
Two new species of *Psectrascelis* (Coleoptera: Tenebrionidae) from western Argentina

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Dos nuevas especies de *Psectrascelis* (Coleoptera: Tenebrionidae) del oeste de Argentina

■ **RESUMEN.** Se describen dos nuevas especies del género *Psectrascelis* Solier (Pimeliinae: Nycteliini) del oeste de Argentina, *P. argentina* sp. nov. a gran altitud en la Precordillera de San Juan y *P. telteca* sp. nov. en la llanura de Mendoza, y se las incluye en la clave más reciente del género. Se proveen datos sobre la distribución y el hábitat, así como fotografías de los adultos y pronotos y dibujos de los *genitalia* masculinos.

PALABRAS CLAVE. Tenebrionidae. Nycteliini. *Psectrascelis*. Nuevas especies.

■ **ABSTRACT.** Two new species of the genus *Psectrascelis* Solier (Pimeliinae: Nycteliini) from western Argentina, *P. argentina* sp. nov. from high mountain range Precordillera in San Juan province and *P. telteca* sp. nov. from lowlands in Mendoza province, are described and included in the most recent key for the genus. Distributional and habitat records, photographs of habitus and pronota, and drawings of male *genitalia* are provided.

KEY WORDS. Tenebrionidae. Nycteliini. *Psectrascelis*. New species.

INTRODUCTION

The genus *Psectrascelis* Solier belongs to the Nycteliini, a Neotropical tribe of Pimeliinae with 300 species prior to this study, arranged in 12 genera endemic to arid and semiarid lands of South America (Flores, 1997; Flores & Triplehorn, 2002). Species of *Psectrascelis* inhabit the biogeographic provinces Patagonia, Monte, Prepuna, Puna, Altoandean, Chilean Desert, Central Chile, Espinal, and Chaco (Cabrera & Willink, 1980), distributed from southern Peru, western Bolivia, northern and central Chile, northern and central Argentina to the southern part of Patagonia in Argentina (Flores, 1997). The

known distribution range of the genus is from sea level to an altitude of 4300 metres (Peña, 1985).

In 2003 I conducted a collecting trip to high mountains Precordillera in National Park «El Leoncito», San Juan province, and found specimens that belong to a new species of *Psectrascelis*. Later, in 2006 and 2007 I conducted collecting trips to Reserva Telteca in Mendoza province and found a second undescribed species of the genus.

The objectives of this paper are to describe and illustrate two new species of *Psectrascelis* from Argentina. In the last revision of the genus, Peña (1985) reported 66 species of *Psectrascelis*; with additional descriptions

(Peña, 1986, 1994) the number of species increased to 75, being the most diverse genus of Nycteliini (Flores, 1997). Flores & Vidal (2001) synonymized *Psectrascelis nycteloides* Peña with *Epipedonota sublineata* Berg and recently Vidal & Guerrero (2007) described five new species of *Psectrascelis* from Chile; therefore with these two new species herein described, the number of species of the genus is 81. This paper is dedicated to Dr. Axel O. Bachmann to celebrate his 80th anniversary.

MATERIAL AND METHODS

Type specimens are deposited in the following collections: Instituto Argentino de Investigaciones de las Zonas Áridas, Mendoza, Argentina (IADIZA), Instituto y Museo de Ciencias Naturales de la Universidad Nacional de San Juan, Argentina (IMCN), and Museo Argentino de Ciencias Naturales Bernardino Rivadavia, Buenos Aires (MACN), Argentina.

Body length was measured dorsally, along the midline, from anterior margin of labrum to elytral apex. Dissection methods are those used by Tschinkel & Doyen (1980) for genital structures. Drawings were made with a camera lucida adapted to a stereoscopic microscope. For external morphology the terminology proposed by Flores & Gómez (2005) was used, without including the common characters at generic level (Flores, 1997). For male genitalia I used the terminology of Flores & Vidal (2001), without including the common characters at generic level (Flores, 1996). Exact label data are cited on separate labels indicated in brackets.

RESULTS

Psectrascelis argentina sp. nov.

(Figs. 1-2, 5-6)

Diagnosis. Pronotum with longitudinal, parallel, thick wrinkles, with anterior margin broad, lateral margins thick and raised, with a row of short, umbilicate setae on inner surface; expansion of frons on antennal insertion and genae without tuft of setae; epipleuron conspicuous throughout; male

with metatibiae distally arched and expanded, ventral surface with long, golden and abundant setae, not forming an oval velvet-like surface on distal third.

Psectrascelis argentina superficially resembles *P. mamillonea* Lacordaire in general body configuration, especially in the colour of body and pronotum with longitudinal, thick wrinkles. In *Psectrascelis argentina* the pronotum has lateral margins raised, with 20 or more longitudinal wrinkles on the midlength of pronotum occupying all the surface (Fig. 2); in *P. mamillonea* the pronotum has lateral margins not raised, with 19 or fewer longitudinal wrinkles on the midlength of pronotum occupying only the central quarters (Flores & Gómez 2005, Fig. 9).

Description. Length: 16,0-19,0 mm (Fig. 1). Body, antennae and legs black, dorsal surface shiny and glabrous, only with sparse short setae on the apex of elytra.

Head. Clypeus with short umbilicate setae, punctures uniformly distributed, separated by a distance much greater than diameter of one puncture; clypeal suture deep. Frons with abundant punctures each one bearing a short seta, separated by a distance equal than diameter of one puncture, in the posterior half grouped becoming short longitudinal grooves; expansion of frons on antennal insertion without tuft of setae. Genae without tuft of setae. Antennae in the male reaching posterior margin of pronotum, in the female reaching 3/4 along lateral margin of pronotum; with golden, short setae all along the surface of all antennomeres and long setae forming a ring transverse at midlength in the antennomeres 3 to 11; antennomere 3 subrectangular, 4 to 10 pyriform, 11 ovate, all longer than wide except 10, equal length and width.

Thorax. Pronotum (Fig. 2) with anterior angles acute, posterior angles acute but the point rounded; anterior margin broad, posterior margin bisinuate; lateral margins thick and raised, feebly expanded laterally, without punctures on dorsal surface, with a row of short, umbilicate setae on inner surface; pronotum widest at mid point; disc flattened, higher than lateral margins, with longitudinal, parallel, thick wrinkles, 20 or more on the midlength of pronotum occupying

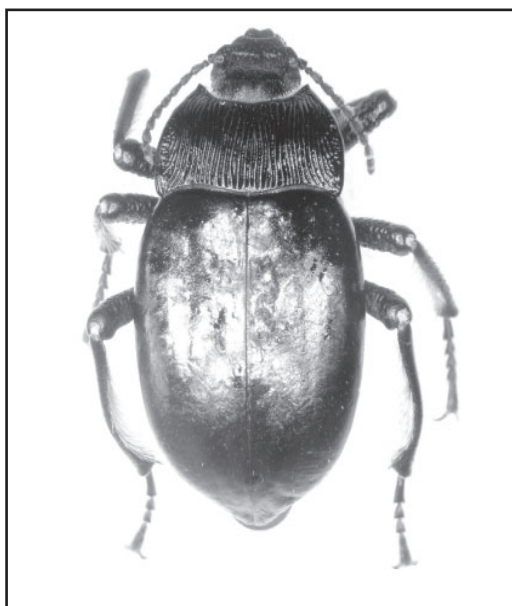


Fig. 1. Habitus of *Psectrascelis argentina* sp. nov.

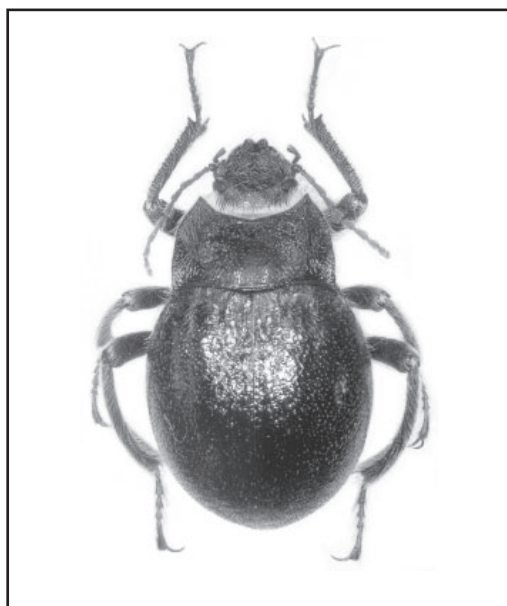


Fig. 3. Habitus of *Psectrascelis telteca* sp. nov.

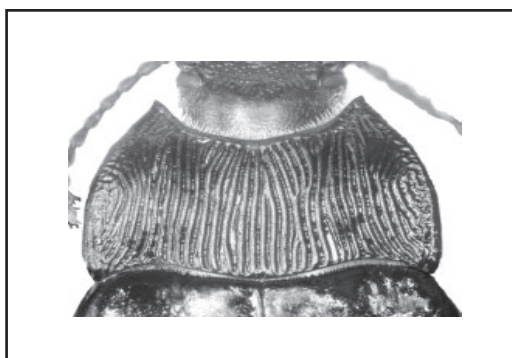


Fig. 2. Pronotum of *Psectrascelis argentina* sp. nov.

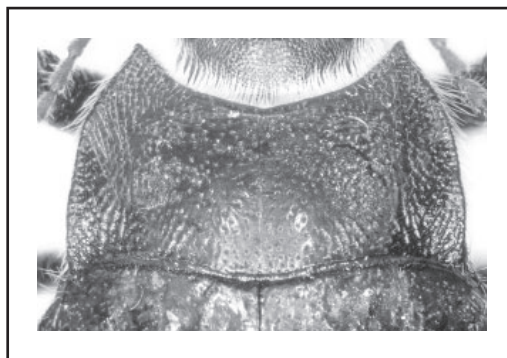


Fig. 4. Pronotum of *Psectrascelis telteca* sp. nov.

all the surface, reaching anterior and posterior margin of pronotum (Fig. 2), lacking setae on wrinkles and on space between wrinkles. Proepisternum glabrous, dorsally not visible, with horizontal grooves not reaching lateral margin of pronotum. Prosternum arched, higher than mesosternum.

Elytron flat, without carinae (Fig. 1), with cracked appearance, dorsal surface with scarce, small punctures lacking setae, separated by a distance much greater than four times the diameter of one puncture, only with scarce short setae on the apex of elytron; pseudopleuron with sparse, big punctures each bearing a seta, four times the size of dorsal surface punctures, separated by a distance much greater than four times

the diameter of one puncture; epipleuron conspicuous throughout, with edge, anterior margin not reaching elytral humeri nor posterior angle of pronotum, texture similar to that of elytron, smooth in anterior half, with punctures in posterior half each bearing a seta; anterior quarter three times as wide as posterior half.

Abdomen. Male and female without carinae or tuft of setae or protuberances or glabrous areas in sagittal medial line.

Legs with dorsal and lateral surfaces having short, golden and sparse setae. Ventral femoral surfaces densely setose on anterior half. Male with metatibiae distally arched, distal third expanded, 1.5 times as wide as proximal and middle thirds (Fig. 1); ventral

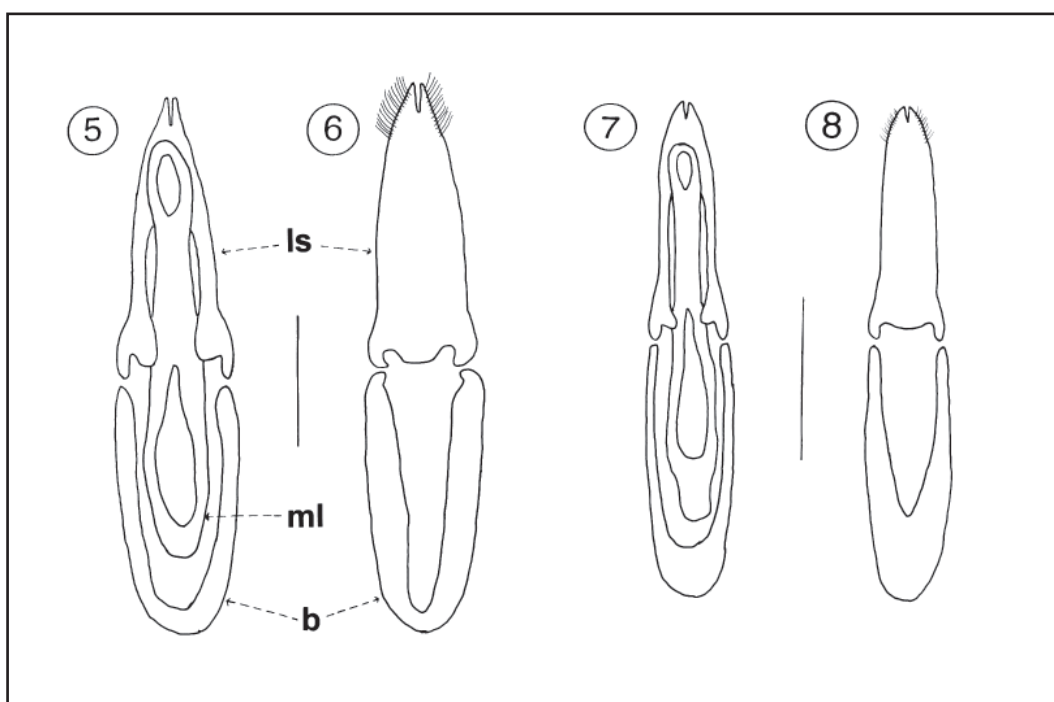


Fig. 5-8. Male genitalia in dorsal and ventral views; 5-6, *Psectrascelis argentina* sp. nov.; 7-8, *P. telteca* sp. nov. (b, basal lamina of tegmen, ls, lateral styles of tegmen, ml, median lobe). Scale bars = 1 mm.

tibial surfaces with long, golden and abundant setae throughout (Fig. 1), not forming an oval velvet-like surface on distal third of metatibiae. Female with metatibiae straight, not expanded at apex, with scarce setae on all surfaces.

Male genitalia. Rods of sternum IX «U»-shaped, close at basal third, distance between rods not exceeding width of aedeagus. Lateral styles of tegmen distally close, with apex narrow, proximal margin ventrally bisinuate and projecting dorsally over median lobe, wider at base and with long setae on distal 1/5 of ventral surface (Fig. 6). Base of basal lamina dorsally inclined 45°. Median lobe tubular, half the width of lateral styles of tegmen, with apical aperture large, apex rounded, and distally broadened (Fig. 5).

Etymology. Named «argentina» after the country it inhabits. This species is dedicated to all Argentinean soldiers that defended the Islas Malvinas in 1982.

Type material. Holotype, male: [Argentina. San Juan/ P. (Parque) Nac. El Leoncito/ 3510

m Cno. Portezuelo/ Sierra del Tontal/ 25-XI-2003-G. Flores] [*Psectrascelis argentina* n. sp./ HOLOTYPE male/ Det. G. Flores 2007] (IADIZA). Allotype female (IADIZA) and four paratypes with the same data as holotype (1 male IMCN, 2 males and 1 female IADIZA). Three paratypes in MACN: [Arg. San Juan/ Barreal/ 3376 m/ 25-I-2006/ Compagnucci, Ojanguren, Piacentini] [31° 31' 49'' S/ 69° 13' 10'' W] (1 male, 2 females).

Distribution and habitat. *Psectrascelis argentina* occurs in San Juan province, on the top of the high Precordillera mountain range, in the biogeographic Altoandean province (Acosta, 2005), at high altitude of more than 3300 m. In the same National Park, on the western slope of the high Precordillera range below 3160 m, *Psectrascelis deplanata* Lacordaire is found, but in the biogeographic Puna province (Flores & Gómez 2005). Contrary to report of Peña (1985) and Flores & Gómez (2005) on the nocturnal habits of species of *Psectrascelis*, I found these specimens walking at noon.

Discussion. The most recent key for the genus *Psectrascelis* is that by Peña (1985), which should be modified at couplet 20 to key out *Psectrascelis argentina*:

20. First abdominal sterna with a tuft of setae in the center; pronotum with sinuate wrinkles *Psectrascelis plicipes* Kulzer
 20'. Abdominal sterna without a tuft of setae; pronotum with parallel longitudinal wrinkles 20a
- 20a. Pronotum with scarce wrinkles only on the anterior central area and lateral posterior area (Peña, 1985: Fig. 4b); epipleuron not marked; pseudopleuron smooth *Psectrascelis hoffmani* Peña
 20a'. Pronotum with thick wrinkles occupying all the surface (Fig.2); epipleuron well marked; pseudopleuron with large punctures
*Psectrascelis argentina* sp. nov.

***Psectrascelis telteca* sp. nov.**

(Figs. 3-4, 7-8)

Diagnosis. Pronotum without wrinkles, with abundant big punctures each bearing a setae, with anterior margin broad, lateral margins thin, not marked and not raised; expansion of frons on antennal insertion and genae without tuft of setae; epipleuron conspicuous throughout; male and female with metatibiae distally arched, male with distal third of metatibiae expanded, with short, golden setae forming an internal oval velvet-like surface.

Psectrascelis telteca superficially resembles *P. convexipennis* Fairmaire in general body configuration, especially in having metatibiae strongly arched in both genders (in most other species of *Psectrascelis*, the metatibiae are only in the male). It differs in the pronotum without wrinkles, while in *P. convexipennis* the pronotum has thin wrinkles.

Description. Length: 13,0-14,0 mm (Fig. 3). Body, femora, and tibiae black, antennae, maxillary palpi, and tarsi brown; dorsal surface shiny and densely setose.

Head. Clypeus and frons with abundant long umbilicate setae, punctures uniformly

distributed, separated by a distance much greater than diameter of one puncture; clypeal suture not marked. Expansion of frons on antennal insertion without tuft of setae. Genae without tuft of setae. Antennae in the male with two antennomeres surpassing the posterior margin of pronotum, in the female reaching the posterior margin of pronotum; with golden, short setae all along the surface of all antennomeres and long setae forming a ring transverse at midlength in the antennomeres 3 to 11; antennomere 3 to 9 subrectangular, 10 pyriform, 11 ovate, all longer than wide.

Thorax. Pronotum (Fig. 4) with anterior and posterior angles acute; anterior margin broad, posterior margin bisinuate; lateral margins thin, not marked and not raised; pronotum widest behind mid point; disc flattened, higher than lateral margins, with abundant big punctures each one bearing a seta, short in disc and longer in outer surface, disc without wrinkles (Fig. 4). Proepisternum dorsally not visible, with abundant long setae and horizontal grooves not reaching lateral margin of pronotum. Prosternum horizontal, same height as mesosternum.

Elytron flat, without carinae (Fig. 3), with cracked appearance, dorsal surface and pseudopleuron with abundant big punctures each bearing a seta, short in dorsal surface and longer in pseudopleuron, punctures of equal size on all elytron surface, separated by a distance much greater than four times the diameter of one puncture; epipleuron conspicuous throughout, with edge, anterior margin reaching elytral humeri and posterior angle of pronotum, texture similar to that of elytron, with abundant punctures each one bearing a seta; anterior quarter three times as wide as posterior half.

Abdomen. Male and female without carinae or tuft of setae or protuberances or glabrous areas in sagittal medial line.

Legs with abundant long, golden setae. Ventral femoral surfaces densely setose. Male and female with metatibiae distally arched, with long, golden setae longer than on femora; male with distal third of metatibiae expanded, 1.5 times as wide as proximal and middle thirds (Fig. 3), with short, golden setae forming a central oval velvet-like surface; female with metatibiae not expanded at apex.

Male genitalia. Rods of sternum IX «U»-shaped, close at basal third, distance between rods not exceeding width of aedeagus. Lateral styles of tegmen distally close, with apex narrow, proximal margin ventrally bisinuate and projecting dorsally over median lobe, wider at base and with short setae on distal 1/5 of ventral surface (Fig. 8). Base of basal lamina dorsally inclined 60°. Median lobe tubular, half the width of lateral styles of tegmen, with apical aperture large, apex rounded, and proximally not broadened (Fig. 7).

Etymology. Named «*telteca*» after the type locality, Reserva Telteca in Mendoza.

Type material. Holotype, male: [Argentina. Mendoza/ Dto. Lavalle/ Reserva Telteca/ 20-II-2006-G. Flores] [32° 22.993´ S/ 68° 03.236´ W/ 548 m] [*Psectrascelis telteca* n. sp./ HOLOTYPE male/ Det. G. Flores 2007] (IADIZA). Allotype female (IADIZA) with the same data as holotype except date: 23-II-2007.

Distribution and habitat. So far, it is known only from the type locality in Reserva Telteca, Mendoza. It inhabits the Monte biogeographic province in the Central area (Roig-Juñent *et al.*, 2001). I found these specimens walking on dunes during the night. Very close to the collecting site of *Psectrascelis telteca* (300 m), the area had been searched using pitfall for two years by the team of entomologists of Laboratorio de Entomología, IADIZA (Flores *et al.*, 2004), finding only one species of *Psectrascelis*: *P. nitida* Kulzer. These two species are sympatric in the desert of Reserva Telteca, but probably separated in habitat by different soils: *P. nitida* inhabits clay soil while *P. telteca* lives in sandy dunes.

Discussion. *Psectrascelis telteca* keys to couplet 55 in Peña (1985); this key may be modified to include *P. telteca*:

55. Elytra without carinae 55a
55'. Elytra with carinae or longitudinal undulations
.....(follows at couplet 56 in Peña, 1985)

55a. Pronotum with anterior margin thin, not marked, lateral margins broad, well marked and raised; antennomere 5 to 9 pyriform; epipleuron not marked
..... *Psectrascelis discicollis* (Lacordaire)

55a'. Pronotum with anterior margin broad, well marked, lateral margins thin, not marked and not raised (Fig.4); antennomere 5 to 9 subrectangular; epipleuron well marked *Psectrascelis telteca* sp. nov.

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