

NEW SPECIES OF PLUME MOTHS OF THE GENUS *AGDISTIS* HÜBNER, 1825
(LEPIDOPTERA: PTEROPHORIDAE: AGDISTINAE) FROM SOUTHERN AFRICA. 3

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[Ковтунович В.Н., Устюжанин П.Я. Новые виды пальцекрылок рода *Agdistis* Hübner, 1825 (Lepidoptera: Pterophoridae, Agdistinae) из Южной Африки. Сообщение 3]

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Ключевые слова: *Pterophoridae, Agdistis, пальцекрылки, Южная Африка, новые виды.*

Summary. Three new species of plume moths are described from South Africa: *Agdistis mostovskii* sp.n., *A. violaceus* sp. n. and *A. gornostaevi* sp.n.

Резюме. Описываются три новых видов пальцекрылок из Южной Африки: *Agdistis mostovskii* sp.n., *A. violaceus* sp. n., *A. gornostaevi* sp.n.

INTRODUCTION

The present communication is the third part (the previous parts were published in AZJ V. I (1, 3) [Kovtunovich, Ustjuzhanin, 2009 a; Kovtunovich, Ustjuzhanin, 2009 b]) of our study of South-African *Agdistis*. The work is based on the materials collected by the authors and their colleagues entomologists during the field trip in October 2009. The study of our materials along with the collections of Natural History Museum, London (BMNH) and Transvaal Museum, Pretoria (TM), have revealed three new species of the genus *Agdistis*. Holotypes of the newly described species are kept in the Natural History Museum (BMNH); paratypes are kept in the Transvaal Museum (TM) and in the private collection of the authors (Col. Ust.& Kovt., Russia, Novosibirsk, Moscow).

Agdistis mostovskii sp. n.

Material examined: – **Holotype:** male, BMNH, gen. pr. 22843, S. Africa Rep., Western Cape, 10 km S of Laingsburg, S 33°15' E 20°49', h 700 m, 09.10.2009, leg. Ustjuzhanin P. & Kovtunovich V. **Paratype:** 25 ♂♂, 4 ♀♀, same data as holotype; 20 ♂♂, 10 ♀♀, S. Africa Rep., Northern Cape, 5 km SE of Springbok, Koperberg farm, S 29°42' E 17°55', h 760 m, 03-04.10.2009, leg. Kovtunovich V. & Ustjuzhanin P.; 17 ♂♂, 32 ♀♀; Northern Cape, 40 km SW of Springbok, Namaqua N.P., History Prison, S 29°53' E 17°39', h 320 m, 07.10.2009, leg. Ustjuzhanin P. & Kovtunovich V.; 2 ♂♂, S. Africa, Springbok, 9 km South of 18-20.10.1954, A.J.T. Janse; 1 ♂, [S. Africa, Northern Cape], Richtersveld, 25.10.1955, leg. H.K. Munro; 1 ♂, S. Africa, Richtersveld, Holgat camp, 28°56'S 16°47'E, 06.10.1976, E-Y: 1266 black light coll. leg. Endrody-Younga.

External characters. Holotype: Forewing length (holotype) 13 mm. Wingspan 20-29 mm, in holotype - 27 mm. Forewing grayish brown; three black streaks in a row are in middle part of wing. Costal margin of forewing

paler. Hindwing grey without markings (col. pl. I: 4, 5).

Male genitalia. Valvae asymmetrical. Left valva narrower than right one, slightly narrowed to apex. Costal process almost twice shorter than valva, strongly widened in middle part, tapering to apex. Right valva wide, its outer part with oval-shaped incision. Costal process clearly sclerotized at upper margin; lower part of process is broad membrane. Apex sharply curved and tapered (col. pl. I: 6). Uncus clavate, slightly bifid at apex. Sternite VIII with shallow oval-shaped incision, its lobes with clear incisions as well. Aedeagus rather short, curved at base almost at right angle.

Female genitalia. Apophyses posteriores long and slender. Antrum short and wide, tube-shaped. Lamina vaginalis at VII sternite broad, lengthened, with shallow incision at apex, with two long icicle-shaped cords at edges. Ductus relatively long, poorly sclerotized, gradually progressing into large oval-shaped bursa copulatrix (col. pl. I: 7).

Differential diagnosis. In the male genitalia, by the shape of the valvae, uncus and VIII sternite resembles *Agdistis anikini* Kovtunovich & Ustjuzhanin, but differs clearly with the morphology of the valvae costal processes and the aedeagus. In the female genitalia resembles *Agdistis kevtucki* Kovtunovich & Ustjuzhanin by the shape of lamina vaginalis at VII sternite with two long icicle-shaped cords, differing well with the short and broad antrum, longer ductus and lengthened lamina vaginalis.

Flight period: October.

Distribution: South Africa: Western and Northern Cape.

Etymology. The species is named after well-known Russian entomologist Mike B. Mostovski, who works presently in SAR (Pietermaritzburg, Natal Museum). Dr. Mostovski kindly helped us to visit SAR museums and organized a number of field trips.

Agdistis violaceus sp. n.

Material examined: **Holotype:** male, BMNH, gen. pr.

№.22841. S. Africa Rep., Western Cape, 10 km S of S 33°15' E 20°49', h 700 m, 09.10.2009, leg. Kovtunovich V. & Ustjuzhanin P. **Paratype:** - same data as holotype, 1 ♀ BMNH № 22842, 1 ♀, 3 ♂♂; 10 ♂♂, 9 ♀♀, S. Africa Rep., Northern Cape, 5 km SE of Springbok, Koperberg farm, S 29°42' E 17°55', h 760 m, 03-04.10.2009, leg. Kovtunovich V. & Ustjuzhanin P.

External characters. Holotype: Forewing length (holotype) 15 mm. Wingspan 28-32 mm, in holotype - 32 mm. Forewing gray with violet shade. Three dark dots situated in a row in discal part of wing. Small but clear dark strikes are at costal margin. Hindwing uniformly grey with violet shade (col. pl. I: 8, 9).

Male genitalia. Valvae asymmetrical. Left valva narrower than right one, sharply narrowing to apex. Outer part of right valva concave and obliquely cut; its costal edge narrow and attenuated. Costal processes of both valvae symmetrical, reach beyond middle of valva, with shoe-like widening at apex. Uncus clavate, with ear-like projections at apex. Sternite VIII with shallow oval-shaped incision, its lobes rather short and broad. Aedeagus short, almost straight (col. pl. I: 10).

Female genitalia. Apophyses posteriores slender, rather long. Antrum wide and short, tube-shaped. Lamina vaginalis at VII sternite triangular, large and lengthened, with hardly visible incision at apex. Two straight cords at its edges. Ductus short, membranous, sharply progressing into lengthened oval-shaped bursa copulatrix (col. pl. I: 11).

Differential diagnosis. In the male genitalia, by the shape of valvae and uncus is close to *Agdistis krüegeri* Kovtunovich & Ustjuzhanin, differing with rounded apex of the right valva and sclerotized cord in its lower part, which ends before the apex of the valva. In *Agdistis krüegeri* the apex of right valva is concave, the sclerotized cord ends at the apical part of valva. The new species resembles also *Agdistis eberti* Arenberger [Arenberger, 2009] by the shape of the left valva, but differs well by the morphology of right valva and uncus.

Flight period: October.

Distribution: South Africa: Western and Northern Cape.

Etymology. Violaceus from Latin: "violet".

Agdistis gornostaevi sp. n.

Material examined: Holotype: male, BMNH, gen. pr. №.22845, S. Africa Rep., Western Cape, 10 km S of Laingsburg, S 33°15' E 20°49', h 700 m, 09.10.2009, leg. Kovtunovich V. & Ustjuzhanin P. **Paratype:** same data as holotype, 1 ♀ BMNH № 22846, 8 ♂♂, 9 ♀♀; 1 ♀, S. Africa Rep., Northern Cape, 40 km SW of Springbok, Namaqua N.P., History Prison, S 29°53' E 17°39', h 320 m, 07.10.2009, leg. Ustjuzhanin P. & Kovtunovich V.; 5 ♂♂, S. Africa Rep., Northern Cape, Tankwa-Karoo N.P., S 32°18' E 19°53', h 450 m, 08.10.2009, leg. Kovtunovich V. & Ustjuzhanin P.

External characters. Holotype: Forewing length (holotype) 12,5 mm. Wingspan 20-29 mm, in holotype - 27 mm. Forewing gray with four dark dots: three dots situated in a row in discal part of wing, and fourth one at costal margin closer to apex. Hindwing uniformly grey (col. pl. I: 1).

Male genitalia. Valvae almost symmetrical, only its apices differ in shape. Apex of left valva widened, resembles a fish fin by shape. Costal processes with wide serrated comb

reaches middle of valva, narrowing to apex. Apex of right valva rounded and Outer part of right valva concave and obliquely cut; its costal edge narrow and aimed downward. Costal processes of right valva although with wide serrated comb, but rounded at apex. Uncus beak-shaped, its basal part visibly separated from distal one, apex curved and pointed. Sternite VIII with shallow oval-shaped incision, its lobes rather narrow. Aedeagus short, curved (col. pl. I: 2).

Female genitalia. Apophyses posteriores slender, rather short. Antrum rather wide, tube-shaped. Lamina vaginalis at VII sternite small, wide, with incision at apex. Two rather long cords at its edges. Ductus short, wide, ruffled, gradually progressing into oval-shaped bursa copulatrix (col. pl. I: 3).

Differential diagnosis. In the male genitalia, by general morphology belongs to the group of species: *Agdistis namibiana* Arenberger, [Arenberger, 1988], *Agdistis lomholdti* Gielis, [Gielis, 1990], *Agdistis eberti* Arenberger, [Arenberger, 2009], *Agdistis krüegeri* Kovtunovich & Ustjuzhanin, [Kovtunovich & Ustjuzhanin, 2009a], differing from each one with different characters. From *A. namibiana* Arenberger differs with the shape of uncus; from *A. lomholdti* Gielis with absence of spike at outer part of left valva; from *A. eberti* Arenberger with the shape of aedeagus and with apex of right valva; from *A. krüegeri* Kovtunovich & Ustjuzhanin with the shape of uncus and costal process of the right valva.

Flight period: October.

Distribution: South Africa: Western and Northern Cape.

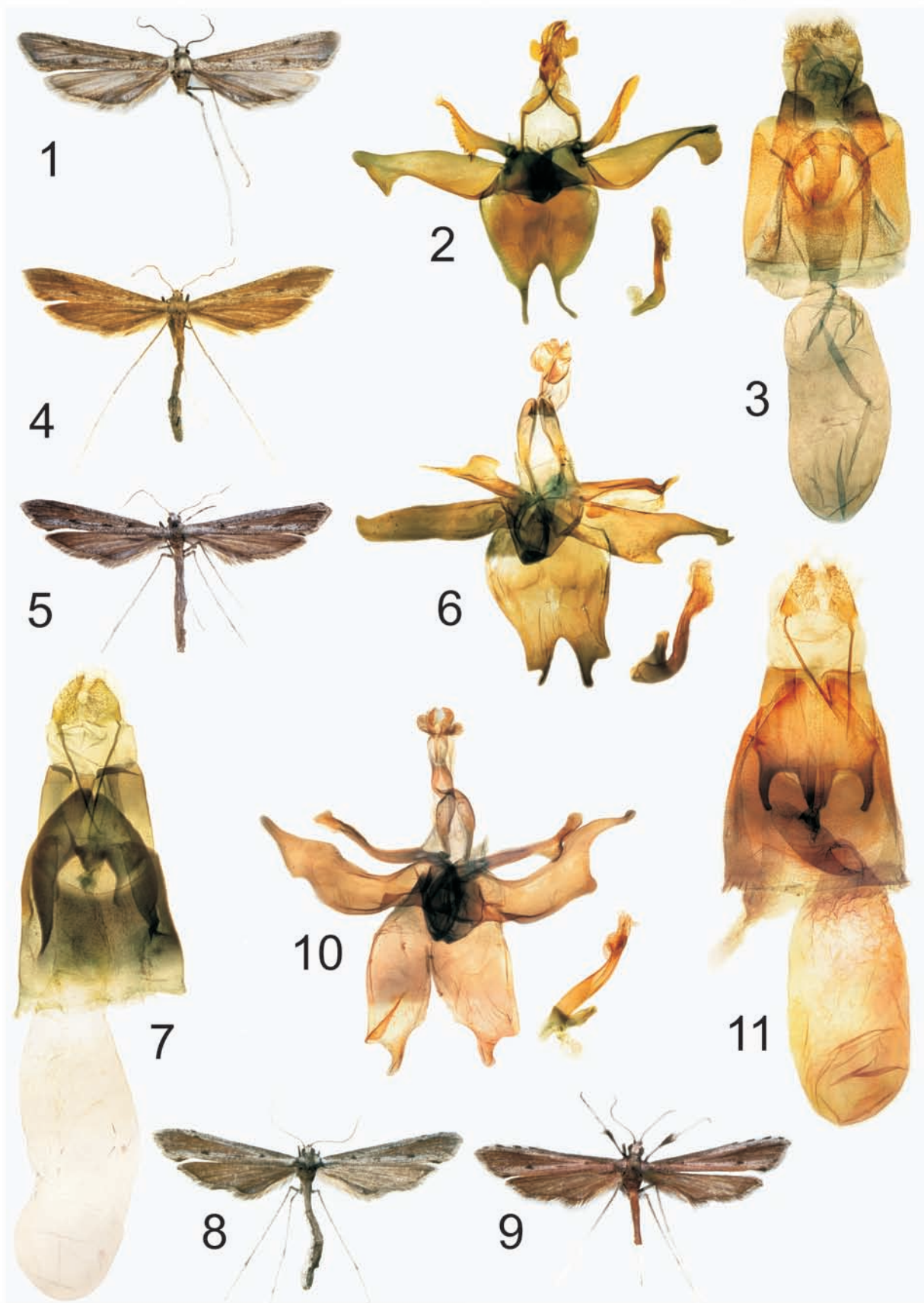
Etymology. The species is named in memory of famous Russian entomologist German Nikolaevich Gornostaev (Moscow University, Russia).

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New species of plume moths of the genus *Agdistis* from Southern Africa: 1-3 – *Agdistis gornostaevi* sp. n.; 4-7 – *Agdistis mostovskii* sp. n.; 8-11 – *Agdistis violaceus* sp. n. 1, 4, 8 – male; 5, 9 – female; 2, 6, 10 – male genitalia; 3, 7, 11 – female genitalia.

Новые виды пальцекрылок рода *Agdistis* из Южной Африки: 1-3 – *Agdistis gornostaevi* sp. n.; 4-7 – *Agdistis mostovskii* sp. n.; 8-11 – *Agdistis violaceus* sp. n. 1, 4, 8 – самец; 5, 9 – самка; 2, 6, 10 – гениталии самца; 3, 7, 11 – гениталии самки.