

# Far Eastern Entomologist

Дальневосточный энтомолог

Journal published by Far East Branch  
of the Russian Entomological Society  
and Laboratory of Entomology,  
Institute of Biology and Soil Science,  
Vladivostok

Number 281: 1-6

ISSN 1026-051X

August 2014

http://urn.nsd.ru/urn.nsf/obj/2C3656CE-1D52-4C6A-9836-C5DA5FD6D1F4

## THE SPECIES OF THE GENUS *THINOPHILUS* LOEW, 1864 (DIPTERA: DOLICHOPODIDAE) OF JAPAN, WITH DESCRIPTION OF ONE NEW SPECIES

O. P. Negrobov<sup>1)</sup>, T. Kumazawa<sup>2)</sup>, T. Tago<sup>3)</sup>, O. O. Maslova<sup>4)</sup>

1) Voronezh State University, Universitetskaya pl. 1, Voronezh, 394006, Russia.  
E-mail: negrobov@list.ru

2) Osaka Museum of Natural History, 1-23, Nagai Park, Higashi-sumiyoshi,  
Osaka 546-0034, Japan, E-mail: pseudocampsicnemus@gmail.com

3) Waseda, 3-chome, Misato, Saitama, 341-0018, Japan, E-mail: tago-ke@googlemail.com

4) Voronezh State Pedagogical University, Lenina str. 86, Voronezh 394043,  
Russia.

*Thinophilus nigripennis* Negrobov, Kumazawa et Tago, sp. n. is described from Japan. An original key to the Eastern Palaearctic species of the genus *Thinophilus* is given. *T. longipilus* Negrobov, 1971 is recorded for the first time from Japan.

KEY WORDS: Diptera, Dolichopodidae, *Thinophilus*, new species, key, Japan.

О. П. Негров<sup>1)</sup>, Т. Кумазава<sup>2)</sup>, Т. Таго<sup>3)</sup>, О. О. Маслова<sup>4)</sup>. Виды рода *Thinophilus* Loew, 1864 (Diptera: Dolichopodidae) фауны Японии с описанием нового вида // Дальневосточный энтомолог. 2014. N 281. С. 1-6.

Из Японии описан новый для науки вид *Thinophilus nigripennis* Negrobov, Kumazawa et Tago, sp. n. Составлена оригинальная определительная таблица

восточнопалеарктических видов рода *Thinophilus*. Впервые для Японии указан *T. longipilus* Negrobov, 1971.

- 1) Воронежский государственный университет, Воронеж, Университетская пл. 1, 394006, Россия, E-mail: negrobov@list.ru
- 2) Музей Естественной истории Осаки. 1-23, Нагаи Парк, Осака, 546-0034, Япония, E-mail: pseudocampsicnemus@gmail.com
- 3) 26-7-105, Баседа.3-хроме, Мицумо, Сайтама, 341-0018, Япония, E-mail: tago-ke@ga2.so-net.ne.jp
- 4) Воронежский государственный педагогический университет, ул. Ленина, 86, Воронеж, 394043, Россия.

## INTRODUCTION

There are more than 140 species of the genus *Thinophilus* in the world. Beside them 18 species are known from the Palearctic region. The latest revision of genus *Thinophilus* was published by Negrobov (1971) and an overview of the Palearctic species by Negrobov (1979). Seven species are known from the Asian part of the Palaearctic region: *T. bicalcaratus* Negrobov, 1971 (Turkmenistan, Uzbekistan, Tajikistan), *T. brevicilius* Negrobov, 1971 (Tajikistan, Uzbekistan, Kirgizia), *T. vanskuytbroecki* Negrobov, 1971 (Azerbaijan, Turkmenistan, Afghanistan), *T. setosus* Negrobov, 1979 (Mongolia), *T. longipilus* Negrobov, 1971 (Russia: Primorskii krai), and *T. sinensis* Yang et Li, 1998 (China). We found two species of the genus *Thinophilus* in Japan, one of which is described below as new.

The materials for the present study were collected in Japan by Mr. T. Tago and Mr. T. Kumazawa.

## LIST OF THE SPECIES OF THE GENUS *THINOPHILUS* FROM JAPAN

### *Thinophilus longipilus* Negrobov, 1971

Figs 1–3, 5

*Thinophilus* sp. 1t: Tago, 2010: 38.

**MATERIAL. Japan:** Saitama prefecture, Misato city, Edogawa river bank, 13.X 2008, 5♂, 1♀ (leg. Tago); Saitama prefecture, Iruma-gun, Ogose-cho, Nishiwada, 11.VIII 2012, 2♂, 2♀, (leg. Tago); Kagoshima prefecture, Satsuma-gun, Satsuma-cho Todoroki-machi, 27.VIII 2013, 2♂, 4♀ (leg. Kumazawa); Fukuoka prefecture, Kurume city, Tanushimaru-machi Maki, 09.IX 2013, 2♂, 6♀ (leg. Kumazawa).

**DISTRIBUTION.** Russia (Primorskii krai), Japan (Honshu, Kyushu). This species is recorded from Japan for the first time.

***Thinophilus nigripennis* Negrobov, Kumazawa et Tago, sp. n.**

Figs 4, 6

*Thinophilus* sp. 2t: Tago, 2010: 39.

MATERIAL EXAMINED. Holotype – male, **Japan**: Tokyo, Katsushika ward, Yotsugi, 27.VI 2010 (leg. Tago). Paratypes: 3♂, Tokyo, Katsushika ward, Yotsugi, 29.V 2010, 27.VI 2010 (leg. Tago). Holotype and paratypes are deposited in the collection of Osaka Museum of Natural History (Japan), part of the paratypes are kept in the collection of Voronezh State University (Russia).

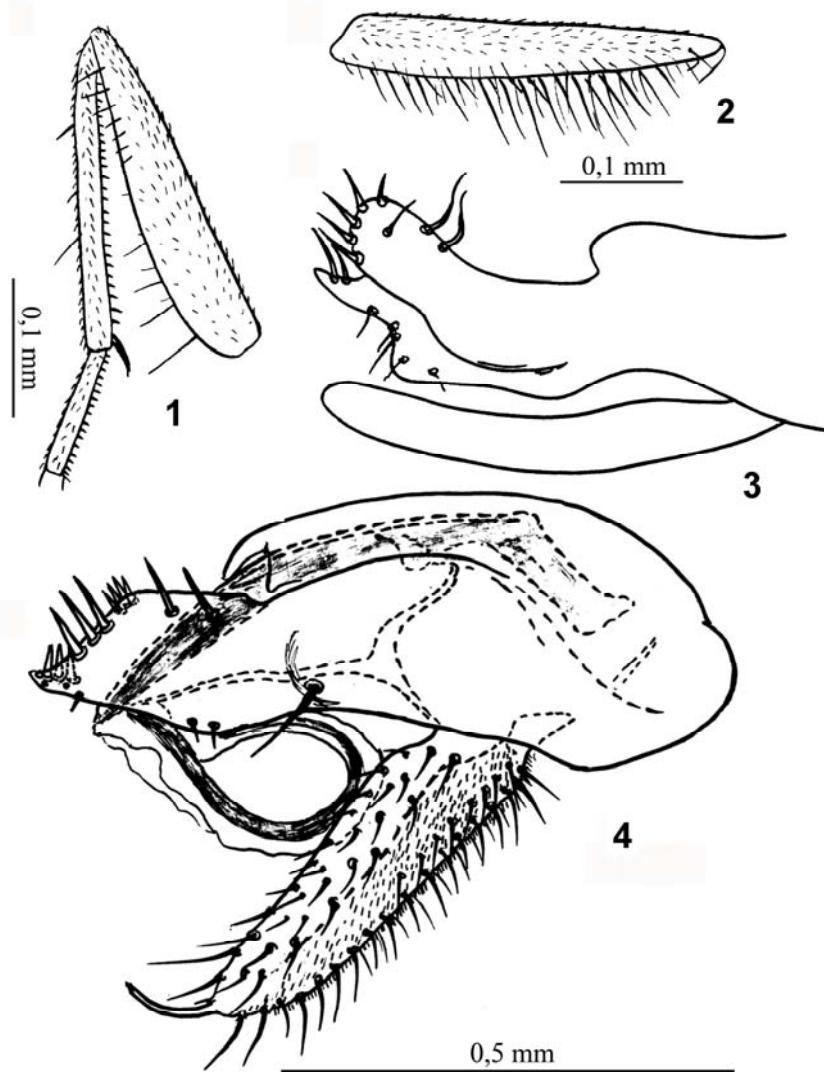
DIAGNOSIS. Front and face shiny without pollen. Antennae brown, all segments of the antennae yellow bottom. Palps yellow with black hairs. Mesonotum without dark spots. 6 pairs of dorsocentral bristles. Scutellum on edge with black 2 strong bristles and with small 2 hairs. Legs yellow, except for the dark basins of coxa and tops of tarsus. Fore and mid femur with short anteroventral bristles. Fore tibia with on the ventral surface with short hairs sticking out. Mid tibia with 2 anterodorsal, 2 posterodorsal and 1 posteroventral bristles. Hind femur with long black 3 anterodorsal setae.

DESCRIPTION. Male. Front shiny green in the middle with bright purple spots without pollen. Face green in small spots without pollen, its width in middle about 2 times the width of the postpedicel (1.5: 0.8). Antennae brown, all segments of the antennae yellow bottom. Postpedicel reniform, with oval top, its length is less than its width. The ratio of the length of the epistome and clypeus 1.0: 1.7. Stylus is located in the middle of the dorsal surface postpedicel, with short hairs. Ratio of length postpedicel to its width and length stylus 0.8: 0.8: 2.6. Proboscis dark brown, with yellow hairs. Palps yellow with black hairs. Postocular bristles below light yellow.

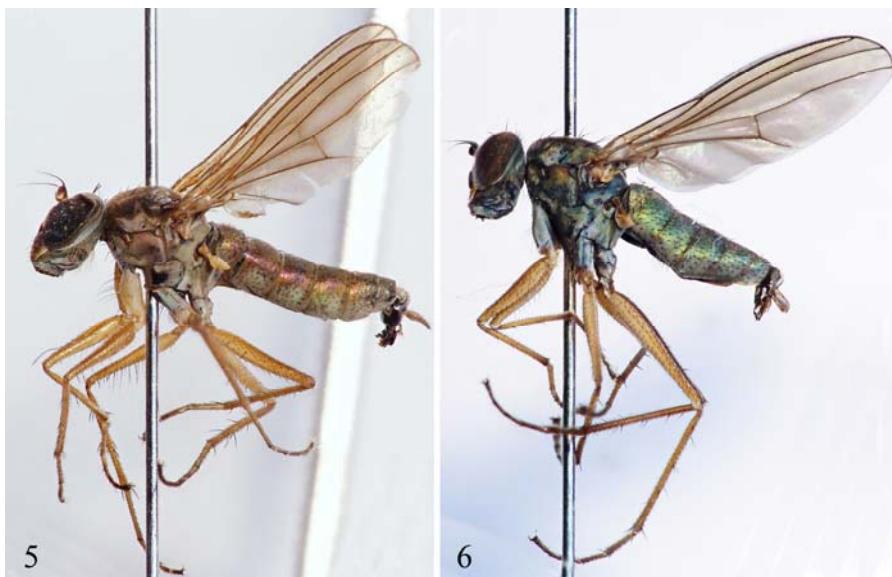
Thorax dark green. Mesonotum without dark spots. Mesonotum with gray pollen, pleurae with thick gray pollen. Propleuron with 2 groups with fine white hairs and bristles. No acrostichal bristles. 6 pairs of dorsocentral bristles. Scutellum on edge with black 2 strong bristles and with small 2 hairs.

Legs yellow, except for the dark basins of coxa and tops of tarsus, with black hairs and bristles, front coxae with white hairs. In some specimens the dorsal part of the hind femur and mid tibia darkened. 5th segment of the fore tarsus extended. Fore femur with short anteroventral bristles, length which does not exceed the width of the femur. Fore tibia with short 2 anterodorsal and 2 posterodorsal bristles on the ventral surface with short hairs sticking out. 1st segment of fore tarsus with protruding ventral hairs. Relative lengths of fore tarsomeres (from first to fifth) – 5.8: 2.0: 0.9: 0.6: 0.5: 0.7. Mid femur with short posteroventral hairs. Mid tibia with 2 anterodorsal, 2 posterodorsal and 1 posteroventral bristles. Mid basitarsus on the ventral side with small bristles. 5th segment mid tarsus extended. Relative lengths of mid tarsomeres (from first to fifth) – 7.7: 3.4: 1.2: 0.9: 0.7: 1.1. Hind femur with long black 3 anterodorsal setae. Hind tibia with 3 anterodorsal and 2 posterodorsal bristles. Hind basitarsus without long bristles. Relative lengths of mid tarsomeres (from first to fifth) – 9.7: 2.7: 2.0: 1.4: 1.0: 1.3.

Wings slightly infuscate, more intense in the front.  $R_{4+5}$  and  $M_{1+2}$  parallel at the top.  $M_{1+2}$  slightly curved. Ratio of the length of the interval between the costal vein  $R_{2+3}$  and  $R_{4+5}$ , and the segment between the same vein  $R_{4+5}$  and  $M_{1+2}$  – 2.3: 1.6. Apical segment of  $M_{3+4}$  two times longer than mediocubital crossvein (tp). Anal angle obtuse. Lower calypter yellow, with white hairs. Halter yellow.



Figs. 1–4. *Thinophilus* spp.: 1–3 – *T. longipilus*: 1 – fore leg, 2 – mid femur, 3 – surstyli and cerci; 4 – *T. nigripennis* sp. n., hypopygium.



Figs. 5, 6. Males of *Thinophilus*, lateral view: 5 – *T. longipilus*; 6 – *T. nigripennis* sp. n.

Abdomen metallic with bronze shade with black hairs, gray pollen. Hypopygium black. Epandrium length greater than its width. Surstyli in the basal part with parallel edges, at the top with a pointed apex, their length less than the length cerci, on top with fine hairs. Cerci elongate-oval, rounded at the top, with white hairs.

Female unknown.

**MEASUREMENTS.** Length 3.0–3.4 mm, wing length 2.8–3.3 mm.

**COMPARISON.** In the key to the Palaearctic species (Negrobov, 1979) new species is close to the *Thinophilus rufitinctus* (Haliday, 1838), but differs by the fore coxae and tibia (in *T. rufitinctus* fore coxae yellow and fore tibia without ventral bristles; in *T. nigripennis* sp. n. fore coxae mostly dark and fore tibia with black spiky short ventral bristles). According to key of Yang *et al.* (2011) the new species is close to *T. lamellaris* Zhu, Yang et Masunaga, 2006, from which it differs by fore coxae and surstyli (in *T. nigripennis* sp. n. fore coxae dark, except a narrow yellow band at the top, with white hairs, and dorsal side of surstyli with straight edges; in *T. lamellaris* fore coxae yellow and only darkened at the base, with black hairs, dorsal side of surstyli with a deep notch edges).

#### Key to the Eastern Palaearctic species of *Thinophilus*

- |  |                              |
|--|------------------------------|
| 1. Mesonotum with black spot. (China) .....                              | <i>T. sinensis</i>           |
| – Mesonotum without black spot .....                                     | 2                            |
| 2. Femur mostly black. (Mongolia) .....                                  | <i>T. setosus</i>            |
| – Femur yellow .....   | 3                            |
| 3. Mid femur with long ventral bristles. (Russian Far East, Japan) ..... | <i>T. longipilus</i>         |
| – Mid femur without long ventral bristles. (Japan) .....                 | <i>T. nigripennis</i> sp. n. |

## ACKNOWLEDGEMENTS

The work was supported by the grant of the Russian Foundation for Basic Research No 14-04-00264.

## REFERENCES

- Negrobov, O. P. 1971. Revision of the Palaearctic species of the genus *Thinophilus* (Diptera, Dolichopodidae). Entomologicheskoe Obozrenie, 50(4): 896– 910. [In Russian].
- Negrobov, O.P. 1979. Dolichopodidae. Hydrophorinae. In: Lindner, E. (Ed.). *Die Fliegen der Palaearktischen Region. Vol. 29. Lf. 321.* Stuttgart. 419–474 p. + Taf. CLXXIV-CLXXXVII, figs. 1422–1659.
- Tago, T. 2010. Records of 68 species of Dolichopodidae from the Kanto region (Diptera, Dolichopodidae). *Hana-abu*, 30(2): 1–96. [In Japanese].
- Yang, D. & Li, Z. 1998. Diptera: Dolichopodidae. In: Wu, H. (Ed). *Insects of Longwangshan Nature Reserve.* China Forestry Publishing House, Beijing. 318–323. [In Chinese].
- Yang, D., Zhang L., Wang, M. & Zhu, Y. 2011. *Dolichopodidae. Fauna Sinica. Insecta.* Vol. 53. Science Press, Beijing. 1912 p.
- Zhu, Y., Yang, D. & Masunaga, K. 2006. Two new species of *Thinophilus* from China (Diptera: Dolichopodidae). *Transactions of the American Entomological Society*, 132(1-2): 145–149.