

Morrónia brevírostris, a new genus and species of Entimini (Coleoptera: Curculionidae: Entiminae) from Islas Malvinas

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A new genus of entimine weevils, *Morrónia* gen. n., is described as endemic to the Islas Malvinas (Falkland Islands). It is distinguished from the other genera of Entimini by the following combination of characters: frons without fovea; rostrum lacking carinae, as long as wide; and foretibia with external margin straight and a spatula-like projection. Diagnoses, descriptions and illustrations of the new genus and its only species, *M. brevírostris* sp. n., are given. We also present a check-list of the Curculionidae recorded from the Islas Malvinas. It contains 22 species in 13 genera and 3 subfamilies. Also included is a key to the species of the Entiminae that inhabit the archipelago.

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Introduction

The archipelago of Islas Malvinas or Falkland Islands is located at 51° to 53° south latitude and 57° to 61° west longitude in the South Atlantic Ocean, 520 km away of the nearest continental area. The archipelago has two main islands and hundreds of smaller ones, occupying 12,000 km². Biogeographically, the archipelago constitutes an independent province of the Subantarctic subregion of Andean region (Morrone 1999a).

There are 21 species of Curculionidae on record from this region (Morrone & Roig Juárez 1995; Morrone 1998), most of them endemic to the archipelago. These species belong to 12 genera and three subfamilies (Table 1). The known weevil species of Entimini (Coleoptera: Curculionidae: Entiminae) from Islas Malvinas have been assigned to three different genera.

In this paper we describe a new genus, *Morrónia* gen. n., for a new species, *M. brevírostris* sp. n., of Entiminae (tribe Entimini) endemic to the archipelago. The relationships of new taxon are discussed and it is included in a key to the entimine weevils known from the islands.

Material and methods

Specimens examined in this study were provided by the Natural History Museum, London, England (BMNH). The holotype and nine paratypes are deposited in BMNH, and one paratype is deposited in the Museo de La Plata, La Plata, Argentina (MLP).

Measurements were made with an ocular micrometer in a stereoscopic microscope. Body length was measured dorsally, along the midline, from the elytral apex to the anterior margin of pronotum. Drawings were made using a camera lucida. SEM pictures were made using a JEOL scanning electronic microscope. Label data of type specimens are cited verbatim, enclosing information from each label with square brackets, and each line separated by a slash.

Genus *Morrónia* Posadas & Ocampo, gen. n.

Type species. – *M. brevírostris* sp. n., here designated.

Etymology. – The name of the genus *Morrónia* is for Juan J. Morrone, our mentor and friend. Gender feminine.

Table 1. Species of Curculionoidea recorded from Islas Malvinas and their distribution. Whenever the species is non-endemic, its distribution is given in brackets. Abbr.: E = endemic to Islas Malvinas; NE = non-endemic to Islas Malvinas; Ma = Magellanic forest; Fu = Tierra del Fuego; Mal = Islas Malvinas; Va = Valdivian forest; Mo = Magellanic moorland.

ENTIMINAE: ENTIMINI	
<i>Caneorhinus biangulatus</i> (Champion 1918)	E
<i>Cylydrorhinus caudiculatus</i> (Fairmaire 1884)	NE (Ma, Fu, Mal)
<i>C. lemmiscatus</i> (Quoy & Gaimard 1824)	E
<i>Malvinius compressiventris</i> (Enderlein 1907)	E
<i>M. nordenskiöldi</i> (Enderlein 1907)	E
<i>Morrionia brevirostris</i> Posadas & Ocampo, sp. n.	E
CYCLOMINAE: RHYTIRRHININI	
<i>Listroderes abditus</i> (Enderlein 1907)	E
<i>Antarctobius bidentatus</i> (Champion 1918)	E
<i>A. falklandicus</i> (Enderlein, 1907)	E
<i>A. vulsus</i> (Enderlein 1907)	E
<i>Falklandiellus suffodens</i> (Kuschel 1950)	NE (Ma, Mal)
<i>Falklandius antarcticus</i> (Stierlin 1903)	NE (Ma, Mal, Va)
<i>F. goliath</i> Morrone (1992)	E
<i>F. kuscheli</i> Morrone (1992)	E
<i>F. turbificatus</i> Enderlein (1907)	E
<i>Germainiellus salebrosus</i> (Enderlein 1907)	E
<i>Haversiella albolimbata</i> (Champion 1918)	NE (Mo, Mal)
<i>Lanteriella microphthalma</i> Morrone (1992)	E
<i>Puranius championi</i> (Kuschel 1952)	E
<i>P. exsculpticollis</i> (Enderlein 1907)	E
<i>P. scaber</i> (Enderlein 1907)	E
COSSONINAE: PENTARTHIRINI	
<i>Pentarthrum carmichaeli</i> Waterhouse (1884)	NE

Diagnosis. – This genus is distinguished from other genera of Entimini by the following combination of characters: frons without fovea; rostrum lacking carinae, as long as wide; postocular lobes absent; and fore tibiae with external margin straight and a spatula like projection on its apex.

Description. – Medium-sized weevil. Integument dark brown to black. Body shape ovate (Fig. 1). Frons straight, lacking fovea. Rostrum almost as long as wide, lacking dorsal carinae (Fig. 2). Eyes subcircular and flattened. Maxillae not covered by prementum (phanerognathus condition; Thompson 1992). Deciduous mandibular process poorly developed. Prothorax transversal. Postocular lobes absent. Scutellum developed. Humeri rounded. Elytra lacking tubercles. Intervals flat. Fore tibiae with external margin straight and spatula-like projection on the external margin of its apex (Fig. 4). Middle tibia with one spur. Hind tibia with two spurs and with a slightly developed corbel (Fig. 5).

Female genitalia: Tegmina with apodeme short (shorter than twice the length of the plate) (Fig. 6); oviscapt with coxites strongly sclerotized and backward directed, ending in acute apex (fin-like

processes; Kissinger 1970), with ventral baculi present and without stili (Fig. 7); spermatheca (see Fig. 8).

Male genitalia: Apodemes shorter than aedeagal body (see Fig. 9).

Relationships. – *Morrionia* is related to *Cylydrorhinus* Guérin-Méneville 1838, *Caneorhinus* Kuschel 1952, and *Machaerophrys* Kuschel 1958, which all belong to the subtribe Leptopiina, tribe Entimini according to Morrone (1999b). *Morrionia* is similar to *Cylydrorhinus* and *Caneorhinus*, on the following characters: general body shape; male and female genitalia, specially the oviscapt and spermatheca. *Morrionia* differs from both genera by the absence of rostral carinae, presence of a spatula-like projection on the fore tibiae, and the ovate shape of the antennal club. *Morrionia* and *Machaerophrys* share the presence of a spatula-like projection on the fore tibiae, but *Morrionia* differs from *Machaerophrys* by the straight external margin of the tibiae, the absence of postocular lobes, and the presence of setae-like scales.

Morrionia exhibits characters that could be interpreted as autpomorphies: the extremely short rostrum and the reduction of the postocular

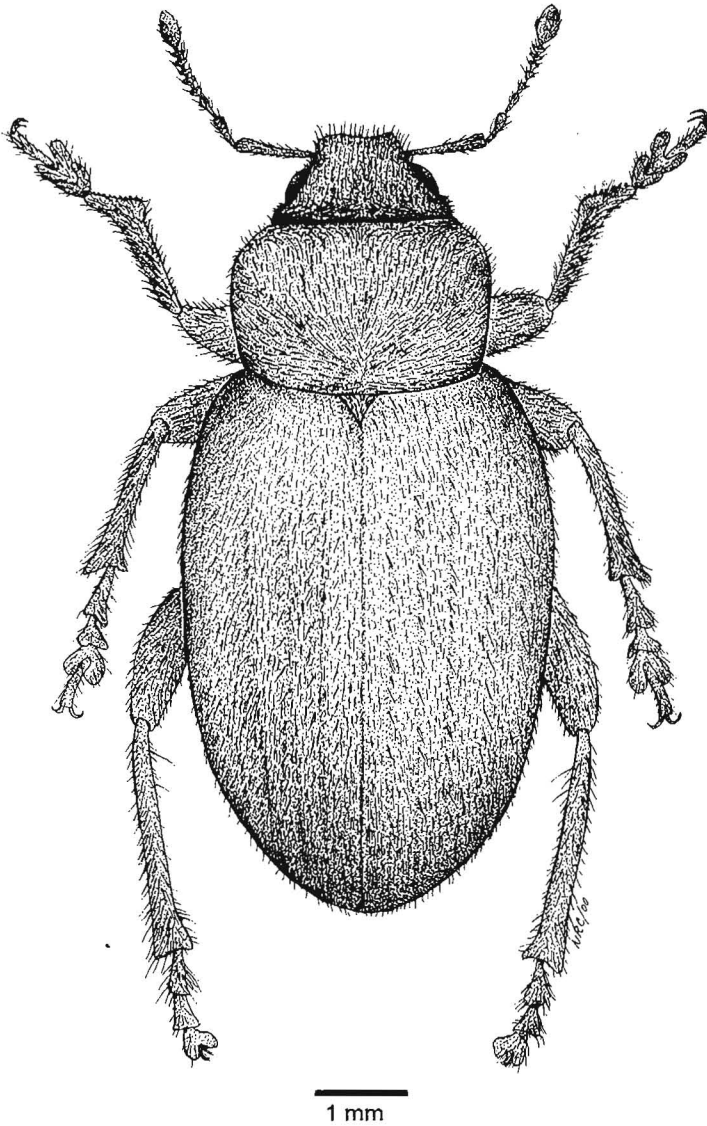
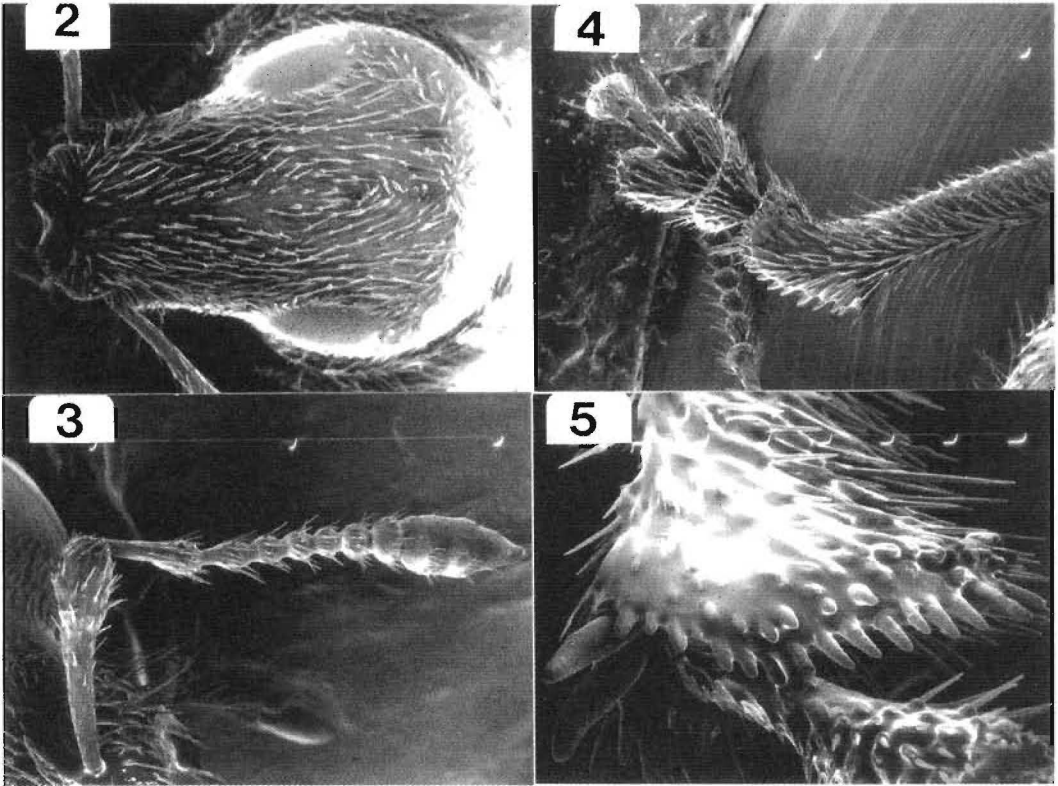


Figure 1. Habitus of *Morronia brevirostris*, gen. et sp. n.

Table 2. Main differences between *Morronia* and related genera.

	<i>Cyldrorhinus</i>	<i>Caneorhinus</i>	<i>Machaerophrys</i>	<i>Morronia</i>
Rostral carinae	present	present	absent	absent
Scape	slightly curved	slightly curved	strongly curved	slightly curved
Club	elongate	elongate	elongate	ovate
Spatula-like projection	absent	absent	present	present
Postocular lobes	strongly developed	strongly developed	strongly developed	absent



Figures 2-5. Details of *Morronia brevirostris*, gen. et sp. n., SEM pictures: (2) Head, frontal view (21x); (3) left antenna (30x); (4) right fore tibia and tarsi, showing the spatula-like tibial projection overlying first tarsal segment (30x); (5) apex of right hind tibia, showing the two spurs and the weakly developed corbel (90x).

lobes. The monophyly of *Machaerophrys* and *Caneorhinus* is supported by the following characters: the curved shape and externally convex fore tibia for *Machaerophrys* and the extremely convex rostrum and convex eyes for *Caneorhinus*. The monophyly of *Cyldrorhinus* is not so clear, and a cladistic analysis will be needed to clarify the relationships of the group. The table 2 summarises the main differences among the aforementioned genera.

Morronia brevirostris

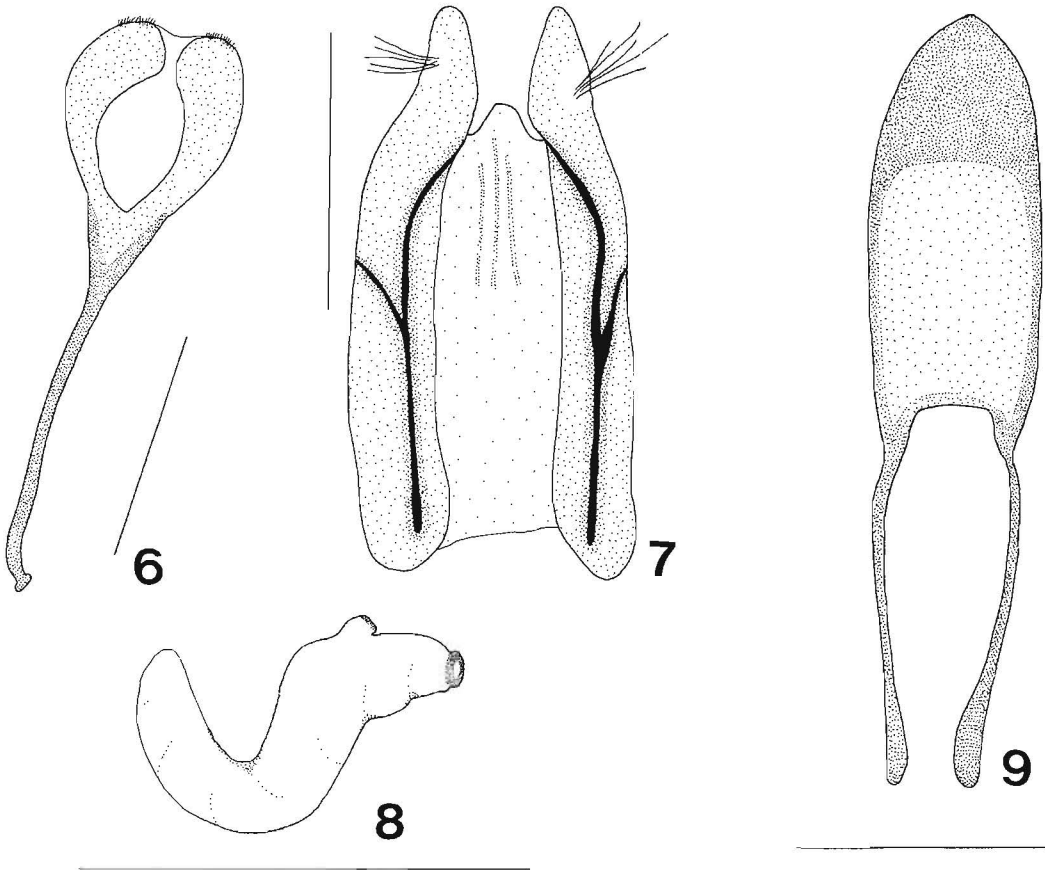
Posadas & Ocampo, **sp. n.**

(Fig. 1, 2-5, 6-9)

Etymology. – The species name refers to the short rostrum of this weevil.

Type series. – Holotype male with the following label data: [East Falkland / Surf Bay / 16.IV.1986] [under sand

at top of beach] [A. S. Boumby / B.M. 1986-183] [*Morronia brevirostris* Posadas & Ocampo / Holotype male] (BMNH). Six paratypes with the following label data: [East Falkland / Surf Bay / 16.IV.1986] [under sand at top of beach] [A. S. Boumby / B.M. 1986-183] [*Morronia brevirostris* Posadas & Ocampo / Paratype] (BMNH). One paratype with the following label data: [East Falkland / nr. Stanley, RAF / Stanley, 26.ii.1983 / on sand] [M. A. Hann / B.M. 1983-146] [*Morronia brevirostris* Posadas & Ocampo / Paratype] (BMNH). One paratype with the following label data: [TUSSOC CLUMP] [FALKLAND IS. / EAST FALKLAND. / HOOKERS POINT. / STANLEY / VC 465 720] [BM 1983-262] [NHD PRENDERGAST / 28-I-1983] [*Morronia brevirostris* Posadas & Ocampo / Paratype] (BMNH). One paratype with the following label data: [SURF BAY, STANLEY, / FALKLANDS / 29.3.82 / R.G. BOOTH] [DATA / under card / at base / of plant on upper-shore] [E. FALKLAND / R.G Booth Coll. / B.M.1985-380] [*Morronia brevirostris* Posadas & Ocampo / Paratype] (BMNH). One paratype with the following label [FALKLAND IS.: / Eliza Cave- / 26.ii. 1963] [D. Davison. / B.M.1968-371] [*Morronia brevirostris* Posadas & Ocampo / Paratype] (BMNH).



Figures 6-9. Female (6-8) and male (9) genitalia of *Morrionia brevirostris*, gen. et sp. n.: (6) sternum 8; (7) oviscaptor; (8) spermatheca; (9) aedeagus, dorsal view.

Diagnosis. – This species is recognised by the combination of the following characters: first and second funicular articles elongate; first funicular article twice longer than the second; funicular articles 3 to 6 moniliform and 7 wider than long; body surface, including head, prothorax, and elytra, covered by white-coloured seta-like scales; post-ocular lobes absent; metepisternal suture absent.

Description. – Body length 18.2 mm to 19.8 mm in males, and 20.7 mm to 22.2 mm in females. Integument dark brown to black. Body surface, including head, prothorax, and elytra, covered by white-coloured seta-like scales. General body shape ovate (Fig. 1). Rostrum short, almost as wide as long, lacking carina (Fig. 2). Frons

straight, lacking fovea (Fig. 2). Scrobes short and down directed. Eyes subcircular and flattened. Antennae as in figure 3, with scape slightly curved and short (not reaching the hind margin of the eye). First and second funicular articles elongate. First funicular article twice as long than the second. Funicular articles 3 to 6 moniliform and 7 wider than long. Club ovate, short and inflat.

Prothorax transversal, 1.4 times wider than long. Covered by seta-like scales, that show different orientations, which are reflected in a triangular pattern in the middle area of the pronotum with the base forward directed and the apex backward directed. Metepisternal suture absent. Elytra slightly convex, 1.4 times longer than wide, covered by seta-like scales backward directed, striae

inconspicuous, intervals flat, lacking tubercles; elytral suture strongly closed, humeri rounded, not prominent. Metathoracic wings absent.

Legs: Integument brown or reddish, covered by seta-like scales. All tibiae showing an irregular fringe all round, formed by scarcely modified clothing setae project beyond the apex. Fore tibia with a spatula-like projection in the outer surface of the apex, that covers the first tarsal segment (Fig. 4). Middle tibiae with one spur in the inner margin of the apex. Hind tibiae with two spurs in the inner margin of the apex, and showing a slightly developed corbel (Fig. 5).

Genitalia (see Fig. 6-9).

Distribution. – Known only from the Islas Malvinas.

Seasonal distribution. – January (1), February (2), March (1), and April (8).

Biology. – As is common in most of the Entiminae, *M. brevisrostris* possesses a short rostrum and deciduous mandibular processes. Those characteristics are considered to be an adaptive response to selective pressures such as cold temperature, ectophytic oviposition, and subterranean life in immature stage (Marvaldi 1997).

All specimens of *M. brevisrostris* were collected in sand. The spatula-like projection of the fore tibia could be an adaptation for digging in a sandy substrate.

Key to species of Entiminae from Islas Malvinas

1. Tibiae without spurs; postocular lobes slightly developed; prothorax shape almost square; rostrum at less than three times longer than wide at the apex; scutellum slightly developed; adelognathus condition (*Malvinus*) 2
 - Fore tibiae with two spurs, middle tibiae with one spur; postocular lobes absent or present, if present strongly developed; prothorax transversal; rostrum at most twice longer than wide at the apex; scutellum strongly developed; phanerognathus condition 3
2. Suprascrobal sulcus present; elytra laterally compressed in the middle area of declivital zone; elytra covered by rounded, little, and black coloured scales.... *Malvinus compressiventris*
 - Suprascrobal sulcus absent; elytra not laterally compressed in the middle area of declivital zone; elytra covered by rounded, little, and mostly white and copper coloured scales *Malvinus nordenskioldi*
3. Rostrum lacking dorsal carinae, as long as wide; postocular lobes absent; fore tibiae apex

- with spatula-like process..... *Morrionia brevisrostris*
- Rostrum with dorsal medium carinae, longer than wide; postocular lobes strongly developed; fore tibiae apex without spatula-like process..... 4
- 4. Frons showing a transversal depression between the eyes, strongly convex and clearly distinct of rostrum; prothorax showing two lateral expansions; fore tibiae with one spur *Caneorhinus biangulatus*
 - Frons without transversal depression between the eyes; frons straight and extending to rostrum without a clear border; prothorax without lateral expansions; fore tibiae without spur 5
- 5. Elytra covered by cooper-colour, rounded, and costulate scales; elytra with apical mucro, conical and showing acute apex; elytral intervals showing tubercles, specially in declivital area; humeri protrudent..... *Cyldrorhinus caudiculatus*
 - Elytra covered by cooper-coloured and white seta-like scales; elytra with apical mucro slightly developed and truncate conical shaped, it has a rounded apex; elytra lacking tubercles; humeri rounded..... *Cyldrorhinus lenniscatus*

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