

MATERIALS TO THE KNOWLEDGE OF THE FAUNA OF *GYROPHAENA* MANNERHEIM, 1830 (COLEOPTERA: STAPHYLINIDAE: ALEOCHARINAE: GYROPHAENINA) OF WEST SIBERIA

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The species of the genus *Gyrophaena* Mannerheim, 1830 (Coleoptera: Staphylinidae) of Tomsk and Barnaul environs in West Siberia are reviewed. Seventeen species are recorded, the following eight species are newly recorded from West Siberia: *G. congrua* Erichson, 1837, *G. joyi* Wendeler, *G. joyioides* Wüsthoff, 1937, *G. nana* (Paykull, 1800), *G. orientalis* A. Strand, 1938, *G. poweri* Crotch, 1867, *G. pseudonana* A. Strand, 1938 and *G. rugipennis* Mulsant & Rey, 1861. Illustrations of sexual characters are provided for *G. nana*, *G. obsoleta* Ganglbauer, 1895, *G. poweri*, *G. pseudonana* and *G. rugipennis*.

Key words: Coleoptera, Staphylinidae, Aleocharinae, *Gyrophaena*, Western Siberia, new records.

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INTRODUCTION

The first records of *Gyrophaena* Mannerheim 1830 for the West Siberia were published by J. Sahlberg (1880), who recorded five species (*G. affinis*, *G. bihamata* Thomson 1867, *G. boleti* (Linnaeus 1758), *G. fasciata* (Marsham. 1802), *G. minima* Erichson 1837) for the left bank of the Yenisei River (“...territorio silvoso prope oppidum Jenisseisk” and “...territorio silvoso prope vicum Niculina”). Later, these species were included to the catalogue by Jacobson (1906), besides that he recorded *G. manca* Erichson, 1830 for “C[entral]. Sib[eria].” Babenko (1982)

recorded *G. affinis* and *G. gentilis* Erichson, 1830 for forest part of West Siberia, and later in his monograph on the fauna of Staphylinidae of Kuzneckiy Alatau he recorded six species (*G. affinis*, *G. bihamata*, *G. manca* (Erichson, 1839) (as *G. angustata* (Stephens)), *G. munsteri* Strand, 1935, *G. obsoleta* Ganglbauer, 1895 and *G. pulchella* Heer, 1839). Thus, about half of the species listed in this paper, for the West Siberia recorded for the first time.

MATERIAL AND METHODS

This paper is based on material collected by

M.I. Kukshinova in Tomsk Area and Altai Province during summer of 2011. In total, we have examined more than 700 specimens. The studied material is deposited in the collection of Zoological Institute of Russia (ZIN) and in the private collection of the first author. For details on the methods and the distributions of species used in this paper see Enushchenko & Shavrin (2011, 2012). All studied specimens were identified by the first author. The fungi were identified by A.N. Petrov (Irkutsk, Russia). The species recorded for the West Siberia for the first time are marked by ‘*’.

The geographic labels are abbreviated in the text as follows: 1. ‘Altai Province, Barnaul, 28.08.2011’: Barnaul; 2. ‘Tomsk Area, Asinovskiy District, interfluve of Latat River and Kul’ River, environs of Yagodnoye village, 22.08.2011’: Yagodnoye; 3. ‘Tomsk Area, Asinovskiy District, interfluve of Latat River and Yaya River, 22.08.2011’: Latat R. and Yaya R.; 4. ‘Tomsk Area, Asinovskiy District, folds on the 1st Lower Latat River Terrace, 22.08.2011’: Latat R.; 5. ‘Tomsk, 1st Lower Ushaika River Terrace, 10.09.2011’: Ushaika R.; 6. ‘Tomsk, 2nd Lower Tom’ River Terrace, 10.09.2011’: Tom’ R.; 7. ‘Tomsk, interfluve of Nizhnyaya Ushaika River and Tom’ River, 10.09.2011’: Ushaika R. and Tom’ R.; 8. ‘Tomsk, 1st Lower Tom’ River Terrace, 15.09.2011’: Tom’ R. (1st); 9. ‘Tomsk, 2nd Lower Tom’ River Terrace, 15.09.2011’: Tom’ R. (2nd).

RESULTS

Gyrophæna (Gyrophæna) bihamata Thomson, 1867

(*carpini* Baudi di Selve, 1870; *despecta* Mulsant & Rey, 1870; *ruficornis* Mulsant & Rey, 1872)

Gyrophæna bihamata: Sahlberg, 1880:83; Jacobson, 1909:533; Babenko, 1991:72

Material examined: 2 males: Yagodnoye, overwetting *Betula*-forest; 3 males, 1 female: same data, in *Hebeloma mesophaeum* (Fr.) Kumm.; 1 male, 3 females: same data, in *Leccinum testaceoscabrum* (Secr.) Sing.; 5

males, 6 females: same data, in *Clitocybe* sp.; 2 females: Latat R. and Yaya R., plot of young *Populus tremula* thickets near tillage; 5 males, 3 females: Ushaika R., in *Hebeloma mesophaeum* (Fr.) Kumm.; 1 male, 2 females: same data, outskirts of grove with *Prunus padus*, *Betula* and *Malus*, in *Russula delica* Fr.; 1 male: same data, in *Amanita muscaria* (Fr.) Hook.; 2 males, 2 females: Tom’ R. (1st), *Pinus-Betula* forest; 1 female: same data, in *Stropharia* sp.; 4 females: same data, grassy *Betula* forest with ferns and hawthorn’s understory; 13 males, 5 females: Tom’ R. (2nd), plantation of *Picea* and *Pinus sylvestris*; 1 male, 2 females: same data, in *Hebeloma longicaudum* (Fr.) Kumm.; 2 males: same data, overwetting *Betula*-forest; 7 males, 8 females: same data, *Pinus-Betula* forest; 1 male, 4 females: Barnaul, city park with *Acer*, *Populus* and *Betula*, in *Pholiota adiposa* (Fr.) Kumm.; 6 males, 1 female: same data, in *Stropharia* sp.; 1 male, 2 females: Ushaika R., *Populus tremula - Betula* forest.

**Gyrophæna (Gyrophæna) congrua* Erichson, 1837

Material examined: 1 male, 2 females: Lata R., grassy forest with *Picea* and *Betula*; 10 males, 9 females: Latat R. and Yaya R., *Betula-Populus* forest, in *Hebeloma* sp.; 1 female: same data, in *Clitocybe inversa* (Fr.) Quel.; 3 males: Ushaika R. and Tom’ R., *Populus-Betula* forest, in *Hebeloma* sp.; 4 males, 4 females: Ushaika R., *Populus-Betula* forest, in *Stropharia* sp.; 2 males: same data, in *Hebeloma mesophaeum* (Fr.) Kumm.; 3 males, 2 females: Tom R. (1st), *Pinus-Betula* forest; 1 female, same data, in *Stropharia* sp.; 1 male, 3 females: same data, grassy *Betula* forest with *Sorbus* and *Padus* understory; 1 male, 1 female: Tom’ R. (2nd), plantation of *Betula*; 4 males, 4 females: same data, *Sorbus* grove, in *Agaricus* sp.; 6 males, 7 females: same data, *Betula* forest with *Sorbus* and *Padus*; 1 male, 1 female: same data, in *Hebeloma mesophaeum* (Fr.) Kumm.; 1 male: same data, overwetting *Betula*-forest; 5 males, 5 females: same data, *Pinus-Betula* forest.

***Gyrophaena (Gyrophaena) fasciata* (Marsham, 1802)**

(*laevipennis* Kraatz, 1856; *pallicornis* (Stephens, 1832); *rhodeana* Casey, 1906)

Gyrophaena laevipennis: Sahlberg, 1880:83; Jacobson, 1909:533

Material examined: 1 male: Yagodnoye, overwetting *Betula*-forest; 3 males, 3 females: Ushaika R., *Populus-Betula* forest, in *Stropharia* sp.; 1 male, 1 female: same data, slope of terrace with *Padus*; 36 males, 44 females: Tom` R. (1st), *Pinus-Betula* forest; 6 males, 6 females, Tom` R. (2nd), plantations; 2 males, 3 females: same data, in *Hebeloma longicaudum* (Fr.) Kumm.; 3 females, same data, plantations of *Picea* and *Pinus sylvestris*; 2 males: same data, plantations of *Betula*; 1 male: same data, in *Paxillus involutus* (Fr.) Fr.; 2 females: same data, *Sorbus* grove, in *Agaricus* sp.; 2 females: same data, *Betula* grass forest with *Sorbus* and *Padus* understory.

****Gyrophaena (Gyrophaena) joyi* Wendeler, 1924**

(*convexicollis* Joy, 1912; *joyi asiatica* Wüsthoff, 1937)
(Fig. 1–2).

Material examined: 1 male, 1 female: Latat

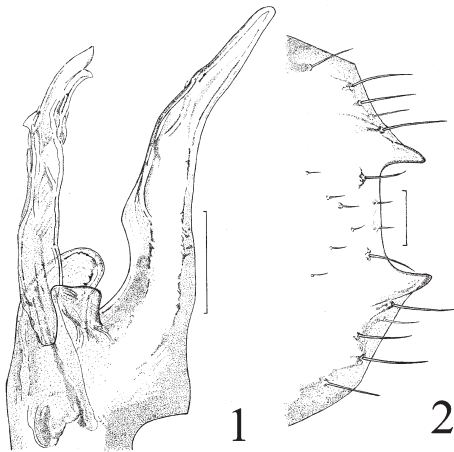


Fig. 1–2. *Gyrophaena joyi*: 1–apex of aedeagus, lateral view (Tomsk); 2–tergite VIII of male (Tomsk). Scale bar: 0.05 mm.

R. and Yaya R., *Betula-Populus* forest; 2 males: Tom` R. (1st), slope of terrace with *Padus*; 1 male, same data, *Pinus-Betula* forest; 1 male: Tom` R. (2nd), plantations of *Picea* and *Pinus sylvestris*.

****Gyrophaena (Gyrophaena) joyioides* Wüsthoff, 1937**

Material examined: 1 male: Yagodnoye, overwetting *Betula*-forest; 1 male: same data, in *Hebeloma mesophaeum* (Fr.) Kumm.; 1 male, 1 female: same data, in *Pholiota* sp.; 1 male, 1 female: same data, на *Clitocybe* sp.; 1 male, 6 females: Latat R. and Yaya R., *Betula-Populus* forest, in *Stropharia* sp.; 2 males: Ushaika R., *Populus-Betula* forest, in *Hebeloma mesophaeum* (Fr.) Kumm.; 17 males, 12 females: Tom` R. (1st), *Pinus-Betula* forest; 1 male, 3 females: Tom` R., plantations; 1 male, 1 female: Tom` R. (2nd), plantations of *Betula*; 1 male, 1 female: same data, in *Paxillus involutus* (Fr.) Fr.; 1 male: same data, overwetting *Betula* forest.

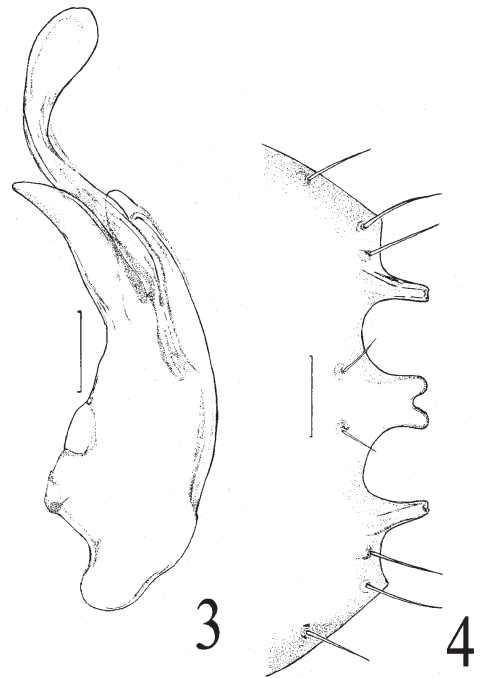


Fig. 3–4. *Gyrophaena nana* (Paykul, 1800): 3–aedeagus, lateral view (Tomsk), 4–tergite VIII of male (Tomsk). Scale bar: 0.05 mm.

***Gyrophæna (Gyrophæna) nana (Paykull, 1800)**

(*marginata* (Stephens, 1832); *nigriventris* A. Fleischer, 1909; *perpolita* Casey, 1906) (Fig. 3–4)

Material examined: 1 male, 3 females, Tom` R. (2nd), plantations; 1 male: same data, plantations of *Picea* and *Pinus sylvestris*.

***Gyrophæna (Gyrophæna) obsoleta Ganglbauer, 1895**

(Fig. 5–6)

Material examined: 8 males, 7 females: Yagodnoye, plantation of *Pinus sylvestris* forest near road, in *Clitocybe inversa* (Fr.) Quel.; 2 males: Latat R. and Yaya R., *Betula-Populus* forest, in *Hebeloma mesophaeum* (Fr.) Kumm.; 10 males, 7 females: Tom` R. (1st), *Pinus-Betula* forest; 8 males, 10 females: same data, *Betula* grass forest with ferns and hawthorn`s understory; 52 males, 35 females: same data, *Pinus-Betula* forest; 10 males, 8 females: same data, in *Cortinarius* sp.; 33 males, 22 females: Tom` R. (2nd), plantations.

***Gyrophæna (Gyrophæna) orientalis A. Strand, 1938**

Material examined: 1 male: Ushaika R. and

Tom` R., *Populus-Betula* forest, in *Hebeloma* sp.; 1 female: Tom` R. (1st), *Pinus-Betula* forest; 1 female: same data, in *Stropharia* sp.

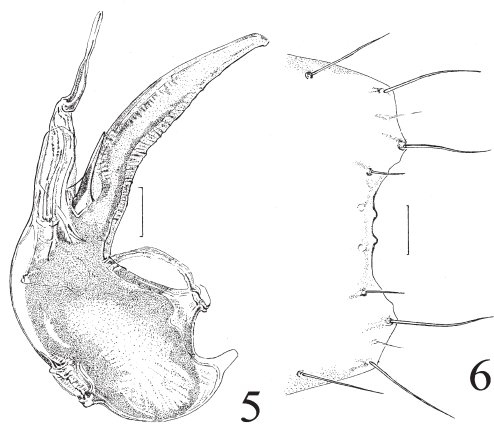
***Gyrophæna (Gyrophæna) poweri Crotch, 1867**

(*puncticollis* Thomson 1867; *punctulata* Mulsant & Rey 1870) (Fig. 7–8)

Material examined: 1 female: Latat R. and Yaya R., *Betula-Populus* forest, in *Clitocybe inversa* (Fr.) Quel.; 1 female: Ushaika R., *Populus-Betula* forest; 1 male: same data, in *Stropharia* sp.; 1 female: Tom` R. (1st), *Betula* grass forest with ferns and hawthorn`s understory; 1 male: same data, *Pinus-Betula* forest; 1 male: Tom` R. (2nd), plantations of *Picea* and *Pinus sylvestris*; 1 male: same data, *Sorbus* grove, in *Agaricus* sp.

***Gyrophæna (Gyrophæna) pseudonana A. Strand, 1938**

(Fig. 9–10)



Figs. 5–6. *G. obsoleta* Ganglbauer, 1895: 5–aedeagus, lateral view (Tomsk), 6–tergite VIII of male (Tomsk). Scale bar: 0.05 mm.



Figs. 7–8. *G. poweri* Crotch, 1867: 7–aedeagus, lateral view (Tomsk), 8–tergite VIII of male (Tomsk). Scale bar: 0.05 mm.

Material examined: 1 male: Latat R., *Picea-Betula* grass forest; 2 males, 6 females: Tom` R. (1st), *Populus-Betula* forest; 15 males, 6 females: same data, in *Stropharia* sp.; 1 male, 1 female: same data, *Pinus-Betula* forest; 1 female: same data, *Betula* grass forest with ferns and hawthorn`s understory; 1 male, 6 females: same data, *Pinus-Betula* forest, in *Stropharia* sp.; 1 male, 2 females: Tom` R. (2nd), plantations; 10 males, 10 females: same data, in *Hebeloma longicaudum* (Fr.) Kumm.; 7 males, 8 females: same data, plantations of *Picea* and *Pinus sylvestris*; 1 female: same data, plantations of *Betula*; 2 females: same data, *Pinus-Betula* forest.

***Gyrophæna (Gyrophæna) pulchella* Heer, 1839**

(*glabrella* Motschulsky, 1858)

Gyrophæna pulchella: Babenko, 1991:72

Material examined: 1 male: Latat R., *Picea-*

Betula grass forest; 3 males, 3 females: Latat R. and Yaya R., *Betula-Populus* forest, in *Clitocybe inversa* (Fr.) Quel.; 3 males, 6 females: Tom` R. (1st), *Pinus-Betula* forest; 5 males, 11 females: same data, *Pinus-Betula* forest; 2 males, 1 female: same data, in *Cortinarius* sp.; 3 males, 4 females: Tom` R. (2nd), plantations; 2 males, 3 females: same data, *Pinus-Betula* forest.

****Gyrophæna (Gyrophæna) rugipennis* Mulsant & Rey, 1861**

(Fig. 11–12)

Material examined: 3 males, 1 female: Ushaika R., *Populus-Betula* forest, in *Hebeloma mesophaeum* (Fr.) Kumm.; 1 male, 2 female, Tom` R. (1st), *Pinus-Betula* forest; 1 male: Tom` R (2nd), plantations; 1 male, 1 female: same data, plantations of *Picea* and *Pinus sylvestris*; 1 male: same data, *Sorbus* grove, in *Agaricus* sp.; 1 male, 2 females: same data, *Pinus-Betula* forest.

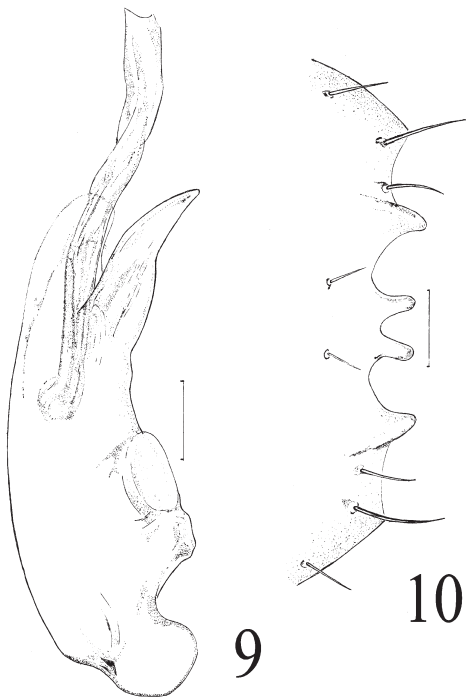


Fig. 9–10. *G. pseudonana* A.Strand, 1938: 9–aedeagus, lateral view (Tomsk), 10–tergite VIII of male (Tomsk). Scale bar: 0.05 mm.



Fig. 11–12. *G. rugipennis* Mulsant & Rey, 1861: 9–aedeagus, lateral view (Tomsk), 10–tergite VIII of male (Tomsk). Scale bar: 0.05 mm.

***Gyrophaena (Leptarthrophaena) affinis*
Mannerheim, 1830**

(*amabilis* Lacordaire, 1835; *diversa* Mulsant & Rey, 1870; *incospicua* Casey, 1906; *lacustris* Casey, 1906; *subpunctata* Casey, 1906)
Gyrophaena affinis: Babenko, 1982:55; 1991:72

Material examined: 1 male: Latat R. and Yaya R., *Betula-Populus* forest, in *Stropharia* sp.; 1 male: Barnaul, city park with *Acer*, *Populus* and *Betula*, in *Pholiota adiposa* (Fr.) Kumm.

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