

# On the genus *Dieckmannius* Colonnelli, 1987 (Coleoptera, Curculionidae)

Autor(en): **Colonnelli, E.**

Objektyp: **Article**

Zeitschrift: **Entomologica Basiliensia**

Band (Jahr): **16 (1993)**

PDF erstellt am: **22.07.2024**

Persistenter Link: <https://doi.org/10.5169/seals-980493>

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## On the genus *Dieckmannius* Colonnelli, 1987 (Coleoptera, Curculionidae)

by E. Colonnelli

**Abstract:** The systematic position of the genus *Dieckmannius* Colonnelli is discussed. New distributional data are given for *D. sexnotatus* (Schultze) and *D. camerunensis* (Hustache); it is demonstrated that the range of the latter is restricted to the Himalayan region. The new species *D. ingens* from Nepal, Bhutan and West Bengal is described. A key to the 3 species at present known is also included.

**Key words:** Coleoptera, Curculionidae, Ceutorhynchinae, *Dieckmannius*, taxonomy, distribution, new species.

Through the kindness of Dr. M. Brancucci, I had the opportunity of examining a series of specimens from the Himalaya belonging to the genus *Dieckmannius* Colonnelli. Among the Ceutorhynchinae from India sent to me by A. Riedel, another specimen of *Dieckmannius* from Himachal Pradesh was also found. This recently collected material led to a better understanding of the relationships between the species of the genus, and to a more complete knowledge of their distribution. Past study of the types of *D. camerunensis* and of the Indian specimens in the British Museum (COLONNELLI, 1987) was based only on 29 examples with imprecise locality labels, and collected many years ago.

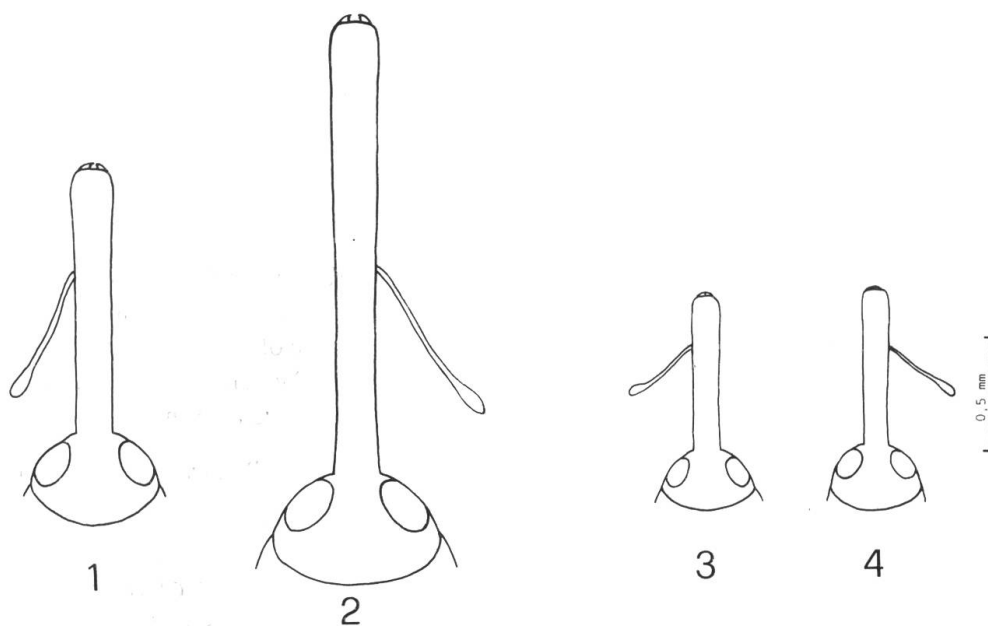
### **Dieckmannius** Colonnelli

*Dieckmannius* COLONNELLI, 1987: 139.

*Dieckmannianus*: KOROTYAEV and CHOLOKAVA, 1989: 155, error.

KOROTYAEV and CHOLOKAVA (1989) advanced the hypothesis that *Dieckmannius* could be considered a subgenus of *Parethelcus* Wagner, 1943 in a future generic revision of the subfamily Ceutorhynchinae. The general appearance of both these genera is indeed quite similar; they have however a good few diagnostic characters which can be summarized as follows:

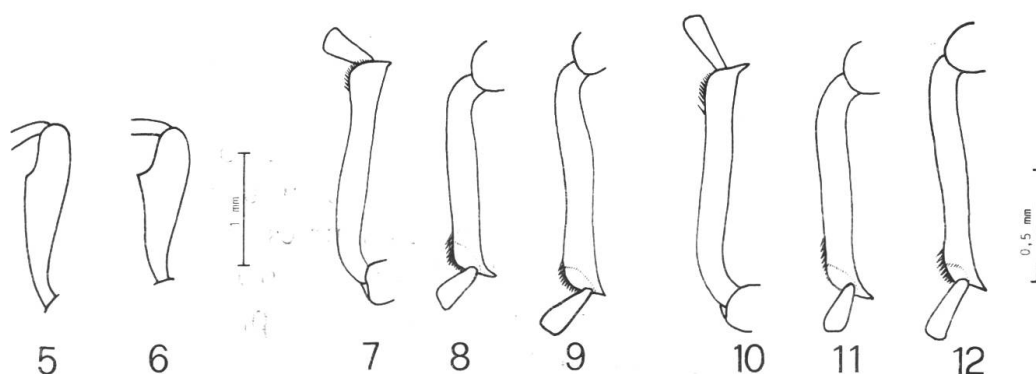
*Dieckmannius*: Size larger (4.2–6.2 mm). Female rostrum much longer than male one. Antenna inserted apicad of middle of rostrum in the male, and around the middle in the female (figs. 1, 2). Elytra with a pattern of white spots. Internal sac of aedeagus without obvious denticles.



Figs. 1–4: 1–2: Head and rostrum of *Dieckmannius ingens* n.sp.: 1, holotype. 2, female paratype. 3–4: Head and rostrum of *Parethelcus pollinarius* (Forster): 3, male from Denmark. 4, female from Italy. Schematic drawings.

*Parethelcus*: Size smaller (2.9–4 mm). Length of female and male rostrum about the same. Antenna inserted in the anterior third of rostrum in both sexes (figs. 3, 4). Elytral disc without pattern of white scales. Internal sac with many obvious denticles.

Both *Dieckmannius* and *Parethelcus* are monophyletic groups, and seem to be somewhat related. *Parethelcus*, comprising 2 species, has a western distribution: *P. pollinarius* (Forster, 1771) is distributed in Europe, Caucasus and western Kazachstan (KOROTYAEV, 1980); *P. nesicola* Colonnelli, 1990 occurs in the Canary Islands; both these species are associated with nettles, *Urtica* spp. (COLONNELLI, 1990). The 3 species belonging to *Dieckmannius* are known to occur only in the Himalayan region; no host association are reported for any of them. It can be pointed out that precise data on the biology of Ceutorhynchinae, which are mostly oligophagous or even monophagous, are essential for any phylogenetic study. I have therefore not enough information to propose today phylogenetic hypotheses on the evolution of these Ceutorhynchinae. Perhaps there is a lineage arising from *Mogulones* Reitter, 1916, most of whose species have a complex elytral pattern, passing through *Dieckmannius*, whose pattern is reduced to few spots, and arriving at *Parethelcus*.



Figs 5–12: 5–6: Right profemur: 5. *Dieckmannius sexnotatus* (Schultze) from India: Kalimpong. 6. *D. camerunensis* (Hustache) from Nepal: Hanumante. 7–9: *D. ingens* n.sp., male holotype: 7, protibia. 8, mesotibia. 9, metatibia. 10–12: *D. ingens* n.sp., female paratype: 10, protibia. 11, mesotibia. 12, metatibia. Schematic drawings.

### **Dieckmannius sexnotatus** (Schultze)

Fig. 5.

*Ceuthorrhynchus sexnotatus* SCHULTZE, 1899: 190.

*Dieckmannius sexnotatus*: COLONNELLI, 1987: 139.

Distribution: India: Meghalaya, Khasia Hills (Schultze, 1899); “India”, Northeastern India, West Bengal: Kurseong, R. Bertrand (British Museum); West Bengal, Darjeeling dist., Chibo Busty, 1100 m, 2 ex., 31.XI.1985, C. J. Ray; Darjeeling distr., Kalimpong, 1 ex., VI.1984, C. J. Ray; East Sikkim, Natok, 1500 m, 2 ex., 26.VI.1985, C. J. Ray.

Discussion. The series of 30 specimens studied revealed that the anterior femora of this species have a much less sharp tooth than that of *D. camerunensis* (fig. 5). The pattern of the dorsal surface is variable, as shown from the newly collected specimens, so it is often difficult to differentiate these two species using the characters of vestiture reported in my key (COLONNELLI, 1987).

### **Dieckmannius camerunensis** (Hustache)

Figs 6, 17.

*Ceuthorrhynchus camerunensis* HUSTACHE, 1930: 78.

*Dieckmannius camerunensis*: COLONNELLI, 1987: 140.

Distribution: “Cameroun”, patria falsa (HUSTACHE, 1930); C Nepal: Janakpur, Hanumante, W-Jiri, 2500–3100 m, 6 ex., 17.–26. VI.1987, C. J. Ray; East Nepal, Koshi, Gorza, 2100 m, 1 ex., 5.–6. VI.1985, M. Brancucci; India: Himachal Pradesh, Dharamsala, 2500 m, 1 ex., VIII.1986, K. Werner.

Discussion. The recently collected specimens revealed that the label "Cameroun" borne by the 4 syntypes of this species is evidently wrong. The mistake was probably caused by the fact that Kraatz had material from both countries to label; this kind of error was unfortunately not so uncommon in the first half of this century when many entomologists had specimens from various sources to label simultaneously. *D. camerunensis* is very closely related to *D. sexnotatus*; the differences from the latter are in some examples difficult to appreciate. The sharply toothed profemora are however an evident diagnostic feature for this species (fig. 6). From the specimens at hand it seems that *D. camerunensis* is a more alpine species, since all the specimens were collected at heights of not less than 2100 m. *D. sexnotatus* was, however, collected at heights of not more than 1500 m above sea level.

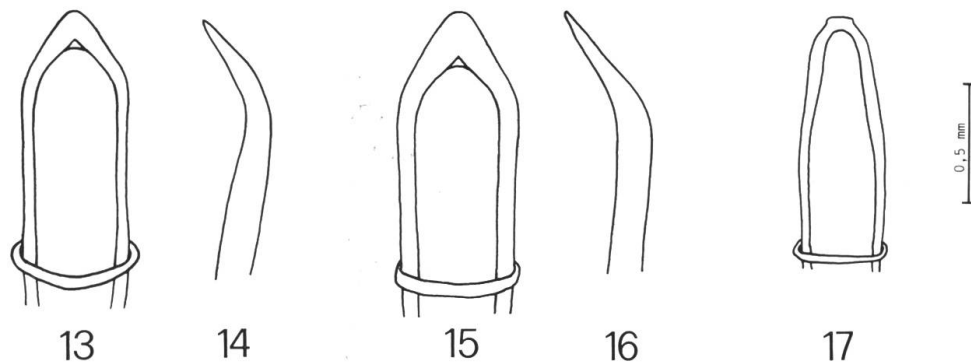
**Dieckmannius ingens** n.sp.

Figs 1, 2, 7–16.

Diagnosis. A species of *Dieckmannius* easily separable from the others by the larger size, the longer rostrum, the unguiculate tibia of both sexes, the sharp apex of aedeagus.

Holotype ♂ (NHMB): Bhutan: Changra, 18 km S of Tongsa, 1900 m, 22.VI.1972, Nat.-Hist, Mus. Basel Expedition leg.; same data, 1 ♀ paratype; India: West Bengal, Darjeeling distr., Sukhay Simana, 1600–2000 m, 1 ♂ paratype, B. Bhakta; Nepal: West Nepal, Modi Khola, Bantanti Landrung, 1600–2500 m, 1 ♀, B. Bhakta Holotype, ♀ paratype and ♀ from Nepal (NHMB); ♂ paratype from India in the author's collection, Rome.

Holotype ♂. Length: 5.2 mm. Integument piceous, shining; antenna and claws dark ferrous-red; joint 4 of tarsus brown. Upper surface sparsely clothed with recumbent brown or dark grey hairlike scales, and with recumbent lanceolate yellowish scales. These latter are sparse on the sides of pronotum and on apical third of elytra, and form light spots in the pronotal furrow, and on the anterior half of the elytral suture; imbricate whitish scales are also arranged in two round patches common to the intervals 5–7 just before middle of elytra, and in two similar patches on apical declivity behind preapical tubercles. Traces of the orangeish pollen which covers the living specimen can be seen. Ventral surface with sparse yellow recumbent lanceolate scales which are condensed in spots on meso and metepimeron, and on the angle laterally formed by the angulate segment 2 of abdomen. Rostrum 1.33 times longer than the prothorax, re-



Figs 13–17: 13–16: Aedeagus of *Dieckmannius ingens* n.sp.: 13, holotype in dorsal view. 14, holotype in lateral view. 15, paratype in dorsal view. 16, paratype in ventral view. 17, dorsal view of aedeagus of *D. camerunensis* (Hustache) from Nepal: Hanumante. Schematic drawings.

gularly curved, slightly compressed dorsoventrally at apex, finely punctured and with trace of carina; few erect thin setae at its extreme apex. Antenna thin, inserted in the apical third of rostrum; scape elongate, slightly clavate at apex; joint 1 of funiculus slightly thicker and evidently shorter than 2; joints 3–7 diminishing in length, all longer than wide; club elongate, acuminate-oval, about as long as joints 5–7 together. Frons slightly convex; eyes small, lateral; vertex with carina. Pronotum transverse, 0.75 times shorter than wide, widest at bisinuate and crenulate base; sides slightly curved toward the feeble preapical constriction; anterior margin bisinuate; disc feebly convex, coarsely punctured, with a feeble depression between the lateral tubercles and the longitudinal furrow; this is complete and deeper before scutellum; lateral tubercles well developed, formed by a group of minute sharp granules. Elytra hardly longer than wide ( $l/w = 1.06/1$ ), widest just behind humeri; humeral and preapical calli not very developed; base raised against that of prothorax; disc with periscutellar depression. Intervals flat, coarsely punctured. Striae in form of thin, deep, punctate furrows, each point bearing an extremely thin recumbent seta. Legs slender; profemora with a weak tooth, teeth of meso and metafemora sharper; tibia straight, slightly enlarged apically, all tibiae with apical hook; tarsus very slender; claws bifid. Segment 5 of abdomen with a faint longitudinal furrow bearing in its posterior margin some erect hairs. Aedeagus: figs 13 and 14.

Other material: The male paratype from India is very similar to the holotype; its antenna and tarsi are darker and the depression

near the pronotal tubercles is more evident; aedeagus: figs 15 and 16; length: 5.95 mm. The female paratype differs from the holotype as follows: rostrum very long, 2 times longer than prothorax, smooth in its apical half, gently curved and with antenna inserted immediately behind middle (fig. 2), the elytral sides more curved, and the tibial mucros event stronger than those of the male (figs 10–12); length: 6.2 mm. The other female was not included in the type series because of its rostrum being shorter than that of female paratype (only 1.68 times longer than pronotum), and its antenna being inserted in the middle of rostrum; I am however confident that these differences are due to the variation often shown by the species of this genus; length: 6.1 mm.

**Etymology:** The Latin name *ingens* (= gigantic) is used in reference to the unusually big size of the new species.

**Remarks:** An unique feature of the new species is the presence of tibial mucros in the female; as far as I know, *D. ingens* is the sole species showing this characteristic among Ceutorhynchinae. This “shifting” of a male character in the female is also exhibited by a species of Coleoptera Nitidulidae, *Meligethes corvinus* Erichson, 1845 in which the female has depressed first two segments of abdomen and a hook on urosternum 5, that are usual features of the male (AUDISIO, pers. comm.).

The three species of *Dieckmannius* at present known can be separated using the following key:

1. All tibiae of both sexes with apical hook (figs 7–12). Size larger (5.2–6.2 mm). Profemora with a weak tooth. Aedeagus with sharp apex (figs 13 and 16). Nepal, West Bengal **ingens** n.sp.
  - Only male middle and hind tibia with apical hook. Size smaller (4.2–5.2 mm). Aedeagus with blunt apex (fig. 17) ..... 2
2. Profemora with a weak tooth (fig. 5). Occipital carina thin, sometimes wanting. Rostrum evidently carinate only in the male. Joint 3 of arsus not lighter than 2. India: Meghalaya, West Bengal, Sikkim **sexnotatus** (Schultze)
  - Profemora with sharp tooth (fig. 6). Occipital carina sharp, obvious. Rostrum evidently carinate in both sexes. Joint 3 of tarsus ferrous-red, lighter than 2. Nepal, India: West Bengal **camerunensis** (Hustache).

### Aknowledgements

I wish to express my thanks to Dr. Michel Brancucci, Naturhistorisches Museum, Basel, and to Alexander Riedel, Friedberg for the loan of material. Many thanks also to my friend Mark I. Russell, Peterborough for reading English manuscript.

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Author's address:

Enzo Colonnelli

c/o Dipartimento di Biologia Animale e dell'Uomo

viale dell'Università, 32

I-00185 Roma (Italy)



