon*). Type locality: not given [Germany: «aus hiesiger Gegend»].

=*obscurus* (Zetterstedt), 1838: 709 (*Dolichopus*) (misinterpretation of Fallén, 1823, p.p.); Becker, 1917: 150; 1918: 286 (*Syntormon*). Type locality: Sweden: «Lapponia Umensi, ad Tresunda».

=*palmipes* (Meigen), 1824: 55 (*Porphyrops*); Becker, 1918: 286 (*Syntormon*). Type locality: not given.

=*vittatus* (Macquart), 1834: 444 (*Porphyrops*); Becker, 1918: 286 (*Syntormon*). Type locality: France: Bordeaux.

Material: 1♂, [Russia]: Yashchera, Luzhskii Distr., Leningrad Region, 16.VI.1963, Stackelberg [det. A. Stackelberg] [ZIN]; [Russia]: Leningrad Region, Vyborg distr., Bolshoi Berezovyi Is., 1.VIII.1979, Kandybina [ZIN].

Remarks: *S. tarsatus* along with the Nearctic *S. palmaris* (Loew, 1864) and Far Eastern *S. pseudopalmaris* Negrobov et Shamshev, 1985 form rather distinct species group with their males having strongly widened and compressed laterally 2nd-4th segments of mid tarsus (see Negrobov & Shamshev, 1985).

Syntormon triangulipes Becker, 1902: 54. Type locality: Egypt: «Fayûm [=Al Fayyûm], in der Wüste bei Siala». Distribution: Azerbaijan, Egypt, France, Russia (Krasnodar), Spain, Tajikistan.

Material: 1♂, [Russia]: Krasnodar env., Riv. Kuban' (VNIIBZR), 4.VI.2000, Grichanov [ZIN]; 1♂, S Tajikistan, Dusti vil. [env.: 37.32°N, 68.82°E], summer 1984, Grichanov [ZIN].

Remarks: First records from Russia and Tajikistan.

Syntormon turanicus Stackelberg, 1927: 229. Type locality: «Turkestan, Chanatum, Kokand, montes Alaiensis, prope amniculum Kizilsu». Distribution: Kazakhstan, Kyrgyzstan, Uzbekistan.

Material (Fig. 3): Holotype ♂, Alai / 22 [yellow label] / Typ. *Syntormon turanicus* Stackelberg sp.n. [ZIN].

Remarks: According to Stackelberg (1927), one male was collected by A.P. Fedtshenko at 22.VII.1871. The species differs from *S. pennatus* species concept in mid leg coloration only (see key below). Do they represent different species, subspecies or phenotypes of the same species, is the question for a future revision.

Syntormon zelleri (Loew), 1850: 121 (*Rhaphium*); Loew, 1857: 34-35 (*Syntormon*). Type locality: Italy: Sicilien. Palaearctic: Abkhazia, Austria, Azerbaijan, Belgium, Czech, France, Germany, Greece incl. Crete, Hungary, Iran, Ireland, Italy, Netherlands, Romania, Russia (Krasnodar), Slovakia, Spain, Switzerland, UK, «Middle Asia».

Material: 1♂, Abkhazia: 5 km SE Ritsa Lake, 10.VII.2004, Grichanov [ZIN].

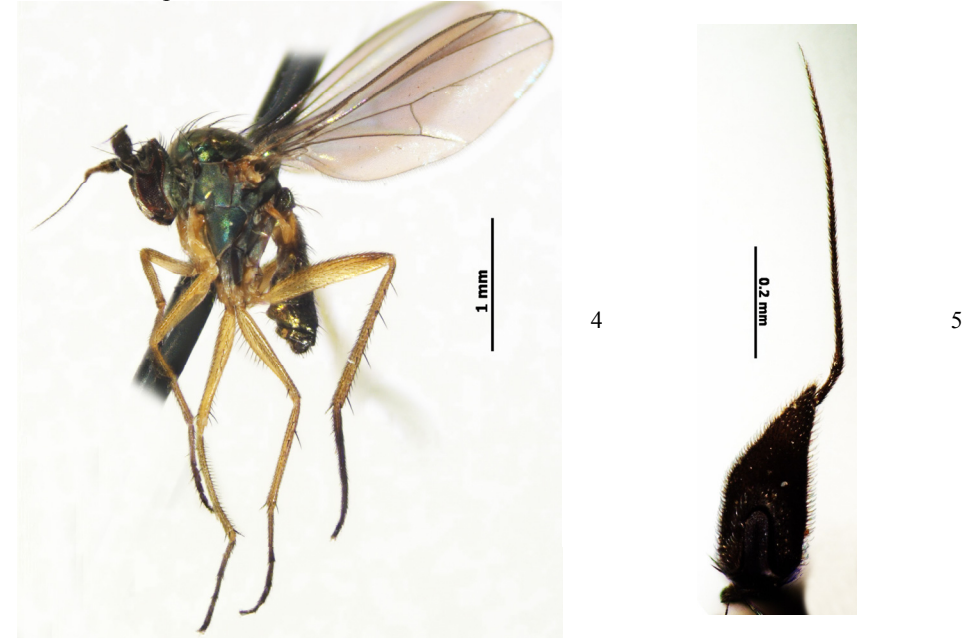
***Syntormon pilitibia* sp. nov.**

(Figs. 4–9)

Diagnosis. The new species belongs to a *S. pumilus* group of species (see below), being very distinct in having double ventral row of erect spinules along entire length of mid tibia. All other species of the group bear simple setulae on mid tibia, having no erect ventral spinules.

Type material. **HOLOTYPE** ♂, Israel: Menahamiya, 32.67°N, 35.57°E, 27.X.2911, N. Vikhrev [MZUM].

Etymology. From Latin *pilus*, *tibia* – ‘with haired tibiae’. Belongs to ventral row of fine erect spinules on mid tibia.



Figs. 4–5. *Syntormon pilitibia* sp. nov.: 4 – habitus, 5 – antenna.

Description. Male: Head: Frons metallic blue-violet; face with black ground colour, white pollinose; palpi and proboscis black; antenna black; scape setose dorsally; pedicel medianly with long projection, as long as scape; postpedicel tapering, 2.5 times longer than high; stylus dorsoapical, simple, with microscopic hairs; length ratio of scape to pedicel to postpedicel to stylomeres 1 and 2, 15/18/37/10/56; postoculars in single row, ventrally pale and dorsally black, and with some setae near cervix.

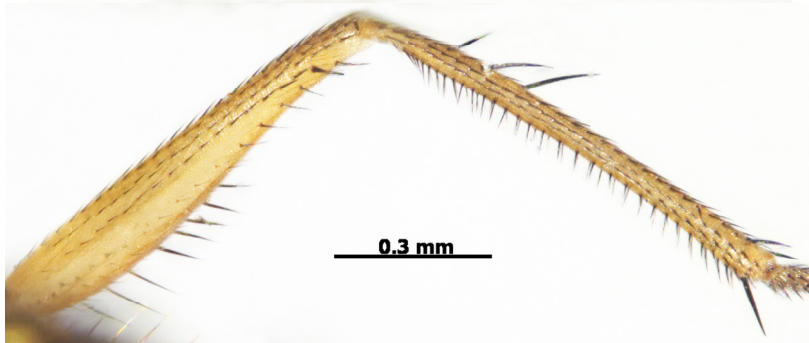
Thorax: Mostly greenish black, mesonotum with metallic violet-bronze reflections, metaepimeron with row of white hairs; katapimeron with 1-2 hairs; setae black; 6

dorsocentrals; 7-8 acrostichals short, uniseriate; median scutellars strong, laterals as weak side hairs, and with pair of fine pale hairs medianly along scutellar margin.

Legs: Coxae mostly yellow; mid coxa black except yellow apex; hind coxa brownish at base; fore coxa with short pale anterior hairs and some strong black apical setae; trochanters, femora and tibiae yellow; hind femur dirty yellow at apex; tarsi black from tip of basitarsus; hind basitarsus mainly brown; fore femur with 6-7 short black ventral setae at base, of which 2 basal setae longish, nearly as long as femur diameter; and with subapical posteroventral seta; fore tibia with 2 strong dorsal setae at 2/5 and at apex, 1 posterior apical seta, and with short but distinct anterodorsal setal serration along distal half; fore basitarsus simple; 2nd segment of the same tarsus slightly swollen, with small but distinct apicoventral projection; 2nd-4th segments each with 1-2 somewhat elongated dorsal setae; mid femur with 8-10 ventral setae in basal half, the longest setae nearly as long as diameter of femur; and with subapical pair of strong antero- and posteroventral setae; mid tibia with 2 antero- and 1 posterodorsal strong bristles in basal half, with strong apicoventral bristle, and with 2 ventral rows of erect hairs along entire length; the hairs as long as tibia diameter; mid tarsus simple; hind femur with strong anterior subapical seta, without posterior subapical seta; hind tibia with 3 antero- and 3 posterodorsal bristles, and with some short ventral setae; hind tarsus unmodified. Fore leg length ratio (from tibia to tarsomere 5): 71/32/12/9/9/9, mid leg: 92/39/19/14/9/11, hind leg: 125/29/30/21/13/14.



6



7

Figs. 6–7. *Syntormon pilitibia* sp. nov.: 6 – fore tarsus, 7 – mid femur and tibia.

Wing: Hyaline; ratio of cross-vein *dm-cu* to apical part of CuA₁, 24/38; lower calypter yellow, with fan of mainly black setae; halter yellow.

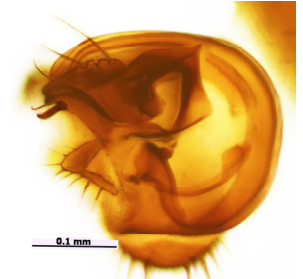
Abdomen: Mostly greenish black, and with black vestiture; 2nd tergum with large yellow lateral spots; 5th segment ventrally expanded to form hood for hypopygium; hypopygium black, with brown cerci.

Female: unknown.

Measurements (mm): Body length 2.5, antenna length 1.2, wing length 2.6, wing width 0.9.



8



9

Figs. 8–9. *Syntormon pilitibia* sp. nov.: 8 – wing, 9 – hypopygium.

***Syntormon macula mediterraneus* ssp. nov.**

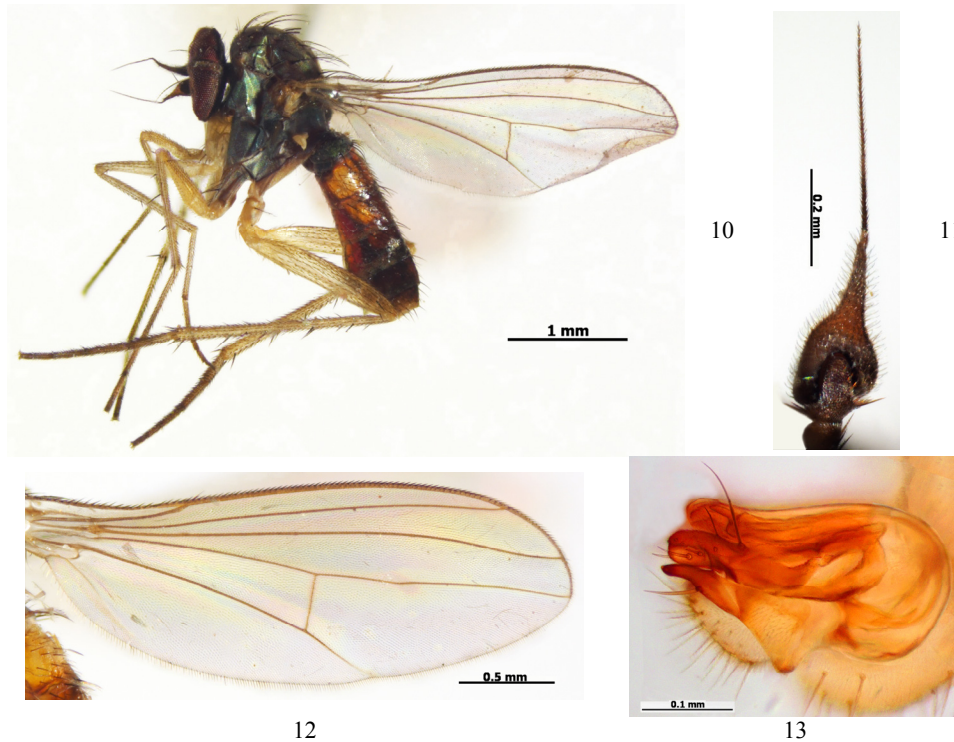
(Figs. 10–13)

Diagnosis. The new subspecies differs from the current concept of *S. macula* in colour characters mainly. *S. macula* female was originally described with entirely dark abdomen, black hind coxa and dark spot on wing vein M (Parent, 1927). *S. macula* male was never illustrated, but was described (d'Assis Fonseca, 1949) and diagnosed in a key (d'Assis Fonseca, 1978) as follows: segments of front tarsus are uniformly decreasing in length towards apex, metatarsus is much shorter than combined length of remaining segments; middle and hind coxae are black, yellowish at apex; middle femur ventrally bears a fine bristle about middle, and a row of short black setulae from this bristle to base of femur; hind tarsus is simple, not noticeably thickened, uniformly dark; wing has a distinct brownish spot on apical section of discal vein. *S. m. mediterraneus* male corresponds to the description of female (Parent, 1927) and male (d'Assis Fonseca, 1949), but has 2nd, 3rd and 6th terga of abdomen largely yellow; hind coxa yellow; mid femur ventrally without a fine bristle and without a row of short black setulae; basal two segments of hind tarsus mainly yellow; wing with indistinct purplish spot on M flexion.

Type material. HOLOTYPE ♂, Israel: Baniass [Panyas], 13.VI.1982, A. Freidberg. PARATYPES: 4♂, Greece, Rhodes, Rhodes, 1-3.VII.1981, A. Freidberg [TAU].

Etymology. The subspecies is named after the Mediterranean Region.

Description. Male: Head: Frons metallic blue-violet; face with black ground colour, white pollinose; palpi and proboscis black; antenna black; scape setose dorsally; pedicel medianly with long projection, longer than scape; postpedicel tapering, 2 times longer than high; stylus strictly subapical, simple, with microscopic hairs; length ratio of scape to pedicel to postpedicel to stylomeres 1 and 2, 12/16/35/3/43; postoculars in single row, pale, with upper 4-5 setae black, and with some setae near cervix.



Figs. 10–13. *Syntormon macula mediterraneus* ssp. nov.: 10 – habitus, 11 – antenna, 12 – wing, 13 – hypopygium.

Thorax: Mostly greenish black, mesonotum with metallic violet-bronze reflections, metaepimeron yellow, with row of white hairs; katepimeron with 2-3 white hairs; setae black; 6 dorsocentrals; 7-8 acrostichals uniseriate; median scutellars strong, laterals as weak side hairs.

Legs: Coxae mostly yellow; mid coxa brown-black except yellow apex; fore coxa with short pale anterior hairs and some strong black apical setae; trochanters, femora and tibiae yellow; tarsi brown from tip of 2nd segment; legs simple, without remarkable setae and cilia; fore femur with subapical posteroventral seta; fore tibia with 1 short dorsal seta at middle, and with short but distinct anterodorsal setal serration along distal half; mid femur with subapical pair of strong antero- and posteroventral setae; mid tibia with 3 antero- and 1 posterodorsal strong bristles, with 1 short ventral bristle, with 3 apicals; hind femur with strong anterior subapical seta, 1 posteroventral subapical seta; hind tibia with 3 antero- and 5 posterodorsal bristles, and with some short ventral setae. Fore leg length ratio (from tibia to tarsomere 5): 92/50/24/18/10/10, mid leg: 130/59/30/20/12/10, hind leg: 167/34/35/22/17/13.

Wing: Hyaline, wing small dark spot on apical section of M_{1+2} , sometimes poorly discernible; ratio of cross-vein $dm-cu$ to apical part of CuA_1 , 30/43; lower calypter yellow, with fan of black setae; halter yellow.

Abdomen: Mostly yellow, and with black vestiture; 1st, 3rd and 6th terga partly, 4-5th terga mostly brown-black with greenish tinge; 5th segment ventrally expanded to form hood for hypopygium; hypopygium yellow, with yellow cerci.

Female: unknown.

Measurements (mm): Body length 3.0, antenna length 1.0, wing length 3.1, wing width 1.0.

Doubtful species

Syntormon decoratus (Haliday), 1832: 353 (*Plectropus*); Becker, 1918: 286 (*Syntormon*, unrecognized). Type locality: Ireland: Holywood.

Species excluded from *Syntormon*

Sympycnus praeteritus Parent, 1929: 9; Yang et al., 2006: 507 (*Syntormon*). Type locality: Germany: Rosenhof.

Remarks: The species was described by a single female from Germany. According to the original description, *Sympycnus praeteritus* along with *Syntormon bicolorcellus* and *Sympycnus simplicipes* Becker, 1908 represents one more intermediate form sharing features of both *Sympycnus* and *Syntormon* (= *Bathycranium*) that was noted by Parent (1929) himself. Yang et al. (2006) placed the species in the latter genus, giving no any explanation. Despite the strongly bulging face, it would be better to keep *S. praeteritus* in *Sympycnus* until the type will be studied. The broad bulging face is a female secondary sexual character found in *Telmaturgus* Mik, 1874, *Parasyntormon* Wheeler, 1899, monotypic genera *Hercostomoides* Meuffels et Grootaert, 1997, and *Ceratopos* Vailant, 1952, in some species of *Sympycnus* Loew, 1857 (e.g. *S. simplicipes*) and *Teuchophorus* Loew, 1857 (e.g. *T. longifrons* Bickel, 1983, and *T. queenslandicus* Bickel, 1983) in addition to *Syntormon*.

Rhaphium rufipes Meigen, 1824: 30; Becker, 1918: 277-278 (unrecognized); Parent, 1925: 42 (syn. of *Syntormon pumilus*); Collin, 1940: 268 (unrecognized species of ?*Rhaphium*). Type locality: not given.

Key to West-Palaearctic species and species groups of *Syntormon* (males)

Remarks: *S. luteicornis* and *S. setosus* known from females only, as well as subspecies of known species (*S. macula mediterraneus* and *S. subinermis asiaticus*) and phenotypes and subspecies of *S. pallipes* are not included in the key. As follows from my remarks (see above), I consider colour characters used in the previous keys to be very variable in the genus and inappropriate for distinguishing *Syntormon* species. It seems also that the length ratio of antennomeres and ratio of length and width of postpedicel are variable to a certain extent, as well as the length and number of ventral setae on femora. In addition, some species were incompletely described or poorly illustrated. Therefore, I have compiled a new key based mainly on male secondary sexual characters, indicating the following species groups that must be revised in the future:

Syntormon fuscipes group of species: simple fore tarsus and strong basoventral projection on hind basitarsus, bearing modified setae on apex of that projection: *francoisi*, *fuscipes*, *spicatus*; *S. valae* Negrobov et Zhilina, 1986 described from Mongolia also belongs to this species group (see Grichanov, 2001);

Syntormon monilis group of species: modified tarsomeres of fore and mid tarsus and strong basoventral projection on hind basitarsus, bearing modified setae on apex of that projection: *monilis*, *silvianus*, *submonilis*;

Syntormon sulcipes group of species: simple tarsi except for the presence of divergent ventral setae on hind basitarsus, of which basal seta is stronger and directed basally: *bulgariensis*, *obscurior*, *sulcipes*; *S. siplivinskii* Negrobov, 1975 (Buryatia) is related to this species group;

Syntormon pennatus group of species: the ventral setae on hind basitarsus as in species of *sulcipes* group, but plumose dorsally and ventrally hind tibia and plumose dorsally hind tarsus: *pennatus*, *turanicus*;

Syntormon pumilus group of species: shortened fore tarsomeres, with at least 2nd segment of same tarsus swollen; more or less elongate basoventral setae or cilia on fore and mid femora:

- *metathesis* subgroup of species: no apical lobe on 2nd segment of fore tarsus: *metathesis*, *rhodani*.
- *pumilus* subgroup of species: distinct apical lobe on 2nd segment of fore tarsus; abdomen entirely dark (*pumilus*, *iranicus*) or abdomen with 2nd-3rd segments partly yellow (*giordanii*, *samarkandi*, *triangulipes*).

1. Hind basitarsus simple	2
– Hind basitarsus bearing processes, spines, leaf-like or long setae	9
2. Fore tarsus having segments regularly decreasing in length towards apex; basitarsus much shorter than combined length of remaining segments	3
– Fore tarsus with shortened 2 nd -4 th segments, with at least 2 nd segment of same tarsus swollen; fore and mid femora with more or less elongate basoventral setae or cilia (<i>pumilus</i> group of species)	7
3. Antenna mostly or partly yellow; abdominal tergites extensively yellow; legs entirely yellow and simple; 2.5-3.0	<i>bicolorellus</i>
– Antenna entirely dark	4
4. Wing with small dark spot on M ₁₊₂ just before middle of its distal part; legs simple; mid femur with at most one fine bristle about middle; mid tibia without long ventral setae; 3.0-4.0	<i>macula</i>
– Wing clear; either mid femur or hind tibia bearing long ventral setae	5
5. Mid femur without long ventral setae; hind tibia with posteroventral row of 8-10 long erect setae (Fig. 11); 5.0	<i>cilitibia</i>
– Mid femur with long ventral setae; hind tibia without long erect setae	6
6. Mid femur with 2-3 long ventral setae; hind tarsus distinctly thickened; 4.0-4.5	<i>miki</i>
– Mid femur with 12-14 long ventral setae; hind tarsus not thickened; 3.0	<i>codinai</i>
7. 2 nd segment of fore tarsus slightly enlarged, without apical lobe; 3.2-4.5	<i>metathesis</i> subgroup of species
– 2 nd segment of fore tarsus with distinct apical triangular prolongation	8
8. Mid tibia with double ventral row of erect hairs along entire length; the hairs as long as tibia diameter	<i>pilitibia</i>
– Mid tibia with simple setulae, without erect ventral spinules; 1.7-3.0	<i>pumilus</i> subgroup of species
9. Hind tibia strongly thickened, bearing rows of long setae dorsally and ventrally	10
– Hind tibia simple or slightly thickened, usually without rows of long setae	11
10. Hind tibia with simple setae, longish ventrally; hind tarsus without dorsal plummation; hind basitarsus with basoventral tubercle bearing leaf-like branched appendix; 2.5	<i>smirnovi</i>
– Hind tibia plumose dorsally and ventrally; hind tarsus plumose dorsally; hind basitarsus bearing same ventral setae as <i>sulcipes</i> group of species; mid femur and tibia mainly yellow (<i>pennatus</i> : Fig. 12) or blackish except yellow knees (<i>turanicus</i> : Fig. 13); 2.5	<i>pennatus</i> group of species
11. Some apical segments of mid tarsus widened and flattened	12

– Mid tarsus simple	14
12. 2 nd -4 th segments of mid tarsus strongly widened and compressed laterally, black; hind tarsus black; hind tibia at apex thickened, black; hind tarsus black; hind basitarsus with long curved ventral seta; postpedicel 3 times longer than high at base; 3.0	<i>tarsatus</i>
– 4 th and 5 th segments of mid tarsus widened	13
13. 4 th and 5 th segments of hind tarsus widened; hind tibia thickened and slightly curved; hind basitarsus without spiniform ventral process, with 3 setae of unequal length; fore tarsus simple; postpedicel 1.2 times longer than high at base; 3.6-3.7	<i>latitarsis</i>
– 4 th and 5 th segments of hind tarsus not widened; hind tibia not thickened; hind basitarsus with long pointed basoventral process; fore tarsus ciliated, with shortened 2 nd -4 th segments; 2.5-3.0	<i>monilis</i> group of species
14. Hind basitarsus with long simple ventral setae	15
– Hind basitarsus with short hook-like curved setae, with leaf-like appendages or with process	17
15. Fore femur bearing long ventral seta at base; 1 st and 2 nd segments of hind tarsus each with 1 erect ventral seta at about middle, that on 2 nd segment longer and square-ended; 2.0	<i>filiger</i>
– Fore femur without long ventral seta; 2 nd segment of hind tarsus without ventral seta	16
16. Hind basitarsus with 2 strong ventral setae of equal length; 3.0	<i>punctatus</i>
– Hind basitarsus with 2 divergent ventral setae of unequal length; hind tibia laterally compressed and markedly club-shaped in lateral view; 3.0-3.3	<i>sulcipes</i> group of species
17. Hind basitarsus with leaf-like or worm-like ventral appendages, without unguiculate ventral spines or process	18
– Hind basitarsus with unguiculate ventral spines or with process	19
18. Hind basitarsus with 1 leaf-like pedunculate ventral appendix; 2.5-3.0	<i>subinermis</i>
– Hind basitarsus swollen at base ventrally, here with pair of yellowish oval leaf-like appendages surrounded by fine black setulose hairs; 3.0-3.5	<i>zelleri</i>
– Hind basitarsus with about 5 worm-like ventral appendages on basal swelling; 3.0	<i>mutillatus</i>
19. Hind basitarsus with basoventral or midventral pointed process or tubercle bearing bunch of modified setae	20
– Hind basitarsus with only two bare ventral hooks in basal half, without modified setae or process	22
20. Hind basitarsus swollen ventrally at middle; the swelling having a small tubercle bearing leaf-like pedunculate bilobate appendix in addition to rigid process terminating with two short hooks; 4.0	<i>tabarkae</i>
– Hind basitarsus swollen ventrally in basal 1/5, excavated ventrally in middle 1/3; the swelling having pointed process	21
21. Hind basitarsus with pointed process bearing 3 subapical worm-like appendages and 2 short thick apical setae; 2.5	<i>abbreviatus</i>
– Hind basitarsus with pointed process bearing apical bunch of 2-3 worm-like and some shorter thick apical setae; 2.1-3.25	<i>fuscipes</i> group of species
22. Postpedicel 3-3.5 times longer than high, nearly 2 times longer than stylus; mid femur without strong ventral setae; hind basitarsus with strong, fused at base ventral hooks; 3.0-3.75	<i>pallipes</i>

- Postpedicel at most 1.5-2 times longer than high, shorter than stylus; mid femur with row of ventral setae; hind basitarsus with weak, spiniform, distinctly separated ventral setae23
- 23. Abdomen brownish yellow, with dark posterior margins of tergites; hind basitarsus with 2 slightly curved ventral setae; 4.0-6.0 *aulicus*
- Abdomen entirely dark; hind basitarsus with 2 strong curved ventral spines24
- 24. Hind basitarsus with ventral spines at middle; lower calypter with black cilia; 5.0-5.5 *freymuthae*
- Hind basitarsus with ventral spines at base25
- 25. Postpedicel 1.5-2 times longer than high; lower calypter with white cilia; 2.5-4.0 *denticulatus*
- Postpedicel as long as high; lower calypter with ?white cilia; 2.0-3.0 *brevicornis*

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