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## TWO NEW SPECIES OF THE GENUS *HELLINSIA* TUFF, 1905 (LEPIDOPTERA: PTEROPHORIDAE) FROM SOUTH AFRICA

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**Summary.** Two new species, *Hellinsia karinupponeni* Kovtunovich, Ustjuzhanin et Pototski, **sp. n.** and *Hellinsia ristoi* Kovtunovich, Ustjuzhanin et Pototski, **sp. n.**, are described from the Northern Cape and Western Cape provinces of the Republic of South Africa, respectively. Holotypes of both species are deposited in the Estonian University of Life Sciences, Tartu.

**Key words:** plume moths, taxonomy, new species, Republic of South Africa.

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Два новых вида рода *Hellinsia* Tuff, 1905 (Lepidoptera: Pterophoridae) из  
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**Резюме.** Из Южно-Африканской республики описаны два новых для науки вида: *Hellinsia karinupponeni* Kovtunovich, Ustjuzhanin et Pototski, **sp. n.** (Северо-Капская провинция) и *Hellinsia risto*i Kovtunovich, Ustjuzhanin et Pototski, **sp. n.** (Западно-Капская провинция). Голотипы обоих видов хранятся в Эстонском университете биологических наук в Тарту.

## INTRODUCTION

The genus *Hellinsia* Tutt, 1905 is one of the most numerous in South Africa, currently there are 18 species in it. Most often they prefer habitats of medium humidity, in the mountains, forest cenoses, less often in deserts. In the recent years, several species have been described from South Africa (Arenberger 2004), (Kovtunovich & Ustjuzhanin 2011), (Ustjuzhanin & Kovtunovich 2016, 2019). On the materials of the expedition to South Africa, with the participation of Finnish and Estonian entomologists K. Nupponen, R. Haverinen and A. Pototski, we found two new plume moths species of the genus *Hellinsia*, the descriptions of which are given in this article. The holotypes and part of the paratypes are deposited in the Institute of Agricultural and Environmental Sciences, Estonian University of Life Sciences, Tartu, Estonia (IZBE), the paratypes – in the Zoological Institute of Russian Academy of Science St. Petersburg (ZISP), and the Collection by P. Ustjuzhanin and V. Kovtunovich (CUK).

## DESCRIPTIONS OF NEW SPECIES

### ***Hellinsia karinupponeni* Kovtunovich, Ustjuzhanin et Pototski, sp. n.**

<http://zoobank.org/NomenclaturalActs/86353D50-31BF-4A18-9074-6D2E71CF5EFE>

Figs 1–3

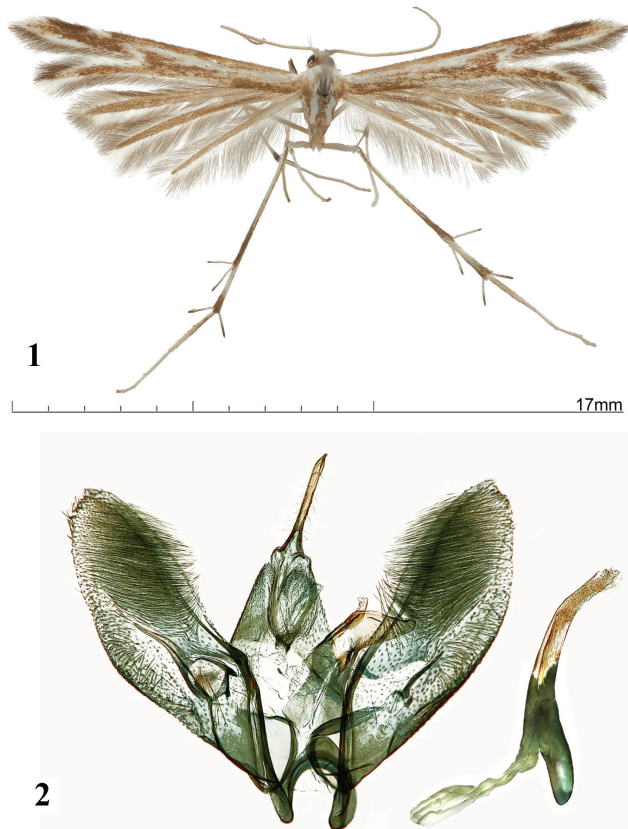
**TYPE MATERIAL.** Holotype – ♂ (gen. pr. No. 220301, IZBE), **South Africa:** Northern Cape prov., Bokkeveld Mts., Vanrhynspas, 9 km W of Nieuwoudtville, 31°22' N, 19°01' E, h=755m, 30.XI 2016, leg. K. Nupponen, R. Haverinen, A. Pototski (IZBE).

**DESCRIPTION.** Male. Head, thorax and tegulae with light-brown and white hairs. Labial palpi white, thin, straight, equal to the eye diameter in length. Antennae light grey. Wingspan 17 mm. Fore wing mottled, with white longitudinal stripe medially. Transverse elongated white spot at cleft base. Costal margin of fore wing light brown basally and medially, with alternating white and dark brown portions distally. Inner margin of first lobe white. Fringe inside cleft brown, only basally lightened with white hairs. Fringe along outer margin of wing light-brown. Hind wings and their fringe unicolorous, light-brown. Hind legs light-grey, spur bases darkened with dark brown scales. Spurs white with dark tips.

Male genitalia. Valves asymmetric. Saccular process on left valve relatively short, reaches middle of its length, basally wide, distally narrowing, apically acute. Saccular process on right valve thin, short, located in its basal part. Sacculus narrow, reaches

middle of valve in length. Uncus narrow, long, apically acute. Saccus concave, arched. Anellus arms asymmetric, left one narrow with beak-like apex, right one very wide with bluntly rounded apex. Aedeagus slightly concave, a little shorter than valve in length, without cornuti.

Female unknown.



Figs 1, 2. *Hellinsia karinupponeni* sp. n., holotype. 1 – adult male, dorsal view; 2 – male genitalia (gen. pr. No. 220301, IZBE).

**DIAGNOSIS.** In the male genitalia the new species resembles *Hellinsia sphenites* (Meyrick, 1913), from which it differs in the narrow long uncus, the short saccular process on the left valve and the longer and concave aedeagus, while in *H. sphenites* the uncus is significantly wider, the saccular process on the left valve is long, hardly not reaching the top of the valve, and the aedeagus is short and less concave.

**DISTRIBUTION.** South Africa: Northern Cape.

**HABITAT.** This new species was collected in the mountain meadow with bushes in November (Fig. 3).

ETYMOLOGY. The species is named in memory of the prominent Finnish entomologist Kari Nupponen (15.01.1962 – 02.12. 2021), the author of numerous works on Lepidoptera, a participant of the expedition to the South Africa, whose collected materials were included in this article.



Fig. 3. Type locality of *Hellinsia karinupponeni* sp. n.

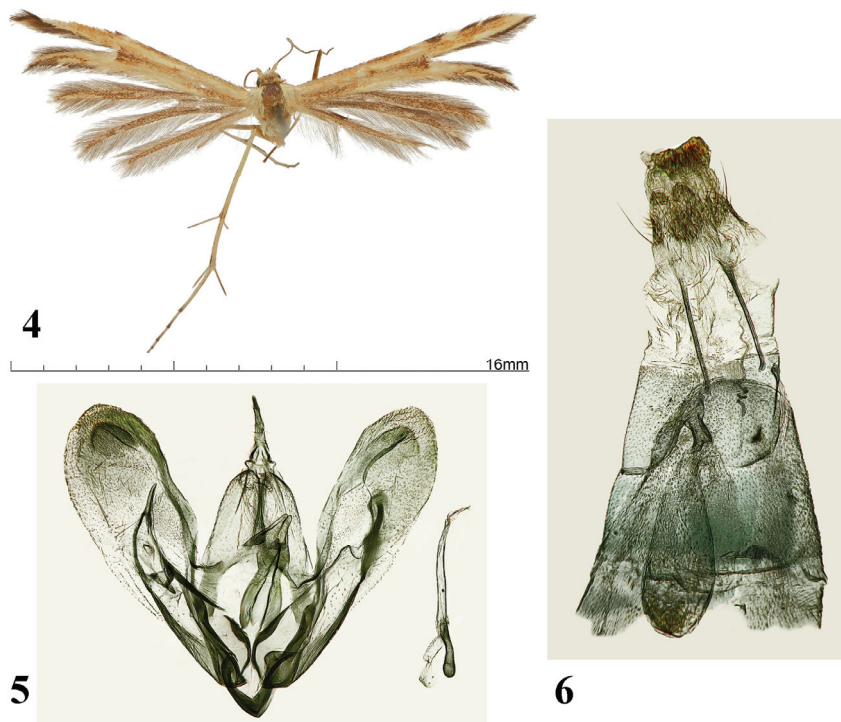
***Hellinsia ristoï* Kovtunovich, Ustjuzhanin et Pototski, sp. n.**

<http://zoobank.org/NomenclaturalActs/0FBDA70E-30AD-40B3-B9C8-D8DFEB8A9361>

Figs 4–7

TYPE MATERIAL. Holotype – ♂ (gen. pr. No. 220302, IZBE), **South Africa**: Western Cape prov., Kleinmond Nature Reserve, 34°19' N, 18°59' E, 22.XI 2016, leg. K. Nupponen, R. Haverinen, A. Pototski (IZBE). Paratypes: same data as holotype, 3 ♀ (1 ♀, gen. pr. No. 220303, IZBE ) + 2 ex. (without abdomens) (IZBE, ZISP, CUK); Western Cape prov., Outeniqua Mts., 32 km SSW of Oudtshoorn, 33°52' N, 22°02' E, h= 832 m, 02.XII 2016, 1 ♀, leg. K. Nupponen, R. Haverinen, A. Pototski (CUK).

DESCRIPTION. Male and female. Head with light-brown hairs, thorax and tegulae yellowish brown. Labial palpi thin, straight, dark brown, in length equal to longitudinal eye diameter. Antennae striated, with alternating dark brown and white segments. Wingspan 13–16 mm, (holotype – 16 mm). Fore wings yellowish brown. Before cleft – relatively wide dark-brown spot, gradually narrowing as ray and ending with small dark dot in medium part of wing. Longitudinal portions of brown scales along costal margin of first lobe. Inner margin of first lobe and its apical part yellow. Second lobe apically dark brown, with acute tip. Fringe inside cleft dark brown. Hind wings slightly darker than fore wings, unicolorous, brown-grey. Hind legs yellow.



Figs 4–6. *Hellinsia ristoi* sp. n. 4 – adult female, paratype, dorsal view; 5 – male genitalia of holotype (gen. pr. No. 220301, IZBE); 6 – female genitalia (gen. pr. No. 220303, IZBE).

Male genitalia. Valves asymmetric. Saccular process on left valve extend beyond its middle, basally wide, apically narrowing and acute. Saccular process on right valve stick-like, short, located in medium part of valve. Sacculus narrow, hardly reaching middle of valve length. Uncus narrow, short, apically acute. Saccus convex. Anellus arms narrow, approximately equal in length and width. Aedeagus thin, almost straight, 1.5 times shorter than valve, without cornuti.

Female genitalia. Papillae anales short, triangular. Posterior apophyses straight, apically slightly extended, bent. Anterior apophyses thin, significantly more narrow than posterior. Antrum relatively short, tubulate. Ductus short, immediately passing into elongated oval bursa copulatrix. Ductus seminalis relatively wide, slightly shorter than bursa copulatrix. No signa.

DIAGNOSIS. In the male genitalia, in the shape of the saccular process on the right valve and the saccus, the new species is similar to *Hellinsia bidzilya* Ustjuzhanin et Kovtunovich, 2019, but clearly differs in the saccular process on the left valve and the wider valves. Additionally, the aedeagus of the new species is thinner and 1.5 times shorter than valve, while in *H. bidzilya* the aedeagus is significantly thicker and equal to the valve in length.

DISTRIBUTION. South Africa: Western Cape.

HABITAT. The new species was found in the mountain meadows in November – December (Fig. 7).

ETYMOLOGY. The new species is named after Risto Haverinen, the Finnish entomologist-lepidopterologist, a participant of the expedition to the South Africa.



Fig. 7. Type locality of *Hellinsia risto* sp. n.

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