

## ***Pterophorus poculidactyla* sp. n. from the Altai Mountains (Lepidoptera: Pterophoridae)**

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Nupponen, K. & Nupponen, T. 2001: *Pterophorus poculidactyla* sp. n. from the Altai Mountains (Lepidoptera: Pterophoridae). — Entomol. Fennica 12: 50–52.

*Pterophorus poculidactyla* sp. n. is described from the Altai Mountains. Two male specimens were collected by net in late June 2000 on an alpine meadow at an elevation of 2500 m. The new taxon is a close relative to *P. volgensis* (Möschler, 1862) and *P. taklamakanus* (Arenberger, 1995) but differs from both these species externally and by details in the male genitalia.

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*Received 3 November 2000, accepted 31 January 2001*

In late June 2000, two specimens of a small, dark pterophorid moth were collected from the Kurai region in the SE Altai Mountains. The taxon belongs to the genus *Pterophorus*, based on the forewing veins R1, R2 and R3 fused with vein R4, external appearance of the moth and details in the male genitalia such as a robust, moderately short sacculus process and a very long, curved aedeagus. Externally it resembles *P. volgensis* (Möschler, 1862) and *P. taklamakanus* (Arenberger, 1995), the former known from the south-eastern part of the European Russia and the latter by a single specimen from Tibet (Arenberger 1995). However, the male genitalia of the Altaian specimens are clearly different from those of closely related species. The new taxon is described in this paper.

### ***Pterophorus poculidactyla* sp. n.**

*Type material.* Holotype: ♂ (Fig. 1): Russia, Altai Mountains, 50°16–20'N 87°50–55'E, 2500 m, Kuraisky hrebet, 27.VI.2000, T. & K. Nupponen leg. Genitalia slide: K. Nupponen prep. no. 1/

28.X.2000. In coll. T. & K. Nupponen. Paratype: 1 ♂ Same data as holotype. In coll. T. & K. Nupponen. The type specimens can be loaned by request through the Finnish Museum of Natural History, University of Helsinki or directly from the authors.

*Diagnosis.* Externally *P. poculidactyla* sp. n. resembles *P. volgensis* and *P. taklamakanus*, but differs from both these species by its smaller size and darker coloured forewings, as well as by the location of the whitish spots on the fringe of the forewing. In the male genitalia the cup-shaped uncus is characteristic, much more broad than that of other closely related taxa. Valvae of *poculidactyla* are distally more tapered than those of *volgensis* and *taklamakanus*, and sacculus is more developed. The sacculus process of *poculidactyla* is distally broader, longer than in *taklamakanus* and slightly shorter than in *volgensis*. The costal process of *poculidactyla* is more robust and different shaped than that of the two other taxa, and the sclerotized part of tegumen is narrower.

*Description.* Wingspan 14 mm. Forewing fuscous; scattered whitish grey scales exist all over wing, more numerous in apical half; fringe

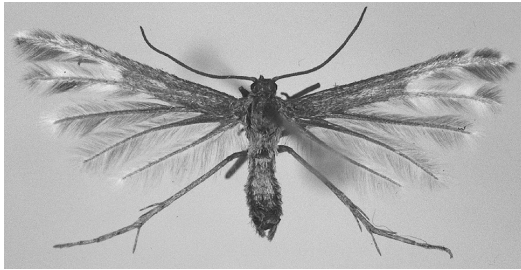


Fig. 1. *Pterophorus poculidactyla* sp. n., holotype.

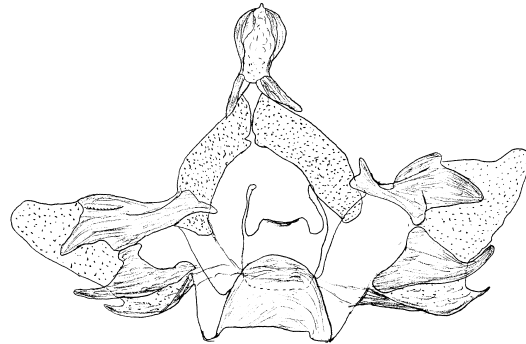


Fig. 2. Male genitalia (without aedeagus) of *P. poculidactyla* sp. n. (holotype).

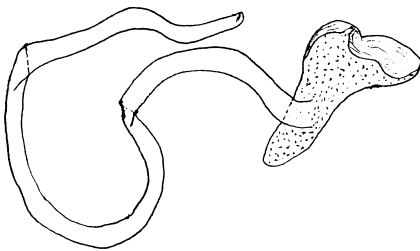


Fig. 3. Aedeagus of *P. poculidactyla* sp. n. (holotype).



Fig. 4. The habitat of *P. poculidactyla* sp. n.

brownish with following white spots: in 1st forewing lobe costally at 2/3 from base and at apex, dorsally at base and at 1/2; in 2nd forewing lobe costally from base to 3/4 with indistinct darker area at 1/2, dorsally at base and at 4/5; additional whitish spot at middle of dorsal margin. Hindwing fuscous; fringe brownish, paler at apex; on underside of 2nd hindwing lobe row of blackish brown bristled scales from base to 0.5. Head, antenna, thorax and legs fuscous, legs paler on inner surface. Labial palps fuscous, segment 1 slightly paler. Abdomen fuscous with scattered whitish grey and a few blackish scales; anal tuft paler.

*Male genitalia* (Figs. 2–3). Slightly asymmetrical. Valvae broad, tapering towards rounded apex; costal margin slightly concave at distal 1/4. Right valva basally broader and distally narrower than left one. Sacculus 1/3 length of valva, tapered, tip pointed. Saccular process basally broad, tapered, distal half moderately narrow, bent; left saccular process more evenly tapered than right one. Costal process broad, subtriangular, tip more or less pointed. Uncus cup-shaped, distally with small, pointed process. Socii rather narrow, straight, anteriorly tapered. Tegumen symmetrical, sclerotized part of equal width. Saccus ro-

bust, crescent-shaped. Anellus broad, subquad-rangular; arms of equal length, slightly asymmetrical. Aedeagus long, more than 2× length of valva, strongly curved, basally enlarged and more sclerotized, cornuti absent.

*Female genitalia*. Unknown.

*Bionomy*. The specimens were collected by sweeping on the low vegetation in the afternoon sunshine. They were caught within one minute, but trials to find further specimens were not successful. The biotope was an alpine meadow with rich flora on a rather steep southern slope at an elevation of 2500 m (Fig. 4). The adults were in flight at the end of June. The host plant remains unknown.

*Distribution*. Russia (SE Altai). Only known from the type locality.

*Etymology*. Lat. *poculum* = cup. From the cup-shaped uncus in the male genitalia, a characteristic detail separating *poculidactyla* sp. n. from closely related taxa.

*Remarks.* Systematically *P. poculidactyla* sp. n. forms a subgroup in the genus *Pterophorus* together with *P. volgensis* and *P. taklamakanus* (see K. Nupponen & Ahola 2001). The characteristics for this subgroup are a very long, strongly curved aedeagus and well developed costal process of valvae in the male genitalia, as well as the external appearance of the moths.

## Discussion

*S. poculidactyla* sp. n. seems to have an early flight period, as there was still snow in several places in the habitat at an elevation of 2800 m during the capture date. It is quite possible that the larva feeds early in the spring like *P. volgensis*. There are numerous host plant candidates occurring in the locality, but the two collected moths were not clearly connected to any certain plant. In general, the host plants of *Pterophorus* larvae are poorly known. However, *P. volgensis* was recently reared

on *Rindera tetraspis* (Pallas) (K. Nupponen & Ahola 2001). This plant was absent in the habitat of *P. poculidactyla*, but there were present some other plants belonging to the family Boraginaceae.

*Acknowledgements.* We thank Dr. Vladimir Olschwang (Ekaterinburg, Russia) and Mr. Alexander Malozemov (Ekaterinburg, Russia) for organizing the Altai expedition. Our thanks are also due to our driver, Mr. Eugenij Shazukevich (Barnaul, Russia) for valuable assistance during the trip. Finally, we thank Mr. Kimmo Silvonen (Espoo, Finland) and Mr. Bo Wikström (Nummela, Finland) for their help in processing the photographs.

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