

**TWO NEW SPECIES OF *APRONIUS* STÅL WITH
NOTES ON THE GENUS
(HETEROPTERA: REDUVIIDAE: STENOPODAINAE)**

J. MALDONADO CAPRILES

Ponce School of Medicine, Box 7004, Ponce, Puerto Rico 00732 and
Department of Crop Protection, University of Puerto Rico,
Mayaguez, Puerto Rico 00708

Abstract.—Two new species of *Apronius*, *froeschneri* and *granulosus*, are described as new and a key is provided for the five species now included in the genus.

Specimens loaned to me for study by the late French hemipterologist Dr. A. Villiers included one species of *Apronius* that I describe as new. Specimens in my collection included a second new species also described herein. This latter material suggests that further collecting might prove that some records of *A. flavidus* and/or *A. rapax* from the northern part of South America could be referred to still another undescribed species.

The key given below was developed from a draft originally designed by Dr. R. C. Froeschner. I want to express my appreciation to Dr. Froeschner for his usual excellent suggestions and unending fresh ideas. It is a pleasure to name one of the new species after him. All measurements are given in millimeters. The bibliographical notes are partial.

Apronius Stål, 1865

Apronius Stål, 1865:150 (key); Stål, 1866:167 (*A. rapax*); Champion, 1898:186 (redescription); Barber, 1929/30:152 (key), 211 (redescription); Costa Lima and Campos Seabra, 1944:507-510 (key).

Diagnosis. Barber (1930:211) gave some generic characters for recognizing *Apronius*. The following generic diagnosis modifies and expands Barber's notes so that *Apronius* can be compared with other stenopodaines at the world level.

Body somewhat and relatively flattened due to the abdomen gradually expanding to the penultimate segment, not narrow and slender; head longer than wide, somewhat or decidedly shorter than pronotum; pregenal spines at base of rostrum lacking, first rostral segment shorter than last two together, first and second segments subequal; eyes hemispherical as seen from above, in lateral view oval and almost reaching or surpassing lower margin of head, in the latter case beneath extending toward each other but not touching, glabrous; lateral postocular margins slightly and gradually converging towards collum; ventrolaterally behind eyes at most with a few small, simple setigerous spines; ventrally between eyes with two to four pairs of setigerous spines; ocelli slightly elevated; jugae short; first antennal segment shorter than head and not produced beyond insertion of second, with short sparse pilosity. Pronotum

usually as wide as long, sometimes a little longer than wide, shallowly transversely depressed through middle, usually a lateral tubercle before constriction; humeral angles acute, not spined. Scutellum longer than wide, with slender, porrect apex. All tarsi 3-segmented; only protibia with apical spongy fossa; trochanter with short spines; anterior femur moderately incrassate, armed with a series of small spines. Prosternum shorter behind coxa than length of coxa. Discal cell near middle of hemelytra, hexagonal. Connexival margin entire, slightly rounded, or angularly produced; 4 or 5 abdominal sterna keeled. Body relatively densely covered with short, appressed pubescence.

Apronius keys out close to *Ocrioessa* Bergroth and *Nitornus* Stål (Barber, 1930). These last two genera also have a gradually expanding abdomen and are relatively flattened, but their connexival margins are strongly produced, lobulate, or even spiny. In Barber's key *Podormus* Stål is in the same couplet with *Nitornus*. *Podormus* does not have a spongy fossa on the protibia, whereas this is present in the three other genera.

KEY TO THE SPECIES OF *Apronius*

1. Antenniphore dorsally with an elongate (longer than diameter of second antennal segment), prostrate, blunt spine. Lateral margin of anterior pronotal lobe with a prominent oblique, conical tubercle just anterior to transverse pronotal impression; pronotum densely granulate. Abdomen with posterolateral angles of connexival segments slightly projecting as round lobes, more so posteriorly. Second antennal segment black, with distinct yellow annulus subapically and one subbasally *granulosus*, new species
- Antenniphore without above described spine. Lateral margin of anterior lobe with or without a very low, rounded tubercle just anterior to transverse pronotal furrow; pronotum sparsely granulate. Connexival segments not or slightly projecting. Second antennal segment nearly or quite unicolorous, without such yellow annuli 2
2. In lateral view, disc of posterior pronotal lobe conspicuously sloping upward from plane of anterior lobe (Fig. 3). Disc of anterior pronotal lobe set off from pleura by a slightly elevated, granulate, calloused line. Gula with two pairs of setigerous tubercles 3
- In lateral view, disc of posterior pronotal lobe not sloping upward from plane of anterior lobe (Fig. 1). Disc of anterior pronotal lobe curving smoothly into pleura, the dividing line weakly marked by a low, nongranulose, calloused line. Gula with three or more pairs of setigerous tubercles, the last two most prominent *octonotatus* Barber
3. Lateral margin of anterior pronotal lobe without wartlike tubercle anterior to pronotal impression (Fig 2). Margin of connexivum straight, posterior angles not produced. Antennal segment I more than $\frac{2}{3}$ as long as II *flavidus* Barber
- Lateral margin of anterior pronotal lobe with small wartlike tubercle anterior to pronotal impression. Posterior angles of connexivum slightly produced, margin not straight. Antennal segment I about half as long as II 4
4. Length of male 17 mm; head $\frac{1}{2}$ shorter than pronotum; eyes equal in width to interocular space; basal segment of antenna about 3 times as long as preocular margin to apex of antenniphore; antennal segment I slightly less than half as long as II; spongy fossa of protibia a little longer than tarsus *rapax* Stål
- Length of male 19 mm; head $\frac{1}{2}$ shorter than pronotum; eyes narrower than interocular space; basal segment of antenna 2.7 times as long as preocular margin to apex of antenniphore; antennal segment I slightly more than half as long as II; spongy fossa of protibia half as long as tarsus *froeschneri*, new species

Apronius flavidus Barber

Fig. 2

Apronius flavidus Barber, 1930:212.

Discussion. Described from Rio de Janeiro, Brazil. Barber (1930) said "the interocular space of head is wider, the relative lengths of the antennal segments are quite different and the surface of posterior lobe is not so evidently bicarinate and is unwrinkled" as compared with *A. rapax* (Fig. 2).

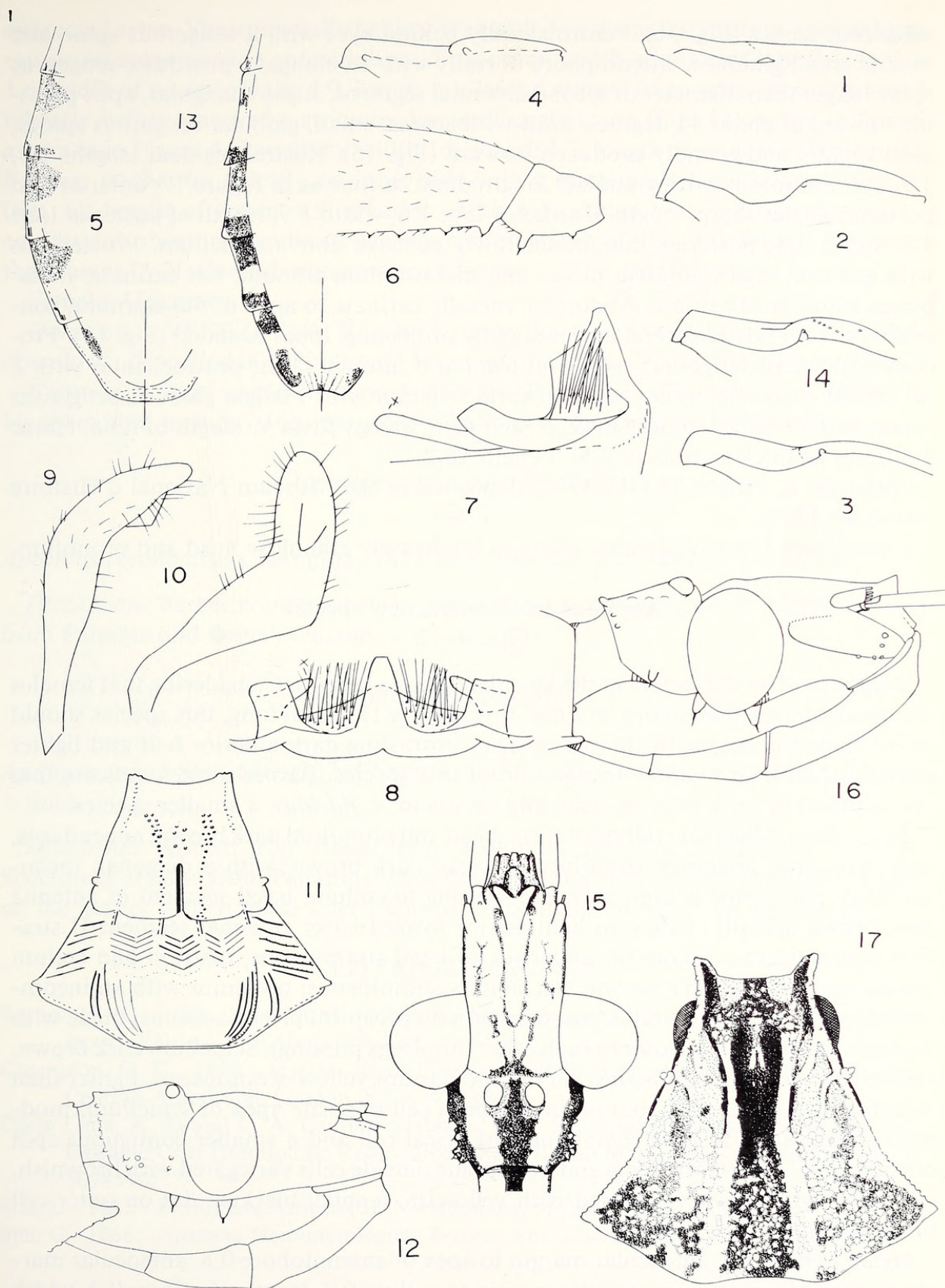
***Apronius granulatus*, new species**

Figs. 13-17

Diagnosis. Distinguished from the other species in the genus by its conspicuous whitish granulations on the thorax, the conspicuous whitish apex of cells of corium, and other characters given in the key. Genitalia not dissected in order to protect unique specimen.

Description. Male: Overall color stramineous, ornamented with brown. Head stramineous, brownish as follows: two divergent lines from interocular sulcus to base of jugae, postocellar area, interocular sulcus, laterally behind eye, and ventrally behind eyes. Laterally in front of eyes with stramineous granules. First antennal segment irregularly brownish on apical half, second antennal segment black, a postbasal and subapical yellow-stramineous annulus, third segment brown. Connexival segment basally and apically brown (Fig. 13). Beak stramineous, marked with brown as follows: first segment irregularly variegated laterally, second with a small lateral area, third with a small spot above near base. Pronotum (Fig. 17) stramineous mesally from midpoint of posterior lobe to anterior margin, and mesad from discal carinae dark brown; area between granulations on anterior part of anterior lobe and on posterior lobe brownish; granulations on anterior lobe white-yellow, longitudinal 1 + 1 discal carinae yellowish, laterally mostly yellow stramineous, darkening to brownish above acetabulum. Prosternum dark brown, grayish each side of margins of stridulatory canal; mesosternum yellowish on anterior third, posterior $\frac{2}{3}$ dark brown and spotted with yellow where areas meet; metasternum yellowish, slightly variegated with brown. Meso- and metapleura irregularly variegated with brown over a yellow stramineous base. Hemelytra: clavus, discal cell of corium, and membrane brownish with inconspicuous lighter spots, apex of veins of corial cells distinctly yellowish white; veins of cells of membrane with light and dark brown dashes. Pro- and mesocoxae mostly yellow-stramineous, a few irregular brownish markings; metacoxa brown with a few yellowish spots; trochanters yellowish. Profemur brown above, irregularly spotted with light brown, apex yellow, below mostly yellowish-stramineous, with a preapical annulus; pro- and mesotibia with two postbasal annuli and apex dark brown; first and third tarsal segments brown, second yellowish. Meso- and metafemora yellowish, with several incomplete brownish areas spotted with yellow. Mesotibia subbasally and apically blackish. Abdomen yellowish, irregularly and abundantly spotted with yellow.

Head: from anterior margin of eye to apex of antenniphore 0.5 and to apex of head 1.1; from posterior margin of eye to neck constriction 0.7, width across eyes 2.0, interocular space above 0.7, between eyes below 0.35; gula with a pair of large



Figs. 1–17. 1. *Apronius octonotatus*, pronotum, lateral. 2. *A. flavidus*, pronotum, lateral. 3. *A. rapax*, pronotum, lateral. 4–12. *A. froeschneri*. 4. Pronotum, lateral. 5. Connexivum, dorsal. 6. Protrochanter. 7. Margin of hypopygium, lateral. 8. Same, caudal. 9. Right clasper, dorsal. 10. Same, lateral. 11. Pronotum, dorsal. 12. Head, lateral. 13–17. *A. granulatus*. 13. Connexivum, dorsal. 14. Pronotum, lateral. 15. Head, dorsal. 16. Head, lateral. 17. Pronotum, dorsal.

setigerous spines (Fig. 16); ventrolaterally behind eyes with a setigerous spine and several small granules; antenniphore dorsally with an elongate, prostrate, setigerous spine longer than diameter of second antennal segment. Jugae triangular, apex pointing upward at about 45 degrees; head with sparse, small, globular setigerous spines; gena slightly and roundly produced forward (Fig. 15). Rostral segment lengths 1.3, 1.9, 0.9. Pronotum: with granulate longitudinal carinae as in Figure 17; anterior and posterior angles sharp; length of anterior lobe 1.6, width 1.9, length of posterior lobe 1.6, width 3.5, posterior margin shallowly concave above scutellum. Prosternum with anterior angles pointed; meso- and metasternum smooth, not carinate; metapleura transversely striate. Abdomen: mesally carinate to apex of 5th sternum; connexivum with posterolateral angles slightly projecting, lobes rounded (Fig. 13). Procoxa with small setigerous spines on front and internal faces; protrochanter with 2 or 3 small setigerous spines on inner surface; femur with 9 larger, globose, setigerous spines and 2 smaller spines between each pair; spongy fossa $\frac{1}{2}$ length of tibia; femur 3.5 times as thick as tibia (9:2.5). Length 16.2.

Holotype. ♂, FRENCH GUIANA; deposited in the Muséum National d'Histoire Naturelle, Paris.

Etymology. The trivial name refers to the heavily granulose head and pronotum.

***Apronius froeschneri*, new species**

Figs. 4-12

Diagnosis. The characters in the key identify this species. Considering that females are usually larger than males and that this male is 19.5 mm long, this species should prove to be the largest in the genus. The contrasting dark anterior half and lighter posterior half help to allow recognition of this species. Barber's notes indicate that this contrast in coloration occasionally occurs in *A. flavidus*, a smaller species.

Description. Male: Overall coloration: head and pronotum dark brown; appendages, hemelytra, and abdomen stramineous. Head dark brown, with a diagonal, inconspicuous, pale stripe behind each eye running to collum, basal segment of antenna dark brown apically, fading to light brown toward base; antennal segment II stramineous; setigerous spines on underside of head stramineous; rostrum and collum stramineous; coxae dark brown, trochanters stramineous; profemur with an incomplete preapical brown annulus; mesofemur with preapical brown annulus; tibiae with 3 annuli, the basal pair closer to each other (hind legs missing). Scutellum dark brown. Hemelytra mostly stramineous; clavus and corium yellow-stramineous, lighter than membrane, a small dark spot on inner corial cell opposite apex of scutellum; moderately large spot on inner basal angle of discal cell and a smaller contiguous spot outside discal cell; pterostigma and membrane outside cells variegated with brownish, cell areas light brown variegated with yellowish, a small blackish dot on outer cell of membrane.

Head: Length 3.2; anteocular margin to apex of antenniphore 0.8, anteocular margin to apex of head 1.3, postocular margin to collum 0.7, length of collum 0.3, width of head across eyes 2.1, interocular space 0.7; ventrally between eyes with two pairs of moderately long setigerous spines (Fig. 12), followed by 3 small globular spines in front; jugae slightly divergent, short, upper margin horizontal. Rostral segment lengths: 1.7, 1.1, 0.8. Antennae 2.2:4.0 (segments III, IV, missing), with very short

appressed setae. Ventrolaterally behind eyes with 4 or 5 small setigerous spines; large setigerous spine outside antenniphore. Pronotum: width of anterior lobe 2.1, length 1.6; width of posterior lobe 4.0, length 2.1; lateral margin of anterior lobe with small tubercle before transverse stricture; humeral angle acute (Fig. 11); lobes in lateral aspect as in Figure 4. Scutellum: width 1.5, length 1.7, length of spine 0.5, horizontal. Foreleg: trochanter apically on inner side with a moderately large setigerous spine (Fig. 6); length of femur 4.9, greatest width 1.1, armed with a single row of 12 equidistant, short, triangular, setigerous spines; length of tibia 4.0, fossa 0.7, shorter than tarsus (1:2). Genital segments as in figures 7–10. Length 19.5.

Female: Unknown.

Holotype. ♂, VENEZUELA, Rancho Grande, July 1968, at light, 1,100 m, J. Maldonado C.; deposited in the National Museum of Natural History, Washington, D.C.

Etymology. This species is named after Dr. Richard C. Froeschner, in honor of his seventieth birthday and many contributions to the study of Heteroptera.

Apronius octonotatus Champion

Fig. 1

Apronius octonotatus Champion, 1898:186, Figs. 22, 22a; Barber, 1930:213.

Discussion. Barber compared this species with *A. flavidus* and *A. rapax*. Known from Panama and British Guiana.

Apronius rapax Stål

Fig. 3

Apronius rapax Stål, 1866:167; Champion, 1898:186; Barber, 1930:211 (redescription).

Discussion. Known from Brazil, Peru, Colombia and the Canal Zone, Panama. Specimens at hand from Panama do not fit the original description; my final decision on the matter will be made after I compare this material with type specimens.

LITERATURE CITED

- Barber, H. G. 1930. Essay on the subfamily Stenopodinae of the New World. Ent. Amer. (n.s.) 10(3):149–192; 10(4):193–238.
- Champion, G. C. 1898. Insecta. Rhynchota. Hemiptera-Heteroptera, Vol. 2. In: Biologia Centrali-Americana. London, xvi + 426 pp.
- Costa Lima, A. da and C. A. Campos Seabra. 1944. Stenopodinae da coleção do Instituto Oswaldo Cruz (Hemiptera: Reduvioidea: Reduviidae) Mem. Inst. Oswaldo Cruz 41(3): 507–510.
- Stål, C. 1865. Hemiptera Africana II. Norstedtiana, Stockholm, 1–120 pp.
- Stål, C. 1866. Analecta Hemipterologica. Berliner Ent. Ztschr. 10:151–172.



Maldonado Capriles, Jenaro. 1986. "Two New Species of Apronius Stål with Notes on the Genus (Heteroptera: Reduviidae: Stenopodainae)." *Journal of the New York Entomological Society* 94, 174–179.

View This Item Online: <https://www.biodiversitylibrary.org/item/206069>

Permalink: <https://www.biodiversitylibrary.org/partpdf/180309>

Holding Institution

Smithsonian Libraries and Archives

Sponsored by

Biodiversity Heritage Library

Copyright & Reuse

Copyright Status: In Copyright. Digitized with the permission of the rights holder

Rights Holder: New York Entomological Society

License: <http://creativecommons.org/licenses/by-nc/3.0/>

Rights: <https://www.biodiversitylibrary.org/permissions/>

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.