

THE NOONA DAN EXPEDITION: DESCRIPTIONS OF TWO NEW
SPECIES OF BRUCHIDAE (COLEOPTERA)
FROM THE PHILIPPINES

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Abstract.—Two new species of Bruchidae, *Sulcobruchus bakeri* and *Bruchidius sapamoroensis*, are described from material collected in the Philippines by the Noona Dan Expedition of 1961-62. Comparisons are made with closely related species.

Insect collections from the Noona Dan Expedition (1961-62) to the Philippines, Solomon and Bismarck Islands (Peterson, 1966) contained two undescribed species of Bruchidae from the Philippines. These are described below.

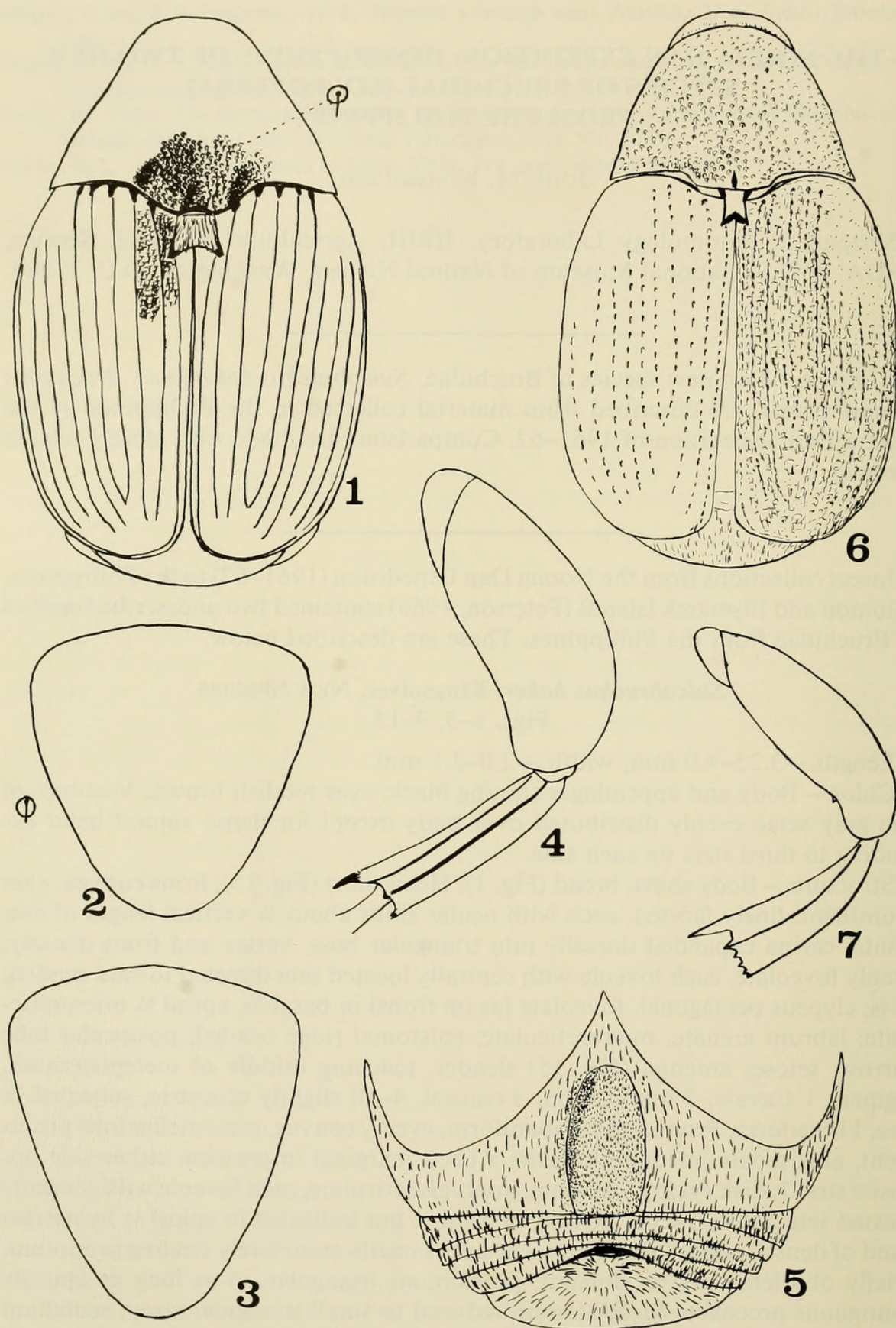
Sulcobruchus bakeri Kingsolver, NEW SPECIES

Figs. 1-5, 9-15

Length.—3.25-4.0 mm; width.—2.0-2.1 mm.

Color.—Body and appendages shining black, eyes reddish brown. Vestiture of fine gray setae evenly distributed over body except for dense sutural band extending to third stria on each side.

Structure.—Body short, broad (Fig. 1). Head short (Fig. 15), frons convex; eyes prominent, finely faceted, each with ocular sinus about $\frac{3}{4}$ vertical length of eye; frontal carina expanded dorsally into triangular boss, vertex and frons densely, evenly foveolate, each foveola with centrally located seta directed toward median boss; clypeus pentagonal, foveolate (as on frons) in basal $\frac{3}{4}$, apical $\frac{1}{4}$ microreticulate; labrum arcuate, microreticulate; epistomal ridge beaded; postocular lobe narrow, setose; antenna (Fig. 15) slender, reaching middle of metepisternum, segment 1 clavate, 2 moniliform, 3 conical, 4-10 slightly eccentric, subequal in size, 11 fusiform. Pronotum campaniform, evenly convex, prescutellar lobe prominent, emarginate, medially sulcate; a deep marginal impression either side opposite stria 2; disk evenly foveolate, intervals reticulate, each foveola with centrally located seta, lateral carina present in basal $\frac{1}{2}$ but indicated in apical $\frac{1}{2}$ by narrow band of densely placed setae; cervical sulcus nearly completely circling pronotum, briefly obsolete only on dorsum; prosternum triangular, $\frac{2}{3}$ as long as apically contiguous procoxae. Mesosternum reduced to small triangular strap; scutellum short, broadly expanded apically. Elytra together slightly longer than broad; striae normal, deeply, narrowly impressed, individual punctures each with short, yellowish seta; intervals microreticulate, setose; apices of striae free 5, and 6 sometimes conjoined; bases of striae 2, 3, 4, and 5 each with prominent denticle.



Figs. 1-7. 1-5, *Sulcobruchus bakeri*. 1, Habitus, dorsal. 2, Pygidium ♂. 3, Pygidium ♀. 4, Metaleg. 5, Abdomen, ♂, ventral aspect. 6-7, *Bruchidius sapamoroensis*. 6, Habitus, dorsal. 7, Metaleg.

Abdomen with sternites telescoped; apex of pygidium approximate to 1st abdominal sternum, basal sternum with broad, shallow concavity lined with slender, flat setae arranged in longitudinal, parallel rows (Fig. 5); male pygidium as in Fig. 2, surface densely set with rounded microfoveae, each fovea with fine seta set in its dorsal rim, extreme apex truncate or slightly emarginate; female pygidium more narrowly elongate than in male (Fig. 3); metacoxa broad, strongly punctate; metaleg as in Fig. 4; metafemur flat, slightly sulcate ventrally near apex, ventral margin finely carinate, without denticles; metatibia with short, slightly curved mucro, lateral carina ending in short denticle, 2 small coronal denticles.

Male genitalia.—(Figs. 9–14). Median lobe slender in apical $\frac{1}{2}$ (Fig. 13), ventral valve deeply emarginate and produced into ventrally directed, falcate hooks with rounded setose dorsal lobe extending between hooks; internal sac armed with 20–25 thornlike denticles apically and masses of minute, rounded denticles in basal $\frac{1}{2}$ of sac; lateral lobes massive (Fig. 10, 11, 12), each with a blunt terminal process and with ventral margin angulate, dorsal margin setose.

Holotype ♂.—(Philippines) Cuernos Mts., Negros, Baker (USNMNH #100692).

Paratypes.—Acc. #1024, Bur. Agr. P.I., C. R. Jones, 1 ♀ (USNMNH). Philippines: Palawan, Brookes Point, Uring Uring, 22 August 1961, Noona Dan Exp. 61–62, in Malaise trap, 1♂. (Zoologisk Museum, Copenhagen).

Sulcobruchus bakeri, new species, is most closely related to *S. rugulosus* (Pic) NEW COMBINATION, also from the Philippines. In the new species, the male ventral abdominal sulcus extends only to the caudal margin of the basisternum whereas in *S. rugulosus*, the sulcus extends shelflike beyond the caudal margin. Distinct differences are also present in the male genitalia in the lateral profile of the lateral lobes and in the form of the terminal hooks on both the lateral and median lobes.

Sulcobruchus kingsolveri Arora, described from India, is distinctive in that the vestiture is yellowish brown rather than cinereous as in all other described species, the ventral sulcus in the male is represented by only a distortion of setal arrangement along the midline of the basisternum, and hooks are lacking on the lateral and median lobes in the male genitalia (Arora, 1977: 86).

I have seen only two female specimens of *Sulcobruchus sauteri* (Pic) from Japan. This species differs from *S. bakeri* principally in its shorter body hairs, narrower scutellum, basal denticles on the third and fourth striae only (second, third, fourth, and fifth in *S. bakeri*), and the denticle terminating the metatibial lateral carina prominent and nearly as long as the mucro (short and inconspicuous in *S. bakeri*).

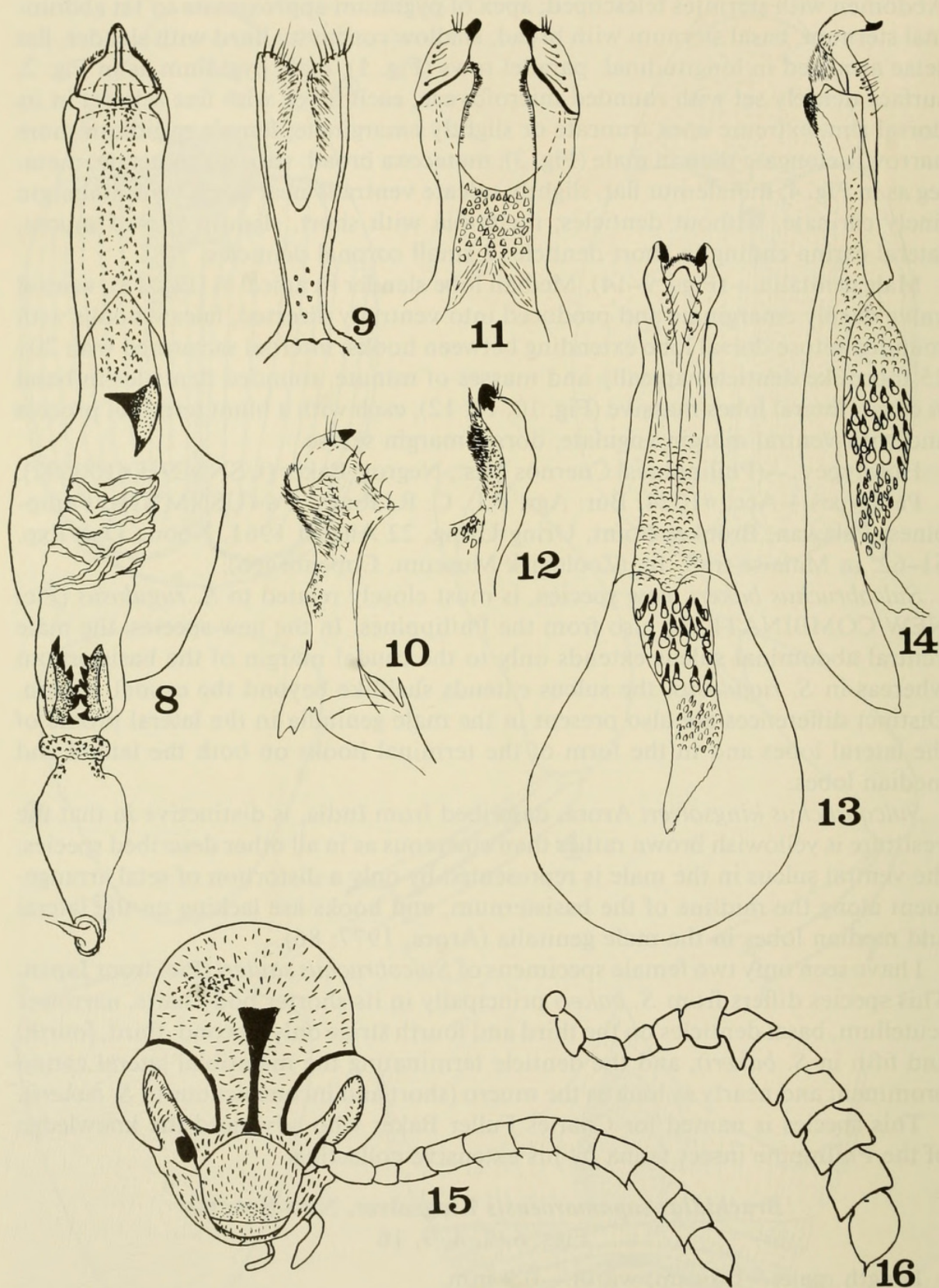
This species is named for Charles Fuller Baker who advanced the knowledge of the Philippine insect fauna by his extensive collecting.

***Bruchidius sapamoroensis* Kingsolver, NEW SPECIES**

Figs. 6, 7, 8, 9, 16

Length male.—1.5 mm; width.—0.9 mm.

Color.—Body entirely black, antenna reddish yellow, pro- and mesolegs yellow with base of mesofemur infuscate, mesoleg yellowish with base of metafemur and apex of metatibia infuscate. Vestiture of fine gray and brassy setae evenly distributed on pronotum; elytra with indistinct banding of more densely placed gray setae; venter with evenly distributed gray setae.



Figs. 8-16. 8-9, *Bruchidius sapamoroensis*. 8, ♂ genitalia, median lobe, ventral. 9, Same, lateral lobes, ventral. 10-15, *Sulcobruchus bakeri*. 10, ♂ genitalia, lateral lobe, lateral. 11, Same, ventral. 12, Same, dorsal. 13, Median lobe, ventral. 14, Same, lateral. 15, Head & antenna, cephalic. 16, *Bruchidius sapamoroensis*, antenna.

Structure.—Body short, broad (Fig. 6). Head turbiniform, eyes protuberant, depth of ocular sinus $\frac{1}{2}$ length of eye; vertex, frons, and clypeus shallowly, densely microfoveolate, each foveola setiferous, setae on vertex and clypeus directed anteriorly, those on frons toward frontal carina, anterior margin of clypeus and labrum corneus; postocular lobe short, inconspicuous; antenna (Fig. 16) not strongly modified, apex scarcely reaching beyond humerus. Pronotum campaniform, evenly convex, lateral margins slightly arcuate, lateroposterior angles acute, lateral margins not carinate, cervical sulcus short; pronotal disk shallowly cribrate with shallow, rounded foveolae separated by narrow, ridgelike interspaces, each foveola with a fine seta arising from its center; prosternum short, triangular, separating procoxae for $\frac{2}{3}$ their length; mesosternum narrowly triangular between mesocoxae apically. Elytra together as wide as long, apices separately rounded, striae regular with 1–4 noticeably deflected laterad basally, 3 and 4 each ending basally in fine, acute, subbasal denticle on small, transverse gibbosity, 5 and 6 deflected mesad at extreme base, 4 and 5 converging apically, remaining striae ending free apically; each stria fine, deep, finely punctate and setiferous; intervals densely punctate, microrugulose under $50\times$, each puncture setiferous. Abdomen with basal sternum $4\times$ length of 2nd, 2nd, 3rd, and 4th successively shorter, 5th emarginate to receive apex of pygidium, basal segment with setiferous basal pit; pygidium strongly convex, finely, densely, evenly punctate, punctures nearly concealed by dense vestiture. Pro- and mesolegs normal for genus; metafemur (Fig. 7) incrassate with ventral face flat, mesoventral margin near apex with single fine denticle, metatibia gradually widened toward apex, with ventral and lateral carinae strong, latero-ventral carina lacking, mucro short, only slightly longer than lateral denticle, corona with 3 denticles.

Male genitalia.—Median lobe (Fig. 8) about $6\times$ as long as wide; ventral valve ogival with narrowly rounded apex, dorsal valve semicircular, sensitive; internal sac sparsely lined with small acute denticles in basal $\frac{1}{2}$, a large thornlike sclerite at middle, and 2 slender, serrate sclerites at apex, apical closure valve circular. Lateral lobes (Fig. 9) slender, slightly expanded on mesal margin at apices.

Holotype male and 1 paratype male.—Philippines, Mindanao, Curuan District, Sapamoro, 16 Dec. 1961, Noona Dan Exp. 61–62. Deposited in the Zoologisk Museum, Copenhagen.

The male genitalia of this species indicates a close relationship with the Indian *Bruchidius cassiae* Arora (1977) but is much smaller (1.5 mm vs. 2.77 mm). It does not seem to be closely related to any other Philippine species.

Sapamoro is a farm near Curuan. Specimens were collected in a small patch of primary forest (Petersen, 1966, p. 292). The specific name is taken from the type locality.

LITERATURE CITED

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