

<https://doi.org/10.25221/fee.470.3>

<https://elibrary.ru/dmbxxj>

<https://zoobank.org/References/017B487A-181C-4E0E-9AD3-CA190EC2D26A>

**AN ANNOTATED LIST OF THE DROSOPHILID FLIES (DIPTERA:
DROSOPHILIDAE) OF THE REPUBLIC OF ADYGEA**

N. G. Gornostaev*, Yu. V. Lyupina

*N.K.Koltzov Institute of Developmental Biology, Russian Academy of Sciences, Vavilov Str. 26, Moscow 119991, Russia. *Corresponding author, E-mail: n_gornostaev@mail.ru*

Summary. An annotated list of 31 species in ten genera of the drosophilid flies of the Republic of Adygea is given. Among them 15 species are recorded from Adygea for the first time. The drosophilid fauna of Adygea is compared with the fauna of Krasnodar Krai.

Key words: Diptera, Drosophilidae, fauna, new records, North Caucasus, Russia.

Н. Г. Горностаев, Ю. В. Люпина. Аннотированный список мух-дрозофилид (Diptera: Drosophilidae) Республики Адыгея // Дальневосточный энтомолог. 2023. N 470. С. 23-28.

Резюме. Приведен аннотированный список 31 вида из 10 родов мух-дрозофилид Адыгеи, из которых 15 видов впервые отмечаются для этого региона. Проведено сравнение фауны дрозофилид Адыгеи и Краснодарского края.

INTRODUCTION

The first regional list of the drosophilid flies (Drosophilidae) of Adygea includes sixteen species of seven genera (Gornostaev, 1997). Here we present new additions to this list after examination of the materials collected by both authors in the Republic of Adygea.

MATERIAL AND METHODS

Drosophilid flies were collected in Adygea in Maikop (44°36' N, 40°7' E), Shuntuk (44°27' N, 40°10' E), Pobeda (44°17' N, 40°18' E), Khamyshki (44°5' N, 40°7' E), Guzeripl (43°59' N, 40°7' E) and on the banks of Belaya River (44°10' N, 40°9' E) in 2001, 2008, 2009, 2014, 2019, 2020 by N. Gornostaev (NG) and Yu. Lyupina (YL) on various mushrooms, decaying fruit and fermenting baits. All collected specimens were stored in 70% ethanol and determined by the first author. New for Adygea records are asterisked (*).

LIST OF SPECIES

Family Drosophilidae

Subfamily Steganinae

Amiota (Amiota) albilabris (Roth in Zetterstedt, 1860)

MATERIAL. Russia: Adygea, Pobeda, 1–30.VIII 2019, 1-30.VI 2020, 5 ♂ (NG).

DISTRIBUTION. Widespread in Palearctic region (Bächli & Rocha Pité, 1984) and Russia (Gornostaev, 1997; Sidorenko, 2001).

NOTES. This species was recorded from Adygea by Gornostaev (1997).

Amiota (Phortica) variegata (Fallén, 1823)

MATERIAL. **Russia:** Adygea, Pobeda, 1–30.VIII 2019, 1–30.VI 2020, 4 ♂ (NG); banks of Belaya River, 1–30.VIII 2014, 2 ♂ (YL).

DISTRIBUTION. Widespread in Europe and European Russia (Bächli & Rocha Pité, 1984; Gornostaev, 1997).

NOTES. This species was recorded from Adygea by Gornostaev (1997).

****Gitona distigma Meigen, 1830***

MATERIAL. **Russia:** Adygea, Maikop, 1–30.VIII 2019, 2 ♂, 3 ♀ (NG).

DISTRIBUTION. Widespread in Palearctic region (Bächli & Rocha Pité, 1984; Gornostaev, 1997; Sidorenko, 2001).

Leucophenga maculata (Dufour, 1839)

MATERIAL. **Russia:** Adygea, Pobeda, 1–30.VIII 2019, 1–30.VI 2020, 1 ♂, 3 ♀ (NG); banks of Belaya River, 1–30.VIII 2014, 2 ♂, 3 ♀ (YL).

DISTRIBUTION. Widespread in Palearctic region (Bächli & Rocha Pité, 1984) and in the south of Russia (Gornostaev, 1997; Sidorenko, 2001), recently found in Mordovia (Ruchin *et al.*, 2021; Gornostaev *et al.*, 2022).

NOTES. This species was recorded from Adygea by Gornostaev (1997).

Stegana (Steganina) hypoleuca Meigen, 1830

DISTRIBUTION. Widespread in Palearctic region (Bächli & Rocha Pité, 1984).

NOTES. This species was recorded from Adygea by Gornostaev (1997).

Subfamily Drosophilinae

Chymomyza amoena (Loew, 1862)

MATERIAL. **Russia:** Adygea, Maikop, 1–30.VIII 2001, 1–30.VIII 2008, 1–30.VIII 2014, 1–30.VIII 2019, 1–30.VI 2020, 233 ♂, 255 ♀ (NG, YL); Shuntuk, 1–30.VIII 2009, 12 ♂, 25 ♀ (NG, YL).

DISTRIBUTION. Widespread in Palearctic region (Bächli & Rocha Pité, 1984).

NOTES. This species was recorded from Adygea by Gornostaev (1997).

****Chymomyza caudatula Oldenberg, 1914***

MATERIAL. **Russia:** Adygea, banks of Belaya River, 1–30.VIII 2014, 1 ♂ (NG).

DISTRIBUTION. Widespread in Palearctic region (Bächli & Rocha Pité, 1984) and Russia (Gornostaev, 1997; Sidorenko, 2001).

****Drosophila (Dorsilopha) busckii Coquillett, 1901***

MATERIAL. **Russia:** Adygea, Maikop, 1–30.VIII 2001, 1–30.VIII 2008, 1–30.VIII 2014, 1–30.VIII 2019, 1–30.VI 2020, 44 ♂, 60 ♀ (NG, YL); Shuntuk, 1–30.VIII 2009, 21 ♂, 44 ♀ (NG, YL).

DISTRIBUTION. Cosmopolitan synanthropic species (Bächli & Rocha Pité, 1984).

****Drosophila (Drosophila) funebris* (Fabricius, 1787)**

MATERIAL. **Russia:** Adygea, Maikop, 1–30.VIII 2001, 1–30.VIII 2008, 1–30.VIII 2014, 1–30.VIII 2019, 1–30.VI.2020, 340 ♂, 380 ♀ (NG, YL); Shuntuk, 1–30.VIII 2009, 11 ♂, 14 ♀ (NG, YL).

DISTRIBUTION. Cosmopolitan synanthropic species (Bächli & Rocha Pité, 1984), widespread in Russia (Gornostaev, 1997; Sidorenko, 2001).

***Drosophila (Drosophila) histrio* Meigen, 1830**

MATERIAL. **Russia:** Adygea, Khamyshki, 1–30.VIII 2001, 2 ♀ (NG); Pobeda, 1–30.VIII 2019, 1–30.VI.2020, 1 ♂, 3 ♀ (NG); banks of Belaya River, 1–30.VIII 2014, 3 ♀ (YL).

DISTRIBUTION. Widespread in Palearctic region and Russia (Bächli & Rocha Pité, 1984; Gornostaev, 1997; Sidorenko, 2001).

NOTES. This species was recorded from Adygea by Gornostaev (1997).

****Drosophila (Drosophila) hydei* Sturtevant, 1921**

MATERIAL. **Russia:** Adygea, Maikop, 1–30.VIII 2001, 1–30.VIII 2008, 1–30.VIII 2014, 1–30.VIII 2019, 1–30.VI 2020, 18 ♂, 33 ♀ (NG, YL); Shuntuk, 1–30.VIII 2009, 15 ♂, 16 ♀ (NG, YL).

DISTRIBUTION. Cosmopolitan synanthropic species (Bächli & Rocha Pité, 1984), widespread in Russia (Gornostaev, 1997; Sidorenko, 2001).

****Drosophila (Drosophila) immigrans* Sturtevant, 1921**

MATERIAL. **Russia:** Adygea, Maikop, 1–30.VIII 2001, 1–30.VIII 2008, 1–30.VIII 2014, 1–30.VIII 2019, 1–30.VI.2020, 62 ♂, 70 ♀ (NG, YL); Shuntuk, 1–30.VIII 2009, 27 ♂, 16 ♀ (NG, YL).

DISTRIBUTION. Cosmopolitan synanthropic species widespread in Russia (Gornostaev, 1997; Sidorenko, 2001).

***Drosophila (Drosophila) kuntzei* Duda, 1924**

MATERIAL. **Russia:** Adygea, Khamyshki, 1–30.VIII 2001, 1 ♂, 2 ♀ (NG); Pobeda, 1–30.VIII 2019, 1–30.VI 2020, 1 ♂, 1 ♀ (NG); banks of Belaya River, 1–30.VIII 2014, 2 ♀ (YL); Shuntuk, 1–30.VIII 2009, 2 ♂, 4 ♀ (NG, YL).

DISTRIBUTION. Widespread in Palearctic region (Bächli & Rocha Pité, 1984) and Russia (Gornostaev, 1997; Sidorenko, 2001).

NOTES. This species was recorded from Adygea (Gornostaev, 1997).

***Drosophila (Drosophila) limbata* von Roser, 1840**

MATERIAL. **Russia:** Adygea, Khamyshki, 1–30.VIII 2001, 1 ♂, 2 ♀ (NG); Pobeda, 1–30.VIII 2019, 1–30.VI 2020, 1 ♀ (NG).

DISTRIBUTION. Widespread in Palearctic region and Russia (Sidorenko, 2001).

NOTES. This species was recorded from Adygea by Gornostaev (1997).

***Drosophila (Drosophila) littoralis* Meigen, 1830**

DISTRIBUTION. Widespread in Palearctic region (Bächli & Rocha Pité, 1984) and Russia (Gornostaev, 1997; Sidorenko, 2001).

NOTES. This species was recorded from Adygea (Gornostaev, 1997).

***Drosophila (Drosophila) phalerata* Meigen, 1830**

MATERIAL. **Russia:** Adygea, Khamyshki, 1–30.VIII 2001, 3 ♂, 3 ♀ (NG); Pobeda, 1–30.VIII 2019, 1–30.VI 2020, 4 ♂, 6 ♀ (NG); banks of Belaya River, 1–30.VIII 2014, 1 ♀ (YL).

DISTRIBUTION. Widespread in Palearctic region and Russia.

NOTES. This species was recorded from Adygea by Gornostaev (1997).

***Drosophila (Drosophila) testacea* von Roser, 1840**

MATERIAL. **Russia:** Adygea, Khamyshki, 1–30.VIII 2001, 6 ♂, 11 ♀ (NG); Pobeda, 1–30.VIII 2019, 1–30.VI 2020, 4 ♂, 7 ♀ (NG); banks of Belaya River, 1–30.VIII 2014, 4 ♀ (YL).

DISTRIBUTION. Widespread in Palearctic region (Bächli & Rocha Pité, 1984) and Russia (Gornostaev, 1997; Sidorenko, 2001).

NOTES. This species was recorded from Adygea (Gornostaev, 1997).

****Drosophila (Drosophila) transversa* Fallén, 1823**

MATERIAL. **Russia:** Adygea, Khamyshki, 1–30.VIII 2001, 2 ♂, 1 ♀ (NG); Pobeda, 1–30.VIII 2019, 1–30.VI 2020, 1 ♂, 2 ♀ (NG).

DISTRIBUTION. Widespread in Palearctic region (Bächli & Rocha Pité, 1984) and Russia (Gornostaev, 1997; Sidorenko, 2001).

****Drosophila (Sophophora) helvetica* Burla, 1948**

MATERIAL. **Russia:** Adygea, Pobeda, 1–30.VIII 2019, 1–30.VI 2020, 4 ♂ (NG).

DISTRIBUTION. Widespread in the south of Palearctic region (Bächli & Rocha Pité, 1984) and Russia (Gornostaev, 1997; Sidorenko, 2001).

****Drosophila (Sophophora) melanogaster* Meigen, 1830**

MATERIAL. **Russia:** Adygea, Maikop, 1–30.VIII 2001, 1–30.VIII 2008, 1–30.VIII 2014, 1–30.VIII 2019, 1–30.VI 2020, 440 ♂, 470 ♀ (NG, YL); Shuntuk, 1–30.VIII 2009, 210 ♂, 230 ♀ (NG, YL).

DISTRIBUTION. Cosmopolitan synanthropic species widespread in Russia (Gornostaev, 1997; Sidorenko, 2001).

***Drosophila (Sophophora) obscura* Fallén, 1823**

MATERIAL. **Russia:** Adygea, Maikop, 1–30.VIII 2001, 1–30.VIII 2008, 1–30.VIII 2014, 1–30.VIII 2019, 1–30.VI 2020, 150 ♂, 210 ♀ (NG, YL).

DISTRIBUTION. Widespread in Palearctic region (Bächli & Rocha Pité, 1984) and European Russia (Gornostaev, 1997).

NOTES. This species was recorded from Adygea by Gornostaev (1997).

****Drosophila (Sophophora) simulans* Sturtevant, 1919**

MATERIAL. **Russia:** Adygea, Shuntuk, 1–30.VIII 2009, 2 ♂, 4 ♀ (NG, YL).

DISTRIBUTION. Cosmopolitan synanthropic species (Bächli & Rocha Pité, 1984), found in Russia (Sidorenko, 2001).

****Drosophila (Sophophora) subobscura* Collin in Gordon, 1936**

MATERIAL. **Russia:** Adygea, Maikop, 1–30.VIII 2001, 1–30.VIII 2008, 1–30.VIII 2014, 1–30.VIII 2019, 1–30.VI 2020, 48 ♂, 60 ♀ (NG, YL).

DISTRIBUTION. Widespread in Europe (Bächli & Rocha Pité, 1984) and North Caucasus (Gornostaev, 1997).

***Drosophila (Sophophora) tristis* Fallén, 1823**

MATERIAL. **Russia:** Adygea, Maikop, 1–30.VIII 2019, 1–30.VI 2020, 5 ♂ (NG).

DISTRIBUTION. Widespread in Europe (Bächli & Rocha Pité, 1984) and North Caucasus (Gornostaev, 1997), recently found in Mordovia (Gornostaev *et al.*, 2022).

NOTES. This species was recorded from Adygea by Gornostaev (1997).

***Hirtodrosophila confusa* (Staeger, 1844)**

DISTRIBUTION. Widespread in Palearctic region (Bächli & Rocha Pité, 1984).

NOTES. This species was recorded from Adygea by Gornostaev (1997).

***Hirtodrosophila trivittata* (Strobl, 1893)**

MATERIAL. **Russia:** Adygea, Pobeda, 1–30.VIII 2019, 1–30.VI 2020, 3 ♂, 4 ♀ (NG).

DISTRIBUTION. Widespread in Palearctic region (Bächli & Rocha Pité, 1984) and Russia (Gornostaev, 1997; Sidorenko, 2001).

NOTES. This species was recorded from Adygea (Gornostaev, 1997).

***Mycodrosophila poecilogastra* (Loew, 1874)**

MATERIAL. **Russia:** Adygea, Pobeda, 1–30.VIII 2019, 1–30.VI 2020, 5 ♂, 7 ♀ (NG).

DISTRIBUTION. Widespread in the south of Palearctic region (Bächli & Rocha Pité, 1984) and Russia (Gornostaev, 1997; Sidorenko, 2001), recently found in Moscow city and Tuva (Gornostaev & Kulikov, 2021).

NOTES. This species was recorded from Adygea by Gornostaev (1997).

****Scaptodrosophila deflexa* (Duda, 1924)**

MATERIAL. **Russia:** Adygea, Pobeda, 1–30.VIII 2019, 1–30.VI 2020, 1 ♂, 2 ♀ (NG).

DISTRIBUTION. Widespread in Europe (Bächli & Rocha Pité, 1984) and North Caucasus (Gornostaev, 1997).

****Scaptomyza (Parascapromyza) pallida* (Zetterstedt, 1847)**

MATERIAL. **Russia:** Adygea, Maikop, 1–30.VIII 2001, 1–30.VIII 2008, 1–30.VIII 2014, 1–30.VIII 2019, 1–30.VI 2020, 121 ♂, 140 ♀ (NG, YL); Shuntuk, 1–30.VIII 2009, 10 ♂, 7 ♀ (NG, YL).

DISTRIBUTION. Widespread in Palearctic region (Bächli & Rocha Pité, 1984) and Russia (Gornostaev, 1997; Sidorenko, 2001).

****Scaptomyza (Scaptomyza) flava* (Fallén, 1823)**

MATERIAL. **Russia:** Adygea, Maikop, 1–30.VIII 2001, 1–30.VIII 2008, 1–30.VIII 2014, 1–30.VIII 2019, 1–30.VI 2020, 7 ♂, 10 ♀ (NG, YL).

DISTRIBUTION. Widespread in Palearctic region and Russia (Bächli & Rocha Pité, 1984; Gornostaev, 1997; Sidorenko, 2001).

****Scaptomyza (Scaptomyza) graminum* (Fallén, 1823)**

MATERIAL. **Russia:** Adygea, Maikop, 1–30.VIII 2001, 1–30.VIII 2008, 1–30.VIII 2014, 1–30.VIII 2019, 1–30.VI 2020, 2 ♂, 4 ♀ (NG, YL).

DISTRIBUTION. Widespread in Palearctic region (Bächli & Rocha Pité, 1984) and Russia (Gornostaev, 1997; Sidorenko, 2001).

DISCUSSION

Now 31 species in ten genera of Drosophilidae are known from Adygea, 15 of which are recorded here from this region for the first time. Totally 32 species of Drosophilidae are known from Adygea and Krasnodar Krai: 31 species from Adygea (Gornostaev, 1997 and present data) and 16 species from adjacent Krasnodar Krai (Gornostaev, 1997).

Among them 16 drosophilid species (*Amiota albilabris*, *A. variegata*, *Gitona distigma*, *Stegana hypoleuca*, *Chymomyza amoena*, *Drosophila busckii*, *D. funebris*, *D. histrio*, *D. immigrans*, *D. kuntzei*, *D. limbata*, *D. melanogaster*, *D. simulans*, *Hirtodrosophila trivittata*, *Scaptomyza flava*, and *S. graminum*) are found only in Adygea, one species (*Drosophila lummei* Hackman, 1972) is known only from Krasnodar Krai, and 15 species (*Leucophenga maculata*, *Chymomyza caudatula*, *Drosophila hydei*, *D. littoralis*, *D. phalerata*, *D. testacea*, *D. transversa*, *D. helvetica*, *D. obscura*, *D. subobscura*, *D. tristis*, *Hirtodrosophila confusa*, *Mycodrosophila poecilogastra*, *Scaptodrosophila deflexa*, and *Scaptomyza pallida*) are recorded from both regions. Thus, the fauna of Drosophilidae of Adygea, apparently, is rather similar to the fauna of Krasnodar Krai but the latter region should be more carefully studied.

ACKNOWLEDGEMENTS

This work was conducted under the IDB RAS Government basic research program in 2022 No 0088-2021-0019.

REFERENCES

- Bächli, G. & Rocha Pité, M.T. 1984. Family Drosophilidae. P. 186–220. In: *Catalogue of Palaearctic Diptera. Vol.10. Clusiidae–Chloropidae*. Akadémiai Kiadó, Budapest.
- Gornostaev, N.G. 1997. Addition to the fauna of drosophilid flies (Diptera, Drosophilidae) of Russia. *Russian Entomological Journal*, 6(1–2): 113–118.
- Gornostaev, N.G. & Kulikov, A.M. 2021. New data on distribution of *Mycodrosophila poecilogastra* (Loew, 1874) (Diptera: Drosophilidae) in Russia. *Far Eastern Entomologist*, 441: 11–12. DOI: 10.25221/fee.441.2
- Gornostaev, N.G., Ruchin, A.B., Esin, M.N. & Kulikov, A.M. 2022. Seasonal dynamics of fruit flies (Diptera: Drosophilidae) in forests of the European Russia. *Insects*, 13(8), 751. DOI: 10.3390/insects13080751
- Ruchin, A.B., Egorov, L.V., MacGowan, I., Makarkin, V.N., Antropov, A.V., Gornostaev, N.G., Khapugin, A.A., Dvorak, L. & Esin, M.N. 2021. Post-fire insect fauna explored by crown fermental traps in forests of the European Russia. *Scientific Reports*, 11(1), 21334. DOI: 10.1038/s41598-021-00816-3
- Sidorenko, V.S. 2001. Family Drosophilidae. P. 211–241. In: Lehr, P.A. (Ed.). *Key to the insects of the Russian Far East. Vol. 6. Diptera and fleas. Part 2*. Dalnauka, Vladivostok. [In Russian]

© **Far Eastern entomologist (Far East. entomol.)** Journal published since October 1994.

Editor-in-Chief: S.Yu. Storozhenko

Editorial Board: A.S. Lelej, S.A. Belokobylskij, M.G. Ponomarenko, V.A. Mutin, E.A. Beljaev, E.A. Makarchenko, A.V. Gorochov, T.M. Tiunova, M.Yu. Proshchalykin, S.A. Shabalin, V.M. Loktionov

Address: Federal Scientific Center of the East Asia Terrestrial Biodiversity (former Institute of Biology and Soil Science), Far East Branch of the Russian Academy of Sciences, 690022, Vladivostok-22, Russia.

E-mail: storozhenko@biosoil.ru

web-site: <http://www.biosoil.ru/fee>