FOUR NEW NEOTROPICAL CEPHALOBYRRHINUS PIC (COLEOPTERA: DRYOPOIDEA: LIMNICHIDAE)

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Abstract.—Four new species of Cephalobyrrhinus are described from Central and South America. They are C. brevis, C. robustus, C. sedatus, and C. lineatus. The genitalia are figured and a key that will separate the six known species of the genus is included.

Since the publication of my paper on *Cephalobyrrhinus* Pic (Wooldridge, 1977), I have received a number of specimens of the genus from various sources. In addition to extending the ranges of the two known species, the material contained specimens of the following four previously undescribed species. From the ecological data supplied with the specimens it seems clear that the adults of this genus inhabit leaf litter, rotten logs, and decaying vegetation. It is likely that careful collecting in these habitats in tropical regions will reveal still other species.

Cephalobyrrhinus brevis, new species

Fig. 1

Description. Length 1.8 mm, width 1.0 mm, elongate oval, convex. Black to piceous. Head punctation fine on vertex, closer and coarser on front, clypeus alutaceous. Pronotum with fine, even, lightly impressed punctures except for a row of coarse punctures along side margins; tuberculate series fine, even, rugulose. Elytra with small, confused, barely impressed punctures around scutellum; punctures forming vague rows at sides. Prosternal punctation fine. Hypomera shining to slightly alutaceous. Metasternal punctation minute, distant, only slightly closer at sides. Metacoxal plates with fine, lightly impressed punctures. Abdomen polished to faintly alutaceous, punctation fine, only slightly coarser at sides; second sternum with two depressed circular areas to receive metatarsi. Aedeagus with parameres straight and nearly parallel-sided; penis narrow and tapering evenly to a rounded, acute tip (Fig. 1).

Holotype & and allotype Q. Ecuador, Napo. 600 m (20 km S Tena) VII.11.1976. S. Peck (FMNH).

Paratypes. Ecuador, Napo. 16 spec. Same data as holotype (12 FMNH, 4 USNM); 11 spec. 250 m el., Limoncocha, VI.21.1976. Bactris-spiny palm (FMNH).

Cephalobyrrhinus robustus, new species

Fig. 2

Description. Length 3.2 mm, width 1.9 mm, ovate, convex. Black. Head punctation fine and distant on vertex, clypeus alutaceous with close punctures. Pronotum with minute, perforate punctation, tuberculate row short and rugulose. Elytra with seven

long and two short longitudinal rows of deep, coarsely impressed punctures close enough to form partial grooves on disk; punctation near scutellum small. Prosternum finely punctate; process with a broad, shallow longitudinal sulcus. Hypomera polished, minutely punctate. Metasternum with coarse punctation, punctures largest on posterior half near midline; metacoxae finely punctate with a few larger punctures at sides. Abdomen finely alutaceous, finely punctate except polished in circular areas on each side of second sternum to receive tarsi. Parameres of aedeagus parallel-sided, evenly curved, diverging from about the middle, tips rounded; penis short, broad, tapering to a rounded tip (Fig. 2).

Holotype & and allotype Q. Peru. 43 mi E Tingo Maria, 1,300 m, XI.18.1954. E. I. Schlinger and E. S. Ross (CAS).

Paratypes. Ecuador, Napo, 3º, Limoncocha, 10 July 1977, W. E. Steiner (USNM). Pastaza, 1 spec. Cusuimi, Rio Cusuimi, 150 km SE Puyo, 320 m, VII.1–2.1971. B. Malkin (FMNH). Peru, 5 spec. same data as holotype.

Cephalobyrrhinus sedatus, new species Fig. 3

Description. Length 2.9 mm, width 1.6 mm, elongate oval, convex. Black. Head punctation small, clypeus alutaceous, punctures becoming fine behind epistomal suture. Pronotal punctation small, scattered, becoming coarser and closer along lateral margins; tuberculate series short and irregular. Elytra with three long rows and one short row of broad, coarse punctures at sides and a short row past middle along suture; disk flat with small, scattered punctures, punctures obsolete around scutellum. Prosternum with small, scattered punctation; process broad, somewhat flattened. Hypomera alutaceous. Metasternum polished with minute, scattered punctures; metacoxal plates microreticulate with small, scattered punctures. Abdomen faintly microreticulate with minute punctation, except polished in circular areas on each side of second sternum to receive tarsi. Aedeagus with outer margins of parameres converging to rounded tips; penis broad, tapering abruptly to an obtusely rounded tip (Fig. 3).

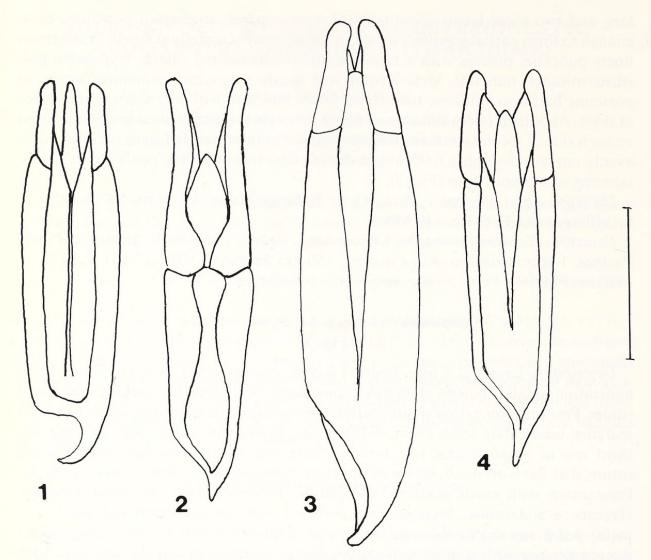
Holotype & and allotype Q. Ecuador, Pichincha. 6 mi W Santo Domingo de los Colorados II.23.55, E. I. Schlinger and E. S. Ross (CAS).

Paratypes. Ecuador, Pich. 7 spec. Same data as holotype (5 CAS, 2 DPWC). 3 spec. 47 km SE Santo Domingo, Rio Palenque Sta., II.22–28.1976, 300 m, S. M. Campbell (CNC).

Cephalobyrrhinus lineatus, new species

Fig. 4

Description. Length 2.0 mm, width 1.0 mm, narrowly elongate, parallel-sided, convex. Black to piceous, ventral surfaces dark red-brown. Head punctation fine, clypeus alutaceous with larger punctures. Pronotum with fine punctation on disk, coarser at sides; transverse tuberculate line very fine, more rugulose than tuberculate. Each elytron with seven rows of linear punctures on disk and two shorter incomplete series at sides, punctures distinct but not deeply impressed; scutellar row distinct; only sutural row extended past elytral declivity. Prosternal punctation fine, distant. Hypomera alutaceous. Metasternum with coarse, broad punctures at sides and around



Figs. 1-4. Dorsal view of aedeagus. 1. Cephalobyrrhinus brevis. 2. C. robustus. 3. C. sedatus. 4. C. lineatus. Line equals 0.2 mm.

crural depressions, becoming fine and distant at midline. Metacoxal plates with large, coarse punctures. Abdomen polished between punctures which are larger at sides than at midline; second sternum with two nearly circular, slightly depressed, nearly impunctate areas to receive metatarsi. Aedeagus with parameres parallel-sided and rounded at tips; penis narrow, nearly parallel-sided, evenly rounded at tip (Fig. 4).

Holotype & and allotype Q. Panama, Canal Zone, Barro Colorado Is. II.6.1976, A. Newton. Litter under rotten logs (MCZ).

Paratypes. Costa Rica, 7 spec. Heredia, OTS La Selva Field Sta., Puerto Viejo de Sarapiqui, Rio Puerto Viejo, III.11.1973, J. Wagner, J. Kethley (FMNH); 6 spec. Puntarenas, OSA Peninsula, 5 km W Rincon de OSA, III.24.1973, bat guano inside hollow log, J. Werner, J. Kethley (FMNH); 2 spec. same data except III.25.1973 (FMNH); 7 spec. same data except forest floor, III.30.1973 (FMNH). Panama, 3 spec. Bocas del Toro, Almirante, trail to dam on Nigua Cr. III.25.1951, H. S. Dybas (FMNH); 1 spec. same data except III.31.1959 (FMNH); 5 spec. same data as holotype (MCZ); 9 spec. same data as holotype except II.13.1976 (MCZ); 5 spec. same data as holotype except II.17.1976 (MCZ); 6 spec. Canal Zone, Achiote Rd. 9 mi

SW Gatun, VI.19.76. A. Newton (MCZ). 1 spec. Panama, Cerro Campana 3,200 ft II.1976, A. Newton (MCZ).

KEY TO THE SPECIES OF CEPHALOBYRRHINUS

1.	Pronotal series of tuberculate punctures broad and irregular, punctures greatly raised
	(Mexico to northern Venezuela) curticornis Pic
_	Pronotal series of tuberculate punctures narrow, punctures often minute and rugulose
	in appearance
2(1).	All metasternal punctation fine and even
-	Metasternal punctation varying from minute to coarse and broad
3(2).	Prosternal row of tuberculate punctures short and irregular; size greater than 2.75
	mm (Ecuador) sedatus, n. sp.
-	Prosternal row of tuberculate punctures straight; size less than 2.0 mm (Ecuador)
	brevis, n. sp.
4(2).	Metasternal punctation distinctly larger at sides
-	Metasternal punctation distinctly larger in central portion, leaving a finely punctate
	area behind crural cavities and in front of metacoxae; size large, over 3.0 mm
	(Ecuador & Peru) robustus, n. sp.
5(4).	Several rows of elytral punctures continuing past declivity (Ecuador, Bolivia & Peru)
	impressopunctatus Wooldridge
-	Only the sutural row of elytral punctures distinct past declivity (Costa Rica & Pan-
	ama) lineatus, n. sp.

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