Six new species of fungus gnats of the tribe Exechiini from Sakhalin and Kuril Islands (Diptera, Mycetophilidae)

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Descriptions of *Exechia kunashirensis* sp. n. from Kunashir I., *E. rohdendorfi*, *E. subcornuta* sp. n., *Brevicornu sakhalinense* sp. n. from Sakhalin I., *E. insularis* sp. n., *E. trispinosa* sp. n. from Sakhalin I. and Kunashir I. are given.

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*Exechia insularis* A. Zaitzev, sp. n. (Figs 1, 2)

_Holotype._ ♀, Russia, Sakhalin I., Kuznetsov Cape, 18.IX.1986, A. Zaitzev leg.


_Description._ Male. Head blackish brown; clypeus round, dark brown; palpi yellow; antennae with scape, pedicel and base of first flagellar segment yellow, remainder dark brown. Median flagellar segments about as long as broad. Thorax yellowish brown. Mesonotum shining yellow with three broad dark brown stripes; mediotergite and scutellum dark brown. Pleurae yellow with three propleural bristles. Wing length 3.2 mm. *m* about 2.3 times length of *M*-stalk. Tibia II with 25a, 4ad, 5d, 12pd, 7p, 22v; tibia III with 14a, 7pd, 4p. Abdomen brown, segments two to four with yellow lateral marking. Genitalia yellow.

_Female unknown._

_Remarks._ *E. insularis* is close to *E. pseudocincta* Strobl, from which it is distinguished in the form of the gonocoxyte and in structure of the gonostyle.

*Exechia kunashirensis* A. Zaitzev, sp. n. (Figs 3, 4)


_Description._ Male. Head blackish brown; clypeus round, dark brown; palpi light brown; antennae with scape, pedicel and base of first flagellar segment yellow, remainder brown. Median flagellar segments about as long as broad. Thorax dark brown. Mesonotum with long bristles; pleurae yellow. Propleura yellow, with two strong propleural bristles. Wing length 3.2 mm. *m* about 3 times length of *M*-stalk. Legs yellow. Fore basitarsus about as long as fore tibia. Tibia II with 23a, 4d, 8p, 3v; tibia III with 7ad, 4pd, 4p. Abdomen dark brown. Genitalia yellow.

_Female unknown._

_Remarks._ *E. kunashirensis* belongs to spinigera-group, with genital structure differing a little from the other species.

_Biology._ Larvae of *E. kunashirensis* develop in fruit body of *Oudemansiella mucida*. 

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Figs 1—5. Exechia, male genitalia.
1, 2, E. insularis sp. n.; 3, 4, E. kunashirensis sp. n.; 5, E. rohdendorfi sp. n. 1, 4, ventral view; 3, 5, dorsal view; 2, gonostylus, dorsal view.

Exechia rohdendorfi A. Zaitzev, sp. n.

(Figs 5, 6)

Holotype. ♂, Russia, Sakhalin I., Kuznetzov Cape, 20.IX.1986, A. Zaitzev leg.

Description. Male. Head blackish brown; clypeus ovate, dark brown; palpi light brown; antennae with scape, pedicel and base of first flagellar segment yellow, rest brown. Median flagellar segments about as long as broad. Thorax dark brown; mesonotum grey dusted with small yellow humeral spots; pleura with two strong bristles. Wing length 3.2 mm. rm nearly 2.5 times length of M-stalk. Legs yellow. Fore basitarsus 1.2 times length of fore tibia. Tibia II with 17a, 5d, 12p, 4v; tibia III with 11ad, 4d, 5p. Abdomen dark brown, segments two to three with small yellow lateral spots. Genitalia brown.

Female unknown.

Remarks. E. rohdendorfi is distinguished from other species of the genus Exechia in the structure of genitalia.
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Figs 6—9. Exechia, male genitalia.

6, E. rohdendorfi sp. n.; 7, 8, E. subcornuta sp. n.; 9, E. trispinosa sp. n.

6, 8, 9, ventral view; 7, dorsal view.

Exechia subcornuta A. Zaitzev sp. n.

(Figs 7, 8)

**Holotype.** ♂, **Russia**, Sakhalin I., Kuznetzov Cape, 20.IX.1986, A. Zaitzev leg. (A. N. Severtzov Institute, Moscow).

**Description.** Male. Head blackish brown; clypeus round, light brown; palpi light brown; antennae with scape, pedicel and base of first flagellar segment yellow, rest brown; median flagellar segments about as long as broad. Thorax yellowish brown, mesonotum shining yellow, with dark hind part; scutellum and mediocotyle dark brown. Pleurae brown; propleura yellow with two strong bristles. Wing length 2.5 mm. rm about 3 times length of M-stalk. Legs yellow. Fore basitarsus 1.2 times length of mm. Tibia II with 20a, 4d, 11p, 7c; tibia III with 10ad, 5d, 4p. Abdomen brown; segments two to four with yellow basal bands broadened laterally. Genitalia yellow.

Female unknown.

**Remarks.** E. subcornuta is close to E. cornuta Lundst. and E. lundstroemi Landr., from which it is distinguished in the form of gonocoxite and in the structure of gonostyle.

Exechia trispinosa A. Zaitzev sp. n.

(Figs 9, 10)

**Holotype.** ♂, **Russia**, Sakhalin I., Kuznetzov Cape, 16.IX.1986, A. Zaitzev leg.


**Description.** Male. Head dark brown; clypeus ovate, brown; palpi yellow; antennae with scape, pedicel...
Figs 10—12. Exechiini, male genitalia.

10, Exechia trispinosa sp. n., lateral view; 11, 12, Brevicornu sakhalinense sp. n.: 11, ventral appendage of gonocoxites, 12, gonostylus from inner side.

and base of first flagellar segment yellow, remainder dark brown. Length of median flagellar segments about 1.5 times its breadth. Thorax yellowish brown. Mesonotum shining brown, yellow on anterior border and on shoulders; pleurae yellowish brown, mesopleura and pleurotergite brown; propleura with two strong bristles; scutellum and mediotergite dark brown. Wings length 3 mm. M-stalk about 0.5 times length of rm. Legs yellow; fore tibia slightly shorter than fore basitarsus; tibia II with 29a, 3d, 6p, 2v; tibia III with 8a, 4d, 4p. Abdomen brown. Tergite III, IV with yellow markings towards bases. Genitalia yellow. Gonostyle with three stout apical spines.

Female unknown.

Remarks. E. trispinosa is distinguished from the Palaearctic species of the genus Exechia in the structure of genitalia.

Brevicornu sakhalinense A. Zaitzev, sp. n. (Figs 11, 12)

Holotype. ♂, Russia, Sakhalin I., Kuznetsov cape, 11.IX.1986, A. Zaitzev leg. (A. N. Severtzov Institute, Moscow).

Description. Male. Head yellowish brown; mouth parts and palpi yellow; antennae light brown with dark apical segments; median flagellar segments about as long as broad. Thorax dark brown; mesonotum with small humeral spots; scutellum with two long and two short bristles. Wing length 2.8 mm; M-stalk 1.3 times length of rm. Base of Cu-fork under base of rm. Legs yellow, mid and hind femurs with dark spots from below; fore basitarsus about as long as fore tibia. Tibia II with 8a, 5d, 8p; tibia III with 5a, 4d. Abdomen dark brown.

Female unknown.

Remarks. B. sakhalinense belongs to fissicauda-group and is close to B. verralli (Edw.), from which it is distinguished in the form of sternal process of the gonocoxites and in the structure of the gonostyle.

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