

Short communication

***Miespa reedi* (Drake, 1939) (Hemiptera: Heteroptera: Piesmatidae)
– first record from Argentina**

PETR KMENT

Department of Entomology, National Museum, Cirkusová 1740,
CZ-193 00 Praha – Horní Počernice, Czech Republic
e-mail: sigara@post.cz

Abstract. *Miespa reedi* (Drake, 1939) (Hemiptera: Heteroptera: Piesmatidae: Heissianini), previously known only from Chile, is recorded here as a new country record from Argentina. It is the second representative of the family Piesmatidae in the Argentinian fauna. The bibliography of *Miespa reedi* is summarized and the available data on the habitat, phenology, as well as photographs of male and female adults and fifth instar larva of the species are provided.

Key words: Hemiptera, Heteroptera, Piesmatidae, *Miespa reedi*, first country record, Argentina, Chile, South America.

Drake (1939) described the first member of the family Piesmatidae (Hemiptera: Heteroptera) from Chile, *Mcateella reedi* Drake, 1939, based on a single macropterous male from the collection of the late Edwyn P. Reed. Although he originally accommodated the species in the Australian genus *Mcateella* Drake, 1924, later Drake (1948) established a monotypic genus *Miespa* Drake, 1948 for this species.

Phylogenetic analyses recovered *Mcateella* and *Miespa* as sister taxa (Schaefer 1972; Elis & Cassis 2012). Popov (2001) proposed a new tribe, Heissianini Popov, 2001, for the recent *Mcateella*, *Miespa*, and the fossil *Heissiana* Popov, 2001 known from Eocene Baltic amber, based on the full reduction of the subcostal vein of the hemelytra.

Miespa reedi has so far been known only from Chile; there is no record of this species in Argentina (Henry *et al.* 2015; P. Dellapé, pers. comm.), where Piesmatidae are represented merely by *Parapiesma cinereum* (Say, 1832); restricted to the northern parts of the country (provinces of Chaco, Corrientes, Formosa, Jujuy, Misiones and Tucumán) (Bosq 1940; Hayward 1960; Dellapé 2014; Coscarón 2017).

The host plants of *M. reedi* are unknown (cf. Drake & Davis 1958; Schaefer 1981, 1983; Elis & Cassis 2012).

The present paper records *M. reedi* for the first time from Argentina.

Material mentioned in the paper is deposited in the following collections:

HNHM	Hungarian Natural History Museum, Budapest, Hungary;
MMBC	Moravian Museum, Brno, Czech Republic;
NMPC	National Museum, Prague, Czech Republic;
USNM	Smithsonian Institution, National Museum of Natural History, Washington, D.C., USA.

***Miespa reedi* (Drake, 1939)
(Figs 1–3)**

Mcateella reedi Drake, 1939: 331 (original description).
Holotype: ♂ (macropterous), Chile: Central Provinces (USNM).

Miespa reedi: Drake (1948): 73–74 (description of new genus, distribution); Drake & Davis (1958): 73–74 (description of *Miespa*, distribution); 567–568; 569: Figs 2, 3, 6; 570; 571: Figs 16–19, 22–24; 572–573; 578–579 (morphology, illustrations of habitus and selected characters, phylogeny, key to genera); Schaefer (1972): 1258–1261 (morphology, phylogeny); Schaefer (1981): 536–539; Heiss & Péricart (1983): 67, 91, 92 (key to genera, zoogeography); Popov (2001): 213, 216–219 (morphology, phylogeny, tribal placement); Heiss & Péricart (2008): 316, 339–341 (morphology, zoogeography); Prado (2008): 48 (checklist); Elis & Cassis (2012): 83–85, 87, 88, 112 (cladistic analysis, phylogeny); Henry *et al.* (2015): 488 (key to distinguish *M. reedi* and *Parapiesma cinereum*, distribution).



Fig. 1. Habitus of male (2.57 mm) of *Miespa reedi* (Drake, 1939) from Argentina, El Bolsón env.

Material examined

Argentina: Río Negro Province: El Bolsón env., 42°S 71°35'W: Nr. 369, Mt. Piltriquitrón, 700 m a.s.l., 1.iv.1961, 27 ♂♂ 35 ♀♀ 3 L5 (23 ♂♂ 32 ♀♀ 3 L5 HNHM; 2 ♂♂ 1 ♀ NMPC, 2 ♂♂ 2 ♀♀ MMBC); Nr. 410, Mt. Piltriquitrón, 680 m a.s.l., 22.iv.1961, 4 ♂♂ 5 ♀♀ 1 L5 (3 ♂♂ 4 ♀♀ 1 L5 HNHM, 1 ♂ 1 ♀ NMPC); Nr. 421, Mt. Piltriquitrón, 880 m a.s.l., 26.iv.1961, 1 ♂ 2 ♀♀ (HNHM); Nr. 656, Mt. Piltriquitrón, 720–730 m a.s.l., 25.x.1961, 1 ♀ (HNHM); Nr. 681, along Arroyo Negro, 350 m a.s.l., 30.x.1961, 1 ♀ (HNHM). All specimens: Gy. Topál lgt., P. Kment det.

Chile: Metropolitan Region: Tilti, Cuesta la Dormida, Hungarian Soil-Zoological Expedition, Nr. P-B. 104, 5.xi.1965, 3 ♂♂ 5 ♀♀, J. Balogh lgt., P. Kment det. (2 ♂♂ 4 ♀♀ (HNHM), 1 ♂ 1 ♀ (NMPC).

Habitat

Argentina: According to Topál (1963a), the specimens acquired by him were collected within *Libocedrus* subzone of the *Nothofagus dombeyi* region. The following locality details could be traced in the unpublished locality list of Topál (1963b): Nr. 369: beaten from various bushes except for *Lomatia*, near creek (adults and larvae); Nr. 410: beaten from *Colletia* [Rhamnaceae], *Fabiana imbricata* [Solanaceae], *Aristotelia maqui* [Elaeocarpaceae], *Maytenus boaria* [Celastraceae], *Berberis mi-*



Fig. 2. Habitus of female (2.89 mm) of *Miespa reedi* (Drake, 1939) from Argentina, El Bolsón env.

crophylla [syn. *B. buxifolia*; Berberidaceae], *Baccharis magellanica* [Asteraceae] and *Lomatia obliqua* [Proteaceae] (adults and a single larva); Nr. 421: beaten from various trees and bushes (three adults); Nr. 656: beaten from *Berberis darwini* [Berberidaceae] bushes coming into bloom (a single adult); Nr. 681: beaten from various plants, mainly from *Myrceugenia exsucca* [Myrtaceae], at night (a single adult).

Chile: Beaten on border of thick *Drimys winteri* var. *chilensis* [Winteraceae] forest, and sparse bushes near pasture (adults) (Andrássy *et al.* 1967).

None of the plants listed above can be considered as the genuine host plant of *Miespa reedi* (cf. Burckhardt *et al.* 2014).

Phenology

So far only Drake (1948) recorded 6 males and 2 females of *M. reedi* collected in September 1947 in the environs of Santiago (Chile). Our data suggest sparse occurrence of adults during spring (September to early November) and abundant adults as well as five instar larvae during autumn (April). The species probably overwinters in the adult stage.

Distribution

Argentina: Río Negro (first record).



Fig. 3. Habitus of larva of the 5th instar (2.10 mm) of *Miespa reedi* (Drake, 1939) from Argentina, El Bolsón env.

Chile: Central Provinces (Drake 1939; Drake & Davis 1958), Metropolitan Region (Drake 1948; Drake & Davis 1958).

Acknowledgements

I am greatfull to Petr Baňář (MMBC) for possibility to examine the material from loans of the late Prof. Pavel Štys currently deposited in Moravian Museum in Brno. Péter Kóbor and Dávid Rédei (HNHM) are acknowledged for obtaining a copy of the list of localities by Gy. Topál. The work was financially supported by the Ministry of Culture of the Czech Republic (DKRVO 2019–2023/5.I.a, MK000023272, to National Museum, Praha).

References

- Andrássy I., Balogh J., Loksa I., Mahunka S., Zicsi A. 1967. The scientific results of the Hungarian Soil Zoological Expedition to Chile, Argentina and Brasil. I. Report on the collectings. *Rovartani Közlemények* (Folia Entomologica Hungarica), Series Nova **20**: 247–308.
- Bosq J.M. 1940. Lista preliminar de los hemípteros (Heterópteros), especialmente relacionados con la agricultura nacional (continuación). *Revista de la Sociedad Entomológica Argentina* **10**: 399–417.
- Burckhardt D., Ouvrard D., Queiroz D., Percy D. 2014. Psyllid host-plants (Hemiptera: Psylloidea): resolving a semantic problem. *Florida Entomologist* **97**: 242–246.
- Coscarón M. del C. 2017. Family Piesmatidae Amyot and Serville, pp. 247–248. [in:] Coscarón, M. del C. (ed.). A catalogue of the Heteroptera (Hemiptera) or true bugs of Argentina. *Zootaxa* **4295**: 1–432.
- Dellapé P. M. 2014. Lygaeoidea, pp. 421–438. [in:] Roig-Juñent S., Claps L.E., Morrone J.J. (eds). *Biodiversidad de Artrópodos Argentinos. vol. 3*. Editorial INSUE - UTN, San Miguel de Tucumán, 564 pp.
- Drake C.J. 1939. Chilean Tingitoidea (Hemiptera). *Revista de Entomologia* **10**: 330–334.
- Drake C.J. 1948. New and little known Piesmidæ and Tingidæ (Hemiptera). *Zoologische Mededelingen* (Leiden) **30**: 73–76.
- Drake C.J., Davis N.T. 1958. The morphology and systematics of the Piesmatidae (Hemiptera), with keys to World genera and American species. *Annals of the Entomological Society of America* **51**: 567–581.
- Hayward K.J. 1960. Insectos tucumanos perjudiciales. *Revista Industrial y Agrícola de Tucumán* **42** [1958]: 3–144.
- Heiss E., Péricart J. 1983. Revision of Palaearctic Piesmatidae (Heteroptera). *Mitteilungen der Münchener Entomologischen Gesellschaft* **73**: 61–171.
- Heiss E., Péricart J. 2008. *Hémipteres Aradidae, Piesmatidae et Dipsocoromorphes Euro-Méditerranéens. Faune de France. Vol. 91*. Fédération Française des Sociétés de Sciences Naturelles, Paris, [2007], 509 pp + 8 pls.
- Henry T.J., Dellapé P.M., Paula A.S. de 2015. The Big-Eyed Bugs, Chinch Bugs, and Seed Bugs (Lygaeoidea), pp. 459–514. [in:] Panizzi A.R., Grazia J. (eds). *True Bugs (Heteroptera) of the Neotropics*. Springer, Dordrecht, Heidelberg, New York, London, xxii + 901 pp.
- Elis M.A., Cassis G. 2012. Systematic revision, phylogeny and host plant associations of the Australian endemic genus *Mcateella* Drake (Hemiptera: Heteroptera: Piesmatidae). *Invertebrate Systematics* **26**: 83–114.
- Popov Yu.A. 2001. Fossil piesmatids from Baltic amber (Heteroptera: Pentatomomorpha, Piesmatidae).

Mitteilungen aus dem Geologisch Paläontologischen Institut der Universität Hamburg **85**: 211–220.

Prado C., E. 2008. Conocimiento actual de Hemiptera – Heteroptera de Chile noc lista de especies. *Boletín del Museo Nacional de Historia Natural, Chile* **57**: 31–75.

Schaefer C.W. 1972. A cladistic analysis of the Piesmatinae (Hemiptera-Heteroptera: Piesmatidae). *Annals of the Entomological Society of America* **65**: 1258–1261.

Schaefer C.W. 1981. Improved cladistic analysis of the Piesmatidae and consideration of known host plants. *Annals of the Entomological Society of America* **74**: 536–539.

Schaefer C.W. 1983. Host plants and morphology of the Piesmatidae and Podopinae (Hemiptera: Heteroptera): further notes. *Annals of the Entomological Society of America* **76**: 134–137.

Topál Gy. 1963a. The zoological results of Gy. Topál's collectings in South Argentina. 1. Preliminary report. *Annales Historico-Naturales Musei Nationalis Hungarici* **55**: 233–241.

Topál Gy. 1963b. *The zoological results of Gy. Topál's collectings in South Argentina. List of localities.* Hungarian Natural History Museum, Budapest, 46 pp.



This work is licensed under a Creative Commons Attribution 4.0 International License
<http://creativecommons.org/licenses/by/4.0/>

Received: 25 November 2019

Accepted: 13 December 2019