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## NEW AND LITTLE-KNOWN PALAEARCTIC SPECIES OF ALUCITIDAE (LEPIDOPTERA)

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Two new species of alucitid moths are described: *Alucita ussurica* **sp. n.** from the Southern Primorie (Russia) and *A. kosterini* **sp. n.** from Zeravshanskii Ridge (Tadjikistan). *A. spilodesma* (Meyrick, 1908) is firstly reported for the Kurils and mainland Russian Far East. Probably *A. sachalinensis* Zagulajev, 1995 is a synonym of the latter.

KEY WORDS: Lepidoptera, Alucitidae, new species, Southern Primorie, Tadjikistan.

**П. Я. Устюжанин. Новые и малоизвестные палеарктические виды веерокрылок (Lepidoptera, Alucitidae) // Дальневосточный энтомолог. 1999. N 68. С. 1-7.**

Описываются два новых вида веерокрылок: *Alucita ussurica* **sp. n.** из России (Южное Приморье) и *A. kosterini* **sp. n.** из Таджикистана (Зеравшанский хребет). *A. spilodesma* (Meyrick, 1908) впервые приводится для Курил и континентальной части Дальнего Востока. Вероятно, *A. sachalinensis* Zagulajev, 1995 является синонимом последнего.

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## INTRODUCTION

During preparation of the part for the "Key to the insects of Russian Far East" I studied a considerable materials on Alucitidae originating from different parts of North Asia. As a result, two new species were found: *Alucita ussurica* sp. n. in the Southern Primorie (Russia), and *A. kosterini* sp. n. in the highlands of Zeravshanskii Ridge, Tadjikistan. At present two species of Alucitidae are known from the South of Russian Far East: *A. ussurica* sp. n., described below and *A. spilodesma* (Meyrick, 1908), reported here for Russian Far East for the first time. The taxon described by Zaguljaev (1995) from Sakhalin as *A. sakhalinica* Zaguljaev, 1995 supposedly is a junior synonym of the last.

The holotypes and most of the paratypes are kept in the Siberian Zoological Museum, Institute of Systematics and Ecology of Animals, Siberian Division of Russian Academy of Sciences (Novosibirsk); three paratypes of *A. ussurica* sp. n. and a paratype of *A. kosterini* sp. n. are in Zoological Institute of Russian Academy of Sciences (St.-Petersburg).

## FAMILY ALUCITIDAE

### *Alucita spilodesma* (Meyrick, 1908)

*Orneodes spilodesma* Meyrick, Trans. ent. Soc. London, 1908: 510.

*Orneodes ochracea* Marumo, J. Coll. Agr. Imp. Univ. Tokyo, 1923, 8: 197.

*Orneodes ishikii* Matsumura, 6000 illustr. Insects Japan-Empire, 1931: 1059.

MATERIAL. Primorskii krai: Gornotaezhnoe, 15.V 1983 - 1 ♂ (Sinev); the same locality, 24.VI 1983, 1 ♂, 1 ♀ (Sinev et Kozlov); 1.VI 1994, 1 ♂ (Dubatolov). South Kurils: Kunashir Is., Sernovodsk, 5.VI-12.VII 1967, 6 specimens (Zabello and Kuznetsov); Shikotan Is., Malokuril'sk, 20.VI 1973, 1 ♂, 1 ♀ (Kerzhner).

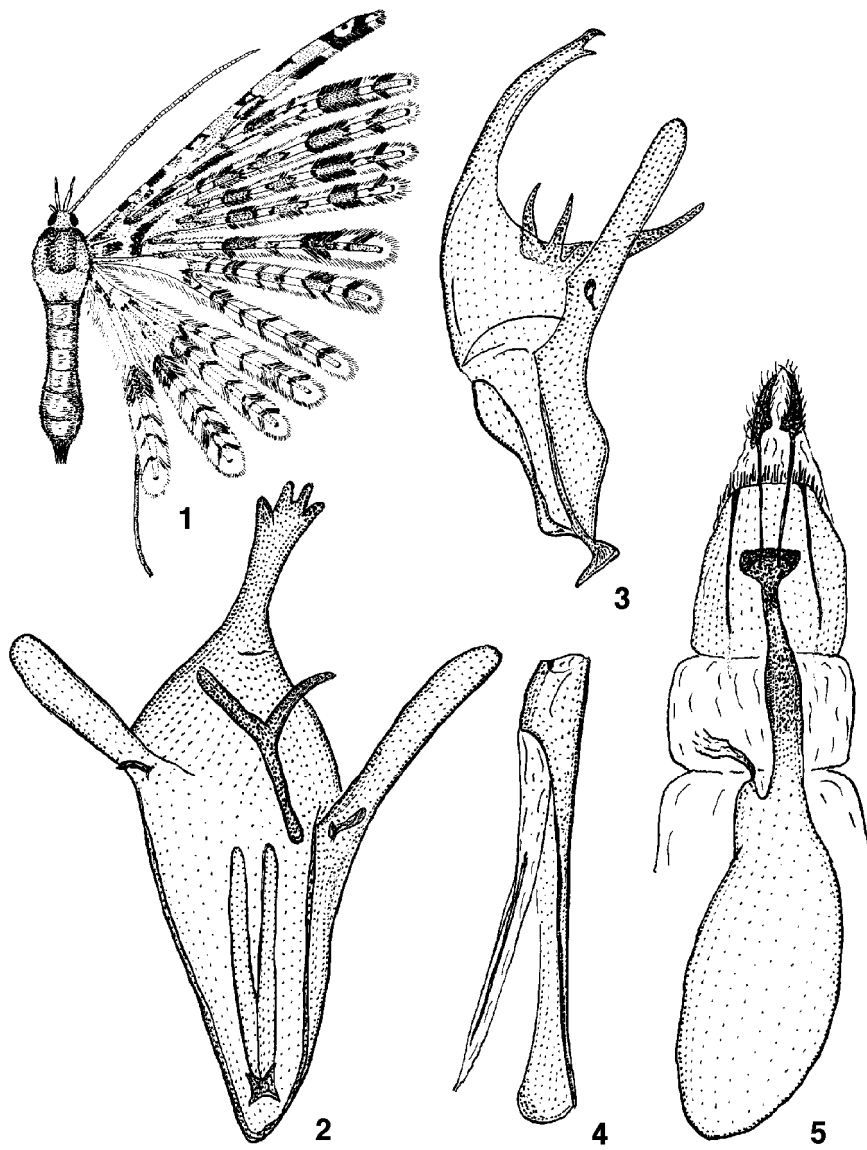
DISTRIBUTION. Russia: Primorskii krai (new record), Sakhalin (Dubatolov & Ustjuzhanin, 1991), Kurils (Kunashir, Shikotan, both new records); from South India (type locality of *A. spilodesma*) to Japan (northwards Hokkaido) (Inoue, 1982; Hoshimoto, 1984).

REMARKS. Probably the *A. sakhalinica* described from Sakhalin (Zagulajev, 1995) is the synonym of *A. spilodesma* if the material from Hokkaido illustrated by Hoshimoto (1984) really belongs to the latter.

### *Alucita ussurica* Ustjuzhanin, sp. n.

Figs 1-5

MATERIAL. Holotype - ♂, Primorskii krai, 20 km E of Ussuriisk, Gornotaezhnoe, 11.VI 1983 (Sinev). Paratypes: Primorskii krai: the same locality as the holotype, 12.VII 1982, 1 ♂; 11.VI 1983, 1 ♂ (Sinev); 8.VII 1990, 1 ♀ (Ustjuzhanin); Kamenushka, 12.VII 1990, 1 ♂ (Ustjuzhanin and Zakharov); Kedrovaya Pad'



Figs 1-5. *Alucita ussurica* sp. n. 1) imago; 2) male genitalia, lateral view; 3) same, ventral view; 4) aedeagus; 5) female genitalia.

Reserve, light trap, 14-15.VII 1984, 1♂, 2♀ (Lvovsky); the same locality, 11-25.VII 1998, 2♂, 1♀ (Sinev); Ananevka River headwaters, 7.VII 1982, 1♂ (Sinev).

DESCRIPTION. Wing expanse 10-13 mm. Ground colour light-grey, pattern not contrasted. Fore wing lobe 1 with a row of dark elongate costal spots. Each lobe bears spots of dark scales at apex. Approximately in middle of each lobe there is a spot formed by dark-grey scales, these spots form rather regular semicircle over wings. Besides, there are other dark spots in distal halves of wings, pattern of which is rather chaotic. Head is set with light-yellow adpressed hairs. Labial palpi flattened from sides, directed forward, their length 3-3.5 times exceeds eye diameter. Their outer sides are dark grey. The third segment of labial palpi short, equals to eye diameter in length. Antennae chequered, with brownish and yellowish rings alternating. Scapus pale yellow-ochre. Thorax and teguli of same colour as the head.

Male genitalia (Fig. 2-4). View from above: uncus narrow, apically widening and bearing blunt angular projections: two ones narrow apically and two ones wide laterally of them. Valva narrow, slightly widened basally, in its middle part bears short perpendicular basal processus (ampula). Apex of gnathos slightly widened. Arms of anellus thin and almost straight. Lateral view: uncus narrow with a beak-like apex. Valva apex (cucullus) narrow, of even width throughout, almost reach gnathos apex. Gnathos slightly curved, equals to uncus in length, its processes twice as short, bow-shaped. Aedeagus straight, with a thinning in its middle part and widening to both ends, its length equal or almost equal to that of uncus with tegumen. Ductus seminalis springs at 3/4 of aedeagus length.

Female genitalia (Fig. 5). Antrum wide, rectangular, its width 2.5-3 times more than its length. Ductus burasae densely seted with small sclerotized plates, more densely at its confluence with antrum. Behind ductus seminalis, ductus bursae widened and gradually turned into oval bursa, the latter membranous and slightly pigmented. Signa absent. Apophyses anteriores 5 times longer than antrum. Apophyses posteriores equal or somewhat longer than apophyses anteriores. Papillae anales stretched, 2-2.5 times longer than apophyses posteriores.

REMARKS. By external appearance, size, not contrasted ornament, and the genitalia the new species is close to *Alucita helena* Ustjuzhanin, 1993, from which it differs in the male genitalia structure by blunt projections on the apex of uncus and an apically broadened gnathos, while in *A. helena* the projections are acute and the gnathos is pointed apically. Female genitalia of the new species are characterized by a wide antrum, which is narrower in *A. helena*. Besides, the new species has a similarity to *A. japonica* Matsumura, 1931, from which it differs by narrow cucullus in males and the absence of signa in females.

HABITAT. The new species was found in broad-leaved forests in June-July. The moths are attracted by the light. The findings are very scarce: one and half month of each night collecting of insects attracted by light in South Primorie we succeeded to collect the only two specimens, one of which, from Gornotaezhnoe, was obtained in a rainy night.

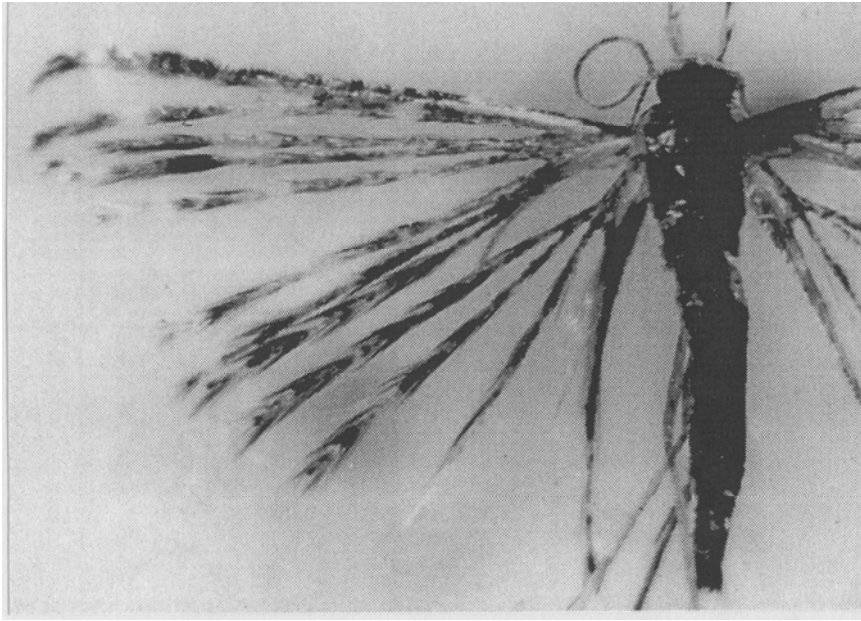


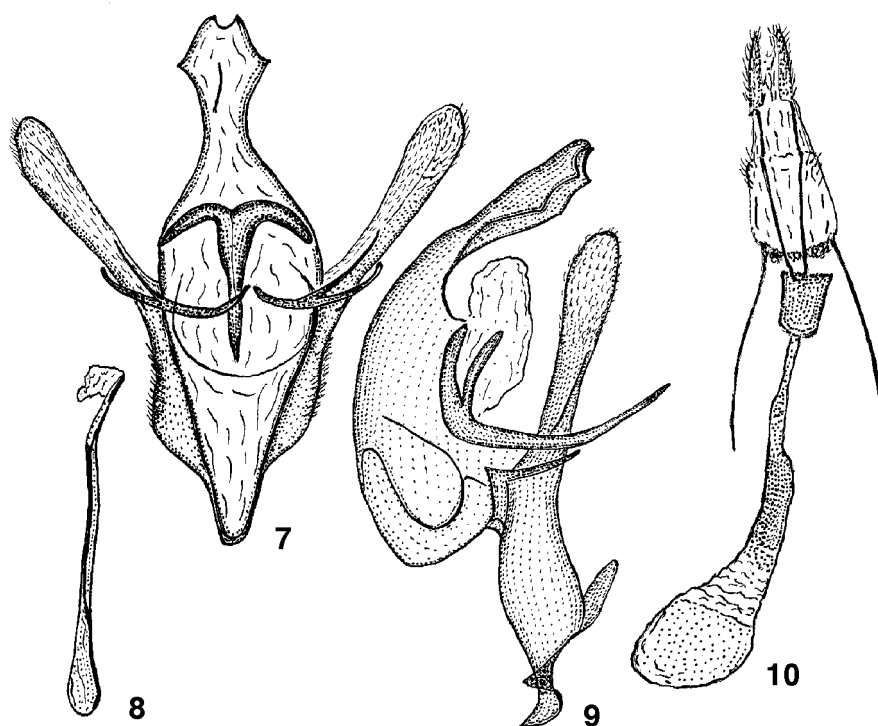
Fig. 6. *Alucita kosterini* sp. n., imago.

***Alucita kosterini* Ustjuzhanin, sp. n.**

Figs 6-10

**MATERIAL:** Holotype - ♂, Tadjikistan, Zeravshanskii Ridge, 60 km SE Pendzhikent, Fanskie Gory, Alaudin Lakes, 2700 m, 7.V 1991 (O. Kosterin). Paratypes: 5 ♂, 2 ♀, with the same label as holotype.

**DESCRIPTION:** The specimens are in rather a bad condition, so the external characters are only generally characterized. Wing expanse 13-14 mm. Ground colour grey, the pattern is vague, very uncontrasted. Lobe 1 on fore wing very densely seted by darker elongate costal spots, so that lobe seems to be dark-grey, with areas of light scales only at base and apex. Other lobes have alternating spots formed by dark-grey and whitish scales. In males last lobe of hind wing is very widened at base to form a somewhat like sinus embracing a dense bunch of robust light-yellow hairs going behind the middle of lobe. Head seted with white adpressed hairs with in mixture with brownish ones. Labial palpi thin, directed forward and up, their length 2.5-3 times exceeds eye diameter. They are dark-grey, third segment being much darker. Antennae evenly light brown coloured, with the only traces of alternating darker and pale rings.



Figs 7-10. *Alucita kosterini* sp. n. 7) male genitalia, lateral view; 8) same, ventral view; 9) aedeagus; 10) female genitalia.

Male genitalia (Fig. 6, 7). Uncus long, with dorsal side slightly concave, its dorsal part much widened, rhombic-shaped, with claw-like apical processes and spine-like lateral ones. Gnathos smoothly arch-like curved, apically narrowing, with pointed apex, equal to ductus in length or slightly exceeds it. Arms of gnathos short, 2 - 2.5 times shorter than gnathos itself. Valva narrow, ribbon-like, smoothly widening apically, it bears thin and rather long basal process (ampula) the end of which is bent inwards. Arms of anellus thin. Aedeagus twice as long as the gnathos, its apex is bent at 45°. Coecum thickened, occupies 1/4 of aedeagus length.

Female genitalia (Fig. 8). Antrum cup-shaped, its length twice greater than width. Ductus rather long, equals apophyses anteriores in length, covered by small sclerotized spinules throughout. Bursa oval-shaped, without signa. Apophyses anteriores slightly curved, equal to apophyses posteriores in length, the latter almost reach the antrum.

REMARKS. By a widened distal part of uncus the new species is close to *A. palodactyla* Zeller, 1847, from which it differs by narrow ribbon-like valvae and

pointed apex of the gnathos, while in *A. palodactyla* the valvae are more wide and the gnathos apex is widened. By the absence of the signa and a cup-like shape of the antrum the new species is close to *A. desmodactyla* Zeller, 1847 and *A. hexadactyla* Linnaeus, 1758 from which it differs by oval shape of bursa, not so elongate as in *A. hexadactyla*, and the absence of the sack-like processus before the ductus, as in *A. desmodactyla*.

HABITAT. Moths were collected in the altitudinal belt of arboreal juniper parkland, remarkably early, when the snow had just melted, the neighbouring Alaudin Lakes retained considerable ice blocks and vegetation still has not started, only ephemeroïd plants being flowering. The moth were observed on May 7th in twilight in the light of a fire, flying about 2 m above the ground, probably attracted by the fire. One specimen was noticed on 9 hr a.m. next morning.

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