

TWO NEW ITALIAN *CEUTORHYNCHUS*
(Coleoptera, Curculionidae)

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INTRODUCTION

Two new species of *Ceutorhynchus* Germar, 1824 found during recent investigations in central and southern Italy are described in this note. Measurements are taken as explained in Colonnelli (2005). Most of the pictures were taken by the author with a JVC GC X1 camera associated with a Wild M5 microscope, whereas figure 2 was taken using a microscope Leica Z16 APO and the associate program Leica Application Suite 3.1. All photographs were then elaborated with the program Adobe Photoshop PS4. Labels are reported as written, a slash separates lines on the same label.

Type depositories are as follows: CAS = R. Casalini collection, Genazzano, Italy; COL = E. Colonnelli collection, Rome, Italy; DIO = L. Diotti collection, Cinisello Balsamo, Italy; MCZ = Museo Civico di Zoologia, Rome, Italy; OSL = G. Osella collection, L'Aquila, Italy; MZUR = Museo di Zoologia dell'Università degli Studi di Roma "Sapienza", Rome, Italy; SPE = Museo "La Specola", Florence, Italy.

***Ceutorhynchus a p e n n i n u s* n. sp.**

DIAGNOSIS. *Ceutorhyncho peyerimhoffi simillimus*, solo statura plusculum majore, corpore et praecipue elytris mox elongatioribus, mucronibusque tibiarum maris sensim minoribus aegre distinguendus.

TYPE SERIES. Italy: "I: Abruzzo (AQ) - m 1800 / Monte Sirente - Valle Lupara / 42.08.38 N 13.37.30 E / 21.VI.2007 - E. Colonnelli"; "*Isatis / allionii* / P. W. Ball" [green], 1 ♂ holotype (MZUR), and 11 ♂♂ and 10 ♀♀ paratypes (1 CAS, 1 DIO, 1 MCZ, 1 OSL, 1 MZUR, 1 SPE, 16 COL).

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HOLOTYPE. Length: mm 2.66. Piceous, rather shining, very coarsely punctured. Dorsal vestiture of rather dense recumbent pale grey with some greenish shade comma-like scales. Under side clothed with a little sparser similar scales. Rostrum 0.875 as pronotum, moderately curved, tricarinate up to antennal insertion, then finely punctured and glabrous. Antenna inserted at midpoint of rostrum; scape moderately clubbed; funiculus 7-jointed; club large, shortly fusiform, as long as segments 5-7. Frons depressed, strongly punctured; eyes large and slightly protruding from head convexity.

Pronotum 0.77 as long as wide, subtrapezoidal, moderately constricted at apex, base slightly bisinuose, apical margin moderately elevated over the head, sides feebly curved. Disc rather convex, coarsely punctured; antero-lateral depressions evident; dorsal sulcus entire but shallow; lateral tubercles weak. Elytra 1.363 longer than wide, convex and with a scutellar shallow depression; maximum width immediately behind humeri. Sides weakly curved up to the feeble preapical tubercles; humeral calli rather strong. Striae in the form of bare furrows. Interstriae wider than striae, quite flat, coarsely punctured. Legs fairly elongate, femora edentate, tibiae slightly curved at base, then almost straight, apical mucro of meso and metatibiae minute, tarsi rather elongate, claws appendiculate. Ventrites 1-2 flattened, 5 with moderately large shallow pit. Aedeagus not differing from that of the similar species. See also fig. 1.

PARATYPES. Length: mm 2.5-2.8. Males are very similar to the holotype. Females differ only by their smoother rostrum, lack of ventral impressions and tibial mucros.

ETYMOLOGY. The name was selected in reference to central Apennines, the mountain range where the species was found.

REMARKS. The new species belongs in the informal group *inaffectatus-peyerimhoffi-syrites* proposed by Colonnelli (2003a) to include similar *Ceutorhynchus* primarily living on *Isatis* from one side and on *Hesperis* from the other. *Ceutorhynchus apenninus* is very close to *C. peyerimhoffi* Hustache, 1916, a weevil associated with *Isatis tinctoria* L. and *I. djurdjurae* Coss. (Campobasso et al. 2008, Colonnelli 2004), differing from it by larger size (mm 2.5-2.8 instead of mm 2.0-2.5), sides of pronotum clearly less rounded, more elongate elytra with maximum width at or immediately behind shoulders instead of about in the middle, dorsal

longitudinal sulcus of pronotum wider but shallow and almost wanting in the middle of disc instead of entire and quite narrow and deep, rostrum a trifle thicker when compared sex to sex, apical mucros of male tibiae even smaller so that it is difficult to see particularly the posterior ones, vestiture sparser and consisting of thinner hairlike scales causing fresh specimens to appear clearly darker than those of *C. peyerimhoffi* (figs 1 and 2). From the Turkish and Armenian *Ceutorhynchus isatidis* Colonnelli, 2003, also living on *Isatis*, the new species differs by the edentate although somewhat angulate femora, the vestiture composed by much thinner and sparser scales, the thicker rostrum and the size on average larger (mm 2.5-2.8 instead of mm 2.0-2.6). The central Asiatic *C. kaszabi* Korotyaev, 1980, the biology of which is unknown and possibly associated with *Isatis* judging from its morphological characters, is very similar to *C. peyerimhoffi*, and can be distinguished from the new species, besides the smaller size and elytra shaped like those of *C. peyerimhoffi*, also by its thinner and longer male rostrum which is obviously tricarinate between antennal insertion. *Ceutorhynchus apenninus* is also not unlike the French species *C. gandoni* Hoffmann, 1965 only known upon two female examples collected on *Hesperis laciniata* L., but the latter species is readily set apart by its 6-jointed funiculus.

Couplets 8 and 9 of the key by Colonnelli (2003a) to species of the informal group *inaffectatus-peyerimhoffi-syrites* may be modified as follows to include *Ceutorhynchus apenninus*:

- 8 Larger (2.8-3.0 mm). Tarsal segment 4 projects from segment 3 about twice the length of 3. Eastern Russia, central Asia.....*pistor* Schultze, 1902
- 8' Smaller (2.0-2.8 mm). Tarsal segment 4 projects from segment 3 at most 1.5 times the length of 3.....9
- 9 On average smaller (2.0-2.6 mm). Maximum width of elytra clearly apicad of shoulders.....9a
- 9' On average larger (2.5-2.8 mm). Elytra comparatively elongate with maximum width about at shoulders. Central Italy.....*apenninus* n. sp.
- 9a Insect clothed by broader and paler scales as to appear light grey. Dorsal surface of rostrum obscurely tricarinate between the antennal insertion. Male rostrum as long as pronotum. Tip of rostrum and tarsi often dark red-brownish in mature specimens. Mucro of male tibiae so small to be hardly visible. Spain, Algeria, Italy, Greece.....*peyerimhoffi* Hustache, 1916
- 9a'- Insect clothed by thinner and darker scales as to appear rather dark grey. Dorsal surface of rostrum clearly tricarinate between the antennal insertion. Male rostrum 1.1x longer than pronotum. Tip of rostrum and tarsi piceous in mature specimens. Mucro of male tibiae small but obvious. Eastern Kazakhstan, Mongolia.....*kaszabi* Korotyaev, 1980

ECOLOGY. All examples were beaten off *Isatis allionii* P. W. Ball, a montane plant of the Brassicaceae distributed in the central Apennines and in the western Alps of Piedmont and neighbouring French region of Queyras (Pignatti 1982) from 1800 to 2450 m above sea level.

Ceutorhynchus m a g n a n o i n. sp.

DIAGNOSIS. *Ceutorhyncho matthiolae affinis, sed vestitura pilis longioribus clarisque, epimeri mesothoracis squamulis ovalibus elongatis densioribus et albo-griseis satis differens.*

TYPE SERIES. Italy: "I: Calabria - Isola di / Capo Rizzuto - Fratte / 1.V.1996 - E. Colonnelli"; "*Matthiola / tricuspidata* / (L.) R. Br." [green], 1 ♂ holotype (MZUR) and 9 ♂♂ and 8 ♀♀ paratypes (1 CAS, 1 MCZ, 2 MZUR, 1 OSL, 12 COL); "I: Lucania - Policoro / Bosco Pantano / litorale / 25.IV.[19]89 - Colonnelli"; "*Matthiola / tricuspidata* / (L.) R. Br." [green], 2 ♀♀ paratypes (COL); "I: Lucania - Policoro / Bosco Pantano / litorale / 25.IV.1989 - G. Meloni"; "*Matthiola / tricuspidata* / (L.) R. Br." [green], 2 ♀♀ paratypes (COL); "Italia, Campania (NA) / Bacoli, 40 m, on *Matthiola / incana*, 21.III.2003 / Audisio & De Biase", 1 ♂ and 2 ♀♀ paratypes (2 COL, 1 MZUR).

HOLOTYPE. Length: mm 2.80. Piceous, shining, rather coarsely punctured. Dorsal vestiture on head and pronotum consisting of rather sparse whitish and partly brownish hairlike scales slightly lifted; dorsal sulcus of prothorax with some recumbent whitish lanceolate scales, some of which are on pronotal sides, and a few around scutellum. Apex of mesepimera densely clothed by clustered ivory-white raised lanceolate scales. Each elytral interstria with 3 irregular rows of appressed hairlike whitish scales, a few of them on apical third of suture are brownish. Under side with sparse shortly lanceolate whitish scales, a pair of faint patches of brownish hairs are along the middle of metasternum and of all ventrites. Rostrum about as long as pronotum, moderately curved, strigose up to hardly basad of antennal insertion, then finely punctured and glabrous. Antenna inserted just apicad of midpoint, scape clubbed, funiculus 7-jointed, club fusiform, slightly longer than joints 5-7 together. Frons depressed, punctured, eyes a little protruding from head convexity. Pronotum 0.73 as long as wide, constricted at apex, base slightly bisinuose, sides rather curved. Disc not very convex, coarsely punctured, antero-lateral depressions evident, dorsal sulcus entire, lateral tubercles acute. Elytra 1.15 longer than wide, fairly convex and with faint basal depression, maximum width at one-fourth. Sides uniformly and rather strongly curved up to mucronate preapical tubercles, humeral calli protruding.

Strial furrows deep, catenulate, with a row of whitish recumbent scales obviously shorter and wider than those on interstriae. Intervals slightly wider than striae, quite flat and transversely rugose. Legs moderately robust, femora with a thin sharp denticle, tibiae slightly bisinuose, a little enlarged from base to apex, apical mucro of meso and metatibiae strong and acute, tarsi relatively elongate, claws appendiculate. Ventrites 1-2 with a faint small central common depression, 5 with shallow central pit. Aedeagus not differing from that of the similar species. See also figs 3 and 5.

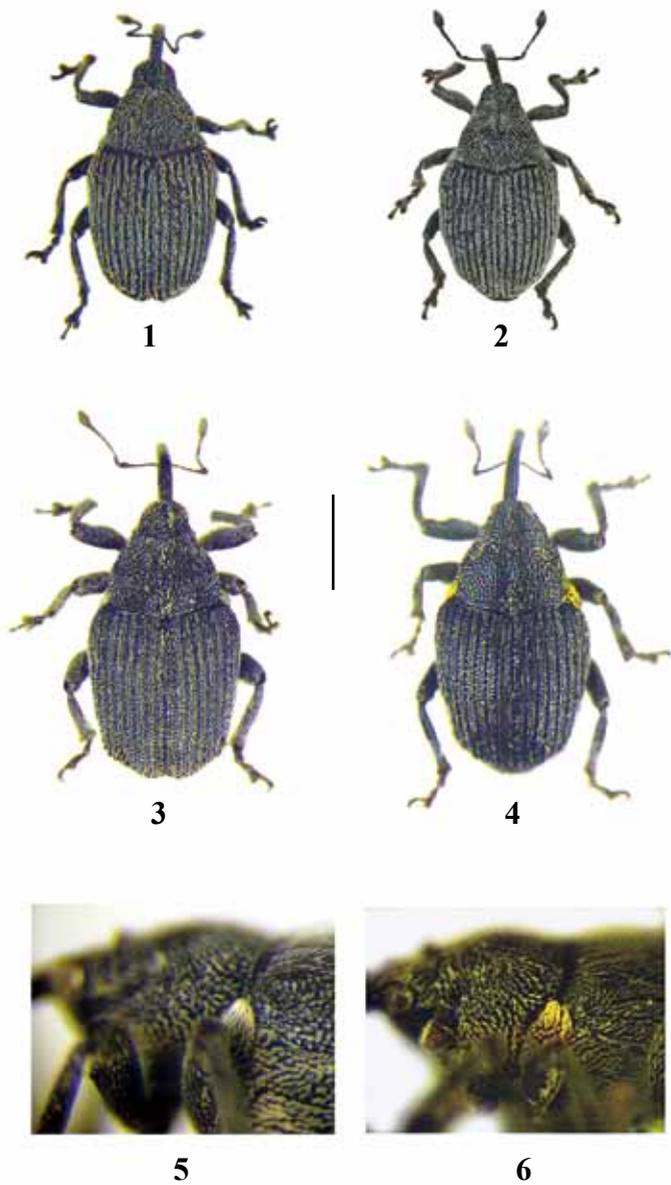
PARATYPES. Length: mm 2.63-3.00. Very similar to the holotype. Females differ by their smoother rostrum, antenna inserted immediately basad of midpoint of rostrum, and no impressions on ventrites nor tibial mucros.

ETYMOLOGY. This new species is named in memory of my close friend Luigi Magnano, who was not only an outstanding taxonomist, but also a very kind man whose invaluable experience lead all of us to achieve a deeper knowlegde of the fascinating beetles that are weevils.

REMARKS. *Ceutorhynchus magnanoi* belongs in the *assimilis* group, defined by Korotyaev (1980) and consisting of 26 species from the Palearctic region and southern Africa (Colonnelli 2004, 2006). The appendiculate claws immediately distinguish the new species from *C. arcanus* Colonnelli, 2006 (South Africa), *C. scyta* Korotyaev, 1980 (southeastern Russia and Kazakhstan), and *C. sebastiani* Colonnelli, 2006 (South Africa). The rather dense vestiture of hairlike scales on elytral interstriae and the cluster of thick whitish scales on mesepimera make easy to distinguish *C. magnanoi* from *C. alliaricola* Colonnelli, 1987 (Italy), *C. circassicus* Schultze, 1900 (western Caucasus), *C. crassipes* Korotyaev, 1980 (Mongolia), *C. inops* Colonnelli, 2006 (South Africa), *C. khnzoriani* Korotyaev, 1989 (Siberia), *C. sinapicola* Dieckmann, 1975 (southeastern Europe and Middle East), and *C. subpilosus* C. Brisout, 1869 (Europe and Anatolia), all of which have not these features. The reddish tarsi readily differentiate *C. commutatus* Korotyaev, 1980 (Mongolia), *C. debskii* Pic, 1920 (southeastern Mediterranean), *C. nitidipennis* Schultze, 1898 (Araxes valley), *C. resedae* (Marshall, 1802) (Europe and north Africa), and *C. simulans* Korotyaev, 1980 (Siberia and Mongolia) from the new species. On the other hand *C. griseus* C. Brisout, 1869 (Europe and west Asia), *C. montanus* Colonnelli, 1997 (Bulgar-

ia), and *C. wagneri* Smreczyński, 1937 (eastern Europe and west Asia) have rather dense and/or partly whitish hairlike scales on elytra, but no or just a faint trace of clustered scales on mesepimera. *Ceutorhynchus magnanoi* is quite similar to *C. hutchinsiae* (Alps and Pyrenees) being however larger (mm 2.63-3.00 instead of 2.15-2.55), less convex, and with longer antennae and tarsi. The smaller (mm 2.00-2.50) *Ceutorhynchus dubius* C. Brisout, 1883 (Eurasia), which lives on *Berteroa incana* (L.) DC., has pronotal sulcus weak and only visible at apex and base, much more rounded pronotal sides, and elytral hairlike scales arranged in 1-2 rows on interstriae. *Ceutorhynchus magnanoi* can be easily separated from *C. plumbeus* C. Brisout, 1869 (eastern Europe and west Siberia) having the latter, which lives on *Erysimum*, pronotal sulcus wanting, no pronotal tubercles, elytral interstriae with two quite regular rows of hairs, and scales on mesepimera much less dense. *Ceutorhynchus kashmirensis* Korotyaev, 1980 (Kashmir) has elytral hairs predominantly dark brown and rather lifted, and female ventrite 5 with a quite deep impression. The smaller (mm 2.00-2.40) *C. difficilis* Schultzze, 1898 (eastern Europe and west Asia), monophagous on *Lepidium perfoliatum* L., has pronotum and elytra almost flat and with much less rounded sides, hairlike elytral scales somewhat raised, being those on even interstriae always arranged in two rows. The common and extremely variable *C. assimilis* (Paykull, 1792) (west Palaearctic) is generally much darker and with less dense elytral clothing, but some large individuals with dense and pale hairlike elytral scales can be very similar to *C. magnanoi*, although in all studied examples of *C. assimilis* there is always a prevalence of brownish hairs over the paler ones. The host plants in the genus *Matthiola* undoubtedly approach *C. magnanoi* to *C. matthiolae* Hoffmann, 1954, known only upon two females from southern France, but the elytral clothing of the French species is much sparser (fig. 4) and the patch on its mesepimera is sulphur-yellow (fig. 6) instead of ivory-white (fig. 5). The indication from Italy of *C. matthiolae* by Colonnelli (2003b) and Abbazzi & Maggini (2009) must be referred to *C. magnanoi*.

ECOLOGY. Most of the specimens were collected on *Matthiola tricuspidata* (L.) R. Br., a plant rather frequent in undisturbed sandy places along the coasts in central and southern Italy. A few of them were found on *Matthiola incana* (L.) R. Br., a common crucifer often growing on the rocks close to the sea. This leaves almost no doubts that the above members of *Matthiola* are the host plants of the new species.



Figs 1-6 - Habitus of: *Ceutorhynchus apenninus* n. sp., holotype (1); *C. peyerimhoffi* Hustache from Italy, Abruzzes (2); *C. magnanoi* n. sp., holotype (3); *C. matthiolae* Hoffmann, syntype (4). Patch of scales on mesepimera of: *C. magnanoi* n. sp., holotype (5); *C. matthiolae* Hoffmann, syntype (6). Scale bar: 1 mm (figs 1-4); 0.5 mm (figs 5-6).

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SUMMARY

Are described and illustrated two new Italian species of *Ceutorhynchus*. The first of them, *C. apenninus* n. sp. from central Italy, collected on the montane crucifer *Isatis allionii* P. W. Ball., is close to *C. peyerimhoffi* Hustache from Spain, Italy and Algeria, also living on *Isatis*. The second, *C. magnanoi* n. sp. from southern Italy is very close to the French *C. matthiolae* Hoffmann, and was collected of *Matthiola* like the species from southern France.

RIASSUNTO

Due nuovi Ceutorhynchus italiani (Coleoptera, Curculionidae).

Sono descritte e illustrate due nuove specie italiane di *Ceutorhynchus*. Il primo, *C. apenninus* n. sp. dell'Appennino centrale (Monte Sirente), raccolta sulla crucifera montana *Isatis allionii* P. W. Ball., è vicinissima a *C. peyerimhoffi* Hustache di Spagna, Italia e Algeria, il quale vive anch'esso su *Isatis*. Il secondo, *C. magnanoi* n. sp. dell'Italia meridionale, è affine a *C. matthiolae* Hoffmann della Francia meridionale, ed è stato raccolto su *Matthiola* come la specie francese.

REFERENCES

- ABBAZZI, P. & L. MAGGINI. 2009. Elenco sistematico-faunistico dei Curculionoidea italiani, Scolytidae e Platypodidae esclusi (Insecta, Coleoptera). *Aldrovandia*, 5: 29-216.
- CAMPOBASSO, G., E. COLONNELLI & H. McNEEL. 2008. Survey for organisms associated with dyer's woad, *Isatis tinctoria* L. (Brassicaceae) in central Italy, and preliminary host specificity tests for some potential control agents (Insecta). *Fragmenta entomologica*, 40(1): 167-180.
- COLONNELLI, E. 2003a. Four new species of *Ceutorhynchus* Germar close to *Ceutorhynchus inaeffectatus* Gyllenhal, 1837. *Snudebiller*, 4: 167-175.
- COLONNELLI, E. 2003b. A revised checklist of Italian Curculionoidea (Coleoptera). *Zootaxa*, (337): 1-142.
- COLONNELLI, E. 2004. Catalogue of Ceutorhynchinae of the world, with a key to genera (Insecta: Coleoptera: Curculionidae). *Argania editio*, Barcelona, 124 pp.
- COLONNELLI, E. 2005. New species of Ceutorhynchinae from western Palearctic (Insecta, Coleoptera: Curculionidae). *Aldrovandia*, 1(2004): 89-101.
- COLONNELLI, E. 2006. The genus *Ceutorhynchus* Germar in tropical Africa (Coleoptera Curculionidae). *Atti dell'Accademia Roveretana degli Agiati*, a. 256, ser. VIII, vol. VI, B: 47-74.
- KOROTYAEV, B. A. 1980. Materialy k poznanyu Ceutorhynchinae (Coleoptera, Curculionidae) Mongolii i SSSR. *Nasekomie Mongolii*, 7: 107-282.
- PIGNATTI, S. 1982. *Flora d'Italia*. Volume primo. Edagricole, Bologna, 790 pp.