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NEW DATA ON POORLY-KNOWN SPECIES OF MANY-PLUMES MOTH (LEPIDOPTERA: ALUCITIDAE) FROM CHINA AND RUSSIA

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Summary. The type specimens of the little studied species of many-plumed moths, *Orneodes baihua*, *Orneodes beinongdai* and *Alucita ussurica*, are examined. Of them one species is transferred to the genus *Pterotopteryx* and a new combination is proposed: *Pterotopteryx baihua* (Yang, 1977), **comb. n.** New synonymy is proposed: *Alucita beinongdai* (Yang, 1977) = *Alucita ussurica* Ustjuzhanin, 1999, **syn. n.** The distribution of *A. beinongdai* is clarified.

Key words: taxomomy, new combination, new synonymy, biodiversity, Russian Far East, China.

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Резюме. Исследованы типовые экземпляры недостаточно изученных видов веерокрылок (*Orneodes baihua*, *Orneodes beinongdai* и *Alucita ussurica*). Из них один вид перенесен в род *Pterotopteryx* и предложена новая комбинация: *Pterotopteryx baihua* (Yang, 1977), **comb. n.** Установлена новая синонимия: *Alucita beinongdai* (Yang, 1977) = *Alucita ussurica* Ustjuzhanin, 1999, **syn. n.** Уточняется распространение *A. beinongdai*.

INTRODUCTION

Alucitidae (Lepidoptera) are a relatively small family which included 216 species, according to the data of 2011 (van Nieukerken *et al*., 2011). Currently, there are about 280 know species. The family is widely spread all over the world, mostly in tropical and subtropical regions. For China, including Taiwan, there are 9 currently known species of Alucitidae of two genera: *Alucita* Linnaeus, 1758 and *Pterotopteryx* Hannemann, 1959. The status of some of them still needs clarification. In the book “Moths of North China” (Yang 1977) two

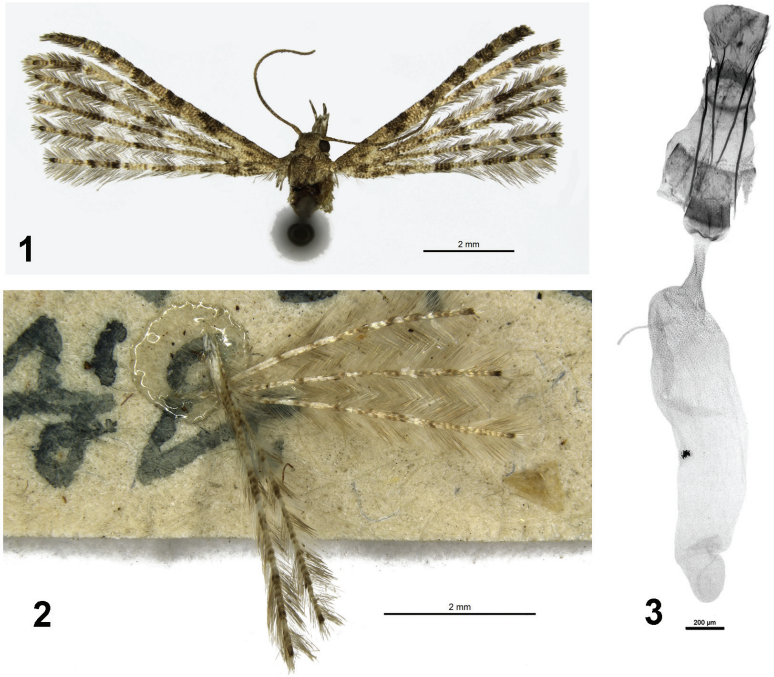
species of many-plumed moths were described: *Orneodes baihua* Yang, 1977 and *Orneodes beinongdai* Yang, 1977. Unfortunately, their descriptions were based only on the external signs of the adult, without taking into account the genital structure, therefore, the real taxonomic status of both needed clarification. We have found the type specimens of both species and examined their external characters and genital structures, which made it possible to clarify the status and real generic combinations of these little-studied taxa.

TAXONOMY

***Pterotopteryx baihua* (Yang, 1977), comb. n.**
Figs 1–3

Orneodes baihua Yang, 1977: 259 (holotype – ♂, allotype – ♀, paratypes – 7 ♂♀, China: Mt. Baihua, Beijing; in the China Agricultural University, Beijing, China).
Alucita baihua: Gielis, 2003: 108; Hua, 2005: 16.

TYPE MATERIAL EXAMINED. **China**: Beijing, Beihua Shan, 8.IX 1960, 1♀ (paratype, slide: HSL0205), leg. Yang Jikun.



Figs 1–3. *Pterotopteryx baihua* (Yang, 1977), female, paratype. 1 – habitus, dorsal view; 2 – part of wing; 3 – genitalia.

DESCRIPTION. (*Orneodes baihua* after Yang, 1977; translated here from Chinese to English). "Body length about 5 mm, wingspan about 11–12 mm, gray brown species. Antenna about 2/3 length of the forewings. Labial palpus with basal two segments grayish

white, outside with dark brow sacles, triangular; the terminal segment blackish brown except base grayish white, slender and sharp. Thorax grayish brown. Abdomen with each segment grayish white apically and with three brown spots. Legs grayish white, outer side scattered with brown spots. Forewing grayish brown, densely covered with different-sized spots; cilia also changes with the wing color; costa with a row of five brown spots largest and significant, with white edges on both sides; base of cost with two smaller spots; other five lobes with two brown spots of varying lengths respectively, produced into median fasciae and subterminal fasciae. Hindwing scattered with brown dots, lighter than forewing in color".

FEMALE GENITALIA. Papillae anales unobvious. Apophyses posteriores nearly equal to Apophyses anteriores in length, slender. Ostium unobvious. Antrum about 1/4 length of apophyses posteriores; basal portion sclerotized; distal portion membranous, sinuate at junction with ductus bursae. Ductus bursae slighty longer than antrum; basal portion about 1/3 of antrum in width, distal portion slightly wider than basal portion. Bursa copulatrix long elliptic, about 1.5 times of apophyses posteriores in length, about 1/4 of length in width; distal 1/4 with an irregularly asteroidal small signum.

REMARKS. Unfortunately, in Beijing Agricultural University in the type series of nine specimens, only one female paratype has been found. Judging by the genital structure of this only paratype found, it can be assumed that it belongs to the genus *Pterotopteryx*.

DISTRIBUTION. China (Beijing).

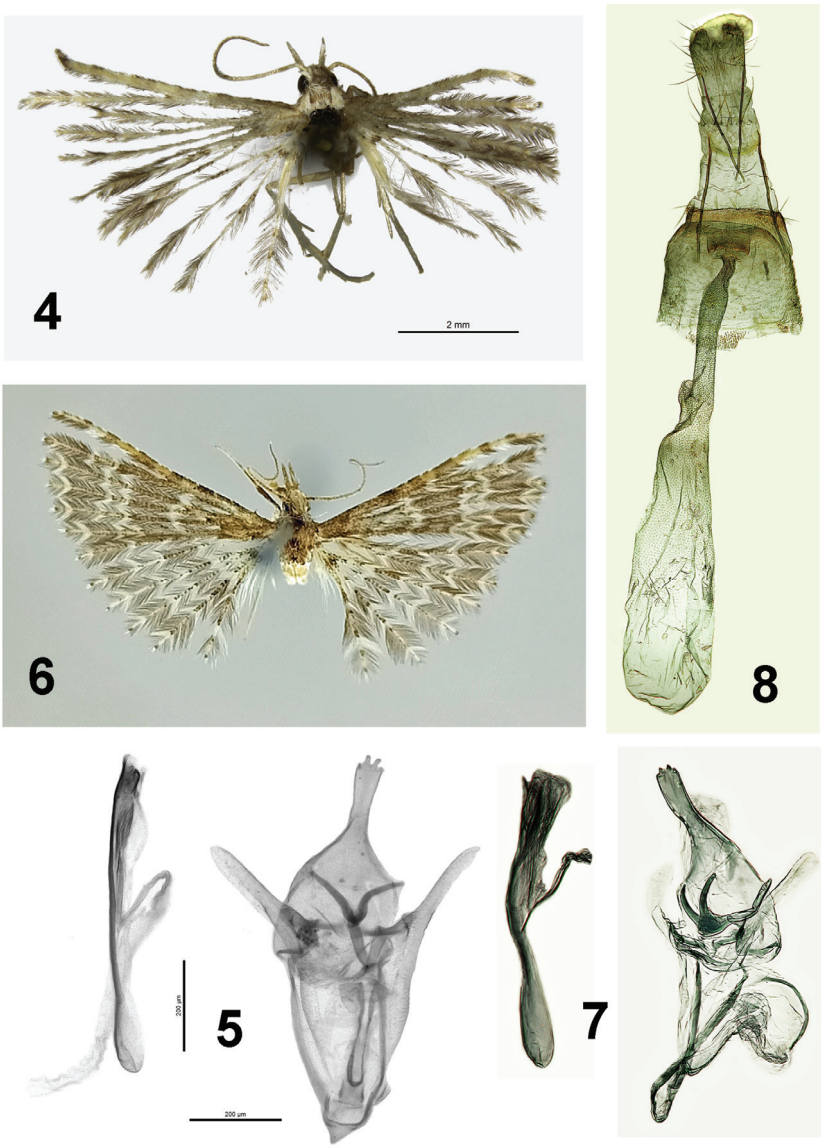
***Alucita beinongdai* (Yang, 1977)**
Figs 4–8

Orneodes beinongdai Yang, 1977: 260; (holotype – ♂, China: Xiyuan, Beijing; in the China Agricultural University, Beijing, China).
Alucita beinongdai: Gielis, 2003: 108; Hua, 2005: 16.
Alucita ussurica Ustjuzhanin, 1999: 2 (holotype – ♂, Russia: Primorsky Krai, 20 km E of Ussuriisk, Gornotaezhnoe; in the Institute of Systematics and Ecology of Animals RAN, Novosibirsk, Russia); **syn. n.**

TYPE MATERIAL EXAMINED. *Orneodes beinongdai*: **China**: Beijing, Xiyuan, by light trap, 2.VII 1962, ♂ (holotype, slide: HSL0206), leg. Li Fasheng. *Alucita ussurica*: **Russia**: Primorsky Krai, 20 km E of Ussuriisk, Gornotaezhnoe, 11.VI 1983, ♂ (holotype), leg. S.Yu. Sinev. Paratypes: same locality as the holotype, 12.VII 1982, 1♂, leg. S.Yu. Sinev; 11.VI 1983, 1♂, leg. S.Yu. Sinev; 8.VII 1990, 1♀, leg. Usjuzhanin; Kamenushka, 12.VII 1990, 1♂, leg. Ustjuzhanin and Zakharov); Kedrovaya Pad' Reserve, light trap, 14-15.VII 1984, 1♂, 2♀, leg. Lvovsky; the same locality, 11- 25.VII 1998, 2♂, 1♀, leg. S.Yu. Sinev; Ananevka River headwaters, 7.VII 1982, 1♂, leg leg. S.Yu. Sinev.

DESCRIPTION. (*Orneodes beinongdai* after Yang, 1977; translated here from Chinese to English). "Body length about 3 mm. Wingspan about 10 mm, small size and light color. Body silver white. Labial palpus with outer side slightly light brown at base; basal two segments long cylindrical, covered with scales; terminal segment very short. Abdomen with segment II-V light brown except white apically. All other parts colored in white including antennae and legs etc. Forewing with a column of paired small brown spots only on costa not covered the lobes; other patches and spots indistinct but the boundary between white and light brown caused by cilia visible. Hindwing sacttered with some small brown dots. Patches and spots more obvious on the underside of wing; forewing with a column of small brown spots; outerlines of median fasciae and subterminal fasciae visible".

MALE GENITALIA. Uncus tubular, terminal slightly wide; anterior margin slightly expanded laterally, with two small finger-shaped processes centrally. Gnathos strongly sclerotized, Y-shaped, arms equal to uncus in length. Tegumen simple, arched. Valva narrow; cucullus with a finger-shaped process, nearly reaching to gnathos. Anellus nearly quadrate at



Figs 4–8. *Alucita beinongdai* (Yang, 1977). 4, 5 – holotype of *A. beinongdai*, male: 4 – habitus, dorsal view; 5 – genitalia; 6–8 – *Alucita ussurica*: 6 – male, habitus, dorsal view; 7 – male genitalia; 8 – female genitalia.

arms straight, about 1.5 times of uncus in length. Vinculum banded, about 2 times of uncus in length. Saccus nearly triangular. Aedeagus straight; length equal to sum of uncus and tegumen, width nearly equal to uncus; opening of ductus ejaculatorius at middle of aedeagus.

REMARKS. The male genitalia and habitus of both taxa are completing identical, therefore a new synonymy is proposed: *Alucita beinongdai* (Yang, 1977) = *Alucita ussurica* Ustjuzhanin, 1999, **syn. n.**

DISTRIBUTION. China (Beijing), Russia (Primorsky Krai).

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