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NEW RECORDS OF EULOPHIDAE AND PTEROMALIDAE (HYMENOPTERA) FROM THE RUSSIAN FAR EAST

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Five species of Eulophidae and ten species of Pteromalidae are newly recorded from the Russian Far East. Among them two species of Eulophidae and eight species of Pteromalidae are new records for Russia. Genera *Chaenotetrastichus* Graham, 1987 and *Panstenon* Walker, 1846 with undescribed species are newly recorded from Russia.

KEY WORDS: chalcid wasps, Eulophidae, Pteromalidae, Russian Far East.

Р. А. Беркс. Новые сообщения хальцид из семейств Eulophidae и Pteromalidae (Hymenoptera) с Дальнего Востока России // Дальневосточный энтомолог. 2013. N 258. С. 1-5.

Пять видов Eulophidae и 10 видов Pteromalidae впервые указываются для Дальнего Востока России. Среди них два вида Eulophidae и девять видов Pteromalidae указываются впервые для фауны России. Роды *Chaenotetrastichus* Graham, 1987 и *Panstenon* Walker, 1846 с неописанными видами приводятся впервые для фауны России.

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INTRODUCTION

Eulophidae and Pteromalidae are families of chalcid wasps containing many economically important species and a much larger number of poorly known species for which host information is usually unknown (Noyes, 2012). The family Eulophidae was recently examined and redefined to be believed monophyletic based on molecular and morphological data (Burks *et al.*, 2011; Munro *et al.*, 2011). Pteromalidae has been found to be polyphyletic based on molecular data (Munro *et al.*, 2011).

Gumovsky & Proshchalykin (2012) and Tselikh (2012) catalogued known species of Eulophidae and Pteromalidae from the Russian Far East, respectively. I found new records of genera and species of Eulophidae and Pteromalidae for the Russian Far East fauna while examining material collected in Primorskiy krai, Russia, by Marina V. Michailovskaya (currently in Sankt-Petersburg, Russia). All specimens examined belong to the Entomology Research Museum, University of California, Riverside, California, USA (UCRC). All reported taxa are newly recorded from the Russian Far East; asterisked (*) taxa are new records for Russia.

NEW RECORDS

Family Eulophidae Subfamily Entedoninae

1. *Achrysocharoides* Girault, 1913

MATERIAL. **Russia:** Primorskiy krai, Ussuriyskiy rayon, Gornotayozhnoye, 43°39'36" N 132°15'00" E, 15.VIII 2001, 1 ♀ (M. Michailovskaya).

NOTE. Specimen with broken antennae, which therefore could not be reliably identified to species.

2. *Asecodes* *erxias* (Walker, 1848)

MATERIAL. **Russia:** Primorskiy krai, Ussuriyskiy rayon, Gornotayozhnoye, 43°39'36" N 132°15'00" E, 15.VIII 2001, 2 ♀ (M. Michailovskaya).

*3. *Omphale* *isander* (Walker, 1839)

MATERIAL. **Russia:** Primorskiy krai, Ussuriyskiy rayon, Gornotayozhnoye, 43°39'36" N 132°15'00" E, 12-15.VIII 2002, 1 ♂ (M. Michailovskaya).

Subfamily Tetrastichinae

*4. *Chaenotetrastichus* Graham, 1987

MATERIAL. **Russia:** Primorskiy krai, Ussuriyskiy rayon, Gornotayozhnoye, 43°39'36" N 132°15'00" E, 15.VIII 2001, 1 ♀ (M. Michailovskaya).

NOTE. This specimen appears to belong to an undescribed species.

5. *Holcotetrastichus rhosaces* (Walker, 1839)

MATERIAL. **Russia:** Primorskiy krai, Ussuriyskiy rayon, Gornotayozhnoye, 43°39'36" N 132°15'00" E, 15.VIII 2001, 3 ♀ (M. Michailovskaya).

***6. *Tetrastichus legionarius* Giraud, 1863**

MATERIAL. **Russia:** Primorskiy krai, Ussuriyskiy rayon, Gornotayozhnoye, 43°39'36" N 132°15'00" E, 15.VIII 2001, 1 ♀ (M. Michailovskaya).

NOTE. In Kostjukov (1995) this keys to *Tetrastichus punctifrons* Kostjukov, 1995 but the antennal club is distinctly longer in that species.

**Family Pteromalidae
Subfamily Miscogastrinae**

***7. *Toxeuma acilius* (Walker, 1848)**

MATERIAL. **Russia:** Primorskiy krai, Terneyskiy rayon, Mel'nichnyi, 43°39'36" N 132°15'00" E, 26.VI 2001, 1 ♂ (M. Michailovskaya).

Subfamily Pteromalinae

***8. *Ablaxia temporalis* Graham, 1969**

MATERIAL. **Russia:** Primorskiy krai, Ussuriyskiy rayon, Gornotayozhnoye, 43°39'36" N 132°15'00" E, 5-6.VIII 2000, 1 ♀ (M. Michailovskaya).

***9. *Apsilocera verticillata* Bouček, 1956**

MATERIAL. **Russia:** Primorskiy krai, Ussuriyskiy rayon, Gornotayozhnoye, 43°39'36" N 132°15'00" E, 11-12.VI.1999, 1 ♀ (M. Michailovskaya).

***10. *Cyclogastrella simplex* (Walker, 1834)**

MATERIAL. **Russia:** Primorskiy krai, Ussuriyskiy rayon, Gornotayozhnoye, 43°39'36" N 132°15'00" E, 14.VII 1999, 1 ♀; 11-13.VI.2000, 1 ♀ (M. Michailovskaya).

***11. *Panstenon* Walker, 1846**

MATERIAL. **Russia:** Primorskiy krai, Ussuriyskiy rayon, Gornotayozhnoye, 43°39'36" N 132°15'00" E, 5-6.VIII 2000, 1 ♂; 17-23.VII 2003, 1 ♂ (M. Michailovskaya).

NOTE. These specimens belong to an undescribed species.

***12. *Peridesmia congrua* (Walker, 1835)**

MATERIAL. **Russia:** Primorskiy krai, Ussuriyskiy rayon, Gornotayozhnoye, 43°39'36" N 132°15'00" E, 2-4.V 2000, 1 ♀ (M. Michailovskaya).

***13. *Plutothrix trifasciata* (Thomson, 1878)**

MATERIAL. **Russia:** Primorskiy krai, Ussuriyskiy rayon, Gornotayozhnoye, 43°39'36" N 132°15'00" E, 5.IX 2003, 1 ♂ (M. Michailovskaya).

***14. *Psilonotus achaeus* Walker, 1848**

MATERIAL. **Russia:** Primorskiy krai, Ussuriyskiy rayon, Gornotayozhnoye, 43°39'36" N 132°15'00" E, 12-17.VIII 1999, 2 ♀, 1 ♂; 17.VIII 2001, 2 ♀ (M. Michailovskaya).

15. *Trichomalus posticus* (Walker, 1834)

MATERIAL. **Russia:** Primorskiy krai, Ussuriyskiy rayon, Gornotayozhnoye, 43°39'36" N 132°15'00" E, 17.VIII 2001, 1 ♀ (M. Michailovskaya).

***16. *Trichomalus repandus* (Walker, 1835)**

MATERIAL. **Russia:** Primorskiy krai, Ussuriyskiy rayon, Gornotayozhnoye, 43°39'36" N 132°15'00" E, 17.VIII 2001, 2 ♀ (M. Michailovskaya).

17. *Trigonoderus princeps* Westwood, 1832

MATERIAL. **Russia:** Primorskiy krai, Ussuriyskiy rayon, Gornotayozhnoye, 43°39'36" N 132°15'00" E, 17.VIII 2001, 1 ♀ (M. Michailovskaya).

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SHORT COMMUNICATION

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N. M. Paramonov¹⁾, L. E. Lobkova²⁾. NEW HOST PLANTS FOR LARVAE OF *CYLINDROTOMA DISTINCTISSIMA DISTINCTISSIMA* (MEIGEN, 1818) (DIPTERA: CYLINDROTOMIDAE). – Far Eastern Entomologist. 2013. N 258: 6-8.

Summary. The feeding of larvae of the crane fly *Cylindrotoma distinctissima* is firstly observed on *Saussurea pseudo-tillesii* Lipsch., *Cirsium kamtschaticum* Ledeb. ex DC. (Asteraceae), *Trientalis europaeae* L. ssp. *arctica* (Fisch. ex Hook.) Hult. (Primulaceae) and *Maianthemum dilatatum* (Wood) Nels. et Macbr. (Liliaceae). is firstly reported as host plant for nominotypical subspecies.

Key words: Diptera, Cylindrotomidae, *Cylindrotoma distinctissima*, host plants, Kamchatka, Russian Far East.

Н. М. Парамонов, Л. Е. Лобкова. Новые кормовые растения для личинок *Cylindrotoma distinctissima distinctissima* (Meigen, 1818) (Diptera: Cylindrotomidae) // Дальневосточный энтомолог. 2013. N 258. С. 6-8.

Резюме. Впервые отмечено питание личинок комаров *Cylindrotoma distinctissima* на *Saussurea pseudo-tillesii* Lipsch., *Cirsium kamtschaticum* Ledeb. ex DC. (Asteraceae), *Trientalis europaeae* L. ssp. *arctica* (Fisch. ex Hook.) Hult. (Primulaceae), а *Maianthemum dilatatum* (Wood) Nels. et Macbr. (Liliaceae) впервые указан в качестве кормового растения для номинативного подвида.

INTRODUCTION

Cylindrotomidae is a small family of crane flies (Diptera: Tipuloidea). There are 71 described species in nine genera in the world, beside them only 11 species in five genera was recorded from Russia (Oosterbroek, 2012).

In June 1985 the second author studied the larvae of Cylindrotomidae, which feed on plant leaves in the natural environments in Kamchatka Peninsula, Russian Far East. Collected larvae were put in a cage, where they pupated and then adults emerged within two weeks. The last specimen flew out 18 July 1985. All imago was indentified by first author as *Cylindrotoma distinctissima* (Meigen, 1818). This species is divided into three subspecies: Palearctic *C. d. distinctissima* (Meigen, 1818), Nearctic *C. d. americana* Osten-Sacken, 1865, and endemic to the Alps *C. d. alpestris* Peus, 1952. Wing venation of studied adults corresponds to *Cylindrotoma*, prescutum is yellow (peculiar to *C. distinctissima*) instead of black (peculiar to *C. nigriventris* Loew, 1849), dark longitudinal stripes are separate and not joined together as in *C. japonica* Alexander, 1919 (Gelhaus et al., 2007). *C. d. distinctissima* has already been recorded from Kamchatka (Paramonov, 2006).

The larvae of *Cylindrotoma* are polyphagous feeding both on monocot and dicot plants. *C. d. distinctissima* feed on *Acer*, *Allium*, *Anemone*, *Caltha*, *Ranunculus*, *Sanicula*, *Stellaria*, *Trollius*, *Valeriana*, *Viola* as noted by Peus (1952), Tarasova (1981) and (Brinkmann, 1991); *C. d. americana* on *Allium*, *Anemone*, *Maianthemum*, *Stellaria*, *Trautvetteria*, *Viola* as noted by Cameron (1918), Alexander (1920), Brodo (1967) and Poinar & Gelhaus (2004). Host plant of *C. d. alpestris* is unknown. In present paper fore vascular plants are firstly recorded as host for larvae of *C. d. distinctissima*. The names of plants are given according to Yakubov & Chernyagina (2004).

RESULTS

Family Cylindrotomidae

Cylindrotoma distinctissima distinctissima (Meigen, 1818)

MATERIAL. **Russia:** Kamchatka, Kronotsky State Nature Biosphere Reserve: Zhupanovo village, Semyachinskoe Lake, 1-6.VII 1985, 4 specimens emerged from larvae with pinned exuvia (leg. L.E. Lobkova); Tikhaya River, 3.VIII 1985, 1 ♂ (leg. L.A. Danilovich); Nachiki, Nachikskoe zerkal'tse Lake, 31.VII 1958, 1 ♀, (leg. Ivliev). All specimens are kept in the Zoological Institute, St.-Petersburg.

LARVAE. Mature larvae are light-green, 15-22 mm long, flat at lateral sides, dorsally and frontally sharp, worm-shaped, with numerous short protuberances on dorsal part of each abdominal segment. Larvae feed the same way as lepidopteran larvae, i.e. the flesh of leaves. If abundant the larvae cover host plant leaves, eating it out and causing skeletonization of leaves.

HOST PLANTS. Feeding of larvae of *Cylindrotoma d. distinctissima* on *Saussurea pseudo-tilesii* and *Cirsium kamtschaticum* (Asteraceae), *Trientalis europeae arctica* (Primulaceae) and *Maianthemum dilatatum* (Liliaceae) is reported here for the first time.

Saussurea pseudo-tilesii Lipsch. (Asteraceae) is endemic to Kamchatka and Komandorskiye Islands and occurs at meadows, mountain marsh slopes and around the hot springs, often and abundantly in subalpine zone, more rarely in alpine zone (Yakubov & Chernyagina, 2004). One hundred leaves of this plant were observed, and gnaw marks were traced on all of leaves studied as well as 2-3 larvae were noticed on each plant.

Cirsium kamtschaticum Ledeb. ex DC. (Asteraceae) is spread in Kamchatka everywhere: in birch forest, at meadows and tundra, in bushes (Yakubov & Chernyagina, 2004). Twenty leaves of this plant were observed, all the young leaves are damaged, only 10 larvae of *Cylindrotoma distinctissima* were found.

Trientalis europeae L. ssp. *arctica* (Fisch. ex Hook.) Hult. (Primulaceae) is spread in Kamchatka everywhere; often it can be found around the sea shores, at meadows, in woods, marshes and bushes (Yakubov & Chernyagina, 2004). Fifteen leaves were observed, all the leaves are damaged, only 5 larvae of *Cylindrotoma distinctissima* were found.

Maianthemum dilatatum (Wood) Nels. et Macbr. (Liliaceae) is abundant in Kamchatka everywhere: at meadows, in woods, in the edges of coniferous and deciduous forests (Yakubov & Chernyagina, 2004). Twenty leaves of this plant were observed, all the leaves are damaged, but only six larvae of *Cylindrotoma d. distinctissima* were found. *Maianthemum dilatatum* was also reported as host plant for *C. d. americana* in North America (Poinar & Gelhaus, 2004).

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