

# INSECTA MUNDI

A Journal of World Insect Systematics

---

**0654**

Contribution to the knowledge of Chilean Phycitinae  
(Lepidoptera: Pyralidae): new species of *Passadena* Hulst, 1900,  
and *Ragonotia* Grote, 1888, from northern Chile

Danilo E. Cepeda

Museo Entomológico Luis Peña, Departamento de Sanidad Vegetal  
Facultad de Ciencias Agronómicas, Universidad de Chile  
Casilla 1004, Santiago, Chile

Date of issue: August 31, 2018

Danilo E. Cepeda

Contribution to the knowledge of Chilean Phycitinae (Lepidoptera: Pyralidae): new species of *Passadena* Hulst, 1900, and *Ragonotia* Grote, 1888, from northern Chile  
*Insecta Mundi* 0654: 1–12

ZooBank Registered: urn:lsid:zoobank.org:pub:7BCBFB5D-FABE-42BC-81CC-A37B401A7D85

**Published in 2018 by**

Center for Systematic Entomology, Inc.

P.O. Box 141874

Gainesville, FL 32614-1874 USA

<http://centerforsystematicentomology.org/>

**Insecta Mundi** is a journal primarily devoted to insect systematics, but articles can be published on any non-marine arthropod. Topics considered for publication include systematics, taxonomy, nomenclature, checklists, faunal works, and natural history. *Insecta Mundi* will not consider works in the applied sciences (i.e. medical entomology, pest control research, etc.), and no longer publishes book reviews or editorials. *Insecta Mundi* publishes original research or discoveries in an inexpensive and timely manner, distributing them free via open access on the internet on the date of publication.

*Insecta Mundi* is referenced or abstracted by several sources, including the Zoological Record and CAB Abstracts. *Insecta Mundi* is published irregularly throughout the year, with completed manuscripts assigned an individual number. Manuscripts must be peer reviewed prior to submission, after which they are reviewed by the editorial board to ensure quality. One author of each submitted manuscript must be a current member of the Center for Systematic Entomology.

Guidelines and requirements for the preparation of manuscripts are available on the *Insecta Mundi* website at <http://centerforsystematicentomology.org/insectamundi/>

**Chief Editor:** David Plotkin, [insectamundi@gmail.com](mailto:insectamundi@gmail.com)

**Assistant Editor:** Paul E. Skelley, [insectamundi@gmail.com](mailto:insectamundi@gmail.com)

**Head Layout Editor:** Robert G. Forsyth

**Editorial Board:** J. H. Frank, M. J. Paulsen, Michael C. Thomas

**Review Editors:** Listed on the *Insecta Mundi* webpage

**Printed copies (ISSN 0749-6737) annually deposited in libraries**

CSIRO, Canberra, ACT, Australia

Museu de Zoologia, São Paulo, Brazil

Agriculture and Agrifood Canada, Ottawa, ON, Canada

The Natural History Museum, London, UK

Muzeum i Instytut Zoologii PAN, Warsaw, Poland

National Taiwan University, Taipei, Taiwan

California Academy of Sciences, San Francisco, CA, USA

Florida Department of Agriculture and Consumer Services, Gainesville, FL, USA

Field Museum of Natural History, Chicago, IL, USA

National Museum of Natural History, Smithsonian Institution, Washington, DC, USA

Zoological Institute of Russian Academy of Sciences, Saint-Petersburg, Russia

**Electronic copies (Online ISSN 1942-1354, CDROM ISSN 1942-1362) in PDF format**

Printed CD or DVD mailed to all members at end of year. Archived digitally by Portico.

Florida Virtual Campus: <http://purl.fcla.edu/fcla/insectamundi>

University of Nebraska-Lincoln, Digital Commons: <http://digitalcommons.unl.edu/insectamundi/>

Goethe-Universität, Frankfurt am Main: <http://nbn-resolving.de/urn/resolver.pl?urn:nbn:de:hebis:30:3-135240>

**Copyright** held by the author(s). This is an open access article distributed under the terms of the Creative Commons, Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original author(s) and source are credited. <http://creativecommons.org/licenses/by-nc/3.0/>

**Layout Editor for this article:** Robert G. Forsyth

Contribution to the knowledge of Chilean Phycitinae (Lepidoptera: Pyralidae): new species of *Passadena* Hulst, 1900, and *Ragonotia* Grote, 1888, from northern Chile

Danilo E. Cepeda

Museo Entomológico Luis Peña, Departamento de Sanidad Vegetal  
Facultad de Ciencias Agronómicas, Universidad de Chile  
Casilla 1004, Santiago, Chile  
museoent@uchile.cl

**Abstract.** Two new species of Phycitinae (Lepidoptera: Pyralidae) from Chile are described: *Passadena mistralae* Cepeda, n. sp., and *Ragonotia campodonicoi* Cepeda, n. sp. Adult external morphological characters, as well as male and female genitalia, are described and illustrated for both taxa.

**Key words.** Phycitini, Neotropical, *Pseudopassadena*, *Eupassadena*, taxonomy.

**Resumen.** Se describen dos nuevas especies de Phycitinae (Lepidoptera: Pyralidae) de Chile: *Passadena mistralae* Cepeda, n. sp., y *Ragonotia campodonicoi* Cepeda, n. sp. Para ambos taxa, se entregan caracteres morfológicos externos del adulto y se describen e ilustran la genitalia masculina y femenina.

**Palabras clave.** Phycitini, Neotropical, *Pseudopassadena*, *Eupassadena*, taxonomía.

## Introduction

The Phycitinae (Lepidoptera: Pyralidae) of the South American region are poorly known and represented by no more than 176 species (Pastrana 1991; Shaffer 1995; Monteiro and Becker 2002). In Chile, phycitines are represented by a total of 17 genera and 23 species. Most of these belong to genera with a Neotropical/Andean distribution, whereas only two genera are monotypic and endemic (Cepeda 2017). The genus *Passadena* Hulst (1900) comprises two species: *P. flavidorsella* (Ragonot, 1887) from the United States and Mexico, and *P. argentina* Neunzig and Goodson (1992) from Argentina (Scholtens and Solis 2015; Nuss et al. 2017). The genus *Ragonotia* Grote (1888) also includes two species: *R. dotalis* (Hulst, 1886) from the United States and *R. confluenciana* Neunzig and Goodson (1992) from Argentina (Scholtens and Solis 2015; Nuss et al. 2017). As a result of recent collections in northern Chile (Province of Huasco, Atacama Region) with ultraviolet light traps, undescribed taxa belonging to both genera have been discovered. The purpose of this work is to describe two new species based on morphological observations of adults and genitalia. This contribution also discusses the systematic position of the two new species with respect to their Neotropical congeners.

## Materials and Methods

The specimens examined in this study and permanent genitalia slides are deposited in:

MEUC The Luis Peña Entomological Museum, Department of Plant Protection, College of Agronomic Sciences, University of Chile, Santiago.

USNM National Museum of Natural History, Smithsonian Institution, Washington D.C., USA.

ZMUC Zoological Museum University of Copenhagen, Denmark.

The genitalia structures were examined using the methodology proposed by Simonsen (2008). The adult description follows the format of Neunzig and Goodson (1992) and Cepeda (2017). An EZ4E Leica stereomicroscope was used for observations and photographs of adults. These images were processed using the LAS-EZ 3.2.0 Leica Application Suite software. Forewing length measurements were performed on images of the right forewing that were processed with the same program. Forewing length was treated as the distance from the basal to the apical ends of the costa, including fringes. The genitalia structures were

examined under a DM500 Leica microscope, and photographs were taken with a 14-megapixel resolution HD Movie Fujifilm digital camera. Later, the photographs were processed with Adobe Photoshop CS5.1.

## Results

### *Passadena mistralae* Cepeda, new species

**Diagnosis.** (Fig. 1–6). Larger than other species of *Passadena*, in both sexes. Forewing 11–15 mm ( $n = 12$ ). Forewing whitish to ash gray, antemedial line an interrupted, dark band. Cell with two dark spots. Postmedial line a band dark zigzagging toward the distal third. Abdomen with tergites 2–4 covered with dense golden-yellow scales. Phallus with two cornuti and abundant microspines in vesica. Signum with groups of acute, elongated spines. This new species can be differentiated from *Passadena flavidorsella* (Ragonot) and *Passadena argentina* Neunzig and Goodson by the following characters: forewing pattern, phallus with two cornuti, corpus bursae dorsally covered by several spines, and signum with groups of elongated spines acute.

*Passadena mistralae*, n. sp., is included in this genus based on the following features: haustellum well developed and ocelli present; forewing with 11 veins,  $R_2$  from cell,  $R_{3+4}$  and  $R_5$  stalked for more 1/2 their lengths,  $M_1$  from bellow upper angle of cell,  $M_2$  and  $M_3$  connate,  $CuA_1$  from lower angle of cell,  $CuA_2$  from before lower angle of cell, male without costal fold or sex-scaling and raised scales; hindwing with 8 veins,  $Sc+R_1$  and  $Rs$  fully separated,  $M_1$  not fused with  $Rs$  at base,  $M_2$  and  $M_3$  stalked for over 1/2 their lengths,  $CuA_1$  fused at base with  $M_2+M_3$ ,  $CuA_2$  from slightly before lower angle of cell; eighth abdominal segment of male with pair of ventrolateral scale tufts. All these features are in agreement with the redescription proposed by Heinrich (1956) and with the description of *P. argentina* Neunzig and Goodson (1992).

**Description of female holotype.** Forewing 13.0 mm, right wing. Head with frons, vertex and occiput covered by elongated whitish-grey scales, few scattered dark scales. Antenna filiform, with scape and flagellomeres dorsally covered by whitish scales. Ventral flagellomeres finely and densely ciliate. Labial palpus porrect, twice as long as maximum diameter of eye, covered by elongated whitish scales, with few scattered black scales; third segment elongated (Fig. 5–6). Maxillary palpus simple, with elongated whitish scales pointing upwards. Thorax, tegulae and scutellum covered with whitish scales, with few scattered black scales. Forewing (Fig. 1–4) whitish ash gray; antemedial line interrupted by longitudinal band of black scales; cell with two black postmedial spots at  $Rs$  and  $M1$ ; postmedial line dark and zigzagging; termen with six black marginal spots. Hindwing broad and triangular, opaque whitish,  $M2+3$  and  $CuA1$  divergent in more than half of their lengths; termen sub-fringe with scales dark and fringe with whitish elongated scales. Abdomen with tergites 2–4 covered with dense golden-yellow scales.

**Female genitalia.** (Fig. 7–12). Papillae anales simple. Eighth segment sclerotized. Apophyses anteriores and posteriores subequal in length. Ductus bursae short and broad, with patch of dense microspines near ostium bursae. Corpus bursae with dorsum partially sclerotized by spines fused at their bases, with some spines isolated; signum formed by three groups of elongated acute spines, with one group larger than other two. Ductus seminalis attached to corpus bursae near junction of ductus bursae and corpus bursae.

**Male.** Forewing 11–13 mm ( $n = 2$ ). As described in female, except scape dorsally covered with dark-brown scales; labial palpus porrect, covered with dark-brown scales, also with a few scattered whitish scales, without tufts basally, with third segment small and acute; maxillary palpus covered with elongated brown scales pointing upwards; thorax, tegulae and scutellum covered with ash-gray scales, also with few scattered whitish scales.

**Male genitalia.** (Fig. 13–17). Uncus triangular with wide base covered by an abundant short micropilosity. Gnathos narrow, with pointed apex. Juxta U-shaped, with setiferous lateral arms. Valva longer than wide, costa thickened to tip of valva; fibula present, longer than wide; lateral U-shaped structure posterior to fibula, pointed dorsally, rounded ventrally. Sacculus wide and sclerotized. Vinculum longer

than wide, saccus posteriorly subtruncate. Phallus thick with two cornuti subequal in length, vesica armed with several acute microspines. Eighth sternum broad, rounded. Eighth tergum narrow, arch-shaped.

**Host plant.** Unknown.

**Intraspecific variation.** Specimens vary in the color of the forewing (whitish to ash gray). In male genitalia there are slight differences in the shape of the uncus, U-shaped structure of the valva, and the valva itself. The female genitalia vary in the quantity of spines forming the signum.

**Etymology.** The name honors Chilean Gabriela Mistral (1889–1957), the first Latin American woman awarded the Nobel Prize in Literature.

**Distribution.** Present in two localities of Huasco Province, Region of Atacama. According to Morrone (2015), this distribution belongs in the Central Chilean Sub-region, Province of Coquimbo.

**Remarks.** This new species includes a lateral U-shaped structure posterior to the fibula, pointed dorsally, rounded ventrally, that could be analogous to the “clasper” of *P. flavidorsella* Ragonot, the type species (see Heinrich 1956). *Passadena mistralae* n. sp. is morphologically very similar to its Argentinean congener, especially in the form of the uncus, gnathos, valva, costa, microspines of the phallus and spines on the corpus bursae.

**Material examined.** 12 specimens. **Holotype** ♀, Chile, Huasco province, Caleta Los Bronces 28°38'S. 71°16'W., 200 m., 21.IX.2017, J.F. Campodonico leg. UV trap (MEUC); **1 Paratype** ♂ Chile, Huasco province, Caleta Los Bronces 28°38'S. 71°16'W., 200 m., 21.IX.2017, J.F. Campodonico leg. UV trap (MEUC); **1 Paratype** ♂ Chile, Tamarico, Huasco province, 28°21'S. 71°46'W., 568 m., 22.IX.2017, J.F. Campodonico leg. UV trap (MEUC); **2 Paratypes** ♀ Chile, Huasco province, Caleta Los Bronces 28°38'S. 71°16'W., 200 m., 21.IX.2017, J.F. Campodonico leg. UV trap (MEUC); **2 Paratypes** ♀ Chile, Tamarico, Huasco province, 28°21'S. 71°46'W., 568 m., 22.IX.2017, J.F. Campodonico leg. UV trap (MEUC); **3 Paratypes** ♀ Chile, Tamarico, Huasco prov., 28°21'S. 71°46'W., 568 m., 22.IX.2017, J.F. Campodonico leg. UV trap (USNM) **2 Paratypes** ♀ Chile, Huasco province, Caleta Los Bronces 28°38'S. 71°16'W., 200 m., 21.IX.2017, J.F. Campodonico leg. UV trap (ZMUC).

### *Ragonotia campodonicoi* Cepeda, new species

**Diagnosis.** (Fig. 18–19). Large in both sexes, relative to other *Ragonotia* species. Forewing 11–13 mm ( $n = 3$ ). Forewing ash gray. Labial palpus large and porrect in both sexes. Valva narrow, with elongated fibula; saccus wider than long. Ductus bursae subequal in length to corpus bursae. This new species can be differentiated from *Ragonotia dotalis* (Ragonot) and *Ragonotia confluenciana* Neunzig and Goodson by the following characters: forewing pattern, narrowed valva, elongated fibula, saccus wider than long and ductus bursae subequal in length to corpus bursae.

*Ragonotia campodonicoi*, n. sp., is included in this genus based on the following features: male antennae with longitudinal rows of rather long sensillae ventrally; labial palpus large and porrect in both sexes; 8th abdominal segment of male without a pair of ventrolateral scale tufts; male genitalia with uncus subtriangular, gnathos with strong apical hook, juxta V-shaped, valva simple and phallus sclerotized, slender and without cornuti; female genitalia with papillae anales with many long setae, ductus bursae sclerotized near junction with corpus bursae, corpus bursae membranous without signum, and ductus seminalis attached to ductus bursae. All these features are in agreement with the description proposed by Neunzig and Goodson (1992).

**Description of female holotype.** Forewing 13.0 mm. Head with frons, vertex and occiput covered by elongate brown scales. Antenna filiform, with scape and dorsal flagellomeres covered by whitish-grey scales. Flagellomeres finely and densely ciliate ventrally. Labial palpus large, porrect, three times as long as maximum diameter of eye, covered by elongated whitish-grey scales, also with a few scattered brown scales. Thorax, tegulae and scutellum covered with brown scales, a few whitish scales scattered. Forewing whitish ash gray, with few black scales scattered. Hindwing broad and triangular, opaque whitish, M2+3 and CuA1 divergent in less than half of their lengths; termen fringed with whitish elongate scales.



**Female genitalia.** (Fig. 20–21). Papillae anales simple, covered with abundant long setae. Eighth segment weakly sclerotized. Apophyses anteriores and posteriores subequal in length. Ductus bursae elongate and strongly sclerotized, subequal in length to corpus bursae. Corpus bursae membranous, without signum. Ductus seminalis attached to ductus bursae near sclerotized area of ductus bursae.

**Male.** Forewing 13.0 mm ( $n = 1$ ). As described in female, except ventral antenna with longitudinal rows of long sensillae, dorsal scape covered with dark-brown scales. Labial palpus porrect, covered with dark-brown scales, without tufts basally. Thorax, tegulae and scutellum covered with brown scales.

**Male genitalia.** (Fig. 22–26). Uncus longer than wide, with wide base, subtriangular. Gnathos strongly sclerotized, with apical hook recurved. Juxta broadly sclerotized, V-shaped plate. Valva longer than wide, with sclerotized costal band narrow and not reaching tip of valva; fibula elongated beyond the valva saccular margin, slender and digitiform; sacculus wider than long. Vinculum longer than wide, saccus posteriorly rounded. Phallus slender, narrowing toward apex, finely scobinate. Eighth abdominal segment of male without a pair of ventrolateral scale tufts. Eighth sternum wider than long, rounded apically. Eighth tergum small and arch-shaped.

**Host plant.** Unknown.

**Intraspecific variation.** Subtle variability in color of the forewing (whitish to ash gray). In female genitalia, there is subtle variation in the length of the apophyses anteriores.

**Etymology.** This species is named after Juan Francisco Campodonico (University of Chile), who collected the type series of this new taxon.

**Distribution.** Present at one locality in the Huasco Province, Region of Atacama. According to Morrone (2015), this distribution belongs in the Central Chilean Sub-region, Province of Coquimbo.

**Remarks.** *Ragonotia campodonicoi* n. sp. is morphologically very similar to its Argentinean congener, especially in the form of the uncus, gnathos, phallus, ductus bursae and corpus bursae.

**Material examined.** 3 specimens. **Holotype** ♀, Chile, Huasco province, Caleta Los Bronces, 28°38'S, 71°16'W, 200 m., 21.IX.2017, J.F. Campodonico leg., UV trap (MEUC). **Paratypes:** 1 ♂ and 1 ♀, Chile, Huasco prov., Caleta Los Bronces, 28°38'S, 71°16'W, 200 m., 21.IX.2017, J.F. Campodonico leg., UV trap (MEUC, ZMUC).

## Discussion

The genus *Passadena* Hulst originally included only one species, *P. flavidorsella* (Ragonot). Heinrich (1956) included this genus in his group I, division B based on wing venation. Neunzig and Goodson (1992) described a second species from southern Neuquen, Argentina, *P. argentina*, thereby expanding the distribution of the genus to South America. Additionally, Neunzig and Goodson (1992) described *Pseudopassadena* and *Eupassadena*, two monobasic genera from Argentina endemic to South America. Unfortunately, none of these three genera have known host records, and their immature stages have not been described. *Pseudopassadena* and *Eupassadena* can be differentiated from *Passadena* by the presence of a single, large, strongly developed, elongate cornutus, and by the partial sclerotization of the corpus bursae.

The genus *Ragonotia* initially included only one species, *R. dotalis* (Hulst 1886), described on the basis of one single female from Arizona, United States of America. This species was subsequently redescribed several times (see Nuss et al. 2017). Neunzig and Goodson (1992) described a second species, *R. confluentiana*, from southern Neuquen, Argentina, thereby expanding the distribution of the genus to South America. *Passadena mistralae* n. sp., and *R. campodonicoi* n. sp., have been collected in the northern area of Chile (Huasco Province, Atacama Region parallel 28°; see Fig. 27) with an ultraviolet-light trap during the desert bloom phenomenon. They are associated with the coastal inner desert and scrublands.

As a consequence of the above descriptions, the current number of species in the genera *Passadena* Hulst and *Ragonotia* Grote rises to three in each, with both genera having Nearctic and Neotropical (Andean) distributions. The Chilean fauna of Phycitinae now totals 25 species in 19 genera.

## Acknowledgments

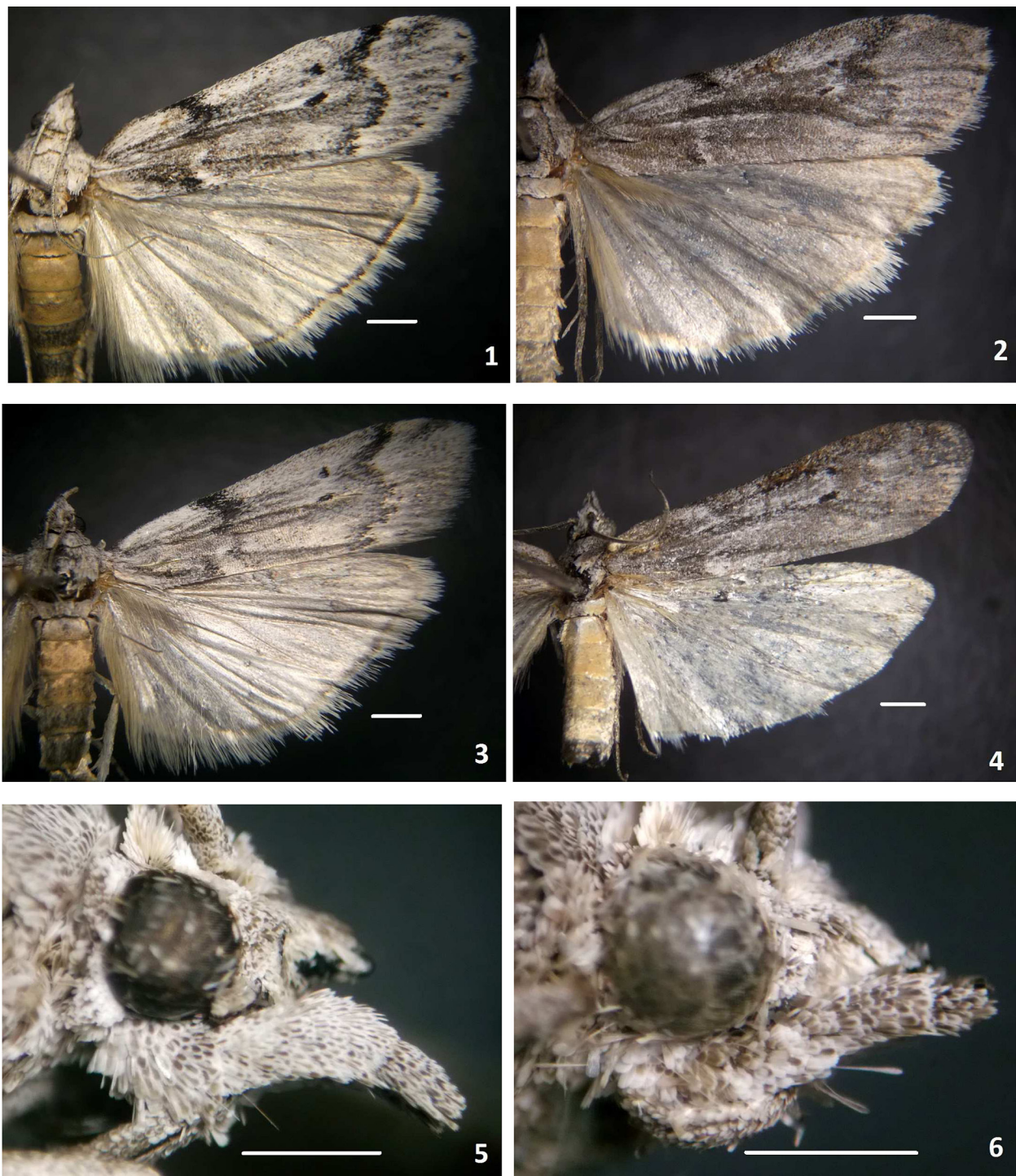
I owe special thanks to Maria Alma Solis (USDA, United States Department of Agriculture, Washington, D.C., USA) and Bernard Landry (Muséum d'histoire naturelle, Geneva, Switzerland) for their valuable comments on the manuscript. Also, I am grateful to Juan F. Campodonico (University of Chile) for collecting material and Eduardo I. Faundez (University of Magallanes, Chile) for kindly providing part of the literature consulted and for a linguistic revision of the manuscript.

## Literature Cited

- Cepeda, D. E. 2017.** Introducción a los Phycitinae de Chile, (Lepidoptera: Pyralidae), nuevo registro y descripción de una nueva especie del género *Homoeographa* Ragonot, 1888. *Insecta Mundi* 0556: 1–9.
- Grote, A. R. 1888.** On the diagnoses of North American Phycitidae, by E. L. Ragonot. *Canadian Entomologist* (Ottawa) 20: 74–75.
- Heinrich, C. 1956.** American moths of the subfamily Phycitinae. *Bulletin of the United States National Museum* 207: 1–581.
- Hulst, G. D. 1886.** Descriptions of new Pyralidae. *Transactions of the American Entomological Society, Philadelphia* 13: 145–168.
- Hulst, G. D. 1900.** Some new genera and species of Phycitinae. *Canadian Entomologist* (Ottawa) 32: 169–176.
- Monteiro, R. F., and V. O. Becker 2002.** A new *Sigelgaita* Heinrich (Lepidoptera, Pyralidae, Phycitinae) feeding on cacti in Brazil. *Revista Brasileira de Zoologia*. 19 (Supl.1): 299–304.
- Morrone, J. J. 2015.** Biogeographical regionalisation of the Andean Region. *Zootaxa* 3936(2): 207–236.
- Neunzig, H. H., and R. L. Goodson 1992.** New genera and species of southern South American Phycitinae (Lepidoptera: Pyralidae). *Proceedings of the Entomological Society of Washington* 94(2): 189–222.
- Nuss, M., B. Landry, R. Mally, F. Vegliante, A. Tränkner, F. Bauer, J. Hayden, A. Segerer, R. Schouten, H. Li, T. Trofimova, M. A. Solis, J. De Prins, and W. Speidel. 2003–2017.** Global Information System on Pyraloidea. Available at <http://pyraloidea.org>. (Last accessed September 30, 2017.)
- Pastrana, J. A. 1991.** Especies nuevas de *Homoeosoma* Curtis de la Provincia de Buenos Aires (Lepidoptera, Pyralidae, Phycitinae). *Revista de la Sociedad Entomológica Argentina*. Vol. 49 (1–4): 49–57.
- Ragonot, E. L. 1887.** Diagnoses of North American Phycitidae and Galleriidae. Paris. Reprints from the collection of University of Michigan Library. 20 p.
- Scholtens, B. G., and M. A. Solis. 2015.** Annotated check list of the Pyraloidea (Lepidoptera) of America North of México. *ZooKeys* 535: 1–1136.
- Shaffer, J. C. 1995.** Phycitinae. p. 93–105. *In*: J. B. Heppner (ed.). *Atlas of Neotropical Lepidoptera Checklist: Part 2. Hyblaeoidea-Pyraloidea-Tortricoidea*. Association for Tropical Lepidoptera and Scientific Publishers; Gainesville. 243 p.
- Simonsen, T. J. 2008.** Phylogeny of the cactus-feeding phycitines and their relatives (Lepidoptera, Pyralidae) based on adult morphology: Evaluation of adult character-systems in phycitine systematics and evidence for a single origin of Cactaceae-feeding larvae. *Insect Systematics and Evolution* 39: 303–326.

Received December 5, 2017; accepted August 17, 2018.

Review editor David Plotkin.

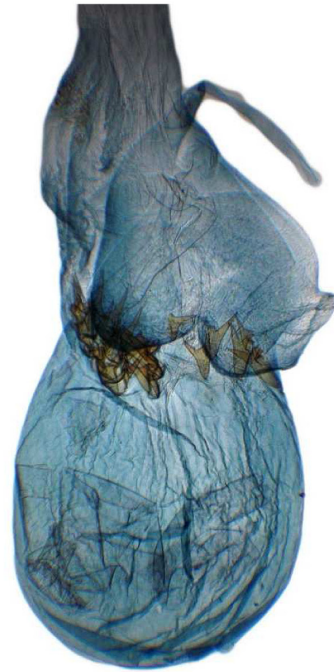


Figures 1–6. *Passadena mistralae* n. sp. habitus. 1) Holotype female. 2–3) Female paratypes. 4) Male paratype. 5) Head of female. 6) Head of male. Scale: 1.0 mm.

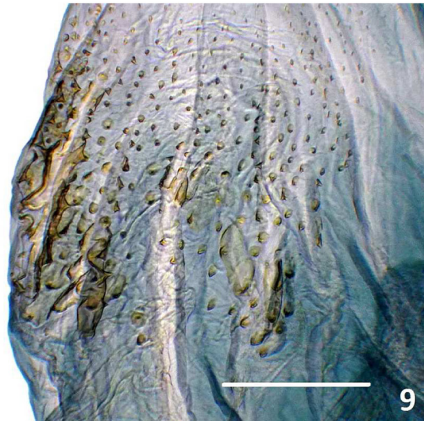




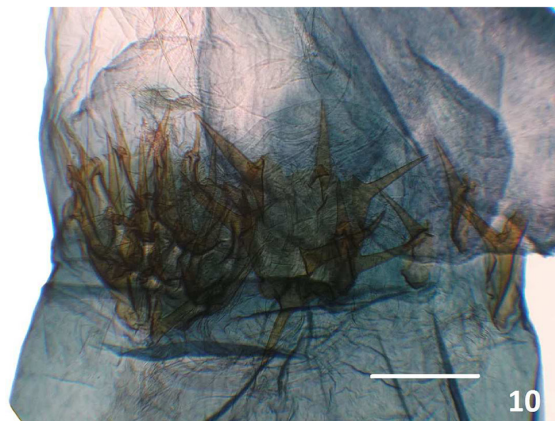
7



8



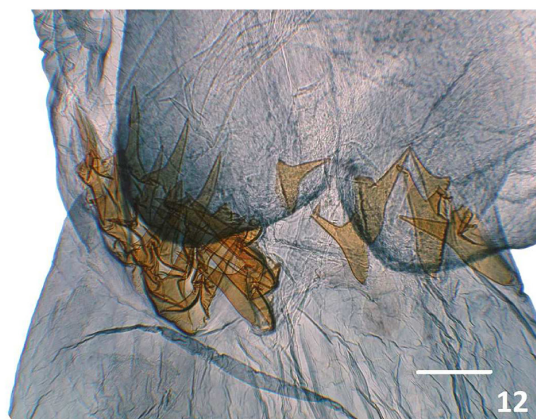
9



10

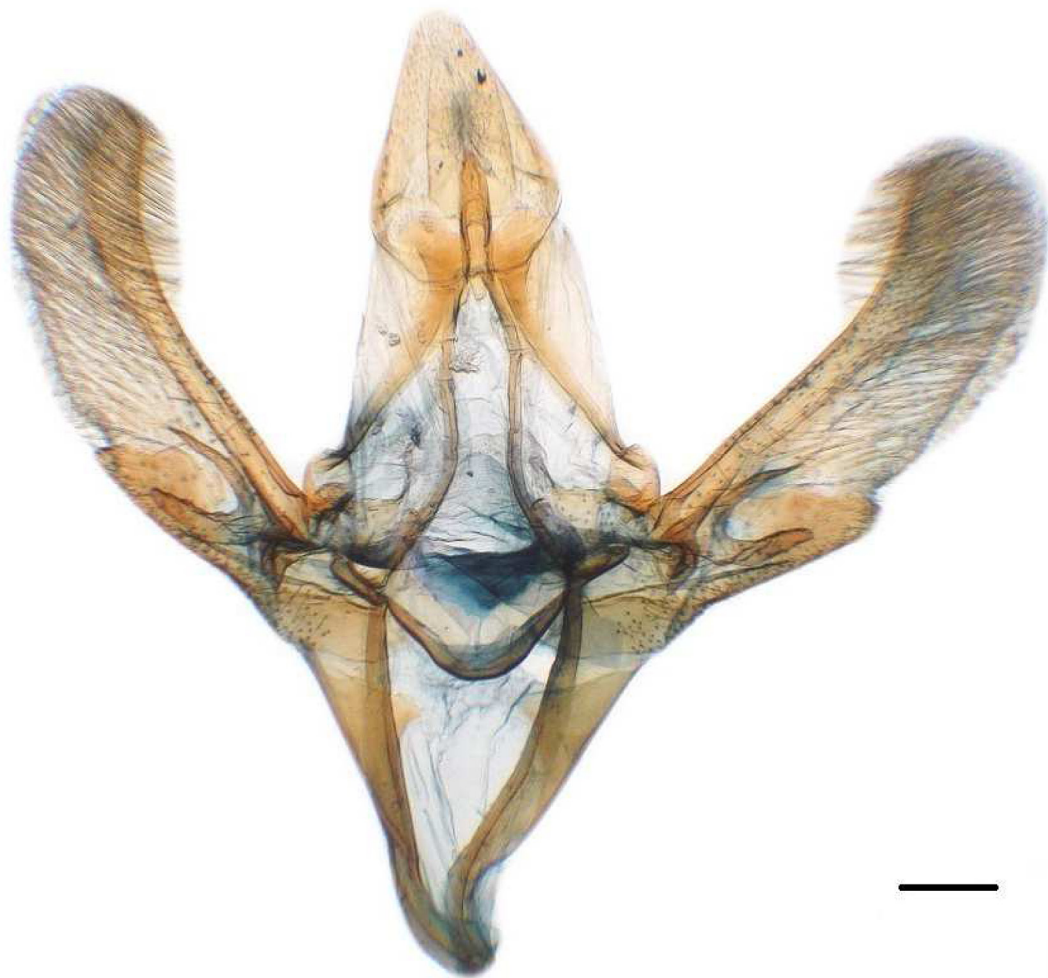
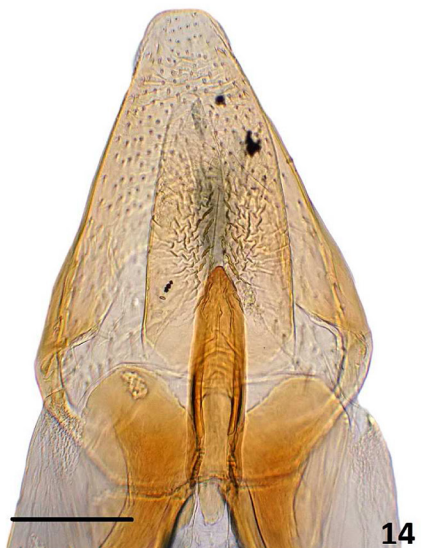
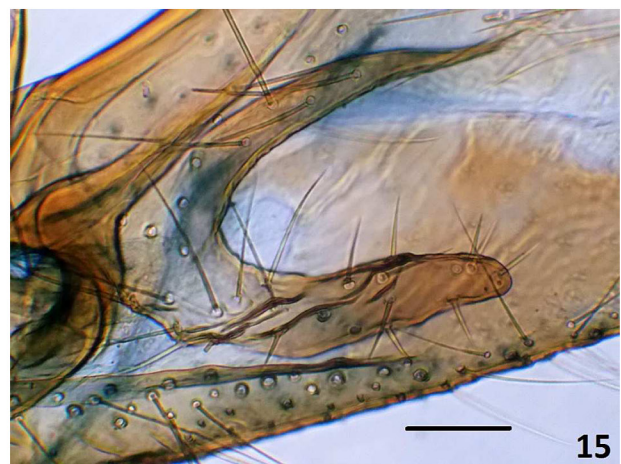


11



12

**Figures 7–12.** *Passadena mistralae* n. sp. female genitalia. 7) Eighth abdominal segment and ductus bursae. 8) Corpus bursae. 9) Dorsal spines of corpus bursae. 10–12) Intraspecific variation of signum. Scale: 0.25 mm.

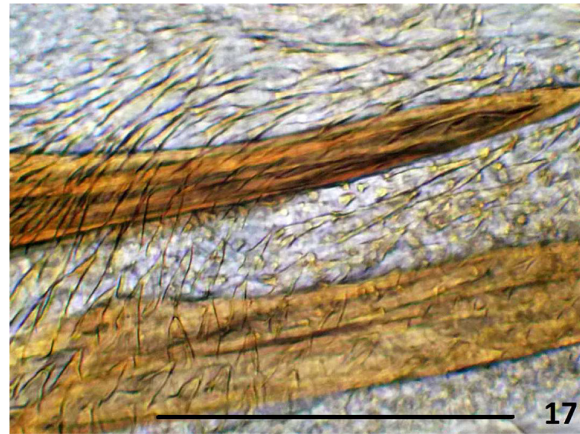
**13****14****15**

**Figures 13–15.** *Passadena mistralae* n. sp. male genitalia. **13)** Genitalia without phallus. **14)** Uncus and gnathos. **15)** U-shaped structure of valva. Scale: 0.25 mm.





16



17



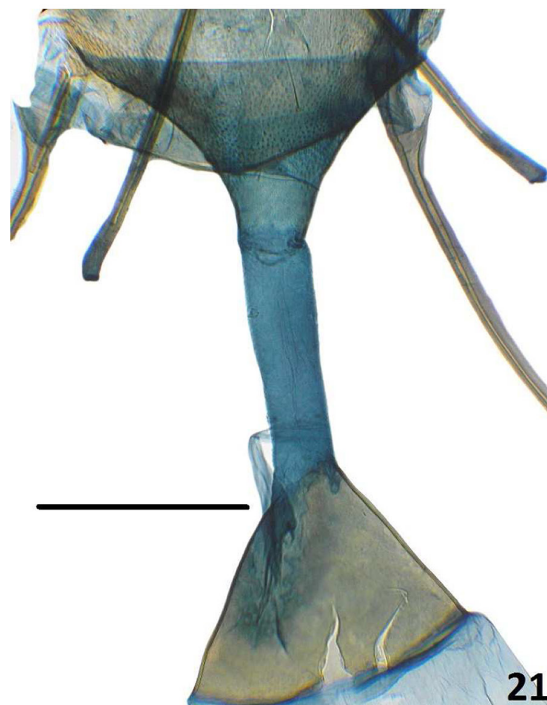
18



19

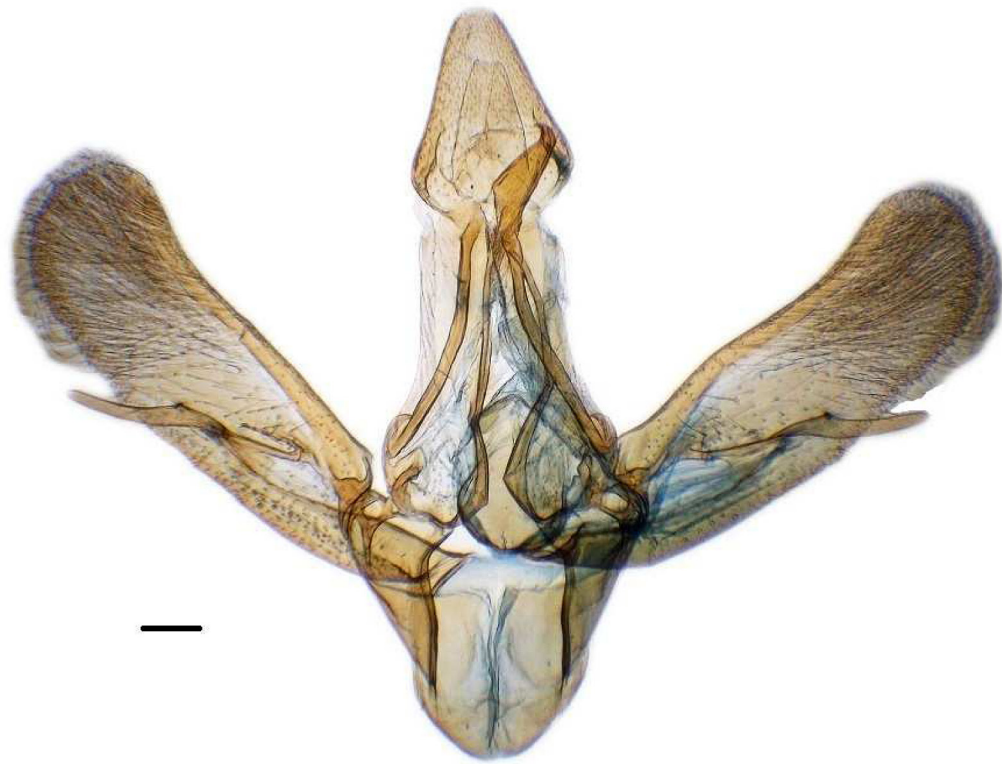


20

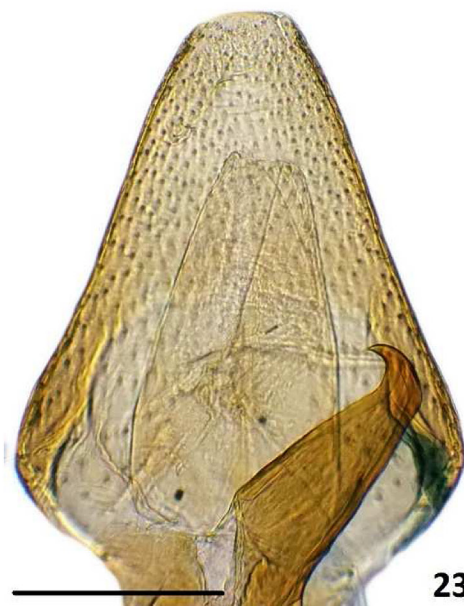


21

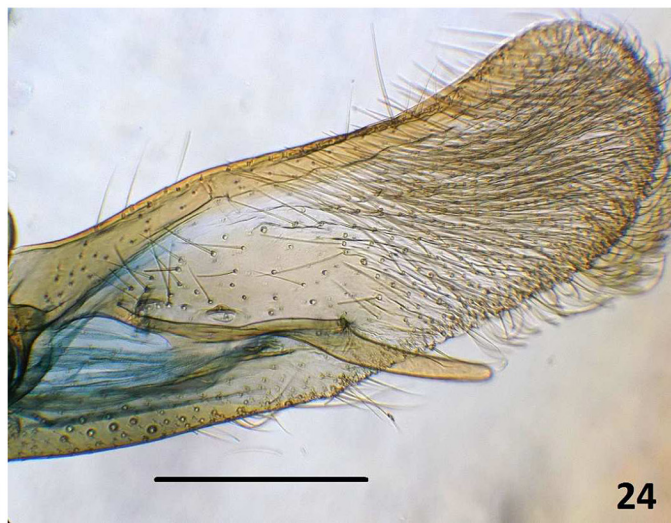
**Figures 16–17.** *Passadena mistralae* n. sp. male genitalia. 16) Phallus 17) Micro-spines on vesica. Scale: 0.25 mm. 18–21) *Ragonotia campodonicoi* n. sp. 18) Holotype female. 19) Head of female. Scale: 1.0 mm. 20) Female genitalia. 21) Ductus bursae. Scale: 0.5 mm.



22



23



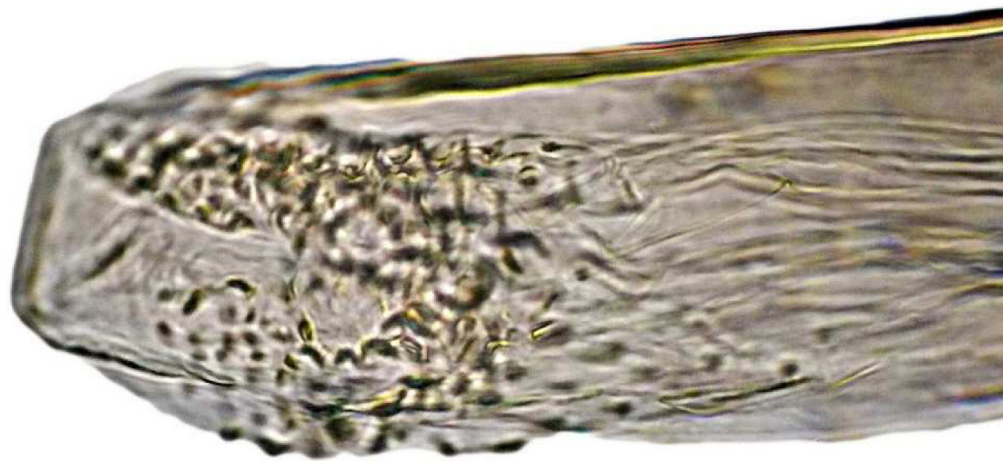
24

Figures 22–24. *Ragonotia campodonicoi* n. sp. 22) Male genitalia without phallus. 23) Uncus and gnathos. 24) Valva. Scale: 0.25 mm.





25



26

Figures 25–26. *Ragonotia campodonicoi* n. sp. 25) Phallus. 26) Phallus apex. Scale: 0.25 mm.

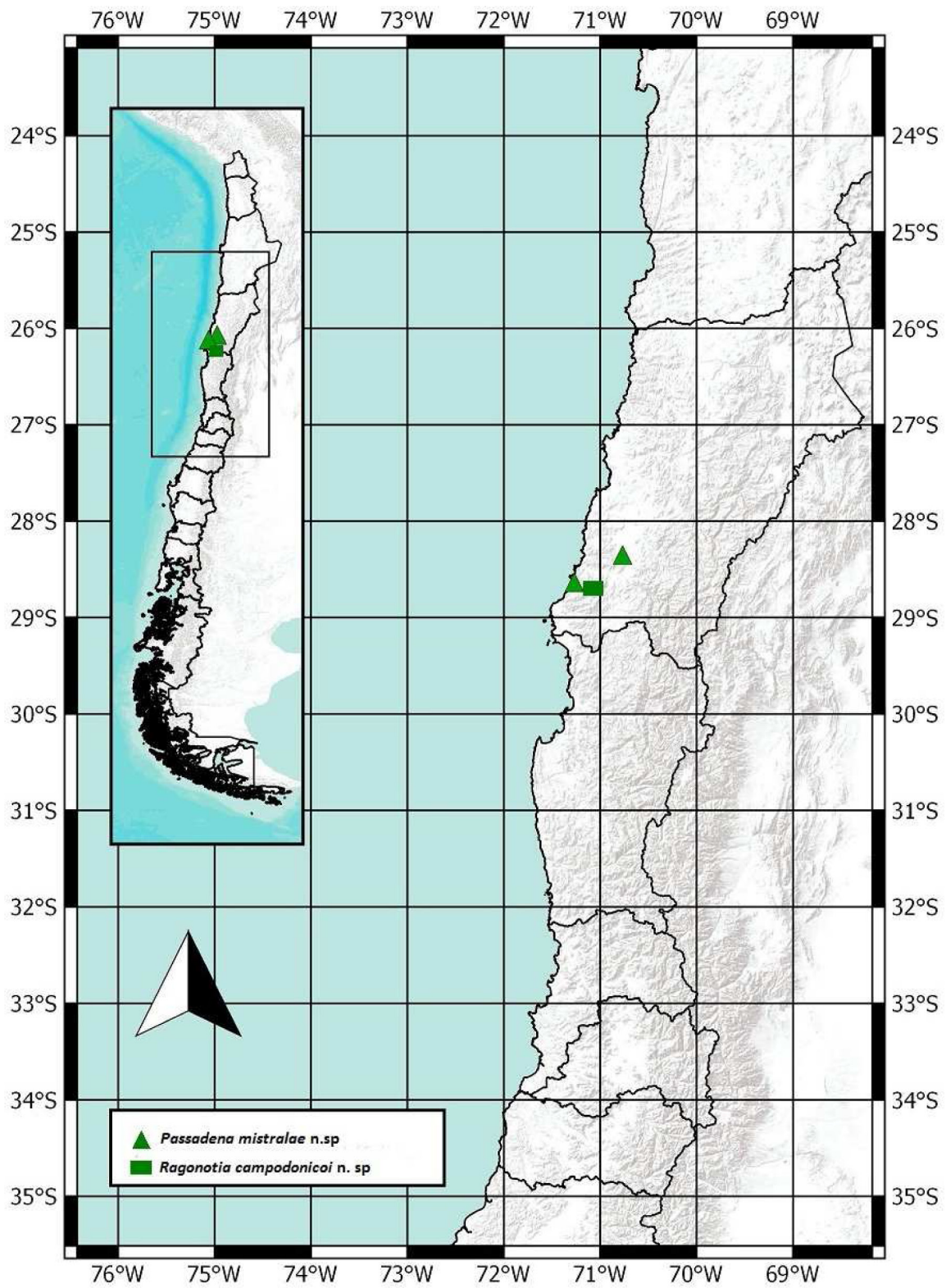


Figure 27. Distribution pattern of *Passadena mistralae* n. sp. and *Ragonotia campodonicoi* n. sp.