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# The genus *Bryomima* Staudinger, 1900, with the description of four new taxa from Asia (Lepidoptera, Noctuidae)

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Abstract. Description of two new species and two new subspecies of *Bryomima* Staudinger, 1900, with 24 colour illustrations and 15 genitalia figures.

Keywords. Asia, taxonomy, Noctuidae, new descriptions.

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### Introduction

The Palaearctic taxa of the genus *Bryomima* Staudinger, 1900 are distributed from southern Turkey through Azerbaijan, Iraq, Iran and Afghanistan to Pakistan. The genus is most diverse in Iran.

## List of the Palaearctic taxa

Bryomima carducha Staudinger, 1900 (type locality: N. Mesopotamia, Turkey, Mardin)

- Bryomima carducha persicola ssp. n. (type locality: Iran, prov. Boyerahmad-va-Kohgiluyeh, SE- Zagros, 35 km SE of Yasuj)
- Bryomima dilutior Schwingenschuss, 1937 (type locality: N Iran, Elburz)
- Bryomima dilutior meridionalis ssp. n. (type locality: Iran, Fars, 7 km N of Sivand)

Bryomima rosea Brandt, 1941; (type locality: Iran, Kouh i Taftan)

Bryomima defreina Hacker, 1986 (type locality: Turkey, Hakkari)

Bryomima aviscaput sp. n. (type locality: Pakistan, Waziristan)

Bryomima vartianorum Gaal-Haszler, Lödl, Ronkay, Ronkay & Varga, 2012 (type locality: Iran, East of Kazeroun)

Bryomima avajensis sp. n. (type locality: Iran, Hamadan, Avaj Pass)

Bryomima luteosordida Osthelder, 1933 (type locality: Turkey, Marash)

Bryomima hakkariensis de Freina & Hacker, 1985 (type locality: Turkey. Hakkari, Tanin Tanin-Pass)

Bryomima eudiopsis (Boursin, 1960) (type locality: Afghanistan, Nuristan, Bashgl Valley)

Bryomima nuristana Varga & Ronkay, 1991 (type locality: Afghanistan, Pr. Kunar, Nuristan) Bryomima striata Ronkay, Ronkay, Gyulai & Hacker, 2010 (type locality: Pakistan, Kash mir).

Separation of these taxa needs careful study due to the very strong resemblance in the external features and configuration of the genitalia. In the vesica the configuration of the shape of the

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by the coverage; the position of the long cornuti may be spread out or flattened, depending on the position of the vesica tube at coverage. Hitherto, the female genitalia of most of the taxa has not been studied or published, probably because of the small differences in the structure among them.

The author dissected a large series of *Bryomima* taxa, however, due to the individual variability in both of the male and female external and genitalia features, there are still questions open to doubt in the taxonomy of *Bryomima*, as follows:

Both *Bryomima dilutior* Schwingenschuss, 1937 and *B. rosea* Brandt, 1941 were originally described as subspecies of *B. carducha* Staudinger, 1900. Later, Gaal- Haszler, Lödl, Ronkay, Ronkay & Varga (2012) validated both to species level. Since both taxa occur sympatrically in some localities in Iran, the author of the recent publication confirms this assessment. The Iranian populations of *B. carducha* are described here as a new subspecies. However, among the mostly whitish ground-coloured individuals of the Iranian *B. carducha* populations, pinkish, and pale orange-tinged individuals (in the same place and at night) also occur. From these forms, the somewhat similar, but much more local and rarer *B. rosea* can be distinguished externally by the much narrower, more uniformly coloured, and narrower middle area of the forewings, and lacking the large, dark, diffuse irregular round spot, which is typical in *B. carducha*.

The taxonomic rank of the populations of the polymorphic *B. luteosordida* Osthelder, 1933 and *B. hakkariensis* de Freina & Hacker, 1985 is also under discussion as to whether they are two distinct species having light and dark forms of both, or that all the forms belong to the same species.

The validity of *B. nuristana* Varga & Ronkay, 1991 is debatable; it can be only another population of *B. eudiopsis* (Boursin, 1960) since both taxa are described from the province of Nuristan and the two have not been compared in the original description of *B. nuristana*.

Abbreviations for personal and institutional collections used herein: HNHM= Hungarian Natural History Museum (Budapest, Hungary); MFN = Museum für Naturkunde Berlin, Germany; NHMW = Naturhistorisches Museum, Wien, Austria NRS = Naturhistoriska Riksmuseet, Stockholm, Sveden; HT = holotype; PT = paratype; BB = collection of B. Benedek (Érd, Hungary); PGM = collection of Péter Gyulai (Miskolc, Hungary); GYP = genitalia slide Péter Gyulai; RL = genitalia slide of László Ronkay; m = male; f = female.

## Description of new taxa

## Bryomima carducha persicola ssp. n. (Figs 5-8, 26, 36)

Holotype: male (Fig. 5), Iran, prov. Boyerahmad-va-Kohgiluyeh, SE- Zagros, 35 km SE of Yasuj, 2600m, 6-7. VI. 2005, leg. P. Gyulai & A. Garai, slide no. GYP 5672 (coll. PGM).

**Paratypes**: 1 m, 1 f, with the same data (PGM); 2 f, Iran, Yasug, Pr. Buyer Ahmad, Zagros Mts., 2400 m, 2005 VI. 28-30., leg. Hácz, Juhász, Petrányi (BB); 1 m, prov. Boyerahmadva-Kohgiluyeh, SE- Zagros, Yasuj, 2500m, 7-8. VII. 2006, leg.T. Hácz (PGM); 1 f, Iran, Prov. Kohgiluyeh-Boyer Ahmad, 20 km S of Yasuj, 15-19. VII. 2013, leg. O. G. Legezin (BB); 1 m, Iran, Prov. Buyer Ahmad, Zagros Mts., Yasuj, 2700 m, VII. 2006, leg. T. Hácz (BB); 1 m, prov. Boyerahmad-va-Kohgiluyeh, SE- Zagros, 15 km N of Vazag, 2350 m, 12. VI. 2007, leg.T. Hácz (PGM), 16 m, 3 f, Iran, prov. Fars, Zagros Mts., Sepidan, 1325 m, 51°58'161'' E, 30°16'934''N, 26.-27. IV. 2008, leg. T. Hácz, K. Székely, K. Víg (PGM); 4 m, Iran, prov. Fars, Zagros Mts., Sepidan, 2400 m, 2. V. 2011, collector unknown (BB); 1 m, Iran, prov. Fars, Zagros Mts., Dasht-e-Arjan, 2500 m, 9. VI. 1999, leg. J. Klír (PGM); 1 m, same data (coll. M. Dvorak); 4 m, Iran, prov. Fars, Zagros Mts., Dasht-e-Arjan, 2500 m, 8-10. VI. 1999, leg. V. Major (PGM); 3 m, 1 f, Iran, prov. Fars, Zagros Mts., Ardakan, 2500-3000 m, 18. VI. 2010, leg. B. Benedek & T. Hácz (PGM); 1 m, same data (BB); 1 f, same data (coll. H. Seibald); 1 m, Iran, prov. Fars, Zagros Mts., Fereidun Shar, 27. VI. 2005, leg. T. Hácz, I. Juhász & G. Petrányi (PGM); 2 f, Iran, prov. Fars, Zagros Mts., Fereidun Shar, 3000 m, 10-12. VII. 2006, leg. T. Hácz (coll. H.

m, 15-17. VI. 2010, leg. B. Benedek & T. Hácz (PGM); 20 m, 5 f, same data (BB); 1 m, Iran, Prov. Esfahan, 12 km N of Qasr-e-Cham, near Sahreza, 51°44'13"E, 31°50'14"N, 2200 m, 1. V. 2001, leg. Gy. Fábián & K. Víg (BB); 1 m, Iran, Esfahan prov. Semirom, Abmalakh distr., 1850 m, 22–24.VI.2017, leg. E. Rutjan (O. Pekarsky); 2 m, Iran, prov. Hamadan, distr., Malayer, near Nahavand, 1700–1800 m, 12.V.2008, leg. E. Rutjan (O. Pekarsky). slide nos. GYP 1854m, 5646m, 5648m, 5652m, 5654m, 5655m, 5661f.

**Diagnosis.** Bryomima carducha persicola ssp. n. (Figs 5–8) is the S. Iranian subspecies of the nominotypical *B. carducha* Staudinger, 1900, which was described from Mardin, S. Turkey (Figs 1–4). The new subspecies can be distinguished from the nominotypical subspecies by the elongated pointed forewing apex and more contrasting wings. The dark black hue is less extensive in the middle area of the forewings of the new subspecies than in the nominotypical subspecies, but darker and mostly narrower, ribbon-like. Furthermore, in certain individuals of the new subspecies, the base colour of the anterior wing may be pale pinkish or pale orange or pale yellowish tinged, while in the nominotypical subspecies the author has not seen such variations yet. In the male genitalia of *B. carducha persicola* ssp. n. (Fig. 26) the sub-basal diverticulum is larger; the basal-subbasal area of the cornuti is more extended and the cornuti are mostly longer than in the nominotypical subspecies (Fig. 25). In the female genitalia, the differences are more conspicuous; the new subspecies (Fig. 36) have funnel-like antrum, and broader, terminally sudden narrowing ductus bursae.

**Description** (Figs 5–8). Forewing length 12-13 mm, wingspan 23-26 mm. Vesture of the head, thorax, abdomen greyish, however whitish with slight greyish suffusion on the under side and legs; palpi white. Forewings whitish, although certain individuals, may be pale pinkish, pale orange, or pale yellowish tinged; accurated, densely scattered with greyish scales, most noticeably in the median area, forming a diffuse blackish stripe, which the most broadened in the middle, to form a large irregular patch. Transverse lines obscured or not visible; only the strongly arcuate, lanceolate postmedian line is more defined. Hindwings brown, lightest in the basal area, but more darkly suffused in the broad marginal area; discal spot and median line absent.

**Male genitalia** (Fig. 26). Uncus moderately long, apically pointed; juxta broadly shieldshaped with wide dorsal medial depression and two symmetrical, apically pointed extensions; vinculum V-shaped; valvae elongate, both the dorsal and ventral costa medially slightly expanded, cucullus section terminally bird's-head shaped with an acute subapical process; harpe regressed. Aedeagus tubular, distally somewhat curved. Vesica basally and subbasally with one spacious, elongate, flattened frontal diverticulum, with a dense area of scattered short cornuti; distally tubular, slightly curved ventrad; the medial section bears a prominent, dense bundle of strong spines, continuing with an area of densely scattered shorter spines subterminally-terminally.

**Female genitalia**. (Fig. 36). Papillae anales setose, broad; apophyses posteriores and anteriores thin, long, both about the same length. Ostium oval, antrum funnel-like with a strongly sclerotized broad plate in the wall; ductus bursae asymmetrically tubular, terminally narrowing suddenly with strongly sclerotised asymmetric U-shaped, longitudinally wrinkled bar in its wall, continuing into the prominent, terminally rounded, somewhat wrinkled appendix bursae. Corpus bursae large, saccate, without signum.

**Biology and distribution**. The populations of the new subspecies occur in the mountains of the S. Zagros, in the provinces Esfahan, Fars and Boyerahmad-va-Kohgiluyeh of Iran, where locally it is not rare. The single specimen, found near the Iraqi border, seems the same as the nominotypical subspecies in S. Turkey and Iraq.

Etymology. Bryomima carducha persicola ssp. n. is named from the Iranian distribution.

## Bryomima dilutior meridionalis ssp. n. (Figs 11-13, 28, 38)

Holotype: male (Fig. 11), Iran, prov. Fars, Zagros Mts., 7 km N of Sivand, 12-13. V. 2002, leg. P. Gyulai & A. Garai, slide no. GYP 1853 (coll. PGM).

Paratypes: 4 m, 4 f, with the same data (PGM); 5 m, Iran, prov. Fars, 5 km S of Saadat

Shar, 53°12'38'' E, 30°05'21''N, 1900 m, 2. V. 2001, leg. Gy. Fábián & K. Víg (PGM); 1 male, same data (BB); 1 m, same data (coll. H. Seibald); 1 m, Iran, prov. Fars, 5 km S of Dehbid, 2040 m, 2. V. 2000, leg. Szabó & Hentschel (PGM); 1 m, Iran, prov. Fars, Zagros Mts., Persepolis, 1200 m, 25-26. V. 1999, leg. T. Hácz & G. Kőszegi (coll. PGM). slide nos. GYP 1857m, 5659f, 5671m, 5672m.

**Diagnosis.** Bryomima dilutior meridionalis **ssp. n.** (Figs 11–13) is the southern subspecies of the nominotypical *B. dilutior* Schwingenschuss, 1937, which is distributed in the Alborz range of northern Iran. (Figs 9–10). The new subspecies can be distinguished from the nominotypical subspecies by the more elongated forewing apex; darker, almost concolourous ground colour of forewings, particularly in the marginal area and the obscure crosslines in the wing pattern. In the male genitalia (Fig. 28), the best distinguishing features from the nominotypical subspecies (Fig. 27) are the medially less extended valvae (less convex in both the dorsal and ventral costa), the smaller, narrower terminal part of the valvae with the acute subapical process and the smaller subbasal diverticulum. In the female genitalia (Fig. 38), the new subspecies has weaker ductus bursae, with more sclerotised longitudinal wrinkles in the wall, than in the nominotypical subspecies (Fig. 37).

**Description** (Figs 11–13). Forewing length 12-13 mm, wingspan 23-25 mm. Vesture of head, thorax, abdomen, legs and forewings brownish-greyish with scattered pale yellowish or ochreous scales, which the most dense in the thorax and the basal area of the forewings. The median area the darkest. Orbicular- and reniform stigmata small, pale ochre, diffuse. Claviform stigmata and the transverse lines obscure or not visible. Cilia pale ochreous. Hindwings brown with pale ochreous scattered scales, mostly in the basal – subbasal areas, lightest in the basal area, but evenly more brown suffused in the broad marginal area; discal spot absent or dot-like, median line brown, oblique, diffuse, both of them hardly visible; cilia pale ochreous.

**Male genitalia** (Fig. 28). Uncus long, narrow, apically pointed; juxta broadly shieldshaped with wide dorsal medial depression and two symmetrical, apically pointed extensions; vinculum V-shaped; valvae elongate, both the dorsal and ventral costa medially slightly expanded, cucullus section terminally bird's-head shaped with an acute subapical process; harpe regressed. Aedeagus tubular distally curved ventrad. Vesica basally-subbasally spacious, with a semiglobular, but somewhat flattened frontal, a much smaller, flattened subbasal diverticulum, and with a large dense area of scattered short cornuti; distally tubular, slightly curved ventrad; in the medial section bears a giant, prominent, elongate area of dense strong spines, of which the longest in the median section; ventral surface with a short area of scattered short cornuti subterminally-terminally.

**Female genitalia.** (Fig. 38). Papillae anales setose, broad; apophyses posteriores and anteriores thin, long, about the same length. Ostium oval, antrum funnel-like with strongly sclerotized broad plate in the wall; ductus bursae tubular, with strongly sclerotised asymetric U-shaped, longitudinally wrinkled bar in its wall, continuing into the prominent, wrinkled appendix bursae. Corpus bursae large, saccate, without signum.

**Biology and distribution**. The populations of the new subspecies occur in the mountains of the province Fars, where locally not rare. The nominotypical subspecies is distributed in the Alborz range and in the NW Zagros in the province Kordestan.

Etymology. *Bryomima dilutior meridionalis* ssp. n. is named from the southern distribution.

#### Bryomima aviscaput sp. n. (Figs 16, 31)

Holotype: male (Fig. 16), Pakistan, NWFP S. Waziristan agency, near Tanai vill., 28. VII.-12. VIII. 2005, 1500-2500 m, leg. V. Gurko, GYP 5644 (coll. PGM).

**Diagnosis.** *B. aviscaput* **sp. n.** (Fig. 16) belongs to *B. carducha* lineage and differs from all the close relative taxa by the pale ochre ground colour of forewings with dense pale brown scales, the very arcuate postmedian crossline, the strongly tapering middle area near the claviform stigma and the conspicuous, oblique, almost straight median line in the hindwings. It strictly differs from *B. luteosordida* – *B. hakkariensis* (Fig. 23) species pair in its smaller size, much less weaker body, wing colouration and pattern. Last but not least, it is dissimilar to the taxa of the *B. eudiopsis* species group. In the male genitalia (Fig. 31), the best distinguishing features from all the taxa of the genus are the smaller, bird's- head shape of the terminal part of the valvae with the acute subapical process and the large, globular frontal diverticulum in the vesica with a unique configuration of the small cornuti. Furthermore, the new species almost lacks the small subbasal diverticulum, and bears a giant, prominent, assymmetric, elongate extension of the vesica, densely and evenly covered with strong spines. Additionally, *B. aviscaput* **sp. n.** subterminally-terminally bears short area of scattered tiny granules instead of the small cornut; only in this feature does it show a relationship to *B. striata* Ronkay, Ronkay, Gyulai & Hacker, 2010 and *B. avajensis* **sp. n.**.

**Description** (Fig. 16). Forewing length 12 mm, wingspan 23 mm. Eyes globular, black; antennae light ochre, filiform, without cilia. Palpi tiny, covered with pale ochreous scales, the tip with some black scales. Vesture of head, thorax, abdomen and legs pale ochreous, only the tarsi of the legs broadly brown interrupted with pale yellowish sections. Forewings elongate triangular, apex pointed, subapically with a slight, short blackish line. Ground colour of the forewings and cilia is pale ochreous, densely scattered with fine light brown scales; the medial area the darkest. Orbicular and reniform stigmata small, light yellowish, diffuse, lighter than the ground colour, with some brown scales in the middle; claviform stigmata obscure. Basal, antemedian and median transverse lines fine, pale brown; basal line oblique, antemedian line semicircular-wavy, postmedian line strongly arched, with fine lace-like serrations; subterminal line with a row of slight, diffuse pale brown wedge-like spots. Hindwings pale ochreous, lightest in the basal area, but more and more brown suffused in the broad marginal area; discal spot absent, median line brown, oblique, almost straight; cilia pale ochreous. The underside of wings pale ochreous, most conspicuous is the almost evenly broad, brown marginal area of the hindwings.

**Male genitalia** (Fig. 31). Uncus long, narrow, apically pointed, slightly hooked; juxta broadly shield-shaped with wide dorsal medial depression and two symmetrical, apically pointed extensions; vinculum V-shaped; valvae elongate, both the dorsal and ventral costa medially expanded, cucullus section terminally bird's-head shaped with an acute subapical process; harpe regressed. Aedeagus tubular hardly curved. Vesica basally-subbasally spacious, distally tubular, slightly curved ventrad; the large, globular frontal diverticulum with a unique configuration of the scattered small cornuti, the subbasal diverticulum tiny; the giant, prominent, asymmetric, elongate extension in the medial section of the vesica densely and evenly covered with strong spines; ventral surface subterminally-terminally with a short area of scattered tiny granules.

Female genitalia. Unknown.

**Biology and distribution**. The population of *B. aviscaput* **sp. n.** seems to be extremely isolated in Waziristan.

**Etymology**. *B. aviscaput* **sp. n**. is named from the resemblence of the terminal part of the valvae with the acute subapical process to a bird's-head.

## Bryomima avajensis sp. n. (Figs 24, 34)

Holotype: male (Fig. 24), Iran, Prov. Hamadan, 5 km SW of Avadj pass, to Razan, 2500 m, 1-2. VI. 2005, leg. P. Gyulai & A. Garai, GYP 1769; (coll. PGM).

**Diagnosis.** Bryomima avajensis **sp. n.** (Fig. 24) externally resembles mostly *B. hakkariensis* (Fig. 23), from which it is much smaller, the body is less robust and the ground colour of the wings rather greyish. It differs from all the further relative taxa in the brownish-grey ground colour of the wings and that it does not show any similar features to the taxa of *B. eudiopsis* species group. In the male genitalia (Fig. 34), the best distinguishing feature from most of the taxa of the genus is the distally convex dorsal costa of the valvae. Additionally, from the *B. luteosordida* and *B. hakkariensis* species pair, it has smaller genitalia with much smaller, bird'-head shaped terminal part of the vesica and the uninterrupted cornuti area in the new species. From the taxa of the *carducha* line, it can be separated by the convex distal dorsal costa of the valvae, larger, lobe-like diverticulum in the basal part of the vesica and the giant, prominent, asymmetric, elongate extension of the vesica, densely and evenly covered with strong spines, which do not shorten towards the terminal section.

**Description** (Fig. 24). Forewing length 12 mm, wingspan 23 mm. The single specimen is not a fresh one, slightly worn, but the wing pattern visible. Eyes globular, black; antennae black, filiform, without cilia. Palpi tiny, covered with black and white scales, the tip also. Vesture of head, thorax, abdomen and legs blackish and whitish or blackish with white tip. Ground colour of the forewings and cilia brownish grey, the medial area the darkest. Orbicular and reniform stigmata small, whitish, with a black dot in the middle of the orbicular spot and a greyish curved sign in the reniform stigma; claviform stigma obscure. Transverse lines fine, brownish-grey; antemedian line arched, postmedian line strongly arcuated, with fine lace-like serrations, with a slight outer lighter shading. Hindwings brownish-grey, lightest in the basal and median area, but a more evenly suffused brown in the broad marginal area; discal spot absent, Underside of wings concolourous light brownish grey, somewhat worn, almost patternless, with only the obscure ghost of the crosslines visible on the forewings.

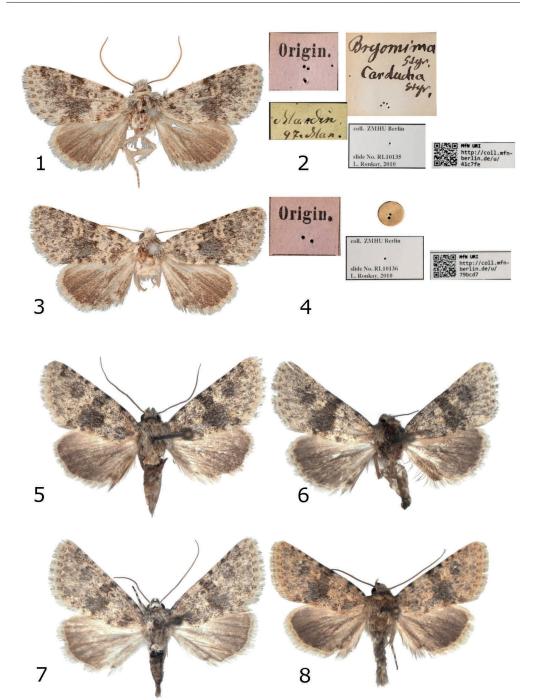
**Male genitalia** (Fig. 34). Uncus medium long, thin, apically pointed; juxta broadly shield-shaped with wide dorsal medial depression and two symmetrical, apically pointed extensions; vinculum V-shaped, valvae elongate, the dorsal costa distally convex, the ventral one only medially expanded, cucullus section terminally bird's-head shaped with an acute long subapical process; harpe regressed. Aedeagus tubular, strongly curved ventrad. Vesica spacious, basally with a large, lobe-like diverticulum, with a dense field of numerous scattered, short and medium long cornuti; medially a small diverticulum without cornuti. The distal section broadly tubular, slightly curved ventrad; the medial section bears a giant, prominent, assymmetric, elongate dorsal extension, densely and evenly covered with an area of strong spines, continuing to narrow steadily until the terminal section; ventral surface in the ventral subterminal-terminal section with a weak area of dense but small granules.

Female genitalia. Unknown.

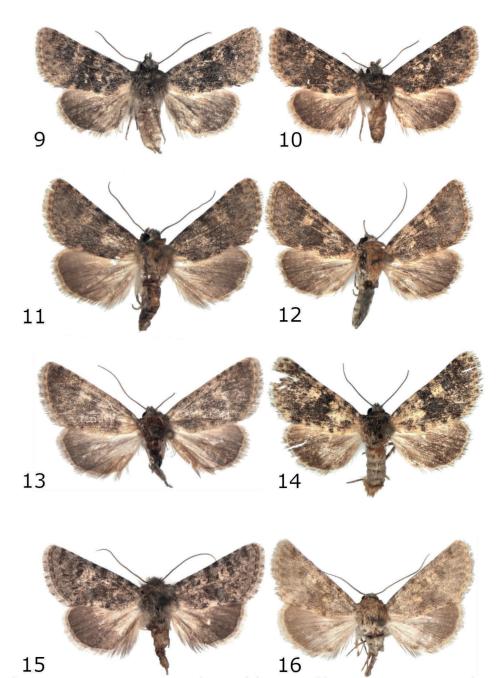
**Biology and distribution**. The population of *B. avajensis* **sp. n.** seems to be extremely isolated in the Iranian province Hamadan.

Etymology. B. avajensis sp. n. is named from the Avaj pass, from where it was collected.

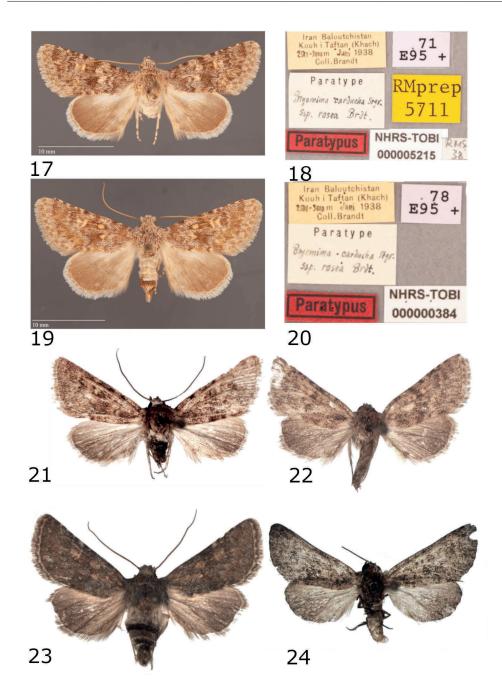
Acknowledgements. The author is grateful to his wife Adrienne Gyulai-Garai (Miskolc, Hungary) for greatly helping with the computer work and during our expeditions in Asia; to Asghar Shirvani (Kerman, Iran) for *Bryomima* spp. photos from the province Kerman; to Sabine Gaal (Naturhistorisches Museum, Wien, Austria) for the photo of *B. carducha* and *B. rosea*; to Théo Léger and Viola Richter (Museum für Naturkunde Berlin, Germany) for the type photo documentation of *Bryomima carducha*; to Tobias Malm (Naturhistoriska Riksmuseet, Stockholm, Sveden) *B. rosea* type photo documentation; to Zsolt Bálint and Balázs Tóth (Hungarian Natural History Museum, Budapest, Hungary) for photo documentation of *B. carducha* and *B. rosea*; and last but not least, to Imre Fazekas (Pannon Institute, Pécs, Hungary) for the publication of the manuscript, to Alec Harmer (Great Britain) for linguistic corrections and for the reviewers.



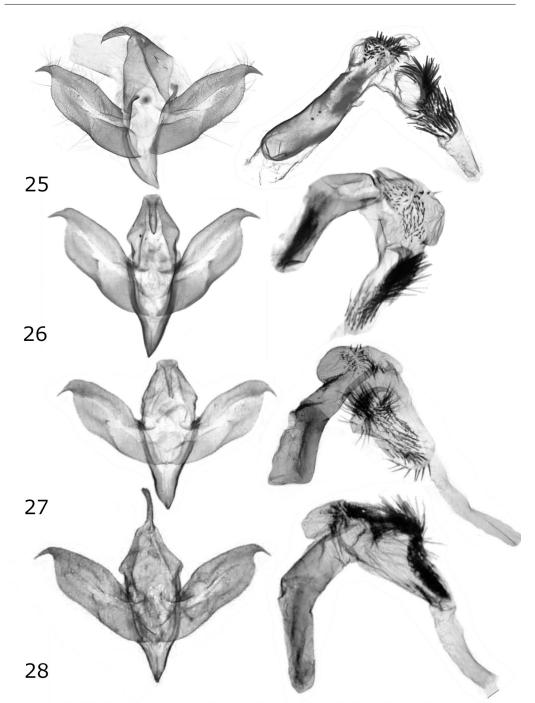
Figures 1–8. *Bryomima* spp. and ssp. adults. 1-2. *B. carducha*, m, Cotype, Turkey, Mardin, coll. MFN Berlin, RL 10135; 3-4. *B. carducha*, f, Cotype, Turkey, Mardin, coll. MFN Berlin, RL 10136; 5. *B. carducha persicola* ssp. n., HT, m, Iran, prov. Boyerahmad-va-Kohgiluyeh, GYP 5672; 6. *B. carducha persicola* ssp. n., PT, f, Iran, prov. Fars, GYP 5661; 7. *B. carducha persicola* ssp. n., PT, m, Iran, prov. Fars; 8. *B. carducha persicola* ssp. n., PT, m, Iran, prov. Fars.



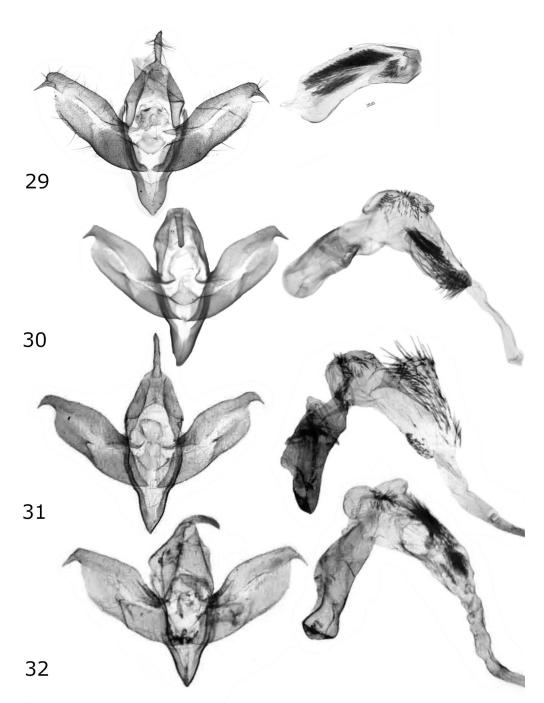
Figures 9–16. Bryomima spp. and ssp. adults. 9. B. dilutior, m, Iran, prov. Kordestan, Askaran, GYP 5668; 10. B. dilutior, f, Iran, prov. Kordestan, Askaran, GYP 5670; 11. B. dilutior meridionalis ssp. n., HT, m, Iran, prov. Fars, Sivand, GYP 1853; 12. B. dilutior meridionalis ssp. n., PT, f, Iran, prov. Fars, Sivand, GYP 5659; 13. B. ? sp. n., m, Iran, prov. Boyerahmad, Dena, GYP 5648; 14. B. defreina, m, Turkey, prov. Van; 15. Bryomima vartianorum PT, m, Iran, prov. Hormozgan, Gouzam, GYP 1855; 16. B. aviscaput sp. n., HT, m, Pakistan, S. Waziristan, Tanai, GYP 5644.



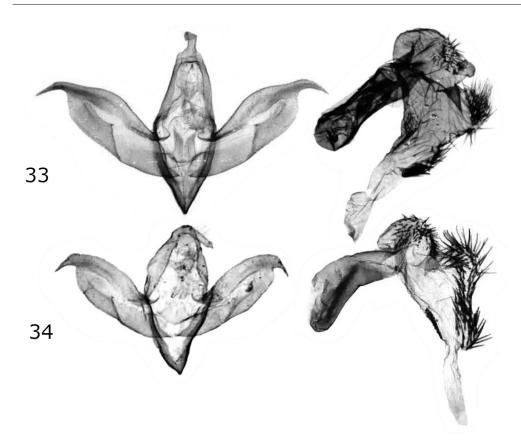
Figures 17–24. Bryomima spp. and ssp. adults. 17–18. B. rosea, PT, m, Iran, Baloutschistan, Kouh-i-Taftan, RM 5711; 19–20. B. rosea, PT, f, Iran, Baloutschistan, Kouh-i-Taftan; 21. B.rosea, m, Iran, Prov. Hamadan, GYP 5702; 22. B. rosea, f, Iran, Prov. Hamadan, GYP 5660; 23. B. hakkariensis, m, Iran, prov. Mazandaran, Mazandaran pass; 24. B. avajensis sp. n., HT, m, Iran, Prov. Hamadan, 5 km SW of Avadj pass, GYP 1769



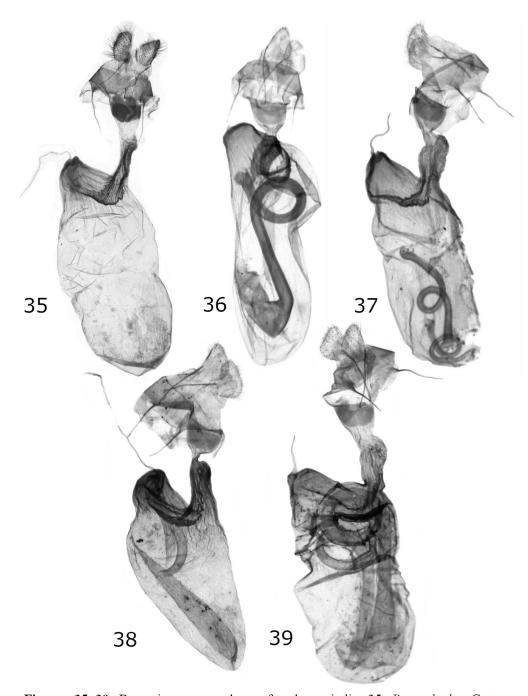
Figures 25–28. *Bryomima* spp. and ssp. male genitalia. 25. *B. carducha*, Cotype, Turkey, Mardin, coll. MFN Berlin, RL 10135; 26. *B. carducha persicola* ssp. n., HT, Iran, prov. Boyerahmad-va-Kohgiluyeh, GYP 5672; 27. *B. dilutior*, Iran, prov. Kordestan, Askaran, GYP 5668; 28. *B. dilutior meridionalis* ssp. n., HT, m, Iran, prov. Fars, Sivand, GYP 1853.



Figures 29–32. *Bryomima* spp. and ssp. male genitalia. 29. *B. rosea*, PT, Iran, Baloutschistan, Kouh-i-Taftan, RM 5711; 30. *B. rosea*, Iran, Hamadan, Avaj, GYP 5702; 31. *B. aviscaput* sp. n., HT, Pakistan, Waziristan, Tanai, GYP 5644; 32. *B. vartianorum*, PT, Iran, prov. Hormozgan, Gouzam, GYP 1855.



**Figures 33–34.** *Bryomima* spp. male genitalia. 33. *B. hakkariensis*, Iran, prov. Mazandaran, Mazandaran pass; 34. *B. avajensis* **sp. n.**, HT, Iran, Prov. Hamadan, 5 km SW of Avadj pass, GYP 1769



Figures 35–39. Bryomima spp. and ssp. female genitalia. 35. *B. carducha*, Cotype, Turkey, Mardin, coll. MFN Berlin, RL 10136; 36. *B. carducha persicola* ssp. n., PT, Iran, Fars, Sepidan, GYP 5661; 37. *B. dilutior*, Iran, Kordestan, GYP 5670; 38. *B.dilutior meridionalis* ssp. n., PT, Iran, Fars, Sivand, GYP 5659; 39. *B. rosea*, Iran, prov. Hamadan, GYP 5660.

## References

- Boursin, Ch.1960: Nouvelles "Trifinae" d'Afghanistan de l'expedition Klapperich (3rd note). – Bulletin Mensuel de la Société Linnéenne de Paris, Lyon: **29**(5): 136–152
- Brandt W. 1941: Beitrag zur Lepidopteren-Fauna von Iran (3). Neue Agrotiden nebst Faunenverzeichnis-sen. – Mitteilungen der Münchner Entomologische Gesellschaft, **31**: 835–863.
- de Freina, J. & Hacker H. 1985: Neue Arten und Unterarten der Familie Noctuidae aus Anatolien und Türkisch Kurdistan. – Entomofauna 6: 19/241–261.
- Ebert G. & Hacker H. H. 2002: Beitrag zur Fauna der Noctuidae des Iran: Verzeichnis der bestande im staatlichen Museum für Naturkunde Karlsruhe, taxonomische Bemerkungen und beschreibung neuer Taxa. – Esperiana **9**: 237–409.
- Hacker H. 1986: 2. Beitrag zur Erfassung der Noctuidae der Turkey Beschreibung neuer taxa, Erkenntnisse zur Systematic der kleiasiatischen Artenund faunistisch bemerkenswerte Funde aus den Aufsammlungen von de Freina aus den Jahren 1976–1983. – Spixiana 9: 1/25–81.
- Hacker H. 1990: Die Noctuidae Vorderasiens (Lepidoptera). Systematische List mit einer Übersicht über die Verbreitung unter besondere Berücksichtigung der fauna der Türkei (ein schließlichder Nachbargebiete Balkan, Südrußland, Westturkestan, Arabische Halbinsel, Ägypten). – Neue Entomologische Nachrichten 27: 1–707
- Lödl M., Gaal-Haszler S., Jovanovic-Kruspel S., Ronkay G., Ronkay L. & Varga Z. 2012: The Vartian collection. Part I. Noctuoidea. – Fibigeriana Volume I., Heterocera Press, Budapest, 303 pp
- Schwingenschuss L. 1937: Weitere Neuheiten aus Nord-Persien. Zeitschrift des Österreichischer Entomologen Vereines 22: 57–61
- Staudinger O. 1900: Neue Lepidopteren des palaearktischen Faunengebiets. Deutsche Entomologische Zeitschrift, Iris 12 (2): 352–403; pl. 6/9