

Two new Dermestidae (Coleoptera) species from Argentina

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Abstract. The species *Cryptorhopalum diiorioi* sp. nov. and *Paranovelsis diiorioi* sp. nov. from Argentina are described, illustrated and compared with similar species. A list of species recorded from Argentina is provided.

INTRODUCTION

This article is a continuation of another recently published articles about Dermestidae from Argentina Háva (2007, 2015b, 2016, 2017, Háva & Kalík 2005, Herrmann & Háva 2013, 2014, 2016). Two new species are described in memoriam, named after our colleague Osvaldo R. Di Iorio. The family Dermestidae recently contains about 1600 species worldwide, from Argentina known 33 species (Háva 2015a). The latest research about Argentinian Dermestidae reached from nests of Birds Aves provided by (Turienzo 2012, Turienzo & Di Iorio 2008a,b, 2010, 2011, 2013, 2014a, 2014b).

MATERIAL AND METHODS

The size of the beetle and its body parts can be useful in species recognition, so the following measurements were made:

Total length (TL) - linear distance from anterior margin of pronotum to apex of elytra.

Elytral width (EW) - maximum linear transverse distance.

All photos by author were taken by a Nikon Coolpix 990 digital camera through an MBS 10 binocular stereo microscope.

Specimens of the species here described are provided with red, printed label with the text as follows: "HOLOTYPE [or PARATYPE, respectively] name of species sp. nov. Jiří Háva det. 2018".

The type material are deposited in:

JHAC - Jiří Háva, Private Entomological Laboratory & Collection, Únětice u Prahy, Prague-west, Czech Republic.

TAXONOMY

Subfamily Attageninae **Tribe Attagenini**

***Paranovelsis diiorioi* Háva sp. nov.**
 (Figs. 1-6, Map. 1)

Paranovelsis bitaeniatus (Steinheil, 1869): Háva, 2016: 408 (part).

Type material. Holotype (♂): Argentina, Buenos Aires, Campo de Mayo, 24.2.2009, Di Iorio leg., (JHAC). Paratypes (3 ♀♀): the same data as holotype, (JHAC); (11 ♀♀): Argentina, Santiago del Estero, La María, ii.2009, Di Iorio leg., (JHAC).

Description. Male. Body (Fig. 1) measurements (mm): TL 3.3, EW 2.1; cuticle black and dark brown on dorsal surfaces, black on ventral surfaces; in general large and elongate, covered with white, yellow and black recumbent setation. Head finely punctate, with yellow and white intermixed, long, recumbent setation. Palpi entirely brown. Ocellus on front present. Antennae, brown, with 11 antennomeres, antennal club with 3 antennomeres (Fig. 4), with the terminal antennomere moderately enlarged, with yellow setation. Pronotum finely punctate like head, covered with long yellow, white and black recumbent setation. White and black setation forming spots (Fig. 3a-3b). Scutellum triangular, finely punctate as pronotum, with white, recumbent setation. Elytra finely punctate, on each humerus with a large bump; cuticle black, only apically dark brown, covered with black and white, recumbent setation. On each elytron white setation forming fasciae (Figs. 1-2). Apical brown part covered by yellow and black setation with or without small spot from white setation. Epipleura black, finely punctate, covered with white setation. Mesosternum and metasternum finely punctate, covered with white setation. Pygidium black with black setation. Abdominal ventrites black, finely punctate, covered with white, recumbent setation. Legs black, with intermixed white and yellow setation; tibiae with short, black spines. Genitalia as shown in Fig. 6.

Female. Female externally similar to male, but differs from male by the small antennal club (Fig. 5).

Variability. Body measurements (mm): TL 3.3-4.2, EW 2.1-2.5. The yellow pronotal setation varified in broadest (Figs. 3a-3b). Anterior elytral white fascia varying in width.

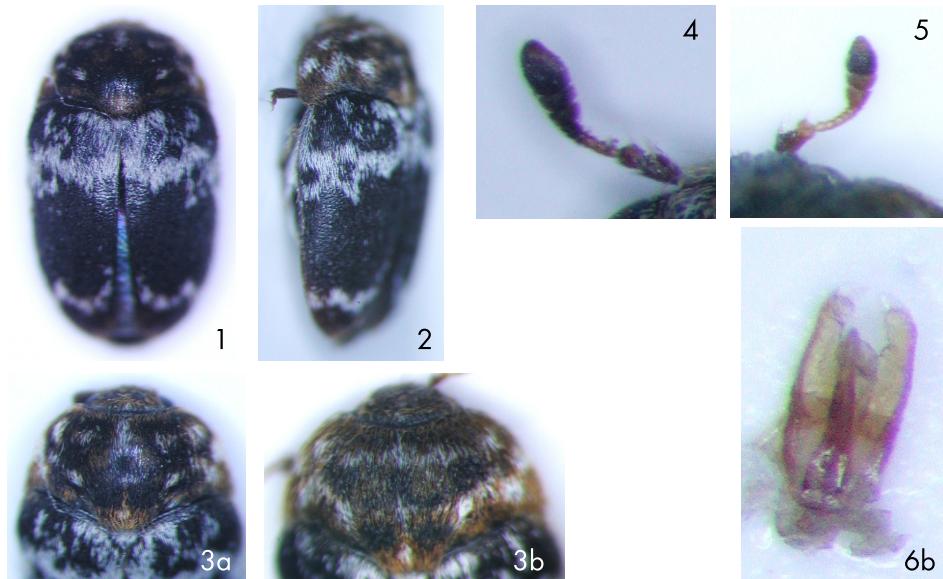
Differential diagnosis. The new species visually very similar to *Paranovelsis bitaeniatus* (Steinheil, 1869) but differs by the characters mentioned if following table.

species	<i>Paranovelsis bitaeniatus</i> (Steinheil, 1869)	<i>Paranovelsis diiorioi</i> sp. nov.
pronotum	covered by white setation with intermixes yellow setation; disc with large spot from black setation (Fig. 5)	covered by yellow setation; with small black and white spots (Fig. 3a,b)
elytron	elytron black or very dark brown with reddish cuticular fasciae covered by white setation, other parts covered by black setation; apical part with white and yellow setation (Fig. 4)	elytron black without reddish cuticular fasciae or spots covered by white and black setation; white setation forming fasciae; apical part with yellow setation (Fig. 1)

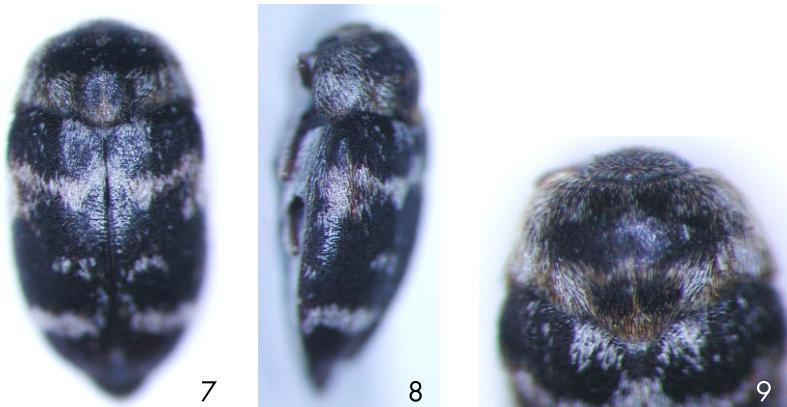
Etymology. Dedicated in memoriam to our colleague †Osvaldo R. Di Iorio (Argentina).

Bionomics. The species was reared from larvae in nests of *Furnarius rufus* (Gmelin, 1788) (Aves: Furnariidae) (Turienzo & Di Iorio 2010), and *Coryphistera alaudina* Burmeister, 1860 (Aves: Furnariidae) (Turienzo & Di Iorio 2014b).

Distribution. Argentina: Buenos Aires, Santiago del Estero.



Figs. 1-6. *Paranovelsis diiorioi* sp. nov.: 1- habitus, dorsal aspect; 2- habitus, lateral aspect; 3a,b- pronotum, dorsal aspect; 4- antenna of male; 5- antenna of female; 6- male genitalia.



Figs. 7-9. *Paranovelsis bitaeniatus* (Steinheil, 1869): 7-habitus, dorsal aspect; 8- habitus, lateral aspect; 9- pronotum, dorsal aspect.

Subfamily Megatominae Tribe Megatomini

***Cryptorhopalum diiorioi* Háva sp. nov.** (Figs. 10-14, Map. 1)

Type material. Holotype (♂): Argentina, Santa Fe, San Agustín, 27.i.2007, Turienzo & Di Iorio leg., (JHAC). Paratypes (17 spec.): the same data as holotype (JHAC); (37 spec.): Argentina, Santa Fe, Arroyo Leyes, 25.ii.2007, Turienzo & Di Iorio leg., (JHAC).

Description. Male. Body small, convex and oval. Measurements (in mm): TL 3.4, EW 2.3. Whole integument deep dark brown with a very slight metallic shine. Head densely and coarsely punctate, with recumbent brown setation. Median frontal ocellus present. Eyes large without any visible microseta. Maxillary palpi dark brown, labial palpi dark brown. Antennae entirely dark brown, with 11 antennomeres, antennal club with 3 antennomeres (Fig. 12). Pronotum with sparse, recumbent brown setation; finely and sparsely punctate; continuously narrowed from the hind edges towards the head and conspicuously bulged in the front margin. Prosternal process coarsely punctate, broad. Elytra with coarse punctuation, the sparse setation consists of brown, bent and more or less recumbent strong setation. Elytral humeri with one small bump. Epipleuron dark brown. The triangular scutellum naked and without punctuation. Abdominal ventrites densely and coarsely punctate, dark brown, with brown recumbent setation. Ventrite V with small lateral, circular depressions. Pygidium very dark brown, with brown setae. Legs dark brown, the edges of the tibiae with a row of dark brown spines each, conspicuously bulged. Aedeagus as in Fig. 13.

Female. Externally similar to male, but antennomeres forming club are smallest.

Variability. Body measurements (mm): TL 3.2-3.8, EW 2.3-2.5.

Exuvia. Exuvia brown (Fig. 15). Antennae short, with long terminal seta. Mandibles dark brown with black teeth. Fore leg (Fig. 16).



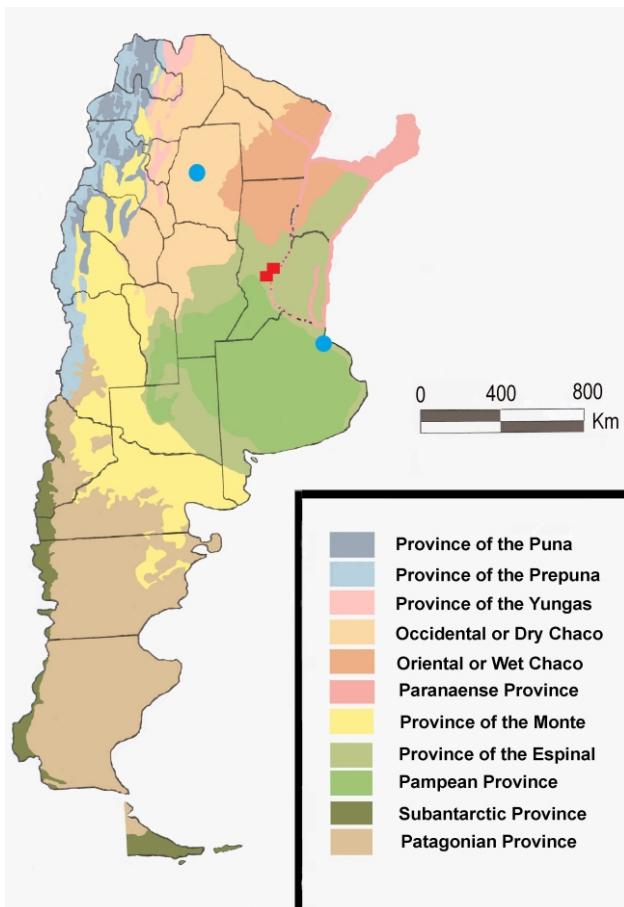
Figs. 10-16. *Cryptorhopalum diiorioi* sp. nov.: 10- habitus dorsal aspect; 11- habitus, ventral aspect; 12- antenna of male; 13-male genitalia; 14-abdomen; 15-exuvia; 16-exuvian fore leg.

Differential diagnosis. The new species differs from other Argentinian species by the unicolorous, brown cuticle with unicolorous, short, brown setation, without fasciae or spots of other setation and structure of antennae and male genitalia. A very similar species, *Cryptorhopalum bruchi* Pic, 1928 differs by its unicolorous white-yellowish setation.

Etymology. Dedicated in memory of our colleague †Osvaldo R. Di Iorio (Argentina).

Bionomics. The species was reared from larvae in nests of *Myiopsitta monachus* (Boddaeart, 1783) (Aves: Psittacidae) (Turienzo & Di Iorio, 2011) and *Phacellodomus ruber* (Aves: Furnariidae) (Turienzo, 2012).

Distribution: Argentina: Santa Fe: San Agustín, Arroyo Leyes.



Map. 1. The two new species *Paranovelsis diiorioi* (blue circles) and *Cryptorhopalum diiorioi* (red squares) related to biogeographical provinces from Argentina modified from Brown & Pacheco (2006). Type localities from north to south: "La María" (Santiago del Estero); Arroyo Leyes (Santa Fe), San Agustín (Santa Fe), Campo de Mayo (Buenos Aires).

LIST OF DERMESTIDAE RECORDED FROM ARGENTINA

ⁱ = introduced species**Subfamily Attageninae****Tribe Attagenini**

- iAttagenus (Attagenus) pellio* (Linnaeus, 1758)
iAttagenus (Attagenus) unicolor (Brahm, 1790)
Paranovelsis anumbiusi Háva, 2016
Paranovelsis bitaeniatus (Steinheil, 1869)
Paranovelsis diiorioi sp. nov.
Paranovelsis inexpectata Herrmann & Háva, 2016
Paranovelsis platanegrachei Herrmann & Háva, 2014

Subfamily Dermestinae**Tribe Dermestini**

- Dermestes (Dermestes) argentinus* Herrmann & Háva, 2013
iDermestes (Dermestes) ater DeGeer, 1774
Dermestes (Dermestes) boliviensis Háva & Kalík, 2005
Dermestes (Dermestes) haemorrhoidalis Küster, 1852
Dermestes (Dermestes) patagoniensis Háva & Kalík, 2005
Dermestes (Dermestes) peruvianus Laporte de Castelnau, 1840
Dermestes (Dermestes) subaenescens Pic, 1943
iDermestes (Dermestinus) carnivorus Fabricius, 1775
iDermestes (Dermestinus) maculatus DeGeer, 1774

Subfamily Megatominae**Tribe Anthrenini**

- iAnthrenus (Nathrenus) verbasci* (Linnaeus, 1767)

Tribe Megatomini**Subtribe Cryptorhopalina**

- Cryptorhopalum argentinum* Pic, 1916
Cryptorhopalum bruchi Pic, 1928
Cryptorhopalum brunnescente Pic, 1916
Cryptorhopalum diiorioi sp. nov.
Cryptorhopalum felis Arrow, 1915
Cryptorhopalum occultum Háva, 2015
Cryptorhopalum vianai Pic, 1940

Subtribe Megatomina

- Sodaliatoma argentinum* Háva, 2016

Subtribe Trogodermina

- Trogoderma angustum* (Solier in Gay, 1849)
Trogoderma argentina (Pic, 1906)
Trogoderma baeri (Pic, 1915)
Trogoderma diiorioi Háva, 2017
iTrogoderma inclusum LeConte, 1854
Trogoderma latenotata (Pic, 1915)
Trogoderma pectinicornis Reitter, 1881
Trogoderma ruficolle Reitter, 1881
Trogoderma sceliphronum Háva, 2016
Trogoderma turienzoi Háva, 2016

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REFERENCES

- BROWN A. D. & PACHECO S. 2006: Propuesta de actualización del mapa ecorregional de la Argentina, pp. 28-31. In: BROWN A., ORTÍZ U. M., ACERBI M. & CORCUERA J. (eds.): *La situación ambiental argentina 2005*. Buenos Aires: Fundación Vida Silvestre Argentina, 587 pp.
- HÁVA J. 2007: Contribution to the „*Dermestes bicolor* species group“ from the Neotropical region (Coleoptera: Dermestidae). *Studies and Reports of District Museum Prague-East, Taxonomical Series* 3: 43-46.
- HÁVA J. 2015a: *World Catalogue of Insects. Volume 13. Dermestidae (Coleoptera)*. Leiden/Boston: Brill, xxvi + 419 pp.
- HÁVA J. 2015b: Contribution to the knowledge of *Cryptorhopalum equisolaiae* species group, with description of *Cryptorhopalum occultum* sp. nov. from Argentina (Coleoptera: Dermestidae: Megatominae). *Arquivos Entomológicos* 13: 257-260.
- HÁVA J. 2016: Contribution to the knowledge of Dermestidae (Coleoptera) from Argentina. *Arquivos Entomológicos* 16: 405-416.
- HÁVA J. 2017: *Trogoderma diiorioi* sp. nov. (Coleoptera: Dermestidae: Megatominae), a new species from Argentina. *Arquivos Entomológicos* 18: 57-60.
- HÁVA J. & KALIK V. 2005: Contribution to the *Dermestes peruvianus* species group from the Neotropical region (Coleoptera: Dermestidae). *Baltic Journal of Coleopterology* 5: 87-98.
- HERRMANN A. & HÁVA J. 2013: A new species of the genus *Dermestes* Linnaeus, 1758 (Coleoptera: Dermestidae) from South America. *Studies and Reports, Taxonomical Series* 9(2): 375-378.
- HERRMANN A. & HÁVA J. 2014: *Paranovelsis platanegrachei* sp. nov., a new species from Argentina (Coleoptera: Dermestidae: Attageninae). *Arquivos Entomológicos* 10: 89-92.
- HERRMANN A. & HÁVA J. 2016: Another new species of the genus *Paranovelsis* Casey from Argentina (Coleoptera: Dermestidae). *Arquivos Entomológicos* 15: 149-152.
- TURIENZO P. 2012: Insectos hallados en nidos de algunas especies de Furnariidae y Psittacidae (Aves) en la Argentina. Tesis de Doctorado en Ciencias Biológicas. Universidad de Buenos Aires, Facultad de Ciencias Exactas y Naturales, Departamento de Biodiversidad y Biología Experimental. Buenos Aires, 658 pp.
- TURIENZO P. & DI IORIO O. R. 2008a: Insects found in birds' nests from Argentina. *Anumbius annumbi* (Vieillot, 1817) [Aves: Furnariidae]. *Zootaxa* 1871: 1-55.
- TURIENZO P. & DI IORIO O. R. 2008b: Buscando insectos en nidos de aves. *BIOLOGICA* 1(4): 6-11.
- TURIENZO P. & DI IORIO O. R. 2010: Insects found in birds' nests from Argentina. *Furnarius rufus* (Gmelin, 1788) [Aves: Furnariidae] and their inquiline birds, the true hosts of *Acanthocrios furnarii* (Cordero & Vogelsang, 1928) [Hemiptera: Cimicidae]. *Zootaxa* 2700: 1-112.
- TURIENZO P. & DI IORIO O. R. 2011: Insects found in birds' nests from Argentina. *Myiopsitta monachus* (Boddaert, 1873) [Aves: Psittacidae], exclusive host of *Psitticimex uritui* (Lent & Abalos, 1946) (Hemiptera: Cimicidae). *Zootaxa* 3053: 1-58.
- TURIENZO P. & DI IORIO O. R. 2013: Insectos en nidos de aves de la Argentina: *Asthenes dorbignyi* (Reichenbach, 1853) [Aves: Furnariidae]. *Idesia* 31: 87-94.
- TURIENZO P. & DI IORIO O. R. 2014a: Insects in birds' nests from Argentina. *Pseudoseisura lophotes* Reichenbach, 1853 and *Anumbius annumbi* (Vieillot, 1817) [Aves: Furnariidae], hosts of *Triatoma platensis* Neiva, 1913 (Hemiptera: Reduviidae: Triatominae). *Zootaxa* 3766(1): 001-082.
- TURIENZO P. & DI IORIO O. R. 2014b: Insects in birds' nests from Argentina. *Coryphisterna alaudina* Burmeister, 1860 [Aves: Furnariidae], their inquiline birds and mammals, new hosts for *Psammolestes coreodes* Bergroth, 1911 and *Triatoma platensis* Neiva, 1913 (Hemiptera: Reduviidae: Triatominae). *Zootaxa* 3811(2): 151-184.