

About the generic membership of *Hadena decipiens* ALPHÉRAKY, 1895

(Lepidoptera, Noctuidae)

by

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Abstract: The generic membership of *Hadena decipiens* ALPHÉRAKY, 1895 is discussed, and a new combination, *Calamia decipiens* (ALPHÉRAKY, 1895) **comb. nov.** is established.

Hadena decipiens ALPHÉRAKY, 1895 was described from the Hangay Mountains in Northern Mongolia ("Urga") and occurs in Northern Mongolia and the mountains of Southern Siberia. It was transferred to the genus *Eremobia* STEPHENS, 1829 by HAMPSON (1908). Its genitalia morphology proves its membership to the *Calamia* genus-group, which belongs to the tribe Apameini BOISDUVAL, 1828.

Later, POOLE (1989) and KONONENKO (2005) reported it as a member of the genus *Eremobia* (the authors were right when considering it to be close to the *Calamia* genus-group, as the genus *Eremobia* was treated incorrectly [being well isolated and forming its own genus-group (ZILLI & al., 2005), it included species from the *Calamia* genus-group, e.g. *deccerti* (HAMPSON, 1908)]. As a member of the genus *Sidemia* the given species was reported by VARGA (1982) and GYULAI & RONKAY (1999), and was mistakenly attributed to the genus *Phoebophilus* STAUDINGER, 1888 (KOZHANCHIKOV, 1923; KLJUTSHKO, 1992; VOLYNKIN, 2007) owing to its external resemblance with several species of the genus [e.g. *Ph. amoenus* STAUDINGER, 1888 (col. pl. 1: 6)], that truly belongs to the tribe Dypterygiini FORBES, 1954 (FIBIGER & HACKER, 2007).

According to fundamental works of ZILLI & al. (2005) and ZILLI et al. (2009) the *Calamia* genus-group includes following genera: *Sidemia* STAUDINGER, 1892, *Hampsonicola* RONKAY, ZILLI & FIBIGER, 2009 (repl. name of *Hedina* RONKAY, ZILLI & FIBIGER, 2005), *Calamia* HÜBNER, [1821], *Crypsedra* WARREN, 1911 and *Staurophora* REICHENBACH, 1817. ZILLI & al. (2005) give lists of all palearctic members of the genus-group, however "*Eremobia decipiens*" is missed. Genitalia study of "*Eremobia decipiens*" as well as other members of the *Calamia* genus-group, inhabiting Southern Siberia, has proved its undoubted membership to the genus *Calamia*.

Calamia decipiens (ALPH.) **comb. nov.** and *Calamia tridens* (HUFNAGEL, 1766) (figs. 1-2; col. pl. 1: 1-2) are similar in genitalia morphology, which, according to our research, makes the hybridization between the two species possible in spite of a month difference in their flight periods: *C. tridens* (HUFN.) flies from the end of July till the end of August, and *C. decipiens* (ALPH.) is on the wings from the end of August till the end of September. The hybrid, found in the Altai, has the wings' shape and the pattern similar to those of *C. decipiens* (ALPH.), when the colouration of its wings is green as in *C. tridens* (HUFN.) (col. pl. 1: 3). Genitalia structure of this specimen is very similar to that of *C. tridens* (HUFN.) (fig. 3).

***Calamia decipiens* (ALPHÉRAKY, 1895) **comb. nov.** (figs. 4, 6; col. pl. 1: 4-5)**

Hadena decipiens ALPHÉRAKY, 1895, Dt. Ent. Z. Iris 8: 193 (type-locality: N. Mongolia, Hangai Mts. ("Urga")).

Synonymy:

Phoebophilus sajanus A. BANG-HAAS, 1906, Dt. Ent. Z. Iris 20: 133, pl. 5: 8 (type-locality: E. Sayan Mts., Munku-Sardyk Range («Sajan, Munku»)).

Imago Redescription: Labial palps slender, with short third segment. Proboscis well-developed. ♂ antenna finely biserrate with fasciculate cilia. Head, thorax and abdomen are dark, grey or brownish grey. Thorax has sparse white scales. Ground colour of forewing dark, grey or brownish-grey. Subbasal line strongly wavy, white, ending before it reaches the anal margin of the wing. Crosslines are wavy, white. Subterminal line white, broken. Terminal line blackish, interrupted at veins. Claviform stigma arcuate, white-bordered. Orbicular and reniform stigmata are the colour of the ground plan, white-bordered. Cilia grey, with white spots opposite veins. Hindwing brownish grey, with its paler medial and basal areas. Discal spot crescent-shaped, slender, obscure. Cilia brownish grey.

♂ **genitalia:** Uncus boat-shaped, though very broad. Tegumen short and wide. Vinculum rounded, U-like. Juxta shield-like. Valva narrow, elongated, subapically slightly constricted. Apical part of cucullus tapered ventrally. Corona present. Saccus apically broadly rounded from dorsal edge to almost ventral margin. Digitus short, lightly wrinkled, apically slightly acute, with two short ventral processes. Aedeagus long, curved, dorsally membranous in a narrow patch. Carina of aedeagus with a prominent, triangular dorsal spine. Vesica globular, with a large and short subbasal cornutus; distal part of vesica curved dorsally.

♀ **genitalia:** Ovipositor short, apically acute. Antrum wide. Basal part of ductus bursae with half-cylindrical sclerotised plate. Appendix bursae short and wide. Corpus bursae elongate, tear-shaped. Signa absent.

Diagnosis: *C. decipiens* (ALPH.) is different externally from other generic members by the brownish-grey colouration of wings and a well-defined contrast pattern. ♂♂ genitalia differ from those of *C. tridens* (HUFN.) by the narrower uncus basally, the apically acute digitus, bearing a pair of ventral processes, the ventrally tapered apex of the valve and the wider and less sclerotized carina of the aedeagus. ♀♀ genitalia are well distinguished from those of *C. tridens* (HUFN.) by slenderer and longer apophyses anteriores, the sclerotized margin of the ostium bursae, convex backwards [in *C. tridens* (HUFN.) the margin of the ostium bursae is concave forwards medially], the shorter and wider ductus bursae, the larger appendix bursae, the shorter corpus bursae.

Distribution: S. Siberia (Altai Mts., Sayan Mts., Transbaikalia) (VARGA, 1982; KONONENKO, 2005; VOLYNKIN, 2007), Mongolia (VARGA, 1982; GYULAI & RONKAY, 1999).

Check list of the *Calamia* genus-group of Southern Siberia (synonymy cited after KONONENKO, 2005)

Sidemia STAUDINGER, 1892

- *spilogramma* RAMBUR, 1871 (= *christophi* ALPHÉRAKY, 1888)

Hampsonicola RONKAY, ZILLI & FIBIGER, 2009

- *deccerti* (HAMPSON, 1908) (= *pseudotrachea* KRULIKOVSKY, 1909; *deckerti* DRAUDT, 1934, missp.)

Calamia HÜBNER, [1821]

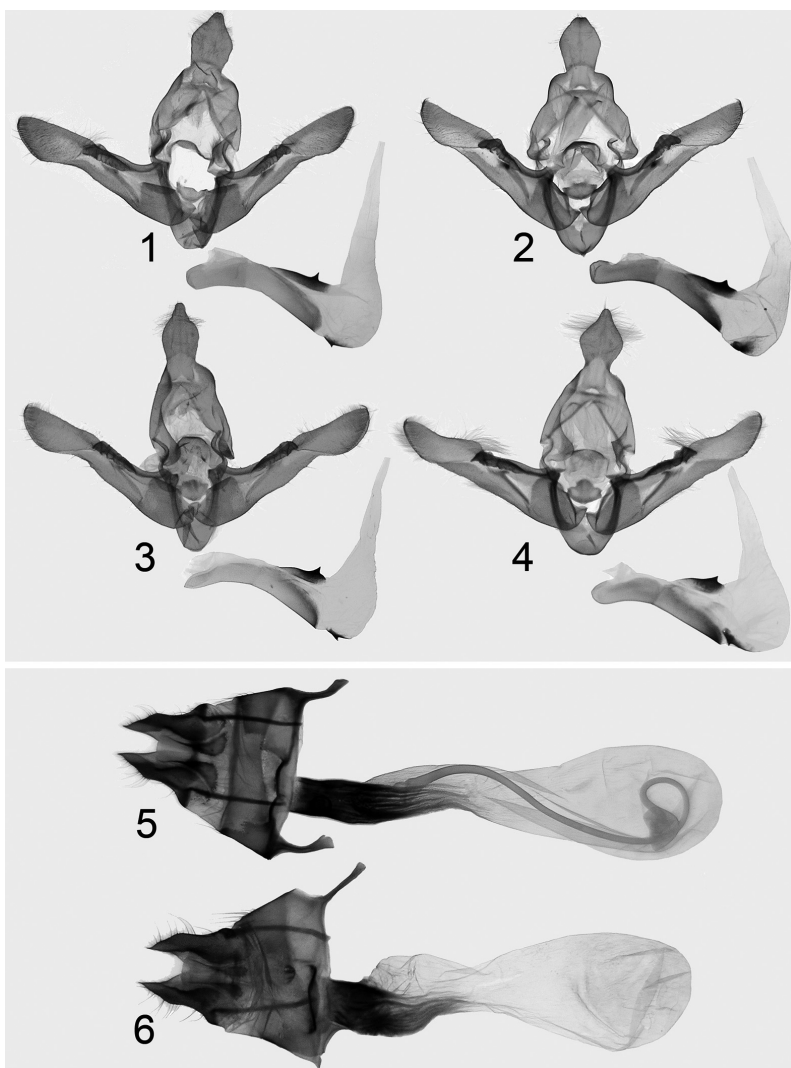
- *tridens* (HUFNAGEL, 1766)
- *decipiens* (ALPHÉRAKY, 1895) **comb. nov.** (= *sajanus* A. BANG-HAAS, 1906)
- Staurophora REICHENBACH (Leipzig), 1817
- *celsia* (LINNAEUS, 1758)

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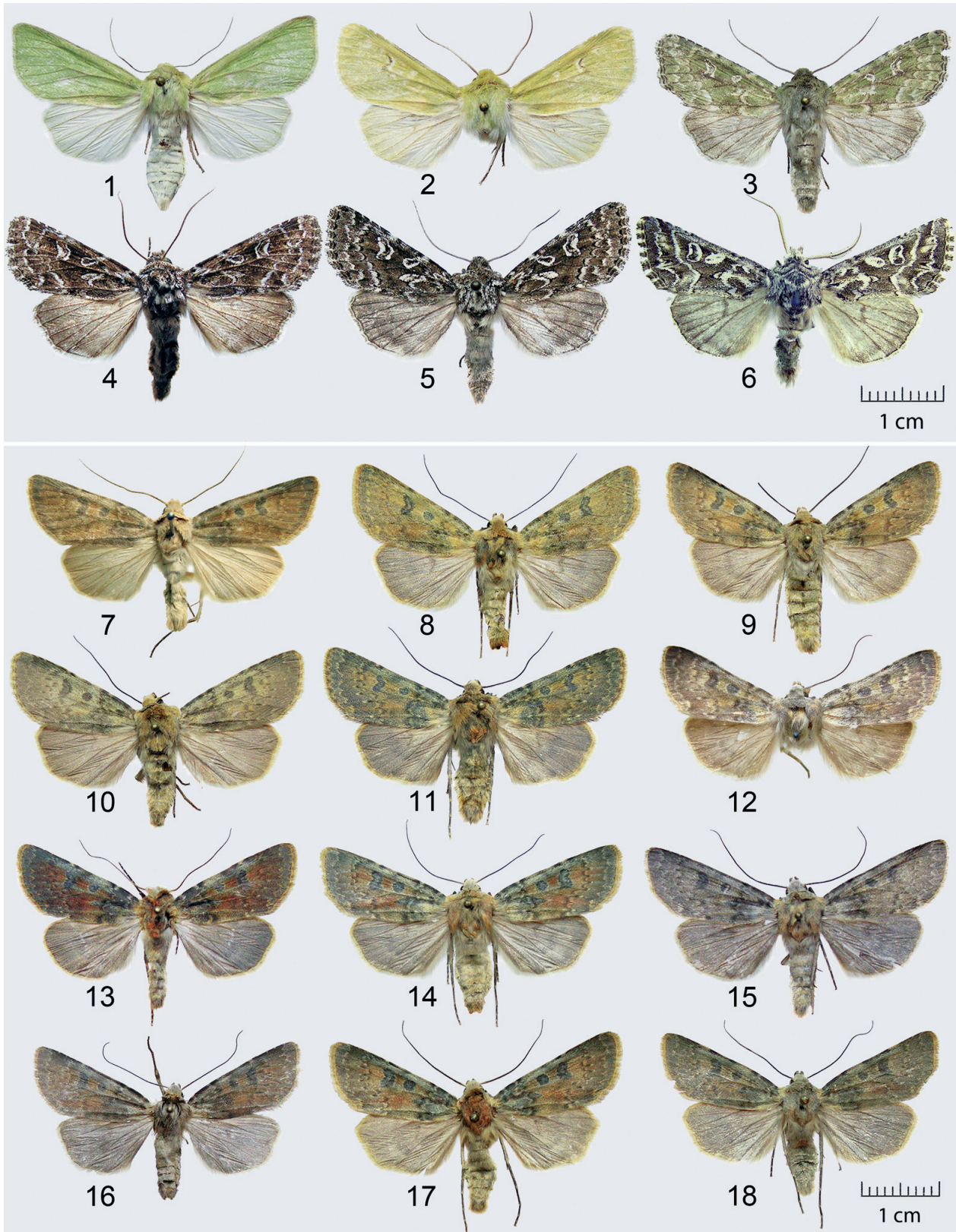


Figs. 1-6: Genitalia of *Calamia* spp. 1: *C. tridens* (HUFNAGEL, 1766), ♂, Russia, Altai Mts., Aktash vill. env., Slide AV0325 VOLYNKIN. 2: *C. tridens* (HUFNAGEL, 1766), ♂, same locality, Slide AV0468 VOLYNKIN. 3: Hybrid ♂ of *C. tridens* (HUFNAGEL, 1766) and *C. decipiens* (ALPH.), same locality, Slide AV0398 VOLYNKIN. 4: *C. decipiens* (ALPHÉRAKY, 1895), same locality, Slide AV0321 VOLYNKIN. 5: *C. tridens* (HUFNAGEL, 1766), ♀, same locality, Slide AV0467 VOLYNKIN. 6: *C. decipiens* (ALPHÉRAKY, 1895), ♀, Russia, Altai Mts., Chuya steppe, prep. VOLYNKIN.

Legend to colour plate 1, p. 233

12: *Rhyacia junonia* (STAUDINGER, 1881), ♂, 14.VII.1983, Altai, Katunsky Range, 15 km SE of Katanda, tundra, 2300 m, V. V. DUBATOLOV leg. (SZMN). **13:** *Rhyacia schistochroa* VARGA, 1973 **stat. nov.**, ♂, 13.VII.2008, Russia, Altai Republic, Kosh-Agach distr., 8 km ESE of Tashanta vill., 2690 m, tundra-steppe. On light, VOLYNKIN A. V. & NAKONECHNY A. N. leg. (AVB). **14:** *Rhyacia schistochroa* VARGA, 1973 **stat. nov.**, ♀, 13.VII.2009, Russia, Altai Republic, Kosh-Agach distr., 15 km NE of Tashanta vill., Chuya steppe, Zhalspakkoby hole, Yustyt riv. valley, l. bank of Yustyt riv., steppe, 2300 m. On light. VOLYNKIN A.V., ČERNILA M. & NAKONECHNY A.N. leg. (AVB). **15:** *Rhyacia schistochroa* VARGA, 1973 **stat. nov.**, ♂, 13.VII.2008, Russia, Altai Republic, Kosh-Agach distr., 8 km ESE of Tashanta vill., 2690 m, tundra-steppe. On light, VOLYNKIN A. V. & NAKONECHNY A. N. leg. (AVB). **16:** *Rhyacia schistochroa* VARGA, 1973 **stat. nov.**, ♀, 21.VII.2007, W. Mongolia, Bayan-Ulgij aimak, Kobdo-gol river valley 20 km SW Tsengel somon, 1800 m. Larix light forest on a steppe slope. YAKOVLEV R.V. & GUSKOVA E.V. leg. (AVB). **17, 18:** *Rhyacia schistochroa* VARGA, 1973 **stat. nov.**, ♂♂, 15.-16.VII.2010, W. Mongolia, Govi-Altai aimak, Hara-Adzragyn-Nuruu Mts., Najitvaryn-Sajr riv. valley (under stream), 1700-2000 m. 45°52'N, 95°30'E. YAKOVLEV R. V. & GUSKOVA E. V. leg. (AVB).

Colour plate 1



1: *Calamia tridens* (HUFNAGEL, 1766), ♀, 20.VII.2009, Russia, Altai Rep., Ulagan distr., Aktash vill., 1350 m, 50°19'N, 87°35'E, bottom of southern steppe stony slope, on light. VOLYNKIN A.V. leg. (coll. A. VOLYNKIN, Barnaul=AVB). 2: *Calamia tridens* (HUFNAGEL, 1766), ♂, 18.VII.2010, same locality. VOLYNKIN A.V. leg. (AVB). 3: Hybrid ♂ of *Calamia tridens* (HUFNAGEL, 1766) and *Calamia decipiens* (ALPHERAKY, 1895), ♂, 12.-21.VII.2010, same locality. VOLYNKIN A.V. leg. (coll. A. VOLYNKIN, Barnaul). 4: *Calamia decipiens* (ALPHERAKY, 1895), ♂, 6.VIII.[19]03, W. Mongolia [Russia, SE Altai, W. Tuva Rep.], Kemchik river. GR-ZHIMAILO [leg.] (coll. ZISP, St.-Petersburg). 5: *Calamia decipiens* (ALPHERAKY, 1895), ♂, 18.IX.2010, Russia, Altai Rep., Ongudai distr., Inya vill., on light. VOLYNKIN A. V. & ČERNILA M. leg. (Coll. A. VOLYNKIN, Barnaul). 6: *Phoebophilus amoenus* STAUDINGER, 1888, ♂, 21.VII.2003, Kyrgyzstan, Transalai Range, 2 km S. Tulparkel lake, N. of Pik Lenina Mt., on light. DUBATOLOV V. V. & NIKOLAEV E. V. leg. (Coll. SZMN, Novosibirsk). 7: *Rhyacia junonia* (STAUDINGER, 1881), ♂, [E. Kazakhstan, foothills of Saur Mts., Zaisan] Saisan / Coll. N. FILIPJEV (ZISP). 8: *Rhyacia junonia* (STAUDINGER, 1881), ♀, 12.-21.VIII.2010, Russia, Altai Republic, Ulagan distr., Aktash vill., bottom of southern steppe stony slope, 1400 m. 50°19'N, 87°35'E. On light-trap, VOLYNKIN A. V. leg. (AVB). 9-11: *Rhyacia junonia* (STAUDINGER, 1881), ♂♂, 12.-15.VII.2009, Russia, Altai Republic, Ulagan distr., Kuraisky range, 7 km NE of Aktash vill., tundra/talus border, 2600 m. 50°29'N, 87°36'E. On light-trap, VOLYNKIN A. V., ČERNILA M. & NAKONECHNY A.N. leg. (AVB).

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