# An illustrated descriptive catalogue of the genera Anidrytus Gerstaecker and Epopterus Chevrolat, with descriptions of new species (Coleoptera: Endomychidae)

# H. F. Strohecker<sup>1</sup>

Research Associate, Florida State Collection of Arthropods Florida Department of Agriculture and Consumer Services 1911 SW 34th St. Gainesville, FL 32614-7100

U.S.A.

Abstract: The endomychid beetle genera Anidrytus Gerstaecker and Epopterus Chevrolat have been confused for many years. This paper discusses the similarities and differences of these genera, describes new species, makes some nomenclatural changes, and illustrates the genitalia for many species. New species described: Epopterus picticollis, E. bioculatus, E. confusus, E. gracilis, E. loretensis, E. anomalus, E. aravacus, E. atriventris, E. crypticus, E. quechuanus, E. callerianus, E. flavonotatus, E. submaculatus, E. parvus, Anidrytus nimbiferus, A. parki, A. compactus, A. gibbosus, A. circumcinctus, A. bechyneorum, A. batesi, A. mexicanus, A. trinitatis, A. major, A. humerosus, A.grandis, A. cardiosoma. New synonymies: E. vacuus Gerstaecker (= E. scalaris Gorham); E. decempunctatus Gerstaecker (= E. bifasciatus Pic); E. variegatus Erichson (= E. decoratus Kirsch); A. contractus Gerstaecker (= A. dolosus Gorham); A. helvolus Gerstaecker (= Ephebus ignobilis Gorham); A. parallelus Gerstaecker (= Ephebus depressus Gorham). Changes in nomenclatural status or combination: Epopterus kirshi Strohecker is reduced to a subspecies of E. partitus Gerstaecker; E. angustatus Strohecker is reduced to a subspecies of E. fasciatus (Fabricius); E. fuliginosus Guérin-Menéville is transferred to Anidrytus.

The genera Anidrytus Gerstaecker and Epopterus Chevrolat share many common features, among them: body form ovate to oblong; dorsum pubescent, but much abraded in many specimens; antennomeres III & IV subequal; antennomeres IX & X, especially X, mesally acuminate; spinasternum horizontal, extended beyond front coxae, broadly spatulate with apex subtruncate. Males have protibia curved, enlarged in apical third, often with a small tooth below; and abdominal sternite VI is visible.

Gerstaecker (1858) distinguished the two genera on the basis of mandibular and maxillary structure: mandibular apex in *Anidrytus* is entire, in *Epopterus* it is bifid; maxillary galea is corneous at base in *Anidrytus*, in *Epopterus* it is entirely membranous. I doubt that Gerstaecker subjected all the species which he treated to much analysis but, rather, fell into the habit of assigning plainly colored and mostly larger forms to *Anidrytus* and those of strongly variegated pattern and mostly smaller size to *Epopterus*. Later authors, notably Gorham, followed him in this practice.

I have not so tested the many species now known but, after examining the holo- or lectotype of nearly all described forms, I think that a preliminary treatment may enable any future student of the group to proceed without repeating my efforts, which have extended over many years. Most previous descriptions have been drawn on body form and color pattern. Many similarities in these features are found among the species. Yet, strong differences in color pattern are shown by specimens of *Epopterus* which, on the basis of aedeagal structure, are conspecific. Some of the observed variation is due, no doubt, to differences in maturity, but may also exist as color phases in some species. I have used trinomials only where names have already been published.

I consider the aedeagus the most reliable taxonomic character. This organ is strongly sclerotized, often asymmetrical and bizarre in form, which differs in appearance with change of position, either by rotation or inclination. The camera lucida drawings are of dextro-ventral aspect, the lesser curvature of the base is considered ventral.

Study of the aedeagi suggests relationships between species which transgress the nominal generic boundaries of these genera and suggests long separated evolutionary lines not reflected in current nomenclature. Evaluation and action on these ideas would be a long task, for which material and time left to me are inadequate. Therefore, I follow Gerstaecker's and Gorham's concepts in the assignment of species.

Because of interspecific similarities and intraspecific variations in external features, I found it impossible to construct a worthwhile key. I would be loathe to attach identity labels to most females

<sup>&</sup>lt;sup>1</sup> Dr. Strohecker finished this paper before his death, November 14, 1988. The manuscript has been changed little from its original form, and lacks certain details generally required for modern systematic papers and by *Insecta Mundi*. Even in its current state, it represents a step forward in the study of these genera and is here published for that reason. Paul E. Skelley, Florida State Collection of Arthropods, Florida Department of Agriculture & Consumer Services, Division of Plant Industry, 1911 SW 34th St., Gainesville, FL 32614-7100, U.S.A.

unless in series with males, and I believe the most reliable path to identification of males is by comparing figures of the aedeagi with the specimen. Each figure is followed by a number in parentheses which indicates the species number in the text.

Material examined for this study is found in the following institutions, the officers of which I thank for their cooperation: American Museum of Natural History, New York (AMNH); California Academy of Sciences, San Francisco (CASC); Canadian Museum of Nature, Ottawa (CMNC); Deutsches Entomoligisches Institut, Eberswalde Finow (DEIC); Field Museum of Natural History, Chicago (FMNH); Florida State Collection of Arthropods, Gainesville (FSCA); Hungarian Natural History Museum, Budapest (HNHM); Funcacion e Instituto Miguel Lillo, Tucumán (IMLA); Instituto de Zoologia Agricola, Universidad Central de Venezuela, Maracay (IZAV); Entomologisches Institut, Museum G. Frey, Tutzing (MGFT); Muséum d'Histoire Naturelle, Geneva (MHNG); Muséum National d'Histoire Naturelle, Paris (MNHN); Natural History Museum, London (NHML); Staatliches Museum für Tierkunde, Dresden (SMTD); U. S. National Museum, Washington (USNM); Museum fur Naturkunde der Humboldt Universität, Berlin (ZMHB); Museum & Institute of Zoology, Polish Academy of Sciences, Warsaw (ZMPA); Zoological Museum, University of Copenhagen, Copenhagen (ZMUC); Zoologische Staatssammlung, Munich (ZSMC).

#### Genus Epopterus Chevrolat

- Chevrolat 1844:380; Erichson 1847:181; Gerstaecker 1858:274; Chapuis 1876:123; Gorham 1890:129; Strohecker 1953:62.
- Type species: *Erotylus ocellatus* Olivier (Strohecker 1953:63).

Most species 3.5 - 5 mm long, although some may slightly exceed 6 mm. Body outline broadly cordate to oblong and subparallel. Elytra variegated with black or brown and yellow or red markings, often with a broad dark band across middle. In two species, *E. lineoguttatus* Gorham and *E. clara* Gorham, the pale elytra are marked with black points or streaks. The dorsum is pubescent, but often much abraded in museum material.

Diagrams of color pattern only are shown for four species described from unique female types: *E. vicinus* Pic, *E. fallax* Gerstaecker, *E. rubiginosus* Gerstaecker, and *E. quaesitus* Gorham. All figures of elytra are intended to show only pattern; any realism is fortuitous. No illustrations are offered for the following nominal species: *E. myops* Guérin-Méneville and *E. trimaculatus* Guérin-Méneville, which I have been unable to locate; *E. geniculatus* Pic, which is compared with *E. picticollis* n. sp.; *E. ryei* Gorham, *E. lineoguttatus* Gorham, *E. pantherinus* Gorham, and *E. ocellatus* maculosus Gorham. Habitus figures of the last four accompany the original descriptions.

#### 1. Epopterus ocellatus (Olivier) Fig. 24, 33

Erotylus ocellatus Olivier 1792:437. Type repository unknown.

Eumorphus ocellatus (Olivier) 1808:1067, pl. 1, fig. 6. Epopterus ocellatus Gerstaecker 1858:275, pl. 3, fig. 43u, x; Strohecker 1953:pl. 3, fig. 30.

Oblong, rather flat above, almost equally rounded in front and in rear. Legs, head and antennal base reddish yellow. Venter and pronotum reddish brown, the latter with 4 black spots in a transverse row. Elytron blackish brown with suture reddish. A yellow band on base of elytron encloses a dark humeral spot and a large dark ocellus, almost or quite touching base. A yellow pre-apical band emits a short ray at middle of its front edge and 2 long posterior rays, one along margin, other near suture; it may form 2 complete rings enclosing dark spots. Front tibia of male abruptly widened beyond middle. Length 6-6.5 mm, width 3.4-3.6 mm.

Most specimens examined are labeled "Brazil". Brazil: Sta. Catarina, Corupa, XII.1944, A. Muller (AMNH).

### 2. Epopterus annulatus Guérin-Méneville Fig. 34

Epopterus annulatus Guérin-Méneville 1857:268, pl. 13., fig. 20. Holotype ♂, Brazil (NHML).

Very similar to and probably a color form of *E. ocellatus*, as noted by Csiki (1901:47). The figure in Guérin-Méneville does not properly show the long caudal rays of the posterior elytral band.

"Guyana", ♂ (FSCA).

#### 3. Epopterus myops Guérin-Méneville

E(popterus) myops Guérin-Méneville 1857:268. Type material from Brazil?, Colombia?; repository unknown.

Epopterus ocellatus myops Csiki 1901:47.

Originally described as tawny brown, elytra very dark, pronotum lighter, venter and legs yellowish, femora briefly fuscous at base. Pronotum with 4 black spots. Elytra finely punctate, black at base and apex, with an anterior yellow band forming a circle near the scutellum and another pale band at apical third. A smaller variety.

#### 4. Epopterus trimaculatus Guérin-Méneville

Epopterus trimaculatus Guérin-Méneville 1857:268. Type material from Colombia; repository unknown.

Original description as follows: Body and elytra black, shining, pronotum with anterior border yellow. All antennomeres yellow, blackish at base. Legs black, knees and tarsi yellow. Elytron with a large posterior yellow area, which is dentate on front edge and extends almost to apex, enclosing 3 black spots, the middle one largest. Length 5.33 mm, width 3 mm.

#### 5. Epopterus partitus partitus Gerstaecker Fig. 35

Epopterus partitus Gerstaecker 1858:277. Lectotype, Mexico: Yucatan (NHML). A syntype ♀ is presumably in ZMPA.

Oblong, elytra more gradually rounded caudad than in *E. ocellatus*. Venter reddish yellow; thoracic sterna and legs may be dusky. Antennal base and pronotum reddish yellow, the latter with 4 black spots in a transverse row. Elytron reddish yellow with 2 black spots on base, smaller on umbo, larger near scutellum and narrowly reaching elytral base; wide black band across middle, U-excavate in front and V-excised at middle of hind edge. Black color extending forward along suture almost to scutellum and also caudad, where it widens into a semicircular spot; lateral is an oval black spot. Length 6-6.8 mm, width 3.5-4 mm.

## 6. Epopterus partitus maculosus Gorham

Epopterus ocellatus maculosus Gorham 1890:129, pl. VII, fig. 19.

Epopterus partitus maculosus: Arrow 1920: 48. Lectotype で, Nicaragua: Chontales, Janson, B. C. A., Col. VII, E. ocellatus Ol. (NHML).

Differs from nominate form only in having the broad black elytral band interrupted at middle by a pale vitta, which, however, may be incomplete.

Reported by Gorham from Belize; Guatemala; Nicaragua; Mexico: Tabasco. A considerable series of paralectotypes are in NHML.

# 7. Epopterus partitus kirschi Strohecker, new status

Fig. 36

Epopterus kirschi Strohecker 1959:181, fig. 8. Holotype °, Ecuador: Balzapamba (ZMHB).

More intensively colored than nominate form; head, legs, middle of metasternum and first sternite black. Pronotum rufous with 4 black spots. Elytron with pale areas reduced to rather narrow bands, apex yellow. The aedeagus differs little from that of the nominate form. Length 6-6.5 mm, width 3.5-3.7 mm.

Colombia: Valle de Cauca, Anchicaya Dam, 70 km E Buenaventura, 22.VII. 1970, H. & A. Howden,  $2^{\circ} \circ^{\circ}$  (CMNC; FSCA).

#### 8. Epopterus tigrinus Gerstaecker Fig. 37

Epopterus tigrinus Gerstaecker 1858:279. Holotype ぐ, Brazil (ZMHB).

Oblong, rather flat above. Venter, bases of femora and tibiae black. Pronotum black, sides yellow with a small black spot near lateral margin. Elytron black, with an irregular yellow or orange band across base enclosing 2 dark spots. A broad apical pale band encloses a lateral dark spot and a semicircular black spot on suture. Length 5.7-6.5 mm, width 3-3.5 mm.

Brazil: Sta. Catarina, Lagos, Fruhstorfer (ZMHB; FSCA); Nova Teutonia, F. Plaumann (GMFT; FSCA); Parana (FSCA).

#### 9. Epopterus geminus Gerstaecker Fig. 38

Epopterus geminus Gerstaecker 1858:279. Lectotype で, Colombia (ZMHB).

Venter and legs black. Head and antennal base reddish yellow. Pronotum with front angles and sides yellow, disc with large trapezoidal black patch; small black spot in pale area of each side. Elytron mostly black; an irregular orange band across base encloses 2 black marks which reach base. A yellow area at apex encloses 2 oval black spots. Length 5.5 - 6 mm, width 3.3 mm.

Venezuela: Caracas, Berg Avila, P. C. Vogl (ZMHB; FSCA). Colombia: Santander del Norte, Santiago, 700 m, 23.V.1974, H. & A. Howden, 1 pair; 30 km S Cucuta, 8.V.1974, Howdens,  $\sigma$  (CMNC; FSCA).

# **10.** Epopterus signaticollis Gerstaecker Fig. 29, 30, 39

Epopterus signaticollis Gerstaecker 1858:280. Holotype °, Colombia (ZMHB).

Epopterus scalaris (in part) Gorham 1890:130.

Oblong, venter yellow, hind part of metasternum and first sternite black, sternites 2-4 dusky at middle. Head and antennal base yellow. Pronotum yellow, middle of front margin and 4 discal spots black. Elytron reddish yellow with a small dark spot on umbo, an oval dark spot at mid-line of base, a broad multidentate dark band across middle and 2 black spots before apex. Length 5.5 mm, width 3.5 mm.

The description above was extracted from Gerstaecker. A male from Colombia: Villavicencio, has the inner front spot narrowly connected to base, and the middle black band interrupted at the side. A male from Panama: Bugaba (FSCA ex Janson) has venter and legs entirely black.

Colombia: Cundinamarca, Monterredondo, Schneble, 1 pair (GMFT); Meta, Villavicencio, 9.VIII.1938, C. H. Seevers, ♂(FSCA); Antioquia, Puerto Berrio, VIII.1938. Seevers, ♂(FSCA). Panama: Bugaba, 250-400 m, Champion, ♂(FSCA ex Janson).

## 11. Epopterus vacuus Gerstaecker Fig. 40

Epopterus vacuus Gerstaecker 1858:283. Holotype °, French Guiana: Cayenne (MNHN).

Epopterus scalaris Gorham 1890:130, pl. VII, fig. 20. Lectotype ゔ, Panama: Bugaba, Champion (NHML). New synonym.

Venter, femora and tibial bases black. Antenna stout, black, basal antennomeres (except III) hardly longer than wide. Head dusky yellow. Pronotum with sides yellow, disc black, the dark color abruptly narrowed at mid-length and continued narrowly forward to front margin. Elytron black with a large yellow patch on shoulder enclosing a small black spot. The pale color does not reach suture, and its hind edge is tridentate. Apex yellow, front edge of this pale area tridentate. Length 6 mm.

Although Gerstaecker cited a single female in the Thomson collection, the presumptive type is a male; the front tibia is less strongly modified than in the males of most species of the genus.

# 12. Epopterus testudinarius Gorham Fig. 31, 45

Epopterus testudinarius Gorham 1873:48, pl., fig. 7. Lectotype ♂, paralectotype ♀, Brazil: Amazon, Bates (NHML).

Oblong. Antenna, legs, and venter black. Head and pronotum yellow, latter with large black patch which may extend across entire base, abruptly narrowed at middle, then continues to front margin. Scutellum black. Elytron yellow with small oblong black mark on shoulder, smaller round black spot near scutellum, and broad, irregularly margined black band across middle. Apex black, between it and middle black band a deeply constricted yellow band. In a male from Villavicencio the pronotum is wholly black, the entire side margin of elytron yellow. Length 6-6.5 mm, width 3.6-3.8 mm.

Colombia: Meta, Villavicencio, 13.VIII.1938, C.H Seevers (FSCA).

# 13. Epopterus comptus Gorham

Fig. 44

Epopterus comptus Gorham 1890:130, pl. 7, fig. 200. Lectotype ♂, 4 paralectotypes, Nicaragua: Chontales, Janson, Belt (NHML).

Oblong. Venter black, paler caudad, legs yellow. Antenna yellow at base, antennomeres VI-XI black. Head and pronotum pitchy red, latter with basal 3/5 of side margin, 2 anterior and 3 elongate basal spots black. Elytra black with umbo yellow, pale color extending to suture as a ring enclosing round black spot. Elytral apex extensively yellow with large dark spot enclosed. Length 5.8-6 mm, width 3.5 mm.

Nicaragua: Chontales,  $\circ$  probably from original collection;  $\circ$  without locality data (FSCA ex Janson).

# 14. Epopterus undulatus Guérin-Méneville Fig. 41

*Epopterus undulatus* Guérin-Méneville 1857:269, pl. 13, fig. 21. Type material from Argentina: Buenos Aires, Dejean coll.; repository unknown.

Oblong. Venter black, abdomen paler caudad. Legs yellow, basal half of middle and hind femora and of all tibiae black. Antennal base and head yellow. Pronotum yellow with the following black marks: an inverted V with apex at middle of front margin, its lobate limbs extending to hind angles, a small round spot on each side. These markings may be obscured by general darkening. Elytron black with narrow yellow band across base, enclosing black humeral spot and elongate parascutellar dark mark; a narrow zigzag pale band at posterior quarter, and lunate bar close to apex. Length 5-5.8 mm, width 3-3.2 mm.

Argentina: Tucumán, Tucumán, Horco Molle, San Pedro de Colabao, Choromoro; Jujuy: Yuto; Catamarca, El Alto. Bolivia: Sta. Cruz, El Cidral (IMLA). Argentina: Cordoba, Jesus Maria (GMFT). Paraguay: Asuncion (HNHM).

#### 15. Epopterus zebra Strohecker Fig. 3, 69

Epopterus zebra Strohecker 1957:269, fig. 27. Holotype で, Peru (HNHM).

Oblong. Upper surface reddish yellow. Pronotum with a W-shaped mark and median basal spot black. Elytron marked with black as follows: 2 round spots on base, an undulate band before middle, another band just behind middle, and 2 large coalescent spots before apex. Length 5.9 mm, width 3.3 mm.

#### 16. Epopterus picticollis Strohecker, n. sp. Fig. 28, 76

Holotype ♂, Peru: Huanuco, 25 km below Carpish, 2500 m, 9.IX.1946, F. Woytkowski, and allotype ♀ with same data except 8.IX (AMNH). Paratypes: 2♀♀, same locality, IX.1948 (FSCA).

Oblong, subparallel. Venter blackish, distal part of femora ferruginous. Antenna, except antennomere I, black. Head and pronotum reddish brown, the latter with a dark marginal spot on each side and 2 broad black marks extending obliquely mesad from hind angles; behind these marks, near center, is a pair of black points. Elytron broadly red at middle, base and apex suffused with black. A narrow yellow band begins at side margin behind umbo and broadens mesally to form a large ring enclosing a large dark spot. At posterior third is a narrow undulate yellow band. Length 5 mm, width 3 mm.

#### 17. Epopterus geniculatus Pic

Epopterus geniculatus Pic 1931:9. Holotype で, Bolivia (MNHN).

Similar in size, form and markings to *E. picticollis*, which is possibly a color form of *E. geniculatus*. The yellow bands of elytron are narrower,

especially the posterior one, which runs in undulant fashion obliquely caudad and mesad.

# 18. Epopterus nigerrimus Strohecker

Fig. 70

Epopterus nigerrimus Strohecker 1957:268, fig. 26. Holotype ♂, Brazil: Goyaz, Jatahy (HNHM).

Narrowly oblong, subparallel. Deep black below and above, dorsum thickly punctate. Elytron with 2 narrow red marks, the anterior Y-shaped, embracing the umbo, the posterior near apical third, transverse and undulate. Length 4.6-4.8 mm, width 2.7 mm.

Argentina: Cordoba, 2♂♂, ♀ (ZSMC; FSCA).

# 19. Epopterus bioculatus Strohecker, n. sp. Fig. 23, 55

Holotype °, French Guiana: Cayenne (FSCA ex Janson).

Long-oval, elytra gradually narrowed from anterior third. Venter and femoral bases dark brown. Antennal base yellow, club black. Dorsum blackish brown, elytron with anterior and posterior yellow rings. Pronotum with sides subparallel basad, fairly strongly curved to front angles, hind angles very sharp, disc finely, sides coarsely and densely punctate. Elytra more than 3X as long as pronotum. The anterior yellow area leaves a large dark humeral spot and completely encloses an oval dark spot near scutellum. The posterior yellow band encloses a dark lateral spot and is extended in 2 short rays toward the scutellum. Length 5.3 mm, width 3 mm.

The single specimen has a previous determination "*E. ocellatus*".

# 20. Epopterus cucullinus Gorham Fig. 48

Epopterus cucullinus Gorham 1873:49. Holotype °, Brazil: Amazons (NHML).

Described by Gorham as, "Evenly ovate and rather convex.... Elytra ovate, not much narrowed towards the apex, closely punctured.... rich pitchyred, with 3 orange-yellow markings, the 2 anterior irregular and transverse, the third.... an irregular and not clearly defined spot near apex. Antennae pitchy-red, club black." Pronotum with 4 black spots. Length 5 mm.

Brazil: Ega, Bates, 2♂♂, ♀(NHML); Amazons, ♂ (SMTD).

#### 21. Epopterus dilectus Gorham Fig. 25, 49

Epopterus dilectus Gorham 1875:16. Holotype ♂, Ecuador: East Andes, Buckley (NHML).

Rather narrowly ovate, similar to *E. cucullinus.* Antennal base reddish brown, club black. Dorsum reddish to dark brown, pronotum with 4 black spots. Elytron with a pale yellow fascia behind umbo, inclined slightly caudad and not reaching suture; another, more irregular fascia across caudal slope. Length 4.5 mm.

## 22. Epopterus vicinus Pic Fig. 14

*Epopterus vicinus* Pic 1931:9. Holotype ♀, Bolivia (MNHN).

Oblong. Pronotum in part black. Elytra pitchy, partly brown, with anterior and posterior undulate and branched yellow fasciae. Antenna red, club black, legs mostly red. Length 5 mm.

The description above is a summary of Pic's diagnosis. Specimens from Callanga, Peru, closely resemble the holotype: dorsum blackish brown. Pronotum with 4 black spots in a transverse row; these obscure in darker specimens. Figure 14 was drawn from a Callanga specimen. Its aedeagus is identical to that of E. dilectus, and I suspect that E. vicinus is a color form of E. dilectus.

# 23. Epopterus notatus Strohecker Fig. 16, 71

*Epopterus notatus* Strohecker 1957:266, fig. 18. Holotype ♂, Amazon (HNHM).

The holotype and one other specimen subsequently referred to this species are all I have seen; both specimens are in somewhat immature state of coloration. Elytral markings are similar to those of *E. vicinus* but with yellow areas much wider. In the holotype the posterior yellow band does not form complete rings. Length 4.3-4.7 mm, width 2.5-3 mm.

Colombia: Amazonas, Leticia, 700 ft, 9. VII. 1970, H.& A. Howden (CMNC).

Additional material is needed to determine the relationship of *E. vicinus* and *E. notatus* to *E. dilectus.* Similarity of the aedeagi suggests conspecificity.

# 24. Epopterus confusus Strohecker, n. sp. Fig. 77

Epopterus cucullinus: Strohecker 1957:267, fig. 21 (not of Gorham). Holotype ゔ, (Brazil?): Amazon (HNHM).

Form oblong, elytra rather strongly convex. Legs and venter brownish black, elytral epipleura and sides of prosternum yellow. Dorsum dark brown, elytron with 2 yellow patches, the anterior closely embracing the shoulder and bluntly extended mesocaudad; the posterior crossing the caudal slope, extending from side margin almost to suture. Antenna slender, antenomeres III-VI each about 3X as long as wide, antennomeres VII-VIII longer than wide, stalk yellowish brown, club black. Pronotum with sides parallel basad, rather strongly rounded to front angles, finely margined, disc gently convex. Front tibia of male much widened distad, middle and hind tibia straight. Length 4.9 mm, width 3 mm.

# 25. Epopterus longus Strohecker Fig. 67

Epopterus longus Strohecker 1957:268, fig. 22. Holotype ぐ, Amazon (HNHM).

Elongate, subparallel. Elytron with 2 transverse yellow bands. In appearance much like *E. cucullinus* but narrower and with posterior elytral band more undulate. Length 4.5 mm, width 2.5 mm.

I have seen only the holotype.

# 26. Epopterus obliquus Strohecker Fig. 15, 72

*Epopterus obliquus* Strohecker 1957;265, fig 14. Holotype ♂, Amazon sup.: Haituba (HNHM).

Subparallel in form but with elytra gradually narrowed from anterior third. Dorsum dark brown, elytron with 3 yellow areas: a quadrate spot at middle of base, a posthumeral rounded spot, and a narrow oblique band across posterior third. Length 4.4 mm, width 2.6 mm.

Only the holotype has been studied.

# 27. Epopterus fallax Gerstaecker Fig. 21

Epopterus fallax Gerstaecker 1858:287. Holotype  $\Im$ , Amazon (ZMHB 21834).

Form somewhat elongate, elytra widest near mid-length. Venter black except front of prosternum and distal sternites, bases of femora and tibiae fuscous, elytral epipleura yellow. Pronotum reddish brown, head with a black fleck, pronotum with 2 lunate discal spots and a marginal spot on each side black. Elytron reddish yellow on base and near apex, the extreme apex and a broad median band dark brown. In the anterior yellow area are 2 dark spots, the outer on the umbo and rectangular, the inner spot reaching the base and prolonged laterocaudad as a slender streak. Two dark spots lie in the caudal pale area, the inner one touching the darkened suture. Length 4.8 mm, width 3 mm.

I have seen no additional examples.

# 28. Epopterus gracilis Strohecker, n. sp. Fig. 32, 74

Holotype ♂ and allotype ♀, Peru: Pucallpa, 2.X.1954, E. I. Schlinger & E. S. Ross (CASC, holotype No.13315).

Long-oval, elytra rather strongly convex. Venter and legs reddish brown. Dorsum dark brown, elytron with triramous yellow basal mark and bilunate yellow band across apical slope. Antenna rather slender, antennomeres III-VII each longer than wide, antennomeres I-VII brown, antennomeres VIII-XI black. Pronotum with sides convergent from base forward, little rounded to front angles, hind angles slightly divergent and acute, discal punctures fine and well spaced, punctation of sides coarser, subrugose. Elytra 3.5X as long as pronotum, widest in anterior third, gradually narrowed caudad. Length 4 mm, width 2.5 mm.

#### 29. Epopterus pictus (Perty) Fig. 22, 42

Endomychus pictus Perty 1832:111, pl. 22, fig. 11. Type material from Brazil; repository unknown.

Epopterus pictus: Gerstaecker 1858:286.

Oval, elytra gradually tapering and strongly convex. Venter, legs, antennal base, head and pronotum reddish brown, pronotum with 4 black spots in a transverse row. Gerstaecker has described the elytron as reddish yellow with black-bordered brown markings: a rectangular shoulder patch and mesad of this a large oval spot; a broad, irregularly margined median band; behind this 2 large spots transversely placed and a triangular spot at apex. Length 4.4-4.8 mm.

Unfortunately, I broke the aedeagus of the Gerstaecker specimen in extracting it. Drawings

have been made from a closely similar example in HNHM. I have seen no other material.

# 30. Epopterus vernicatus Gerstaecker Fig. 26, 79

Epopterus vernicatus Gerstaecker 1858:285. Holotype ♀ without locality data (NHML).

Long-oval. Pronotum with sides convergent from base forward, little rounded, hind angles acute. Elytra broadened from base in anterior third, gradually narrowed caudad, strongly convex. Venter, legs, antennal base and pronotum reddish brown, pronotal disc infuscate. Elytra blackish brown. Behind umbo a yellow band extends mesad enclosing a dark humeral spot and a larger oval dark spot. From this yellow band a narrow pale streak divides the dark disc (2 median black spots of Gerstaecker's description). Rather narrow yellow bands enclose 2 dark spots near apex, which is dark. Length 4.5 mm.

A male from Rio de Janeiro resembles the holotype closely but is slightly larger (5 mm) and lacks the discal pale streak.

# 31. Epopterus loretensis Strohecker, n. sp. Fig. 81

Holotype ♂, allotype ♀ Peru: Loreto, 20 km from Ucayali on Rio Calleria, Colonia Calleria, 10-30.IX.1961,
B. Malkin (FMNH). Paratypes: 3♀♀ with same data as holotype (FMNH; FSCA).

Long-ovate. Venter infuscate, terminal sternites and legs reddish brown. Dorsum dark reddish brown, elytron with yellow area at base enclosing dark humeral spot and ocellate medial spot, and an undulate yellow band across apical slope; band emits 2 sharp rays in front, and its posterior border excised by a fuscous spot; apex is pale. Pronotum narrowed from base, its sides moderately curved to front angles, marginal bead rather wide and flat, hind angles acute. Elytra 3.5X as long as pronotum, widened in anterior half, gradually narrowed caudad. The abrupt widening of front tibia of male is less than usual in the genus. Length 4.3-5 mm, width 2.7-3.5 mm.

## 32. Epopterus anomalus Strohecker, n. sp. Fig. 83

Holotype ♂, Ecuador: Pastaza, Ashuara, Rio Macuma 10 km from R. Morona, 300 m, 7-16.IX.1971, B. Malkin (FMNH). Allotype ♀, Colombia: Putomayo, Rio San Miguel, Santa Rosa de Sucumbios, 400 m, 1-7.IX.1971, B. Malkin (FMNH). Oval. Venter, femora and elytral epipleura black. Dorsum dark reddish brown, elytron with apex and triramous humeral spot yellow. Pronotum relatively small, 2X as wide as long, sides parallel basad, gently rounded in front, hind angles weakly acute. Elytra 3.5X as long as pronotum, rapidly widened from base in anterior third, gradually narrowed caudad. The anterior yellow patch covers the umbo, sends a ray across base and a shorter, blunter ray mesocaudad. Length 4.5 mm, width 2.9 mm.

#### **33.** Epopterus aravacus Strohecker, n. sp. Fig. 85

Holotype ♂, Venezuela: Aragua, 10 mi. nr. Cata, 25.II.1971, H. & A. Howden (CMNC).

Long-oval, similarly rounded in front and behind. Venter and femoral bases black. Pronotum with disc black, shining, very finely punctate, sides yellow with a black spot on each side, which is more or less coalescent with black of disc. Elytron yellow, with umbo and basal spot, a broad median band, 2 pre-apical spots and extreme apex dark. Median band dark brown, its front edge twice deeply incised by pale rays, hind margin similarly incised. Pronotum 2.5X as wide as long, sides evenly rounded, anterior curvature not abrupt. Elytra 3.5X as long as pronotum and but little wider at base, gradually widened to about middle, thence evenly narrowed caudad.

# 34. Epopterus reticulatus Strohecker Fig. 8, 66

*Epopterus reticulatus* Strohecker 1957:264, fig. 12. Holotype ♂, Bolivia: Cochabamba, Germain (HNHM).

Elliptical in outline. Yellow above with disc of pronotum and 5 spots on elytron dark brown. The pronotal spot is transversely rectangular; the dark elytral markings consist of a rounded humeral spot, an oblong spot near middle of base, 2 elongate rectangles near middle, and a rounded or somewhat triangular spot before apex. Length 3.8 mm, width 2.5 mm.

# **35.** Epopterus deltoideus Strohecker Fig. 11, 61

Epopterus deltoideus Strohecker 1957:266, fig. 20. Holotype ♂, Amazon sup.: Haituba (HNHM).

Oval, elytra narrowly cordate. Dorsum yellow, elytron with umbo, a small oblong basal spot, and

3 pre-apical spots black; across middle of elytron is a broad, black-bordered dark red band, Length 4 mm, width 2.6 mm.

## 36. Epopterus atriventris Strohecker, n. sp. Fig. 80

Holotype ♂, Bolivia: Beni, 31.VII-2.VIII. 1960, B. Malkin (FMNH). Allotype ♀, Beni, 26.VII-4.VIII. 1960, B. Malkin (FMNH). Paratypes: ♂, same data as holotype; ♂, Brazil: Matto Grosso, Corumbá (FSCA).

Oval, elytra rather strongly convex. Venter and legs black, elytral epipleura yellow, dorsum reddish brown, elytron with 2 yellow areas. Pronotum narrowed from base forward but sides well rounded to front angles, hind angles weakly acute, disc finely and thickly, sides more coarsely and densely punctate. Elytra long-cordiform, about 4X as long as pronotum, base with yellow band enclosing dark umbo and ocellate median spot, middle 2/5 of elytron dark reddish brown. A yellow band crosses apical slope, its front edge deeply bilunate, its hind edge excised by a large round black spot. Apex pale brown. Length 4.1 mm, width 2.8 mm.

# **37.** Epopterus decempunctatus Gerstaecker Fig. 12, 13, 53, 86

Epopterus decempunctatus Gerstaecker 1858:290. Lectotype ♂, ? Venezuela: Puerto Cabello, Moritz (ZMHB). Paralectotype ♀ without data (ZMHB).

Epopterus bifasciatus Pic 1931:9. Holotype °, Venezuela (MNHN).(New synonym).

Oval. Venter and legs rust-red, thoracic sterna and femoral bases darker. Antennal base red, club black. Upper surface reddish yellow, elytron with brown or black markings: a rounded spot on shoulder and, near mid-line, a narrowly oblong spot, obliquely placed and remote from base; a broad band across middle, its front edge twice, its hind edge once excised; 3 spots of variable size before apex. These spots tend to coalesce to form a dark band, leaving the apex and a pre-apical, strongly undulate band pale. Length 4.3, width 3 mm.

Colombia: Antioquia, Puerto Berrio (GMFT); Norte de Santander, Cucuta, H. & A. Howden (CMNC; FSCA). Venezuela: Bolivar, Suapure, Caura R., E. A. Klages (FSCA); Lara, Sanare, 7.XII.65, J. & B. Bechyné; Aragua, Cata, 14.IX.65, Bechyné (IZAV; FSCA). Trinidad: Maracas, H. & A. Howden (CMNC).

# **38.** Epopterus fasciatus fasciatus (Fabricius) Fig. 1, 46

Tritoma fasciatum Fabricius 1801:570. Lectotype ♂, Am(erica) mer(idionalis) (ZMUC).

Epopterus fasciatus: Gerstaecker 1858:288 (not of Fabricius).

Ovate. Venter and dorsum reddish to dark brown. Elytron with yellow band across base, beginning at side margin, leaving umbo dark, and enclosing a large ocellate dark spot mesad. A yellow patch before apex encloses a large round dark spot, which may be partly divided by a pale streak. Length 3.8-4 mm, width 2.4-2.5 mm.

Brazil: Rio de Janeiro, 2♂♂, 2 ♀♀ (FSCA).

#### 39. Epopterus fasciatus angustatus Strohecker, new status Fig. 2

Epopterus angustatus Strohecker 1957:268, fig. 23. Ho-

lotype ೆ, Amazon sup.: Haituba (HNHM).

Long-oval. Elytron dark reddish brown, with 2 yellowish white crossbands edged with black. The anterior band is wide at side margin and ends narrowly near suture and scutellum. Posterior band transversely rectangular. Length 4.6 mm, width 2.6 mm.

Larger than the nominate form and somewhat narrower. The aedeagus is identical to that of *E*. *fasciatus* lectotype.

### 40. Epopterus variegatus Erichson Fig. 6, 7, 43

Epopterus variegatus Erichson 1847:181. Holotype で, Peru (ZMHB); Gerstaecker 1858:284.

Epopterus decoratus Kirsch 1876:114. . Holotype ♂, Peru (SMTD). New synonym.

Epopterus peruvianus Pic, inedit.

Oval. Light reddish brown below and above, antennal base yellow. Elytron with dark markings as follows: a streak along suture, a humeral spot, an oval spot near mid-line not touching base, a broad, sinuate median band, a spot before apex; these markings dark reddish brown with narrow black borders.

Description above extracted from original. Specimens from southern Peru are marked as in figure 6, others from Iquitos and "Amazon" as in figure 7. Length 4-4.5 mm, width 2.4-2.5 mm.

Peru: Cuzco; Callanga; Marcapata.

## 41. Epopterus cordatus Strohecker Fig. 10, 58

Epopterus cordatus Strohecker 1957:266, fig. 15. Holotype °, Amazon (DEIC).

Elytra long-cordate, flattened margin wider than usual. Brown above, elytron with a large quadrate yellow spot on shoulder, continued as a narrow band across base, and a transversely oval yellow spot before apex. Length 3.8-4.5 mm, width 2.5-2.8 mm.

The type series comprised 15 specimens from the "upper Amazon". Brazil: Amazonas, Titirico; Boca Cauarubi; Maturaca, J.& B. Bechyné. Venezuela: 38 km El Dorado, F. Fernandez & C.J. Rosales; Ocano, Fernandez (IZAV; FSCA).

# 42. Epopterus crypticus Strohecker, n. sp. Fig. 78

Holotype ♂, (Brazil?): Amazon (HNHM).

Form long-oval, elytra strongly convex, venter and legs brownish black, elytral epipleura and sides of prosternum yellow. Dorsum brown, pronotum with 4 black points in tranverse row, elytron with 2 black-bordered yellow patches, the anterior enclosing small dark humeral spot and bluntly prolonged mesocaudad; posterior patch on caudal slope, broadly undulate. Pronotum with sides gradually convergent from base forward, gently rounded to rather sharp front angles, hind angle weakly acute. Elytra more than 3X as long as pronotum, gradually widened from base to near midlength. then gradually narrower caudad. Antennomere III about 2X as long as wide, 7 and 8 hardly longer than wide. Front tibia of male much widened distad, middle and hind tibia lightly but distinctly curved. Length 4.5 mm, width 2.8 mm.

Very similar in appearance to *E. confusus*, the elytral pattern almost identical, but of more oval form, with elytra more convex, and differing in features described and illustrated.

### 43. Epopterus eganus Gorham Fig. 47

Epopterus eganus Gorham 1886:160, pl. 17, fig. 9. Lectotype ゔ, Brazil: Amazonas, Ega, H. W. Bates (NHML). Paralectotype ゔ, Ega (NHML).

Ovate. Pale chestnut red, elytron with 3 large yellowish white, black-bordered spots. Of the anterior spots one lies against base and suture, the other behind umbo, the posterior spot is round and on apical slope. The 2 anterior spots are narrowly connected in the lectotype but quite separate in a female from Ega (FSCA ex Janson). Length 5-5.25 mm, width 3.5 mm.

44. Epopterus lineoguttatus Gorham

Epopterus lineoguttatus Gorham 1886:161, pl. 17, fig. 7. Holotype °, Amazon, H. W. Bates (NHML).

Identical in structure, including aedeagus, to *E. eganus* but very differently marked. Gorham described the elytral markings (black) as follows: "a humeral small dot, 2 elongate dashes near the suture, 2 shorter ones in the middle of the disc, 2 still smaller near the margin above the middle, and 1 small one near the apex. The dashes are not placed regularly, but the 3 near the base form a sort of fascia, as do the 3 below the middle. The scutellum is pitchy black. Length 6 mm."

Probably a color phase of *E. eganus*.

## **45.** Epopterus ephippiger Gorham Fig. 54

Epopterus ephippiger Gorham 1886:160, pl. 17, fig. 8. Holotype ♂, Amazon, Bates (NHML).

Ovate. Pitchy red below and above. Elytra paler than pronotum, with a very large round black spot common to both. Length 6 mm, width 4.5 mm.

I have seen only the holotype of this distinctively marked species.

# 46. Epopterus quechuanus Strohecker, n. sp. Fig. 27, 75

Holotype ♂, Peru: Junin, Tarma, Utcuyacu, 1600-3000 m, III-1948, F. Woytkowski (AMNH). Allotype ♀ with same data except 12.III.1948 (AMNH). Paratypes: 4♀♀, Utcuyacu and Agua Dulce III-1948, Woytkowski (AMNH, FSCA).

Oval. Venter and basal half of femora black, distal sternites, tibiae and ends of femora reddish brown. Dorsum blackish brown, elytron with basal rings and apex yellow. Antenna reddish brown, club but little darker, most of basal antennomeres longer than wide. Pronotal sides weakly convergent from base forward but rather strongly rounded to front angles, hind angles feebly acute, disc finely and somewhat distantly punctate, punctures of sides coarser and denser. Elytra long-cordate, each with a bioculate basal yellow band; apex extensively yellow with 1 or 2 black spots. Length 5 mm, width 3.5 mm.

# 47. Epopterus rubiginosus Gerstaecker Fig. 18

Epopterus rubiginosus Gerstaecker 1858:291. Holotype <sup>Q</sup>, French Guiana: Cayenne (MNHN).

Ovate or somewhat oblong. Reddish brown below and above, thoracic sterna infuscate. Antennal base ferruginous, its articles rather short and thick, club black. Pronotum with disc blackish, a vague black spot in each marginal area, front and hind angles sharp. Length 4.7 mm.

I have seen no other specimens which closely resemble the holotype. Possibly the example here described as *E. bioculatus* is the male of *E. rubiginosus*, but it is larger than the holotype, with elytra more rapidly tapering and differently marked. Series of topotypes will be needed for clarification.

# 48. Epopterus batesi Strohecker Fig. 68

Epopterus batesi Strohecker 1957:268, fig. 24. Holotype °, Amazon (HNHM).

Somewhat broadly ovate. Dorsum blackish brown, elytron with 2 rather narrow crossbands, the anterior at basal quarter and extending from side margin almost to suture, where it is narrowly rounded, the posterior band at caudal quarter of elytron. Length 4.8 mm.

# 49. Epopterus ryei Gorham

Epopterus ryei Gorham 1873:50, pl. fig. 3. Holotype <sup>Q</sup>, Amazons (NHML).

Antennomeres II and V-VIII bead-shaped, base red, club black. Dorsum blackish brown, elytron with 2 sharply defined wide yellow bands. The anterior band embraces the shoulder, is recurved to the base and there emits a broad blunt ray obliquely toward the suture; the posterior border of the band emits 2 short blunt rays. The posterior band, on caudal slope is strongly undulate. Length 5 mm.

# 50. Epopterus quaesitus Gorham Fig. 20

Epopterus quaesitus Gorham 1873:51. Holotype <sup>Q</sup>, Amazons (NHML).

Similar to *E. ryei* but smaller and with antennal base slenderer. The anterior yellow elytral band lies behind umbo and widens mesad to form a broad arc open toward the suture. The posterior band is strongly undulate. Length 4.5 mm.

# 51. Epopterus similis Strohecker

Fig. 4, 5, 63

Epopterus similis Strohecker 1957:265, fig. 13. Holotype °, Amazon sup.: Haituba (HNHM).

Ovate. Light to dark reddish brown, elytron with 2 rounded or somewhat rectangular, black bordered, pale yellow spots. Of these the anterior lies just behind umbo and is distant from suture. The posterior spot is similar to the anterior one in size and shape and lies on posterior slope. Remarks on variation in pattern were made in original description. Specimens from Ecuador and Peru (Loreto; Huanuco) have the basal elytral mark triramous and the posterior mark an undulant band but agree in all structural features, including aedeagus, with the holotype. Length 4.5-5 mm, width 3-3.5 mm.

Peru: Loreto, Pucallpa; Huanuco, Tingo Maria, J.C. Pallister. Ecuador: Pastaza, Ashuara, Rio Macuma 10 km from R. Moronca, B. Malkin (FMNH; FSCA).

In antennnal structure this taxon resembles E. quaesitus, and I am inclined to think that it is a color form of that species.

## 52. Epopterus transversus Strohecker Fig. 56, 59

Epopterus transversus Strohecker 1957:264, fig. 10, A, B. Holotype づ, Bolivia: Cochabamba (HNHM).

Ovate, elytra broadly cordate. Elytron mostly black but with base and apex extensively, suture narrowly yellow. The basal pale area leaves the umbo dark and encloses a large black spot which joins the broad black middle area of elytron. Approximately the posterior quarter of elytron is pale, enclosing 1 or 2 black spots. Length 4.4-4.7 mm, width 2.6-2.8 mm.

# 53. Epopterus nigrocinctus Strohecker Fig. 57

Epopterus nigrocinctus Strohecker 1957:264, fig. 11. Holotype ♂, Amazon (HNHM).

Short-oval, elytra broadly cordate. Dorsum dark brown, elytron with 2 broad, black-bordered yellow bands, one behind umbo, the other on caudal slope. These bands touch the side margin but do not reach the suture. Length 4 mm, width 2.6 mm.

Brazil: Amazonas, Boca Cauaburi, 31.III.1964, J. & B. Bechyné; Titirico, 13.IV, Bechynes; Maturaca 7.IV.1964; Uapes, 23.III.1964, Bechynes (IZAV; FSCA). Venezuela: Amazonas, Cucui, 24.III.1964, Bechynes (IZAV). Colombia: Amazonas, Leticia, 700 ft, 10.XII.1970 and 13.II-2.III.1974, H. & A. Howden (CMNC; FSCA).

#### 54. Epopterus cyclicus Strohecker Fig. 9, 62

*Epopterus cyclicus* Strohecker 1957:268, fig. 25. Holotype Peru: Janjui (HNHM).

Short-oval. Pronotum ferrugineous. Elytron dark brown with 2 large yellow marks, the anterior, just behind shoulder, rectangular with its anteromesal angle narrowly extended along scutellum and reflexed laterad along base; the posterior mark is a ring, narrowly closed along margin. Length 4.2 mm, width 2.9 mm.

Peru: San Martin, Janjui, 1600 ft, 5.XII.1946, J. C. Pallister (AMNH; FSCA).

#### 55. Epopterus callerianus Strohecker, n. sp. Fig. 82

Holotype ♂ and allotype ♀, Ecuador: Pastaza, Ashuara, Rio Macuma 10 km from R. Morona, 300 m, 7-16.VII.1971, B. Malkin (FMNH).

Broadly oval but elytra somewhat long-cordiform. Venter and femoral bases infuscate, tibiae, femoral apices and elytral epipleura ferruginous. Dorsum reddish brown, elytron with biocellate yellow band across base and an undulate pale band across apical slope. Pronotum narrowed from base forward, marginal bead wide and flat, hind angles weakly acute. Length 3.7-4 mm, width 2.5-2.7 mm.

# 56. Epopterus flavolineatus Strohecker Fig. 60

Epopterus flavolineatus Strohecker 1957:266, fig. 16. Holotype ♂, (Brazil?): Amazon (HNHM).

Oval. Elytra broadly cordate. Legs and venter blackish brown. Dorsum brown, elytron with 2 yellow cross bands, the anterior behind umbo, extending from side margin almost to suture, the similar posterior band on caudal slope. The margins of the bands are almost straight. Length 3.5 mm, width 2.5 mm.

Only the small type series has been seen.

# 57. Epopterus flavonotatus Strohecker, n. sp. Fig. 65

Epopterus flavonotatus Pic, inedit.

Epopterus fasciatus: Gerstaecker 1858:288 (not of Fabricius). Holotype ゔ, French Guiana: Cayenne (FSCA ex Janson). Paratypes: Para (ZMHB). Brazil: Belem, XII-1955, G. & B. Frey, 2ゔゔ (GMFT; FSCA); Haituba, 2ゔゔ (HNHM; FSCA). Oval, elytra strongly convex. Some examples, including the Pic specimen apparently have not attained definitive coloration. In these, the dorsum is generally pale brown, elytron with a yellow band across base and curving caudad along scutellum and suture. Behind this band is a diffuse black area enclosing 2 yellow spots transversely placed. Apex yellow and in front of this pale area are 2 rather large rounded yellow spots.

The pattern which I consider the mature one is similar to figure 19. Legs and venter, including elytral epipleura, dark brown. The distal expansion of front tibia of male is rather gradual and moderate. Length 4.3 mm, width 2.8 mm.

#### 58. Epopterus submaculatus Strohecker, n. sp. Fig.87

*Epopterus submaculatus* Pic inedit. Holotype ♂, Bolivia, Pic coll. (MNHN).

Oblong in outline, strongly convex. Legs, antennal base and prosternum yellow; other parts of venter dusky, becoming paler caudad. Pronotum with disc and hind angles black, front angles and sides broadly yellow. Elytron black with a broad transverse yellow band behind umbo, reaching suture and there expanded slightly caudad and forward to scutellum. Distal third of elytron has 2 oval yellow spots transversely placed and behind these a large round yellow spot which leaves apex, suture and side margin narrowly black. Front tibia of male curved at base, distally enlarged with proximal end of enlargement mesally angulate. Length 3.8 mm, width 2.4 mm.

## 59. Epopterus clara Gorham Fig. 51

*Epopterus clara* Gorham 1874:443. Holotype ♀, Amazons (NHML).

Short-oval, convex. Elytra widest in basal third, gently tapering, apex rather sharply rounded. Pronotum and scutellum reddish to dark brown. Elytron brownish yellow with 6 or 7 black markings: a humeral spot which does not reach base and mesad of this and oblique oval spot, 3 patches transversely placed near middle, the lateral spot elongate and close to margin, the middle spot largest and long-oval, the inner spot subquadrate and slightly behind the others, 2 spots on apical slope which may be fused into an arcuate band. Length 3.8-4 mm, width 2.6-2.8 mm.

Brazil: Pará; Rio de Janeiro; São Paulo (FSCA).

# 60. Epopterus mimeticus Strohecker Fig. 64

Epopterus mimeticus Strohecker 1959:181, fig. 5. Holotype °, Amazon (ZMHB).

Short-oval, similar in form to *E. clara*. Elytron yellow with with 2 dark basal flecks and a large black patch at mid-length, which encloses a yellow spot. Length 4 mm, width 2.5 mm.

#### 61. Epopterus dives Gorham Fig. 50

Epopterus dives Gorham 1874:443. Holotype ぐ, Amazons (NHML).

Short-oval. Dorsum brown, elytron with 2 yellow marks, the anterior triramous, the posterior undulate, narrowed mesad and almost reaching suture. The anterior yellow bar extends forward along side margin and internal to umbo, emits a spur to elytral base, thus enclosing a dark humeral spot; from origin of this spur a pale bar deflects obliquely caudad, its end a little enlarged and far from suture. Length 3.5-3.8 mm, width 2.6 mm.

U. Amazon: Yurimaguas (FSCA ex Janson).

62. Epopterus parvus Strohecker, n. sp. Fig. 19, 73

Holotype ♂ and allotype ♀, Brazil: Para (FSCA ex Janson). Paratypes: 5♀♀, Para (FSCA).

Short-oval, elytra cordiform, tapering from anterior third. Venter and legs brown. Antennal base brownish yellow, club black. Dorsum pale to dark brown, elytron with 2 yellow marks: a band at base which leaves a dark humeral spot and encloses an ocellate dark spot near base and scutellum; apical third yellow, enclosing 1 or 2 black spots, the single spot due to fusion of the two. Length 3.5-4 mm, width 2.3-2.8 mm.

# 63. Epopterus histrio Gerstaecker Fig. 17, 52

Epopterus histrio Gerstaecker 1858:292. Lectotype Q, French Guiana: Cayenne (MNHN).

Short-ovate, elytra cordate, widest in basal third. Venter and legs brownish black. Antennal base dark red, club black. Head and pronotum dark brown. Elytron black at sides; center of disc and apex reddish brown. A yellow band encloses a dark humeral spot, turns forward to run along base and is then deflected along scutellum; the hind border of this band emits a sharp ray. The band may form a complete ring mesad to enclose an oval dark spot. Another yellow band of irregular shape crosses the apical third of elytron, its hind edge excised by a black spot. This band may also completely encircle the dark spot. Length 3.6-4 mm, width 2.4-2.8 mm.

French Guiana: Cayenne (FSCA). Brazil: Amapa, Rio Carnot; Serra Lombard, J. & B. Bechyné (IZAV; FSCA); Pará (FSCA).

#### 64. Epopterus pantherinus Gorham Fig. 84

Epopterus pantherinus Gorham 1889:131, pl. 7, fig. 22. Lectotype Q, Type/ sp. figured/ David, Chiriqui, Champion/ B. C. A., Col. VII/ Epopterus pantherinus Gorh. (NHML).

Oblong-ovate, strongly convex. Antenna black, antennomeres I-II reddish. Tibial base and scutellum black. Pronotum reddish brown, front margin, basal half of side margin and base narrowly black. Elytron with pale markings as follows: a broadly triramous band covering most of basal third, 2 transversely placed median spots which may be united, 2 spots on apical slope and 1 at apex. These pale areas cover most of elytron, leaving darker areas quite narrow. Length 5.25-6 mm.

I have recently examined a pair from Barro Colorado Island sent by Henk Wolda.

#### Genus Anidrytus Gerstaecker

- Gerstaecker 1858:256; Chapuis 1876:122; Gorham 1889:125; Strohecker 1953:64.
- Type species: Anidrytus bipunctatus Gerstaecker (Strohecker 1953:64).

Specimens of most species are 5.5-9 mm long. In several species, however (Nos. 74-84, 95), length may be less than 5 mm. Coloration more somber than in *Epopterus*, often entirely brown or black with paler color when present confined to sides and apex of elytron. Rarely a pale sutural stripe is present. *Anidrytus variegatus* (Guérin-Méneville) of southern Brazil is, as its name indicates, strikingly bicolored, while *A. decoratus* Arrow and *A. humerosus* n.sp. may have elytral base extensively yellow or reddish. A puzzling maculate specimen is noted under *A. porcus* Strohecker. Body outline is broadly ovate to oblong or even long parallel.

No illustrations are presented for A. nitidularius Gerstaecker, A. hilaris Gerstaecker, A. championi (Gorham), A. quadripunctatus Gorham, A. marginatus (Fabricius), and 4 species described by Guérin-Méneville under Epipocus but were transferred to Anidrytus by Csiki or me: A. juvencus, A. cinctipennis, A. fuliginosus, and A. spadiceus.

#### 65. Anidrytus bipunctatus Gerstaecker Fig. 92

Anidrytus bipunctatus Gerstaecker 1858:257. Lectotype °, Brazil (MNHN); paralectotype, Brazil (ZMHB).

Long-ovate, bright to dark rust-red with yellow pubescence; spinasternum, meso- and metasternum, basal half of tibiae and base of middle and hind femora blackish brown. Antennomeres I-II red, the others black. Length 9-9.5 mm.

Pronotum more than 2X as wide as long, narrowed from base forward, front angles short and rounded, hind angles weakly acute, disc with 2 dark flecks, irregularly punctate. Elytra elongate, wider at base than pronotum, gradually widened in anterior third then gradually convergent distad. I have seen only the types.

## 66. Anidrytus plagiatus Gerstaecker Fig. 93

Anidrytus plagiatus Gerstaecker 1858:259. Holotype ♂, French Guiana: Cayenne (MNHN).

Form oval, elytra rather strongly convex. Venter and legs rust-red. Antennomeres I-V red, the others black. Pronotum 2.5X as wide as long, disc with rectangular black patch, sides subparallel basad, abruptly rounded in front, front angles short, hind angles produced and acute. Length 6.5 mm.

Front tibia of male with inner edge widely excavate beyond middle, then abruptly widened.

# 67. Anidrytus nimbiferus Strohecker, n. sp. Fig. 94

Holotype ♂, Colombia: Amazonas, Leticia, 700 ft, 11.VII.1970, H. & A. Howden (CMNC); paratype ♂, Brazil; Amazonas, Bates (NHML).

Long-oval, elytra rather strongly convex. Venter, legs, head and antennomeres I-II rust-red, antennomeres III-XI shining black. Pronotum with rectangular black patch at middle, sides broadly, front margin narrowly red. Elytra black with base, including scutellum, side margin and apex red. Sides of pronotum convergent from base forward, front angles prominent and weakly acute, hind angles produced and decidedly acute, lateral sulci linear with fovea at base. Elytra more than 3X as long as pronotum (mid-line) and as wide at base, slightly widened to midlength then gradually convergent caudad. Front tibia of male as in A. plagiatus. Length 8.3 mm, width 4.9 mm.

# 68. Anidrytus variegatus (Guérin-Méneville) Fig. 134

- E(pipocus) variegatus Guérin-Méneville 1857:266, pl.
   13, fig. 19. Holotype ? ?, Brazil; repository unknown.
- Anidrytus singularis Gerstaecker 1858:260. Holotype °, Brazil (MNHN); Csiki 1901:35 (syn.).

Short-oval, elytra cordiform, convex. Pronotum narrowed from base forward, reddish yellow with 3 discal spots and basal half of marginal bead black. Elytra blackish brown with 2 large pale markings: the anterior a broad undulant band behind umbo, the posterior a large triangular, patch near apex. These marks may be connected by a pale band close to suture. Length 6 mm.

The type of *A. singularis* is callow, so soft that the aedeagus could not be extracted. Rio de Janeiro,  $\sigma$ ,  $2 \circ \circ$  (NHML).

#### 69. Anidrytus nitidularius Gerstaecker

Anidrytus nitidularius Gerstaecker 1858:262. Holotype (sex ?), Mexico, presumably in Dohrn coll. (ZMPA).

Short, oval. Blackish brown, antennomeres I-V, front angles of pronotum, elytral apex, venter and legs red. Length 6 mm.

Antennomeres III-IV equal, antennomeres VII-VIII globular. Pronotum rather narrow, hardly 2X as wide as long, sides subparallel basad. Elytra widest in basal third, thence gradually convergent. Last abdominal sternite deeply semicircularly excised. I have not recognized this species in the material studied.

#### 70. Anidrytus contractus Gerstaecker Fig. 97

Anidrytus contractus Gerstaecker 1858:263. Holotype , Costa Rica (ZMHB 21818).

Anidrytus dolosus Gorham 1889:127, pl. 7, fig. 18. Lectotype and 5 paralectotypes, Panama: Volcan de Chiriqui, Champion (NHML). New synonym.

Short-oval, strongly convex. Brown to blackish brown, antennomeres I-V or I-VI reddish. Notable features of the species are the short broad form and the very deep lateral sulci of pronotum. Length 5.7-6 mm, width 4-4.2 mm.

Costa Rica: Turrialba, A. Heyne (ZMHB; FSCA), Panama: Barro Colorado Island (CASC; FMNH).

# 71. Anidrytus ovatulus Gerstaecker Fig. 98

Anidrytus ovatulus Gerstaecker 1858:262. Lectotype ♂, Colombia (ZMHB).

Oval, strongly convex. Rather dark brown, antennomeres III-XI black, elytral epipleura and tibiae yellowish brown. Similar to *A. contractus* but of somewhat longer form. Length 6 mm, width 3.9 mm.

Venezuela: Maracay, P. Vogl (ZMHB; FSCA).

# 72. Anidrytus parki Strohecker, n. sp.

Fig. 133

Holotype ♂ and allotype ♀, Panama: Barro Colorado Island, 28.VII.1973, O. Park (FMNH).

Oval. Largely rust-red, the distal antennomeres darker but not black. Antenna stout, antennomere III less than 2x as long as wide, antennomeres IV-V subequal to III, antennomeres VI-VIII each about as wide as long. Pronotum with sides parallel basad, well rounded to front angles, hind angles rectangular, disc very finely punctate, punctures at sides closer and denser. Lateral sulci not quite reaching middle. Elytra not quite as long as pronotum, rather strongly convex, widest before middle and gradually narrowed caudad, reddish black in holotype with umbo, side margins and apex red; allotype black above, sides of pronotum, elytral umbo, side margins narrowly and apex red. Length 6-6.5 mm, width 3.7 mm.

Front tibia of male has angulate flange on inner edge.

#### 73. Anidrytus porcus Strohecker Fig. 129

Anidrytus porcus Strohecker 1957:269, fig. 28. Holotype ぐ, Amazon (HNHM).

Short-oval strongly convex, sides of elytra much rounded. Elytral disc dark brown, base and sides reddish brown. Pronotum and antennomeres I-VII reddish brown. In male front tibia is distally widened and bidentate, hind tibia with a short sharp tooth on inner edge near apex. Length 5.7 mm, width 3.8 mm.

Colombia: Amazonas, Leticia, 700 ft, 19-25.II.1972, H. & A. Howden. One male of this series is smaller (5 mm) and has dorsum reddish brown, elytron with 2 large, black-bordered, transversely oval yellow bands, but is structurely identical, including aedeagus, with typical specimens.

# 74. Anidrytus unicolor Kirsch

Fig. 128

Anidrytus unicolor Kirsch 1876:111. Holotype 9, Peru (SMTD).

Kirsch has described the type as follows: shortovate, moderately convex, pubescence yellowish gray, dorsum and antenna light brown, front of head, side margin of elytra and venter dull yellow, metasternum and femora brownish. Pronotum with sides parallel from base to beyond middle then strongly rounded to front angles. Elytra hardly wider at base than pronotum, widened in basal third, thence gradually narrowing. Length 4 mm, width 2.5 mm.

Two pairs from Peru (Dept. Huanuco) conform well to Kirsch's diagnosis except for color; the type is probably immature. In these 4 examples the dorsum is dark brown with marginal area of elytra yellowish brown and antennal club is black. Front tibia of male curved, gradually enlarged to apex, hind tibia clavately widened with low broad tooth at distal third of inner edge. Length 4.2-4.7 mm, width 2.7-3 mm (AMNH; FSCA).

#### 75. Anidrytus glaber Kirsch Fig. 125

Andrytus glaber Kirsch 1876:113. Lectotype  $\heartsuit$  with type label, Peru (SMTD). Two pairs (SMTD) are probably syntypes (paralectotypes).

Short-oblong, dark reddish brown, antennomeres black VI-XI. Front tibia of male widened to apex. Length 3.8-4 mm, width 2.8 mm.

Peru: Marcapata (FSCA).

# 76. Anidrytus consobrinus Strohecker Fig. 126

Anidrytus consobrinus Strohecker 1957:270, fig. 32. Holotype J, Amazon (HNHM).

Short-oblong. Dark reddish brown below and above, antennomeres VII-XI black. Front tibia of male gradually widened distad, with a small sharp tooth at distal third. Length 4.5 mm, width 3 mm.

Brazil: Mission Cauaburi am Kanal Maturaca, 24.II-4.III. 1964; Uaupes, Rio Negro, 18.I-3.II. 1964, C. Lindemann (ZSMC).

# 77. Anidrytus helvolus Gerstaecker Fig. 119

Anidrytus helvolus Gerstaecker 1858:272. Lectotype °, Venezuela: Orinoco (ZMHB).

Ephebus ignobilis Gorham 1875:17. New synonym. Holotype 9, French Guiana: Cayenne (NHML). Short-oblong. Ferruginous to dark brown below and above, antennomeres I-V or I-VI rufous, the others black. In some examples of lighter color (less mature) the entire antennal base may be pale. Front tibia of male gradually widened to apex, hind tibia enlarged and somewhat flattened in distal half. Length 4.5-5 mm, width 2.9-3.3 mm.

I have examined many specimens from Venezuela, Surinam, Guyana.

## 78. Anidrytus concolor Kirsch Fig. 120

Anidrytus concolor Kirsch 1876:112. Holotype 9, Peru (SMTD).

Exceedingly similar to A. helvolus, so similar that I have considered the placement of the name concolor in synonymy. The slight difference in aedeagi, however, seems to be consistent.

I have examined many examples from Peru, Ecuador, Colombia (Putomayo) and Brazil (Igarapé).

#### 79. Anidrytus gerstaeckeri Kirsch Fig. 130

Anidrytus gerstaeckeri Kirsch 1876:112. Holotype  $\Im$ , Peru (SMTD).

Short-ovate. Reddish to dark browm. Antenna rather short, antennomeres I-V red, antennomeres VI-XI black. Front tibia of male curved, gradually enlarged to tip. Length 3.7 mm, width 2.5 mm.

Structurally similar, including aedeagus, to *Epopterus dives*, but lacks the elytral markings of that species.

#### 80. Anidrytus tenuipes Strohecker Fig. 127

Anidrytus tenuipes Strohecker 1957:271, fig. 33. Holotype ♂, Bolivia: Cochabamba (HNHM).

Oblong, rather narrow. Dark ferruginous with sparse brassy pubescence, antennomeres VII-XI black. Front tibia of male enlarged distad, somewhat knob-shaped at apex, hind tibia long (1.2 mm) and slender. Length 4.8 mm, width 2.7 mm.

Amazon sup.: Haituba (HNHM; FSCA).

# 81. Anidrytus fuscus Arrow Fig. 123

Anidrytus fuscus Arrow 1920:47. Lectotype  $\sigma$  and 31 paralectotypes, Brazil: Pernambuco (NHML).

"A considerable series of this.... vary in colour from light brown to nearly black, but in fully coloured specimens the five basal joints and the extreme tip of the antennae, the sides of the prothorax, the shoulders and extremities of the elytra, and the legs are reddish and the remaining parts very dark. It is a rather small, short and broad insect, not very convex and rather strongly and closely punctured. Long. 4.5-5 mm." (Arrow).

Front tibia of male slightly dilated toward tip, with an acute tooth at distal third of inner edge.

Some specimens of the type series have the dorsum entirely black. A series taken by Borys Malkin (FMNH) in NE Matto Grosso shows the same range of coloration. In males of this series the apophysis of the aedeagus forms a sharper angle with the shaft than in type examples, but I am reluctant to regard this as a specific differentiation, especially since the Malkin series exhibits some variation in this feature.

#### 82. Anidrytus compactus Strohecker, n. sp. Fig. 124

Holotype ゔ, Peru: Monson Valley, Tingo Maria, 21.X.1924, E. I. Schlinger & E. S. Ross (CASC, holotype no. 13314). Allotype ♀, same data as holotype except 9.XII.54 (CASC). Paratypes: 2♂♂, Tingo Maria, 9.XII.54 (CASC; FSCA);♂, Tingo Maria, 2000 ft. (600 m), 20.X. 1956, J. C. Pallister (AMNH); Colombia: Putomayo, Santa Rosa, headwaters Rio San Miguel, 10-23.X.1970, B. Malkin & P. Buchanan, 2♂♂, 2♀♀ (FMNH; FSCA).

Short-oblong, compact, strongly convex. Venter black, legs dark reddish brown, femoral bases fuscous. Antennomeres I-II dark red, 3-11 black. Dorsum entirely black, finely and closely punctate, pubescence fine and gray. Pronotum with sides strongly rounded to front angles, parallel basad, hind angles rectangular, lateral sulci deep, base strongly sinuate. Elytra widened from base to middle, gradually narrowed caudad, apices abruptly rounded. Length 6 mm, width 4 mm.

#### 83. Anidrytus championi (Gorham)

Systaechea championi Gorham 1889:133, pl. 8, fig. 3. Holotype 9, Panama: Volcan de Chiriqui, Champion (NHML).

Anidrytus championi Arrow 1920:53.

Short-oval, subhemispheric. Venter and legs red. Antennomeres I-V red, VI-XI black. Pronotum narrowed from base to front with little curvature of sides, front and hind angles acute, base bisinuate, disc bluish black at base, sides and front margin red. Elytra highly convex, bluish black with side margins narrowly red. Pubescence long and gray. Length 5.5 mm.

#### 84. Anidrytus gibbosus Strohecker, n. sp. Fig. 121

Holotype ♂, Colombia: Valle del Cauca, 70 km E Buenaventura, 1200 ft, 17.II.1970, H. Howden (CMNC).

Venter, legs, head and antennomeres I-III bright red. Dorsum deep black, marginal bead of pronotum reddish. Pubescence long and gray. Pronotum narrowed from base, sides little curved. Elytra highly convex, broad cordiform. Front tibia of male bowed, widened in distal half. Length 5.8 mm, width 4.2 mm.

This may represent the male sex and mature coloration of A. *championi* but until topotypic males of that species become available I think it better to record it as distinct.

#### 85. Anidrytus pilosus Arrow Fig. 116

Anidrytus pilosus Arrow 1920:47. Lectotype ♂ and a paralectotype ♀, S Brazil: Espirito Santo, Schmidt (NHML).

Form (male) broadly ovate, strongly convex. Dorsum brownish yellow with long pale yellow pubescence. Pronotum with sides gently curved in front, divergent basad, hind angles acute. Elytra broadly cordiform. Length 5.5 mm.

Arrow described the female as narrower than male with the pronotal sides strongly rounded in front and parallel toward base.

#### 86. Anidrytus parallelus Gerstaecker Fig. 117

Anidrytus parallelus Gerstaecker 1858:266. Holotype ♂ (not ♀!), Brazil (ZMHB 21820).

Ephebus depressus Gorham 1875:17. Holotype  $\heartsuit$ , Brazil: Rio de Janeiro (NHML). New synonym.

Anidrytus depressus: Arrow 1920:46.

Elongate-oblong. Dark reddish brown, thoracic sterna and first sternite fuscous, legs rust-red. Antennomeres VIII-X darker than others. Front tibia of male somewhat widened toward apex.

A very good photograph of the holotype of *E*. *depressus* has been compared with the single type of *A*. *parallelus* and shows the two to be much alike. The original descriptions are also very similar. The type of *A*. *parallelus* is 7 mm long, that of *depressus* 6.3 mm.

# 87. Anidrytus stenus Strohecker Fig. 118

Anidrytus stenus Strohecker 1979:716. Holotype ♂, Brazil: Sta. Catarina, Nova Teutonia (MHNG).

Elongate-oblong. Dark brown with gray pubescence, pronotal disc vaguely darker. Antenna slender, antennomeres I-V red, others deep black but tip of antennomere XI pale. Pronotum with sides strongly rounded from middle to front angles, a little convergent basad, hind angles feebly acute or rectangular. Elytra with sides almost exactly parallel from behind umbo to apical third. Front tibia of male evenly and weakly widened distad. Length 7 mm, width 3.4 mm.

The elongate form and bizarre aedeagi of this species and *A. parallelus* indicate divergence of generic rank.

# 88. Anidrytus atratulus Gerstaecker Fig. 122

Anidrytus atratulus Gerstaecker 1858:273. Holotype ♀, S Brazil (ZMHB 21824).

Oblong, subparallel. Deep black above with brown pubescence, elytral shoulder and apex dark red, surface coarsely and densely punctate. Length 5 mm.

A specimen with label "Braz." (FSCA ex Janson) agrees well with the holotype. This male specimen also carries the notation by Gorham "n. sp.? n.? fallaciosus Gorh."

89. Anidrytus hilaris Gerstaecker Anidrytus hilaris Gerstaecker 1858:271. Holotype ♀, S Brazil Zello (ZMHB 21822).

Oblong, subparallel. Antennomeres IV-XI shining black, the insect otherwise shining rust-red, dorsum with yellow pubescence. Length 5 mm.

I have seen no additional examples.

# 90. Anidrytus lugubris Gerstaecker Fig. 104

Anidrytus lugubris Gerstaecker 1858:270. Lectotype ♀, Colombia (ZMHB 21821). Paralectotypes:♀, Colombia (ZMHB);♀, Colombia (NHML).

Broadly oblong, subparallel but elytra rather abruptly rounded to apex. Deep black with antennomeres I-V, elytral epipleura and lower face of tibiae brownish yellow; tips of middle and hind femora pale yellow. Length 5.2-6 mm, width 3.4-3.6 mm. A male in the Janson material (FSCA) agrees well with the lectotype and has Gorham's label "lugubris". Another male is structurally identical to the first but has elytral umbo and apex reddish yellow. Front tibia with distal third dilated, flattened and pubescent beneath.

# **91.** Anidrytus ephippium Gerstaecker Fig. 103

- Anidrytus ephippium Gerstaecker 1858:264. Holotype ♀, Surinam: Paramaribo, presumably in Dohrn coll. (ZMPA).
- Anidrytus fallaciosus Gorham 1873:47. Holotype ♀, French Guiana: Cayenne (NHML); Arrow 1920:47 (syn.).

Oblong, subparallel. Prosternum, elytral epipleura and legs brownish yellow, meso- and metasternum fuscous. Antennomeres I-V, head, sides of pronotum and scutellum rust-red. Elytra black, shoulder, side margin narrowly at apex extensively red. Front tibia of male clavately widened to tip, with a slight angulation of inner edge near apex. Length 6-6.5 mm.

A pair from Cayenne, det. Gorham (NHML);, Cayenne, det. Gorham (FSCA ex Janson).

92. Anidrytus marginatus (Fabricius)
Endomychus marginatus Fabricius 1801:504. Holotype
\$\varphi\$, Am(erica) mer(idionalis), Schmid (ZMUC).

Oblong, subparallel. Under surface, legs and elytral epipleura rufous, metasternum darker. Head and antennomeres I-VII dark red, antennomeres VIII-XI black, antennomere XI apex reddish, antennomeres IX-X strongly transverse and mesally acuminate. Pronotum with sides parallel basad, strongly rounded in front, hind angles feebly acute, disc weakly convex, finely and densely punctate, black, sides and front angles rufous. Elytra about 3X as long as pronotum, moderately convex, finely and thickly punctate, black with umbo, side margin narrowly and apex extensively rufous. Length 6.3 mm, width 3.6 mm.

I have seen no other specimens which agree entirely with the holotype, which resembles *A*. *ephippium* closely but differs markedly in structure of antennal club.

# 93. Anidrytus cinctipennis (Guérin-Méneville)

E(pipocus) cinctipennis Guérin-Méneville 1857:267.
 Holotype, sex ?, French Guiana: Cayenne, coll. Dejean; repository unknown.

Described by Guérin as black, oval, rather shining. Head, sides of pronotum and elytra above and below, basal half of antenna, and legs tawny yellow. Pronotum and elytra punctate, tomentose. Length 6 mm, width 3.5 mm.

The name *E. cinctipennis* was treated as a synonym of *A. marginatus* by Gerstaecker. Perhaps it should be used for the species described by Gerstaecker as *A. ephippium* but lack of a type and the brevity of Guérin's diagnosis make me unwilling to indicate such synonymy.

# 94. Anidrytus circumcinctus Strohecker, n. sp. Fig. 106

Holotype ♂, Guatemala: Sac., Reunion, 4000 ft, 22.VIII.1947, C. & P. Vaurie (AMNH).

Oblong, subparallel. Venter and legs rust-red. Head, antennomeres I-VI and sides of pronotum red, pronotal disc black. Elytron black with base, umbo, side margin, apex and suture red. Antenna stout, antennomeres II-IV somewhat elongate, subequal, antennomeres V-VIII hardly longer than wide. Pronotum with sides parallel in basal half, strongly rounded in front, hind angles rectangular, lateral sulci foveately wider at base. Elytra nearly 4X as long as pronotum, slightly widened from base in anterior third, then parallel for much of their length, apical rounding rather abrupt. Front tibia of male clavately widened distad, without distinct tooth. Length 5.5 mm, width 3.3 mm.

# 95. Anidrytus bechyneorum Strohecker, n. sp. Fig. 107

Holotype ♂, Venezuela: Aragua, El Limon, 450 m, 6.V.1962, F. Fernandez. Allotype ♀, same data as holotype (IZAV). Paratypes: 4♂♂ with same data as holotype; El Limon, 450 m, 25.V.1977, J. Clavijo, ♀; 25 and 27.V.1965, 2♀♀, Fernandez; 22.VII.1971,♀, Fernandez; Barinas, Reserva Forestal Caparo-Camp Cachicamos, 100 m,♂♀, J. Salcedo, F. Zambrano; Portuguesa Est. Exp. San Nicolas, 56 km de Guanare, 180 m, 1-2.IV.1968,♂, C. J. Rosales.

Small for the genus, outline subparallel. Antenna black, tip of last joint rufescent, antennomere III slightly more than 2X as long as wide, antennomeres IV-V each longer than wide, antennomeres VI-VIII quadrate. Pronotum not quite 2X as wide as long (mid-line), front angles rounded, sides feebly rounded and weakly convergent to base, hind angles rectangular, lateral sulci long and deep, disc black, strongly and rather densely punctate, sides red, rather rugosely punctate, red coloration expanded at front angles. Elytra more than 3X as long as pronotum, gradually and evenly widened to midlength, and similarly narrowed caudad, apex abruptly rounded; base, sides and apex red, disc black, densely punctured and with short tawny pubescence. Venter red, sternite 1 and legs reddish black. Front tibia of male thickened distad but without tooth; a small sixth sternite is visible. Length 4.5 mm, width 2.5 mm.

Unusual among the smaller forms of the genus in its contrasting coloration.

#### 96. Anidrytus batesi Strohecker, n. sp. Fig. 105

Holotype ්, Brazil: Ega (NHML). Paratypes: ්, Amazon, Bates (NHML); ්, Amazon (FSCA ex Janson).

Broadly oblong, moderately convex. Venter reddish black, legs and elvtral epipleura rufous. Dorsum black, sides of pronotum vaguely reddish, side margins and apex of elytra red, surface finely and densely punctate, pubescence coppery. Antenna rather slender, red at base, black beyond, antennomeres III-IV subequal, antennomeres V-VIII secularly shorter, antennomere IX sharply acuminate internally but its medial side is equal to its distal width. Pronotum strongly transverse, sides parallel basad, much rounded in front. Elytra with sides subparallel but continuous ly curved, apical rounding rather blunt. Front tibia of male curved at base, much widened near tip with low angulate tooth below; hind tibia broadly curved. Length 6.5-7 mm, width 4.5 mm.

#### 97. Anidrytus amazonicus Gorham Fig. 101

Anidrytus amazonicus Gorham 1873:46, pl. fig. 8. Holotype 9, Brazil: Amazonas, Bates (NHML).

Broadly oblong, subparallel but elytra with sides continuously curved, rather bluntly rounded to apex. Venter and legs red, hind coxae darker. Antennal base red, club black. Pronotum red, sides parallel basad, much rounded in front. Scutellum red. Elytra black with umbo and apex red; side margin may be narrowly red. Front tibia of male angulately widened near apex, with small tooth below. Length (male) 7.8 mm, width 4.8 mm.

Brazil: Fonte Boa, Bates, ♂ (NHML).

## **98.** Anidrytus cupreatus Strohecker Fig. 102

Anidrytus cupreatus Strohecker 1957:269, fig. 29. Holotype ぐ, Amazon sup. (HNHM).

Very similar in structure to *A. amazonicus* but of somewhat narrower, more parallel form. Antennomeres I-III rufous, others black. Body and legs ferruginous with coppery pubescence above. Front tibia of male angulately dilated near apex with small tooth below, middle tibia with row of stout setae on inner edge, hind tibia curved. Length 7-7.4 mm, width 4.2-4.4 mm.

Peru: Estiron, Rio Ampiacu, 15-22.V.1966, B. Malkin, ♂ (FMNH).

#### **99.** Anidrytus nigricans (Guérin-Méneville) Fig. 99

- *E(pipocus) nigricans* Guérin-Méneville 1857:265. Holotype (sex ?), Brazil, Dejean coll.; repository unknown.
- Anidrytus nigricans Gerstaecker 1858:267. Holotype ♀, Brazil (MNHN).

Although Guérin's description is too brief for usefulness, Csiki (1901:35) attributed the species name to him. According to Gerstaecker's diagnosis the species is oblong but with elytra somewhat attenuate caudad. Venter brown, legs and elytral epipleura rust-red. Antennomeres I-IV red, antennomeres V-XI black. Dorsum black, elytral tips reddish. Length 6.7 mm.

As I have identified it on the basis of aedeagus, this species varies in size, color and to some extent in elytral outline. Some specimens, evidently callow, have sides of pronotum, base, side margin and apex of elytra ferruginous. Other specimens are entirely deep black above, while others from Paraguay are black with elytral umbo and apex dark red. Length 5.5-6.8 mm, width 3.5-4 mm.

Brazil: Rio de Janeiro, various collections; São Paulo; Corumba (FSCA). Paraguay: San Pedro, Corumbe, R. Golbach (IMLA; FSCA); way between Asuncion and Puerto P. Stroessner, Mahunka (HNHM; FSCA). Argentina: Jujuy, Tierras de Lambrisca, F. Monrós (IMLA); Salta, Tartaga, Golbach (IMLA); Cotomayo, Golbach (IMLA; FSCA).

# 100. Anidrytus kirschi Strohecker Fig. 100

# Anidrytus kirschi Strohecker 1957:269, fig. 30. Holotype °, Peru (HNHM).

Oblong, subparallel. Dark ferruginous below and above. Antennomeres I-II red, others black, except pale apex of antennomere XI. Front tibia of male angulately expanded near apex, with small tooth below. Length 6.5-7.4 mm, width 4-4.3 mm.

Peru: Huanuco, Terma, Utcuyacu, 18.III.1948, F. Woytkowski, S, 399 (AMNH; FSCA); Divisoria, 27.IX.1946, Woytkowski, (AMNH; FSCA).

#### 101. Anidrytus liquefactus Gorham Fig. 95

Anidrytus liquefactus Gorham 1873:47. Holotype °, Colombia (NHML).

Oblong, elytra obovate, dark ferruginous, shining, antennomeres I-IV rufous, others black. Pronotum 2X as wide as long, sides parallel basad, strongly rounded in front. Elytra 1.5X as wide as pronotum, evenly rounded from shoulder to apex, strongly but not very thickly punctate and with depressed gray pubescence. All tibiae of male bent, front ones angulately widened near apex. Length 7-7.6 mm.

Panama: Bugaba, Champion, ° (NHML). Colombia: Muzo, ° (ZMHB).

## 102. Anidrytus mexicanus Strohecker, n. sp. Fig. 96

Holotype ♂ Mexico: Chiapas, San Quintin, 700 ft, rain forest, 5-20.II. 1966, G. F. Baker & D. R. Whitehead (FSCA).

Entirely similar to *A. liquefactus* except in some features of the aedeagus and in having antennomeres I-V rufous. It may only be a color form of *A. liquefactus*. Length 7.7 mm, width 4.5 mm.

#### 103. Anidrytus juvencus (Guérin-Méneville)

E(pipocus) juvencus Guérin-Méneville 1857:266. Evidently described from 2 or more examples from Colombia in coll. Dejean. Location unknown.

Anidrytus juvencus: Csiki 1901:35.

Tawny yellow, venter and legs paler. Antenna black with antennomeres I-III yellow. Middle of pronotum and scutellum dusky. Dorsum finely punctate, with yellowish pubescence. Length 6-8 mm, width 4-4.5 mm. See No. 104.

# 104. Anidrytus angustulus Gerstaecker Fig. 89

Anidrytus angustulus Gerstaecker 1858:269. Holotype °, Colombia (NHML); Arrow 1920:45.

Anidrytus bisignatus Gerstaecker 1858:268. Holotype °, Colombia (NHML).

Broadly oblong, moderately convex. Rust-red, sides of pronotum paler, its disc with 2 black spots

at anterior end of lateral sulci, finely and rather sparsely punctate. Antenna black, antennomere I rufous. Elytra a little wider at base than pronotum, widened in basal third, thence subparallel, rather bluntly rounded to apex. Length 5.6-7.5 mm.

Csiki (1901:35) placed A. bisignatus in synonymy under A. juvencus, probably on the basis of a remark by Gerstaecker. Arrow (1920) suggested the conspecificity of A. bisignatus and A. angustulus and my study of the types supports his observation. Although I damaged the aedeagus of A. bisignatus in extracting it, I have no doubts about the structural identity of the 2 holotypes.

# 105. Anidrytus trinitatis Strohecker, n. sp. Fig. 90

Holotype J, W. I.; Trinidad, Morne Bleu, 2700 ft. (830 m) 6.VIII.1969, H. & A. Howden (CMNC). Paratypes: J, Venezuela: Barinas, Reserva Forestal Ticoporo, 230 m, 22-28.V.1968, M. Gelber & J. Salcedo (IZAV); J, Carabobo, Hac. Montera Montalban, 1300 m, 18.IX.1968, J. & B. Bechyné (FSCA).

Broadly oblong, moderately convex. Venter dark brown, legs and elytral epipleura reddish brown. Antenna black, antennomere I red. Dorsum reddish brown with short, oblique coppery pubescence. Pronotum with sides parallel basad, well rounded to front angles, hind angles rectangular, lateral sulci linear, reaching middle of disc, which is but little elevated, finely punctate, with a small black spot at front end of each sulcus. Elytra about 3X as long as pronotum, sides subparallel but continuosly rounded and rather abruptly convergent to apex. Length 8.2 mm, width 4.9 mm.

Very similar in all features to *A. angustulus*, of which it may yet prove to be a subspecies.

#### **106.** Anidrytus guatemalae Arrow Fig. 91

Anidrytus guatemalae Arrow 1920:46. Holotype °, Guatemala: San Joachin (NHML).

Anidrytus liquefactus (in part) Gorham 1889:126. Anidrytus ? sp. Gorham 1889:128.

Long-oblong, elytra about 4X as long as pronotum. Rust-red, antennomeres VI-XI black. Gorham noted the type specimen as having disc of pronotum infuscate but this may be an artifact. Length 8 mm, width 4.5 mm.

Honduras: Morazon, ridge below La Manzanita and C. Uyuca, 5 km SW Suyapa, 5400 ft (1660 m), slab pile, 5.VIII.1948, T. H. Hubbell, 2 of (MMZ; FSCA). Guatemala: Zacapa, Sierra de las Minas, 5500 ft (1760 m), on fungus, A. D. Mitchell,  $\sigma$ ,  $2 \circ \circ$  (FMNH).

# 107. Anidrytus quadripunctatus Gorham

Anidrytus quadripunctatus Gorham 1886:159. Holotype Ŷ, Brazil: Sta. Catarina, Blumenau, probably in Oberthür coll. (MNHN); location not confirmed.

Oblong or somewhat ovate. Venter red, legs red with bases of tibiae slightly infuscate. Antenna with first 4 or 5 antennomeres rufous, the others black. Dorsum rust-red with coppery pubescence, pronotum with 4 rather large round black spots, one just medial to front end of each lateral sulcus, the others lateral to and a little in front of discal pair. Length 7.5-8 mm, width 4.3 mm.

I have seen no males. Brazil: Parana, Caviuna, VI. 1944, A. Mueller, 2 9 9 (AMNH; FSCA).

# 108. Anidrytus major Strohecker, n. sp. Fig. 88

Holotype J, Brazil (NHML).

Long-oblong, subparallel, elytra rather strongly convex. Venter black, legs and elytral epipleura rufous, femoral bases dusky. Antenna slender, all basal antennomeres longer than wide, antennomere IX longer than wide, its medio-distal angle somewhat acute but short; antennomeres I-VI rufous, others black. Head rufous. Pronotum 2X as wide as long, red with rectangular black patch between lateral sulci, which are long and rather wide, roundly expanded at base; punctation of disc rather open, that of sides dense; sides parallel toward base, well rounded to front angles. Scutellum black. Elytra more than 3X as long as pronotum, black, with base, side margin and apex red, finely and densely punctate. Front tibia of male enlarged distad, with small tooth below. Length 8 mm, width 4.6 mm.

# 109. Anidrytus humilis Gorham Fig. 111

Anidrytus humilis Gorham 1873:48. Lectotype ♂ and paralectotype ♀, Nicaragua: Chontales, Janson (NHML).

Oblong, subparallel, moderately convex, Reddish black with golden pubescence. Antennomeres I-V red, others black. Pronotum 2X as wide as long, "narrowed from base to middle, and thence more suddenly to the apical angles; hind angles acute...." Elytra subparallel for two thirds their length, gradually narrowed to apex. Front tibia of male with small tooth at distal quarter. Length 7.5 mm.

## 110. Anidrytus decoratus Arrow Fig. 112

Anidrytus depressus Gorham 1889:128. Holotype o', Guatemala: El Tumbador, Champion (NHML). Not of Gorham 1875.

Anidrytus decoratus Arrow 1920:46 (nomen nov.).

Structurally similar, including aedeagus, to *A. humilis*. Dorsum black, front angles of pronotum, base and apex of elytra reddish orange. The pale area of pronotum extends obliquely basad to reach hind angles. The pale areas of elytra are extensive, that of base encloses a large black spot. Length 7.5 mm, width 4.2 mm.

Guatemala: Zapate, Escuintla, 8.VII. 1948, R. D. Mitchell, ♀(FMNH); Moca, 31.VIII. 1947, C. & P. Vaurie, 2♀♀(AMNH; FSCA).; label indecipherable, ♂ (SMTD).

#### 111. Anidrytus humeralis Arrow Fig. 110

Anidrytus humeralis Arrow 1920:47. Lectotype ♂, Equador, Buckley (NHML). Paralectotypes; ♂, Equador, Buckley; ♀, Equador, Macas, Buckley; ♀, Colombia; ♀, Peru (NHML). A syntype ♂ is referable to the species next described.

Broadly oblong, subparallel. Venter ferruginous. Antenna rather stout, antennomere VIII short, transverse, antennomeres IX-X strongly transverse and medially acuminate, antennomeres I-V rufous, the others black. Pronotum black, sides reddish. Elytra black, umbo and apex rufous. Front tibia of male widened distad, with a very small tooth before apex. Length 5.5-7 mm, width 3-4 mm.

Peru: Loreto, Estiron, Rio Ampiyacu, 13.XI-9.XII.1961, B. Malkin, °(FMNH).

Very similar to A. marginatus (Fabr.).

# 112. Anidrytus humerosus Strohecker, n. sp. Fig. 113

Holotype ♂ and allotype ♥, Peru: Loreto, Estiron, Rio Ampiyacu, 13.XI-9.XII.1961, B. Malkin (FMNH). Paratypes: 3♂♂, 3♥♥ with same data as holotype; 2♂♂, Loreto, 20 km from Ucayali on Rio Calleria, Colonia Calleria, 10.IX-15.X.1961, B. Malkin (FMNH; FSCA);♂, Peru (NHML). Bolivia: Coroico, ♂♥ (FSCA).

Oblong, subparallel. Venter and legs brown. Dorsum black with head, front angles of pronotum, elytral umbo amd apex red; pubescence fine, gray, recumbent. Antennomeres I-V dark red, others black, antennomeres VII-VIII each longer than wide, antennomeres IX-X strongly transverse, medially acuminate. In the specimens from Coroico the elytral base is broadly red, enclosing a large black spot. Length 5.7-7.2 mm, width 3.5-4 mm.

In all features, including aedeagus, this species is similar to *A. humeralis. Anidrytus humerosus* is slightly more elongate and antennomere VIII is not subglobose as in *A. humeralis* and *A. marginatus*.

# 113. Anidrytus arrowi Strohecker Fig. 109

Anidrytus arrowi Strohecker 1957:269, fig. 31a. Holotype °, Brazil: Espirito Santo, Staudinger (HNHM).

Oblong, subparallel, moderately convex. Upper surface ferruginous, disc of pronotum and elytra vaguely infuscate. Antennomeres I-V rufous, others black. Length 6.1 mm, width 3.3. mm.

#### 114. Anidrytus latus (Chevrolat) Fig. 108

Lycoperdina lata Chevrolat 1844:317, pl. 50, fig. 11. Anidrytus latus: Gerstaecker 1858:265.

I have seen no type material and my determination of the species is based on the Gerstaecker "type".

Rather narrowly oblong and but moderatly convex. Reddish brown, sides of pronotum, elytral apex, legs and venter rufous, meso- and metasternum darker. Dorsum with short, rather sparse coppery pubescence. Antenna fairly stout, antennomeres VI-VIII subglobose, antennomeres I-V rufous, others black. Pronotum with sides strongly rounded to the short front angles, parallel basad to the rectangular hind angles, lateral sulci wide, rather short. Front tibia of male gradually widened from base, with an angular expansion at apical third, hind tibia incurved at apex. Length 6-7 mm, width 3.1-3.6 mm.

A male from Rio de Janeiro (FSCA) conforms closely to the Gerstaecker "type" but has entire prothorax, meso- and metasternum and first sternite quite black, legs and elytral epipleura rufous.

#### 115. Anidrytus pardalinis Strohecker Fig. 131

Anidrytus pardalinus Strohecker 1943:388, fig. 12f, g. Holotype ♂, Costa Rica, F. Nevermann (USNM 55888). Oblong or somewhat oval, rather strongly convex. General color deep rust-red, dorsum with short, declivent, coppery pubescence. Pronotum with 2 large quadrate black patches on base. Elytra with base, most of suture and 2 round spots black, the anterior spot near mid-length, the posterior spot smaller and on apical slope. Front tibia of male gradually widened in distal half, with a sharp tooth on inner edge. Length 8 mm, width 4 mm.

### 116. Anidrytus grandis Strohecker, n. sp. Fig. 132

Holotype °, French Guiana: Cayenne, with Gorham's label A. marginatus (FSCA ex Janson).

Long-oval, rather strongly convex. Meso- and metasternum and first 2 sternites black; other parts of venter, including legs and epipleura rufous. Dorsum black with sides of pronotum broadly, elytral base, side margin and apex narrowly red. Antennomeres III-V subequal, each hardly 2X as long as wide, antennomeres VI-VIII similar to each other, slightly shorter than antennomere IV, antennomere IX about as wide at apex as long, its mediodistal angle very short. Pronotum relatively small, 2X as wide as long, sides parallel basad, rounded to obtuse front angles, marginal bead rather wide in front, evanescent at rectangular hind angles, lateral sulci long and wide, slightly convergent. Elytra 4X as long as pronotum, widened from base in anterior third, thence gradually narrowed caudad, densely and subrugosely. Length 8 mm, width 4.7 mm.

# 117. Anidrytus cardisoma Strohecker, n. sp. Fig. 114

Holotype ♂, Bolivia: Coroico (FSCA).

Oval, moderately convex, elytra weakly flattened. Sides of pronotum, elytral epipleura, legs and distal sternites rust-red. Thoracic sterna and first sternite black. Dorsum generally black, head and sides of pronotum reddish. Antenna long, antennomeres I-IV dark red, antennomeres V-XI black, anntennomeres III-IV subequal, each more than 2X as long as wide, antennomeres V-VIII secularly shorter but each longer than wide. Pronotum parallel to rectangular hind angles, rounded to obtuse front angles, lateral sulci, reaching middle of disc. Elytra 3X as long as pronotum, cordiform, widest in basal third, rather rapidly narrowed to apex. Front tibia of male gradually but not greatly widened distad, hind tibia weakly curved. Length 7 mm, width 4.3 mm.

# 118. Anidrytus nigropiceus Gorham Fig. 115

Anidrytus nigropiceus Gorham 1889:126. Lectotype ♂ and 1 paralectotype ♂, Panama: Bugaba, Champion (NHML).

Broadly oblong, subparallel. Dark brown below. Dorsum black. Antennomeres I-V and margins of pronotum and elytra reddish black. Lateral sulci of pronotum very deep, almost reaching middle of disc. Front tibia of male angulately widened beyond middle. Length 7 mm, width 4.6 mm.

# 119. Anidrytus fuliginosus (Guérin-Méneville), new combination

E(pipocus) fuliginosus Guérin-Méneville 1857:266. Type (sex ?), Colombia: Cartagena, Dejean Coll.

Body blackish brown, antenna, legs, elytral epipleura, sides of sterna and abdomen paler brown. Head, pronotum and elytra black, a little shining, punctured, a little pubescent. Length 6 mm, width 3.66 mm. Very close to (*A. nigricans*) in form.

I have not recognized this insect among the material examined. It can hardly be the same as the specimens described by Gerstaecker as *Epipocus* fuliginosus, for which a new name has been proposed (Strohecker 1977:323).

#### 120. Anidrytus spadiceus (Guérin-Méneville)

 E(pipocus) spadiceus Guérin-Méneville 1857:266. Type (sex ?), Colombia, Dejean coll.
 Anidrytus spadiceus: Csiki 1901:35.

Body black, mouthparts, legs and elytral epipleura yellowish brown. Pronotum and elytra very finely punctured, pubescent. Length 5.5 mm, width

3.25 mm. Very close to *A. fuliginosus*, possibly a variety.

This brief diagnosis has not been sufficient for me to identify specimens as this species.

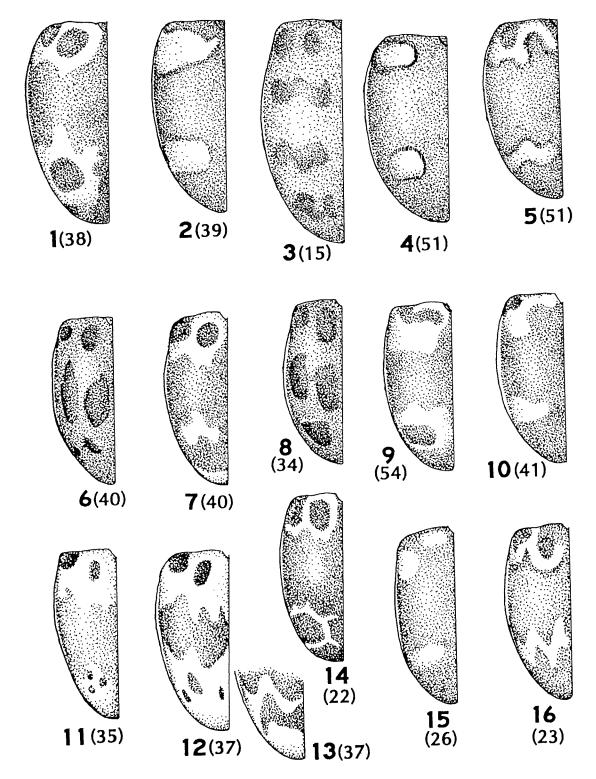
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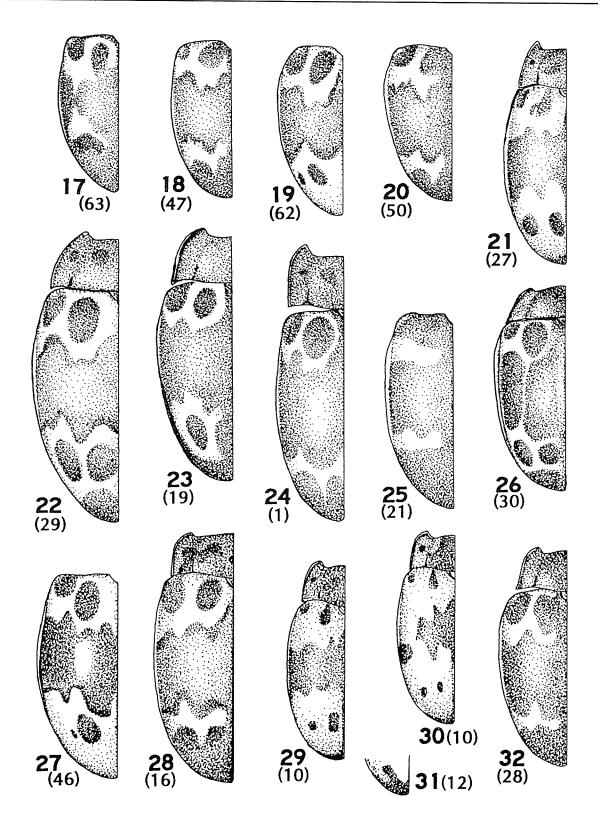
#### References

- Arrow, G. J. 1920. A contribution to the classification of coleopterous family Endomychidae. Transactions of the Entomological Society of London 1920:1-83, 1 pl.
- **Chapuis, F.** 1876. *In* J. T. Lacordaire. Histoire naturelle des Insectes, Genera des Coléoptères, Vol. XII. Paris, 374 pp.
- Chevrolat, L. A. A. 1844a. In F. E. Guérin-Méneville. Iconographie du Règne Animal de Cuvier. Vol. 7. Paris, 576 pp., 104 pls.
- Chevrolat, L. A. A. 1844b. Dictionnaire universel d'Histoire naturelle. Vol. V.
- Csiki, E. 1901. Catalogus Endomychidarum. Természetrájzi Füzetek XXIV:1-53.
- Erichson, W. F. 1847. Conspectus insectorum coleopterorum quae in Republica Peruana observata sunt. Archiv für Naturgeschichte XIII:67-185.
- Fabricius, J. C. 1801. Systema eleutheratorum. Vol. I, Kiliae, xxiv + 506 pp.
- Gerstaecker, A. 1858. Entomographien I, Monographie der Endomychiden. Leipzig, xii + 433 pp., 3 pls.
- Gorham, H. S. 1873. Endomycici Recitati. London, 64 pp. 1 pl.
- Gorham, H. S. 1874. Descriptions of new species of Encomycici. Transactions of the Entomological Society of London 1874:437-446.
- Gorham, H. S. 1875. Descriptions of new species of Endomycici. Transactions of the Entomological Society of London 1875:11-22.
- Gorham, H. S. 1886. On new genera and species of Endomychidae. Proceedings of the Zoological Society of London 1886:154-163, 1 pl.
- Gorham, H. S. 1887-99. Biologia Centrali-Americana. Insecta, Coleoptera Vol. VII. London, xii + 276 pp., 13 pls.

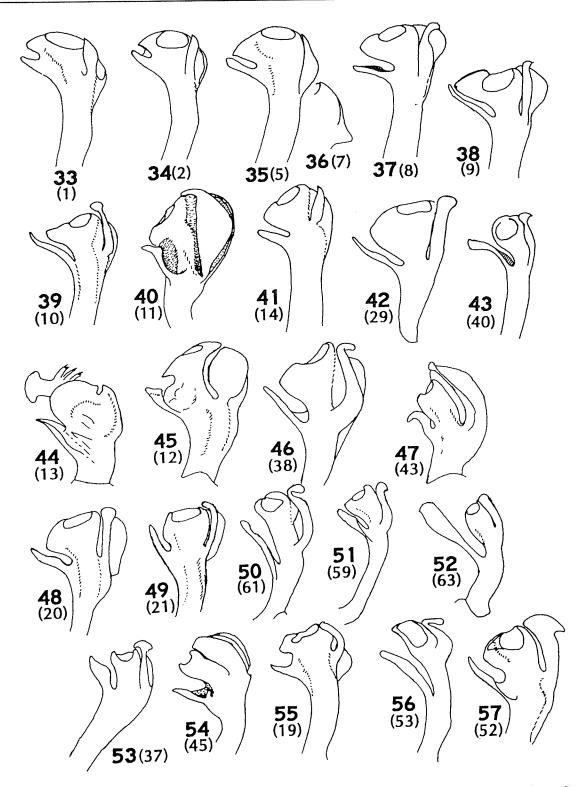
- Guérin-Méneville, F. E. 1857. Matériaux pour une monographie des Coléoptères du groupe des Eumorphides et plus specialement du genre *Eumorphus*. Archives entomologiques I:237-280, 1 pl.
- Kirsch, T. 1876. Beiträge zur Kenntnis der peruanischen Käferfsuna, auf Dr. Abendroth's Sammlung basirt, Sechtes Stück. Deutsche Entomoligische Zeitschrift XX:81-133.
- Olivier, A. G. 1791-1792. *In* Encyclopédie Méthodique. Dictionnaire des Insectes. Vol. VI. Paris.
- Olivier, A. G. 1808. Entomologie ou histoire naturelle des Insectes. Pars VI. Paris, pp. 613-1104, 41 pls.
- Perty, J. A. M. 1832. Delectus animalium articulatorum, quae in itinere per Brasiliam—collegerunt Spix et Martius. Fasc. 2:61-124, 40 pls.
- Pic, M. 1931. Nouveautés diverses. Mélanges Exoticoentomologiques 58. Moulins, 36 pp.
- Strohecker, H. F. 1943. Some fungus beetles of the family Endomychidae in the U.S. National Museum. Proceedings of the United States National Museum 93:381-392.
- Strohecker, H. F. 1953. Genera Insectorum. Fasc. 210. Endomychidae. Bruxelles, 140 pp., 5 pls.
- Strohecker, H. F. 1957. New species of Endomychidae in the collections of the Hungarian National Museum and other institutions. Annales Historico-Naturales Musei Nationalis Hungarici, Series Nova, 8:259-283.
- Strohecker, H. F. 1959. Neue Arten von Endomychiden im Berliner Museum. Mitteilungen aus dem Zoologischen Museum in Berlin 35:177-186.
- Strohecker, H. F. 1977. Revision of the genus *Epipo*cus. Transactions of the American Entomological Society 103:303-325.
- Strohecker, H. F. 1979. A new species of Anidrytus from southern Brasil with notes on several other species. Revue Suisse Zoologie 86:715-717.



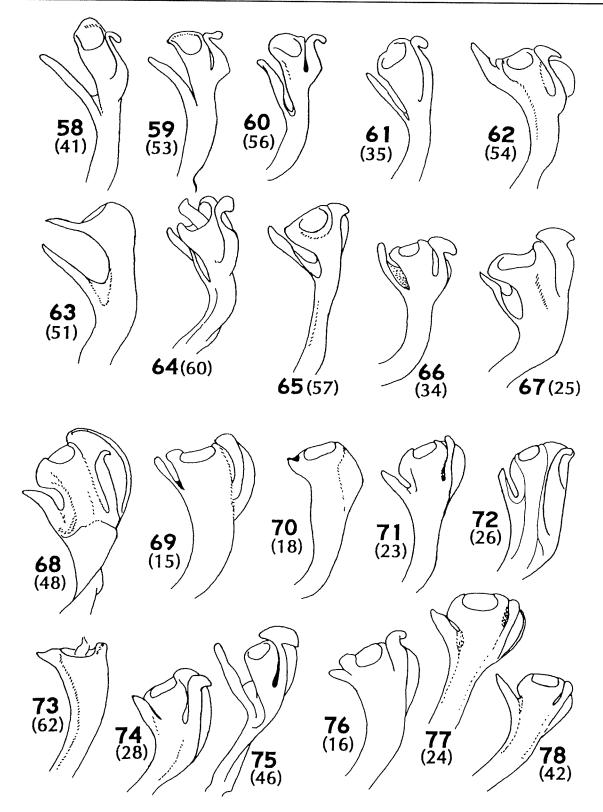
Figs. 1-16. Elytral pattern. 1) Epopterus fasciatus fasciatus - lectotype, 2) E. fasciatus angustatus - holotype, 3) E. zebra - holotype,
4) E. similis - holotype, 5) E. similis - Ecuador, 6) E. variegatus - Peru:Callanga, 7) E. variegatus - Amazon, 8) E. reticulatus - holotype,
9) E. cyclicus - holotype, 10) E. cordatus - holotype, 11) E. deltoideus - holotype, 12) E. decempunctatus - Trinidad, 13) E. decempunctatus
- Colombia: Cucuta, 14) E. ? vicinus - Peru: Callanga, 15) E. obliquus - holotype, 16) E. notatus - holotype.



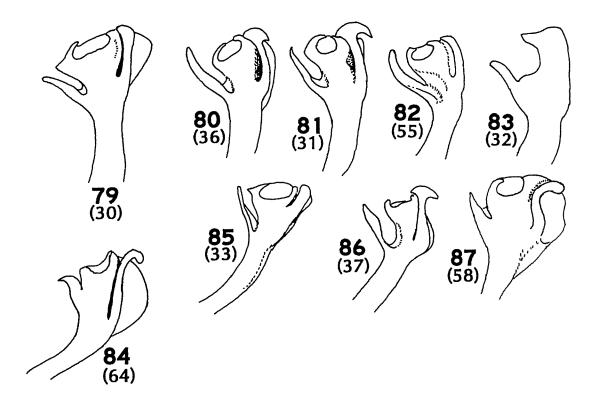
Figs. 17-32. Elytral pattern. 17) Epopterus histrio - topotype, 18) E. rubiginosus - holotype, 19) E. parvus - paratype, 20) E. quaesitus - holotype, 21) E. fallax - holotype, 22) E. pictus sensu Gerstaecker - Brazil, 23) E. bioculatus - holotype, 24) E. ocellatus sensu Gerstaecker - Brazil, 25) E. dilectus - holotype, 26) E. vernicatus - holotype, 27) E. quechuanus - holotype, 28) E. picticollis - holotype, 29) E. signaticollis - Panama, 30) E. signaticollis - Colombia, 31) E. testudinarius - Colombia, 32) E. gracilis - holotype.



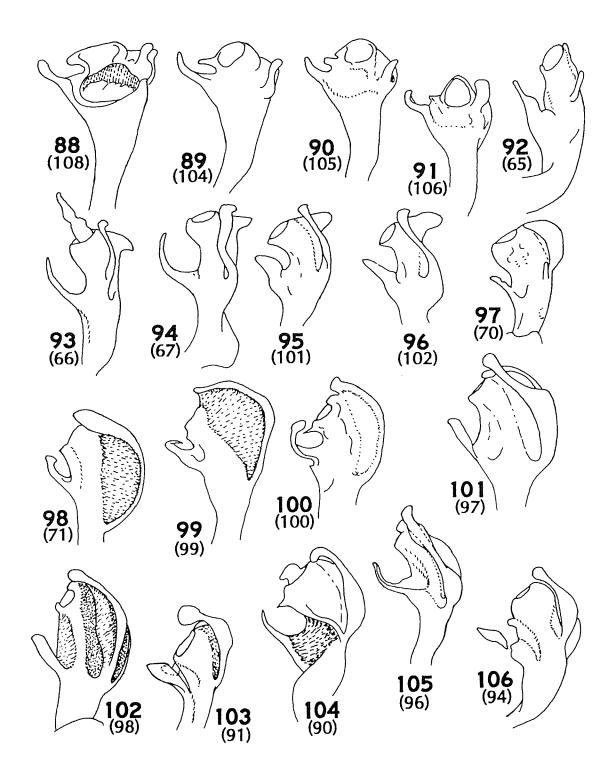
Figs. 33-57. Aedeagus, dextro-ventral aspect. 33) Epopterus ocellatus sensu Gerstaecker - Brazil: Corupa, 34) E. annulatus - Guyana, 35) E. partitus partitus - Honduras, 36) E. partitus kirschi - holotype, 37) E. tigrinus - holotype, 38) E. geminus - holotype, 39) E. signaticollis - Colombia: Villavicencio, 40) E. vacuus - holotype, 41) E. undulatus - Argentina: Tucumán, 42) E. pictus sensu Gerstaecker - Brazil, 43) E. variegatus - holotype, 44) E. comptus - topotype (syntype?), 45) E. testudinarius - lectotype, 46) E. fasciatus fasciatus lectotype, 47) E. eganus - lectotype, 48) E. cucullinus - holotype, 49) E. dilectus - holotype, 50) E. dives - holotype, 51) E. clara - Brazil: Pará, 52) E. histrio - Brazil: Amapá, 53) E. decempunctatus - Colombia: Puerto Berrio, 54) E. ephippiger - holotype, 55) E. bioculatus holotype, 56) E. nigrocinctus - holotype, 57) E. transversus - holotype.



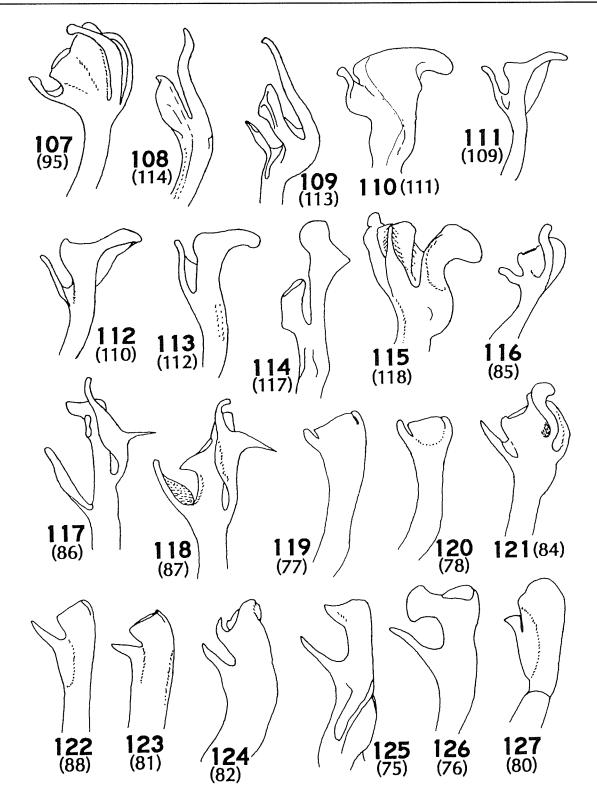
Figs. 58-78. Aedeagus, dextro-ventral aspect. 58) Epopterus cordatus - holotype, 59) E. nigrocinctus - Colombia: Leticia, 60) E. flavolineatus - holotype, 61) E. deltoideus - holotype, 62) E. cyclicus - holotype, 63) E. similis - holotype, 64) E. mimeticus - holotype, 65) E. flavonotatus - holotype, 66) E. reticulatus - holotype, 67) E. longus - holotype, 68) E. batesi - holotype, 69 E. zebra - holotype, 70 E. nigerrimus - holotype, 71) E. notatus - holotype, 72) E. obliquus - holotype, 73) E. parvus - holotype, 74) E. gracilis - holotype, 75) E. quechuanus - holotype, 76) E. picticollis - holotype, 77) E. confusus - holotype, 78) E. crypticus - holotype.



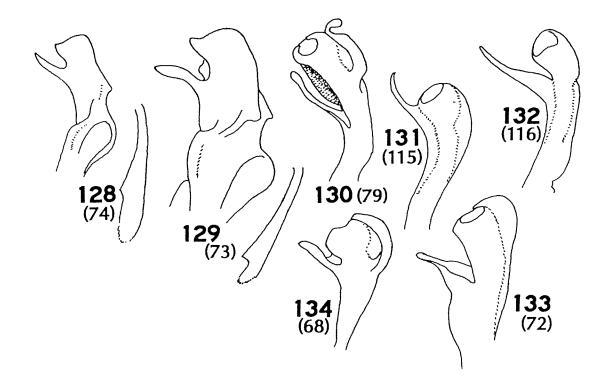
Figs. 79-87. Aedeagus, dextro-vental aspect. 79) Epopterus ? vernicatus - Brazil: Rio de Janeiro, 80) E. atriventris - holotype, 81) E. loretensis - holotype, 82) E. callerianus - holotype, 83) E. anomalus - holotype, 84) E. pantherinus - Panama, 85) E. aravacus - holotype, 86) E. decempunctatus - lectotype, 87) E. submaculatus - holotype.



Figs. 88-106. Aedeagus, dextro-ventral aspect. 88) Anidrytus major - holotype, 89) A. juvencus ? - holotype of A. angustulus, 90) A. trinitatis - holotype, 91) A. guatemalae - holotype, 92) A. bipunctatus - holotype, 93) A. plagiatus - holotype, 94) A. nimbiferus - holotype, 95) A. liquefactus, 96) A. mexicanus - holotype, 97) A. contractus - Costa Rica: Turrialba, 98) A. ovatulus - lectotype, 99) A. nigricans - Rio de Janeiro, 100) A. kirschi - holotype, 101) A. amazonicus - Brazil: Fonte Boa, 102) A. cupreatus - holotype, 103) A. ephippium - French Guiana, det. Gorham, 104) A. lugubris - no locality, det. Gorham, 105) A. batesi - holotype, 106) A. circumcinctus - holotype.



Figs. 107-127. Aedeagus, dextro-ventral aspect. 107) Anidrytus bechyneorum - holotype, 108) A. latus - Gerstaecker "type", 109) A. arrowi - holotype, 110) A. humeralis - lectotype, 111) A. humilis - lectotype, 112) A. decoratus - holotype, 113) A. humerosus - holotype, 114) A. cardisoma - holotype, 115) A. nigropiceus - lectotype, 116) A. pilosus - lectotype, 117) A. parallelus - holotype, 118) A. stenus - holotype, 119) A. helvolus - Venezuela, comp. lectotype, 120) A. concolor - Peru, comp. holotype, 121) A. gibbosus - holotype, 122) A. atratulus - Brazil, comp. holotype, 123) A. fuscus - lectotype, 124) A. compactus - holotype, 125) A. glaber - Peru, comp. holotype, 126) A. consobrinus - holotype, 127) A. tenuipes - holotype.



Figs. 128-134. Aedeagus, dextro-ventral aspect. 128) Anidrytus unicolor - Peru, comp. holotype, 129) A. porcus - holotype, 130) A. gerstaeckeri - lectotype, 131) A. pardalinus - holotype, 132) A. grandis - holotype, 133) A. parki - holotype, 134) A. variegatus - Rio de Janeiro.