# CARYEDON JOHNI, A NEW SPECIES FROM MADAGASCAR (COLEOPTERA: BRUCHIDAE: PACHYMERINAE)

## LECH BOROWIEC

Department of Zoology, Agricultural University, Cybulskiego 20, 50-205 Wroclaw, Poland

## ABSTRACT

A new bruchid species, *Caryedon johni* from Madagascar, is described and illustrated. It is a member of the Serratus group.

Until now, Caryedon denticulatus (Klug 1833), C. minutus (Pic 1902) and C. alluaudi (Allard 1895) were the only species of the genus Caryedon Schoenherr (1823) known from Madagascar. I found a series of a new species of Caryedon from Madagascar in the collection of the Zoological Museum, Humboldt University, Berlin, Germany. A description of that species is given below.

# Caryedon johni Borowiec, new species (Figs. 1-4, 6-8)

Length (pronotum-elytra) 5.2-6.3 mm. Width 2.8-3.3 mm.

MALE. Integument color: Head, body and appendages usually red brown; thorax, elytra and hind femur with small black spots (Figs. 1, 3); antennal segments usually more or less infuscate.

Vestiture: Uniformly golden, dense, covering body surface.

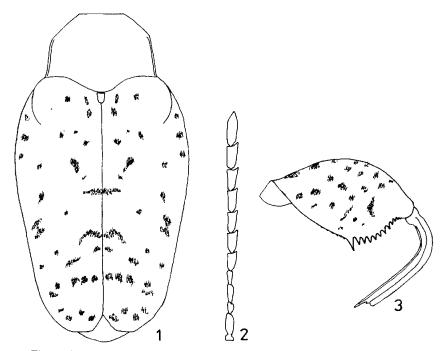
Head: Moderate in length, largely and densely punctate; frons narrow with sharp median carina. Width of eye about twice width of frons; ocular sinus about 0.1 as long as eye; tempora as wide as ocular facet diameter; distance from base of antenna to apex of labrum about 0.5 distance from upper limit of eye to apex of labrum; antennal segments 1-4 filiform, 2 shorter than other segments, 5-6 about 1.5 times longer than wide, 7-10 about twice longer than wide, 11 about 2.8 times longer than wide (Fig. 2); antenna reaching to  $\frac{1}{3}$  of elytra length.

Prothorax: Disc pentagonal, about 1.4 times wider than long, depressed above with moderately dense punctulations, distance between punctures usually equal to puncture diameter but sometimes punctures grouping in 2–4; space between punctures with moderately dense, small secondary punctulations; lateral prothoracic carina extending from base to about 0.7 distance to anterior end of pronotum; prosternum separating procoxae for about 0.3 their length.

Mesothorax and Metathorax: Scutellum small, rounded apically. Elytron 2.9–3.1 times longer than wide (Fig. 1); striae moderately impressed, punctuate, strial intervals smooth, striae 3 and 4, and 6 and 7 closer to one another at base than to adjacent striae; striae 4 and 5 shortened and closed posteriad. Hind coxa smooth. Hind femur strongly incrassate, about 1.8–1.9 times longer than wide; pecten with 11–13 spines, first largest, remainder gradually smaller; ventral surface before pecten slightly serrate (Fig. 3). Hind tibia strongly arcuate with sharp ventral, lateroventral and lateral longitudinal carinae; mucro about as long as width of tibial apex and about 0.25 times as long as tarsomere 1.

Abdomen: Sterna not flattened medially; sternum 1 about 0.6 times as long as abdomen, posterior margin straight; sterna 2-4 unmodified, sternum 5 emarginate to ½ length. Pygidium punctulate, moderately convex in lateral view.

Genitalia (Fig. 4): Median lobe short, ventral valve acuminate with deeply concave



Figs. 1-3. Caryedon johni. 1, dorsal aspect. 2, antenna. 3, hind femur and tibia.

sides; dorsal valve elongate, obtuse at apex. Armature of internal sac with four pairs of large sclerites: two hook-like pairs near middle, anterior pair only slightly smaller than those nearer apex; pair of sabre-shaped and pair of stick-shaped sclerites nearer base; groups of spinules in internal sac.

FEMALE. Similar to male except abdominal sternum 5 not emarginate at apex. *Genitalia* (Figs. 6–8): sclerites of ovipositor extremely long, the longest in the genus (Figs. 6, 7); vaginal sclerite large, about twice longer than wide (Fig. 8).

HOST PLANTS. Unknown.

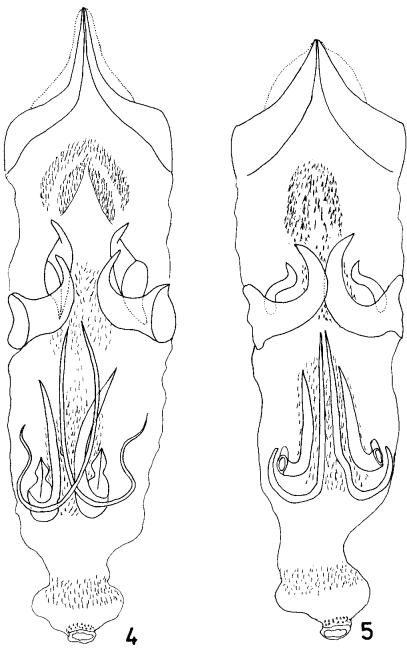
Type Series. Holotype and seven paratypes with the same data: "Madagaskar (11) Kap-Diego 1916 Friedrichs S.G."

Holotype and five paratypes deposited in the Zoological Museum, Humboldt University, Berlin, two paratypes in author's collection.

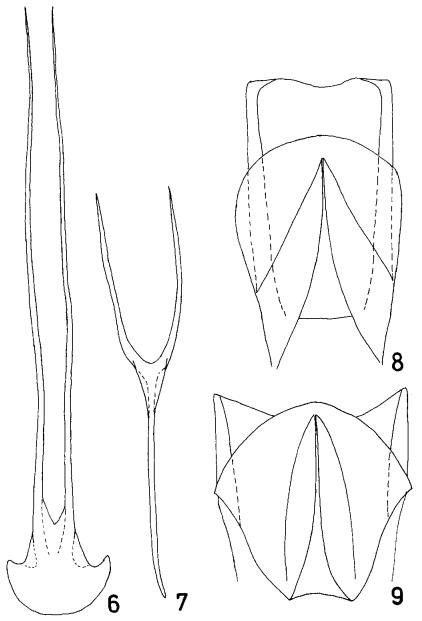
# DISCUSSION

The Serratus group of Caryedon is composed of C. johni, C. serratus (Olivier 1790), C. palaestinicus Southgate (1976) and C. acaciae (Gyllenhal 1833). All species have sclerites in the internal sac of the male genitalia that are similar in shape, but only C. johni has the first two pairs of sclerites that are about equal in size. The first pair of sclerites of the other three species are very small. The ventral valve of the male genitalia of the latter three species is rather triangular with the sides slightly concave.

Caryedon serratus is most similar to C. johni and externally differs only in



Figs. 4, 5. Caryedon spp., median lobes. 4, C. johni. 5, C. serratus.



Figs. 6–9. Caryedon spp., female genitalia. 6–8, C. johni. 9, C. serratus. 6, 7, sclerites of ovipositor. 8, 9, vaginal sclerites.

the slightly broader and stouter antennae. The median lobe of *C. serratus* differs also in that the two pairs of stout sclerites near the base are shorter and the apical thin pair of sclerites have the base curved in the arch only (Fig. 5) while in *C. johni* the base of the last thin sclerite is S-shaped (Fig. 4). The sclerites of the ovipositor of *C. serratus* are slightly shorter and stouter and the vaginal sclerite is similar in shape to that of *C. johni*, but it is stouter, about equal in length and width (Fig. 9).

Caryedon johni is dedicated to Dr. John M. Kingsolver for his contributions to the knowledge of New World Bruchidae.

## ACKNOWLEDGMENTS

I am grateful to H. Wendt (Zoological Museum, Humboldt University, Berlin) for the loan of the specimens and to C. D. Johnson (Northern Arizona University, Flagstaff) for reviewing the manuscript.

## LITERATURE CITED

ALLARD, E. 1895. Un nouveau Bruchidae de Madagascar (Col.). Bull. Soc. ent. Fr. 64: cliv.

Klug, P. 1833. Bericht über eine auf Madagascar veranstaltete Sammlung von Insecten aus der Ordung Coleoptera. Eine in der Königl. Akad. der Wissensch. am 29 März 1832 gelesene Abhandl. Berlin.

GYLLENHAL, L. 1833. Bruchidae. *In:* Schoenherr, C. J. (editor). Genera et Species Curculionidum, cum Synonymia Hujus Familiae, v. 1 (1). Paris.

OLIVIER, A. G. 1790. Encyclopedia methodique. Paris.

Pic, M. 1902. Description de Bruchides nouveaux. Naturaliste 24:146.

Schoenherr, C. J. 1823. Curculionides. Isis (1823, No. 22):1132-1146.

Southgate, B. J. 1976. A new subspecies of *Caryedon* (Coleoptera: Bruchidae) from the Middle East. Israel Jour. Zool. 25:194–198.

(Received 9 December 1988; accepted 7 September 1989)

# SCIENTIFIC NOTE

Type species designation for *Aculomicrus* Smetana (Coleoptera: Hydrophilidae)

In my revision of the New World genera of the tribe Omicrini of the hydrophilid subfamily Sphaeridiinae (1975, Stud. neotr. fauna 10:153–182), I accidentally failed to designate the type species for the newly erected genus *Aculomicrus*. To satisfy Art. 13b of the ICZN Code, and to make the name available, I hereby designate *Aculomicrus minimus* Smetana 1975 as the type species of *Aculomicrus* Smetana 1975.

A. SMETANA, Biosystematics Research Centre, Agriculture Canada, Ottawa, ON KIA

(Received 15 February 1990; accepted 15 February 1990)