

РОССИЙСКАЯ АКАДЕМИЯ НАУК
Южный научный центр

RUSSIAN ACADEMY OF SCIENCES
Southern Scientific Centre



Кавказский Энтомологический Бюллетень

CAUCASIAN ENTOMOLOGICAL BULLETIN

Том 18. Вып. 2

Vol. 18. No. 2



Ростов-на-Дону
2022

A new species of the genus *Thinophilus* Wahlberg, 1844 (Diptera: Dolichopodidae) from Turkey, new records and a key to West and Central Palaearctic species

© I.Ya. Grichanov

All-Russian Institute of Plant Protection, Podbelskiy Roadway, 3, St Petersburg, Pushkin 196608 Russia. E-mail: grichanov@mail.ru

Abstract. A new species of the genus *Thinophilus* Wahlberg, 1844 is described from the Ankara Province of Turkey. *Thinophilus tonguchi* sp. n. male differs reliably from other close species of the genus in mostly black femora, simple fore leg and morphology of hypopygium. An identification key to 23 West and Central Palaearctic species is compiled. New records are given for some known species. *Thinophilus bicalcaratus* Negrobov, 1971 is firstly recorded from Kazakhstan and Russia. Colour pictures are given for *T. bicalcaratus* and *T. setosus* Negrobov, 1979 for the first time.

Key words: Hydrophorinae, *Thinophilus*, Palaearctic, Turkey, new species, identification key.

Новый вид рода *Thinophilus* Wahlberg, 1844 (Diptera: Dolichopodidae) из Турции, новые находки и определитель видов Западной и Центральной Палеарктики

© И.Я. Гричанов

Всероссийский институт защиты растений, шоссе Подбельского, 3, Санкт-Петербург, Пушкин 196608 Россия. E-mail: grichanov@mail.ru

Резюме. Описан новый вид рода *Thinophilus* Wahlberg, 1844 из турецкой провинции Анкара. Самец *Thinophilus tonguchi* sp. n. достоверно отличается от других близких видов рода преимущественно черными бедрами, простыми передними ногами и морфологией гипопигия. Составлен определитель для 23 западно- и центральнопалеарктических видов. Для некоторых известных видов приведены новые указания. *Thinophilus bicalcaratus* Negrobov, 1971 впервые отмечен в Казахстане и России. Впервые приведены цветные иллюстрации для *T. bicalcaratus* и *T. setosus* Negrobov, 1979.

Ключевые слова: Hydrophorinae, *Thinophilus*, Палеарктика, Турция, новый вид, определитель.

Introduction

Species of *Thinophilus* Wahlberg, 1844 (subfamily Hydrophorinae) are confined mainly to sea coastlands and fresh and salt lake shores in warm and torrid regions of the Earth. With about 140 described species all over the world, the genus is very diverse in tropical and subtropical bands of the Old World, but being insufficiently studied [Negrobov et al., 2016; Grichanov, 2018; Grootaert, 2018]. For example, 21 *Thinophilus* species are known from small territory of Singapore [Grootaert, 2018]. The latest review and a key to the Palaearctic species of the genus were published by Negrobov [1979]. Grichanov [1997] provided an identification key to Afrotropical and Palaearctic *Thinophilus* species. Keys to Mediterranean [Grichanov, 2007] and Far Eastern species [Negrobov et al., 2016] were also published. Some of the species are known only from males, while three Egyptian species are known only from females.

In this paper, a new species of the genus *Thinophilus* from the Ankara Province of Turkey is described, new records are given for some known species, and a revised identification key to males and females of Palaearctic species (except for the Far Eastern species) is provided.

Material and methods

The paper is based on material found in the collections of the Zoological Institute of the Russian Academy of Sciences (ZIN, St Petersburg, Russia) and Zoological Museum of Moscow State University (ZMUM, Moscow, Russia). All specimens are mounted on pins.

Specimens have been studied and photographed with a ZEISS SteREO Discovery.V12 modular stereo microscope and an AxioCam MRc5 camera. Morphological terminology and abbreviations follow Cumming and Wood [2017] and Grichanov and Brooks [2017]. The lengths of the podomeres are given in millimetres. Body length is measured from the base of the antenna to the tip of abdominal segment 6. Wing length is measured from the base to the wing apex. The figures showing the hypopygium in lateral view are oriented as it appears on the intact specimen, with the morphologically ventral surface of the genitalia facing upwards, dorsal surface downwards, anterior end facing right and posterior end facing left.

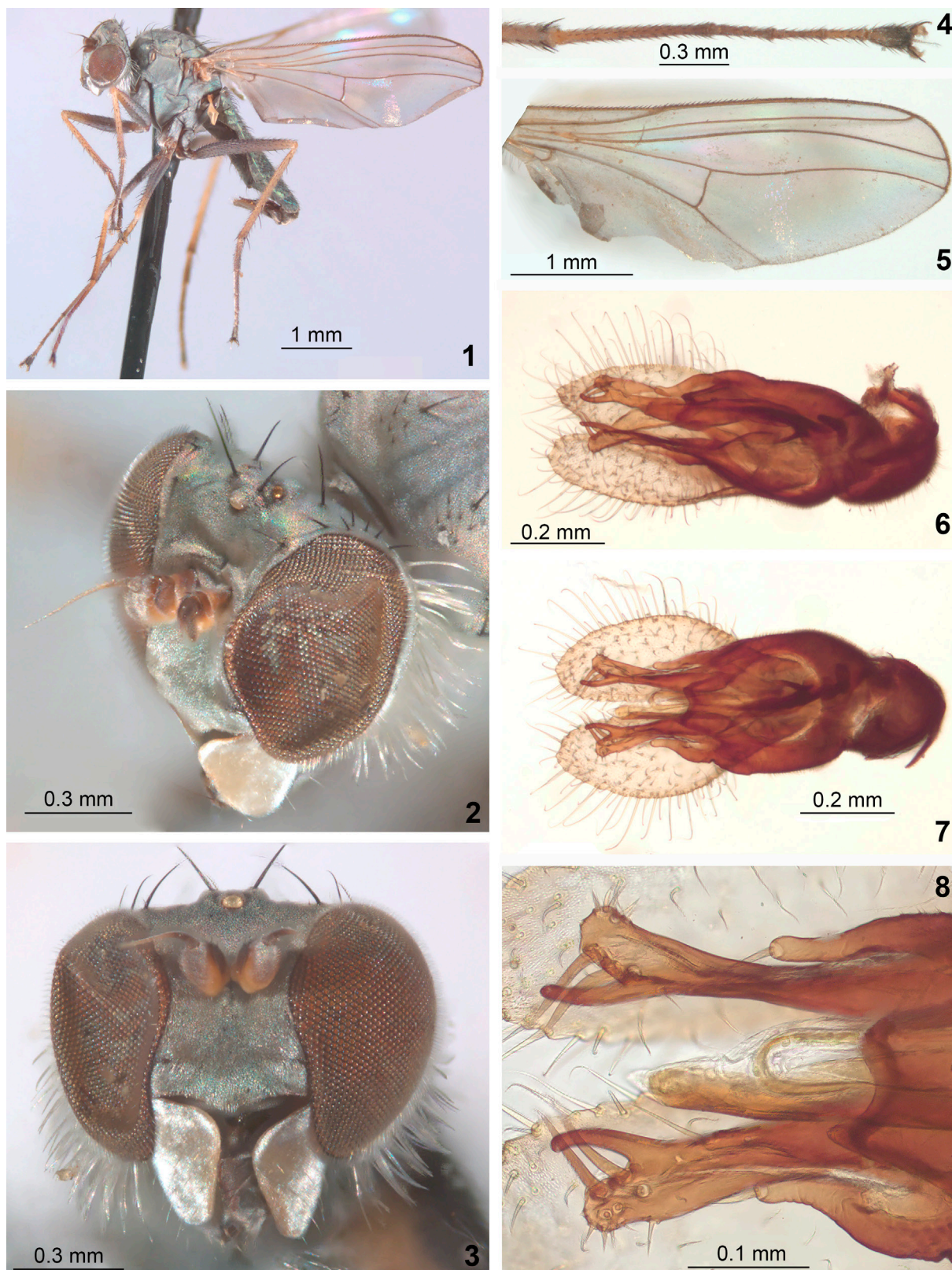
Genus *Thinophilus* Wahlberg, 1844

See diagnosis and discussion in Negrobov [1979] and Grootaert [2018].

**Key to West and Central Palaearctic species
of *Thinophilus***

The Far Eastern *T. grootaerti* Negrobov, Maslova et Selivanova, 2016 (known from Russia: Primorye), *T. longipilus* Negrobov, 1971 (Russia: Khabarovsk Region, Primorye; Japan), *T. nigripennis* Negrobov, Kumazawa et Tago, 2014 (Japan), *T. ovtshinnikovae* Negrobov, Maslova et Selivanova, 2016 (China: Liaoning) and *T. sinensis* Yang et Li, 1998 (China: Beijing, Liaoning and Chinese Orient) are apparently regional endemics; they are not included in the key (see Negrobov et al. [2016], for a key to Far Eastern species).

1. Mesonotum with distinct dark lateral spots 2
 - Mesonotum monochrome, without dark lateral spots 4
2. Wing with dark spot near the end of R2+3 and R4+5 [Negrobov, 1979: fig. 1351]; male genitalia as in Negrobov [1979: figs 1386–1388]; body length 4.75 mm. Algeria, Egypt, Iran, Israel, Tadjikistan, Tunisia *T. quadrimaculatus* Becker, 1902
 - No spot at wing apex 3
3. Mesonotum with four lateral spots; male genitalia as in Negrobov [1979: figs 1371–1373]; body length 2.5–3 mm. Algeria, Egypt, Iran, Israel, Mongolia, Saudi Arabia, Turkey; Oriental and Afrotropical Regions *T. indigenus* Becker, 1902
 - Mesonotum with six lateral spots; male genitalia as in Parent [1929: 50]; body length 2.75 mm. Egypt; Afrotropical: Gabon, Namibia *T. maculatus* Parent, 1929
4. Four dorsocentrals; only mid femur with a row of ventral setae, not longer than femora diameter; cercus very short, triangular-ovate; legs brownish or greyish-yellow with yellow knees; male genitalia as in Negrobov [1979: figs 1398–1402]; body length 2–2.5 mm. Europe from France to Lugansk, North Africa, Turkey *T. versutus* Haliday, 1851
 - Five or six dorsocentrals present, usually decreasing in length anteriorly; body length usually more than 3 mm 5
5. Pedicel long, with broad distodorsal and narrow distoventral lobes [Negrobov, 1979: figs 1384, 1385; Dawah et al., 2020: fig. 5c]; body length 5–5.5 mm. Egypt, Saudi Arabia; Afrotropical: Djibouti, Yemen *T. promotus* Becker, 1910
 - Pedicel without such lobes 6
6. Femora partly black (females usually indeterminable); male fore tibia usually with 2 or 3 strong curved posteroventral bristles at apex 7
 - At least mid femur yellow, sometimes fore femur dark on basal half or hind femur infuscated dorsally; fore tibia with or without apical setae 11
7. Fore tarsomeres 2, 3 and 4 each with group of black setae, longer than tarsomere diameter 8
 - Fore tarsus without long setae 9
8. Mid tarsomeres 2 and 3 with long flattened setae [Negrobov, Grichanov, 1982: fig. 1]; body length 5.3–5.6 mm. Tajikistan *T. ornatus* Negrobov et Grichanov, 1982
 - Mid tarsus with simple setae; male genitalia as in Negrobov [1979: figs 1364–1366]; body length 5.5–6 mm. Trans-Palaearctic except for arctic and boreal zones *T. flavipalpis* (Zetterstedt, 1843)
9. Hind femur with long ventral setae, about as long as femur height; tibiae mostly dark; male genitalia as in Negrobov [1979: fig. 1392]; body length 5–6 mm. Mongolia; Russia: Zabaikalye, Tyva *T. setosus* Negrobov, 1979
 - Hind femur ventrally with short setulae, with at most few antero- and posteroventral setae at apex; tibiae mostly yellow 10
10. Fore basitarsus curved, with basoventral tubercle; male genitalia as in Negrobov [1979: figs 1360–1363]; body length 4.3–5 mm. Kyrgyzstan, Tadjikistan, Uzbekistan *T. brevicilius* Negrobov, 1971
 - Fore basitarsus simple; male genitalia – Figs 6–8; body length 4 mm. Turkey *T. tonguchi* sp. n.
11. Males 12
 - Females 24
12. Posterior coxa with long straight apical spine [Dawah et al., 2020: fig. 5b]; body length 4.5 mm. Saudi Arabia; Afrotropical: Somalia, Yemen *T. ochripalpis* Becker, 1910
 - Posterior coxa without spine 13
13. Fore basitarsus curved, with ventral excavation or incision at base; antenna yellow 14
 - Fore basitarsus straight, without excavation or incision at base; antenna usually dark dorsally 18
14. Fore basitarsus with nearly right-angled bend; mid femur with posteroventral setae in middle part, at least half as long as femur diameter; male genitalia as in Negrobov [1979: figs 1378–1380], Grichanov [1997: fig. 1]; body length 3.9–5.5 mm. Algeria, Iraq, Morocco, Spain; Afrotropical: Tanzania *T. mirandus* Becker, 1907
 - Fore basitarsus fairly curved; mid femur with short setulae in middle part 15
15. Sternite 4 of abdomen with 2 bundles of strong black bristles (Fig. 14); male genitalia – Figs 14–16, Negrobov [1979: figs 1345a, 1358–1359]; body length 4.7–5.7 mm. Kazakhstan: Aral; Russia: Kalmykia; Tadjikistan, Turkmenistan, Uzbekistan *T. bicalcaratus* Negrobov, 1971
 - Sternite 4 of abdomen without bundles of black bristles 16
16. Hind femur with long anteroventral and posteroventral setae along entire length; segments 2–4 of fore tarsus each with a long black posterodorsal seta being considerably longer than diameter of segment; male genitalia as in Negrobov et al. [2017: figs 1–4]; body length 3.4–3.8 mm. Kazakhstan, Ukraine *T. sinclairi* Negrobov, Maslova et Selivanova, 2017
 - Hind femur with long anteroventral and posteroventral setae on distal half; segments 2–4 of fore tarsus variously setose 17
17. Palpus with white hairs; dorsal lobe of surstylus short [Negrobov, 1979: fig. 1397]; wing distinctly maculated on dm-m and M1+2 curvature [Negrobov, 1979: fig. 1356]; fore coxa dark in basal part; body length 3.8–4.1 mm. Afghanistan, Azerbaijan, Turkmenistan *T. vanschuytbroeckii* Negrobov, 1971

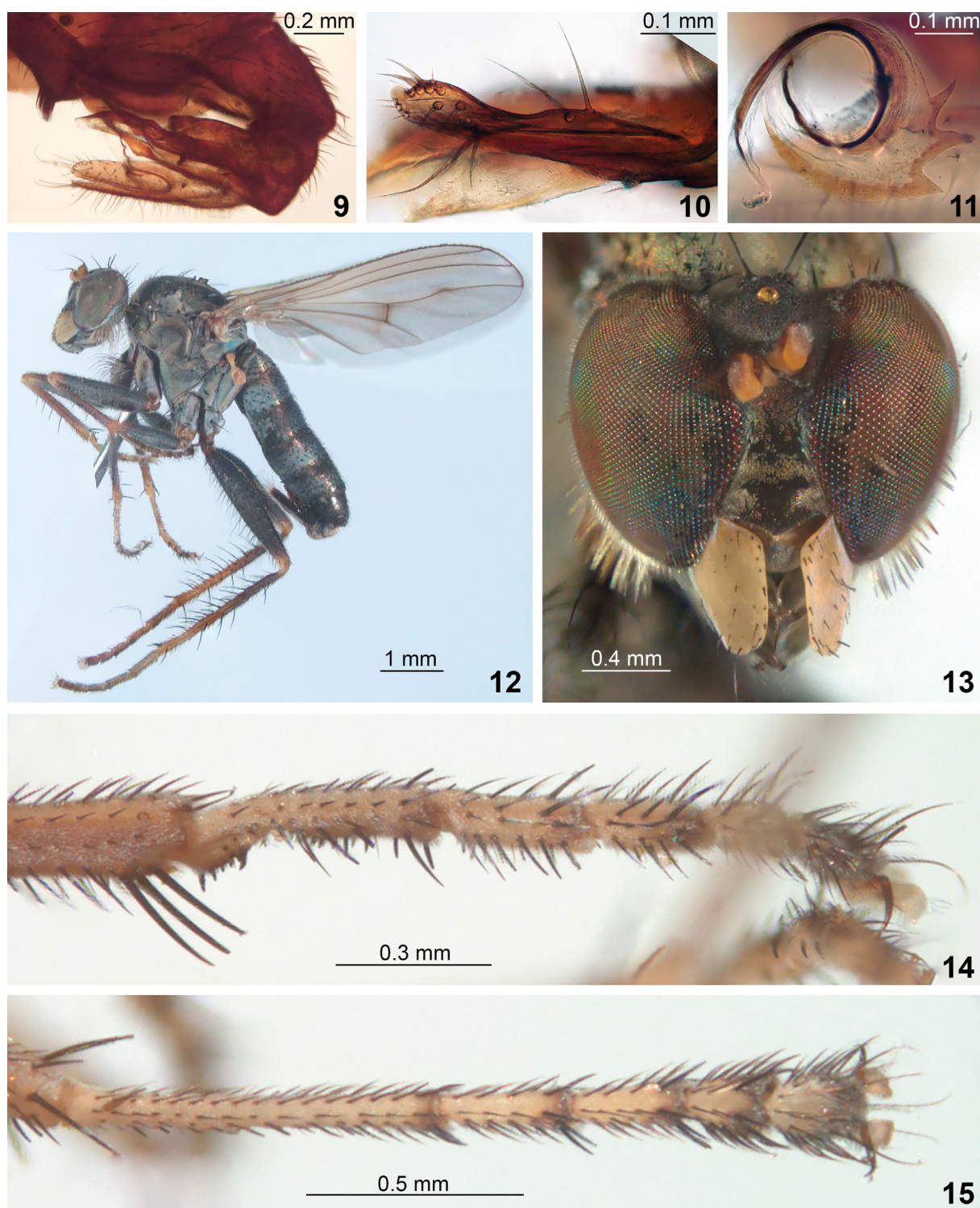


Figs 1–8. *Thinophilus tonguchi* sp. n., male, holotype, general view and details of structure.

1 – habitus; 2–3 – head: 2 – dorso-lateral view, 3 – anterior view; 4 – mid tarsus, dorsal view; 5 – wing; 6–7 – hypopygium after maceration: 6 – ventro-lateral view, 7 – ventral view; 8 – surstyli, epandrial lobi and phallosoma, ventral view.

Рис. 1–8. *Thinophilus tonguchi* sp. n., самец, голотип, общий вид и детали строения.

1 – общий вид; 2–3 – голова: 2 – вид сверху-сбоку, 3 – вид спереди; 4 – средняя лапка, вид сверху; 5 – крыло; 6–7 – гипопигий после размачивания: 6 – вид снизу-сбоку, 7 – вид снизу; 8 – сурстии, лопасти эпандрия и фаллосома, вид снизу.



Figs 9–15. Species of the genus *Thinophilus*, males, general view and details of structure.

9–11 – *Thinophilus bicalcaratus*; 12–15 – *Thinophilus setosus*. 9 – apex of abdomen after maceration, lateral view; 10 – surstylus, lateral view; 11 – phallus, distal part; 12 – habitus; 13 – head, anterior view; 14 – fore tarsus, lateral view; 15 – mid tarsus, dorsal view.

Рис. 9–15. Виды рода *Thinophilus*, самцы, общий вид и детали строения.

9–11 – *Thinophilus bicalcaratus*; 12–15 – *Thinophilus setosus*. 9 – верхина брюшка после размачивания, вид сбоку; 10 – сурстиль, вид сбоку; 11 – фаллус, дистальная часть; 12 – общий вид; 13 – голова, вид спереди; 14 – передняя лапка, вид сбоку; 15 – средняя лапка, вид сверху.

- Palpus with black hairs; dorsal lobe of surstylus long; wing practically hyaline; fore coxa with dark spot near base; male genitalia as in Negrobov [1979: figs 1393–1396]; body length 3.7–5.4 mm. Iran, Tajikistan, Ukraine; China: Tibet, Taiwan *T. spinitarsis* Becker, 1907
18. Fore and/or mid femora ventrally with hairs and bristles, nearly as long as femora height 19
- Fore and mid femora without long ventral ciliation 20
19. Fore basitarsus with ventral row of short but strong black spines, at least half as long as segment diameter; dm-m 2/3 as long as distal part of M4 [Parent, 1929: 49; Dawah et al., 2020: fig. 5d]; body length 4 mm. Egypt, Saudi Arabia; Afrotropical: Nigeria, Somalia *T. spinulosus* Parent, 1929
- Fore basitarsus without ventral spines, with simple setulae only; dm-m as long as distal part of M4; male genitalia as in Parent [1929: 50]; body length 2.75 mm. Egypt; Afrotropical: Gabon, Namibia *T. maculatus* Parent, 1929
20. Scutellum with 2 strong and 2 short setae; face nearly 2 times as high as wide near suture 21
- Scutellum with only 2 strong setae; face approximately as high as wide near suture 22
21. Fore basitarsus with posteroventral setae, longer than tarsomere diameter; distal part of M4 3 times as long as dm-m; male genitalia as in Negrobov [1979: figs 1381–1383]; body length 2.5–2.8 mm. China: Hebei, Xinjiang; Mongolia, Tadzikistan; Russia: Chita, Omsk, Buryatia *T. pollinosus* Loew, 1870
- Fore basitarsus without long setae; distal part of M4 not more than 2 times as long as dm-m; male genitalia as in Negrobov [1979: figs 1389–1391]; body length 3.1–3.6 mm. Palaearctic except for Africa, Middle East and Far East *T. ruficornis* (Haliday, 1838)
22. Face shining metallic, slightly pollinose; sutural setae distinctly developed; abdomen with long hairs [Negrobov, 1979: 425, redescription]; body length 4–5 mm. Algeria, Egypt, Italy, Spain, Tunisia *T. achylleus* Mik, 1900
- Face silvery or greyish-white pollinose; sutural setae small, 1/3 to 1/4 as long as supraalar setae; abdomen with short hairs 23
23. Palpus yellow; face silvery-white pollinose; antenna mostly dark; body length 3.8–4.1 mm (see above) *T. vanschuytbroeckii* Negrobov, 1971
- Palpus silvery-white; face grey pollinose; antenna distinctly yellow ventrally; male genitalia as in Negrobov [1979: figs 1343–1345]; body length 3 mm. Algeria, Egypt, Iraq, Iran, Kazakhstan, Kyrgyzstan, Mongolia; Russia: Volgograd; Tunisia, Turkmenistan; Ukraine: Odessa; Uzbekistan *T. argyropalpis* Becker, 1910
24. Five dorsocentral bristles present 25
- At least 6 dorsocentral bristles present, with fore bristle usually short 26
25. Wing strongly infuscated; tarsi black from tip of basitarsus; body length 2.5 mm. Egypt; female only *T. tinctus* Parent, 1929
- Wing hyaline, at most with spots on dm-m and M1+2 curvature; tarsi entirely black; body length 2.5 mm. Egypt; female only *T. atritarsis* Parent, 1929
26. Antenna entirely yellow 27
- Antenna partly black 30
27. Palpus with pale setation; face shining metallic, practically without pollination; scutellum with 2 setae *T. achylleus* Mik, 1900
- Palpus with black setation 28
28. Hind coxa mostly yellow *T. ochripalpis* Becker, 1910
- Hind coxa mostly black 29
29. Wing without spots *T. spinulosus* Parent, 1929
- Wing with 2 smoky spots on dm-m and M1+2 curvature *T. mirandus* Becker, 1907
30. Palpus with pale setation 31
- Palpus with black setation 32
31. Palpus silvery-white; tarsi black *T. argyropalpis* Becker, 1907
- Palpus yellow-orange; tarsi mostly yellow *T. vanschuytbroeckii* Negrobov, 1971
32. Hind femur with long dorsal setae; upper postocular setae in two rows; body length 4 mm. Egypt; female only *T. modestus* Becker, 1902
- Hind femur without long dorsal setae, with at most single anterior preapical seta 33
33. Distal part of M4 more than 2 times as long as dm-m ... *T. pollinosus* Loew, 1870
- Distal part of M4 about 1.5 times as long as dm-m *T. ruficornis* (Haliday, 1838)

Thinophilus tonguchi sp. n.

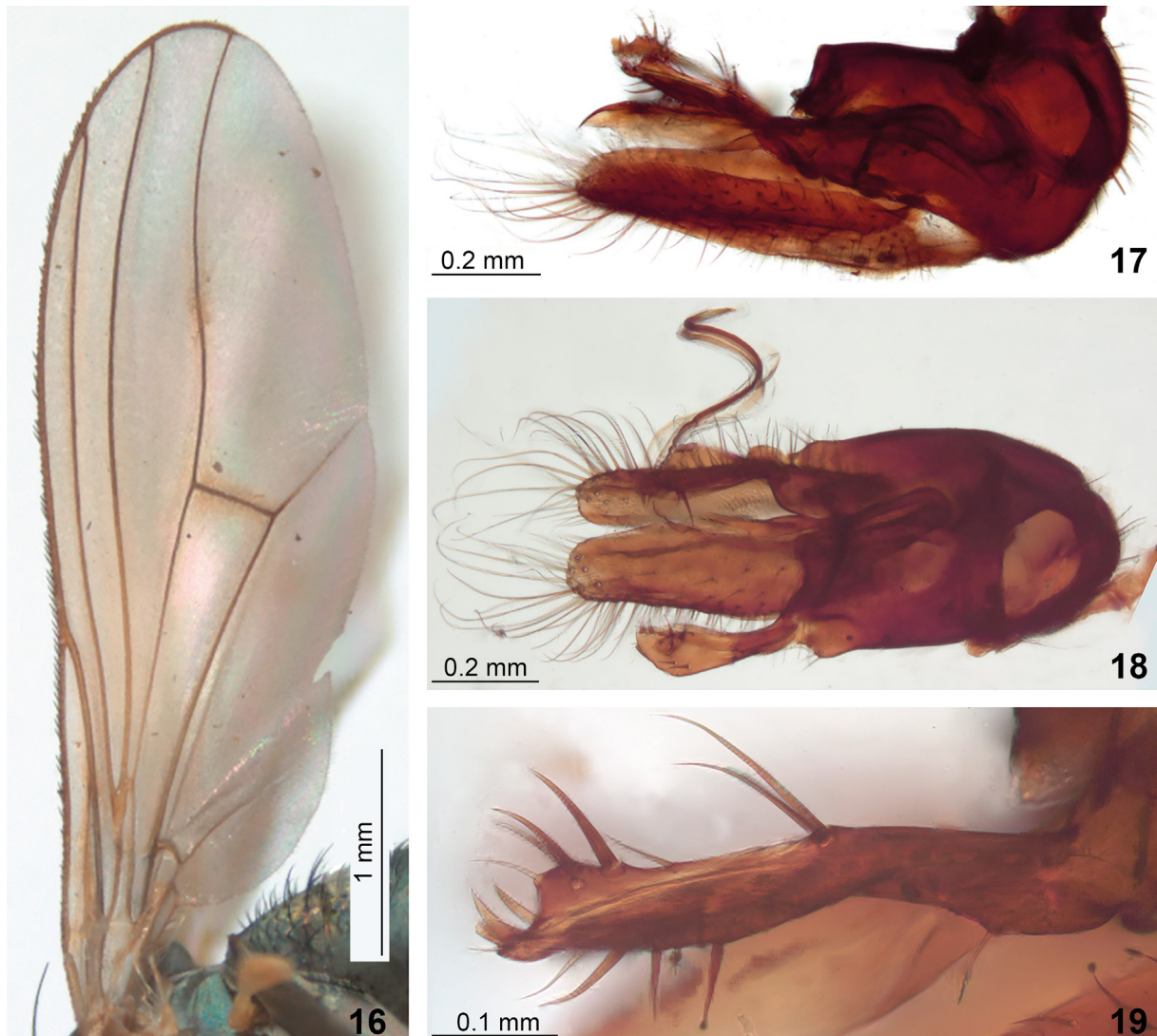
(Figs 1–8)

Material. Holotype, ♂ (ZMUM): Turkey, Ankara Prov., Tuz Gölü, 38.79°N / 33.62°E, 950 m, 2.04.2010 (N.E. Vikhrev) (terminalia dissected and stored in glycerin in microvial pinned with the specimen).

Description. Male (Fig. 1). Head (Figs 2, 3). Postcranium, frons and face greenish blue, densely grey pollinose. Face under antennae more than 2 times as wide as height of postpedicel. Clypeus about half as long as epistoma, 3 times wider than long. Palpus yellow, silvery white pollinose, bearing white bristly hairs. Rostrum dark brown. 2 diverging ocellars; 1 vertical, 2 very small postocellars; 1 postvertical, much stronger and longer than upper postoculars, and not in row with latter. Upper postoculars uniseriate, black; middle and lower postoculars multiseriate, white, long. Antennal scape, pedicel and postpedicel black dorsally, yellow ventrally; pedicel simple, convex on inner side; postpedicel apically browned, rounded, with short pubescence. Arista-like stylus dorsal, black and thick basally, whitish and thin distally, very shortly pubescent. Length ratio of scape to pedicel to postpedicel to stylus, 6 : 8 : 12 : 40.

Thorax metallic black, whitish grey dusted, as well as all coxae. No acrostichals; 6 almost equally long dorsocentrals. Scutellum with 2 marginals, no lateral hairs. 1–2 upper and 3–4 lower, white propleural bristles of different length.

Legs. Coxae black. Femora black, yellow on distal quarter, tibiae yellow, narrowly dark brown on distal apices; tarsi progressively darkened from middle of basitarsus. Fore leg. Coxa anteriorly with white setae, longer on apical half. Femur simple, without long bristles. Tibia bearing 2 anterodorsal and 3 posterodorsal short bristles. Tarsal segments 1–4 ventrally shortly pilose. Segment 5 slightly widened. Length of femur, tibia and tarsal segments (in mm): 1.16 : 1.09 : 0.4 : 0.2 : 0.15 : 0.12 : 0.18. Mid leg. Coxa with black exterior bristle and white hairs anteriorly. Femur anteroventrally with row of short bristles, longer on distal half, about as long as femur height; 1 preapical posteroventral seta. Tibia bearing 2 anterodorsal and 3 posterodorsal short bristles; 4 short apicals. Tarsal segments 1–4



Figs 16–19. *Thinophilus setosus*, male, details of structure.

16 – wing; 17–18 – hypopygium after maceration: 17 – lateral view, 18 – dorsal view; 19 – surstylus, lateral view.

Рис. 16–19. *Thinophilus setosus*, самец, детали строения.

16 – крыло; 17–18 – гипопигий после размачивания: 17 – вид сбоку, 18 – вид сверху; 19 – сурстий, вид сбоку.

ventrally shortly pilose. Segment 5 flattened dorso-ventrally, widened (Fig. 4). Length of femur, tibia and tarsal segments (in mm): 1.22 : 1.24 : 0.67 : 0.26 : 0.21 : 0.17 : 0.17. Hind leg. Coxa with 1 black exterior bristle. Femur ventrally with only short setae; 2–3 short anterodorsal bristles. Tibia bearing 3 anterodorsal and 4 posterodorsal bristles, 2 short ventrals; 3 apicals. Segment 5 slightly widened. Length of femur, tibia and tarsal segments (in mm): 1.57 : 1.66 : 0.43 : 0.35 : 0.26 : 0.2 : 0.22.

Wing (Fig. 5) hyaline, without darker shades. Veins yellow-brown, more yellowish at base. Distal part of M1+2 convex; tip of R4+5 parallel with M1+2; ratio of parts of costa between R2+3 and R4+5 to those between R4+5 and M1+2 (in mm), 0.46 : 0.25; crossvein dm-m straight; ratio of dm-m to apical part of M4, 0.34 : 0.73. Anal vein weak. Haltere yellow. Lower calypter yellow, with whitish cilia.

Abdomen bluish green, grey dusted. Setae and hind-marginal bristles on tergites black. Sternites with short white setae. Hypopygium (Figs 6, 7) black; appendages brown. Epandrial lobe fingerlike, with strong apical bristle. Hypandrium short, apically

concave; phallosoma narrow, not reaching apex of surstyli; phallus long and simple, strongly curved at apex of phallosoma, then hidden under hypandrium (Fig. 8). Surstylus straight with 2 long thick bristles and long process at tip on inner side, with several short setae at apex. Cerci dorsally separated, leaflike, with long marginal bristles (Fig. 7).

Measurements (mm). Body length 4.0, wing length 4.1, wing width 1.4, antenna length 0.6.

Female unknown.

Diagnosis. *Thinophilus tonguchi* sp. n. keys to *T. brevicilius* and *T. setosus* [Negrobov, 1979; Grichanov, 1997], differing mainly in simple fore leg and morphology of hypopygium. Males of the two latter species have fore tibia bearing 3 curved posteroventral bristles at apex, fore basitarsus curved, with basoventral tubercle bearing short spines.

Etymology. The species name is dedicated to Turkish dipterist, Dr A. Tonguç (Muğla Sıtkı Kocman University).

Thinophilus argyropalpis Becker, 1910

Material. 2♀ (ZIN), [Uzbekistan, Bukhara Region], Buchara, Kara-kul [40.27°N / 69.02°E], 11.07.1928 (A. Gerasimov); 1♂, 1♀ (ZIN), [Uzbekistan, Samarkand Region], Buchara bor.-occ., Yargak, pr. Chatyrtshy, 20.07, 12.08.1928 (L. Zimin).

Thinophilus bicalcaratus Negrobov, 1971
(Figs 9–11)

Material. 1♂ (ZMUM), Kazakhstan, Aralsk [= Aral], 46.788°N / 61.669°W, 47 m, 12–13.07.2011 (K.P. Tomkovich); 2♂ (ZMUM), Russia, Kalmykia, Manych saltish lake, 46.029°N / 43.441°W, 9.06.2012 (N.E. Vikhrev).

Notes. First records from Kazakhstan and Kalmykia Republic of Russia. The hypopygium of this species was insufficiently illustrated [Negrobov, 1971, 1979]. Therefore, photos of male genitalia are here provided. It seems that *T. bicalcaratus* is the only Palaearctic species with two bundles of strong black bristles on sternite 4 of male abdomen (Fig. 9). Phallus of *T. bicalcaratus* males (Fig. 11) is very close in shape to that in *T. sinclairi* [Negrobov et al., 2017: fig. 4] collected from Kazakhstan (Kostanay) and Ukraine (Zaporozhye). Nevertheless, the latter species description did not include bundles of black bristles on male sternite 4, and its phallus was figured with four, rather than three teeth.

Thinophilus flavipalpis (Zetterstedt, 1843)

Material. 1♂ (ZIN), Kazakhstan, Tselinograd [= Nur-Sultan] env., Novoishimka [= Zhanaesil, 51.2978°N / 70.7258°E], 17.07.1989 (I.Ya. Grichanov); 2♂ (ZIN), Kazakhstan, Akmola Region, Burabai National Park, 53.11°N / 70.18°E], Maybalyk salt lake, 26–28.07.2013 (O.E. Kosterin); 1♂ (ZMUM), Morocco, Atlantic Plains, Essaouira env., 31.47°N / 9.76°W, 1–5.05.2012 (N.E. Vikhrev); 1♂, 1♀ (ZIN), Russia, Kalmykia, Yalmata lake, 47.876°N / 44.6°W, 8–28.06.2012 (K.P. Tomkovich); 1♂, 1♀ (ZIN), Russia, Kalmykia and Stavropol Region border, Manych salt lake, 46.0°N / 43.432°E, 9.06.2012 (K.P. Tomkovich); 1♀ (ZIN, in ethanol), Russia, Krasnodar Region, Primorsko-Akhtarsk District, saline 3.6 km NE of Novoporkovskiy village, 45.934–936°N / 38.274–276°E, 2 m a.s.l., 22.06.2019 (O.E. Kosterin).

Notes. First records from Kalmykia and Stavropol Region of Russia.

Thinophilus grootaerti
Negrobov, Maslova et Selivanova, 2016

Material. 1♂ (ZIN), Russia, Primorye, Andreevka, 42.64°N / 131.13°E, 26–31.07.2018 (N.E. Vikhrev).

Notes. This small-sized species is currently an endemic of southern Primorye.

Thinophilus indigenus Becker, 1902

Material. 1♀ (ZMUM), Morocco, Atlantic Plains, Ouarzazate Prov., Tagounite env., 572 m, 29.8514°N / 5.6144°W, sands, yellow pan trap, 30–31.03.2011 (A.A. Gusakov).

Thinophilus pollinosus Loew, 1870

Material. 1♀ (ZIN), Mongolia, East Aimak, Buir-Nur Lake shore, 25 km NE Bayan-Nur Lake, 17.07.1971 (I.M. Kerzhner).

Thinophilus quadrimaculatus Becker, 1902

Material. 1♂ (ZIN), southern Tajikistan, Tigrovaya Balka [Nature Reserve; 37.36°N / 68.5°E], 21.07.1984 (I.Ya. Grichanov); 1♀ (ZIN),

Tajikistan, Khatlon Prov., Parkhor Distr., Sieob River, 37.6608°N / 69.4764°E, 458 m, 5.06.2010 (K.P. Tomkovich).

Thinophilus setosus Negrobov, 1979
(Figs 12–19)

Material. 1♂, 1♀ (ZIN), Russia, Zabaikalye, Zun-Torei Lake, Utochya channel, 50.006901°N / 115.712960°E, 30.07.2011 (A.F. Medvedev); 1♂, 1♀ (ZIN), Russia, Zabaikalye, Zun-Torei Lake, 50.01°N / 115.72°E, 14.08.2012 (A.F. Medvedev).

Notes. First records from Zabaikalskiy Region of Russia. The hypopygium of this species was insufficiently illustrated [Negrobov, 1979]. Therefore, photos of the male genitalia along with other structures are here provided.

Thinophilus spinitarsis Becker, 1907

Material. 1♂ (ZMUM), Turkmenistan, Repetek [Nature Reserve; 38.6°N / 63.2°E], 4.05.1990 (A.L. Ozerov); 1♂ (ZIN), southern Tajikistan, Dusti env. [37.33°N / 68.67°E], 13.07.1991 (I.Ya. Grichanov).

Acknowledgements

The author is sincerely grateful to Drs Nikita Vikhrev (ZMUM) and Igor Shamshev (ZIN) for their kindness in providing specimens for study.

The work was funded by All-Russian Institute of Plant Protection project No. FGEU-2022-0002.

References

- Cumming J.M., Wood D.M. 2017. 3. Adult morphology and terminology. *In: Manual of Afrotropical Diptera*, Volume 1. Introductory chapters and keys to Diptera families. Suricata 4. Pretoria: SANBI Graphics & Editing: 89–134.
- Dawah H.A., Ahmad S.K., Abdullah M.A., Grichanov I.Ya. 2020. The family Dolichopodidae (Diptera) of the Arabian Peninsula: identification key, an updated list of species and new records from Saudi Arabia. *Journal of Natural History*. 54: 21–22. DOI: 10.1080/00222933.2020.1800118
- Grichanov I.Ya. 1997. Notes on Afrotropical and Palearctic species of the genus *Thinophilus* Wahlberg (Diptera: Dolichopodidae) with descriptions of new species. *An International Journal of Dipterological Research*. 8(3): 135–147.
- Grichanov I.Ya. 2007. A checklist and keys to Dolichopodidae (Diptera) of the Caucasus and East Mediterranean. *Plant Protection News, Supplements*: 1–160.
- Grichanov I.Ya. 2018. An annotated catalogue of Afrotropical Dolichopodidae (Diptera). *Plant Protection News, Supplements*. 25: 1–152. DOI: 10.5281/zenodo.1187006
- Grichanov I.Ya., Brooks S.E. 2017. 56. Dolichopodidae (long-legged dance flies). *In: Manual of Afrotropical Diptera*, Volume 2. Nematocerous Diptera and lower Brachycera. Suricata 5. Pretoria: SANBI Graphics & Editing: 1265–1320.
- Grootaert P. 2018. Revision of the genus *Thinophilus* Wahlberg (Diptera: Dolichopodidae) from Singapore and adjacent regions: A long term study with a prudent reconciliation of a genetic to a classic morphological approach. *Raffles Bulletin of Zoology*. 66: 413–473.
- Negrobov O.P. 1971. Revision of the Palaearctic species of the genus *Thinophilus* Wahlbg. (Diptera, Dolichopodidae). *Entomological Review*. 50(4): 511–519.
- Negrobov O.P. 1979. Dolichopodidae, Unterfamilie Hydrophorinae, Unterfamilie Rhapsiinae. *In: Die Fliegen der Palaearktischen Region*. Ser. IV. Teil 29 (Lf. 321–322). Stuttgart: Schweizerbartsche Verlagsbuchhandlung: 419–530.
- Negrobov O.P., Grichanov I.Ya. 1982. New species of the family Dolichopodidae (Diptera) from Tajikistan and Kyrgyzstan. *In: Trudy Zoologicheskogo instituta AN SSSR*. T. 110. Novye vidy nasekomykh Srednei Azii [Proceedings of the Zoological Institute of the Academy of Sciences of the USSR. Vol. 110. New species of insects from Middle Asia]. Leningrad:

- Zoological Institute of the Academy of Sciences of the USSR: 105–108 (in Russian).
- Negrobov O.P., Maslova O.O., Selivanova O.V. 2016. The genus *Thinophilus* Wahlberg, 1844 (Diptera, Dolichopodidae) from Eastern Palaearctic, with description of two new species and new records. *Acta Zoologica Academiae Scientiarum Hungaricae*. 62(2): 143–151. DOI: 10.17109/AZH.62.2.143.2016
- Negrobov O.P., Maslova O.O., Selivanova O.V. 2017. A new species of the genus *Thinophilus* (Diptera: Dolichopodidae) from Ukraine and Kazakhstan. *Zoosystematica Rossica*. 26(2): 325–328. DOI: 10.31610/zsr/2017.26.2.325
- Parent O. 1929. Contribution à la faune diptérologique d'Égypte: dolichopodides de la région de Halaïb. *Bulletin de la Société Royale Entomologique d'Égypte*. 13: 42–58.

Received / Поступила: 20.05.2022

Accepted / Принята: 10.08.2022

Published online / Опубликована онлайн: 18.10.2022