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A NEW *DECUANELLUS* OSELLA, 1977
FROM THE WEST INDIES
(Coleoptera, Curculionidae)

ABSTRACT - COLONNELLI E., 2010 - A new *Decuanellus* Osella, 1977 from the West Indies (Coleoptera, Curculionidae).

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The new species *Decuanellus pivai* n. sp. from the island of St. Lucia, West Indies is described, illustrated and compared with the close *D. pecki* Osella, 1980 from Puerto Rico. Short notes on the systematic position of the genus, and a catalogue of the hitherto known species is given.

KEY WORDS - *Decuanellus*, New species, St. Lucia, West Indies, Catalogue.

RIASSUNTO - COLONNELLI E., 2010 - Un nuovo *Decuanellus* Osella, 1977 delle Indie occidentali (Coleoptera, Curculionidae).

La nuova specie *Decuanellus pivai* n. sp. dell'isola di St. Lucia, Caraibi è descritta, illustrata e comparata con l'affine *D. pecki* Osella, 1980 di Puerto Rico. Sono incluse brevi osservazioni sulla posizione sistematica del genere, e viene fornito un catalogo di tutte le specie finora descritte.

PAROLE CHIAVE - *Decuanellus*, Nuova specie, St. Lucia, Indie occidentali, Catalogo.

Among the blind Curculionidae Erminio Piva gave me for identification some time ago there were some individuals he collected by sifting in the West Indies belonging to a new species of the genus *Decuanellus* Osella, 1977.

Although Osella (1976) had already assigned to this genus *D. viti* Osella, 1976 from Guadeloupe, *Decuanellus* was validly described only in 1977 for *D. vinai* Osella, 1977 from Cuba (Osella 1977), and the latter is to be considered its type species as clearly explained by Howden (1983). The same Osella (1980) described then *D. pecki* Osella, 1980

from Puerto Rico, mentioning the presence in this island of another undescribed species. After a few years Howden (1983), examining and still leaving unnamed the second Puerto Rican species, described another two ones from the Virgin Islands, *D. gladius* Howden, 1983 and *D. buclavatus* Howden, 1983. The same author (Howden 1992) revised all the American blind weevils, and described additional five *Decuanellus* from the Caribbean, increasing their number to 10 species. Howden (1992) drew up a key to species, and divided the genus in two groups, the first of which, the *D. gladius* group, is comprised of the species with smooth rostrum, funicle and legs, whereas the second, the *D. pecki* group, includes those having roughly sculptured rostrum, funicle and legs.

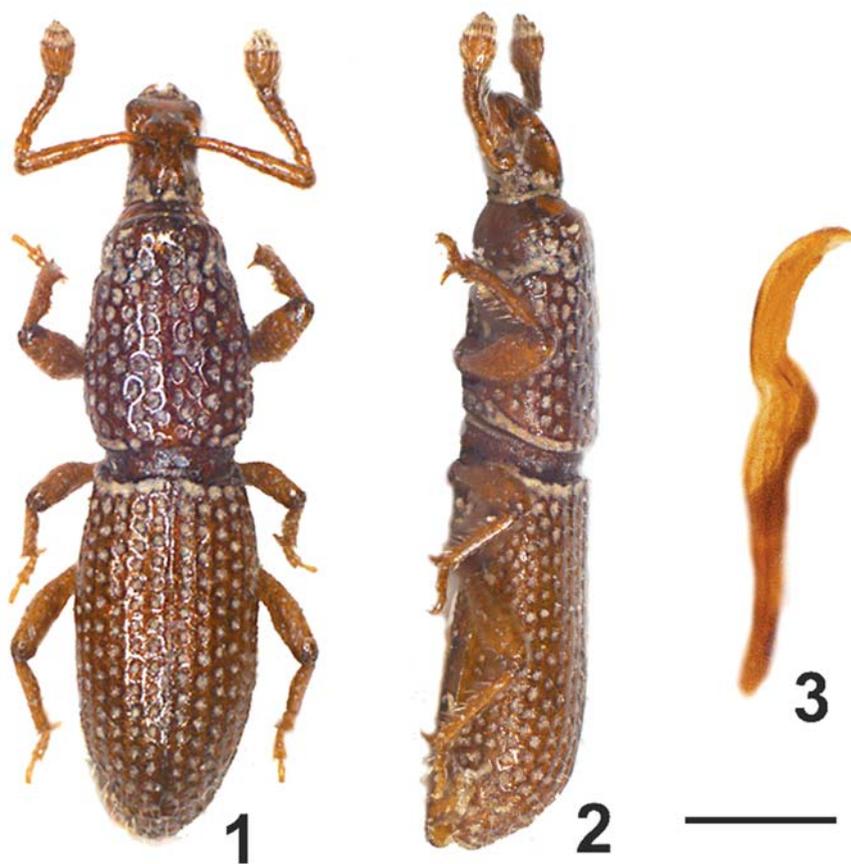
As for the systematic position of *Decuanellus*, it was originally assigned by Osella (1977) to Molytinae Anchonini, then moved to Cossoninae Cossonini by O'Brien & Wibmer (1982) and finally placed to Molytinae Lymantini by Kuschel (1987), placement overlooked by Howden (1992). Separation of Cossoninae from Molytinae remains however one of the many unresolved problem of the higher systematic of curculionids, several xylophagous or detritivorous members of both these supposed subfamilies sharing the protibial uncus very strong. The problem has already discussed by Howden (1992), and its resolution would shed some light also about the rank of Scolytidae, a group clearly different from the complex molytines-cossonines, but this issue is far beyond the scope of this note.

Labels of specimens are reported as written, where commas separate lines on the same label, and additional information is given in square brackets. Type depositories are as follows: PIV = Erminio Piva collection, Vicenza, Italy; COL = Enzo Colonnelli collection, Rome, Italy.

Decuanellus pivai n. sp.

Diagnosis. Extremely similar to *D. pecki*, differing from it by pronotum with more evident smooth longitudinal midline, striae on elytra formed by a little larger and deeper punctures, striae 6 and 7 always recognisable as such, dorsum of rostrum impunctate.

Type series. Male holotype: «763B» [green, glued on the label bearing the specimen]; «763 WEST INDIES, St. Lucia, CASTRIES»; «763 RAVINE Cha-, Bot; lavaggio, terriccio preso, lungo il torrentello [washing leaf litter sifted along a stream]»; «763 E. PIVA LEG., 23.II.1984 ♂»,



Figs 1-3. *Decuanellus pivai* n. sp., holotype in dorsal (1) and lateral (2) view. Aedeagus of the same in lateral view (3). Scale bar: 0.5 mm (figs 1 and 2); 0.2 mm (fig. 3).

aedeagus glued on a transparent label (PIV). Paratypes: 1 female: «763A» [yellow, glued on the label bearing the specimen]; «763 WEST INDIES, St. Lucia, CASTRIES»; «763 Ravine Cha-, bot, lavag-, gio terriccio, presso torrente [washing leaf-litter sifted along a stream]»; «763 E. PIVA LEG. ♀, 23.II.1984», sternite eight glued on a transparent label (PIV); 1 female: «763 WEST INDIES, St. Lucia, CASTRIES»; «763 RAVINE CHA-, BOT; lavaggio, terriccio preso, lungo il torrentello [washing leaf-litter sifted along a stream]»; «763 E. PIVA LEG., 23.II.1984 « (PIV); 1 male: «763 WEST INDIES, St. Lucia, CASTRIES»; «763 RAVINE CHA-, BOT; lavaggio, terriccio preso, lungo il torrentello [washing leaf-litter sifted along a stream]»; «763 E. PIVA LEG., 23.II.1984 « (COL);

1 female: «763C» [yellow, glued on the label bearing the specimen]; «763 WEST INDIES, St. Lucia, CASTRIES»; «763 RAVINE CHA-, BOT; lavaggio, terriccio preso, lungo il torrentello [washing leaf litter sifted along a stream]»; «763 E. PIVA LEG., 23.II.1984 ♀», sternite eight and spermatheca glued on a transparent label (PIV).

Holotype. Length 1.58 mm without rostrum, and 1.83 mm comprised of rostrum. Derm red-brown, legs and antennae slightly paler. Rostrum 1.6 times longer than wide, dorsal surface smooth and shining, lateral margins widening at antennal insertion and here dorsum somewhat sulcate, base V-shaped and deeply notched, sides strongly punctured. Scape smooth, reaching apex of pronotum, first segment of funicle as long as the following two, second clearly longer than third, 3-7 diminishing in length and all transverse, club large and abruptly wider than funicle, almost round in section. Prothorax twice longer than wide, widest at basal fourth, slightly constricted apically, with large, deep punctures leaving an evident longitudinal impunctate slightly raised line. Scutellum very small. Elytra 2.16 times longer than wide, depressed, with deeply punctured striae, punctures as large and deep as on prothorax dorsally, even if on sides punctures are a little smaller. Striae 6 and 7 complete, although with somewhat irregular rows of punctures. Interstriae much narrower than striae and a little convex. Legs elongate, profemora clubbed and slightly more robust than meso and metafemora. Protibiae with apical uncus very elongate, another toothlike tubercle at apical 4/5 not much smaller than the uncus, plus a rather small spine at basal fifth. Tarsi and under side not differing from those of *D. pecki*. Habitus: figs. 1 and 2. Aedeagus: fig. 3.

Paratypes. Very similar to the male holotype. Females differs by their abdomen not concave. Length: mm 1.58-2.16 without rostrum, and mm 1.83-2.03 comprising rostrum

Etymology. The new species is named after its collector Erminio Piva as a sign of my friendship and acknowledgment of his skill in finding out endogean coleoptera.

Remarks. Smooth scape and rostrum bearing large punctures on sides make *D. pivai* extremely similar to the Puerto Rican *D. pecki*, but the new species is identified by tiny characters like larger and deeper punctures forming the elytral striae, of which 6 and 7 are complete although a little irregular, the dorsum of rostrum impunctate, the more

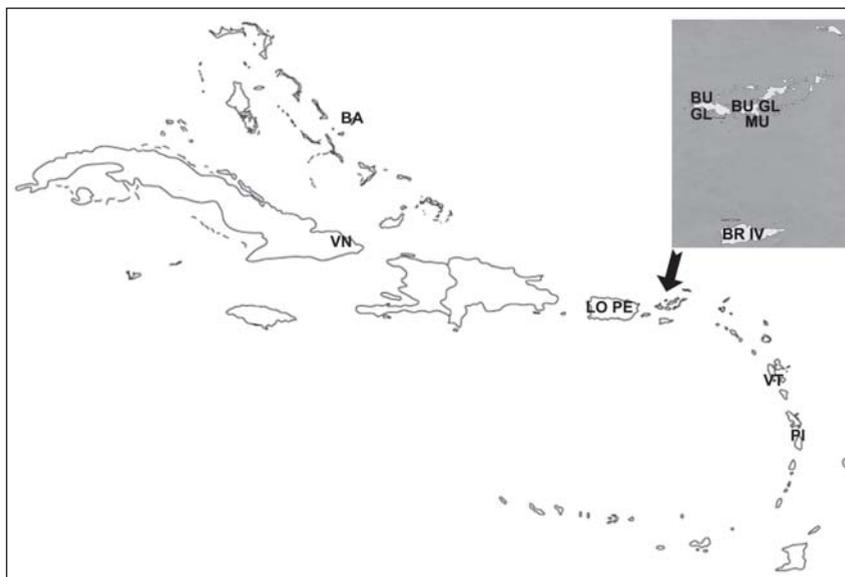


Fig. 4. Distribution of: *Decuanellus bahamensis* (BA), *D. brevicrus* (BR), *D. buclavatus* (BU), *D. gladius* (GL), *D. iviei* (IV), *D. longirostris* (LO), *D. muchmorei* (MU), *D. pecki* (PE), *D. pivai* (PI), *D. vinai* (VN), *D. viti* (VT). The enlarged Virgin Islands map is on upper left corner. Map of the Caribbean from: www.graphicmaps.com, partially modified.

strongly evident smooth midline of pronotum, the very long external uncus of male protibiae in association with a rather large acute tooth-like process on internal margin about at distal 4/5 of tibia, plus a smaller another one at basal fifth, the spermatheca more swollen at base and with clearly thinner cornu. From the also close Guadeloupan *D. viti* Osella, 1980 the new species is already separate by its antennal club abruptly wider than funicle. All other species, although rather similar each other, cannot be confused with *D. pivai*.

CATALOGUE

A catalogue of the eleven species of this Caribbean genus is below. In fig. 4 is shown the distribution of all *Decuanellus* thus far known. It is evident from the map that still much field work is to be done, since in the well prospected Puerto Rico and U.S. Virgin Islands occurs the highest number of species, whereas all across the possible range of the genus

just a few ones have been discovered. Being these minute blind weevils related to small remains of mid-low mountains or lowland forests, as far as we know about the ecology of them, it is highly probable that careful researches in the suitable habitats of even lesser islands will yield plenty of new species.

<i>Decuanellus bahamensis</i> Howden, 1992	Bahamas: San Salvador, Barn Cay
<i>Decuanellus brevicrus</i> Howden, 1992	Virgin Islands: St. Croix, Buck Island
<i>Decuanellus buclavatus</i> Howden, 1983	Virgin Islands: St. John, St. Thomas
<i>Decuanellus gladius</i> Howden, 1983	Virgin Islands: St. John, St. Thomas
<i>Decuanellus iviei</i> Howden, 1992	Virgin Islands: St. Croix, Butler Bay
<i>Decuanellus longirostris</i> Howden, 1992	Puerto Rico: Aguas Buenas
<i>Decuanellus muchmorei</i> Howden, 1992	Virgin Islands: St. John, Bordeax Mt.
<i>Decuanellus pecki</i> Osella, 1980	Puerto Rico: Aguas Buenas
<i>Decuanellus pivai</i> n. sp.	St. Lucia: Castries
<i>Decuanellus vinai</i> Osella, 1977	Cuba: Rio Jojo
<i>Decuanellus viti</i> Osella, 1976	Guadeloupe: Ile des Saintes

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BIBLIOGRAFIA

- HOWDEN A.T., 1983 - Two new species of *Decuanellus* Osella from the Virgin Islands (Coleoptera: Curculionidae: Cossoninae). The Coleopterists Bulletin, 37(1): 81-89.
- HOWDEN A.T., 1992 - Review of the New World eyeless weevils with uncinata tibiae (Coleoptera, Curculionidae: Molytinae, Cryptorhynchinae, Cossoninae). Memoirs of the Entomological Society of Canada, (162): 1-75.
- KUSCHEL G., 1987 - The subfamily Molytinae (Coleoptera: Curculionidae): general notes and description of new taxa from New Zealand and Chile. New Zealand Entomologist, 9: 11-29.

- O'BRIEN C.W. & WIBMER G.J., 1982 - Annotated checklist of the weevils (Curculionidae sensu lato) of North America, Central America, and the West Indies (Coleoptera: Curculionoidea). *Memoirs of the American Entomological Institute*, 34: I-IX + 1-382.
- OSELLA G., 1976 - *Decuanellus viti* n. sp. di Curculionide endogeo dell'isola di Guadalupa (Coleoptera) (XI contributo alla conoscenza della curculionidofauna endogea). Con 4 figure. *Revue Suisse de Zoologie*, 83(3): 673-677.
- OSELLA G., 1977 - Nuove specie di Curculionidae endogei dell'isola di Cuba. *Résultats des expéditions biospéologiques cubano-roumaines à Cuba*, 2: 397-402.
- OSELLA G., 1980 - Nuovi curculionidi ciechi della regione neotropica (Coleoptera). *Fragmenta Entomologica*, 15(2): 365-422.

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