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## Two new species and a new subspecies of *Conisania suavis* (Staudinger, 1892) species-group (Lepidoptera, Noctuidae, Hadeninae)

Péter Gyulai & Aidas Saldaitis

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**Abstract.** Description of *Conisania pseudoclara* sp. n. and *C. tonimayri* sp. n. from China and *C. suavis volynkini* ssp. n. from Russia with 21 colour illustrations and 24 genitalia figures.

**Keywords.** China, new description, Russia, taxonomy.

### Author's address.

Péter Gyulai \* 3530 Miskolc, Mélyvölgy 13/A | Hungary (\*Corresponding author)

<https://orcid.org/0000-0003-3878-2880>

E-mail: [adriennegyulai@gmail.com](mailto:adriennegyulai@gmail.com)

Aidas Saldaitis Nature Research Centre, Akademijos str., 2, LT-08412, Vilnius-21, Lithuania.

<https://orcid.org/0000-0003-0999-3996>

E-mail: [saldrasa@gmail.com](mailto:saldrasa@gmail.com)

### Introduction

The authors of this article examined an extensive collection of specimens of *Conisania* Hampson, 1905 from the *Conisania suavis* (Staudinger, 1892) species group, collected during expeditions by Balázs Benedek in N. Yunnan, China and the joint expeditions of Alessandro Floriani and Aidas Saldaitis to different provinces of China, as well as from the private collection of Péter Gyulai. Detailed study of the external features and the male and female genitalia structures of specimens bearing a strong resemblance to the types of the described taxa of the *C. suavis* species group, led to the recognition of two species new for science. Furthermore, comparison of populations of the nominotypical *C. suavis* from the Russian Far East with the large number of specimens from the Russian Altai, indicated that the latter examples represented a geographically separated western subspecies of *C. suavis*.

### Taxonomic account

The three new taxa described here below, can be associated to the *C. suavis* species-group (Ronkay, Varga & Gyulai, 1997). The following taxa are known within this species group:

*C. clara* Ronkay, Varga & Gyulai, 1997

*C. pseudoclara* **sp. n.**

*C. dentirena* Ronkay, Varga & Gyulai, 1997

*C. suaveola* Draudt, 1950

*C. suaveola discestroides* Varga & Ronkay, 1991

*C. tonimayri* **sp. n.**

*C. suavis* (Staudinger, 1892)

*C. suavis volynkini* **ssp. n.**

The general characterization of the external features and the male and female genitalia structures of the *Conisania suavis* species group is given by Varga & Ronkay (1991) and Ronkay, Varga & Gyulai (1997). The taxa of this species group are very similar to each other in their external appearance, ground colour and forewing pattern, so that for a certain determination an examination of the genitalia of individual specimens is usually necessary. However, when evaluating male genital features and differences, it should be taken into account that the shape of the cucullus and vesica diverticulum and the position of the dorsal arm of the vesica depend greatly on how much the cover glass has been compressed.

Most of these taxa have Sino-Tibetan distribution, however a few of them range from the Russian Altai through South Siberia and Mongolia to the Far East.

Abbreviations for personal and institutional collections used herein: AFM = collection of Alessandro Floriani (Milan, Italy); AVB = collection of Anton Volynkin (Barnaul, Russia); OPB = collection of Oleg Pekarsky (Budapest, Hungary); MDS = collection of Marek Dvorak (Smrčna, Czech Republic); PGM = collection of Péter Gyulai (Miskolc, Hungary); ZFMK = collection of Zoologisches Forschungsinstitut und Museum Alexander Koenig Bonn, Germany; GYP = genitalia slide of Péter Gyulai; RL = genitalia slide of László Ronkay; m = male; f = female; HT = holotype; PT = paratype; ZIN = collection of Zoological Institute RAS (Saint Petersburg, Russia).

### Description of new taxa

#### *Conisania pseudoclara* sp. n. (Figs 3, 4, 23, 24)

**Holotype:** male, China, N Yunnan, Diqing Tibetan Aut. Pref., 8 km NEE Shangri La at Nairi village, 3300 m, 14. VI. 2009, leg. B. Benedek, GYP 5821 (coll. P. Gyulai, Miskolc, Hungary).

**Paratypes:** 3 males with the same data (PGM); 1 male, China, NW Sichuan, N. Maniganggo, 3860 m, 31° 47' 22" N, 99° 23' 27" E, 30. VI. 2019, leg. Butvila & Saldaitis (AFM); 1 male, same data, 3. VII. 2019, leg. Butvila & Saldaitis (AFM).  
slide nos. GYP 4322m, GYP 4329m, GYP 5841m, GYP 5842m.

**Diagnosis.** *Conisania pseudoclara* sp. n. (Figs 3, 4) differs from its sister species *Conisania clara* Ronkay, Varga & Gyulai, 1997 (Figs 1, 2) by the larger size (length of forewing 19–21 mm, wingspan 39–42 mm, whilst those are 16–18 mm and 34–38 mm respectively in *C. clara*); much darker brown ground colour in all the wings with slight reddish shade (pinkish in *C. clara*), more oblique postmedian line with slighter depression in the fore section, somewhat less wavy subterminal line without typical W-mark in the medial section and somewhat narrower, arched and not angular reniform stigma. On the underside of the wings, is a conspicuous and strongly defined ghost of the oblique, straight postmedian line in the forewings and the median line in the hindwings of the new species; these are hardly expressed in *C. clara*. It is distinguished from *Conisania dentirena* Ronkay, Varga & Gyulai, 1997 (Figs 5–8), by the larger size, much darker ground colour of forewings with much less reddish hue and much less sharp wing pattern; oblique and not arched postmedian line, smaller, less arched, brownish reniform stigma. In the structure of the male genitalia organ of *C. pseudoclara* sp. n. (Figs 23, 24) and *C. clara* (Figs 21, 22) the most conspicuous differential features are the following: in *C. pseudoclara* sp. n., the vinculum is shorter, the medial peak of the ventral plate of the double fultura inferior is significantly shorter and apically rounded, whilst the dorsal appendage of it is also shorter and less depressed terminally; the cucullus is angular and smaller dorsally; the distal section of the left saccular extension is angular and more prominent, while of the right one more angular and not rounded dorsally, having a small prominence distally. In the vesica configuration the dorsal tubular diverticulum is significantly broader with only one lateral diverticulum (there are two in the *C. clara*), the somewhat bifid, globular lateral diverticulum in the medial section of the vesica is larger and the long, narrow sclerotized field in the distal part of the ventral arm of the vesica is not armed with small cornuti, like in *C. clara*. In comparison *C. dentirena* (Figs 25, 26), the differences are conspicuous; the new species has differently shaped, more angular cucullus and saccular extensions, larger medial peak of the ventral plate of the double fultura inferior; significantly smaller lateral diverticulum in the large dorsal arm of the

vesica, bifid lateral diverticulum in the medial section of the vesica (absent in *C. dentirena*), and narrow sclerotized field in the distal part of the ventral arm of the vesica which is not armed with a bundle of small cornuti, like in *C. dentirena*. The female is unknown.

**Description.** (Figs 3, 4). Forewing length 19–21 mm, wingspan 39–42 mm. Palpi covered with grey-brown scales, the third segment tiny, dark brown, without scales. The vestiture of the vertex, collar and thorax greyish-brownish, that of the legs dark brown, that of the abdomen brown. Underside of the thoracic tuft pale brownish. Antennae filiform, densely variegated with narrow brown and broader lighter sections; very finely densely ciliated. Forewings elongated, triangular, with apex pointed. Ground colour of the forewings brown with slight dark reddish shade, however dark brown around the reniform stigma and at the inner side of the orbicular spot (being conjoined with the short, broad reniform stigma and with the outer side of the antemedian line) and in the inner side of the postmedian line (more or less conjoined with the diffuse median line). Subbasal, ante and postmedian lines and subterminal line double, dark brown, filled with the ground colour, however the latter one fine, with yellowish. Subbasal line zigzag, antemedian line wavy, postmedian line oblique, lacy; subterminal line slightly wavy; fringe brown. The stigmata typical, orbicular- and reniform stigmata the same colour as the ground, the latter one medially with double, fine, dark arches, claviform stigma dark brown; all of them more or less outlined with black scales. Hindwings evenly brown, the veins, the discal spot, the somewhat sinuous median line and the broad marginal area darker; fringe pale brown. Underside of the wings light, pale brownish with slight pinkish shade, of the hindwings lighter, all of them scattered with brown scales. The ghost of the reniform stigma diffuse, that of the brown postmedian line well defined, oblique in the forewings; the dot-like discal spot and the median line conspicuous in the hindwings.

**Male genitalia** (Figs 23, 24). Uncus moderately long, slender, pointed; Fultura inferior double, ventral plate small, subquadrangular, bearing a small medial, apically rounded extension; the dorsal plate high, with two long, stronger sclerotized stripes; about the two thirds section of it quadratic, terminal section much weaker, apically with slight medial depression. Vinculum strong, U-shaped. Cucullus more or less triangular, narrower basally, concave dorsally, extended terminally and angular; apex pointed, dorsal costa slightly concave, with a small prominence in the base; ventral margin a strong crest, corona long. Harpe reduced in its basal bar, ampulla absent. Sacculus extensions strongly asymmetric, large, more or less quadratic, much smaller on the left side. Aedeagus tubular, long, arcuate, carina broadly sclerotized with a slight tooth dorsad. Vesica T-shaped, basal tube broad, with a large, bifid, broad, rounded diverticulum medially; dorsal arm large, broad, with one lateral small diverticulum, terminated in a bundle of small cornuti; ventral arm with a large globular extension and a long, narrow sclerotized field without spinules in the distal part of the vesica toward the ductus ejaculatorius.

**Biology and distribution.** The new species is known from N Yunnan and NW Sichuan in China. It flies sympatric with *C. dentirena* in the locality of the holotype.

**Etymology.** The name of the new species is after its sibling species *C. clara*.

***Conisania tonimayri* sp. n.** (Figs 14 – 16, 30, 31, 41, 42)

**Holotype:** male, China, N Sichuan, N. Jiuzhaigou, 2161m, 15-16. IV. 2015, leg. Floriani & Saldaitis, GYP 4310 (coll. P. Gyulai, Miskolc, Hungary)

**Paratypes:** 2 females, with the same data (PGM); 2 males, China, N Sichuan, n. Jiuzhaigou, 2161m, 33° 18' 955" N, 103° 55' 531" E, 18. IV. 2015, leg. Floriani & Saldaitis (AFM), slide nos. GYP 4318f, GYP 5822f, GYP 5837m, GYP 5838m.

**Diagnosis.** The wing pattern of *C. tonimayri* sp. n. (Figs 14–16) differs only slightly from the nominotypical subspecies of its sibling species *Conisania suaveola* Draudt, 1950 (Figs 9–11) (as it is characteristic to this species group of *Conisania*), while the differences in both the male and the female genitalia are considerable. *Conisania tonimayri* sp. n. can be separated from its sister species by the, on average, larger size (length of forewing 18–20 mm, wingspan 37–39 mm, whilst these are 16–18 mm and 34–38 mm in *C. suaveola*.) and more elongated forewing apex; darker, more variegated light brownish and greyish suffused ground colour in all the wings, particularly in the medial and subterminal field in the forewing; more oblique

postmedian line and somewhat narrower, arched in the inner side reniform stigma. In the underside of the wings, the most conspicuous is the strongly defined ghost of the arched cellular spot in the hindwings of the new species – this is much smaller and less defined in *C. suaveola*. It is easier to separate externally from *Conisania suaveola discestroides* Varga & Ronkay, 1991 (Figs 12–13) and *C. dentirena* (Figs 5–8) by the conspicuously lighter ground colour of the forewings (particularly in the basal, medial and marginal fields) with slight violet shade (instead of the reddish shade of the two congeners) and lacier and more oblique postmedian line. In the structure of the male genitalia organ of *C. tonimayri* **sp. n.** (Figs 30, 31) and *C. suaveola* (Figs 27, 28) and its subspecies *C. s. discestroides* (Fig. 29), the most conspicuous differential features are the following: in *C. tonimayri* **sp. n.**, the ventral plate of the double fultura inferior is smaller, bearing dorsally a medial, apically rounded extension, while it is acute and not rounded in the ventral side. The dorsal appendage of it is shorter and more depressed terminally. The vinculum is shorter. The cucullus is narrower basally, more concave dorsally and angular; the right sacular extension is more prominent, much longer, evenly tapering distally, pointed apically, streak-like, whilst it is slightly curved, not so elongate distally and subangular terminally in *C. suaveola*. In comparison *C. dentirena* (Figs 25, 26) the differences are more conspicuous; the new species has a small medial peak dorsally of the ventral plate of the double fultura inferior, while in *C. dentirena* lacks it, but extended medially ventrad and shield-like. *C. tonimayri* **sp. n.** has larger, differently shaped, distally extended cucullus and more prominent, larger sacular extensions, particularly on the right side, with much larger inner, somewhat asymmetric, triangular, apically acute extensions. In the vesica configuration the dorsal tubular diverticulum is broader terminally in *C. tonimayri* **sp. n.** than in the three congeners (significantly from those of *C. s. discestroides* and *C. dentirena*), armed with a broader bundle of cornuti field. Additionally in comparison with *C. s. discestroides* and *C. dentirena*, the new species bears a smaller additional lateral diverticulum, opposite the other lateral one, which is absent in the two congeners. The somewhat bifid, large globular diverticulum in the medial section of the vesica and the subterminal section of the vesica are much less ample than in *C. suaveola*. The field of the bundles of the cornuti in the subterminal-terminal section of the ventral arm of the vesica is longer and the cornuti are shorter in the new species than in the three congeners, especially from that of the *C. dentirena*. In the female genitalia, the new species (Figs 41–42) can be easily distinguished from the close relative taxa (Figs 36, 37, 38, 39, 40) by the much broader and lower calyculate plate of the antrum and the much broader, medially evenly and symmetrically bulging ductus bursae. This last character sets it apart from all its relatives in this species group of *Conisania*, somewhat with the exception of *C. clara*, but this species is more different in the other features. The correct separation from the closest resembling *C. suaveola* is supported by the very different flight period of the two species; *C. tonimayri* **sp. n.** is an early spring species, on the wing in April, while *C. suaveola* is a summer one, on the wing in July.

**Description.** (Figs 14–16) Forewing length 18–20 mm, wingspan 37–39 mm. Palpi covered with grey-brown scales, third segment tiny, slightly greyish scaled. Vesture of the vertex, collar and thorax light greyish-brownish, of the legs also, however with whitish rings; that of abdomen greyish brown. Underside of the thoracic tuft pale greyish. Antennae filiform in both sexes, very finely densely ciliated of the males. Forewings elongated, triangular, with apex pointed. Ground colour of forewings light greyish brown with slight violet shade, however dark brown around the reniform stigma and at the inner side of the orbicular spot (being conjoined with the short, broad claviform stigma and with the outer side of the antemedian line) and in the inner side of the postmedian line; the basal, subterminal and terminal fields light greyish suffused, the former one with slight violet shade. The basal, subbasal, ante and postmedian lines double, dark brown, filled with the ground colour. Subbasal and basal lines zigzag, antemedian line slightly wavy, postmedian line oblique, lacy; subterminal line yellowish, fine, slightly wavy; fringe brown and light greyish variegated at the veins. The stigmata typical, orbicular- and reniform stigmata the same colour as the ground, the latter one medially with double, fine, dark arches, claviform stigma dark brown; all of them more or less outlined with black scales. Hindwings evenly brown, the discal spot and the somewhat diffuse, sinuous median line darker; fringe pale brown. Underside of the wings light, pale brownish, of the hindwings lighter, all of them finely scattered with brown scales. The ghost of the reniform stigma diffuse, that of the brown

postmedial line well defined, oblique in the forewings; whilst the ghost of the arched discal spot and the sinuous median line conspicuous in the hindwings.

**Male genitalia** (Figs 30, 31). Uncus moderately long, slender, pointed. Fultura inferior double, ventral plate small, subquadrangular, bearing a small medial, terminally rounded dorsal extension and a small acute ventral one. Dorsal plate high, with two long, stronger sclerotized stripes; about two third section of it broader, distally evenly narrower, terminal section much weaker, apically with slight medial depression. Vinculum strong, U-shaped. Cucullus more or less triangular, extended terminally, apex pointed, dorsal costa slightly concave, with a small prominence in the base; ventral margin a strong crest, corona long. Harpe reduced in its basal bar, ampulla absent. Saccular extensions strongly asymmetric, large, much smaller on left side, which is rounded terminally, while the right one much longer, somewhat bifid, evenly tapering distally, pointed apically. Additionally, the sacculus bears on both inner sides a wedge shaped, pointed extension; the right one is much larger. Aedeagus tubular, long, curved ventrad, carina broadly sclerotized both dorsad and ventrad. Vesica T-shaped, basal tube broad, elongate, with a large, rounded central and a small, foot-shaped lateral rounded diverticulum medially; dorsal arm large, broad, with a large dorsal and a much smaller, not prominent ventral lateral diverticulum, terminated in a bundle of small cornuti; ventral arm with a long subterminal-terminal field of small cornuti in the distal part of the vesica toward the ductus ejaculatorius.

**Female genitalia** (Figs 41, 42). Papillae anales setose, broad, angular; apophyses anteriores and posteriores thin, the latter ones longer. Antrum broadly calyculate, strongly sclerotized. Ductus bursae short, broad, medially evenly and symmetrically bulging. Appendix bursae prominent, subquadrangular, broaden distally, strongly sclerotized. Corpus bursae large, saccate, with a long medial area of longitudinal parallel wrinkles in its wall.

**Biology and distribution.** The new species is known from the type locality in Sichuan, China. It is an early spring species, on wing in April.

**Etymology.** The new species is named after colleague, prominent Austrian collector Toni Mayr (Feldkirch, Austria).

***Conisania suavis volynkini* ssp. n.** (Figs 19, 20, 33, 34, 44)

**Holotype:** male, Russia, SW Siberia, Altai Mountains, Altai Republic, Ulagansky District, Aktash village environs, 1500 m, 18. VI. 2015, leg. V. Zurilina, GYP 5823, (coll. P. Gyulai, Miskolc, Hungary)

**Paratypes:** 20 males, with the same data, but with the dates 11-18. VI. 2015 (PGM); a series of males and females, Russia, Altai Republic, Ulagansky District, Aktash village, env., 1350 m, 50° 19' N, 87° 35' E 8-12. VI. 2010, leg. A. V. Volynkin (AVB); 1 male, Russia, Altai Republic, Ulagansky District, Aigulaksky ridge, vic. of Aktash village, 1400 m, 24-25. V. 2012, leg. A. V. Volynkin (PGM); 1 male, Russia, Altai Republic, Ulagansky District, Aigulaksky ridge, vic. of Aktash village, 1400 m, 4-7. VII. 2012, leg. A. V. Volynkin (PGM); 11 males, 4 females, Russia, Altai Republic, Ulagan District, Aktash village, 1350 m, 8-12. VI. 2010, leg. Volynkin & Ivanova (AFM); 4 males, 1 female, Russia, Altai republic, Aktash, 1400 m, 8-12. VI. 2010, leg. R. Yakovlev (OPB) 2 males, Russia, Altai Republic, Ulagan District, Aktash village, 50° 19' N, 87° 35' E, 1350 m, 8-12. VI. 2010, leg. A. V. Volynkin (MDS); 2 females, Russia, Altai Republic, Ulagan District, Aktash village, 50° 19' N, 87° 36' E, 1400 m, 29. VI. 2014, leg. M. Dvorak (MDS); 2 males, Russia, Altai Republic, Ulagan District, Aktash village, road to 9. station, 50° 19' 14" N, 87° 42' 57" E, 2260 m, 22-23. VI. 2015, leg. M. Dvorak (MDS); 2 males, 1 female, Russia, Altai Republic, Ulagan District, Aktash village, grassy steppe, rocks, 50° 19' 12" N, 87° 36' 00" E, 1400 m, 21. VI. 2015, leg. M. Dvorak (MDS); 5 males, Russia, Irkutsk region, Khara-Daban, Khara-Daban pass, 21.VI.1915, leg. S. Rodionov (ZIN); 1 male, same data, but 21.VI.1915, leg. S. Rodionov (ZIN); 3 males, Russia, Irkutsk region, Kultuk [pass?], 30.VI.1915, leg. S. Rodionov (ZIN); 1 female, Russia, Khakasia republic, West Sayan, Maina village, 9.VI.1967, leg. P. Naumov, ex coll. A. Nekrasov (ZIN). Slide nos. GYP 5818m, GYP 5843f.

**Diagnosis.** *Conisania suavis volynkini* ssp. n. (Figs 19, 20) differs from the nominotypical subspecies of *C. suavis* (Figs 17–18) by the somewhat smaller size (wingspan 29–33 mm,

whilst these are 34–37 mm in *C. suavis*), darker forewings and sharper wing pattern; the latter feature is more conspicuous on the underside of the wings. The main differential features in the male genitalia organ of *C. suavis volynkini* ssp. n. (Figs 33, 34) and *C. suavis* (Fig. 32) are the following: in *C. s. volynkini* ssp. n., the dorsal appendage of the double fultura inferior is less depressed on the dorsal side and less extended ventrad; the right saccular extension is smaller distally, evenly tapering terminally and the wedge shaped, acute inner extension is shorter. In the vesica configuration the dorsal tubular diverticulum is significantly weaker terminally in *C. s. volynkini* ssp. n. and the sclerotized cornuti field in the distal part of the ventral arm of the vesica is longer, but narrower. In the female genitalia, the new subspecies (Fig. 44) has lower plate of the antrum and broader, medially somewhat asymmetrically bulging ductus bursae (while it is much weaker and longer, tubular in the nominotypical subspecies (Fig. 43)) and larger appendix bursae. In comparison the externally also very resembling *Conisania suaveola discestroides* Ronkay & Varga, 1991 (Mongolia and Inner Mongolia in China) (Fig. 29), the genitalia differences are more conspicuous; the best key for separation is the presence of a big spike on the ventral aedeagus carina; further differences are the smaller saccular extensions in both sides, much longer inner acute appendage in the inner side of the right one, etc. In the female genitalia, the new subspecies has lower, rather calyculate plate of the antrum and much broader, medially somewhat asymmetrically bulging ductus bursae (while it is much weaker, tubular in *C. s. discestroides*) (Fig. 40) and larger, but less prominent appendix bursae.

**Comment.** Volynkin (2012) mentions *C. suaveola discestroides* from the Altai range in his monograph. However, the specimens examined by the authors from the Altai proved to be a new subspecies of *C. suavis*. Nevertheless, the occurrence of the close relative *C. suaveola discestroides* (described from Mongolia) is also very probably in the Russian Altai.

**Description.** (Figs 19, 20). Forewing length 14–17 mm, wingspan 29–33 mm. Vesture of the body dark brownish, that of the abdomen significantly lighter brown. Antennae filiform in both sexes, very finely densely ciliated of the males. Forewings elongated, triangular, with apex pointed. Ground colour of the forewings dark brown with slight reddish shade, however the subterminal area considerably lighter, with more or less violet or light reddish-brown shade. The basal, subbasal, ante and postmedian lines double, dark brown, filled with the ground colour. Antemedian line oblique, slightly wavy, postmedian line somewhat arched, lacy; subterminal line yellowish, fine, slightly wavy with a slight W-shaped section medially. The stigmata typical, orbicular- and reniform stigmata much lighter than the ground colour, the former one with a brown dot inside, the latter one with double, fine, dark arches medially; claviform stigma black, with a small light patch near the outer side; all of them more or less outlined with black scales. Hindwings light brown, the discal spot and the somewhat diffuse, sinuous median line darker, but not sharp; the marginal field slightly darker. Underside of the wings lighter brownish, of the hindwings paler. The ghost of the brown postmedian line well defined, oblique in the forewings; while the ghost of the arched discal spot and the sinuous median line sharply defined in the hindwings.

**Male genitalia** (Figs 33, 34). Uncus moderately long, slender, pointed. Fultura inferior double, ventral plate small, subtriangular. The dorsal plate high, with two long, stronger sclerotized stripes; about two third section of it broader, distally evenly narrower, terminal section much weaker, apically with slight medial depression. Vinculum strong, U-shaped. Cucullus more or less triangular, extended terminally, inner costa slightly concave, with a small prominence in the base; ventral margin a strong crest, corona long. Harpe reduced in its basal bar, ampulla absent. Saccular extensions strongly asymmetric, large, much smaller on left side, which is rounded terminally, while the right one much longer, somewhat bifid, evenly tapering distally, pointed apically, bearing in the inner side a wedge shaped, pointed extension. Aedeagus tubular, long, curved ventrad, carina broadly sclerotized both dorsad and ventrad, with the presence of a big spike ventrad. Vesica T-shaped, basal tube broad, with a large, rounded central and a small, tongue-shaped lateral diverticulum medially; dorsal arm ample, broad, curved dorsad, with a small lateral diverticulum; distally conical, terminating in a bundle of small cornuti; ventral arm with a long subterminal-terminal field of spinules in the distal part of the vesica toward the ductus ejaculatorius.

**Female genitalia** (Fig. 44). Papillae anales setose, broad, angular; apophyses anteriores and posteriores thin, the latter ones longer. Antrum broadly calyculate, its terminal margin is slightly wavy, shallowly indented in the middle, strongly sclerotized. Ductus bursae broad, medially asymmetrically bulging. Appendix bursae large, prominent, broadly conical, strongly sclerotized. Corpus bursae large, saccate, with a long medial asymmetric area of longitudinal parallel wrinkles in its wall.

**Biology and distribution.** The new subspecies represents the western populations of *C. suavis* in South West Siberia.

**Etymology.** The new subspecies is named after colleague A. V. Volynkin (Altai State University, Barnaul, Russia), prominent Russian specialist of Noctuidae, explorer of its populations in the Altai range.

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## Captions

### Detailed data of the colour figures

1. *C. clara*, m, China, Qinghai, NW from Datong, Daban Shan MT., near Tawa, 3100 m, 37° 08' 229" N, 101° 18' 145" E, 18-20 VII. 2014, Floriani leg., GYP 4316 (AFM); 2. *C. clara*, f, China, Sichuan, Min Shan, 2900, prov. road 301 (km 99), 5 km S Jarpo town, 5-8 Juglio 2012, D. Brunna & A. Floriani leg. (AFM); 3. *C. pseudoclara* **sp. n.**, HT, China, N Yunnan, Diqing Tibetan Aut. Pref., 8 km NEE Shangri La at Nairi village, 3300m, 14. VI. 2009, leg. B. Benedek, GYP 5821 (PGM); 4. *C. pseudoclara* **sp. n.**, PT, m, China, N Yunnan, Diqing Tibetan Aut. Pref., 8 km NEE Shangri La at Nairi village, 3300m, 21. VI. 2009, leg. B. Benedek (PGM); 5. *C. dentirena*, HT, m, China, E Tibet, Taba, 3900 m, 18. VI. 1996, leg. W. Fickler, GYP 723 (PGM); 6. *C. dentirena*, PT, f, China, E Tibet, Taba, 3900 m, 18. VI. 1996, leg. W. Fickler, RL 5927 (PGM); 7. *C. dentirena*, m, China, N Sichuan, road Maoxian\_Songpan, 70 km, S from Songpan, 2300 m, 32° 10' 408" N, 103° 45' 105" E, 14. IV. 2015, leg. Floriani & Saldaitis, GYP 4202 (PGM); 8. *C. dentirena*, f, China, N Sichuan, 20 km N Maoxian, 1820 m, 31° 46' 310" N, 103° 42' 898" E, 22. IV. 2015, leg. Floriani & Saldaitis (AFM).

9. *C. suaveola* lectotype, m, labels are: "Mien Shan. (prov. Shansi), obere höhe cca 2000 m, 30. 7. 1937, H. Höne"; "f. suaveola Drdt, 1950 32"; "Gen. PRP. 4494 male, Conisania suaveola Drdt. b. spec. China, Shansi, Behounek det. 1990", "ZFMKLep-153521"; 10. *C. suaveola* Draudt, 1950, m, China, Qinghai, Burhan Budai Shan, S from Balong, 3460 m, 35° 50' 379" N, 097° 24' 620" E, 12 VII. 2014, Floriani & Saldaitis leg., GYP 3969 (PGM); 11. *C. suaveola* Draudt, 1950, f, China, Qinghai, Burhan Budai Shan, S from Balong, 3460 m, 35° 50' 379" N, 097° 24' 620" E, 12 VII. 2014, Floriani & Saldaitis leg., GYP 4307 (PGM); 12. *C. suaveola discestroides* Varga & Ronkay, 1991 m, Mongolia, Töv aimag, 18 km N of Bayanchandmani, 1276 m, 48° 20' 916" N, 106° 14' 436" E, 11 VII. 2008, B. Benedek leg. (PGM); 13. *C. suaveola discestroides*, m, Mongolia, Töv aimag, 20 km S of Bayangol, 1093 m, 48° 44' 840" N, 106° 06' 665" E, 27 VI. 2008, B. Benedek leg., GYP 4330 (PGM); 14. *C. tonimayri* **sp. n.**, HT, m, China, N Sichuan, n. Jiuzhaigou, 2161m, 33° 15' 955" N, 103° 55' 53" E, 15-16. IV. 2015, leg. Floriani & Saldaitis, GYP 4310 (PGM); 15. *C. tonimayri* **sp. n.**, PT, f, China, N Sichuan, n. Jiu-

zhaigou, 2161m, 33° 15' 955" N, 103° 55' 53" E, 15-16. IV. 2015, leg. Floriani & Saldaitis, GYP 4318 (PGM); 16. *C. tonimayri* **sp. n.**, PT, m, China, N Sichuan, n. Jiuzhaigou, 2161m, 33° 18' 955" N, 103° 55' 531" E, 18. IV. 2015, leg. Floriani & Saldaitis, GYP 5838 (AFM).

17. *C. suavis*, m, Russia, Far East, Prymorie, Ussuryisk distr., Zarechnoje vil., 21. VII. 1995, I Tchervonenko leg, GYP 5826, (PGM); 18. *C. suavis*, m, Russia, Far East, Prymorie, Ussuryisk distr., Zarechnoje vil., 21. VII. 1995, I Tchervonenko leg, (PGM); 19. *C. suavis volynkini* **ssp. n.**, HT, m, Russia, SW Siberia, Altai Mountains, Altai Republic, Ulagansky District, Aktash village environs, 1500 m, 18. VI. 2015, leg. V. Zurilina, GYP 5823 (PGM); 20. *C. suavis volynkini* **ssp. n.**, PT, f, Russia, Altai Republic, Ulagan Distr., Aktash village, 1350 m, 8-12. VI. 2010, leg. Volynkin & Ivanova, GYP 5843 (AFM).

#### Detailed data of the male genitalia figures

21. *C. clara*, China, Sichuan, Min Shan, 2900 m, prov. road 301(km 99), 5 km S Jarpo town, 5-8 Juglio 2012, D. Brunna & A. Floriani leg., GYP 5833 (AFM); 22. *C. clara*, China, Qinghai, NW from Datong, Daban Shan MT., near Tawa, 3100 m, 37° 08' 229" N, 101° 18' 145" E, 18-20 VII. 2014, Floriani leg., GYP 4316 (AFM); 23. *C. pseudoclara* **sp. n.**, HT, China, N Yunnan, Diqing Tibetan Aut. Pref., 8 km NEE Shangri La at Nairi village, 3300m, 14. VI. 2009, leg. B. Benedek, GYP 5821 (PGM); 24. *C. pseudoclara* **sp. n.**, PT, China, NW Sichuan, n. Maniganggo, 3860 m, 31° 47' 22" N, 99° 23' 27" E, 30. VI. 2019, leg. Butvila & Saldaitis, GYP 5842 (AFM).

25. *C. dentirena*, 1997, HT, m, China, E Tibet, Taba, 3900 m, 18. VI. 1996, leg. W. Fickler, GYP 723 (PGM); 26. *C. dentirena*, 1997, China, W Sichuan, Floriani & Saldaitis leg., GYP 4312 (AFM); 27. *C. suaveola*, lectotype, m, labels are: "Mien Shan. (prov. Shansi), obere höhe cca 2000 m, 30. 7. 1937, H. Höne"; "f. suaveola Drdt, 1950 32"; "Gen. PRP. 4494 male, Conisania suaveola Drdt. b. spec. China, Shansi, Behounek det. 1990"; "ZFMKLep153521"; 28. *C. suaveola* Draudt, 1950, China, Qinghai, Burhan Budai Shan, S from Balong, 3460 m, 35° 50' 379" N, 097° 24' 620" E, 12 VII. 2014, Floriani & Saldaitis leg., GYP 3969 (PGM).

29. *C. suaveola discestroides*, China, Inner Mongolia, 700 m, 100 km W from Ulanhot, Mingshui, 10. VII. 2008, Floriani & Saldaitis leg., GYP 2345 (PGM); 30. *C. tonimayri* **sp. n.**, HT, China, N Sichuan, n. Jiuzhaigou, 2161m, 33°15' 955" N, 103° 55' 53" E, 15-16. IV. 2015, leg. Floriani & Saldaitis, GYP 4310 (PGM); 31. *C. tonimayri* **sp. n.**, PT, China, N Sichuan, n. Jiuzhaigou, 2161m, 33° 18' 955" N, 103° 55' 531" E, 18. IV. 2015, leg. Floriani & Saldaitis, GYP 5838; aedeagus: GYP 5837 (AFM); 32. *C. suavis*, m, Russia, Far East, Prymorie, Ussuryisk distr., Zarechnoje vil., 21. VII. 1995, I. Tchervonenko leg, GYP 5826 (PGM);

33. *Conisania suavis volynkini* **ssp. n.**, HT, Russia, SW Siberia, Altai Mountains, Altai Republic, Ulagansky District, Aktash village environs, 1500 m, 18. VI. 2015, leg. V. Zurilina, GYP 5823 (PGM); 34. *C. suavis volynkini* **ssp. n.**, PT, Russia, SW Siberia, Altai Mountains, Altai Republic, Ulagansky District, Aktash village environs, 1500 m, 18. VI. 2015, leg. V. Zurilina, GYP 5818 (PGM).

#### Detailed data of the female genitalia figures

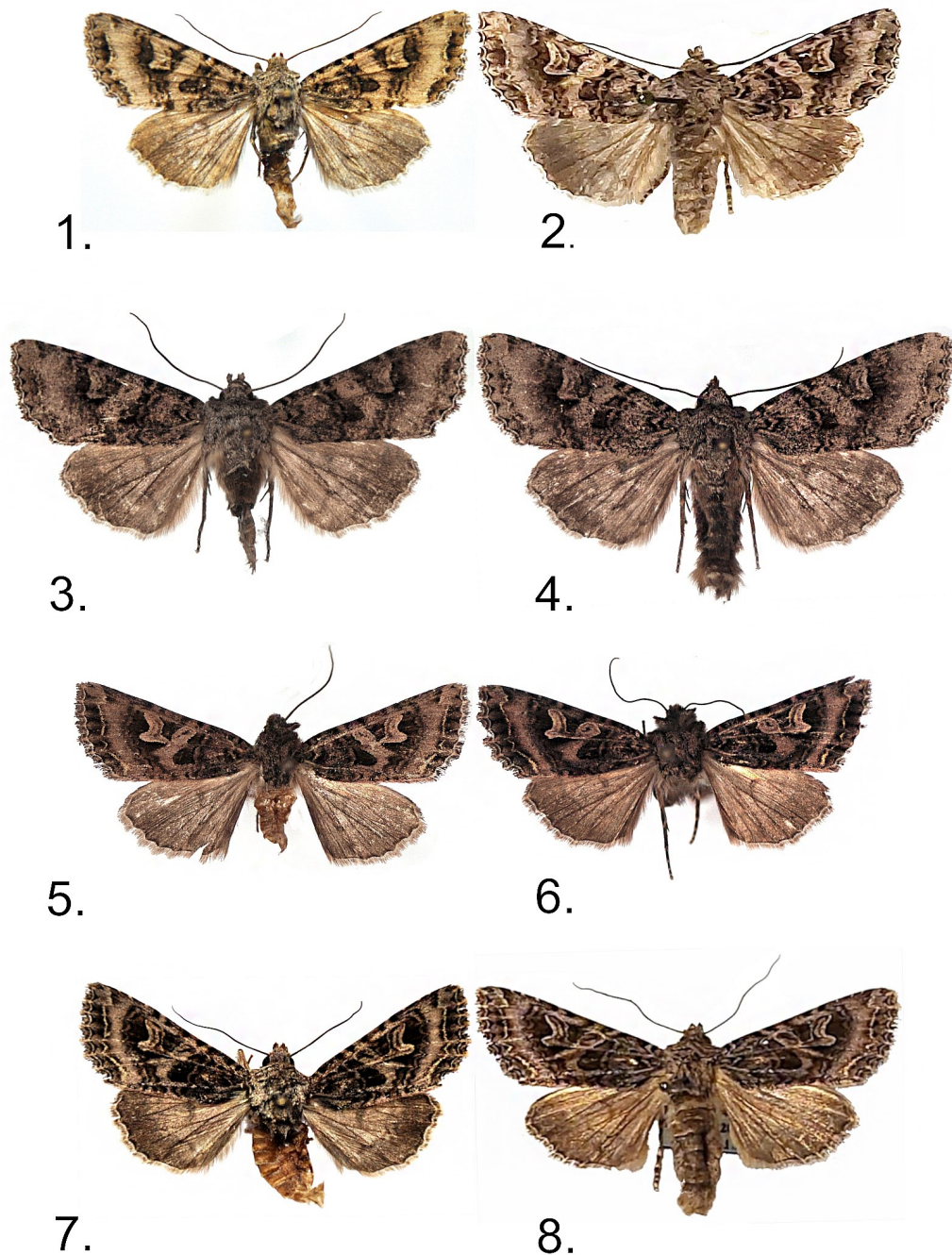
35. *C. clara*, China, Sichuan, Min Shan, 2900, prov. road 301(km 99), 5 km S Jarpo town, 5-8 Juglio 2012, D. Brunna & A. Floriani leg, GYP 5832 (AFM); 36. *C. dentirena*, PT, China, E Tibet, Taba, 3900 m, 18. VI. 1996, leg. W. Fickler, RL 5927 (PGM); 37. *C. dentirena*, China, Sichuan, 80 km SW of Maniganggo, 3400 m, 12-15. VII. 2015, leg. unknown, GYP 1968 (PGM); 38. *C. suaveola*, China, Qinghai, NW from Datong, Daban Shan MT., near Tawa, 3100 m, 37° 08' 229" N, 101° 18' 145" E, 18-20 VII. 2014, Floriani leg. GYP 4305, (AFM); 39. *C. suaveola*, China, Qinghai, Burhan Budai Shan, S from Balong, 3460 m, 35° 50' 379" N, 097° 24' 620" E, 12 VII. 2014, Floriani & Saldaitis leg., GYP 4307 (PGM); 40. *C. suaveola discestroides*, Mongolia, Töv aimag, 20 km S of Bayangol, 1093 m, 48° 44' 840" N, 106° 06' 665" E, 27 VI. 2008,



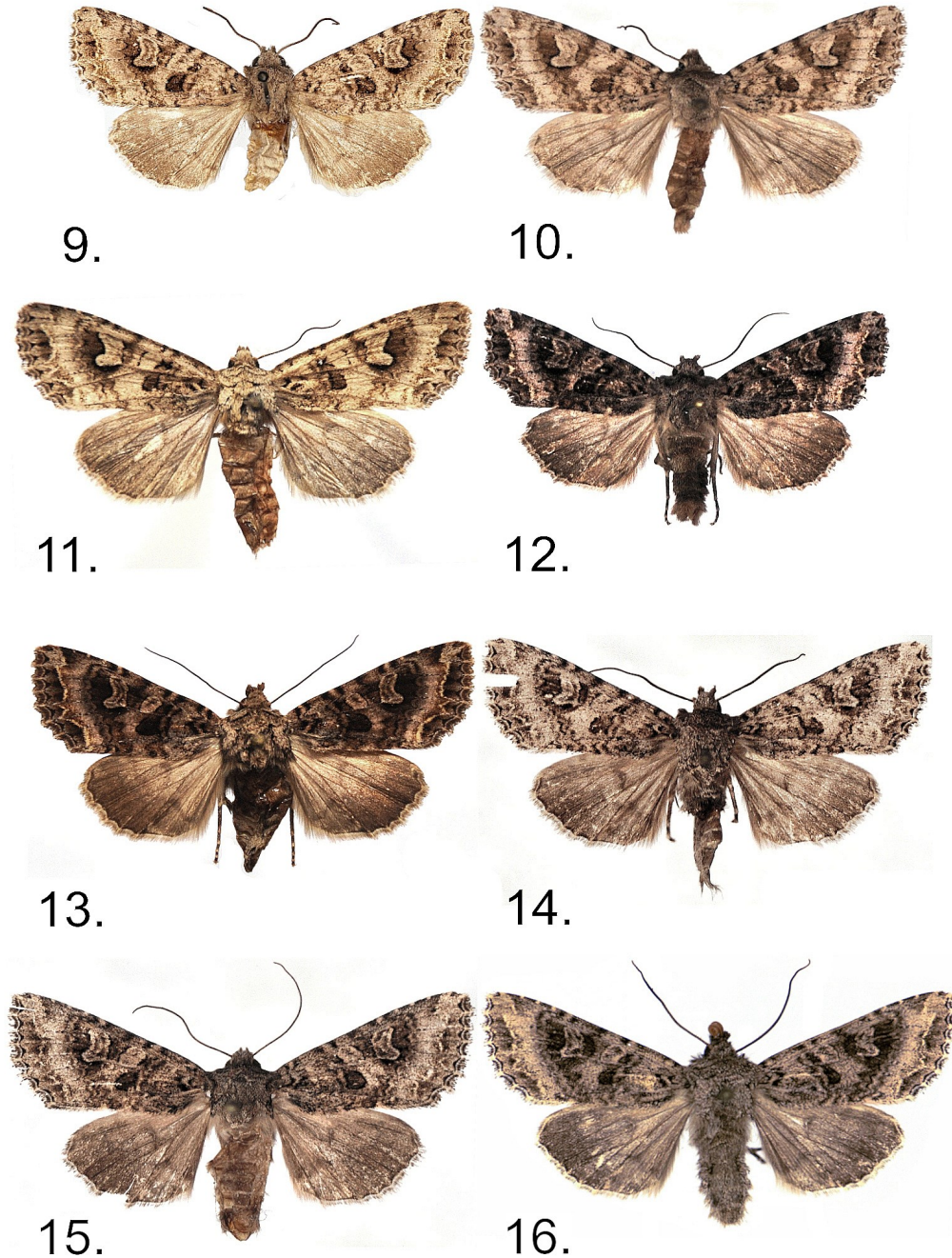
B. Benedek leg., GYP 4330 (PGM); 41. *C. tonimayri* **sp. n.** PT, China, N Sichuan, n. Jiuzhaigou, 2161m, 15-16. IV. 2015, leg. Floriani & Saldaitis, GYP 5822 (PGM); 42. *C. tonimayri* **sp. n.**, PT, f, China, N Sichuan, n. Jiuzhaigou, 2161m, 15-16. IV. 2015, leg. Floriani & Saldaitis, GYP 4318 (PGM); 43. *C. suavis*, Russia, Prymorskij Kraj, Vasilevka, 11. IX. 1993, Amosov leg, GYP 5817 (PGM); 44. *C. suavis volynkini* **ssp. n.**, PT, Russia, Altai Republic, Ulagan Distr., Aktash village, 1350 m, 8-12. VI. 2010, leg. Volynkin & Ivanova, GYP 5843 (AFM).

## References

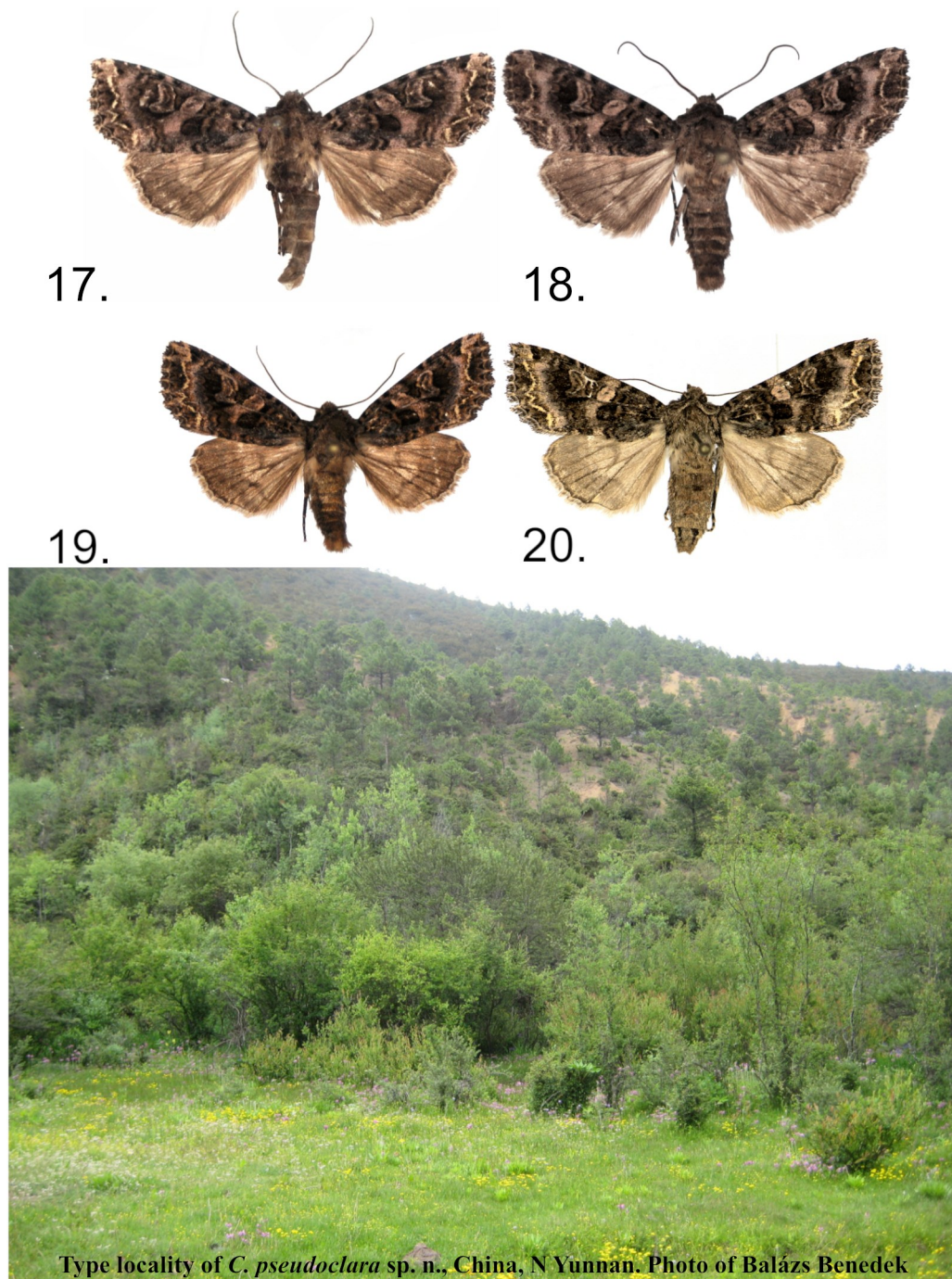
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**Figures 1–8.** *Conisania* spp. adults. 1. *C. clara*, m, China, Qinghai, GYP 4316 (AFM); 2. *C. clara*, f, China, Sichuan (AFM); 3. *C. pseudoclara* **sp. n.**, HT, m, China, N Yunnan, GYP 5821 (PGM); 4. *C. pseudoclara* **sp. n.**, PT, m, China, N Yunnan (PGM); 5. *C. dentirena*, HT, m, China, E Tibet, GYP 723 (PGM); 6. *C. dentirena*, PT, f, China, E Tibet, RL 5927 (PGM); 7. *C. dentirena*, m, China, N Sichuan, GYP 4202 (PGM); 8. *C. dentirena*, f, China, N Sichuan, (AFM).

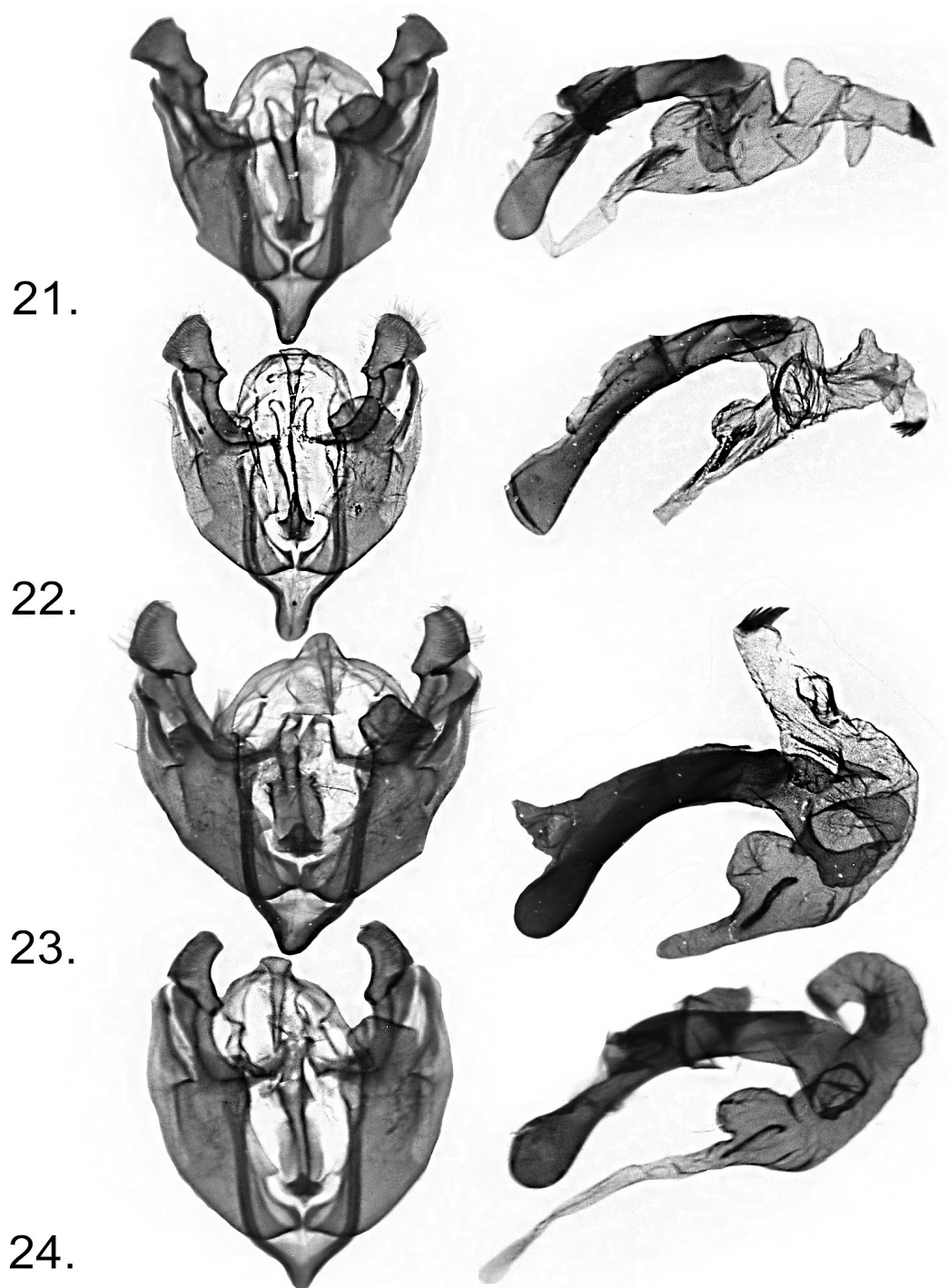


**Figures 9–16.** *Conisania* spp. adults. 9. *C. suaveola*, lectotype, m, China, Shansi, Behounek 4494 (ZFMK Lep 153521); 10. *C. suaveola*, m, China, Qinghai, GYP 3969 (PGM); 11. *C. suaveola*, f, China, Qinghai, GYP 4307 (PGM); 12. *C. suaveola discestroides*, m, Mongolia, Töv aimag (PGM); 13. *C. suaveola discestroides*, m, Mongolia, Töv aimag, GYP 4330 (PGM); 14. *C. tonimayri* sp. n., HT, m, China, N Sichuan, GYP 4310 (PGM); 15. *C. tonimayri* sp. n., PT, f, China, N Sichuan, GYP 4318 (PGM); 16. *C. tonimayri* sp. n., PT, m, China, N Sichuan, GYP 5838 (AFM).

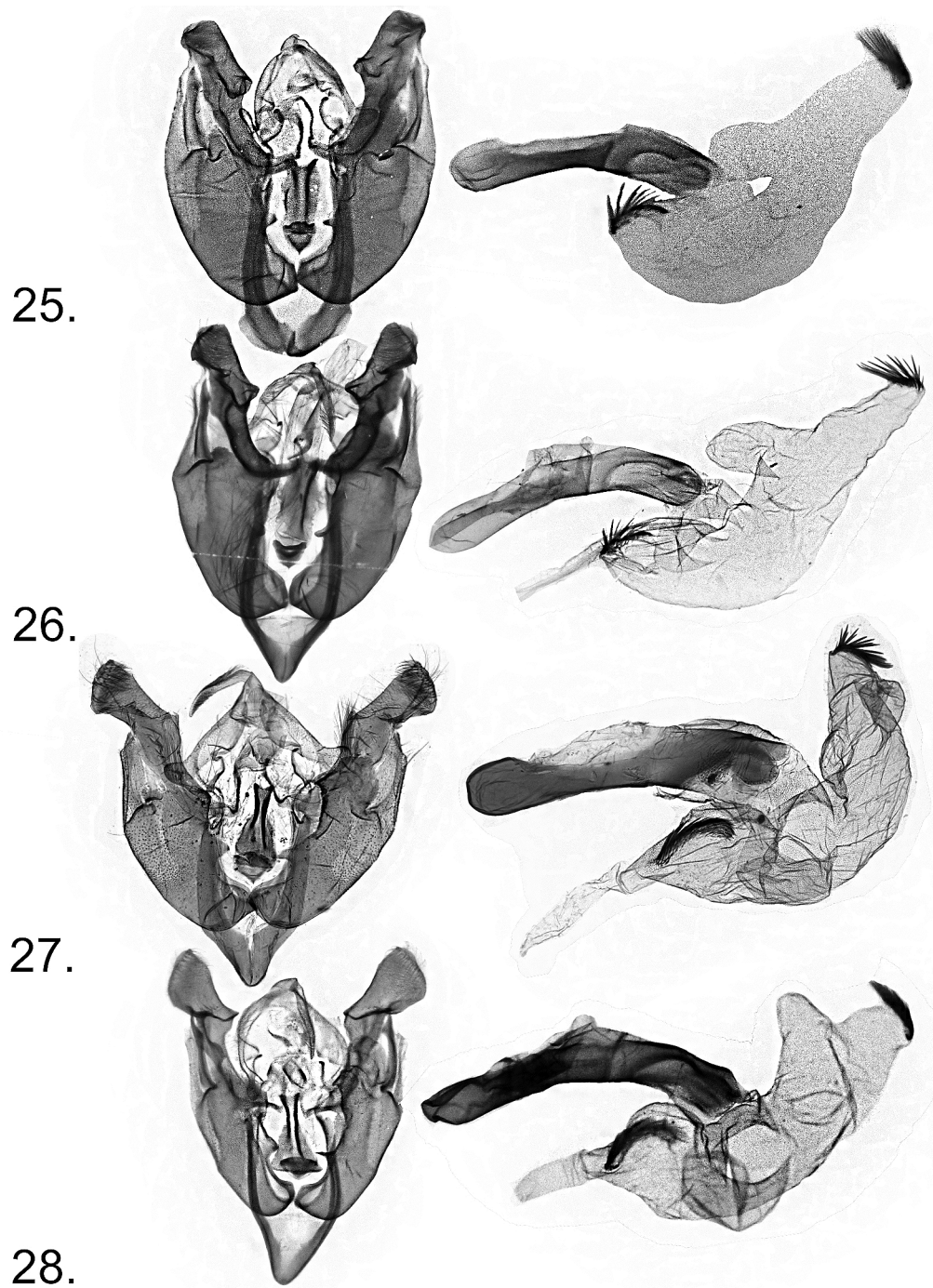


Type locality of *C. pseudoclara* sp. n., China, N Yunnan. Photo of Balázs Benedek

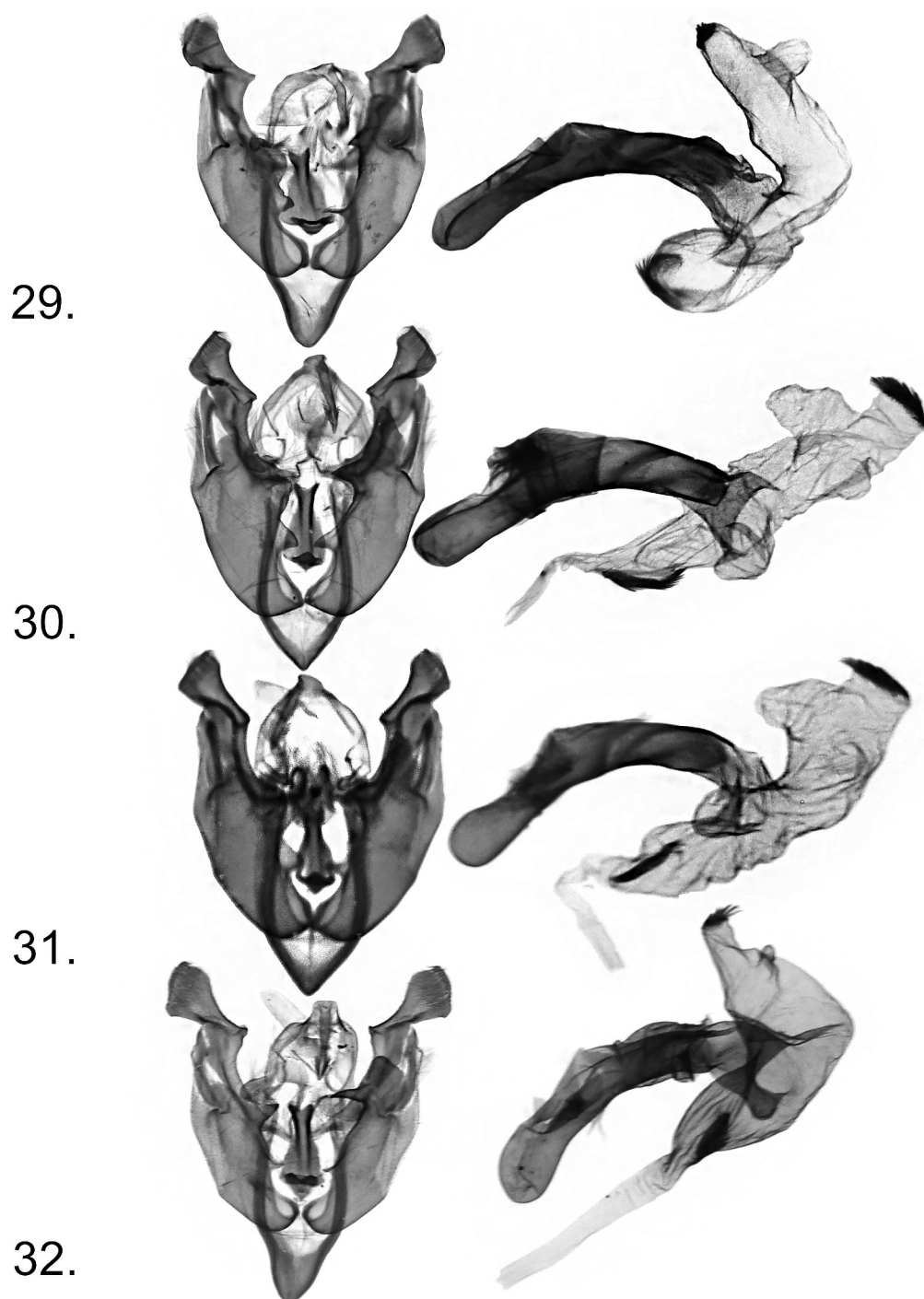
**Figures 17–20.** *Conisania* sp. and spp. n. adults. 17. *C. suavis* m, Russia, Far East, GYP 5826 (PGM); 18. *C. suavis*, m, Russia, Far East (PGM); 19. *C. suavis volynkini* **ssp. n.**, HT, m, Russia, SW Siberia, Altai, GYP 5823 (PGM); 20. *C. suavis volynkini* **ssp. n.**, PT, f, Russia, SW Siberia, Altai, GYP 5843 (AFM).



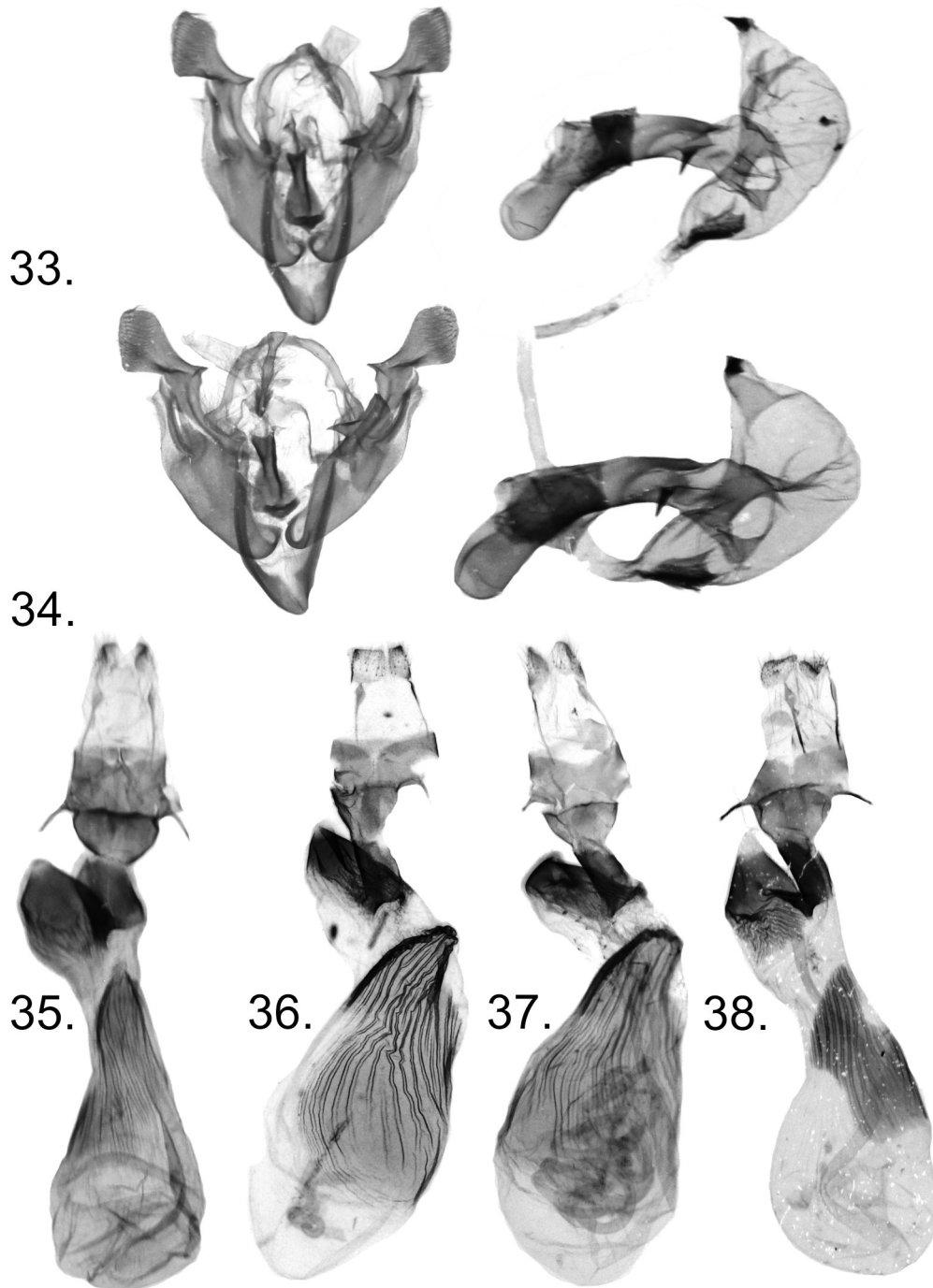
**Figures 21–24.** *Conisania* spp. male genitalia. 21. *C. clara*, China, Sichuan, GYP 5833 (AFM); 22. *C. clara*, China, Qinghai, GYP 4316 (AFM); 23. *C. pseudoclara* sp. n., HT, China, N Yunnan, GYP 5821 (PGM); 24. *C. pseudoclara* sp. n., PT, China, NW. Sichuan, GYP 5842 (AFM).



**Figures 25–28.** *Conisania* spp. male genitalia. 25. *C. dentirena*, HT, China, E Tibet, GYP 723 (PGM); 26. *C. dentirena*, China, W Sichuan, GYP 4312 (AFM); 27. *C. suaveola* lectotype, China, Mien Shan, Behounek 4494 (ZFMKLep); 28. *C. suaveola*, China, Qinghai, GYP 3969 (PGM).

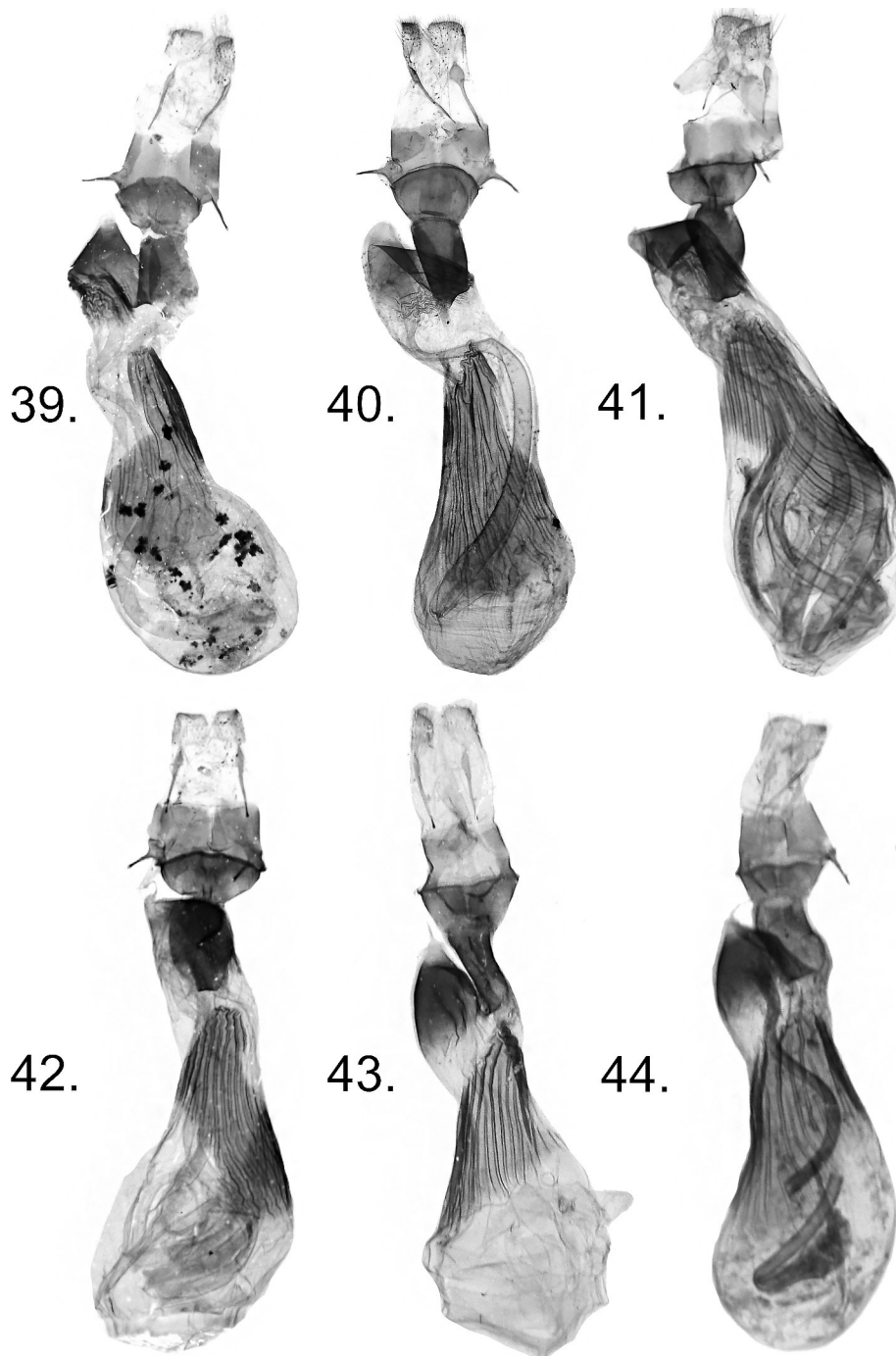


**Figures 29–32.** *Conisania* spp. male genitalia. 29. *C. suaveola discestroides*, China, Inner Mongolia, GYP 2345 (PGM); 30. *C. tonimayri* **sp. n.**, HT, China, N Sichuan, GYP 4310 (PGM); 31. *C. tonimayri* **sp. n.**, PT, China, N Sichuan, capsule: GYP 5838, aedeagus: GYP 5837 (AFM); 32. *C. suavis*, Russia, Far East, GYP 5826 (PGM).



**Figures 33–34.** *Conisania* spp. male genitalia. 33. *C. suavis volynkini* **ssp. n.**, HT, Russia, SW Siberia, GYP 5823 (PGM); 34. *C. suavis volynkini* **ssp. n.**, PT, Russia, SW Siberia, GYP 5818 (PGM). **Figures 35–38.** *Conisania* spp. female genitalia. 35. *C. clara*, China, Sichuan, GYP 5832 (AFM); 36. *C. dentirena*, PT, China, E Tibet, RL 5927 (PGM); 37. *C. dentirena*, China, Sichuan, GYP 1968 (PGM); 38. *C. suaveola*, China, Qinghai, GYP 4305, (AFM).





**Figures 39–44.** *Conisania* spp. and ssp. female genitalia. 39. *C. suaveola*, China, Qinghai, GYP 4307 (PGM); 40. *C. suaveola discestroides*, Mongolia, Töv aimag, GYP 4330 (PGM); 41. *C. tonimayri* **sp. n.**, PT, China, N Sichuan, GYP 5822 (PGM); 42. *C. tonimayri* **sp.n.**, PT, China, N Sichuan, GYP 4318 (PGM); 43. *C. suavis*, Russia, Prymorskij Kraj, GYP 5817, (PGM); 44. *C. suavis volynkini* **sp. n.**, PT, Russia, Altai, GYP 5843 (AFM).