

PN - ABI - 861

XN

Final Report AID

IN 72936

PROJECT TITLE: Systematics of aquatic weevils to enhance biological control of aquatic weeds (Coleoptera: Curculionidae).

PRINCIPAL INVESTIGATOR: Charles W. O'Brien

Publications list attached indicates goals reached on schedule e.g. revisions of *Neohydronomus* and *Argentinorhynchus*.

The genus *Onychylis* proved to be more complex than anticipated and has been divided into five genera, two of which were published on in 1989 (*Southwestern Entomologist* 14(4):395-407, illus.), and two new genera are being defined and described in a major paper on the tribe Stenopelmini soon to go to press.

Enclosed is a preliminary draft of the "Taxonomic Revision of the New World Genera of the tribe Stenopelmini (Eirrhinae, Curculionidae)". This should go to press in the near future. Plates of habitus photographs of all genera and all new species are currently being printed (more than 180 separate photographs). Line drawings of male and female genitalia of all genera and all new species have been completed (more than 200 separate illustrations) and are currently being inked for publication.

The phylogenetic analysis to accompany this publication is still underway but should be completed soon, as well.

Delays in the completion of the above research were unavoidable following the necessary resignation of the full time Research Associate, but all of the research goals will be met in a relatively short time and more data has already been published on all other aspects of the research than had been promised.

No cost overruns were realized and funds were all expended as indicated in the final financial report from Contracts and Grants, Florida A&M University, submitted October 12, 1990.

Charles W.
O'Brien

PROJECT TITLE: Systematics of aquatic weevils to enhance biological control of aquatic weeds (Coleoptera: Curculionidae).

PRINCIPAL INVESTIGATOR(s): Charles W. O'Brien

I. Brief Statement of Research Objectives

To develop a cladistic analysis and a key to the genera of the New World Stenopelmini, (aquatic weevils) Eriirhininae, and to revise the species of the genera Neohydronomus, Argentinorhynchus, and Onychylis to enable the use of selected weevil species as potential biological control agents of exotic weeds.

II. Brief Statement of Research Findings

The number of known genera is being nearly doubled from 20 to 39 (with 3 new subgenera), and approximately 25 new species are being described in papers published, in press, or soon to go to press. More than 25 new host plant associations were verified in the field in South America, data which are essential to successful biological control programs.

III. Has:

1. the project been completed? Yes X No _____
2. a final report been submitted: Yes X No _____ [attached]

IV. List country(ies) where research was primarily carried out:

Venezuela, Argentina, Uruguay.

V. List titles of:

1. Papers published/submitted for publication in refereed journals:

see attached list of publications.

2. papers published/submitted for publication in other journals:

N/A

3. abstracts written/presented:

Weevils, premiere biocontrol agents (Coleoptera: Curculionidae), p. 41. In Proc. XVIII Int. Congr. Entomol., Vancouver, B.C., Canada, July 3-9, 1988, 499 pp.

4. doctoral theses based on the research:

N/A

a'

VI. Institutional Benefits:

1. estimated person/months faculty supported by the grant: 1.1/24
2. estimated person/months research assistant, etc. supported by the grant: 0.1/24
3. equipment acquired with grant funds:
None
4. contracts or grants that resulted from the AID grant:
None
5. number of graduate students who participated significantly in the research: 0
6. list institutional linkages that promote development of capability for international development work
 - o with LDC institutions:
 - Identification of aquatic weevils: as part of ongoing ecological investigations at CONICET (Consejo Nacional de Investigaciones Científicas y Técnicas), Corrientes, Argentina;
 - Identification of pest species of aquatic weevils on rice for CIAT (Centro Internacional de Agric. Tropical), Cali, Colombia.
 - o with other HBCU and non-HBCU institutions:
 - Identification and classification of parent stock of aquatic weevils for the USDA-biological control quarantine facility, Gainesville, FL and the U.S. Army Corps of Engineers, for release in projects for control of aquatic weeds.
 - o through other linkages, e.g., with scientific networks, international research or development organizations, etc.:
 - Identification of aquatic weevils for CIBC (Commonwealth Institute of Biological Control), for use in control of aquatic weeds in Australia and other Commonwealth countries.

- VII. Describe briefly any other outcomes, linkages or other results from the research that have increased opportunities or capacities of your university to participate in international development or research programs:

Presentation of Invitational seminar on use of aquatic weevils in biological control in a Symposium at the XVIII International Congress of Entomology, Vancouver, BC, Canada, 4 July, 1988.

Directed research for two years, of Post-doctoral Fellow, Dra. Analía A. Lanteri, at FAMU. Funded by the Argentine government through CONICET.

V. 1.

Publications supported in part by AID grant:

- Wibmer, G. J., and C. W. O'Brien. 1989. Additions and corrections to annotated checklists of the weevils of North America, Central America, and the West Indies, and of South America. *Southwest. Entomol., Suppl.* (13):1-49.
- O'Brien, C. W., and G. J. Wibmer. 1989. Revision of the Neotropical weevil genus Argentinorhynchus Brèthes (Coleoptera: Curculionidae). *Ann. Entomol. Soc. Am.* 82(3):267-278, illus.
- O'Brien, C. W., and G. J. Wibmer. 1989. Revision of the Neotropical genus Neohydronomus Hustache (Coleoptera: Curculionidae). *Coleopt. Bull.* 43(3):291-304, illus.
- O'Brien, C. W. and G. J. Wibmer. Two new South American species of the weevil genus Argentinorhynchus Brèthes (Coleoptera: Curculionidae). *Southwest. Entomol.* 14(3):213-223, illus.
- Wibmer, G. J., and C. W. O'Brien. 1989. Two new Neotropical genera in the weevil tribe Stenopelmini. *Southwest. Entomol.* 14(4):395-407, illus.
- O'Brien, C. W. 1990. Neobaqoidus carlsoni, new genus, new species of aquatic weevil from Florida. *Southwest. Entomol.* 15(1):71-76, illus.

In Press:

- O'Brien, C. W. Curculionidae, premiere bio-control agents. *Mem. Entomol. Soc. Washington*, 1990.

- 1 -

XN-ABI-861-A

10-1-77

Taxonomic Revision of the New World Genera
of the tribe Stenopelmini
(Erihinae, Curculionidae)

Charles W. O'Brien
and
Guillermo J. Wibmer

Entomology--Biological Control
Florida A&M University
Tallahassee, FL 32307 USA

Preliminary and Incomplete MS.

Key to genera of the tribe Stenopelmini

- 1 Antennal funicle 7-segmented 2.
 1' Antennal funicle 6-segmented 6.
 2(1) Antennae inserted near or well behind middle; body nearly or completely lacking waterproof coating (scales metallic or hydrofuge) 3.
 2' Antennae subapical, inserted well in front of middle; body usually completely covered with waterproof coating (scales agglutinate) 4.
 3 Eyes flattened, not at all protruding; tibiae not denticulate on inner surface; scales matte, hydrofuge, round to oval; body short, round-oval; tarsi linear.
 *Stenopelmus* Schönherr.
 3' Eyes strongly convex, strongly protruding; tibiae strongly denticulate on inner surface; scales metallic, setalike; body elongate-cylindrical; tarsi not linear, with 3rd segment broadly bilobed *Hypselus* Schönherr.
 4(2') Suprascrobal groove evident; postocular lobe feeble to strong; rostrum gibbous or distinctly set off from head 5.
 4' Lacking suprascrobal groove; postocular lobe lacking; rostrum evenly inserted on head (*Penestes*) (*Pantoteloides*) Hustache
 5(4') Tibiae dentate on inner surface; suture between 1st and 2nd abdominal sterna straight; postocular lobe strong; small to medium-sized (1.80-3.40 mm)
 *Penestes* (*Penestes*) Schönherr.
 5' Tibiae not dentate on inner surface; suture between 1st and 2nd abdominal sterna curved; postocular lobe feeble, although evident; minute (1.20-1.45 mm)
 *Genus VI* new genus.
 6(1') Tarsal claw segment not or scarcely extending beyond lobes of 3rd tarsal segment 7.
 6' Tarsal claw segment extending well beyond 3rd tarsal segment (if bilobed, well beyond at least one lobe) 8.
 7(6) With distinct pad or scale between tarsal claws; body elongate-oval to elongate-cylindrical *Notiodes* Schönherr.
 7' Lacking pad or scale between tarsal claws; body broadly oval
 *Tanyphyrus* Germar.
 8(6') Antennal club symmetrical; entire club normally pubescent, if glabrous, length of segment 1 of club less than 1/2 length of club (except *Ochetina*) 9.
 8' Antennal club asymmetrical (only slightly so in *Cyrtobagous*); segment 1 of club glabrous or at most with tomentose coating, always more than 1/2 length of club 31.
 9(8) Tarsal claw segment with 2 asymmetrical claws (one not more than 1/3 as long as other), or with single claw 10.
 9' Tarsal claw segment with 2 symmetrical, equal-sized claws 12.
 10(9) Rostrum slender, as long as or longer than length of prothorax; tibiae loosely, rather finely denticulate 11.
 10' Rostrum stout, shorter than length of prothorax; tibiae serrately, rather coarsely denticulate *Genus V* new genus.
 11(10) Tarsal claw segment with single claw *Brachybamus* Germar.
 11' Tarsal claw segment with 2 asymmetrical claws (one not more than 1/3 as long as

- other) *Genus XVI* new genus.
- 12(9') First segment of antennal club glabrous 13.
- 12' First segment of antennal club with normal pubescence 15.
- 13(12) Fore coxae not contiguous; postocular lobe lacking; all tibiae lacking praemucro; scutellum distinct *Tanysphyroideus* Hustache.
- 13' Fore coxae contiguous; postocular lobe moderate to strong; at least fore and middle tibiae with praemucro; scutellum not visible 14.
- 14(13') Third tarsal segment linear but deeply bilobed at apex; tibiae with inner margin loosely denticulate; femora with hydrofuge scales on inner face; all tibiae with praemucro *Genus VII* new genus.
- 14' Third tarsal segment linear and truncate at apex; tibiae with inner margin not denticulate; femora lacking hydrofuge scales on inner face, there with waterproof coating; only fore and middle tibiae with praemucro *Genus I* new genus.
- 15(12') Tarsi linear 16.
- 15' Tarsi not linear, 3rd tarsal segment much wider than 2nd 20.
- 16(15) Body lacking waterproof coating; antennal scape extending over eye; postocular lobe lacking; all tibiae lacking praemucro *Argentinorhynchus* Brèthes.
- 16' Body with waterproof coating; antennal scape not or scarcely reaching eye; with postocular lobe feeble to strong; at least fore and middle tibiae with praemucro 17.
- 17(16') Suprascrobal groove lacking; first segment of antennal club more than 1/2 length of club; postocular lobe feeble *Ochetina* Pascoe.
- 17' Suprascrobal groove present; first segment of antennal club less than 1/2 length of club; postocular lobe strong 18.
- 18(17') At least fore tibiae with inner margin loosely denticulate; rostrum suddenly quadrately broadened in apical portion; scrobes directed ventrally, not completely visible in lateral view *Neobagous* Hustache.
- 18' Tibiae with inner margin not denticulate; rostrum not distinctly broadened in apical portion; scrobes completely lateral, completely visible in lateral view 19.
- 19(18') Rostrum slender, long (subequal to or longer than length of prothorax); scape with one or more setae; fore and middle tibiae with praemucro; metasternum with simple depression in front of hind coxa *Onychylis* LeConte
- 19' Rostrum Broad, stout, and short (much shorter than length of prothorax); scape clothed in part with scales; all tibiae with praemucro; metasternum with depression with posteriorly directed ventral shelf-like projection in front of hind coxa *Genus IV* new genus.
- 20(15') Prosternum antero-medially sulcate (at least with longitudinal ridge or elevation in front of fore coxa) 21.
- 20' Prosternum not antero-medially sulcate 23.
- 21(20) Alternate intervals at most with fine, scarcely evident setae; coxae without subapical or apical setae; medium-sized to large (2.80-6.2 mm) fore coxae not contiguous *Neochetina* Hustache.
- 21' Alternate intervals with coarse, scalelike, distinct setae; coxae with subapical or apical seta(e); small to medium-sized (1.60-3.30 mm); fore coxae contiguous or well-separated 22.

- 22(21') Fore coxae contiguous; elytra weakly undulate, lacking tubercles; usually smaller (1.60-2.60 mm) *Genus IX* new genus.
- 22' Fore coxae well-separated; elytra strongly undulate, and strongly tuberculate; usually larger(2.50-3.30 mm) *Genus XV* new genus.
- 23(20') All ventral scales hydrofuge, lacking waterproof coating; only fore and middle tibiae with praemucro; scutellum visible, but indistinct *Nechydronomus* Hustache.
- 23' Majority of ventral scales agglutinate; all tibiae with praemucro or lacking praemucro; scutellum not visible 24.
- 24(23') Scape clothed in part with scales; metasternum with depression with posteriorly directed ventral shelf-like projection in front of hind coxa 25.
- 24' Scape with one or more setae; metasternum with simple depression in front of hind coxa 26.
- 25(24) Fore femora strongly deformed, inner face on basal 1/2 strongly concave; apical margin of prothorax extending over and concealing head *Genus X (Nominate subgenus)* new genus, new subgenus.
- 25' Fore femora asymmetrical, but not strongly deformed nor with inner face strongly concave; apical margin of prothorax only moderately produced, although concealing head *Genus X (Subgenus I)* new subgenus.
- 26(24') Fore coxae not contiguous; metasternum normal, lacking depression in front of hind coxa *Genus VIII* new genus.
- 26' Fore coxae contiguous; metasternum with simple depression in front of hind coxa 27.
- 27(26') At least fore tibiae serrately denticulate on inner surface; suprascrobal groove with sparse scales 28.
- 27' No tibiae denticulate on inner surface; suprascrobal groove, if present, densely clothed with hydrofuge pubescence 29.
- 28(27) Rostrum shorter than, to about as long as prothorax; prothorax with some moderately to very distinct setae *Genus III (Nominate subgenus)* new genus, new subgenus.
- 28' Rostrum longer than prothorax; prothorax with usually only moderately distinct setae *Genus III (Subgenus I)*, new subgenus.
- 29(27') Rostrum, prothorax, elytra and legs with at most scarcely evident fine setae; all intervals subequal in elevation, flat to weakly convex; suprascrobal groove and indentation of inner surface of tibiae broad and sharply defined, with dense to very dense hydrofuge scales *Genus II* new genus.
- 29' Rostrum, prothorax, alternate intervals of elytra and legs with rather dense, stout, suberect, curled, scalelike setae; alternate intervals slightly to strongly elevated, even intervals rather flat; suprascrobal groove (if present) and indentation of inner surface of tibiae narrow, often partially covered with waterproof coating and ill-defined, with only moderately dense hydrofuge scales 30.
- 30(29') Suprascrobal groove present (although often narrow and partially concealed by waterproof coating); postocular lobe strong; most of venter with agglutinate scales; mesosternum strongly convex, usually projecting anteriorly *Pisticiola* Wibmer & O'Brien.
- 30' Suprascrobal groove lacking; postocular lobe feeble; most of venter with hydrofuge

- scales; mesosternum normal, more or less flattened, not projecting anteriorly
 *Pistiocoloides* Wibmer & O'Brien.
- 31(8') Body with transparent waterproof coating, with sparse, well-separated, metallic, gold-colored scales; antennal club only slightly asymmetrical; postocular lobes lacking; scutellum distinct *Cyrtobagous* Hustache.
- 31' Body usually with opaque waterproof coating, with dense, contiguous to imbricate, dull, non-metallic, never gold-colored scales; postocular lobes present (except Genus XI and Genus XIV); scutellum not visible 32.
- 32(31') Suprascrobal groove extending beyond antennal insertion to apex of rostrum, densely clothed with hydrofuge pubescence; rostrum attenuately narrowed to apex *Bagoidellus* Hustache.
- 32' Suprascrobal groove not extending beyond antennal insertion, at most densely clothed with hydrofuge scales; rostrum not attenuately narrowed to apex, apex subquadrate, gradually expanded, or not distinctly broadened 33.
- 33(32') Outer margin of fore and middle tibiae with apical denticle or specialized scalelike process (not part of typical apical comb) 34.
- 33' Outer margin of all tibiae rounded or acutely subquadrate, lacking apical denticle or specialized scalelike process 36.
- 34(33) Prosternum antero-medially sulcate, with sharp ridge in front of fore coxa; elytral striae with enlarged foveae; suprascrobal groove lacking pubescence; fourth tarsal segment visible in lateral view *Bagoidus* Kuschel.
- 34' Prosternum not antero-medially sulcate, lacking ridge or elevation in front of fore coxa; elytral striae lacking enlarged foveae; suprascrobal groove with rather dense hydrofuge scales; fourth tarsal segment not visible in lateral view 35.
- 35(34') Middle coxae at least moderately separated; postocular lobe strong; third tarsal segment emarginate at apex; tibiae with indented area on inner surface with hydrofuge scales *Neobagoidus* O'Brien.
- 35' Middle coxae contiguous; postocular lobe very feeble, scarcely evident; third tarsal segment truncate at apex; tibiae lacking indented area, completely covered with waterproof coating *Genus XIII* new genus.
- 36(33') Antennal scape extending over eye; tarsal segments together (of each leg), at least as long as, or longer than length of tibia *Genus XI* new genus.
- 36' Antennal scape not or scarcely reaching eye; tarsal segments together (of each leg) shorter than length of tibia 37.
- 37(36') Prosternum antero-medially sulcate, with strong ridge in front of fore coxa; middle tibiae normal, strongly sinuate on inner margin *Genus XII* new genus.
- 37' Prosternum not antero-medially sulcate; lacking ridge or elevation in front of fore coxa; middle tibiae usually bladelike, with evenly strongly curved outer margin, inner margin variable 38.
- 38(37') All tibiae lacking praemucro; coxae lacking apical or subapical seta; fore coxae strongly elongated *Hydrotimites* Kolbe.
- 38' All tibiae with praemucro; fore and middle coxae with apical or subapical seta; fore coxae not strongly elongated 39.
- 39(38') Rostrum longer than length of prothorax; middle coxae contiguous; antennae inserted at or near middle; eyes nearly contiguous beneath . *Genus XIV* new genus.
- 39' Rostrum shorter than, or subequal to, length of prothorax; middle coxae at least

- moderately separated; antennae inserted well before middle, subapical; eyes not close together beneath, mainly lateral 40.
- 40(39') Rostrum slender, subequal to length of prothorax; postocular lobe feeble; at least fore tibiae with inner surface loosely denticulate *Ilyodytes* Kuschel.
- 40' Rostrum stout, shorter than length of prothorax; postocular lobe strong; all tibiae lacking denticles on inner surface 41.
- 41(40') Fourth tarsal segment visible in lateral view; scrobes directed ventrally, not completely visible in lateral view; sutural interval depressed *Helodytes* Kuschel.
- 41' Fourth tarsal segment not visible in lateral view; scrobes completely lateral, completely visible in lateral view; sutural interval not depressed 42.
- 42(41') Scales of venter agglutinate (except at apical edge of 5th sternum); tibiae without indented area, with complete waterproof coating *Oryzophagus* Kuschel.
- 42' Scales of median area of prosternum and of abdominal sterna 3, 4 and 5 hydrofuge; tibiae with indented area clothed with hydrofuge scales *Lissorhoptrus* LeConte.

Hypselus Schönherr 1843

Figures

REDESCRIPTION. Medium-sized (length, 3.30-4.70 mm), moderately stout, elongate-oval; cuticle usually black, occasionally reddish brown; moderately densely clothed with recumbent, scalelike setae, lacking broad scales, and lacking waterproof coating. **Rostrum.** Slender, weakly, evenly curved; longer than length of prothorax; scrobe short, dorsal margin not evident; suprascrobal groove present, although poorly defined, clothed with moderately sparse, scalelike setae. **Antenna.** Inserted *ca* 1/3 from apex of rostrum or at middle; scape extending over 1/3 of eye, with numerous, recumbent, coarse setae; funicle 7-segmented; club elongate-oval, symmetrical, completely pubescent. **Head.** Moderately convex; frons subequal in width to rostrum at apex; eyes very strongly convex, lateral. **Prothorax.** Transverse; postocular lobes lacking; completely clothed with moderately dense, recumbent and subrecumbent, coarse setae; dense, large punctures concealed only in part by dense setae. **Scutellum.** Moderately large, oval, visible. **Elytra.** Humeri well-developed, subquadrately rounded; sides subparallel to declivity, there suddenly narrowed to subacute, distinctly emarginate apices; sutural interval not depressed; intervals flat, none more elevated, all clothed with moderately dense, coarse, scalelike setae; striae lacking enlarged foveae; macropterous. **Venter.** Prosternum not medially sulcate, lacking ridge or elevation in front of fore coxa; lacking scales; mesepimeron normal, lacking anteriorly projecting tubercle; 1st and 2nd abdominal sterna of female not vaulted, flat to weakly convex, on same level as 3rd, 4th, and 5th sterna. **Legs.** Moderately stout; fore coxae contiguous, not strongly elongated, middle coxae moderately separated; femora armed with several, short, coarse, sharp teeth, clothed only with coarse scalelike setae (lacking scales or hydrofuge pubescence); outer margin of apex of tibiae rounded to subquadrate, lacking denticle; middle tibiae normal (not bladeliike, with evenly strongly curved outer margin); tibiae clothed only with coarse scalelike setae (dense, short on inner margin), with several, strong, serrate denticles on inner margin, with stout uncus and usually small praemucro, very large on middle tibiae in males; tarsi moderately long, segments together not as long as tibia, with moderate to short hairs and pubescence, not linear,

3rd segment deeply bilobed, 4th segment not visible in lateral view, claw segment clearly extending beyond 3rd, lacking apical long curled seta, and lacking pad or scale between long fine divergent tarsal claws. **Male genitalia and associated structures.** Phallus lacking flagellum; apodemes *ca* as long as median lobe, inserted at base of median lobe; median lobe moderately flat, open apically, dorsal plate indistinct; membranous sac long but not reaching tips of apodemes, lacking sclerites, with large number of spicules; tegmen closed apically, lacking inwardly directed processes; spiculum gastrale (9th sternite) with arms at angle with apodeme in lateral view, apodeme rodlike, arms short, flat, broad near base, narrowing rapidly toward apices, not fused, lacking lateral "wings"; 10th sternite not divided, with distinct apodeme; 10th tergite lacking anteriorly directed processes, with broad "liplike" edge. **Female genitalia and associated structures.** Eighth sternite with apodeme bifurcate on apical 1/4 (apical 1/2 of arms broadly rounded), free portion much longer than blade; spermatheca with cuticle nonreticulate; ramus short, arising next to spermathecal duct; nodulus indistinct; spermathecal duct short, flexible, attached at apex of bursa copulatrix; bursa not constricted at base; coxite not flattened, nor narrowed on apical portion; stylus medium-sized, apical; apex of 9th tergite round, margin rather smooth; apex of 10th tergite round, margin smooth. **Gender.** Masculine. **Type species.** *Hypselus ater* Boheman 1843, by original designation.

Stenopelmus Schönherr 1836

Figures

REDESCRIPTION. Small (1.40-2.10 mm), robust, broad-oval; cuticle black to reddish brown; densely clothed with contiguous to imbricate, plumose scales; dorsum occasionally with partial waterproof coating. **Rostrum.** Stout, short, *ca* 2/3 length of prothorax, nearly straight, somewhat cone-shaped (apically narrowed) in lateral view; scrobe short, lateral, directed toward lower margin of eye; suprascrobal groove lacking; mostly glabrous, basal 1/4 with dense plumose scales. **Antenna.** Inserted at or just behind middle of rostrum; scape extending over 1/3-1/2 of eye, with one coarse seta (often abraded); funicle 7-segmented; club short, broad-oval, symmetrical, completely pubescent. **Head.** Weakly convex; frons slightly wider than rostrum at apex; eyes moderately strongly convex, latero-ventral. **Prothorax.** Strongly transverse; postocular lobes lacking; lacking evident setae; punctures completely or nearly completely concealed by scales and occasional waterproof coating. **Scutellum.** Large, round, visible. **Elytra.** Humeri well-developed, subquadrately rounded; sides subparallel (to unevenly swollen behind) to declivity, there broadly narrowed to conjointly rounded apices; sutural interval not depressed; intervals flat, none more elevated, all intervals with moderately conspicuous setae; striae lacking enlarged foveae; macropterous. **Venter.** Prosternum not medially sulcate, lacking ridge or elevation in front of fore coxa; all scales hydrofuge; 1st and 2nd abdominal sterna of female not vaulted, flat to weakly convex, on same level as 3rd, 4th, and 5th sterna. **Legs.** Moderately slender to moderately stout; fore coxae contiguous, not strongly elongated, middle coxae moderately separated; femora unarmed, clothed only with hydrofuge scales; outer margin of apex of tibiae rounded to subquadrate, lacking denticle; middle tibiae normal (not bladeliike, with evenly strongly curved outer margin); tibiae clothed with dense hydrofuge scales, lacking long swimming hairs or setae, not denticulate on inner margin, with small distinct uncus, lacking praemucro; tarsi short to moderately long, segments together not as long as tibia, with moderate to short hairs and pubescence, sublinear, 3rd segment moderately deeply bilobed, 4th segment not visible in lateral view, claw segment clearly extending beyond 3rd, lacking apical long curled seta, lacking pad or scale between long fine divergent tarsal claws. **Male genitalia and associated structures.** Phallus lacking

flagellum; apodemes *ca* as long as median lobe, inserted near base of median lobe; median lobe flat to moderately flat, dorsal plate present, very obvious; membranous sac short, far from reaching tips of apodemes, with large basal sclerite, and spicules on basal portion; tegmen closed, usually lacking inwardly directed processes (one species with median process); spiculum gastrale (9th sternite) greatly modified, apodeme lacking or reduced, arms subparallel, lateral "wings" indistinct; 10th sternite not divided, with median apodeme; 10th tergite lacking anteriorly directed processes, with moderately narrow to moderately broad "liplike" edge, much narrower medially because of outer emargination. **Female genitalia and associated structures.** Eighth sternite with apodeme bifurcate on apical 1/3-2/3, free portion somewhat to much longer than blade; spermatheca with cuticle completely reticulate; ramus short to medium-sized, arising near nodulus; nodulus short, not curved toward cornu; spermathecal duct medium-sized, flexible, attached near base of bursa copulatrix; bursa not constricted at base; coxite not flattened, but somewhat narrowed on apical portion; stylus medium to long, subapical; apex of 9th tergite rounded to weakly emarginate, margin irregular; apex of 10th tergite rounded or strongly emarginate, margin irregular. **Gender.** Masculine. **Type species.** *Stenopelmus rufinasus* Gyllenhal 1836, by original designation.

***Penestes (Penestes)* Schönherr 1825**
Figures

REDESCRIPTION. Small to medium-sized (length, 1.6 to 3.2 mm), elongate-oval to broad oval, robust to very robust; cuticle dark reddish brown to black; densely clothed with imbricate scales, and with thick waterproof coating. **Rostrum.** Thick, scarcely curved dorsally, ventrally nearly straight, apically depressed, subequal to length of prothorax; dorsal and lateral surface with waterproof coating; scrobe long, dorsal margin visible, continued toward lower margin of eye; suprascrobal groove narrow, often partly concealed by waterproof coating, clothed with dense hydrofuge scales. **Antenna.** Inserted at *ca* 1/5 from apex, scape not reaching eye, with numerous, rather coarse setae; funicle 6-segmented; club moderately short, broad-oval to moderately long, elongate-oval, symmetrical, completely pubescent. **Head.** Moderately convex; frons slightly to much wider than rostrum at apex, slightly to strongly gibbous between eyes; eyes moderately convex, lateral. **Prothorax.** Moderately to strongly transverse; postocular lobe strong; with numerous, generally distributed, erect to suberect, coarse, curled setae; dense, large punctures concealed only in part by dense scales and waterproof coating. **Scutellum.** Round, visible. **Elytra.** Humeri well developed, subquadrately rounded; sides subparallel to declivity, there rather broadly narrowed to conjointly rounded apices; sutural interval not depressed; intervals moderately to strongly convex, odd numbered intervals more elevated, and with conspicuous, erect to suberect, coarse, curled setae; striae lacking enlarged foveae; macropterous. **Venter.** Prosternum not medially sulcate, lacking ridge or elevation in front of fore coxa, although some appearing to possess ridge in front of fore coxae formed by thick waterproof coating on sides of pronotum; all scales agglutinate; mesepimeron normal, lacking anteriorly projecting tubercle; 1st and 2nd abdominal sterna of female vaulted, although often shallowly medially impressed, on markedly different level than 3rd, 4th, and 5th sterna; abdominal sterna completely densely clothed with imbricate scales and waterproof coating (except for partially glabrous 5th sternum). **Legs.** Moderately stout, fore coxae contiguous, not strongly elongated; middle coxae well separated; femora unarmed, lacking hydrofuge scales or pubescence on inner face; femora and tibiae with all scales agglutinate; outer margin of apex of tibiae rounded to subquadrate, lacking denticle; middle tibiae normal (not bladeliike, with evenly strongly curved outer margin); tibiae with several,

strong, serrate denticles on inner margin, with short stout uncus and praemucro; tarsi short, segments together not as long as tibia, with ventral to lateral, moderate to short hairs and pubescence, not linear, 3rd segment deeply bilobed, 4th segment not visible in lateral view, claw segment clearly extending beyond 3rd, lacking apical long curled seta, lacking pad or scale between short, stout, divergent, tarsal claws. **Male genitalia and associated structures.** **Female genitalia and associated structures.** **Gender.** Masculine. **Type species.** *Rhynchaenus tigris* Fabricius 1801, by original designation.

Penestes (Pantotelooides) Hustache 1932 subgenus, new status

Figures

REDESCRIPTION. Small to medium sized (length, 1.80 to 3.40 mm), elongate-oval, slender to moderately stout; cuticle yellowish red to reddish brown; waterproof coating variable, from thick to scarcely evident. **Rostrum.** Slender to moderately stout, weakly evenly curved, often apically depressed, longer than length of prothorax; at most dorsal surface with waterproof coating; suprascrobal groove usually lacking, narrow if present. **Antenna.** Scape not reaching eye, or scape extending over 1/3 of eye. **Head.** Weakly convex; frons much wider than rostrum at apex, never gibbous between eyes. **Prothorax.** Slightly transverse to subequal in length and width; postocular lobe usually lacking, rarely weakly developed; dense punctures usually concealed by scale coating. **Elytra.** Sutural interval not depressed; intervals flat to weakly convex, none more elevated. **Venter.** Scales of prosternum in front of coxae hydrofuge; abdominal sterna usually glabrous to subglabrous, although often with dense lateral scales on sterna 1 and 2. **Male genitalia and associated structures.** **Female genitalia and associated structures.** **Gender.** Masculine. **Type species.** "*Pantoteles?*" *variabilis* Chevrolat 1879, by original designation.

Genus VI O'Brien, new genus

Figures

DESCRIPTION. Very small (1.20-1.45 mm), moderately robust, somewhat elongate-oval; cuticle reddish brown; dorsum and venter densely clothed with imbricate scales and waterproof coating. **Rostrum.** Moderately stout, subequal to length of prothorax, weakly evenly curved; scrobe short, directed ventrally; suprascrobal groove lacking; dorsal and lateral surfaces with waterproof coating. **Antenna.** Inserted *ca* 1/5 from apex of rostrum; scape not reaching eye, with numerous, recumbent, coarse setae; funicle 6-segmented; club short, broad-oval, symmetrical, completely pubescent. **Head.** Moderately convex; frons subequal in width to rostrum at apex; eyes moderately convex; latero-ventral. **Prothorax.** Transverse; postocular lobes strong; with numerous, generally distributed, erect to suberect, coarse, curled setae; dense, large punctures concealed only in part by dense scales and waterproof coating. **Scutellum.** Round, visible. **Elytra.** Humeri well-developed, subquadrately rounded; sides subparallel to declivity, there suddenly strongly narrowed to conjointly rounded apices; sutural interval not depressed; intervals flat to weakly convex, none more elevated, odd-numbered with conspicuous, erect to suberect, coarse, curled setae; striae lacking enlarged foveae; macropterous. **Venter.** Prosternum not medially sulcate, lacking ridge or elevation in front of fore coxa; all scales agglutinate; mesepimeron normal, lacking anteriorly projecting tubercle; 1st and 2nd abdominal sterna of female not vaulted, flat to weakly convex, on same level as 3rd, 4th, and 5th sterna. **Legs.** Moderately slender; fore coxae contiguous, not strongly

elongated, middle coxae moderately separated; femora unarmed, clothed only with agglutinate scales (lacking hydrofuge scales or pubescence on inner face); outer margin of apex of tibiae rounded to subquadrate, lacking denticle; middle tibiae normal (not bladelike, with evenly strongly curved outer margin); tibiae clothed only with agglutinate scales, on inner margin with several long, fine, straight setae, not denticulate on inner margin, with short stout uncus, and praemucro; tarsi short, segments together not as long as tibia, with moderate to short hairs and pubescence, not linear, 3rd segment deeply bilobed, 4th segment not visible in lateral view, claw segment clearly extending beyond 3rd, lacking apical long curled seta, and lacking pad or scale between short, fine, divergent, tarsal claws. **Male genitalia.**

Female genitalia. Gender. Masculine. **Type species.** *Genus VI, species 1* new species, by present designation.

***Genus VI, species 1* O'Brien, new species**

Figures

DESCRIPTION. Very small (length, 1.20-1.45 mm.) moderately stout; indistinctly bicolored, fasciate, brown and silvery tan.

HOLOTYPE MALE. Rostrum. Subgibbous, dorsally swollen for most of length, distinctly set off from vertex of head; clothed with numerous coarse suberect curled setae, only apical dorsal 1/12 glabrous, sides glabrous only in front of antennal insertion. **Head.** Densely coarsely punctate, punctures nearly concealed by dense imbricate scales and thick waterproof coating. **Prothorax.** Weakly transverse, *ca* 1/10 wider than long; widest near middle, sides weakly rounded from base to weak subapical constriction; base bisinuate, apex convexly evenly rounded, unicolored, brown. **Elytra.** 1.60 X as wide as prothorax; disc not undulate, nearly flat in side view; striae broad, well defined, with large deep punctures, 1 and 2 narrower (between punctures, may be partially concealed by scales and waterproof coating); with humeral and post-humeral pale silvery tan fascia, and similar colored broad transverse antedeclevital fascia (usually interrupted on suture). **Venter.** Unicolored, pale silvery tan; mesosternum flattened, not projecting anteriorly; 1st abdominal sternum rather narrowly, shallowly, medially impressed, 2nd basally flat, apically weakly declivous; 5th sternum flat, with apical 1/3 transversely glabrous. **Legs.** Femora moderately clavate; tibiae broad, laterally flattened, with moderately stout and acute uncus, with narrow angular glabrous apical area; tarsi clothed dorsally with broad hydrofuge scales. **Genitalia.** See Fig. . Length, pronotum and elytron: 1.30 mm.

ALLOTYPE FEMALE. No female specimen available.

Etymological Note.—

Type locality.—Panama, Canal Zone, Barro Colorado Island.

Remarks and Comparative Notes.—

Range.—Known from Colombia, Costa Rica, Guatemala and Panama.

Material Examined.—**COLOMBIA: Antioquia DEPT:** Above Rio Anori, 550 m., Blacklight Trap, primary forest, 21-IX-1970 (1, CWOB). **COSTA RICA: Heredia Province:** F. La Selva, 3 km. S. Pto. Viejo, 10°26'N 84°01'W, 10-III-1980, H.A.Hespenheide (1, CHAH); La Selva Biol. Sta., 3 km. S. Pto. Viejo, 10°26'N 84°01'W, 14-IV-1989, H.A.Hespenheide (1, CWOB).

GUATEMALA: [Izabal:] Livingston, "8-5", Barber & Schwarz Coll. (1, USNM). **PANAMA:** Canal Zone: 9°30'N 80°00'W, 29-X-1972, 20m., sweeping, J. Helava (1, HAHC); Barro Colorado Island, 9°10'N 79°30'W, 10-III-1970, H.A.Hespenheide (1, CHAH), 1-VI-1977, H.A.Hespenheide (1, BMNH); *Pseudobombax* flower fall, Snyder-Molino 2 [trail], 12-II-1976, A.Newton (1, CWOB); UV Trap (3 m. high), 2-I-1979, H.Wolda (1, FSCA); 9-I-1979, H.Wolda (1, CWOB); 22-I-1979, H.Wolda (Holotype, CWOB); 28-II & 1-III-1979, H.Wolda (1, CWOB); Pipeline Road, 12-V-1978, C.W.& L.B.O'Brien & [G.B.]Marshall (1, CWOB); [Colon:] Porto Bello, 2-III-1911, E.A.Schwarz (1, USNM).

Tanysphyrus Germar 1817
Figures

REDESCRIPTION. Small to medium-sized (length, 1.10-3.00 mm), robust, oval to oblong-oval; cuticle entirely black, or with only appendages reddish brown; clothed densely or sparsely with (easily abraded) hydrofuge scales and often covered by waterproof coating. **Rostrum.** Slender to moderately stout, shorter than, subequal to, or longer than prothorax, weakly, evenly curved, to nearly straight; scrobe long, dorsal margin visible, continued toward lower margin of eye; suprascrobal groove present, although poorly defined, subglabrous or clothed with moderately dense hydrofuge scales; lacking evident waterproof coating. **Antenna.** Inserted *ca* 1/3 from apex of rostrum; scape not reaching eye, with few, rather coarse setae; funicle 6-segmented; club short, broad-oval, symmetrical, completely pubescent. **Head.** Weakly convex; frons much narrower (*ca* 1/3-1/2) than width of rostrum at apex; eyes moderately convex, latero-ventral. **Prothorax.** Slightly to strongly transverse; postocular lobes lacking; with few, relatively inconspicuous, marginal setae; dense to moderately dense, large punctures, concealed (at times only in part) by dense scales and waterproof coating. **Scutellum.** Round, visible. **Elytra.** Humeri well-developed, subquadrately rounded; strongly swollen behind sides to subparallel to declivity, there suddenly strongly narrowed to conjointly rounded apices; sutural interval not depressed; intervals moderately convex, none more elevated, all intervals with inconspicuous, recumbent setae; striae lacking enlarged foveae; macropterous. **Venter.** Prosternum not medially sulcate, lacking ridge or elevation in front of fore coxa; all scales hydrofuge; mesepimeron normal, lacking anteriorly projecting tubercle; 1st and 2nd abdominal sterna of female not vaulted, flat to weakly convex, on same level as 3rd, 4th, and 5th sterna. **Legs.** Moderately stout; fore coxae contiguous, not strongly elongated, middle coxae moderately separated; femora unarmed, lacking agglutinate scales (all scales hydrofuge); outer margin of apex of tibiae rounded to subquadrate, lacking denticle; middle tibiae normal (not bladeliike, with evenly strongly curved outer margin); tibiae lacking agglutinate scales (inner surface with dense hydrofuge scales), lacking long swimming hairs or setae, not denticulate on inner margin, with strong uncus, and praemucro; tarsi short, segments together not as long as tibia, with moderate to short hairs and pubescence, not linear, 3rd segment deeply bilobed, 4th segment not visible in lateral view, claw segment scarcely extending beyond 3rd, lacking apical long curled seta, and lacking pad or scale between long fine divergent tarsal claws. **Male genitalia and associated structures.** Phallus lacking flagellum; apodemes somewhat longer than median lobe, inserted near base of median lobe; median lobe moderately deep, with dorsal plate; membranous sac long, reaching tips of apodemes, lacking sclerites and spicules; tegmen open apically; spiculum gastrale (9th sternite) rather evenly, moderately curved in lateral view, apodeme rodlike, arms long, not fused nor expanded apically, lacking lateral "wings"; 10th sternite divided into two plates; 10th tergite lacking anteriorly directed processes, with very narrow (scarcely distinct) "liplike" edge. **Female genitalia and**

associated structures. Eighth sternite with apodeme bifurcate on apical 2/5, free portion somewhat longer than blade; spermatheca with cuticle nonreticulate; ramus medium-sized, arising next to nodulus; nodulus short, not curved toward cornu; spermathecal duct short, flexible, attached near middle of bursa copulatrix; bursa not constricted at base; coxite not flattened, nor narrowed on apical portion; stylus medium-sized, apical; apex of 9th and apex of 10th tergites rounded, margin broadly, weakly denticulate. **Gender.** Masculine. **Type species.** *Curculio lemnae* Fabricius 1792, by indication (monotypy).

Notiodes Schönherr 1838

Figures

REDESCRIPTION. Small to large (1.40-6.00 mm), Stout to slender, (shape variable) broad-oval, elongate-oval to elongate-cylindrical; cuticle reddish brown to black; densely clothed with imbricate scales; dorsum usually with waterproof coating, venter usually lacking coating. **Rostrum.** Slender, moderately stout to thick, usually curved (evenly or unevenly), rarely straight, usually subequal in length to (or longer than) prothorax, rarely shorter; scrobe long to short, dorsal margin usually visible, continued toward lower margin of eye; suprascrobal groove broad to narrow, at times partly concealed by waterproof coating, clothed with dense hydrofuge scales; dorsal surface (and often lateral surface) with waterproof coating. **Antenna.** Inserted at *ca* 1/4 from apex to just behind middle, scape not reaching eye, with one to several coarse to fine setae (often graded); funicle 6-segmented; club moderately short, moderately broad-oval, symmetrical, completely pubescent. **Head.** Moderately to weakly convex; frons subequal in width to rostrum at apex (rarely much wider); eyes moderately to weakly convex, lateral to latero-ventral. **Prothorax.** Usually strongly transverse (rarely subequal in length and width); postocular lobe usually lacking (rarely moderately strong); with few, relatively inconspicuous, marginal setae or with numerous, generally distributed, erect to suberect, coarse, curled setae; dense punctures variable-sized, concealed only in part by dense scales and/or waterproof coating. **Scutellum.** Round, small to very small, visible. **Elytra.** Humeri well-developed, usually rounded, to obliquely angulate; sides subparallel to unevenly swollen to declivity, there suddenly strongly narrowed to usually conjointly rounded apices, occasionally with subacute, and slightly emarginate apices; sutural interval not depressed; intervals usually flat, to weakly convex, none more elevated, odd-numbered intervals with scarcely evident, suberect, coarse setae, or all intervals with conspicuous setae; striae lacking enlarged foveae; macropterous. **Venter.** Prosternum not medially sulcate, lacking ridge or elevation in front of fore coxa, usually with all or most scales hydrofuge; mesepimeron with anteriorly projecting, scale covered process; 1st and 2nd abdominal sterna of female not vaulted, flat to weakly convex, on same level as 3rd, 4th, and 5th sterna. **Legs.** Stout, to moderately stout; fore coxae contiguous, not strongly elongated; middle coxae moderately to well-separated; femora unarmed, lacking hydrofuge scales or pubescence on inner face, or nearly all scales hydrofuge; outer margin of apex of tibiae rounded to subquadrate, lacking denticle; middle tibiae normal (not bladeliike, with evenly strongly curved outer margin); outer surface of tibiae with dense agglutinate scales, inner surface with dense hydrofuge scales, lacking long swimming hairs or setae, usually serrately denticulate on inner margin, or rarely not denticulate on inner margin, with short stout uncus, and praemucro; tarsi short to moderately long, segments together not as long as tibia, with ventral to lateral, moderate to short hairs and pubescence, not linear, 3rd segment wider than 2nd and deeply bilobed, 4th segment not visible in lateral view, claw segment not extending beyond 3rd, lacking apical long curled seta, and with broad pad or scale between moderately long stout divergent tarsal

claws. **Male genitalia and associated structures.** **Female genitalia and associated structures.** **Gender.** Masculine. **Type species.** *Notiophilus limatulus* Gyllenhal 1836, by original designation.

Neohydronomus Hustache 1926
Figures

REDESCRIPTION. Small (1.44-2.58 mm), moderately stout, oblong-oval; cuticle reddish brown to black; most of dorsum densely clothed with contiguous to imbricate scales, and with waterproof coating (except in *N. affinis*), venter with only hydrofuge scales. **Rostrum.** Stout, straight or nearly so, usually shorter than prothorax; ventral surface with median, basal carina; scrobe dorsal margin visible, continued toward lower margin of eye; suprascrobal groove lacking; dorsal and lateral surface usually lacking waterproof coating. **Antenna.** Inserted at ca 1/5 to 1/3 from apex, scape reaching eye; with few, rather coarse setae; funicle 6-segmented; club short, broad-oval, symmetrical, completely pubescent. **Head.** Weakly convex, frons at least 3/4 as wide as width of rostrum at apex; eyes moderately convex; lateroventral. **Prothorax.** Transverse, slightly longer than wide or subequal in length and width; postocular lobes feeble but evident; with few, relatively inconspicuous, marginal setae; disc impunctate, or fine or coarse punctures often concealed by scales or waterproof coating. **Scutellum.** Minute, scarcely visible. **Elytra.** Humeri well-developed, subquadrately rounded, moderately projecting; sides even slightly swollen or subparallel to declivity, there suddenly strongly narrowed to conjointly rounded apices; sutural interval not depressed; intervals flat to weakly convex, none more elevated, intervals flat to moderately convex, odd-numbered intervals either of equal width and convexity, or wider and more elevated than even-numbered ones; always with complete row of evident, suberect, curved setae, even-numbered intervals with at most only few such setae, never in rows; striae with enlarged foveae; macropterous. **Venter.** Prosternum not medially sulcate, lacking ridge or elevation in front of fore coxa; all scales hydrofuge; mesepimeron normal, lacking anteriorly projecting tubercle; 1st and 2nd abdominal sterna of female not vaulted, flat to weakly convex, on same level as 3rd, 4th, and 5th sterna. **Legs.** Moderately stout; fore coxae contiguous, not strongly elongated; middle coxae moderately separated; femora unarmed, with all scales hydrofuge; outer margin of apex of tibiae rounded to subquadrate, lacking denticle; middle tibiae normal (not bladeliike, with evenly strongly curved outer margin); tibiae with all scales dense and hydrofuge, lacking long swimming hairs or setae, with minute denticles on inner margin, all with stout apical uncus, and with small fine praemucro on fore and middle legs only; tarsi moderately long, segments together not as long as tibia, not linear, 3rd segment distinctly wider than 2nd and deeply bilobed, 4th segment not visible in lateral view, claw segment clearly extending beyond 3rd lacking apical long curled seta, and lacking pad or scale between long fine approximate tarsal claws. **Male genitalia and associated structures.** Phallus of "orthocerous" type; flagellum absent; membranous sac not reaching tip of apodemes, with large, inverted V-shaped, median basal sclerite; tegmen ringlike; spiculum gastrale (9th sternite) with base greatly expanded laterally and arms fused. **Female genitalia and associated structures.** 8th sternite weakly sclerotized, with medium to long setae, many bifurcate; spermatheca moderately sclerotized, cuticle reticulate in part; ramus subcylindrical, somewhat curved toward nodulus; spermathecal gland with scarcely visible (at 300X), short, recumbent to subrecumbent setae directed toward ramus; nodulus constricted apically; spermathecal duct attached subapically to bursa copulatrix; stylus subapical, medium-sized, with 2 apical setae. **Gender.** Masculine. **Type species.** *Neohydronomus pulchellus* Hustache 1926, by indication

(monotypy).

***Argentinorhynchus* Brèthes 1910**
Figures

REDESCRIPTION. Small to large (2.30-5.30 mm), stout, moderately-oval to broad-oval; cuticle reddish brown to black; dorsum with sparse scales or scalelike setae, or with imbricate hydrofuge (plumose) scales, venter with dense hydrofuge (plumose) scales only; dorsum and venter lacking waterproof coating. **Rostrum.** Stout, shorter than length of prothorax; often nearly straight, with dorsal surface weakly curved to gibbous, ventral surface straight, weakly concavely curved to convexly swollen; scrobe long, dorsal margin when visible, continued toward lower margin of eye, not evident in some species; suprascrobal groove present, although usually poorly defined, clothed with dense hydrofuge scales; lacking waterproof coating. **Antenna.** Inserted at *ca* 1/5 to 1/3 from apex, scape extending over 1/3 to 1/2 of eye, scape at least reaching eye, may extend over 1/4 of eye, with numerous, recumbent, moderately fine setae; funicle 6-segmented; club elongate-oval, symmetrical, completely pubescent. **Head.** Convex; frons less than 1/2 width of rostrum at apex; eyes moderately strongly convex, lateral. **Prothorax.** Transverse to subequal in length and width; postocular lobe lacking; lacking evident setae; impunctate or with evident punctures not concealed by scales. **Scutellum.** Small, round, visible. **Elytra.** Humeri well developed, subquadrately rounded; sides subparallel to slightly swollen behind to declivity, there suddenly strongly narrowed to conjointly rounded apices; sutural interval not depressed; intervals flat to weakly convex, none more elevated, lacking conspicuous setae; striae lacking enlarged foveae; macropterous. **Venter.** Prosternum not medially sulcate, lacking ridge or elevation in front of fore coxa; all scales hydrofuge (lacking agglutinate scales); mesepimeron normal, lacking anteriorly projecting tubercle; 1st and 2nd abdominal sterna of female not vaulted, flat to weakly convex, on same level as 3rd, 4th, and 5th sterna. **Legs.** Moderately stout; fore coxae contiguous, not strongly elongated, middle coxae moderately separated; femora unarmed, with hydrofuge scales on entire surface; tibiae lacking agglutinate scales; outer margin of apex of tibiae rounded to subquadrate, lacking denticle; middle tibiae normal (not bladelike, with evenly strongly curved outer margin); tibiae lacking dense scales, with dense moderately short setae on inner margin, with long to short stout uncus, and praemucro; tarsi long, segments together not as long as tibia, with ventral to lateral, moderate to short hairs and pubescence, at times with extremely long apical tuft of swimming hairs on one side of 3rd tarsal segment (*minimus* group), sublinear, 3rd segment deeply bilobed, 4th segment not visible in lateral view, claw segment clearly extending beyond 3rd, lacking apical long curled seta, lacking pad or scale between long fine approximate tarsal claws. **Male genitalia and associated structures.** **Female genitalia and associated structures.** **Gender.** Masculine. **Type species.** *Argentinorhynchus breyeri* Brèthes 1910, by original designation.

***Neochetina* Hustache 1926**
Figures

REDESCRIPTION. Small to large (2.80-6.20 mm), stout, broad-oval to somewhat elongate-oval; cuticle reddish brown to black; dorsum and much of venter densely clothed with imbricate scales and waterproof coating. **Rostrum.** Slender to moderately stout, weakly to moderately strongly evenly curved, occasionally nearly straight, subequal to or longer than

length of prothorax; dorsal and lateral surface with waterproof coating, often abraded in females; scrobe long, dorsal margin visible, continued toward lower margin of eye; suprascrobal groove deep, broad to narrow, at times partly concealed by waterproof coating, clothed with dense hydrofuge scales. **Antenna.** Inserted at *ca* 1/5 from apex to just in front of middle, scape not reaching eye, with one moderately coarse seta (often abraded); funicle 6-segmented; club moderately elongate, moderately broad-oval, symmetrical, completely pubescent. **Head.** Convex to moderately convex; frons subequal in width to, to much wider than rostrum at apex; eyes moderately strongly convex, lateral. **Prothorax.** Strongly transverse; postocular lobe strong; lacking evident setae; punctures concealed by scales and waterproof coating. **Scutellum.** Not visible. **Elytra.** Humeri obliquely well-developed, often with angulate process behind; sides subparallel to declivity, there suddenly strongly narrowed to conjointly rounded apices; sutural interval not depressed; intervals flat to weakly convex, none more elevated, odd-numbered intervals with inconspicuous to conspicuous, suberect, fine setae; striae lacking enlarged foveae; macropterous. **Venter.** Prosternum medially sulcate, with strongly developed ridge in front of fore coxa; scales of prosternum, part of mesosternum, and coxae hydrofuge; mesepimeron normal, lacking anteriorly projecting tubercle; 1st and 2nd abdominal sterna of female not vaulted, flat to weakly convex, on same level as 3rd, 4th, and 5th sterna. **Legs.** Stout, fore coxae subcontiguous to well-separated, not strongly elongated; middle coxae well-separated; femora unarmed, with dense agglutinate scales (usually lacking hydrofuge scales or pubescence on inner face, occasionally with hydrofuge scales on basal 1/3); outer margin of apex of tibiae rounded to subquadrate, lacking denticle; middle tibiae normal (not bladeliike, with evenly strongly curved outer margin); outer surface of tibiae with dense agglutinate scales, inner surface of tibiae with dense hydrofuge scales, lacking long swimming hairs or setae, with several fine scarcely evident denticles on inner margin, with strong uncus, and praemucro; tarsi moderately short, segments together not as long as tibia, with ventral to lateral, moderate to short hairs and pubescence, not linear, 3rd segment wider than 2nd and deeply bilobed, 4th segment not visible in lateral view, claw segment clearly extending beyond 3rd, with one apical long curled seta. and lacking pad or scale between long fine approximate tarsal claws. **Male genitalia and associated structures.** **Female genitalia and associated structures.** **Gender.** Feminine. **Type species.** *Neochetina bruchi* Hustache 1926, by subsequent designation (O'Brien 1976).

Genus I. O'Brien, new genus

Figures

DESCRIPTION. Small to medium-sized (length, 2.20-3.40 mm), robust, broad-oval; cuticle black to reddish brown; dorsum and most of venter densely clothed with contiguous and imbricate scales and waterproof coating. **Rostrum.** Moderately thick, subequal to length of prothorax, usually swollen dorsally at antennal insertion (more evident in males), evenly curved ventrally, subquadrate expanded apically; suprascrobal groove broad to narrow, clothed with dense hydrofuge pubescence; dorsal surface with waterproof coating (often abraded). **Antenna.** Inserted *ca* 1/3-2/5 from apex of rostrum; scape not reaching eye, glabrous; funicle 6-segmented; club broad-oval, symmetrical, 1st segment glabrous, usually less than 1/2 length of club. **Head.** Weakly convex; frons subequal in width to rostrum at apex; eyes moderately convex, latero-ventral. **Prothorax.** Strongly transverse; postocular lobes very feeble; lacking evident setae; punctures partially or completely concealed by dense scales and waterproof coating. **Scutellum.** Not visible. **Elytra.** Humeri obliquely, angulately moderately developed; sides moderately swollen behind to declivity, there broadly, strongly narrowed to

conjointly rounded apices; sutural interval not depressed; intervals moderately convex, none more elevated nor with evident setae; striae with fine to coarse punctures, not enlarged foveae; macropterous. **Venter.** Prosternum not medially sulcate, although occasionally appearing to possess ridge in front of fore coxa formed by thick waterproof coating on sides of pronotum; scales of prosternum, part of mesosternum, coxae, and of 3rd and 4th abdominal sterna hydrofuge; mesepimeron normal, lacking anteriorly projecting tubercle; 1st and 2nd abdominal sterna of male and female vaulted, although shallowly, medially impressed, on markedly different level than 3rd, 4th, and 5th sterna. **Legs.** Moderately slender; fore coxae contiguous, not strongly elongated, middle coxae well-separated; femora unarmed, clothed with dense agglutinate scales (lacking hydrofuge scales or pubescence on inner face); outer margin of apex of tibiae rounded to subquadrate, lacking denticle; middle tibiae normal (not bladelike, with evenly strongly curved outer margin); outer surface of tibiae clothed with dense agglutinate scales, inner surface with dense hydrofuge pubescence, lacking long swimming hairs or setae, not denticulate on inner margin, with small distinct uncus, with praemucro on fore and middle tibiae; tarsi moderately long, segments together not as long as tibia, with moderate to short hairs and pubescence, linear, 3rd segment emarginate, 4th segment not visible in lateral view, claw segment clearly extending beyond 3rd, lacking apical long curled seta, and lacking pad or scale between long fine approximate tarsal claws. **Male genitalia and associated structures.** Phallus lacking flagellum; apodemes much longer than median lobe, inserted near middle of median lobe; median lobe flat (flatter toward apex), dorsal plate indistinct, ventral plate narrowing rapidly (but evenly) behind apodemal insertions; membranous sac just reaching or somewhat exceeding tips of apodemes, with large apical plate, and spicules for most of length; tegmen closed apically, with two long (partially fused medially), inwardly directed processes fused to sides of ring; spiculum gastrale (9th sternite) moderately evenly, slightly curved in lateral view, apodeme rodlike, to strongly laterally expanded on basal portion, arms medium-sized, fused apically, with moderate to broad, thin (almost transparent), lateral "wings"; 10th sternite divided into two plates; 10th tergite lacking anteriorly directed processes, apical margin with narrow "liplike" edge. **Female genitalia and associated structures.** Eighth sternite with apodeme not bifurcate on apical portion, broadening toward apex (abruptly so on apical portion), free portion somewhat to moderately longer than blade; spermatheca with cuticle partially to almost completely reticulate; ramus indistinct, spermathecal gland arising far from nodulus; nodulus short, not curved toward cornu; spermathecal duct short to medium-sized, flexible, attached near apex of bursa copulatrix; bursa not constricted at base; coxite not flattened, nor narrowed on apical portion; stylus short, apical; apex of 9th tergite subtruncate to slightly emarginate, margin somewhat irregular; apex of 10th tergite rounded to slightly emarginate, margin slightly irregular. **Gender.** Feminine. **Type species.** *Genus 1, species 1*, by present designation.

Ochetina Pascoe 1881
Figures

REDESCRIPTION. Small to large (2.80-5.00 mm), robust, moderately broad-oval; cuticle reddish brown to black; dorsum and much of venter densely clothed with imbricate scales and waterproof coating. **Rostrum.** Slender, longer than to subequal to length of prothorax, evenly to unevenly curved; scrobe long, continued toward lower margin of eye, dorsal margin not evident; suprascrobal groove lacking; dorsal and lateral surfaces with waterproof coating (often abraded). **Antenna.** Inserted *ca* 1/3 from apex of rostrum to just before middle; scape not reaching eye, with few, rather coarse setae; funicle 6-segmented; club

moderately short, broad-oval to moderately long and elongate-oval, symmetrical, completely pubescent. **Head.** Moderately to weakly convex; frons much wider than rostrum at apex; eyes moderately convex, latero-ventral. **Prothorax.** Strongly transverse; postocular lobes feeble; lacking evident setae; punctures usually concealed by scales and waterproof coating. **Scutellum.** Not visible. **Elytra.** Humeri obliquely to subquadrately rounded, moderately developed; sides subparallel to weakly unevenly swollen behind to declivity, there suddenly strongly narrowed to conjointly rounded apices; sutural interval not to moderately depressed; intervals moderately convex, none more elevated; lacking conspicuous setae; striae lacking enlarged foveae; macropterous. **Venter.** Prosternum not medially sulcate, lacking ridge or elevation in front of fore coxa; scales of prosternum, part of mesosternum, and coxae hydrofuge; mesepimeron normal, lacking anteriorly projecting tubercle; 1st and 2nd abdominal sterna of female not vaulted, moderately convex, but not on same level as 3rd, 4th, and 5th sterna. **Legs.** Moderately stout; fore coxae contiguous, not strongly elongated, middle coxae contiguous; femora unarmed, clothed with dense agglutinate scales (lacking hydrofuge scales or pubescence on inner face); outer margin of apex of tibiae rounded to subquadrate, lacking denticle; middle tibiae normal (not bladeliike, with evenly strongly curved outer margin); outer surface of tibiae clothed with dense agglutinate scales, inner surface with dense hydrofuge scales, lacking long swimming hairs or setae, serrately denticulate, with strong uncus, and praemucro; tarsi moderately short to moderately long, segments together not as long as tibia, with moderate length hairs, linear, 3rd segment truncate to slightly emarginate, 4th segment not visible in lateral view, claw segment clearly extending beyond 3rd, with one apical long curled seta, and lacking pad or scale between long fine approximate tarsal claws. **Male genitalia and associated structures.** Phallus lacking flagellum or with rodlike flagellum; apodemes much longer than median lobe, inserted *ca* 2/5-2/3 from base of median lobe; median lobe moderately flat to moderately deep, dorsal plate indistinct, ventral plate narrowing moderately gradually to abruptly behind apodeme! insertions; membranous sac very long, largely exceeding tips of apodemes, with or without spicules on basal portion; tegmen closed apically, with two medium-size (medially fused), inwardly directed processes; spiculum gastrale (9th sternite) moderately evenly, weakly curved in lateral view, apodeme rodlike, arms medium to long, expanded apically, approximate or partially fused apically, with very broad, thin (almost transparent), lateral "wings" extending onto apical portion of apodeme; 10th sternite divided into two plates; 10th tergite lacking anteriorly directed processes, with narrow "liplike" edge. **Female genitalia and associated structures.** Eighth sternite with apodeme bifurcate on apical 1/3-2/5, free portion *ca* as long as blade; spermatheca with cuticle partially reticulate; ramus medium-size, arising next to nodulus; nodulus not or somewhat curved toward cornu; spermathecal duct short, flexible, attached at or near apex of bursa copulatrix; bursa not constricted at base; coxite not flattened, nor narrowed on apical portion; stylus short, subapical; apex of 9th tergite rounded to slightly emarginate, margin slightly irregular; apex of 10th tergite slightly emarginate, margin almost smooth. **Gender.** Feminine. **Type species.** *Ochetina uniformis* Pascoe 1881, by indication (monotypy).

Neobagous Hustache 1926

Figures

REDESCRIPTION. Small to medium-sized (length, 2.30-4.10 mm), moderately stout, elongate-oval to broad-oval; cuticle reddish brown to black; dorsum and venter densely clothed with imbricate scales and waterproof coating. **Rostrum.** Slender, evenly curved, longer than length of prothorax; scrobe long, dorsal margin visible, continued toward lower margin of eye;

suprascrobal groove narrow, often partly concealed by waterproof coating, clothed with dense hydrofuge scales; dorsal and lateral surface with waterproof coating. **Antenna.** Inserted at *ca* 3/10 from apex, scape not reaching eye, with one rather coarse seta (often abraded); funicle 6-segmented; club moderately short, broad-oval, symmetrical, completely pubescent. **Head.** Moderately convex; frons subequal in width to slightly wider than rostrum at apex; eyes moderately convex, latero-ventral. **Prothorax.** Strongly transverse; postocular lobe strong; with numerous, generally distributed, erect to suberect, coarse, curled setae (at times concealed by dense waterproof coating); dense, large punctures usually concealed only in part by dense scales and waterproof coating. **Scutellum.** Not visible. **Elytra.** Humeri obliquely, well-developed, sides subparallel to declivity, there suddenly strongly narrowed to conjointly rounded apices; sutural interval not depressed; intervals flat to weakly convex, odd-numbered intervals slightly more elevated, with conspicuous, erect to suberect, coarse, curled setae; striae lacking enlarged foveae; macropterous. **Venter.** Prosternum not medially sulcate, lacking ridge or elevation in front of fore coxa; scales of prosternum, part of mesosternum, coxae, and of 3rd, 4th, and 5th abdominal sterna hydrofuge; mesepimeron normal, lacking anteriorly projecting tubercle; 1st and 2nd abdominal sterna of female not vaulted, flat to weakly convex, on same level as 3rd, 4th, and 5th sterna. **Legs.** Stout, fore coxae contiguous, not strongly elongated; middle coxae slightly separated; femora unarmed, clothed with dense agglutinate scales (lacking hydrofuge scales or pubescence on inner face); outer margin of apex of tibiae rounded to subquadrate, lacking denticle; middle tibiae normal (not bladeliike, with evenly strongly curved outer margin); outer surface of tibiae clothed with dense agglutinate scales, inner surface with dense hydrofuge scales, lacking long swimming hairs or setae, serrately denticulate on inner margin, with short stout uncus, and praemucro; tarsi short, segments together not as long as tibia, with ventral to lateral, moderate to short hairs and pubescence, not linear, 3rd segment deeply bilobed, 4th segment not visible in lateral view, claw segment clearly extending beyond 3rd, with one apical long curled seta, and lacking pad or scale between long fine approximate, tarsal claws. **Male genitalia and associated structures.** **Female genitalia and associated structures.** **Gender.** Masculine. **Type species.** *Neobagous coarcticollis* Hustache 1926, by original designation.

Onychylis LeConte 1876

Figures

Onychylis LeConte 1876:178 [description].

REDESCRIPTION. Small to medium-sized (length, 1.95-3.95 mm), slender, moderately elongate-oval; cuticle reddish brown to black; dorsum and much of venter densely clothed with imbricate scales and waterproof coating. **Rostrum.** Slender, subequal to, to somewhat longer than prothorax, almost straight to moderately curved; scrobe short, directed ventrally, or indistinct dorsal margin not evident; suprascrobal groove broad, moderately deep, densely clothed with hydrofuge scales; at least basal portion with waterproof coating (often abraded). **Antenna.** Inserted near middle to *ca* 1/3 from apex of rostrum; scape not reaching eye, with few rather fine setae; funicle 6-segmented; club moderately elongate-oval, symmetrical, completely pubescent. **Head.** Weakly convex; frons slightly wider than rostrum at apex; eyes weakly convex, latero-ventral. **Prothorax.** Moderately to strongly transverse; postocular lobes moderate to strong; with few, relatively inconspicuous, marginal setae; dense, large punctures not concealed by dense scales and waterproof coating. **Scutellum.** Not visible. **Elytra.** Humeri well-developed, rounded to obliquely, subangulately rounded; sides slightly impressed behind humeri, subparallel to declivity, there suddenly narrowed to conjointly rounded apices;

sutural interval not depressed; all intervals moderately convex; odd-numbered intervals slightly to somewhat more elevated, often somewhat tuberculate, and with evident suberect coarse setae; striae lacking enlarged foveae; macropterous. **Venter.** Prosternum not medially sulcate, lacking ridge or elevation in front of fore coxa; scales of prosternum, mesosternum, coxae, and abdominal sterna 3-5 hydrofuge; mesepimeron normal, lacking anteriorly projecting tubercle; 1st and 2nd abdominal sterna of female not vaulted, weakly to moderately convex, but not on same level as 3rd, 4th, and 5th sterna. **Legs.** Moderately slender; fore coxae contiguous, not strongly elongated; middle coxae moderately separated; femora unarmed, clothed with dense agglutinate scales (lacking hydrofuge scales or pubescence on inner face); outer margin of apex of tibiae rounded, lacking denticle; middle tibiae normal (not bladeliike, with evenly strongly curved outer margin); outer surface of tibiae clothed with dense agglutinate scales, inner surface with dense hydrofuge scales; tibiae lacking long swimming hairs or setae, not denticulate on inner margin, with moderate to strong uncus, and small to medium-sized praemucro on fore and middle legs; tarsi short, segments together not as long as tibia, clothed with hydrofuge pubescence, linear to sublinear, 3rd segment usually deeply bilobed (rarely only weakly emarginate), 4th segment not visible in lateral view, claw segment clearly extending beyond 3rd, with one apical long curled seta, and lacking pad or scale between long moderately fine approximate tarsal claws. **Male genitalia and associated structures.** Phallus lacking flagellum; apodemes much longer than median lobe, inserted *ca* 2/5-1/3 from apex of median lobe; median lobe moderately flat, dorsal plate indistinct, ventral plate narrowing slightly behind apodemal insertions; membranous sac short to medium-sized, far from reaching tips of apodemes, with large apical plate, and with small median sclerite, lacking spicules, or lacking median sclerite, with spicules throughout length; tegmen closed apically, with two long (partially fused medially), inwardly directed processes fused to sides of ring; spiculum gastrale (9th sternite) with arms at angle with apodeme in lateral view, apodeme moderately to strongly expanded laterally at base, arms short to medium-sized, fused, with narrow to moderate, thin (almost transparent), lateral "wings"; 10th sternite divided into two plates; 10th tergite lacking anteriorly directed processes, with narrow to moderately narrow "liplike" edge. **Female genitalia and associated structures.** Eighth sternite with apodeme bifurcate on apical 1/5-1/3, free portion as long as to somewhat longer than blade; spermatheca with cuticle partially reticulate; ramus almost indistinct to medium-sized, arising near nodulus; nodulus medium to long, somewhat to strongly curved toward cornu; spermathecal duct flexible, short, attached near middle of bursa copulatrix, or long, attached at apex of bursa copulatrix; bursa constricted at base; coxite not flattened, nor narrowed on apical portion; stylus short to medium-sized, apical; apex of 9th tergite slightly emarginate, margin almost smooth to somewhat irregular; apex of 10th tergite rounded to slightly emarginate, margin slightly, broadly irregular. **Gender.** Masculine. **Type species.** *Onychylis longulus* LeConte 1876, by subsequent designation (Wibmer & O'Brien 1986).

Genus II O'Brien, new genus

Figures

DESCRIPTION. Small to medium-sized (length, 1.95-3.50 mm), stout, moderately elongate-oval; cuticle black to reddish brown; dorsum and much of venter densely clothed with mostly imbricate scales and waterproof coating. **Rostrum.** Moderately stout, *ca* as long as prothorax, subequal in width throughout or suddenly, quadrately broadened in front of antennal insertions, moderately, rather evenly curved; scrobe directed ventrally but very short, completely visible in lateral view; suprascrobal groove broad, extending onto dorsal surface

of rostrum above antennal insertion, clothed with dense hydrofuge scales; *ca* basal 2/3 covered with waterproof coating. **Antenna.** Inserted *ca* 3/10-2/5 from apex of rostrum; scape not reaching eye, with few scarcely distinct setae on apical portion; funicle 6-segmented; club broad-oval to elongate-oval, symmetrical, completely pubescent. **Head.** Moderately convex; frons somewhat wider than rostrum at apex; eyes weakly to moderately convex, lateral. **Prothorax.** Distinctly transverse; postocular lobes moderate; lacking evident setae; dense punctures usually not concealed by scales and waterproof coating. **Scutellum.** Not visible. **Elytra.** Humeri well-developed, obliquely angulate; sides subparallel or slightly expanding to declivity, there suddenly narrowed to conjointly rounded apices; sutural interval not depressed; all intervals weakly to moderately convex, none more elevated, odd-numbered with row of short, sparse, scarcely evident setae; striae lacking enlarged foveae; macropterous. **Venter.** Prosternum not medially sulcate, lacking ridge or elevation in front of fore coxa; scales of prosternum, mesosternum, apical and basal margins of metasternum, coxae, and 3rd, 4th, and 5th abdominal sterna hydrofuge, most of remainder agglutinate; mesepimeron normal, lacking anteriorly projecting tubercle; 1st and 2nd abdominal sterna of male and female not vaulted, weakly concave to weakly convex, but not on same level as 3rd, 4th, and 5th sterna on both sexes. **Legs.** Moderately stout; fore coxae contiguous, not greatly elongated, middle coxae moderately separated; femora unarmed, covered with dense agglutinate scales; outer margin of apex of tibiae rounded, lacking acute denticle; middle tibiae normal (not bladelike, with evenly strongly curved outer margin); outer surface of tibiae covered with dense agglutinate scales, inner surface with dense hydrofuge scales, lacking swimming hairs or setae, not denticulate on inner margin, with large apical uncus, and medium-sized to large praemucro; tarsi medium-length to long, segments together not as long as tibia, with short, hydrofuge pubescence, not linear, 3rd segment somewhat wider than 2nd and deeply bilobed, 4th segment not visible in lateral view, claw segment clearly extending beyond 3rd, with one apical long curled seta, and lacking pad or scale between moderately stout divergent tarsal claws. **Male genitalia and associated structures.** Phallus lacking flagellum; apodemes much longer than median lobe, inserted *ca* 1/3 from apex of median lobe; median lobe moderately deep, dorsal plate indistinct, ventral plate narrowing rapidly behind apodemal insertions; membranous sac long, exceeding tips of apodemes, with large apical plate and many spicules usually located behind plate; tegmen closed apically, with two medium-sized (medially fused), inwardly directed processes; spiculum gastrale (9th sternite) with arms at angle with apodeme in lateral view, apodeme expanded ventrally or dorsoventrally at base, arms medium-sized, fused apically, with moderately narrow to broad, thin (almost transparent), lateral "wings"; 10th sternite divided into two plates; 10th tergite lacking anteriorly directed processes, with narrow to moderately narrow "liplike" edge. **Female genitalia and associated structures.** Eighth sternite with apodeme bifurcate on apical 1/3-2/5, free portion *ca* as long as blade; spermatheca with cuticle partially to almost completely (may not be very obviously) reticulate; ramus almost indistinct to medium-sized, arising near nodulus; nodulus medium to long, somewhat curved toward cornu; spermathecal duct short to medium-sized, flexible, attached near base, near middle, or at apex of bursa copulatrix; bursa not constricted at base; coxite not flattened, but somewhat narrowed on apical portion; stylus short, subapical; apex of 9th tergite rounded to weakly emarginate, margin somewhat irregular; apex of 10th tergite rounded, margin slightly irregular. **Gender.** Masculine. **Type species.** *Notiodes species 1*, by present designation.

Genus III O'Brien, new genus
Figures

DESCRIPTION. Small to medium-sized (length, 2.20-4.45 mm), moderately stout to moderately slender, moderately elongate-suboval; cuticle black to reddish brown; dorsum and much of venter densely clothed with mostly imbricate scales and waterproof coating. **Rostrum.** Moderately stout to moderately slender, shorter than to about as long as prothorax, subequal in width throughout or weakly, subquadrately broadened in apical portion, moderately, rather evenly curved; scrobe directed ventrally, only partially visible in lateral view; suprascrobal groove moderately broad, deep, clothed with moderately sparse to moderately dense hydrofuge scales; *ca* basal 3/5-3/4 covered with waterproof coating in males, often abraded in females. **Antenna.** Inserted *ca* 1/4-2/5 from apex of rostrum; scape not reaching eye, with some moderately distinct setae; funicle 6-segmented; club moderately elongate-oval, symmetrical, completely pubescent. **Head.** Moderately convex; frons wider than rostrum at apex; eyes weakly convex, lateral. **Prothorax.** Transverse to almost as long as wide; postocular lobes moderate to strong; with some moderately to very distinct setae; dense punctures not concealed by scales and waterproof coating. **Scutellum.** Not visible. **Elytra.** Humeri moderately to well-developed, obliquely, subangulately rounded; sides subparallel to declivity, there suddenly narrowed to conjointly rounded apices; sutural interval not depressed; all intervals weakly to moderately convex, none more elevated, odd-numbered with row of medium to long, very distinct setae; striae lacking enlarged foveae; macropterous. **Venter.** Prosternum not medially sulcate, lacking ridge or elevation in front of fore coxa; scales of prosternum, mesosternum, apical and basal margins of metasternum, coxae, and 3rd, 4th, and 5th abdominal sternum hydrofuge, most of remainder agglutinate; mesepimeron normal, lacking anteriorly projecting tubercle; 1st and 2nd abdominal sternum of female not vaulted, at about same level as 3rd, 4th, and 5th sternum. **Legs.** Moderately stout to moderately slender; fore coxae contiguous, not greatly elongated, middle coxae narrowly separated; femora unarmed, clothed with agglutinate scales (fore femora with hydrofuge scales on inner margin and basal portion of inner surface); femora and tibiae with medium-length to long, moderately sparse to moderately dense, moderately to very distinct setae; outer margin of apex of tibiae rounded, lacking acute denticle; middle tibiae normal (not bladeliike, with evenly strongly curved outer margin); outer surface of tibiae covered with dense agglutinate scales, inner surface with dense hydrofuge scales, lacking swimming hairs or setae, serrately denticulate on inner margin, with medium-sized uncus, and medium-sized praemucro; tarsi rather short, segments together not as long as tibia, with short hydrofuge pubescence, not linear, 3rd segment distinctly wider than 2nd and deeply bilobed, 4th segment not visible in lateral view, claw segment clearly extending beyond 3rd, with two apical long curled setae, and lacking pad or scale between moderately stout divergent tarsal claws. **Male genitalia and associated structures.** Phallus lacking flagellum but with very long, fusiform structure at end of pseudoflagellum; apodemes much longer than median lobe, inserted *ca* 2/5 from base or near middle of median lobe; median lobe moderately deep to deep, dorsal plate indistinct, ventral plate not or scarcely narrowing behind apodemal insertions; membranous sac medium to long, not reaching to somewhat exceeding tips of apodemes, with one or two, usually large to very large, variously shaped, basal sclerite(s), with or without spicules; tegmen closed apically, with two medium-sized (partially or completely, medially fused), inwardly directed processes; spiculum gastrale (9th sternite) rather evenly, weakly to moderately curved in lateral view, apodeme distinctly, laterally expanded at base and with moderate to very broad lateral extensions, arms short to long, fused apically, with narrow to very narrow, thin (almost transparent), lateral "wings"; 10th sternite divided into two plates; 10th tergite with anteriorly directed, very long, rodlike

processes for muscle attachment, apex with moderately broad to broad "liplike" edge. **Female genitalia and associated structures.** Eighth sternite with apodeme bifurcate on apical 1/3-2/5, free portion somewhat shorter to somewhat longer than blade; spermatheca partially (scarcely distinct) reticulate; ramus very short to indistinct, spermathecal gland arising rather far from nodulus; nodulus short, not curved toward cornu; spermathecal duct short, sclerotized, rigid, moderately narrow to broad (junction with nodulus distinct), attached at apex or toward middle of bursa copulatrix; bursa not constricted at base; coxite not flattened, nor narrowed on apical portion; stylus short, subapical; apex of 9th tergite weakly to moderately emarginate, margin somewhat irregular; apex of 10th tergite rounded, margin weakly to moderately denticulate. **Gender.** Masculine. **Type species.** *Genus III, species I*, new species, by present designation.

Genus III (Subgenus I) O'Brien & Wibmer new subgenus
Figures

DESCRIPTION. Same as nominotypic subgenus, except: **Rostrum.** Slender, longer than prothorax. **Antenna.** Scape with only few, finer, less obvious setae. **Prothorax.** Setae scarcely distinct. **Elytra.** Setae usually only moderately distinct. **Legs.** Fore femora with hydrofuge scales only on apical portion of inner margin and at base of inner surface. **Male genitalia.** Apodeme of spiculum gastrale with usually narrow to moderately narrow (at most moderate) lateral extensions; rodlike processes of 10th tergite short to medium-sized, with long to very long "fibers". **Female genitalia.** Spermathecal gland arising very far from nodulus; spermathecal duct very broad (junction with nodulus indistinct). **Gender.** Masculine. **Type species.** *Genus III, species 2*, by present designation.

***Bagoidellus* Hustache 1929**
Figures

REDESCRIPTION. Small (2.30-3.00 mm) moderately stout to stout, elongate-oval to broad-oval; cuticle reddish brown to reddish black; dorsum and much of venter densely clothed with imbricate scales and waterproof coating. **Rostrum.** Slender, weakly to moderately evenly curved, attenuate to apex in front of antennal insertion, subequal to longer than length of prothorax; scrobe short, dorsal margin visible; suprascrobal groove broad, extending beyond antennal insertion almost to apex of rostrum, densely clothed with hydrofuge pubescence; dorsal surface with waterproof coating. **Antenna.** Inserted from 1/3 to just before 2/5 from apex, scape not or just reaching over front margin of eye, with one rather fine seta (often abraded); funicle 6-segmented; club elongate, narrow, asymmetrical, 1st segment glabrous, much more than 1/2 length of club. **Head.** Weakly convex; frons much wider than rostrum at apex; eyes weakly to moderately convex, latero-ventral. **Prothorax.** Strongly transverse; postocular lobe feeble; with few, very inconspicuous, marginal setae; dense, large punctures concealed only in part by dense scales and waterproof coating. **Scutellum.** Not visible. **Elytra.** Humeri obliquely, weakly to well developed, angulately to subquadrately rounded; sides subparallel to declivity, there suddenly strongly narrowed to conjointly rounded apices; sutural interval not depressed; intervals flat to weakly convex, none more elevated, odd-numbered intervals with inconspicuous, erect to suberect, fine setae; striae lacking enlarged foveae; macropterous. **Venter.** Prosternum not medially sulcate, lacking ridge or elevation in front of fore coxa; scales of prosternum, part of mesosternum, and of 3rd, 4th, and 5th

abdominal sterna hydrofuge; mesepimeron normal, lacking anteriorly projecting tubercle; 1st and 2nd abdominal sterna of female not vaulted, flat to weakly convex, on same level as 3rd, 4th, and 5th sterna. **Legs.** Moderately stout, fore coxae contiguous, not strongly elongated; middle coxae subcontiguous to weakly separated; femora unarmed, lacking hydrofuge scales or pubescence on inner face; femora and outer surface of tibiae with dense agglutinate scales; outer margin of apex of tibiae with denticle, partially concealed by fine pubescence; middle tibiae normal (not bladefike, with evenly strongly curved outer margin); inner surface of tibiae with dense hydrofuge scales and moderately dense short bristles; tibiae lacking long swimming hairs or setae; tibiae not denticulate on inner margin, with short stout uncus, and praemucro; tarsi moderately long, segments together not as long as tibia, with ventral to lateral, moderate to short hairs and pubescence, linear or sublinear, 3rd segment emarginate to deeply bilobed, 4th segment not visible in lateral view, claw segment clearly extending beyond 3rd, with one apical long curled seta, and lacking pad or scale between long fine approximate, tarsal claws. **Male genitalia and associated structures. Female genitalia and associated structures. Gender.** Masculine. **Type species.** *Bagoidellus vernicatus* Hustache 1929, by original designation.

***Bagoidellus new species 1* O'Brien, new species**
Figures

DESCRIPTION. Small (length, 2.30-2.80 mm), elongate-oval; bicolored, fasciate-marmorate, blackish brown and greyish brown.

HOLOTYPE MALE. Rostrum. Much longer than length of prothorax, agglutinate scale coating rarely abraded from basal 1/2. **Antenna.** Inserted *ca* 1/3 in front of apex; 1st funicular segment clothed with dense white hydrofuge pubescence on apical margin, 1st segment very broad, subequal in length to 2nd, 2nd half as wide as first, 6th *ca* 1/2 length of 1st, 5th half length of 6th, 3rd and 4th subequal, *ca* 1 & 1/2 length of 5th; club broad-oval, slightly more than twice as long as 1st funicular segment, basal glabrous portion slightly longer than pubescent apical portion. **Head.** Punctures concealed by agglutinate scales and waterproof coating. **Prothorax.** Sides weakly evenly rounded from base to apical 1/3, there constricted to weakly subtubulate apical 1/7; median 1/3 of disc unevenly darkly longitudinally vittate, usually with pair of sublateral narrow dark brownish black vittae; punctures in large part concealed by scales and waterproof coating, most evident in dark areas. **Elytra.** Humeri well developed, subquadrately swollen behind with distinct lunate antedecivital transverse greyish brown fascia; scales large, evident, not clearly pitted, not covered with shagreened coating; striae moderately developed (often partly concealed by waterproof coating), striae punctures deep but also usually partly concealed. **Venter.** Punctures dense, but not cribrate, appearing shallow due to thick waterproof coating; 1st abdominal sternum medially, broadly, deeply impressed; 2nd sternum transversely flattened, strongly declivous behind; 5th sternum medially, shallowly, subapically impressed and with pair of long, golden, apical tufts of fine setae. **Legs.** Entire inner margin of tibiae clothed with hydrofuge pubescence, surrounding apical region as well; tarsal segments stout though sublinear, claw segment subequal in length to length of 3rd; all tarsi with coarse, lateral and apical, hydrofuge pubescence (usually abraded dorsally). **Genitalia and associated structures.** See Fig. . Length, pronotum and elytron: 2.40 mm.

ALLOTYPE FEMALE. Same as male except: **Rostrum.** Agglutinate scales usually abraded nearly to frons, present rarely on basal 1/4. **Antenna.** Inserted *ca* 2/5 from apex. **Venter.** First abdominal sternum medially, broadly, very shallowly impressed, nearly flat; 5th

sternum medially, narrowly, deeply, subapically impressed (nearly cleft); with 2 or 3, lateral, long, fine, erect setae on apical margin. **Genitalia and associated structures.** See Fig. . Length, pronotum and elytron: 2.75 mm.

Etymological Note.—

Type locality.—Bolivia, Department of Santa Cruz, 10 miles West of Puerto Banegas.

Range.—Known from northern Argentina, southeastern Bolivia, and Paraguay.

Material Examined.—**ARGENTINA:** **Chaco:** Resistencia, 12-XI-1950, Collectors Willink, Monro's (1,); **Formosa:** 11 km W. Clorinda, 26-I-1989, C.W. & L. O'Brien & G. Wiömer (1, CWOB). **BOLIVIA:** **Santa Cruz:** El Cidral, 1-I-1962, leg. R. Goldbach (2, CWOB, 2); 5 mi. W. Portochuelo, 24-III-1978, C.W. & L. O'Brien & Marshall (1, CWOB); 10 mi. W. Portochuelo, at night, 24-III-1978, C.W. & L. O'Brien (16,), G.B. Marshall (2, CWOB), 26-III-1978 C.W. & L. O'Brien (7,), G.B. Marshall (12,), at UV light, C.W. O'Brien (11,), UV Trap, G.B. Marshall (4,), at night 27-III-1978, C.W. & L. O'Brien (4,), G.B. Marshall (8,), UV Trap, G.B. Marshall (1, CWOB), at night 11-IV-1978, G.B. Marshall (25,), L.B. O'Brien (1, CWOB), 19-IV-1987, L. & C.W. O'Brien (1, CWOB). 10 mi. W. Puerto Banegas, at UV light, 25-III-1978, C.W. O'Brien (2, CWOB), UV trap, G.B. Marshall (1, CWOB). Saavedra, Agr. Exp. Sta., blacklight trap, 27-XII-1959, (7,), 28-XII-1959, (35,), 30-XII-1959, (8,), 31-XII-1959 (3,), 2-I-1960 (4,), 3-I-1960 (28,), 4-I-1960 (27,), 5-I-1960 (35,), 7-I-1960 (12,), R.B. Cumming; Prov. of San Esteban, Muyurina, 49 km. N. Santa Cruz, blacklight trap, elevation 1120 feet, 19-X-1959 (1, FSCA), 26-X-1959, (13,), 2-XI-1959, (1, FSCA), 27-XII-1959 (2,) R.B. Cumming; Prov. Sara, 2 km. W. Santa Rosa, blacklight trap, 21-II-1969, (9,) A. Martinez & R.E. Woodruff. **PARAGUAY:** **Caaquazu:** Mandijho, 23-I-1965, (1,) R. Goldbach. **Central:** 3 km. E. Ypacarai, at night, 7-X-1968, L.B. & C.W. O'Brien (2, CWOB).

Genus IV O'Brien, new genus Figures

DESCRIPTION. Medium-sized (length, 3.30-4.00 mm), stout, elongate-subcylindrical; cuticle mainly black, apices of appendages reddish brown; densely clothed with imbricate scales; dorsum and *ca* 1/2 of venter with waterproof coating. **Rostrum.** Thick, very short, *ca* 1/2 length of prothorax, scarcely curved dorsally, ventrally nearly straight; scrobe completely visible in lateral view; suprascrobal groove present, although poorly defined, clothed with dense hydrofuge scales; most of dorsal surface with waterproof coating. **Antenna.** Inserted *ca* 1/4 from apex of rostrum; scape not reaching eye, with numerous recumbent coarse scales; funicle 6-segmented; club short, broad-oval, symmetrical, completely, evenly pubescent. **Head.** Weakly convex; frons wider than rostrum at apex; eyes weakly convex, latero-ventral. **Prothorax.** Strongly transverse; postocular lobes strong; lacking evident setae; dense, large punctures concealed only in part by dense scales and waterproof coating. **Scutellum.** Not visible. **Elytra.** Humeri obliquely well-developed; sides subparallel to declivity, there suddenly narrowed to non-acute, scarcely emarginate apices; sutural interval not depressed; intervals moderately convex, none more elevated, odd-numbered with evident, suberect, coarse setae; striae lacking enlarged foveae; macropterous. **Venter.** Prosternum not medially sulcate, lacking

ridge or elevation in front of fore coxa; scales of prosternum, part of mesosternum, coxae, and abdomen hydrofuge; mesepimeron normal, lacking anteriorly projecting tubercle; 1st and 2nd abdominal sterna of female not vaulted, weakly convex and impressed, on same level as 3rd, 4th, and 5th sterna. **Legs.** Moderately stout; fore coxae contiguous, not strongly elongated, middle coxae moderately separated; femora unarmed, clothed with agglutinate scales, with hydrofuge scales at base of inner face; outer margin of apex of tibiae rounded, lacking denticle; middle tibiae normal (not bladelike, with evenly strongly curved outer margin); outer surface of tibiae clothed with agglutinate scales, inner surface with dense hydrofuge scales, lacking long swimming hairs or setae, not denticulate on inner margin, with strong uncus, and stout praemucro; tarsi moderately long, segments together not as long as tibia, with short hairs and pubescence, sublinear, 3rd segment deeply bilobed, 4th segment not visible in lateral view, claw segment clearly extending beyond 3rd, with one apical long curled seta, and lacking pad or scale between long fine approximate tarsal claws. **Male genitalia and associated structures.** Phallus lacking flagellum; apodemes much longer than median lobe, inserted near middle of median lobe; median lobe moderately flat, dorsal plate indistinct, ventral plate narrowing gradually behind apodemal insertions; membranous sac medium-sized, far from reaching tips of apodemes, with large apical plate, and spicules throughout length; tegmen closed apically, with two medium-sized (medially fused), inwardly directed processes; spiculum gastrale (9th sternite) with arms somewhat at angle with apodeme in lateral view, apodeme distinctly expanded laterally at base, arms medium-sized, fused apically, with moderately narrow, thin (almost transparent), lateral "wings" on basal portion; 10th sternite divided into two plates; 10th tergite lacking anteriorly directed processes, with narrow "liplike" edge. **Female genitalia and associated structures.** Eighth sternite with apodeme broadening behind middle to *ca* 3/4 from base, bifurcate on apical 1/4, free portion *ca* as long as blade; spermatheca with cuticle almost completely reticulate; ramus medium-sized, arising near nodulus; nodulus medium-sized, not curved toward cornu; spermathecal duct short, flexible, attached near apex of bursa copulatrix; bursa not constricted at base; coxite not flattened, apical portion more sclerotized, narrowing more rapidly; stylus lacking; apex of 9th tergite almost flat, margin smooth; apex of 10th tergite rounded (produced apically on median portion), margin smooth. **Gender.** Masculine. **Type species.** *Genus IV, new species 1*, by present designation.

Genus IV, new species 1 O'Brien, new species
Figures

DESCRIPTION. Medium-sized (length, 3.30-4.00 mm), robust; mottled, tan, white and occasionally with few black spots.

HOLOTYPE MALE. **Rostrum.** Apical 1/4 of dorsum, lateral area, scrobe and venter densely clothed with hydrofuge scales. **Head.** Vertex and groove around eyes clothed with similar scales. **Antenna.** First and 7th funicular segments clothed with white dense hydrofuge pubescence on apical 1/2. **Prothorax.** Hind margin clothed with large, dense, hydrofuge scales; side subparallel to suddenly, strongly constricted, apical 1/8. **Elytra.** Humeri obtusely subangulate behind. **Venter.** Median area of prosternum, most of mesosternum, all of 3rd and 4th abdominal sterna and apical 1/2 of 5th sternum densely clothed with hydrofuge scales; 1st abdominal sternum medially, broadly, deeply impressed; 5th sternum with deep median fovea near middle. **Legs.** Femora flattened in basal 1/4; tarsi densely clothed dorsally with hydrofuge scales and pubescence and ventrally with only hydrofuge pubescence. **Genitalia and associated structures.** See Fig. . Length, pronotum and elytron: 3.30 mm.

ALLOTYPE FEMALE. Same as male except: **Venter.** First abdominal sternum transversely impressed between hind coxae on basal 1/2, median 1/2 convex, and apical 1/4 medially shallowly impressed. **Genitalia and associated structures.** See Fig. . Length, pronotum and elytron: 3.45 mm.

Etymological Note.—

Type locality.—Panama, Coclé Province, 10 miles Southwest of Penonome.

Remarks and Comparative Notes.—

Range.—Known from Bolivia, Guyana, Panama, and Venezuela.

Material Examined.—**BOLIVIA:** Santa Cruz: 10 mi. W. Portochuelo, 19-IV-1978, G.B. Marshall (1, CWOB). **GUYANA:** [British Guiana] Georgetown, 11-VII-1953, feeding on rice, Coll. Director Dept. Agr., ba. No. 1282 (1, USNM). **PANAMA:** Coclé, 10 mi. S.W. Penonome, 26-VI-1974, C.W. & L. O'Brien & Marshall (holotype, allotype and 7 paratypes, CWOB). **Panama:** 21 mi. S.W. Chepo, 4-VII-1974, C.W. & L. O'Brien & Marshall (4,); Tocumen, blacklight trap, 1-5-VI-1970, Diego Navas (1, CWOB; 2 FSCA). **VENEZUELA:** **Apure:** 26 km. W. El Salmon de Apure, Hato El Frio, 340', 24-VII-1988, C. & L. O'Brien & G. Wibmer (1, CWOB). **Monagas:** 5 km. S. Maturin, Hwy. 10, 300', 1-VIII-1988, C.W. & L. O'Brien & G. Wibmer (1, CWOB); 11 km. S. Maturin, Hwy. 10, 350', [sweeping underwater], 1-VIII-1988, C.W. & L. O'Brien & G. Wibmer (26,); 43 km. S. Maturin, 300', [sweeping underwater grasses], 1-VIII-1988, C. & L. O'Brien & G. Wibmer (67,); 61 km. S. Maturin, 300', 1-VIII-1988, C.W. & L. O'Brien & G. Wibmer (12,).

Brachybamus Germar 1836

Figures

REDESCRIPTION. Small to medium-sized (length, 2.00-3.35 mm), moderately stout, elongate-oval; cuticle dark reddish brown to black; dorsum and much of venter densely clothed with imbricate scales and waterproof coating. **Rostrum.** Slender to moderately slender, evenly curved, subequal to slightly longer than length of prothorax; scrobe long, continued toward lower margin of eye, dorsal margin not visible; suprascrobal groove narrow, often partly concealed by waterproof coating, clothed with dense hydrofuge scales; dorsal and lateral surface with waterproof coating. **Antenna.** Inserted from 1/4 to 1/3 from apex, scape not reaching eye, with one to several coarse seta (often abraded); funicle 6-segmented; club moderately long, broad-oval, symmetrical, completely pubescent. **Head.** Moderately convex; frons clearly wider than rostrum at apex; eyes moderately convex, latero-ventral. **Prothorax.** Strongly to moderately transverse; postocular lobe moderately strong to strong; with few, relatively inconspicuous, marginal setae; dense, large punctures concealed only in part by dense scales and waterproof coating. **Scutellum.** Not visible. **Elytra.** Humeri well-developed, subquadrately rounded; sides subparallel to moderately expanded to declivity, there suddenly strongly narrowed to conjointly rounded apices; sutural interval not depressed; intervals flat to weakly convex, none more elevated, odd-numbered intervals with evident, suberect, coarse setae; striae lacking enlarged foveae; macropterous. **Venter.** Prosternum not medially sulcate, lacking ridge or elevation in front of fore coxa; scales of prosternum, coxae, and of 3rd, 4th, and 5th abdominal sterna hydrofuge; mesepimeron normal, lacking anteriorly projecting tubercle; 1st and 2nd abdominal sterna of female not vaulted, flat to weakly convex, on same

level as 3rd, 4th, and 5th sterna. **Legs.** Moderately stout, fore coxae contiguous, not strongly elongated; middle coxae moderately separated; femora unarmed, lacking hydrofuge scales or pubescence on inner face; femora and outer surface of tibiae with dense agglutinate scales; outer margin of apex of tibiae rounded to subquadrate, lacking denticle; middle tibiae normal (not bladeliike, with evenly strongly curved outer margin); inner surface of tibiae with dense hydrofuge scales; tibiae lacking long swimming hairs or setae; tibiae with several, strong, serrate denticles on inner margin, with stout uncus, and praemucro; tarsi short, segments together not as long as tibia, with ventral to lateral, moderate to short hairs and pubescence, not linear, 3rd segment deeply bilobed, 4th segment not visible in lateral view, claw segment clearly extending beyond 3rd, with one apical long curled seta, and lacking pad or scale between long fine approximate tarsal claws. **Male genitalia and associated structures.** **Female genitalia and associated structures.** **Gender.** Masculine. **Type species.** *Brachybamus electus* Germar 1836, by indication (monotypy).

Genus V O'Brien, new genus Figures

DESCRIPTION. Small to medium-sized (length, 1.70-3.60 mm), moderately stout, elongate-oval; cuticle black to reddish brown; dorsum and most of venter densely clothed with imbricate scales and waterproof coating. **Rostrum.** Stout, short, 1/2 to slightly more than 1/2 length of prothorax, broadest at base to much narrowed apex, dorsally strongly curved, ventrally weakly curved; scrobe long, directed toward lower margin of eye, dorsal margin visible; suprascrobal groove broad, often partly concealed by waterproof coating, clothed with dense hydrofuge scales; dorsal surface with waterproof coating. **Antenna.** Inserted *ca* 1/3 from apex of rostrum; scape not reaching eye, with many coarse, subrecumbent, elongate scales; funicle 6-segmented; club broad-oval to elongate-oval, symmetrical, completely pubescent. **Head.** Moderately to weakly convex; frons very wide, up to twice width of rostrum at apex; eyes weakly convex, latero-ventral. **Prothorax.** Scarcely to strongly transverse; postocular lobes moderate to strong; with numerous, well-spaced, generally distributed, erect to suberect, coarse, curled setae; dense punctures concealed only in part by scales and waterproof coating. **Scutellum.** Not visible. **Elytra.** Humeri well-developed, obliquely angulate to subquadrately rounded; sides subparallel to declivity, there suddenly narrowed to conjointly rounded apices; sutural interval not depressed; intervals flat to strongly convex, some species with odd-numbered intervals much more elevated, odd-numbered intervals usually with conspicuous, suberect to erect, coarse setae; striae lacking enlarged foveae; macropterous. **Venter.** Prosternum not medially sulcate, although some appearing to possess ridge in front of fore coxa formed by thick waterproof coating on sides of pronotum; scales of prosternum and most of 3rd, 4th, and 5th abdominal sterna hydrofuge; mesepimeron normal, lacking anteriorly projecting tubercle; 1st and 2nd abdominal sterna of female not vaulted, flat to weakly convex, on same level as 3rd, 4th, and 5th sterna. **Legs.** Moderately stout to very stout; fore coxae contiguous, not strongly elongated, middle coxae narrowly separated; femora unarmed, clothed with dense agglutinate scales; outer surface of tibiae clothed with dense agglutinate scales, inner surface with narrow strip of hydrofuge scales; outer margin of apex of tibiae rounded to subquadrate, lacking denticle; middle tibiae normal (not bladeliike, with evenly strongly curved outer margin); with two to several stout, short, curved, swimming setae; at least fore tibiae serrately denticulate on inner margin, tibiae with fine to stout uncus, and praemucro; tarsi short, segments together not as long as tibia, with short hairs and pubescence, not linear, 3rd segment wider than 2nd and deeply bilobed, 4th segment not visible in lateral view, claw

segment extending beyond 3rd although not strongly in some, and with one or two apical, long, curled seta(e); and lacking apical median pad or scale, with single tarsal claw. **Male genitalia and associated structures.** Phallus lacking flagellum but with long, fusiform structure at end of pseudoflagellum; apodemes somewhat to moderately longer than median lobe, inserted near base of median lobe; median lobe moderately flat to moderately deep, dorsal plate indistinct; membranous sac long but not reaching tips of apodemes, with long, hollow, basal sclerite, lacking spicules; tegmen closed apically, with two very short (may be indistinct), inwardly directed processes; spiculum gastrale (9th sternite) rather evenly, strongly curved in lateral view, with apodeme moderately, laterally expanded at base, and in some species with narrow, lateral extensions; arms short, fused apically, with moderately broad, thin (almost transparent), lateral "wings"; 10th sternite divided into two plates; 10th tergite with short, anteriorly directed, rodlike processes with long "fibers" for muscle attachment, apical margin with broad "liplike" edge. **Female genitalia and associated structures.** Eighth sternite with apodeme not bifurcate on apical portion, free portion *ca* as long as blade; spermatheca partially (not very obviously) reticulate; ramus short to medium-sized, arising next to nodulus; nodulus long, curved away from cornu; spermathecal duct long, thin, flexible, attached near apex of bursa copulatrix; bursa not constricted at base; coxite not flattened, nor narrowed on apical portion; stylus short to medium-sized, apical or subapical; apex of 9th tergite weakly to strongly emarginate, margin somewhat irregular; apex of 10th tergite weakly to moderately emarginate, margin weakly denticulate. **Gender.** Masculine. **Type species.** *Genus V, species 1*, by present designation.

Tanysphiroideus Hustache 1926

Figures

REDESCRIPTION. Small (1.30-2.20 mm), stout, broad-oval; cuticle reddish brown to black; dorsum and much of venter densely clothed with imbricate scales and waterproof coating. **Rostrum.** Slender to moderately stout, longer than length of prothorax, weakly evenly curved; scrobe long to moderately long, directed ventrally, dorsal margin not evident; suprascrobal groove lacking dorsal and lateral surfaces with waterproof coating. **Antenna.** Inserted *ca* 1/5 to just anterior to 1/3 from apex of rostrum; scape not reaching eye, with few, rather coarse setae; funicle 6-segmented; club moderately elongate-oval, symmetrical, 1st segment glabrous, not more than 1/2 length of club. **Head.** Weakly convex; frons distinctly wider than rostrum at apex; eyes moderately convex, latero-ventral. **Prothorax.** Strongly transverse; postocular lobes lacking; with few, relatively inconspicuous, marginal setae; dense, large punctures not concealed or concealed only in part by dense scales and waterproof coating. **Scutellum.** Round or elongate oval, small, visible. **Elytra.** Humeri obliquely, very weakly to strongly developed; sides unevenly swollen behind to declivity, there suddenly strongly narrowed to conjointly rounded apices; sutural interval not depressed; intervals moderately convex, none more elevated, but odd-numbered intervals may be tuberculate, tubercles only with stout setae; striae lacking enlarged foveae; macropterous. **Venter.** Prosternum not medially sulcate, lacking ridge or elevation in front of fore coxa; scales of prosternum, part of mesosternum, and coxae hydrofuge; mesepimeron normal, lacking anteriorly projecting tubercle; 1st and 2nd abdominal sterna of female not vaulted, flat to weakly convex, on same level as 3rd, 4th, and 5th sterna. **Legs.** Moderately slender; fore coxae contiguous to very slightly separated, not strongly elongated; middle coxae well-separated; femora unarmed, with dense agglutinate scales (lacking hydrofuge scales or pubescence on inner face); outer margin of apex of tibiae rounded to subquadrate, lacking denticle; middle tibiae normal

(not bladelike, with evenly strongly curved outer margin); outer surface of tibiae with dense agglutinate scales, inner surface with dense hydrofuge scales; tibiae lacking long swimming hairs or setae, not denticulate on inner margin, lacking uncus, and praemucro; tarsi short, segments together not as long as tibia, with short hairs and pubescence, linear, 3rd segment slightly emarginate, 4th segment not visible in lateral view, claw segment clearly extending beyond 3rd, with one apical long curled seta, and lacking pad or scale between long fine approximate tarsal claws. **Male genitalia and associated structures.** Phallus lacking flagellum; apodemes little to somewhat longer than median lobe, inserted near base of median lobe; median lobe moderately flat, dorsal plate indistinct; membranous sac medium-sized, far from reaching tips of apodemes, with large to very large apical plate, lacking spicules; tegmen closed apically, with one medium-sized (weakly distinct), inwardly directed process; spiculum gastrale (9th sternite) rather unevenly, weakly curved in lateral view, apodeme moderately expanded laterally at base, arms short to medium-sized, fused apically or distinctly divergent, with narrow to moderately narrow, thin (almost transparent), lateral "wings"; 10th sternite divided into two plates; 10th tergite lacking anteriorly directed processes, with moderately narrow "liplike" edge. **Female genitalia and associated structures.** Eighth sternite with apodeme bifurcate on apical 2/5, free portion *ca* as long as blade; spermatheca with cuticle nonreticulate; ramus short or indistinct, arising near nodulus; nodulus short, curved away from cornu; spermathecal duct long, flexible, attached at apex of bursa copulatrix; bursa not constricted at base; coxite not flattened, nor narrowed on apical portion; stylus medium-sized, subapical; apex of 9th tergite weakly to moderately emarginate, margin slightly irregular; apex of 10th tergite slightly to weakly emarginate, margin almost smooth to somewhat irregular. **Gender.** Masculine. **Type species.** *Tanysphiroideus parvulus* Hustache 1926, by indication (monotypy).

Cyrtobagous Hustache 1929

Figures

REDESCRIPTION. Small (1.65-2.80 mm), robust, broad-oval; on dorsum clothed moderately sparsely with round, metallic golden scales beneath transparent waterproof coating. **Rostrum.** Slender, longer than length of prothorax, evenly curved, to nearly straight; scrobe short, dorsal margin visible, directed ventrally; suprascrobal groove lacking; dorsal and lateral surfaces with transparent waterproof coating. **Antenna.** Inserted *ca* 1/5-1/4 from apex of rostrum; scape not reaching eye, with few, rather coarse setae; funicle 6-segmented; club elongate-oval, slightly asymmetrical, 1st segment glabrous, slightly more than 1/2 length of club. **Head.** Weakly convex; frons slightly wider to subequal in width to rostrum at apex; eyes weakly convex, latero-ventral. **Prothorax.** Strongly transverse; postocular lobes lacking; lacking evident setae; impunctate, with transparent waterproof coating. **Scutellum.** Large, elongate to broad-oval, visible. **Elytra.** Humeri obliquely, moderately developed, subangulate; sides weakly swollen behind to declivity, there broadly narrowed to conjointly rounded apices; sutural interval not depressed; intervals moderately convex, none more elevated, lacking conspicuous setae; striae with moderately enlarged foveae; macropterous. **Venter.** Prosternum not medially sulcate, lacking ridge or elevation in front of fore coxa; scales of pro-, meso- and metasternum and lateral area of 1st and 2nd abdominal sterna hydrofuge; mesepimeron normal, lacking anteriorly projecting tubercle; 1st and 2nd abdominal sterna of female not vaulted, flat to weakly convex, on same level as 3rd, 4th, and 5th sterna. **Legs.** Moderately slender; fore coxae contiguous, not strongly elongated, middle coxae moderately separated; femora unarmed, outer surface clothed with waterproof coating, inner face with hydrofuge pubescence; outer

margin of apex of tibiae rounded to subquadrate, lacking denticle; middle tibiae normal (not bladelike, with evenly strongly curved outer margin); outer surface of tibiae clothed with waterproof coating, remaining area with hydrofuge pubescence, lacking swimming hairs or setae, not denticulate on inner margin, with small distinct uncus, lacking praemucro; tarsi moderately long, segments together not as long as tibia, with moderate to short hairs and pubescence, linear, 3rd segment truncate, 4th segment not visible in lateral view, claw segment clearly extending beyond 3rd, lacking apical long curled seta, and lacking pad or scale between long coarse approximate tarsal claws. **Male genitalia and associated structures.** Phallus lacking flagellum; apodemes somewhat longer than median lobe, inserted near base of median lobe; median lobe moderately deep, with dorsal plate; membranous sac long, exceeding tips of apodemes, with large apical plate, lacking spicules; tegmen closed apically, with two long (medially fused), inwardly directed processes; spiculum gastrale (9th sternite) almost straight in lateral view, apodeme distinctly laterally expanded at base, arms short, fused apically, with narrow, thin (almost transparent), lateral "wings"; 10th sternite divided into two plates; 10th tergite lacking anteriorly directed processes, with broad "liplike" edge. **Female genitalia and associated structures.** Eighth sternite with apodeme bifurcate on apical 1/3-2/5, free portion slightly longer than blade; spermatheca with cuticle not or partially reticulate (scarcely distinct); ramus medium-sized, arising next to nodulus; nodulus not curved toward cornu; spermathecal duct short, flexible, attached at apex of bursa copulatrix; bursa not constricted at base; coxite not flattened, nor constricted on apical portion; stylus medium-sized, subapical; apex of 9th tergite round, margin somewhat irregular; apex of 10th tergite round, margin slightly irregular. **Gender.** Masculine. **Type species.** *Cyrtobagous singularis* Hustache 1929, by original designation.

Genus VII O'Brien, new genus

Figures

DESCRIPTION. Small to medium-sized (length, 2.90-3.60 mm), stout, elongate-oval; cuticle black, appendages reddish brown; densely clothed with subcontiguous, contiguous and imbricate scales; dorsum and much of venter with complete waterproof coating. **Rostrum.** Moderately slender, shorter than length of prothorax, evenly curved; scrobe long, dorsal margin visible, continued toward lower margin of eye; suprascrobal groove distinct, narrow, subglabrous with waterproof coating. **Antenna.** Inserted *ca* 1/3 from apex of rostrum; scape not quite reaching eye, with one to several, moderately coarse setae; funicle 6-segmented; club broad-oval, symmetrical, 1st segment glabrous, less than 1/2 length of club. **Head.** Weakly convex; frons subequal in width to rostrum at apex; eyes moderately convex, latero-ventral. **Prothorax.** As long as wide; postocular lobes evident but feeble; lacking evident setae; lacking evident punctures, even when abraded of dense scales and waterproof coating. **Scutellum.** Not visible. **Elytra.** Humeri well-developed, subquadrately rounded; sides slightly swollen behind to declivity, there suddenly narrowed to conjointly rounded apices; sutural interval not depressed; all intervals flat to weakly convex, none more elevated, nor with evident setae; striae lacking enlarged foveae; macropterous. **Venter.** Prosternum not medially sulcate, lacking ridge or elevation in front of fore coxa; scales of prosternum, mesosternum and much of coxae hydrofuge, most of remainder agglutinate; mesepimeron normal, lacking anteriorly projecting tubercle; 1st and 2nd abdominal sterna of female not vaulted, flat to weakly convex, on same level as 3rd, 4th, and 5th sterna. **Legs.** Moderately stout; fore coxae contiguous, not strongly elongated, middle coxae moderately separated; femora unarmed, outer surface (except basal 1/3) with waterproof coating, inner face with dense hydrofuge scales; outer margin of apex

of tibiae rounded, lacking acute denticle; middle tibiae normal (not bladelike, with evenly strongly curved outer margin); outer surface of tibiae with waterproof coating, inner surface with dense hydrofuge pubescence, lacking long swimming setae or hairs, inner margin distinctly denticulate, with strong uncus, and praemucro; tarsi long, segments together not as long as tibia, with short hairs and pubescence, sublinear, 3rd segment deeply bilobed, 4th segment not visible in lateral view, claw segment clearly extending beyond 3rd, with one or two apical long curled seta(e), and lacking pad or scale between fine approximate tarsal claws. **Male genitalia and associated structures.** Phallus lacking flagellum; apodemes much longer than median lobe, inserted near middle of median lobe; median lobe moderately deep, dorsal plate indistinct, ventral plate narrowing gradually behind apodemal insertions; membranous sac long, almost reaching tips of apodemes, with large apical plate and small basal sclerites, lacking spicules; tegmen closed apically, with two medium-sized (partially fused medially), inwardly directed processes; spiculum gastrale (9th sternite) evenly, slightly curved in lateral view, apodeme strongly expanded laterally at base, arms short, fused, with moderately narrow, thin (almost transparent), lateral "wings"; 10th sternite divided into two plates; 10th tergite lacking anteriorly directed processes, with moderately narrow "liplike" edge. **Female genitalia and associated structures.** Eighth sternite with apodeme broadly bifurcate on *ca* apical 1/2, free portion *ca* as long as blade; spermatheca with cuticle nonreticulate; ramus short, arising far from nodulus; nodulus not curved toward cornu; spermathecal duct short, flexible, attached near base of bursa copulatrix; bursa not constricted at base; coxite not flattened but slightly narrowed on apical portion; stylus short, subapical; apex of 9th tergite slightly emarginate, margin somewhat irregular; apex of 10th tergite round, margin slightly irregular. **Gender.** Masculine. **Type species.** *Genus VII, new species 1*, by present designation.

Genus VII, new species 1 O'Brien, new species
Figures

DESCRIPTION. Small to medium-sized (length, 2.90-3.60 mm), moderately robust; cuticle black, scale covering primarily grey.

HOLOTYPE MALE. **Rostrum.** Moderately weakly subquadrately expanded in front of antennal insertion to apex; scale coating and waterproof coating often abraded. **Antenna.** First funicular segment clothed with dense, white, hydrofuge pubescence on apical margin. **Head.** Eyes moderately separated on venter, by *ca* 2/3 width of frons. **Prothorax.** Sides subparallel in basal 3/4, apical 1/4 weakly subtubulately constricted; disc moderately evenly convex; scales of disc and most of pleuron agglutinate and distinctly broadly pitted, posterior lower 1/3 of pleuron with hydrofuge scales only. **Elytra.** All intervals of equal width; scales rather distinctly pitted, though less broadly than on prothorax. **Venter.** First Abdominal sternum medially, broadly, moderately deeply impressed; 2nd sternum flattened in basal 1/2, moderately declivous behind; 5th sternum broadly, deeply impressed on apical 1/2. **Legs.** Hydrofuge scales on most of inner surface of femora and on *ca* 1/2 of side margins of tibiae, nearly surrounding apical 1/4 of tibiae; uncus very stout and obliquely dentate near middle on outer margin. **Genitalia and associated structures.** See Fig. . Length, pronotum and elytron: 3.40 mm.

ALLOTYPE FEMALE. Same as male except: **Rostrum.** Scarcely subquadrately expanded in front of antennal insertion to apex. **Venter.** First abdominal sternum shallowly transversely impressed near basal margin between hind coxae, remainder moderately convex; 2nd sternum weakly convex in basal 1/2, strongly declivous behind; 5th sternum moderately broadly, moderately deeply impressed on apical 1/3. **Genitalia and associated structures.**

See Fig. . Length, pronotum and elytron: 3.20 mm.

Genus VIII O'Brien, new genus
Figures

DESCRIPTION. Very small (1.20-1.60 mm); cuticle yellowish to reddish brown; densely clothed with imbricate scales; dorsum and much of venter with waterproof coating. **Rostrum.** Slender to moderately stout, subequal to length of prothorax, weakly, evenly curved; scrobe long, directed toward lower margin of eye, dorsal margin visible; suprascrobal groove narrow, often partly concealed by waterproof coating, clothed with dense hydrofuge scales; dorsal and lateral surface with waterproof coating. **Antenna.** Inserted 1/3-2/5 from apex of rostrum; scape not reaching eye, with one coarse seta (often abraded); funicle 6-segmented; club short, broad-oval, symmetrical, completely pubescent. **Head.** Weakly convex; frons subequal in width to rostrum at apex; eyes weakly convex, lateral. **Prothorax.** Transverse; postocular lobes very feeble; with numerous, generally distributed, erect to suberect, coarse, curled setae; punctures concealed by scales and waterproof coating. **Scutellum.** Not visible. **Elytra.** Humeri well-developed, subquadrately rounded; sides subparallel to declivity, there suddenly, strongly narrowed to conjointly rounded apices; sutural interval not depressed; intervals flat to weakly convex, none more elevated, odd-numbered with conspicuous, erect to suberect, coarse, curled setae; striae lacking enlarged foveae; macropterous. **Venter.** Prosternum not medially sulcate, lacking ridge or elevation in front of fore coxae; scales of prosternum in front of coxae, and of 3rd, 4th, and 5th abdominal sterna hydrofuge; mesepimeron normal, lacking anteriorly projecting tubercle; 1st and 2nd abdominal sterna of female not vaulted, flat to weakly convex, on same level as 3rd, 4th, and 5th sterna. **Legs.** Moderately slender; fore coxae not contiguous, well-separated, not strongly elongated, middle coxae well-separated; femora unarmed, clothed with dense agglutinate scales (lacking hydrofuge scales or pubescence on inner face); outer margin of apex of tibiae rounded, lacking denticle; middle tibiae normal (not bladelike, with evenly strongly curved outer margin); outer surface of tibiae clothed with dense agglutinate scales, inner surface with dense hydrofuge scales, lacking long swimming hairs or setae, not denticulate on inner margin, with small distinct uncus, lacking praemucro; tarsi short, segments together not as long as tibia, with moderate to short hairs and pubescence, not linear, 3rd segment wider than 2nd and deeply bilobed, 4th segment not visible in lateral view, claw segment clearly extending beyond 3rd, lacking apical long curled seta, and lacking pad or scale between fine approximate tarsal claws. **Male genitalia and associated structures.** Phallus lacking flagellum; apodemes much longer than median lobe, inserted *ca* 1/4 from base of median lobe; median lobe moderately deep, dorsal plate indistinct, ventral plate narrowing evenly but rather rapidly behind apodemal insertions; membranous sac long, almost reaching tips of apodemes, with large apical plate, and spicules (scarcely distinct) for most of length; tegmen closed apically, with one median, inwardly directed process; spiculum gastrale (9th sternite) moderately evenly, weakly curved in lateral view, apodeme rodlike, arms medium-sized, fused, lateral "wings" indistinct; 10th sternite divided into two plates; 10th tergite lacking anteriorly directed processes, with moderately broad "liplike" edge. **Female genitalia and associated structures.** Eighth sternite with apodeme bifurcate on apical 1/4, free portion somewhat longer than blade; spermatheca with cuticle nonreticulate; ramus medium-sized, arising next to nodulus; nodulus medium-sized, slightly curved toward cornu; spermathecal duct [length, flexible or not], attached [how far from apex or base] of bursa copulatrix; bursa [constricted or not] at base; coxite not flattened, nor narrowed on apical portion; stylus short, subapical; apex of 9th tergite slightly emarginate, margin somewhat

irregular, apex of 10th tergite rounded, margin somewhat irregular. **Gender.** Masculine. **Type species.** *Genus VIII, new species 1*, by present designation.

***Genus VIII, new species 1* O'Brien, new species**

Figures

DESCRIPTION. Very small (length, 1.20-1.60 mm), stout, broad-oval; unicolored, silvery-tan to clay yellowish.

HOLOTYPE MALE. **Rostrum.** Moderately stout, dorsum and lateral areas densely clothed with imbricate scales and waterproof coating from base to antennal insertion; apical area glabrous, and scarcely subquadrate in front of antennal insertion. **Antenna.** Inserted at apical 1/4; 1st funicular segment subequal in length and width, clothed with dense white hydrofuge pubescence on apical margin; funicle and club subequal in length. **Prothorax.** Strongly transverse, *ca* 1/4 wider than long; sides nearly subparallel, weakly expanding from base to widest at apical 1/3, there strongly subtubulately constricted; disc weakly convex; densely clothed with pitted granulate scales. **Elytra.** Humeri very strongly developed, expanded beyond sides of elytra; intervals not equal in width for entire length; striae deep, but striae punctures small and scarcely evident. **Venter.** First abdominal sternum medially, broadly, moderately deeply impressed; 2nd sternum flattened anteriorly, weakly declivous behind; 5th sternum flattened, with apical 1/4 weakly transversely impressed. **Legs.** Femora moderately clavate; tibiae sinuate, narrowed and strongly curved inward towards apical 1/3; tarsi rather short, very broad. **Genitalia and associated structures.** See Fig. . Length, pronotum and elytron: 1.35 mm.

ALLOTYPE FEMALE. Same as male except: **Rostrum.** More slender and weakly curved. **Antenna.** Inserted well behind apical 1/4. **Prothorax.** Transverse, *ca* 1/5 wider than long. **Venter.** First abdominal sternum strongly convex; 2nd sternum weakly convex in anterior 2/3, moderately strongly declivous behind; 5th sternum weakly convex, with shallow median subapical impression. **Genitalia and associated structures.** See Fig. . Length, pronotum and elytron: 1.40 mm.

Etymological Note.—

Type locality.—Bolivia, Department of Santa Cruz, Province of San Esteban, Muyurina, 49 kilometers north of Santa Cruz, elevation 1120 feet.

Range.—Known from Argentina, Bolivia, and Peru.

Remarks and Comparative Notes.—

Material Examined.—**ARGENTINA:** Buenos Aires: Arroyo Valdez, 5-VIII-1965, (68,) Dr. Ronderos col.; Lag. ChisChis, s/[=on] Azolla, 2-XI-1966 (1,) Ronderos col.; Lag. Yalao, s/[=on] *S.[alvinia] rotundifolia*, 27-V-1966 (17,) Ronderos col.; Punta Lara I-1958 (1, USNM) Daguerre. **BOLIVIA:** Santa Cruz: Saavedra, Agr. Exp. Sta., blacklight trap, 27-XII-1959 (1, FSCA) R.B. Cumming; San Esteban, 49 km. N. Santa Cruz, 26-X-1959 (1, FSCA) collector R. Cumming; San Esteban, Muyurina, 49 km. N. Santa Cruz, 1120 ft., blacklight trap, 7-XII-1959 (holotype, allotype, CWOB; 3 paratypes, FSCA) R. B. Cumming.

Genus IX O'Brien, new genus
Figures

DESCRIPTION. Small (1.60-2.60 mm), robust, broad-oval; cuticle reddish brown to reddish black; dorsum and most of venter densely clothed with imbricate scales and waterproof coating. **Rostrum.** Slender to moderately stout, subequal to length of prothorax, weakly evenly curved, dorsal surface with waterproof coating; scrobe long, dorsal margin visible, continued toward lower margin of eye; suprascrobal groove narrow, often partly concealed by waterproof coating, clothed with dense hydrofuge scales. **Antenna.** Inserted *ca* 1/4 from apex of rostrum; scape not reaching eye, with numerous recumbent coarse setae; funicle 6-segmented; club short, broad-oval, symmetrical, completely pubescent. **Head.** Moderately convex; frons wider than rostrum at apex; eyes moderately convex, latero-ventral. **Prothorax.** Transverse; postocular lobes very strong; with rather numerous, generally distributed, erect to suberect, coarse, curled setae; dense, large punctures concealed only in part by dense scales and waterproof coating. **Scutellum.** Not visible. **Elytra.** Humeri well-developed, angulately to subquadrately rounded; sides subparallel to declivity, there suddenly strongly narrowed to conjointly rounded apices; sutural interval not depressed; intervals flat to weakly convex, none more elevated, odd-numbered with conspicuous, erect to suberect, coarse, curled setae; striae lacking enlarged foveae; macropterous. **Venter.** Prosternum medially sulcate, with strongly developed ridge in front of fore coxa; scales of prosternum in front of coxae, and of 3rd, 4th, and 5th abdominal sterna hydrofuge; mesepimeron normal, lacking anteriorly projecting tubercle; 1st and 2nd abdominal sterna of female not vaulted, flat to weakly convex, on same level as 3rd, 4th, and 5th sterna. **Legs.** Stout; fore coxae contiguous, not strongly elongated, middle coxae moderately separated; femora unarmed, clothed with dense agglutinate scales (lacking hydrofuge scales or pubescence on inner face); outer margin of apex of tibiae rounded to subquadrate, lacking denticle; middle tibiae normal (not bladelike, with evenly strongly curved outer margin); outer surface of tibiae clothed with dense agglutinate scales, inner surface with dense hydrofuge scales, with many short swimming setae, serrately denticulate on inner margin, with short stout uncus, and praemucro; tarsi short, segments together not as long as tibia, with moderate to short hairs and pubescence, not linear, 3rd segment deeply bilobed, 4th segment not visible in lateral view, claw segment clearly extending beyond 3rd, with two apical long curled setae, and lacking pad or scale between long fine approximate tarsal claws. **Male genitalia and associated structures.** Phallus lacking flagellum; apodemes much longer than median lobe, inserted near middle of median lobe; median lobe moderately flat, dorsal plate indistinct, ventral plate narrowing slightly behind apodemal insertions; membranous sac medium-sized, not reaching tips of apodemes, with two apical sclerites, and spicules throughout most of length; tegmen closed apically, with two short (medially fused), inwardly directed processes; spiculum gastrale (9th sternite) rather evenly, moderately curved in lateral view, apodeme moderately expanded laterally at base, arms medium-sized, fused, with narrow, thin (almost transparent), lateral "wings"; 10th sternite divided into two plates; 10th tergite lacking anteriorly directed processes, with moderate "liplike" edge. **Female genitalia and associated structures.** Eighth sternite with apodeme bifurcate on *ca* apical 1/2, free portion somewhat shorter than blade; spermatheca with cuticle nonreticulate; ramus short to almost indistinct, arising moderately close to far from nodulus; nodulus not curved toward cornu; spermathecal duct short, flexible, attached at apex of bursa copulatrix; bursa not constricted at base; coxite not flattened, nor narrowed on apical portion; stylus medium-sized, subapical; apex of 9th tergite moderately to strongly emarginate, margin somewhat irregular; apex of 10th tergite round, margin strongly denticulate. **Gender.** Masculine. **Type species.** *Genus IX, new species 1*, by present designation.

Genus IX, new species 1 O'Brien, new species
Figures

DESCRIPTION. Small (length, 1.90-2.75 mm), stout; bicolored, main color brownish black, with broad transverse sublunate greyish brown declivital fascia and often with small scattered greyish brown to whitish spots.

HOLOTYPE MALE. **Rostrum.** Dorsum strongly curved, swollen at middle; venter weakly evenly concavely curved, lacking evident median carina; apex not subquadrately expanded. **Antenna.** Inserted at *ca* apical 1/4. **Head.** Frons *ca* 1/3 wider than width of apex of rostrum. **Prothorax.** Transverse, *ca* 9/10 wider than long; sides subparallel, widest at apical 1/3, narrowed at base, subtubulately constricted at apical 1/6; disc with medial 1/3 with uneven dark brownish black longitudinal vitta, and pair of incomplete narrow submarginal similar vittae, remainder greyish brown. **Elytra.** Humeri covered with greyish brown scales, angulately rounded; most of disc clothed with brownish black scales, declivital fascia and much of apex greyish brown. **Venter.** Mesosternum, metasternum and usually abdomen strongly marmorate, blackish brown and greyish brown; 1st abdominal sternum medially, broadly, deeply impressed; 2nd sternum flattened, strongly declivous behind; 5th sternum with basal 1/2 convex, apical 1/2 moderately transversely impressed, most evident medially. **Legs.** Femora strongly clavate; tibiae stout, strongly sinuate and expanded medially on inner margin. **Genitalia and associated structures.** See Fig. . Length, pronotum and elytron: 2.20 mm.

ALLOTYPE FEMALE. Same as male except: **Rostrum.** Evenly curved, not swollen dorsally. **Antenna.** Inserted just behind apical 1/4. **Elytra.** Disc evenly mottled, but with similar broad sublunate antedecrivital greyish brown fascia. **Venter.** First abdominal sternum flattened across medial 1/3; 5th sternum with apical 1/3 shallowly transversely impressed, with small medial subapical fovea. **Genitalia and associated structures.** See Fig. . Length, pronotum and elytron: 2.50 mm.

Genus IX, new species 2 O'Brien, new species
Figures

DESCRIPTION. Small (length, 1.60-2.50 mm), very stout; bicolored, main color greyish brown, marmorate with brownish black spots, and trifasciate prothorax, often with evident narrow pale sublunate antedecrivital fascia.

HOLOTYPE MALE. **Rostrum.** Dorsum weakly evenly curved, venter appearing convexly curved with evident median carina; apex distinctly subquadrately expanded. **Antenna.** Inserted just behind apical 1/4. **Head.** Frons *ca* 9/10 width of apex of rostrum. **Prothorax.** Transverse, less than 9/10 wider than long; sides subparallel, not wider apically, scarcely narrowed at base, subtubulately constricted near apical 1/6; disc with very uneven medial narrow to broad, dark brownish black longitudinal vitta, and pair of complete narrow submarginal similar vittae, remainder greyish brown. **Elytra.** Humeri, much of disc and declivity and most of apex pale greyish brown, not clearly fasciate. **Venter.** Metasternum with few dark spots, remainder unicolorous greyish brown; 1st abdominal segment medially, broadly, moderately impressed; 2nd sternum medially basally very weakly impressed, apically strongly declivous; 5th sternum with basal 1/2 convex, apical 1/2 flat. **Legs.** Femora weakly to moderately clavate; tibiae nearly straight, hind tibia moderately expanded sinuately on inner

margin. **Genitalia and associated structures.** See Fig. . Length, pronotum and elytron: 2.00 mm.

ALLOTYPE FEMALE. Same as male except: **Antenna.** Inserted at *ca* apical 1/3. **Venter.** First abdominal sternum medially flattened, at most medially very weakly impressed. **Genitalia and associated structures.** See Fig. . Length, pronotum and elytron: 1.90 mm.

Genus X (Nominate subgenus) O'Brien, new genus
Figures

DESCRIPTION. Medium-sized (length, 3.05-4.00 mm), robust, elongate-oval; cuticle black, appendages at times, in part reddish brown; dorsum and most of venter densely clothed with imbricate scales and waterproof coating. **Rostrum.** Slender to moderately stout, weakly evenly curved, shorter than length of prothorax; scrobe long, dorsal margin visible, continued toward lower margin of eye; suprascrobal groove lacking; dorsal and lateral surfaces with waterproof coating. **Antenna.** Inserted at or near apical 1/3; scape not reaching eye, with numerous, recumbent, coarse scales and some suberect, scalelike setae; funicle 6-segmented; club short, broad-oval, symmetrical, completely pubescent. **Head.** Moderately convex; frons subequal to, to slightly wider than rostrum at apex, with broad moderately deep to deep transverse impression; eyes moderately convex, latero-ventral. **Prothorax.** Slightly longer than wide, subequal in length and width, or transverse; apical margin extending over and concealing head; postocular lobes strong; with numerous, generally distributed, erect to suberect, coarse, nearly straight setae; dense, large punctures concealed only in part by dense scales and waterproof coating. **Scutellum.** Not visible. **Elytra.** Humeri well-developed, subquadrately rounded; sides subparallel to declivity, there broadly narrowed to conjointly rounded apices; sutural interval not depressed; intervals flat to convex, none more elevated, odd-numbered intervals with uneven row of strong tubercles, each with long coarse nearly straight seta; striae lacking enlarged foveae; macropterous. **Venter.** Prosternum not medially sulcate, although some appearing to possess ridge in front of fore coxae formed by thick waterproof coating on sides of pronotum; all scales agglutinate; mesepimeron with anteriorly projecting, scale covered process; 1st and 2nd abdominal sterna of female not vaulted, flat to weakly convex, on same level as 3rd, 4th, and 5th sterna. **Legs.** Very stout, fore coxae not contiguous, not strongly elongated; middle coxae moderately separated; femora unarmed, with all scales agglutinate (lacking hydrofuge scales or pubescence on inner face); fore femora strongly deformed, inner face on basal 1/2 strongly concave; outer margin of apex of tibiae rounded to subquadrate, lacking denticle; middle tibiae normal (not bladeliike, with evenly strongly curved outer margin); outer surface of tibiae with agglutinate scales, inner surface with dense hydrofuge scales, with several short swimming setae, not denticulate on inner margin, with short stout uncus, and praemucro; tarsi short, segments together not as long as tibia, with ventral to lateral, moderate to short hairs and pubescence, not linear, 3rd segment deeply bilobed, 4th segment not visible in lateral view, claw segment lacking apical long curled seta, and lacking pad or scale between short fine approximate tarsal claws. **Male genitalia and associated structures.** **Female genitalia and associated structures.** **Gender.** Masculine. **Type species.** *Genus X, new species 1* O'Brien, new species, by present designation.

Genus X (Subgenus I) O'Brien, new subgenus
Figures

DESCRIPTION. Same as nominotypic subgenus, except: Small to medium-sized (length, 1.80-3.30 mm), elongate-oval to oblong-oval. **Rostrum.** Usually much shorter than length of prothorax. **Antenna.** Rarely inserted near middle. **Head.** Frons lacking deep, broad, subcarinate impression. **Prothorax.** Not extending beyond head (in side view), although concealing it from above; setae erect, short, curved and scalelike. **Elytra.** Weakly to scarcely tuberculate; setae erect, short to rather elongate, curved and scalelike. **Legs.** Fore femora not strongly deformed, only moderately strongly to strongly asymmetrically clavate. **Male genitalia and associated structures.** Apodemes inserted near middle to somewhat apicad of middle of median lobe; ventral plate narrowing rapidly (but evenly) behind apodemal insertions; membranous sac lacking basal sclerite, with some to numerous spicules; arms of spiculum gastrale not or weakly fused; 10th tergite with broad "liplike" edge. **Female genitalia and associated structures.** Eighth sternite with apodeme broadening more rapidly on apical 1/4-2/5; apex of 9th tergite moderately to strongly emarginate. **Gender.** Masculine. **Type species.** *Genus X, new species 5* O'Brien, new species, by present designation.

Genus X (Nominate subgenus), new species 1 O'Brien, new species
Figures

DESCRIPTION. Medium-sized (length, 3.05-3.75 mm), stout, unicolored, blackish brown, occasionally greyish brown; waterproof coating rough and matte.

HOLOTYPE MALE. **Rostrum.** Moderately stout, *ca* 8/10 as long as prothorax. **Antenna.** Inserted 3/10 in front of apex, 1st funicular segment clothed on apical margin with greyish hydrofuge pubescence and coarse scalelike setae, remaining segments with only coarse bristles. **Head.** Completely concealed in dorsal view; frons broadly deeply impressed, lacking apparent scaly carina; transversely moderately subgibbous between eyes, process with transverse row of long erect coarse setae. **Prothorax.** Anteriorly strongly produced beyond head, anterior margin usually clearly bilobed (dense coating may eliminate lobes); *ca* subequal in length and width; sides and disc tuberculate and with uneven surface; tubercles with long, erect, straight to weakly curved, coarse setae; disc with median, narrow, shallow sulcus; clothed with dense, coarse scales and thick waterproof coating. **Elytra.** Disc undulating and strongly tuberculate; behind humeri with angulate transverse impression to 3rd interval; 3rd interval with basal cluster of scales, appearing carinate; intervals 3, 5, and 7 with strong tubercles, each with long erect nearly straight coarse seta; striae deep, not straight, with at most scarcely visible punctures. **Venter.** Punctures of metasternum and abdomen dense, clearly visible though appearing shallow due to waterproof coating; 1st and 2nd abdominal sterna medially broadly shallowly impressed, 2nd sternum strongly declivous behind; 5th sternum broadly moderately impressed in middle half, apical margin with 2 sublateral clusters of dark suberect coarse scalelike bristles. **Legs.** Deformity of fore femora strongly developed, concave inner surface with carinate margins, hind femora similar although less deformed; femora and tibiae with dense scale covering and waterproof coating, and moderately dense, evident, erect, rather long, moderately curved, coarse setae. **Genitalia and associated structures.** See Fig. . Length, pronotum and elytron: 3.35 mm.

ALLOTYPE FEMALE. Same as male except: **Venter.** First and 2nd abdominal sterna somewhat transversely flattened; 5th sternum with 3 small shallow subapical impressions;

apical margin with only 2 or 3, sublateral, short and long, rather fine setae. **Genitalia and associated structures.** See Fig. . Length, pronotum and elytron: 3.40 mm.

Etymological Note.—

Type locality.—Venezuela,

Remarks and Comparative Notes.—

Range.—Known from Belize, Bolivia and Venezuela.

Material Examined.—**BELIZE:** Belize: 19 mi. N.W. Belize City, 11-VIII-1977, C.W. & L. O'Brien & Marshall (2, CWOB); Hattieville, 13-VIII-1977, C.W. & L. O'Brien & Marshall (1, CWOB). **BOLIVIA:** El Beni: Trinidad, 10-1951, Zischke leg., Coll. Kuschel (1, NZAC); **Santa Cruz:** Sta. Cruz, Coll. Kuschel (1, NZAC). **VENEZUELA:** Bolivar: 9 km. W. La Tigrera, 300', 29-VII-1988, C & L. O'Brien & G.Wibmer (1, CWOB). **Monagas:** 5 km. S. Maturin, Hwy. 10, 300', 1-VIII-1988, C.W. & L. O'Brien & G.Wibmer (1, CWOB); 43 km. S. Maturin, 300', 1-VIII-1988, C. & L. O'Brien & G.Wibmer (1, CWOB); 61 km. S. Maturin, 300', 1-VIII-1988, C.W. & L. O'Brien & G.Wibmer (2, CWOB).

Genus X (Nominate subgenus), new species 2 O'Brien, new species
Figures

DESCRIPTION. Medium-sized (length, 3.50-4.00 mm), stout, elongate-oval; bicolored, black and brown fasciate waterproof coating shellac-like, smooth and shining.

HOLOTYPE MALE. **Rostrum.** Moderately stout, *ca* 8/10 as long as prothorax. **Antenna.** Inserted 3/10 in front of apex, 1st funicular segment clothed on apical margin with short broad scales, remaining segments with few such scales and coarse bristles. **Head.** Completely concealed in dorsal view; frons broadly moderately deeply impressed, with distinct median longitudinal scaly carina; transversely gibbous between eyes, gibbosity with transverse uneven row of long erect coarse setae. **Prothorax.** Anteriorly strongly produced beyond head, anterior margin clearly bilobed to distinctly emarginate; *ca* 1/10 longer than wide, disc rather weakly tuberculate; sides with base angulate, weakly expanding to subangulate apical 1/3 there weakly tuberculate and suddenly strongly constricted, constriction uneven, and disc with median uneven sulcus; disc with unevenly placed moderately sparse long erect nearly straight coarse setae; with transverse narrow basal pale brown line and similar pale brown scales forming lateral marginal vitta and broad area above coxae on lower 1/3 of pleuron. **Elytra.** Moderately undulating and strongly tuberculated; intervals 3 and 4 subbasally swollen, with moderately strong angulate impression behind humeri to suture; 3rd interval lacking basal cluster of scales, not appearing carinate; intervals 3, 5 and 7 with strong tubercles, sutural interval moderately tuberculate, each tubercle with long erect nearly straight coarse seta; striae deep, not straight, with at most scarcely evident punctures. **Venter.** Punctures of metasternum and abdomen dense, deep and clearly visible through waterproof coating; 1st abdominal sternum medially, broadly, moderately deeply impressed; 2nd sternum basally transversely flattened, moderately strongly declivous behind; sterna 2-5 with at least lateral erect coarse setae; sternum 5 with basal 1/2 convex, apical 1/2 transversely moderately deeply impressed, apical margin with 2 sublateral pairs of coarse erect acute bristles. **Legs.** Deformity of fore femora moderately strongly developed, concave inner surface with subcarinate margins, hind femora similar although less deformed; femora and tibiae with two types of dense scale

covering and waterproof coating, smooth on middle of sides, very rough and punctate on remaining areas, and with moderately dense evident erect long to moderately long, curved to nearly straight, coarse setae. **Genitalia and associated structures.** See Fig. . Length, pronotum and elytron: 4.00 mm.

ALLOTYPE FEMALE. Same as male except: **Rostrum.** Longer, *ca* 9/10 as long as prothorax. **Antennae.** Inserted behind 1/3 front of apex. **Venter.** First abdominal sternum medially shallowly impressed between coxae, remainder convex; 2nd sternum strongly declivous behind; fifth sternum with 3 small shallow subapical impressions. **Genitalia and associated structures.** See Fig. . Length, pronotum and elytron: 3.85 mm.

Etymological Note.—

Type locality.—Brazil, Minas Gerais, Arinos.

Remarks and Comparative Notes.—

Range.—Known from Brazil and Venezuela.

Material Examined.—**BRAZIL** [*sic*]: **Mato Grosso:** Brésil [*sic*], Prov. **Matto** [*sic*] **Grosso** 886, P. Germain, Coll. Kuschel (INZAC); **Minas Gerais:**, Arinos, 6-8.XI.1964 Exp. Dep. Zool. (Holotype and paratype, MSPC; 1 paratype, CWOB); Buritia (Ribeirão Confina, 29-31.XI.1964, Exp. Dep. Zool. (1, MSPC); Pira pora, XI-1975, M.Alvarenga (2, CWOB). **Sao Paulo:** Est. Biol. Boraceia, Salesopolis 12.II.1963, L.Silva & H.Rechardt [*sic*] col. **VENEZUELA:** **Monagas:** 5 km. S. Maturin, Hwy. 10, 300' 1-VIII-1988, C.W. & L.O'Brien & G.Wibmer (Allotype, CWOB).

Genus X (Subgenus I) new species 3 O'Brien, new species
Figures

DESCRIPTION. Medium-sized (length, 2.45-3.30 mm) very stout, oblong-oval; bicolored, dark brown to black (often with silvery grey coating) and lunate lateral and apical silver-grey fascia; waterproof coating matte.

HOLOTYPE MALE. **Rostrum.** Moderately stout, *ca* 8/10 as long as prothorax. **Antenna.** Inserted *ca* 1/3 in front of apex; 1st funicular segment with coarse grey scales, remaining segments with scales and suberect bristles. **Head.** Lacking frontal impression; not gibbous between eyes, there with transverse row of short erect clavate scalelike setae. **Prothorax.** Transverse, less than 9/10 as long as wide; moderately anteriorly produced over head, anterior margin not lobed nor emarginate; sides strongly expanded from non-angulate rounded base to apical 1/4, there suddenly strongly constricted to tubulate apical 1/9; disc convex, not tuberculate, cribrately densely punctate, with moderately dense short curved suberect clavate scalelike setae; scale covering granulate in appearance, with sublateral narrow silvery grey oblique fascia in basal 1/2, remaining area dark brown to black; pleuron dorsally dark brown to black basal 1/2 silvery grey. **Elytra.** Disc uneven, with intervals 3-5 strongly subbasally swollen, with distinct obliquely transverse impression behind humeri: lacking evident tubercles, intervals 1-5 and 7 with row of short erect clavate scalelike setae; scale covering granulate in appearance; striae deep, nearly straight, concealed in part by scales and waterproof coating, punctures not evident; intervals 1-7 dark brown to black to declivity, humeri, side margins and apex silvery grey fasciate. **Venter.** Punctures of metasternum small, deep,

coarse, not cribrate, partially concealed by dense waterproof coating, surface appearing subgranulate; 1st abdominal sternum medially broadly shallowly impressed; 2nd sternum medially basally flattened, moderately declivous behind; 5th sternum with median, broad, shallow impression; impression lacking waterproof coating, clothed with moderately dense yellowish hydrofuge scales, entire surface with moderately dense erect setae, basally coarse and scalelike, apically finer and bristlelike, apical margin with single sublateral bristle. **Legs.** Femora only moderately strongly, asymmetrically clavate; femora and tibiae with dense, rough to subgranulate, matte, pale brown scales and moderately dense, curved, suberect to decumbent, coarse setae. **Genitalia and associated structures.** See Fig. . Length, pronotum and elytron: 2.55 mm.

ALLOTYPE FEMALE. Same as male except: **Rostrum.** About 3/4 as long as prothorax. **Antenna.** Inserted just before 1/3 in front of apex. **Prothorax.** Not transverse, slightly longer than wide. **Venter.** First and 2nd abdominal sternum medially weakly convex; 5th sternum basally transversely strongly convex in middle half, apical half with small median and lateral impressions, apical and lateral margins narrowly clothed with yellowish hydrofuge scales. **Genitalia and associated structures.** See Fig. . Length, pronotum and elytron: 3.20 mm.

Etymological Note.—

Type locality.—Brazil, Mato Grosso, Mato Verde, Rio Araquaiá.

Range.—Known only from the type locality in Brazil.

Material Examined.—**BRAZIL: Mato Grosso:** Mato Verde, Rio Araquaiá 6-9-XI-1960, B. Malkin, at light (Holotype, allotype and paratypes, FMNH; paratypes, CWOB; paratypes; paratypes USNM), [+ 1 non-paratype]. [81]

Genus X (Subgenus I) new species 4 O'Brien, new species
Figures

DESCRIPTION. Small to medium-sized (length, 1.80-2.70 mm), moderately stout, elongate-oval; (2 color forms) silvery grey with dark brown maculations and fasciae, or brownish to brownish grey with dark brown to brownish black maculations and fasciae; waterproof coating partially matte, partially shining.

HOLOTYPE MALE. **Rostrum.** Moderately slender, almost as long as prothorax. **Antenna.** Inserted 1/3 in front of apex; entire 1st funicular segment tomentose, apical margin clothed with short broad scalelike setae, remaining segments with short scalelike setae and suberect bristles. **Head.** Lacking frontal impression; not gibbous between eyes, there with uneven transverse row of short broad suberect scalelike setae. **Prothorax.** Moderately anteriorly produced over head, anterior margin not lobed nor emarginate; sides moderately evenly rounded from non-angulate rounded base to apical 1/3, there suddenly strongly constricted to strongly tubulate apical 1/6; disc and sides not tuberculate, strongly cribrately punctate with sparse, short, curved, suberect, clavate, scalelike setae; median 1/3 unevenly dark brown fasciate, remaining area silvery grey; pleuron silvery grey, indistinctly dark brown maculate. **Elytra.** Disc scarcely uneven, only slightly impressed transversely behind humeri; lacking evident tubercles, alternate intervals with short, erect, subclavate, scalelike setae; scale covering slightly roughened in appearance; striae deep, straight or nearly so, punctures not or

scarcely evident; intervals 1-5 subfasciate-maculate dark brown to declivity, remaining area pale silvery grey, or unevenly maculate dark brown. **Venter.** Punctures of metasternum and abdomen deep and cribrate; 1st abdominal sternum medially, broadly, deeply impressed; 2nd sternum broadly shallowly basally impressed, moderately declivous behind; 5th sternum with median broad shallow subapical impression, laterally with row of suberect scalelike setae, apical margin with 1 or 2 sublateral suberect acute coarse bristles. **Legs.** Femora only moderately strongly, asymmetrically clavate; femora and tibiae with dense, rough, shinglelike, shining scales and moderately dense, suberect, curved, coarse setae. **Genitalia and associated structures.** See Fig. . Length, pronotum and elytron: 2.35 mm.

ALLOTYPE FEMALE. Same as male except: **Rostrum.** *Ca* 9/10 as long as prothorax. **Antenna.** Inserted just before middle. **Venter.** First and 2nd abdominal sterna transversely flattened; 5th sternum transversely, shallowly, subapically impressed. **Genitalia and associated structures.** See Fig. . Length, pronotum and elytron: 2.15 mm.

Etymological Note.—

Type locality.—Venezuela, Bolivar, 9 km W. La Tigrera.

Remarks and Comparative Notes.—

Range.—Known from Brazil and Venezuela.

Material Examined.—**BRAZIL:** Goiás: Cabe ceiras, (Lagao Formosa) 24-27-X-1964, Exp. Dep. Zool. (1, MSPC); Brasil [sic], Mato Grosso: Campo Grande XI-1952, M.Alvarenga leg. Ex Caleção M.Alvarenga (1, MSPC); Mato Verde, XII-1960, B.Malkin col. (1, MSPC); Cáceres, XII-1955, M.Alvarenga col., Ex caleção M.Alvarenga (12,); Xingu XI-1961, Alvarenga & Werner, Ex coleção M.Alvarenga (1, MSPC); Minas Gerais: Arinos, 6-8-XI-1964, Exp. Dep. Zool. (36,); Buritia (Ribeirão Confina) 29-31-X-1964 Exp. Dep. Zool. (3, MSPC); São Paulo: Est. Biol. Baraceia, Salesópolis, 12-II-1963, L.Silva & H.Reichardt col. (28,). **VENEZUELA:** Bolivar: 9 km. W. La Tigrera, 300', 29-VII-1988, C. & L.O'Brien & G.J.Wibmer (holotype, allotype and 25 paratypes, CWOB,).

Genus X (Subgenus I) new species 5 O'Brien, new species
Figures

DESCRIPTION. Small to medium-sized (length, 2.10-3.00 mm), moderately stout, oblong-oval; bicolored, greyish brown and black.

HOLOTYPE MALE. **Rostrum.** Moderately stout, slightly less than *ca* 9/10 as long as prothorax. **Antenna.** Inserted behind 1/3 in front of apex, apex of funicular segments with broad scales, segments 2-6 also with several acute coarse bristles. **Head.** With frons visible from above, frons convex, subgibbous, with transverse row of short decumbent scalelike setae. **Prothorax.** Moderately produced anteriorly over head, anterior margin not emarginate nor bilobed; sides slightly unevenly, gradually expanding from base to widest at apical 1/3, there suddenly constricted to subtubulate apical 1/7; disc not tuberculate, strongly punctate with moderately sparse short curved erect scalelike setae; median 1/3 black, bordered by uneven pale greyish brown vittae, lateral area black extending onto pleural area, pale greyish brown above coxae on lower 1/3 of pleuron. **Elytra.** Disc scarcely uneven, with moderately weak

angulate impression on intervals 3-6 behind humeri mediad on basal 1/3; alternate intervals with unevenly developed, weak tubercles, each with somewhat elongate, scalelike setae; dense scale covering granulate in appearance; striae deep, nearly straight; strial punctures small, deep, scarcely evident; median area of disc black from base to declivity on intervals 1-4 or 5, with lunate grayish brown fascia behind humeri onto declivity (often difficult to see due to waterproof coating), side margins black. **Venter.** Punctures dense, nearly concealed by scales and waterproof coating; 1st abdominal sternum medially, broadly, rather weakly impressed; 2nd sternum transversely flattened, moderately declivous behind; 5th sternum subapically deeply impressed in median 2/3, side margin of impression with row of 3 or 4 erect, acute bristles. **Legs.** Femora strongly to moderately strongly, asymmetrically clavate; femora and tibiae with very dense scale covering and waterproof coating, and moderately dense decumbent to suberect, moderately long, curved to straight, coarse to scalelike setae. **Genitalia and associated structures.** See Fig. . Length, pronotum and elytron: 2.45 mm.

ALLOTYPE FEMALE. Same as male except: **Rostrum.** At least 9/10 as long as prothorax. **Antenna.** Inserted *ca* 1/3 in front of apex. **Venter.** First abdominal sternum medially convex; 2nd sternum moderately strongly declivous behind; 5th sternum with small deep round subapical fovea, with 1 or 2 acute bristles beside fovea. **Genitalia and associated structures.** See Fig. . Length, pronotum and elytron: 2.85 mm.

Etymological Note.—

Type locality.—VENEZUELA, Bolivar, 9 km.W. La Tigra, 300'.

Remarks and Comparative Notes.—

Range.—Known only from the type locality in the State of Bolivar, Venezuela.

Material Examined.—VENEZUELA: Holotype, allotype and 113 paratypes, BOLIVAR, 9 km. W. La Tigra, 300', feeding on seed heads pressed plant [plant lost, Monocotyledoneae (Juncaceae or Cyperaceae)], 7-29-1988, C.& L.O'Brien & G.Wibmer.

Genus X (Subgenus I) new species 6 O'Brien, new species
Figures

DESCRIPTION. Medium-sized (length, 2.15-3.20 mm) moderately stout, oblong-oval; bicolored, dark brown and pale brown fasciate; waterproof coating partially shining, partially matte.

HOLOTYPE MALE. **Rostrum.** Moderately stout, *ca* 9/10 as long as prothorax. **Antenna.** Inserted *ca* 3/10 in front of apex; 1st funicular segment tomentose on apical margin, remaining segments with short broad scales and suberect bristles. **Head.** Lacking frontal impression; frons with weak but evident swelling, not angulately gibbous between eyes, there with uneven transverse row of strongly curved decumbent scalelike setae. **Prothorax.** Scarcely anteriorly produced over head, anterior margin not lobed nor emarginate; sides weakly expanding from non-angulate base to apical 1/4, there moderately constricted to subtubulate apical 1/6; disc and sides not tuberculate, densely cribrately punctate, median longitudinal row forming indistinct shallow longitudinal sulcus, and with sparse scattered short curved suberect scalelike setae; with narrow uneven subilateral and marginal pale brown vittae, remaining area brownish black, pleuron with basal half pale brown, remainder brownish black with small pale

brown maculae. **Elytra.** Disc moderately uneven, intervals 3-5 moderately subbasally obliquely transversely swollen, with moderately distinct obliquely transverse impression behind humeri; lacking evident tubercles except at and on declivity; alternate intervals with short, erect to suberect, broad, scalelike setae; intervals 1-5 brownish black to declivity, lateral areas and apex pale brownish fasciate, pleural area unevenly maculate brownish black. **Venter.** Punctures of metasternum and abdomen small, deep and non-cribate; 1st abdominal sternum medially broadly shallowly impressed; 2nd sternum medially basally flattened, moderately declivous behind; 5th sternum with median broad moderately deep subapical impression, laterally with row of short erect bristles, apical margin with 2 sublateral acute coarse bristles. **Legs.** Femora only moderately strongly asymmetrically clavate; femora and tibiae with dense, rough, subgranulate appearing shining scales and moderately sparse, short to long, suberect to decumbent scalelike setae. **Genitalia and associated structures.** See Fig. . Length, pronotum and elytron: 2.70 mm.

ALLOTYPE FEMALE. Same as male except: **Rostrum.** Subequal in length to prothorax. **Antenna.** Inserted just behind 1/3 in front of apex. **Venter.** First and 2nd abdominal sterna transversely medially convex; 5th sternum with median small deep foveate subapical impression, lacking lateral row of setae. **Genitalia and associated structures.** See Fig. . Length, pronotum and elytron: 2.75 mm.

Etymological Note.—

Type locality.—Paraguay, Central Department, 4 kilometers East of Ypacarai.

Remarks and Comparative Notes.—

Range.—Known from Paraguay, and the States of Goiás, Mato Grosso, Minas Gerais and São Paulo, Brazil.

Material Examined.—**BRAZIL:** Goiás: Aragarças, XI-1965, H.Alvarenga (3, USNM [1, non-paratype]); Cabeceiras, (Lago Formosa) 24-27-X-1964, Exp. Dep. Zool. (1, MSPC; 1, CWOB); Faz. Nava Orlandia Jatai, I.1964, Martins, Morgante & Silva (1, MSPC; 1, CWOB). Brasil [sic], **Mato Grosso:** BR 29, Rio Juruena, XI-1960, M.Alvarenga leg., Ex coleção M.Alvarenga (1, MSPC); Campo Grande XI-1952, M.Alvarenga leg. Ex coleção M.Alvarenga (1, MSPC); Mato Verde, Rio Araguaia, XII-1960, B.Malkin col. (1, CWOB; 1, FMNH); Unai (Faz. Bolivia), 22-24-X-1964, Exp. Dep. Zool. col. (1, MSPC) Cáceres, XII-1955, Alvarenga, Ex coleção M.Alvarenga (1, CWOB; 1, MSPC); Xingu XI-1961, Alvarenga & Werner, Ex coleção M.Alvarenga (1, MSPC) **Minas Gerais:** Arinos, 6-8-XI-1964, Exp. Dep. Zool. (35,); Burití (Ribeirão Confins) 29-31-X-1964 Exp. Dep. Zool. (2, MSPC; 1, CWOB); **São Paulo:** Est. Biol. Boraceia, Salesópolis, 12-II-1963, L.Silva & H.Reichardt col. (10,). Faz. Pau d'Alho, Itu, X-1965, U.Martins col. (1, MSPC). **PARAGUAY:** San Luis, coll. Kuschel (4, CWOB; 8, NZAC); 4 km. E. Ypacarai, at night, C.W. & L.O'Brien (holotype, CWOB).

Pistiicola Wibmer & O'Brien 1989
Figures

DESCRIPTION. Small (1.25-2.65 mm); cuticle black to reddish brown; scales recumbent, contiguous or imbricate; dorsum and most of venter with waterproof coating. **Rostrum.** Moderately stout to slender, somewhat shorter to slightly longer than prothorax,

rather evenly curved, dorsal surface covered with waterproof coating on basal 1/2-3/4, with moderately dense, suberect to erect, long, moderately coarse, strongly curved setae, much less curved on apical 1/4; scrobe deep, directed ventrally, dorsal margin almost reaching eye; suprascrobal groove present, narrow to broad (in *P. cretatus* often concealed by waterproof coating), clothed with dense hydrofuge scales. **Antenna.** Inserted about 1/5-1/3 from apex of rostrum; scape not reaching eye, with several to many medium to long, fine to moderately coarse setae; funicle 6-segmented; club elongate-oval to moderately elongate-oval, symmetrical, rather densely, evenly pubescent. **Head.** Weakly convex; frons distinctly wider than rostrum at apex; eyes weakly convex, latero-ventral. **Prothorax.** Distinctly transverse to about as long as wide; postocular lobes moderate to strong; with suberect to erect, long, moderately coarse, strongly curved, mostly decumbent setae; all punctures concealed by scales and waterproof coating. **Scutellum.** Not visible. **Elytra.** Humeri moderately to well-developed, obliquely angulately to rather acutely, subquadrately rounded; sides subparallel in basal 3/5, then converging rapidly to conjointly rounded apices; intervals flat or weakly convex, odd-numbered slightly to distinctly more elevated, odd-numbered and apical portion of 10th with row of suberect to erect, long, moderately coarse, strongly curved, mostly decumbent setae (row incomplete on 9th); striae lacking enlarged foveae; macropterous. **Venter.** Prosternum not medially sulcate, although occasionally appearing to possess ridge or elevation in front of fore coxa formed by thick waterproof coating on sides of pronotum; scales of sternum 5 not agglutinate, mainly baso-lateral, remaining area setate only; mesepimeron normal, lacking anteriorly projecting tubercle; 1st and 2nd abdominal sterna of female not vaulted, flat to weakly convex, on same level as 3rd, 4th, and 5th sterna. **Legs.** Stout to moderately stout; fore coxae contiguous, not strongly elongated, middle coxae moderately separated; femora unarmed, clothed with dense agglutinate scales, apical portion of inner margin lacking waterproof coating, with hydrofuge scales; outer margin of apex of tibiae rounded, lacking denticle; middle tibiae normal (not bladelike, with evenly strongly curved outer margin); outer surface of tibiae clothed with dense agglutinate scales, basal 3/4 of inner margin lacking waterproof coating, with dense hydrofuge scales, lacking swimming hairs or setae, not denticulate on inner margin, with medium to large apical uncus, and medium-sized subapical praemucro (uncus with external or internal denticle or tooth on hind legs of male); tarsi short, segments together not as long as tibia, with short hairs and pubescence, not linear, 3rd segment distinctly wider than 2nd and broadly deeply bilobed, 4th segment not visible in lateral view, claw segment clearly extending beyond 3rd, lacking apical long curled seta, and lacking pad or scale between moderately stout free approximate tarsal claws. **Male genitalia and associated structures.** Phallus lacking flagellum; apodemes much longer than median lobe, inserted near middle of median lobe; median lobe moderately deep, dorsal plate indistinct, ventral plate narrowing slightly behind apodemal insertions; membranous sac short to medium-sized, far from reaching tips of apodemes, with distinct apical plate and medium-sized, basal sclerite (with spicules below and in front of latter); tegmen closed apically, with one median, inwardly directed process; spiculum gastrale (9th sternite) with arms at angle with apodeme in lateral view, apodeme distinctly expanded laterally at base, arms medium-sized, fused apically, with very narrow to moderately broad, thin (almost transparent), lateral "wings"; 10th sternite divided into two plates; 10th tergite lacking anteriorly directed processes, with moderate "liplike" edge. **Female genitalia and associated structures.** Eighth sternite with apodeme bifurcate on apical 1/3-2/5, free portion *ca* as long as to somewhat longer than blade; spermatheca with cuticle partially reticulate or not; ramus short to medium-sized, arising rather far from nodulus; nodulus curved toward cornu; spermathecal duct medium to long, flexible, attached at apex of bursa copulatrix; bursa not constricted at base; coxite not flattened, nor narrowed on apical portion; stylus medium-sized, subapical; apex of 9th tergite somewhat

emarginate, margin slightly irregular; apex of 10th tergite round to almost flat, margin moderately denticulate. **Gender.** Masculine. **Type species:** *Onychylis cretatus* Champion 1902, by original designation (Wibmer and O'Brien 1989).

REMARKS AND COMPARATIVE NOTES. The small size and the very distinct, suberect to erect, strongly curved setae present on the rostrum, prothorax, elytra and legs distinguish *Pisticiacola* from most other genera of Stenopelmini. All *Neohydronomus* Hustache, and *Ochetina bruchi* Hustache, also are found on *Pistia*, but the former genus has the whole of the venter and pleura, and the legs except for the tarsi, covered with plumose scales, and has at least some on the elytra too. *Ochetina bruchi* is larger, has very distinct suprascrobal grooves, the 1st segment of the club glabrous, and linear tarsi which are densely covered with hydrofuge pubescence. *Tanysphyrus* Germar has lateral eyes, the frons is narrower than the rostrum at the apex, and often has numerous plumose scales on the prothorax and elytra. *Stenopelmus* Schönherr is completely covered with plumose scales, has a short, rather straight rostrum, and the antennal funicle is 7-segmented, and *Bagoidus* Kuschel has linear tarsi, contiguous middle coxae, and distinctly antero-medially sulcate prosternum. For differences with *Pisticiacoloides*, see the discussion under that genus.

Pisticiacoloides Wibmer & O'Brien 1989
Figures

DESCRIPTION. Small (1.55-2.25 mm); scales recumbent, contiguous or imbricate; cuticle reddish brown to mostly blackish; most of dorsum with waterproof coating, most of venter with hydrofuge scales. **Rostrum.** Moderately stout, almost as long as prothorax, dorsal surface evenly curved, ventral surface weakly, unevenly swollen; dorsal surface with moderately dense, suberect to erect, medium to long, moderately coarse, strongly curved setae; scrobe deep, directed ventrally, dorsal margin almost reaching eye; lacking evident suprascrobal groove; dorsal surface with waterproof coating on basal 3/4. **Antenna.** Inserted *ca* 1/5-1/4 from apex of rostrum; scape not reaching eye, with several medium-sized, moderately fine setae on *ca* apical 1/2; funicle 6-segmented; club broad-oval, symmetrical, rather densely, evenly pubescent. **Head.** Weakly convex; frons somewhat wider than rostrum at apex; eyes weakly convex, latero-ventral. **Prothorax.** Weakly transverse to about as long as wide; postocular lobes feeble; with suberect to erect, long, moderately coarse, strongly curved, mostly decumbent setae; punctures concealed by scales and waterproof coating. **Scutellum.** Not visible. **Elytra.** Humeri well-developed, subquadrately rounded; sides subparallel in basal 3/5, then converging rapidly to conjointly rounded apices; intervals flat to weakly convex, odd-numbered slightly more elevated, odd-numbered and apical portion of 10th with row of suberect to erect, long, coarse, strongly curved, mostly decumbent, scalelike setae (row incomplete on 9th); striae lacking enlarged foveae; macropterous. **Venter.** Prosternum not medially sulcate, lacking ridge or elevation in front of fore coxa; mesepimeron normal, lacking anteriorly projecting tubercle; 1st and 2nd abdominal sterna of female not vaulted, flat to weakly convex, on same level as 3rd, 4th, and 5th sterna. **Legs.** Moderately slender; fore coxae contiguous, not strongly elongated, middle coxae moderately separated; femora unarmed, covered mostly with dense agglutinate scales (lacking hydrofuge scales or pubescence on inner face, except at base); outer margin of apex of tibiae rounded, lacking denticle; middle tibiae normal (not bladeliike, with evenly strongly curved outer margin); outer surface of tibiae covered with dense agglutinate scales, inner surface with dense hydrofuge scales, lacking swimming hairs or setae, not denticulate on inner margin, with apical uncus (uncus with external submedian denticle on hind leg of male), usually lacking praemucro (occasionally

present on fore and middle legs, but minute); tarsi short, segments together not as long as tibia, with short hairs and pubescence, not linear, 3rd segment distinctly wider than 2nd and broadly deeply bilobed, 4th segment not visible in lateral view, claw segment clearly extending beyond 3rd, lacking apical long curled seta, and lacking pad or scale between moderately slender free approximate tarsal claws. **Male genitalia and associated structures.** Phallus lacking flagellum; apodemes much longer than median lobe, inserted near middle of median lobe; median lobe deep, dorsal plate indistinct, ventral plate narrowing very gradually behind apodemal insertions; membranous sac long, distinctly exceeding tips of apodemes, with scarcely distinct apical plate and long, inverted V-shaped, median sclerite; tegmen closed apically, with one median, inwardly directed process; spiculum gastrale (9th sternite) with arms at angle with apodeme in lateral view, apodeme moderately expanded laterally at base, arms short, fused, with narrow, thin (almost transparent), lateral "wings"; 10th sternite divided into two plates; 10th tergite lacking anteriorly directed processes, with moderate "liplike" edge. **Female genitalia and associated structures.** Eighth sternite with apodeme bifurcate on *ca* apical 1/4, free portion much longer than blade; spermatheca with cuticle partially reticulate; ramus medium-sized, arising far from nodulus; nodulus somewhat curved toward cornu; spermathecal duct rather short, flexible, suddenly expanded on apical portion, attached near base of bursa copulatrix; bursa constricted at base; coxite not flattened but narrowed obliquely on apical portion (in dorsal or ventral views); stylus short, subapical; apex of 9th tergite slightly emarginate, margin slightly irregular; apex of 10th tergite almost flat, margin weakly denticulate. **Gender.** Masculine. **Type species.** *Pistiacoloides wojciki* O'Brien, 1989, by original designation.

REMARKS AND COMPARATIVE NOTES. The small size and the very distinct, suberect to erect, strongly curved setae present on the rostrum, prothorax, elytra and legs distinguish *Pistiacoloides* from most other aquatic genera of Stenopelmini. For further differences regarding various genera of Stenopelmini, see discussion under *Pistiocola*.

In *Pistiocola* all scales are agglutinate on the metasternum, abdominal sternum 1-2, and the legs. In addition, the ventral surface of the rostrum is not swollen, and the setae on the dorsal surface apicad of the scrobes are finer and sparser.

Genus XI O'Brien, new genus Figures

DESCRIPTION. Small to medium-sized (length, 2.30-4.10 mm), robust, very broad-oval to elongate-oval; cuticle reddish brown to black, appendages reddish brown to yellow; dorsum and venter densely clothed with imbricate scales and waterproof coating. **Rostrum.** Short, very stout, *ca* 2/3 length of prothorax, dorsally subgibbous at antennal insertion, ventrally weakly curved to straight, dorsal surface with hydrofuge scales, or with waterproof coating on basal 1/3; scrobe short, directed ventrally; suprascrobal groove lacking. **Antenna.** Inserted 1/3-1/2 from apex of rostrum; scape extending over 1/8-1/2 of eye, with several, rather coarse setae (often abraded); funicle 6-segmented; club elongate, narrow, asymmetrical, 1st segment glabrous, much more than 1/2 length of club. **Head.** Moderately convex; frons much narrower than (*ca* 1/3-1/2) width of rostrum at apex; eyes moderately strongly convex, latero-ventral, scarcely to widely separated on venter. **Prothorax.** Strongly transverse; postocular lobes lacking; with numerous, generally distributed, subecumbent, fine to coarse, curled setae; dense, large punctures concealed only in part by dense scales and waterproof coating. **Scutellum.** Not visible. **Elytra.** Humeri moderately to well-developed, subquadrately to angulately rounded; sides unevenly swollen behind to declivity, there broadly narrowed to

not acute, broadly quadrately tuberculate to conjointly rounded apices; sutural interval weakly to strongly depressed; intervals flat to weakly convex, odd-numbered may appear more elevated, odd-numbered with conspicuous, erect to suberect, coarse, curled setae, or all intervals with moderately conspicuous, recumbent, coarse setae (often abraded or concealed by waterproof coating); striae with enlarged foveae; macropterous. **Venter.** Prosternum not medially sulcate, lacking ridge or elevation in front of fore coxa; all scales agglutinate; mesepimeron normal, lacking anteriorly projecting tubercle; 1st and 2nd abdominal sterna of male and female vaulted, although shallowly medially impressed at least on male, on markedly different level than 3rd, 4th, and 5th sterna. **Legs.** Moderately slender; fore coxae contiguous, not strongly elongated, middle coxae moderately separated; femora unarmed, clothed with sparse setae (subglabrous) and (at most) with sparse scales in addition to setae, lacking waterproof coating, and lacking hydrofuge scales or pubescence on inner face; outer margin of apex of tibiae rounded to subquadrate, lacking denticle; middle tibiae normal, nearly straight (not bladelike, with evenly strongly curved outer margin); tibiae clothed with sparse setae (subglabrous), lacking waterproof coating, all tibiae with numerous elongate swimming setae on inner and outer margins for entire length, serrately denticulate on inner margin, with strong uncus, lacking praemucro, or with minute praemucro on fore and middle tibiae only; tarsi very long, segments together as long as or longer than tibiae, with very long swimming hairs, linear, 3rd segment truncate, 4th segment clearly visible in lateral view, claw segment clearly extending beyond 3rd, lacking apical long curled seta, and lacking pad or scale between long fine approximate tarsal claws. **Male genitalia and associated structures.** Phallus with long flagellum; apodemes moderately longer than median lobe, inserted at base of median lobe; median lobe moderately flat, dorsal plate indistinct; membranous sac very long, largely exceeding tips of apodemes, lacking sclerites and spicules; tegmen open apically; spiculum gastrale (9th sternite) rather evenly, weakly curved in lateral view, apodeme rodlike, arms medium-sized, not fused nor expanded apically, with moderate, thin (almost transparent), lateral "wings" on basal portion; 10th sternite divided into two plates; 10th tergite lacking anteriorly directed processes, with moderately broad "liplike" edge. **Female genitalia and associated structures.** Eighth sternite with apodeme bifurcate on apical 1/7-1/6, free portion much longer than blade; spermatheca with cuticle partially to almost completely reticulate; ramus indistinct, spermathecal gland arising near nodulus; nodulus not to somewhat curved toward cornu; spermathecal duct very long, flexible, attached at apex of bursa copulatrix; bursa not constricted at base; coxite flattened (bladelike); stylus lacking; apex of 9th tergite round (with "liplike" edge), margin slightly irregular; apex of 10th tergite round, margin almost smooth. **Gender.** Masculine. **Type species.** *Genus XI, new species 2*, by present designation.

Genus XI, new species 1 O'Brien, new species

Figures

DESCRIPTION. Small to medium-sized (length, 3.50-4.10 mm), very stout, broad-oval; unicolored, pale tan.

HOLOTYPE FEMALE. **Rostrum.** Short, *ca* 1/3 longer than width at apex, weakly subgibbous at antennal insertion, dorsal surface lacking waterproof coating, all scales hydrofuge. **Antenna.** Inserted at middle; scape short, scarcely extending over eye (*ca* 1/8). **Head.** Frons *ca* 2/5 width of rostrum at apex; eyes very narrowly separated on venter. **Prothorax.** Median groove evident on full length of disc; median apical process subacute, nearly concealing head; dorsal setae coarse, especially evident along margins of median groove. **Elytra.** Humeri moderately weakly obliquely developed, sides with strong, subacute process

behind and below humeri, moderately swollen to declivity; lacking apical tuberculate process, apices conjointly rounded; sutural interval weakly depressed; alternate intervals more elevated, 3, 5 and 7 tuberculate for much of their length; strial punctures relatively small on striae 1-3, becoming larger and strongly foveate laterally. **Venter.** First abdominal sternum broadly medially impressed on base and apex, and on base of 2nd sternum. **Legs.** Femora and tibiae with moderately dense, widely distributed, recumbent, often seta-like scales; tibia with moderately dense, long, fine, suberect setae. **Genitalia and associated structures.** See Fig. . Length, pronotum and elytron: 4.10 mm.

No male currently available.

Genus XI, new species 2 O'Brien, new species
Figures

DESCRIPTION. Small to medium-sized (length, 2.30-3.30 mm), moderately stout, elongate-oval; bicolored, with dorsal scales dark brown and most pleural and ventral scales pale tan.

HOLOTYPE MALE. **Rostrum.** Short, *ca* 1/5 longer than width at apex, strongly subgibbous at antennal insertion, dorsal surface with waterproof coating on basal 1/3 and hydrofuge scales on apical 2/3. **Antenna.** Inserted 1/3-2/5 from apex; scape moderately short, extending well over eye (*ca* 1/3-1/2). **Head.** Frons *ca* 1/2 width of rostrum at apex; eyes widely separated on venter. **Prothorax.** Median groove evident in basal 1/2 of disc (rarely concealed by dense waterproof coating); median apical process scarcely evident, not concealing head; dorsal setae rather fine, scarcely evident. **Elytra.** Humeri moderately developed, subquadrately rounded; sides weakly swollen behind and below humeri, sides nearly subparallel to declivity; intervals 2-7 forming strong, subquadrate, tuberculate process near apex; sutural interval strongly depressed; all intervals narrow, moderately flat to moderately convex, none more elevated nor distinctly tuberculate; all strial punctures as wide as, or wider than, width of intervals. **Venter.** First abdominal sternum narrowly very weakly impressed, 2nd sternum medially flat. **Legs.** Appearing subglabrous, femora with moderately sparse, scalelike setae and sparse, recumbent scales; tibia with moderately dense, long, fine, suberect setae and with moderately sparse, recumbent scales on outer margin. **Genitalia and associated structures.** See Fig. . Length, pronotum and elytron: 2.20 mm.

ALLOTYPE FEMALE. Same as male except: **Head.** Frons *ca* 1/3 width of rostrum at apex. **Venter.** First and 2nd abdominal sterna not medially impressed. **Genitalia and associated structures.** See Fig. . Length, pronotum and elytron: 2.30 mm.

Genus XII O'Brien, new genus
Figures

DESCRIPTION. Medium-sized to large (4.20-5.20 mm), broad-oval, very robust; cuticle mainly black to reddish brown; densely clothed with imbricate scales; dorsum and venter with complete waterproof coating. **Rostrum.** Slender, longer than length of prothorax, evenly curved, scrobe long, directed ventrally, dorsal margin visible, continued almost to margin of eye; suprascrobal groove lacking; dorsal and lateral surfaces with waterproof coating. **Antenna.** Inserted at or just behind middle of rostrum; scape not reaching eye, with few, rather coarse setae; funicle 6-segmented; club elongate, narrow, asymmetrical, 1st segment glabrous, much more than 1/2 length of club. **Head.** Moderately convex; frons much wider

than rostrum at apex; eyes moderately convex, latero-ventral. **Prothorax.** Strongly transverse; postocular lobes strong; with few, relatively inconspicuous, marginal setae; punctures concealed by scales and waterproof coating. **Scutellum.** Not visible. **Elytra.** Humeri obliquely, very weakly developed, with small angulate process behind; sides unevenly swollen behind to declivity, there broadly narrowed to not acute, broadly emarginate apices; intervals narrow, uneven, lacking conspicuous setae; striae with enlarged foveae; brachypterous. **Venter.** Prosternum medially sulcate, with strongly developed ridge in front of fore coxa; all scales agglutinate; 1st and 2nd abdominal sterna of male and female vaulted, although moderately deeply to shallowly, medially impressed, on markedly different level than 3rd, 4th, and 5th sterna. **Legs.** Stout; fore coxae not contiguous, strongly elongated, middle coxae contiguous; femora unarmed, clothed only with agglutinate scales (lacking hydrofuge scales or pubescence on inner face); outer margin of apex of tibiae rounded to subquadrate, lacking denticle; middle tibiae normal (not bladelike, with evenly strongly curved outer margin); tibiae clothed only with agglutinate scales, with dense, elongate, swimming hairs on inner and outer margins for entire length, not denticulate on inner margin, with short stout uncus, and praemucro; tarsi long, segments together not as long as tibia, with moderately long hairs, linear, 3rd segment truncate, 4th segment not visible in lateral view, claw segment clearly extending beyond 3rd, lacking apical long curled seta, and lacking pad or scale between long fine approximate tarsal claws. **Male genitalia and associated structures.** Phallus lacking flagellum; apodemes much longer than median lobe, inserted *ca* 1/3-2/5 from base of median lobe; median lobe deep, dorsal plate indistinct, ventral plate narrowed very gradually behind apodemal insertions; membranous sac medium-sized, far from reaching tips of apodemes, with distinct, apical plate, and large number of spicules; tegmen closed apically, with two medium to long (medially fused), inwardly directed processes, parameroid lobes moderately long, fused, strongly emarginate; spiculum gastrale (9th sternite) rather evenly, weakly curved in lateral view, apodeme strongly laterally expanded on basal portion, arms medium to long, fused apically, with moderately narrow to broad, lateral "wings"; 10th sternite divided into two plates; 10th tergite lacking anteriorly directed processes, apical margin with moderately broad to broad, "liplike" edge. **Female genitalia and associated structures.** **Gender.** Masculine. **Type species.** *Genus XII, new species 1*, by present designation.

Genus XII, new species 1 O'Brien, new species

Figures

DESCRIPTION. Medium-sized to large (length, 4.20-5.20 mm), very stout, broad-oval; waterproof coating complete (except on antennae and tarsi).

HOLOTYPE MALE. **Rostrum.** Slender, scarcely expanded at apex (in dorsal view), waterproof coating extending almost to apex. **Antenna.** Inserted at middle. **Head.** Frons at least 1 and 1/2 times as wide as apex of rostrum. **Prothorax.** Subapical transverse impression with median, longitudinal, obtuse carina or ridge. **Elytra.** Humeri scarcely evident; intervals unevenly undulate; 3rd and 5th intervals with strong tubercles on declivity and near apex on 3rd. **Venter.** Metasternum moderately deeply, medially impressed; 1st abdominal sternum moderately deeply, medially impressed for full length. **Legs.** Tibiae sinuate on inner margin, fore and middle tibiae with basal 1/2 strongly expanded, hind tibiae more evenly scarcely sinuately expanded to apex; swimming hairs of middle tibiae especially dense, long, and fine. **Genitalia and associated structures.** See Fig. . Length, pronotum and elytron: 4.20 mm.

ALLOTYPE FEMALE. Same as male except: **Rostrum.** Waterproof coating only on basal 1/2 (perhaps abraded). **Antenna.** Inserted just behind middle. **Head.** Frons more than

1 and 1/2 times as wide as rostrum at apex. **Venter.** First abdominal sternum shallowly impressed at base and apex, median area convex. **Genitalia and associated structures.** See Fig. . Length, pronotum and elytron: 5.00 mm.

Etymological Note.—

Type locality.—Argentina, Province of Corrientes, 24 kilometers West of Ituzainga.

Remarks and Comparative Notes.—

Range.—Known from eastern Bolivia and northern Argentina.

Material Examined.—**ARGENTINA:** Corrientes: 24 km. W. Ituzainga, swept underwater mostly grasses, 23-I-1989, C. & L. O'Brien & G.Wibmer (holotype and 1 paratype, CWOB). **BOLIVIA:** Santa Cruz: 10 mi. W. Portochuelo, at night, 24-III-1978, (1, CWOB), C.W. & L. O'Brien, 26-III-1978, at night, (1, CWOB), G.B.Marshall, treading aquatic plants (1, CWOB) G.B.Marshall, 27-III-1978, at night (allotype and 1 paratype), CWOB).

Lissorhoptrus LeConte 1876

Figures

REDESCRIPTION. Small to medium-sized (length, 2.00-4.80 mm), moderately stout, to slender, elongate-oval; cuticle reddish brown to black; dorsum and much of venter densely clothed with imbricate scales, and waterproof coating. **Rostrum.** Thick, nearly straight, dorsum weakly curved (rarely gibbous basally), venter straight to swollen or carinate; shorter than prothorax; scrobe short, dorsal margin usually not evident; suprascrobal groove narrow to broad, often partly concealed by waterproof coating, clothed with dense hydrofuge scales; dorsal and occasionally lateral surface with waterproof coating, dorsum towards apex with hydrofuge scales. **Antenna.** Inserted at *ca* 1/4 to 2/5 from apex, scape not reaching eye, with one coarse seta (often abraded); funicle 6-segmented; club elongate, narrow, asymmetrical, 1st segment usually glabrous, in *panamensis* (Champion) 1st segment tomentose, much more than 1/2 length of club. **Head.** Weakly to moderately convex; frons usually subequal in width to rostrum at apex, rarely narrower or wider; eyes moderately to weakly convex, latero-ventral or lateral. **Prothorax.** Strongly transverse; postocular lobe strong; with few, relatively inconspicuous, marginal setae; punctures concealed by scales and waterproof coating. **Scutellum.** Not visible. **Elytra.** Humeri obliquely, well-developed to very weakly developed, sides subparallel to declivity, there suddenly strongly narrowed to conjointly rounded, subquadrate, or sub-acutely emarginate apices; sutural interval not depressed; intervals flat to convex, none more elevated, odd-numbered intervals with inconspicuous to conspicuous, erect to suberect, coarse to fine, curled setae; striae with enlarged foveae; macropterous. **Venter.** Prosternum not medially sulcate, lacking ridge or elevation in front of fore coxa; scales of prosternum, part of mesosternum, coxae, and of 3rd, 4th, and 5th abdominal sterna hydrofuge; mesepimeron normal, lacking anteriorly projecting tubercle; 1st and 2nd abdominal sterna not vaulted, moderately convex, but not on same level as 3rd, 4th, and 5th sterna. **Legs.** Moderately stout, fore coxae contiguous, not strongly elongated; middle coxae narrowly separated; femora unarmed, lacking hydrofuge scales or pubescence on inner face; femora and outer surface of tibiae with dense agglutinate scales; outer margin of apex of tibiae rounded to subquadrate, lacking denticle; middle tibiae bladelike, with evenly strongly curved outer

margin; middle tibiae with dense, elongate, swimming hairs on inner and outer margins for entire length; tibiae not denticulate on inner margin, with strong uncus, and praemucro; tarsi moderately short, segments together not as long as tibia, with ventral to lateral, moderate length hairs, linear to sublinear, 3rd segment truncate to cordate and feebly emarginate, 4th segment not visible in lateral view, claw segment clearly extending beyond 3rd, lacking apical long curled seta, and lacking pad or scale between long fine approximate tarsal claws. **Male genitalia and associated structures.** **Female genitalia and associated structures.** **Gender.** Masculine. **Type species.** *Bagous simplex* Say 1831, by original designation.

Oryzophagus Kuschel 1952

Figures

REDESCRIPTION. Small to medium-sized (length, 2.40-3.80 mm), moderately stout, elongate-oval; cuticle reddish brown to black; dorsum and venter densely clothed with imbricate scales and complete waterproof coating. **Rosarium.** Thick, scarcely curved with uneven surface, short (*ca* 1/2 length of prothorax); scrobe short, dorsal margin not evident, directed ventrally towards lower margin of eye; suprascrobal groove lacking; dorsal and lateral surface with waterproof coating. **Antenna.** Inserted at *ca* 2/5 from apex, scape not reaching eye, with few rather coarse setae; funicle 6-segmented; club elongate, narrow, asymmetrical, 1st segment glabrous, much more than 1/2 length of club. **Head.** Weakly convex; frons slightly wider than rostrum at apex; eyes moderately convex, latero-ventral. **Prothorax.** Strongly transverse; postocular lobe strong; with few, relatively inconspicuous, marginal setae; punctures concealed by scales and waterproof coating. **Scutellum.** Not visible. **Elytra.** Humeri obliquely, well-developed, occasionally subangulate behind; sides uneven, subparallel to declivity, there suddenly strongly narrowed to conjointly rounded apices; sutural interval not depressed; intervals moderately convex, none more elevated; odd-numbered intervals with evident, suberect, coarse setae; striae lacking enlarged foveae; macropterous. **Venter.** Prosternum not medially sulcate, lacking ridge or elevation in front of fore coxa; all scales agglutinate; mesepimeron normal, lacking anteriorly projecting tubercle; 1st and 2nd abdominal sterna of female not vaulted, flat to weakly convex, on same level as 3rd, 4th, and 5th sterna. **Legs.** Stout, fore coxae contiguous, not strongly elongated; middle coxae moderately separated; femora unarmed, with all scales agglutinate (lacking hydrofuge scales or pubescence on inner face); outer margin of apex of tibiae rounded to subquadrate, lacking denticle; middle tibiae blade-like, with evenly strongly curved outer margin, with dense, elongate, swimming hairs on inner and outer margins for entire length; tibiae with all scales agglutinate, not denticulate on inner margin, with long stout uncus, and praemucro; tarsi moderately short, segments together not as long as tibia, with ventral to lateral moderate length hairs, linear, 3rd segment truncate, 4th segment not visible in lateral view, claw segment clearly extending beyond 3rd, lacking apical long curled seta, and lacking pad or scale between long fine approximate tarsal claws. **Male genitalia and associated structures.** **Female genitalia and associated structures.** **Gender.** Masculine. **Type species.** *Lissorhoptrus oryzae* Costa-Lima 1936, by original designation.

***Helodytes* Kuschel 1952**
Figures

REDESCRIPTION. Small to medium-sized (length, 2.90-4.40 mm), stout to moderately stout, oblong-oval to elongate-oval; cuticle reddish brown to black; densely clothed with imbricate scales; dorsum and usually all of venter with waterproof coating. **Rostrum.** Usually stout to moderately stout (rarely slender), weakly evenly curved, shorter than, subequal to, or rarely longer than length of prothorax; scrobe short, dorsal margin not evident; suprascrobal groove lacking; dorsal and lateral surface with waterproof coating. **Antenna.** Inserted at *ca* 1/4 to 2/5 from apex, scape not reaching eye, with one coarse seta (often abraded); funicle 6-segmented; club elongate, narrow, asymmetrical, 1st segment glabrous, much more than 1/2 length of club. **Head.** Weakly convex; frons much narrower than (*ca* 1/3) to subequal in width to rostrum at apex; eyes weakly to moderately convex, latero-ventral. **Prothorax.** Strongly transverse; postocular lobe strong; with few, relatively inconspicuous, marginal setae; punctures concealed by scales and waterproof coating or concealed only in part by scales. **Scutellum.** Not visible. **Elytra.** Humeri obliquely, moderately developed, with angulate process behind; sides subparallel to unevenly rounded or expanding to declivity, there suddenly strongly narrowed to subquadrate, subacutely emarginate, or conjointly rounded apices; sutural interval weakly to strongly depressed; intervals flat to moderately weakly convex, none more elevated, odd-numbered intervals often with evident, suberect, coarse setae, and sometimes tuberculate; striae lacking enlarged foveae; macropterous. **Venter.** Prosternum not medially sulcate, lacking ridge or elevation in front of fore coxa; all scales agglutinate; mesepimeron normal, lacking anteriorly projecting tubercle; 1st and 2nd abdominal sterna not vaulted, moderately convex, but not on same level as 3rd, 4th, and 5th sterna. **Legs.** Slender to stout, fore coxae contiguous, strongly elongated; middle coxae moderately separated; femora unarmed, with all scales agglutinate (lacking hydrofuge scales or pubescence on inner face); outer margin of apex of tibiae rounded to subquadrate, lacking denticle; middle tibiae bladelike, with evenly strongly curved outer margin; middle tibiae with dense, elongate, swimming hairs on inner and outer margins for entire length; tibiae with all scales agglutinate, not denticulate on inner margin, with strong uncus, and praemucro; tarsi moderately long, segments together not as long as tibia, with ventral to lateral, moderate length hairs, linear, 3rd segment truncate, 4th segment visible in lateral view, claw segment clearly extending beyond 3rd, lacking apical long curled seta, and lacking pad or scale between long fine approximate tarsal claws. **Male genitalia and associated structures. Female genitalia and associated structures. Gender.** Masculine. **Type species.** *Lissorhoptrus foveolatus* Duval 1945, by original designation.

***Helodytes (Dytheius)* Kuschel 1952**
Figures

DESCRIPTION. Same as nominotypic genus except: Small to medium-sized (length, 2.20-3.45 mm), moderately stout. **Rostrum.** Subequal to, to shorter than length of prothorax. **Antenna.** Inserted at *ca* 1/4 to just behind 1/3 from apex; scape with numerous, recumbent, coarse setae, and waterproof coating. **Head.** Moderately convex; frons subequal in width to rostrum at apex. **Prothorax.** With numerous, generally distributed, erect to suberect, coarse, curled setae. **Elytra.** Sides subparallel to declivity; odd-numbered intervals often slightly more elevated, and tuberculate; striae with enlarged foveae. **Legs.** Moderately stout; middle coxae contiguous. **Male genitalia and associated structures. Female genitalia and associated**

structures. **Gender.** Masculine. **Type Species.** *Helodytes litus* Kuschei 1952, by original designation.

Neobagoidus O'Brien 1990

Figures

DESCRIPTION. Small (1.80-3.00 mm), oblong-oval; cuticle reddish brown to black; densely clothed with imbricate scales; dorsum and venter with nearly complete waterproof coating. **Rostrum.** Slender to moderately slender, slightly longer than to subequal to length of prothorax, evenly curved; dorsal and lateral surface with waterproof coating; scrobe short, directed ventrally; suprascrobal groove well-developed, clothed with rather dense hydrofuge scales. **Antenna.** Inserted *ca* 1/5-1/3 from apex of rostrum; scape not reaching eye, with several coarse setae; funicle 6-segmented; club elongate, narrow, asymmetrical, 1st segment glabrous, much more than 1/2 length of club. **Head.** Very weakly convex; frons wider than rostrum at apex; eyes weakly convex, latero-ventral. **Prothorax.** Strongly transverse; postocular lobes feeble to moderate; with only few, evident, lateral setae; all punctures concealed by scales and waterproof coating. **Scutellum.** Not visible. **Elytra.** Humeri obliquely, angulately, weakly developed; sides subparallel to declivity, there suddenly narrowed to strongly subacute, broadly emarginate apices; sutural interval not depressed; intervals unevenly flattened to convex, odd-numbered slightly more elevated, with inconspicuous, subrecumbent, coarse setae; striae lacking enlarged foveae; apterous, hind wings absent. **Venter.** Prosternum not medially sulcate, lacking ridge or elevation in front of fore coxa; scales of prosternum in front of coxae, and of abdominal sterna, mainly agglutinate; mesepimeron normal, lacking anteriorly projecting tubercle; 1st and 2nd abdominal sterna of female not vaulted, flat to weakly convex, on same level as 3rd, 4th, and 5th sterna. **Legs.** Moderately slender; fore coxae contiguous, not strongly elongated, middle coxae moderately narrowly separated; femora unarmed, clothed with dense agglutinate scales (lacking hydrofuge scales or pubescence on inner face); outer margin of apex of tibiae with acute denticle; middle tibiae normal (not bladelike, with evenly strongly curved outer margin); outer surface of tibiae clothed with dense agglutinate scales, inner surface with dense hydrofuge scales, with few stout long swimming setae, not denticulate on inner margin, with strong uncus, and praemucro; tarsi short, segments together not as long as tibia, with moderate to short hairs or pubescence, sublinear, 3rd segment emarginate, 4th segment not visible in lateral view, claw segment clearly extending beyond 3rd, with one or two apical long curled seta(e), and lacking pad or scale between fine approximate tarsal claws. **Male genitalia and associated structures.** Phallus lacking flagellum; apodemes much longer than median lobe, inserted near middle of median lobe; median lobe moderately flat, dorsal plate indistinct, ventral plate narrowing gradually behind apodemal insertions; membranous sac long, almost reaching tips of apodemes, with distinct apical plate, and spicules on *ca* basal 1/2; tegmen closed apically, with two medium-sized (medially fused), inwardly directed processes; spiculum gastrale (9th sternite) rather evenly, moderately curved in lateral view, apodeme weakly, laterally expanded at base, arms long, fused apically, with moderately narrow, thin (almost transparent), lateral "wings"; 10th sternite divided into two plates; 10th tergite lacking anteriorly directed processes, apical margin with moderately narrow "liplike" edge. **Female genitalia and associated structures.** Eighth sternite with apodeme bifurcate on apical 2/5, free portion *ca* as long as blade; spermatheca with cuticle almost completely reticulate; ramus indistinct, spermathecal gland arising far from nodulus; nodulus short, not curved toward cornu; spermathecal duct long, flexible, attached near apex of bursa copulatrix; bursa not constricted at base; coxite not

flattened, nor narrowed on apical portion; stylus short, apical; apex of 9th tergite slightly emarginate, margin weakly denticulate; apex of 10th tergite subquadrate, margin weakly denticulate. **Gender.** Masculine. **Type species.** *Neobagoidus carlsoni* O'Brien 1990, by original designation.

Genus XIII O'Brien, new genus
Figures

DESCRIPTION. Small (1.50-1.80 mm), oblong-oval; cuticle black to reddish brown; densely clothed with imbricate scales; dorsum and venter with complete waterproof coating. **Rostrum.** Moderately slender, subequal to length of prothorax, evenly curved; suprascrobal groove scarcely evident, with dense hydrofuge scales; often nearly completely covered by waterproof coating. **Antenna.** Inserted *ca* 1/5 from apex of rostrum; scape not reaching eye, with one to several coarse setae; funicle 6-segmented; club elongate, narrow, asymmetrical, 1st segment glabrous, more than 1/2 length of club. **Head.** Weakly convex; frons subequal in width to rostrum at apex; eyes weakly convex, latero-ventral. **Prothorax.** Strongly transverse; postocular lobes lacking to extremely feeble; with only few, evident, lateral setae; dense, large punctures concealed only in part by scales and waterproof coating. **Scutellum.** Not visible. **Elytra.** Humeri well-developed, subquadrately rounded; sides subparallel to declivity, there suddenly narrowed to weakly subacute, scarcely emarginate apices; sutural interval not depressed; intervals flat to weakly convex, odd-numbered slightly more elevated, with conspicuous subrecumbent to suberect, coarse setae; striae lacking enlarged foveae; macropterous. **Venter.** Prosternum not medially sulcate, lacking ridge or elevation in front of fore coxa; all scales agglutinate; mesepimeron normal, lacking anteriorly projecting tubercle; 1st and 2nd abdominal sterna of female not vaulted, flat to weakly convex, on same level as 3rd, 4th, and 5th sterna. **Legs.** Moderately slender; fore coxae contiguous, not strongly elongated, middle coxae contiguous; femora unarmed, with all scales agglutinate (lacking hydrofuge scales or hydrofuge pubescence on inner face); outer margin of apex of tibiae with acute denticle; middle tibiae normal (not bladelike, with evenly strongly curved outer margin); tibiae with all scales agglutinate, with few stout short swimming setae, not denticulate on inner margin, with strong uncus, and praemucro; tarsi short, segments together not as long as tibia, with moderate to short hairs or pubescence, linear, 3rd segment truncate, 4th segment not visible in lateral view, claw segment clearly extending beyond 3rd, lacking apical long curled seta, and lacking pad or scale between fine approximate tarsal claws. **Male genitalia and associated structures.** Phallus lacking flagellum; apodemes much longer than median lobe, inserted near middle of median lobe; median lobe deep, dorsal plate indistinct, ventral plate narrowing very gradually behind apodemal insertions; membranous sac long but not reaching tips of apodemes, with distinct apical plate, and spicules behind plate and on apical portion; tegmen closed apically, with two medium-sized (medially fused), inwardly directed processes; spiculum gastrale (9th sternite) rather evenly, moderately curved in lateral view, apodeme strongly laterally expanded on basal portion, arms short, fused apically, lacking lateral "wings"; 10th sternite divided into two plates; 10th tergite lacking anteriorly directed processes, apical margin with broad "liplike" edge. **Female genitalia and associated structures.** Eighth sternite with apodeme, free portion much longer than blade; spermatheca with cuticle partially reticulate; ramus short, arising far from nodulus; nodulus not curved toward cornu; spermathecal duct medium-sized, flexible, attached near apex of bursa copulatrix; bursa somewhat constricted at base; coxite not flattened, nor narrowed on apical portion; stylus small, subapical; apex of 9th tergite weakly emarginate, margin slightly irregular; apex of 10th tergite round, margin

weakly denticulate. **Gender.** Masculine. **Type species.** *Genus XIII, new species 1*, by present designation.

***Genus XIII, new species 1* O'Brien, new species**
Figures

DESCRIPTION. Small (length, 1.50-1.80 mm), moderately stout; unicolored, blackish brown.

HOLOTYPE MALE. **Rostrum.** Long, suddenly subquadrately expanded in front of antennal insertion; waterproof coating dense, but not concealing dense punctures. **Head.** Similar coating smoother and concealing punctures. **Prothorax.** Sides evenly expanding from base to suddenly rounded apical 1/4, apical 1/7 strongly transversely impressed. **Elytra.** Odd-numbered intervals moderately tuberculate, tubercles more evident on declivity, also visible along apical margin. **Venter.** First abdominal sternum medially, broadly, deeply impressed; 5th sternum medially, subapically (apical 2/5), strongly impressed. **Genitalia and associated structures.** See Fig. . Length, pronotum and elytron: 1.55 mm.

ALLOTYPE FEMALE. Same as male except: **Rostrum.** Scarcely expanded in front of antennal insertion. **Venter.** First abdominal sternum flat, not impressed; 5th sternum medially, subapically (apical 1/4), weakly impressed. **Genitalia and associated structures.** See Fig. . Length, pronotum and elytron: 1.65 mm.

Erymological Note.—

Type locality.—

Remarks and Comparative Notes.—

Range.—Known from the States of Goiás, Mato Grosso, Minas Gerais and São Paulo in Brazil.

Material Examined.—**BRAZIL:** Brasil [sic], **Goiás:** Isabel, R.Araguaia, Isla do Bananal, 27-X-4-XI-1960, B.Malkin leg. (1, FMNH). **Mato Grosso:** Corumba, 21-23-XI-1954, C.Gans, F.Pereira leg.; Cuiaba, Agr. Exp. Stat., blacklight trap, 11-IV-1972, W.Whitcomb (1, FSCA). **Mato Verde,** XII-1960, B.Malkin col. (1, CWOB, 1 FMNH) **Mato Verde,** Rio Araguaia, at night, 6-9-XI-1960 (1, CWOB); 6-10-XI-1960, B.Malkin, leg. (1, FMNH); Cáceres, EMPA Res. Sta., UV Trap, 31-I-1985, D.P.Wojcik (1, CWOB); Tapirape Indian Village at confluence of R.Tapirape and R.Araguaia, at light, 11-20-XI-1960, B.Malkin leg (1, CWOB; Xingu, XI-1961, Alvarenga & Werner, Ex coleção M.Alvarenga (allotype, and 7 paratypes). **Minas Gerais:** Arinos, 6-8-XI-1964, Exp. Dep. Zool. (7,). **São Paulo:** Est. Biol. Baraccia, Salesópolis, 12-II-1963, L.Silva & H.Reichardt col. (6,).

***Bagoidus* Kuschel 1956**

Figures

REDESCRIPTION Small (2.80-3.00 mm), stout moderately broad-oval; cuticle black, antennae and tarsi reddish brown; dorsum and venter densely clothed with imbricate scales and complete waterproof coating. **Rostrum.** Slender to moderately stout, weakly to strongly,

evenly curved, subequal to length of prothorax; scrobe long, dorsal margin visible, continued toward lower margin of eye; suprascrobal groove present, although poorly defined, clothed with dense agglutinate scales and waterproof coating; dorsal and lateral surface with waterproof coating. **Antenna.** Inserted between apical 1/3 and 2/5 from apex, scape not reaching eye, with few, rather coarse setae; funicle 6-segmented; club elongate, narrow, asymmetrical, 1st segment glabrous, much more than 1/2 length of club. **Head.** Weakly convex; frons much wider than rostrum at apex; eyes moderately convex, latero-ventral. **Prothorax.** Strongly transverse; postocular lobe strong; with few, relatively inconspicuous, marginal setae; dense, large punctures concealed only in part by dense scales and waterproof coating. **Scutellum.** Not visible. **Elytra.** Humeri obliquely well-developed, with small angulate process behind; well-developed, sides unevenly swollen behind to declivity, there suddenly narrowed to non-acute, scarcely emarginate apices; sutural interval not depressed; intervals moderately convex, none more elevated; odd-numbered intervals with conspicuous, erect to suberect, coarse, curled setae; striae with moderately enlarged foveae; macropterous. **Venter.** Prosternum medially sulcate, with strongly developed ridge in front of fore coxa; all scales agglutinate; mesepimeron normal, lacking anteriorly projecting tubercle; 1st and 2nd abdominal sterna of female not vaulted, flat to weakly convex, nearly on same level as 3rd, 4th, and 5th sterna. **Legs.** Stout, fore coxae contiguous, strongly elongated; middle coxae contiguous; femora unarmed, with all scales agglutinate (lacking hydrofuge scales or pubescence on inner face); outer margin of apex of tibiae with specialized scalelike process, appearing denticulate; middle tibiae normal (not bladelike, with evenly strongly curved outer margin); all tibiae with all scales agglutinate, and with moderately long swimming bristles on inner and outer margins, median pair only (of bristles) on inner margin of middle tibiae; tibiae not denticulate on inner margin, with short stout uncus, and praemucro; tarsi moderately long, segments together not as long as tibia, with ventral to lateral, moderate length hairs, linear, 3rd segment truncate, 4th segment visible in lateral view, claw segment clearly extending beyond 3rd, lacking apical long curled seta, and lacking pad or scale between long fine approximate tarsal claws. **Male genitalia and associated structures. Female genitalia and associated structures. Gender.** Masculine. **Type species.** "*Bagoidellus?*" *sulcirostris* Kuschel 1952, by original designation.

Hydrotimetes Kolbe 1911

Figures

REDESCRIPTION. Small to medium-sized (length, 1.70-3.40 mm), stout, broad-oval to oblong-oval; cuticle black, appendages reddish brown; dorsum and most of venter densely clothed with imbricate scales and waterproof coating. **Rostrum.** Slender to moderately stout, weakly evenly curved, longer than to subequal to length of prothorax; scrobe moderately long, to moderately short, dorsal margin visible, continued toward lower margin of eye; suprascrobal groove narrow, covered by waterproof coating; dorsal and lateral surface with waterproof coating. **Antenna.** Inserted at *ca* 2/5 to 3/5 from apex, scape not reaching eye, with few, rather coarse setae; funicle 6-segmented; club elongate, narrow, asymmetrical, 1st segment glabrous, much more than 1/2 length of club. **Head.** Weakly convex; frons much narrower than (*ca* 1/4 to 1/3) width of rostrum at apex; eyes weakly to moderately convex, latero-ventral. **Prothorax.** Strongly transverse; postocular lobe feeble to moderately developed; lacking evident setae; punctures concealed by scales and waterproof coating. **Scutellum.** Not visible. **Elytra.** Humeri obliquely, very weakly developed, scarcely evident; sides unevenly swollen behind to declivity, there suddenly strongly narrowed to conjointly rounded apices or to broadly quadrate apices; sutural interval depressed; intervals moderately convex, none more

elevated; lacking conspicuous setae; striae with enlarged foveae; macropterous. **Venter.** Prosternum not medially sulcate, lacking ridge or elevation in front of fore coxa, although some appearing to possess ridge in front of fore coxae, formed by thick waterproof coating on sides of pronotum; all scales usually agglutinate, occasionally with only hydrofuge scales on median area of pro- and mesosterna in front of coxae; mesepimeron normal, lacking anteriorly projecting tubercle; 1st and 2nd abdominal sterna vaulted, although shallowly medially impressed, on markedly different level than 3rd, 4th, and 5th sterna. **Legs.** Moderately slender, fore coxae contiguous, strongly elongated; middle coxae contiguous; femora unarmed, lacking hydrofuge scales or pubescence on inner face; femora and outer surface of tibiae with dense agglutinate scales; outer margin of apex of tibiae rounded to subquadrate, lacking denticle; middle tibiae bladeliike, with evenly strongly curved outer margin; middle tibiae with dense, elongate, swimming hairs on inner and outer margins for entire length; tibiae not denticulate on inner margin, with small distinct uncus, lacking praemucro; tarsi long or short, segments together not as long as tibia, with ventral to lateral, moderate length hairs, linear, 3rd segment truncate, 4th segment not visible in lateral view, claw segment clearly extending beyond 3rd, with one apical moderately long to long curled seta, and lacking pad or scale between very long fine approximate tarsal claws. **Male genitalia and associated structures.** **Female genitalia and associated structures.** **Gender.** Masculine. **Type species.** *Hydrotimetes natans* Kolbe 1911, by indication (monotypy).

Ilyodytes Kuschel 1952

Figures

REDESCRIPTION. Small to medium-sized (length, 2.40-3.10 mm), moderately stout, elongate-oval; cuticle reddish brown to black; dorsum and venter densely clothed with imbricate scales and complete waterproof coating. **Rostrum.** Slender, evenly curved, longer than length of prothorax; scrobe long, dorsal margin visible, continued toward lower margin of eye, most evident in males; suprascrobal groove narrow, often partly concealed by waterproof coating, clothed with dense hydrofuge scales in males, broad and not concealed in females; female with dorsal and lateral surface with waterproof coating, on dorsal surface only in male. **Antenna.** Inserted at *ca.* 1/4 from apex, scape not reaching eye, with one coarse seta (often abraded); funicle 6-segmented; club elongate, narrow, asymmetrical, 1st segment glabrous, much more than 1/2 length of club. **Head.** Moderately convex; frons subequal in width to rostrum at apex; eyes moderately convex, latero-ventral. **Prothorax.** Strongly transverse; postocular lobe feeble; with numerous, generally distributed, erect to suberect, fine, curled setae; dense, large punctures concealed only in part by dense scales and waterproof coating. **Scutellum.** Not visible. **Elytra.** Humeri obliquely, moderately developed, sides unevenly swollen behind to declivity, there suddenly narrowed to non-acute scarcely emarginate subquadrate apices; sutural interval not depressed; intervals moderately convex, none more elevated; all intervals with moderately conspicuous setae; striae with enlarged foveae, at times partially concealed by waterproof coating; macropterous. **Venter.** Prosternum not medially sulcate, lacking ridge or elevation in front of fore coxa; all scales agglutinate; mesepimeron normal, lacking anteriorly projecting tubercle; 1st and 2nd abdominal sterna of female not vaulted, flat to weakly convex, on same level as 3rd, 4th, and 5th sterna. **Legs.** Moderately slender, fore coxae contiguous, not strongly elongated; middle coxae subcontiguous; femora unarmed, lacking hydrofuge scales or pubescence on inner face; femora and nearly entire surface of tibiae with dense agglutinate scales, with only very narrow line of hydrofuge scales on inner margin; outer margin of apex of tibiae rounded to subquadrate, lacking denticle;

middle tibiae bladelike with evenly strongly curved outer margin; middle tibiae with dense, elongate, swimming hairs on inner and outer margins for entire length; tibiae with several, strong, serrate denticles on inner margin, with long stout uncus, and praemucro; tarsi moderately short, segments together not as long as tibia, with ventral to lateral, moderate length hairs, linear, 3rd segment truncate, 4th segment visible in lateral view, claw segment clearly extending beyond 3rd, with one apical long curled seta, and lacking pad or scale between long fine approximate tarsal claws. **Male genitalia and associated structures.** **Female genitalia and associated structures.** **Gender.** Masculine. **Type species.** *Ilyodytes lintricolus* Kuschel 1952, by original designation.

Genus XIV O'Brien, new genus
Figures

DESCRIPTION. Small to medium-sized (length, 2.40-3.20 mm), stout, elongate-oval; cuticle reddish brown; completely densely clothed with imbricate scales and waterproof coating. **Rostrum.** Slender, longer than length of prothorax, evenly curved, dorsal and lateral surfaces with waterproof coating; scrobe short, directed ventrally, dorsal margin not evident; suprascrobal groove lacking. **Antenna.** Inserted short distance in front of middle of rostrum; scape not reaching eye, with few, rather coarse setae; funicle 6-segmented; club elongate, narrow, asymmetrical, 1st segment glabrous, much more than 1/2 length of club. **Head.** Moderately convex; frons much narrower than rostrum at apex; eyes moderately convex, latero-ventral, subcontiguous on ventral surface. **Prothorax.** Strongly transverse; postocular lobes lacking; with numerous, generally distributed, recumbent, fine, scarcely evident setae; dense, large punctures concealed only in part by dense scales and waterproof coating. **Scutellum.** Not visible. **Elytra.** Humeri obliquely, angulately, moderately developed; sides unevenly swollen behind to declivity, there narrowed to subacute, broadly emarginate apices; sutural interval depressed; intervals broad, nearly flat, none more elevated, all with inconspicuous recumbent fine setae; striae lacking enlarged foveae; macropterous. **Venter.** Prosternum not medially sulcate, lacking ridge or elevation in front of fore coxa; all scales agglutinate; mesepimeron normal, lacking anteriorly projecting tubercle; 1st and 2nd abdominal sterna of female vaulted, although shallowly medially impressed, on markedly different level than 3rd, 4th, and 5th sterna. **Legs.** Moderately slender; fore coxae contiguous, not strongly elongated, middle coxae contiguous; femora unarmed, with all scales agglutinate (lacking hydrofuge scales or pubescence on inner face); outer margin of apex of tibiae rounded to subquadrate, lacking denticle; middle tibiae bladelike, evenly strongly curved on outer margin, with dense elongate swimming hairs on inner and outer margins for entire length; tibiae with all scales agglutinate, not denticulate on inner margin, with short stout uncus, and praemucro; tarsi long, segments together not as long as tibia, subglabrous (with moderately sparse, long, fine hairs), linear, 3rd segment truncate, 4th segment visible in lateral view, claw segment clearly extending beyond 3rd, lacking apical long curled seta, and lacking pad or scale between long fine approximate tarsal claws. **Male genitalia and associated structures.** Phallus lacking flagellum; apodemes much longer than median lobe, inserted near middle of median lobe; median lobe flat, dorsal plate indistinct, ventral plate narrowing gradually behind apodemal insertions; membranous sac long, somewhat exceeding tips of apodemes, with large apical plate, and spicules for most of length; tegmen closed apically, with two long, inwardly directed processes fused to sides of ring; spiculum gastrale (9th sternite) with arms somewhat at angle with apodeme in lateral view, apodeme moderately expanded laterally at base, arms medium-sized, fused, with moderately narrow, thin (almost transparent), lateral "wings"; 10th sternite divided into two

plates; 10th tergite lacking anteriorly directed processes, with moderate "liplike" edge. **Female genitalia and associated structures.** Eighth sternite with apodeme bifurcate on *ca* apical 2/5, free portion *ca* as long as blade; spermatheca with cuticle partially reticulate; ramus medium-sized, arising next to nodulus; nodulus long, curved toward cornu; spermathecal duct [length, flexible or not], attached [how far from apex or base] of bursa copulatrix; bursa [constricted or not] at base; coxite not flattened, nor narrowed on apical portion; stylus medium-sized, subapical; apex of 9th tergite slightly emarginate, margin almost smooth; apex of 10th tergite almost flat, margin slightly irregular. **Gender.** Masculine. **Type species.** *Genus XIV, species 1*, by present designation.

Genus XV O'Brien, new genus
Figures

DESCRIPTION. Small to medium-sized (length, 2.50-3.30 mm), robust, elongate-oval, cuticle reddish brown to reddish black; densely clothed with imbricate scales; dorsum and much of venter with waterproof coating. **Rostrum.** Moderately stout, longer than to subequal to length of prothorax, evenly curved, dorsal surface with waterproof coating; scrobe long, dorsal margin visible, continued toward lower margin of eye; suprascrobal groove moderately narrow, clothed with dense hydrofuge scales. **Antenna.** Inserted just in front of and just behind apical 1/4 of rostrum; scape not reaching eye, with numerous, recumbent, coarse setae; funicle 6-segmented; club short, broad-oval, symmetrical, completely pubescent. **Head.** Moderately convex; frons slightly wider to subequal in width to rostrum at apex; eyes moderately convex, latero-ventral. **Prothorax.** Strongly transverse; postocular lobes strong; with few, marginal setae; dense, large punctures concealed only in part by dense scales and waterproof coating. **Scutellum.** Not visible. **Elytra.** Humeri well-developed, subquadrately rounded; sides subparallel to declivity, there broadly narrowed to conjointly rounded apices; sutural interval not depressed; all intervals unevenly undulating, odd-numbered more elevated, with distinct tubercles (latter with evident, curved, suberect, coarse seta); striae lacking enlarged foveae; macropterous. **Venter.** Prosternum medially sulcate, with moderately strongly developed ridge in front of fore coxa; scales of prosternum, and of 3rd, 4th, and 5th abdominal sterna hydrofuge; mesepimeron normal, lacking anteriorly projecting tubercle; 1st and 2nd abdominal sterna of female not vaulted, flat to weakly convex, on same level as 3rd, 4th, and 5th sterna. **Legs.** Stout; fore coxae well-separated, not strongly elongated, middle coxae moderately separated; femora unarmed, clothed with dense agglutinate scales (lacking hydrofuge scales or pubescence on inner face); outer margin of apex of tibiae rounded to subquadrate, lacking denticle; middle tibiae normal (not bladelike, with evenly strongly curved outer margin); outer surface of tibiae clothed with dense agglutinate scales, inner surface with dense hydrofuge scales, with few to several, short, swimming setae, serrately denticulate on inner margin, with short moderately stout uncus, and praemucro; tarsi short, segments together not as long as tibia, with moderate to short hairs and pubescence, not linear, 3rd segment wider than 2nd and deeply bilobed, 4th segment not visible in lateral view, claw segment clearly extending beyond 3rd, with one apical long curled seta, and lacking pad or scale between short fine approximate tarsal claws. **Male genitalia and associated structures.** Phallus lacking flagellum but with medium-sized, fusiform structure at end of pseudoflagellum; apodemes much longer than median lobe, inserted *ca* 1/3 from apex of median lobe; median lobe moderately flat, dorsal plate indistinct, ventral plate narrowing rather gradually behind apodemal insertions; membranous sac medium-sized, not reaching tips of apodemes, with medium-sized (moderately distinct) apical plate and long, hollow, basal sclerite, lacking

spicules; tegmen closed apically, with two very short, inwardly directed processes; spiculum gastrale (9th sternite) with arms somewhat at angle with apodeme in lateral view, apodeme distinctly expanded laterally at base, arms medium-sized, expanded apically, approximate (not fused), with narrow, thin (almost transparent), lateral "wings"; 10th sternite divided into two plates; 10th tergite lacking anteriorly directed processes, with moderate "liplike" edge. **Female genitalia and associated structures.** Eighth sternite with apodeme bifurcate on *ca* apical 1/4, free portion *ca* as long as blade; spermatheca with cuticle reticulate in part; ramus short, arising near nodulus; nodulus long, curved away from cornu; spermathecal duct very short, flexible, attached almost apically on bursa copulatrix; bursa with some spicules, not constricted at base; coxite not flattened, but slightly narrowed on apical portion; stylus short, subapical; apex of 9th tergite weakly emarginate, margin somewhat irregular; apex of 10th tergite weakly emarginate, margin weakly denticulate. **Gender.** Masculine. **Type species.** *Genus XV, new species 1*, by present designation.

***Genus XV, new species 1* O'Brien, new species**

Figures

DESCRIPTION. Small to medium-sized (length, 2.50-3.30 mm), stout; bicolored or tricolored, brown with distinct antedecivital, narrow, black, lunate fascia and behind often with declivital, broad, pale, tan to white, lunate fascia.

HOLOTYPE MALE. Rostrum. Long, equal to or subequal to length of prothorax; dorsum with numerous coarse subrecumbent setae, more evident laterally and extending onto frons; distinctly expanded at antennal insertion, then narrowed to apex, not distinctly subquadrate. **Antenna.** Inserted in front of apical 1/4; 1st funicular segment clothed with dense, white, hydrofuge pubescence on apical 1/2. **Head.** Vertex and occiput densely clothed with yellowish brown contiguous hydrofuge scales, scales towards and on frons agglutinate. **Prothorax.** Sides nearly straight in basal 2/3, but expanding from base to strongly swollen and rounded apical 1/3, apical 1/7 strongly subtubulately constricted; marginal setae very dense across apex; disc moderately convex, surface coarse due to cribrate punctures. **Elytra.** With strong post-humeral transverse impression and strongly swollen declivity, producing strongly undulate appearance strengthened by presence of stout rows of coarsely setose tubercles on odd-numbered intervals. **Venter.** Prosternal medial sulcus clothed with dense, suberect, hydrofuge scales; 1st abdominal sternum medially rather broadly moderately impressed, 2nd suddenly declivous behind; 5th sternum subtriangularly impressed from base to apex, narrowly and shallowly in basal 1/3, deeply and broadly towards apex; with single to double row of erect long setae along margin of apical 1/2 of impression. **Legs.** Femora stout, with decumbent, very coarse setae; fore femur narrowed in basal 1/2, asymmetrically expanded internally towards apex; tibiae strongly sinuate internally, apex turned strongly inward; uncus nearly straight, obliquely dentate on middle of outer margin. **Genitalia and associated structures.** See Fig. . Length, pronotum and elytron: 2.90 mm.

ALLOTYPE FEMALE. Rostrum. More slender, slightly less expanded in front of antennal insertion, but more evidently subquadrate. **Antenna.** Inserted behind apical 1/4, close to apical 1/3, apical 3/4 of rostrum often abraded. **Venter.** First abdominal sternum flattened; 5th sternum flattened on basal 1/2, more shallowly narrowly impressed on apical 1/2. **Legs.** Uncus weakly curved, non-dentate. **Genitalia and associated structures.** See Fig. . Length, pronotum and elytron: 3.20 mm.

Genus XVI O'Brien, new genus
Figures

DESCRIPTION. Small to medium-sized (length, 2.10-3.80 mm), moderately slender to moderately stout, elongate-oval; cuticle reddish brown to reddish black; dorsum and much of venter densely clothed with imbricate scales and waterproof coating. **Rostrum.** Slender, evenly curved, longer than length of prothorax; scrobe long, dorsal margin visible, continued toward lower margin of eye; suprascrobal groove moderately broad, if not partly concealed by waterproof coating, clothed with moderately dense hydrofuge scales; dorsal surface with waterproof coating. **Antenna.** Inserted *ca* 1/4-2/5 from apex of rostrum; scape not reaching eye, with several coarse setae, most subapical; funicle 6-segmented; club short, broad-oval, symmetrical, completely pubescent. **Head.** Moderately convex; frons slightly wider than to subequal in width to rostrum at apex; eyes moderately convex, latero-ventral. **Prothorax.** Moderately to strongly transverse; postocular lobes moderate; with many, relatively conspicuous, marginal setae; dense, large punctures concealed only in part by dense scales and waterproof coating. **Scutellum.** Not visible. **Elytra.** Humeri obliquely, moderately well-developed, angulately rounded; sides subparallel to declivity, there suddenly strongly narrowed to conjointly rounded apices; sutural interval not depressed; intervals flat to moderately convex, none more elevated, odd-numbered with conspicuous, erect to suberect, coarse, curled setae; striae lacking enlarged foveae; macropterous. **Venter.** Prosternum not medially sulcate, lacking ridge or elevation in front of fore coxa; scales of prosternum, part of mesosternum, coxae, and of 3rd, 4th, and 5th abdominal sterna hydrofuge; mesepimeron normal, lacking anteriorly projecting tubercle; 1st and 2nd abdominal sterna of female not vaulted, flat to weakly convex, on same level as 3rd, 4th, and 5th sterna. **Legs.** Moderately stout; fore coxae contiguous, not strongly elongated, middle coxae moderately separated; femora unarmed, clothed with dense agglutinate scales (lacking hydrofuge scales or pubescence on inner face); outer margin of apex of tibiae rounded to subquadrate, lacking denticle; middle tibiae normal (not bladelike, with evenly strongly curved outer margin); outer surface of tibiae clothed with dense agglutinate scales, inner surface with dense hydrofuge scales, with several to many short swimming setae, fore tibiae loosely, finely denticulate, denticles scarcely visible; all tibiae with stout short uncus, and praemucro; tarsi moderately long, segments together not as long as tibia, with moderate to short hairs and pubescence, not linear, 3rd segment deeply bilobed, 4th segment not visible in lateral view, claw segment clearly extending beyond 3rd, with one apical long curled seta, and lacking pad or scale between asymmetrical fine approximate tarsal claws, one-half of all claws normal, other half scarcely evident, less than 1/3 as long. **Male genitalia and associated structures.** Phallus with rodlike flagellum; apodemes much longer than median lobe, inserted *ca* 1/3 from base of median lobe; median lobe flat to moderately flat, dorsal plate indistinct, ventral plate narrowing moderately gradually behind apodemal insertions; membranous sac very long, largely exceeding tips of apodemes, lacking endophallic sclerites and spicules; tegmen closed apically, with two medium-sized (medially fused), inwardly directed processes; spiculum gastrale (9th sternite) evenly, weakly curved in lateral view, apodeme rodlike, arms long, fused, with moderately narrow, thin (almost transparent), lateral "wings" on basal portion; 10th sternite divided into two plates; 10th tergite lacking anteriorly directed processes, with narrow (narrower medially), scarcely distinct "liplike" edge. **Female genitalia and associated structures.** Eighth sternite with apodeme bifurcate for most of length, free portion much shorter than blade; spermatheca with cuticle partially reticulate; ramus short, arising next to nodulus; nodulus rather long, distinctly curved toward cornu; spermathecal duct long, gradually but rapidly broadening on apical portion, flexible (darker, but not obviously sclerotized on apical portion), attached at apex of bursa copulatrix; bursa

constricted at base; coxite not flattened, nor narrowed on apical portion; stylus medium-sized, subapical; apex of 9th tergite moderately to strongly emarginate, margin irregular; apex of 10th tergite round, margin moderately denticulate. **Gender.** Masculine. **Type species.** *Genus XVI, new species 1*, by present designation.

***Genus XVI, new species 1* O'Brien, new species**
Figures

DESCRIPTION. Small to medium-sized (length, 2.10-3.80 mm), unicolorous, silvery grey to clay yellowish, or bicolored, then distinctly to weakly fasciate-vittate.

HOLOTYPE MALE. **Rostrum.** *Ca* 8/10 as long as prothorax; coarsely densely punctate from base to antennal insertion, punctures not concealed by dense scales and waterproof coating, apex very finely punctate and subglabrous. **Antenna.** Inserted at 1/4 in front of apex; 1st funicular segment very stout and clothed with coarse white hydrofuge pubescence on apical margin, 2nd segment very slender, as long as 1st, 3rd through 5th slender, together subequal to 1st, 6th transverse, slightly longer than 5th; club subequal in length to funicular segments 2-5 together. **Head.** Frons and area just above densely punctate, punctures not concealed by scales and waterproof coating; remainder clothed densely with nearly contiguous hydrofuge scales within and nearly concealing each large puncture. **Prothorax.** Strongly transverse, *ca* 8/10 as long as wide; punctures cribrate; sides nearly straight, very weakly expanding from base to apical 1/3, there weakly constricted to subtubulate apical 1/6; disc with unevenly distributed, coarse, scarcely evident, curved, decumbent to suberect setae. **Elytra.** Scales large, contiguous to imbricate, pitted (pits often concealed by waterproof coating); intervals not of equal width; 2nd interval dark near base, 4th interval dark from base to connection with sublunate antedecivital transverse fascia, remainder silvery grey to pale brown. **Venter.** Metasternum and abdomen densely, coarsely punctate; 1st abdominal sternum medially, broadly, deeply impressed; 2nd sternum transversely flattened in basal 2/3, strongly declivous behind; 5th sternum medially shallowly triangularly impressed, with 1 or 2 long golden latero-apical erect setae. **Legs.** Femora strongly clavate, clothed with contiguous pitted scales, and moderately dense, coarse, curved, erect setae; tibiae sinuate within, strongly incurved apically; all tarsi with dense, coarse, dorsal, hydrofuge scales (often abraded). **Genitalia and associated structures.** See Fig. . Length, pronotum and elytron: 2.70 mm.

ALLOTYPE FEMALE. Same as male except: **Rostrum.** *Ca* 9/10 as long as prothorax. **Antenna.** Inserted *ca* 3/10 in front of apex. **Prothorax.** Moderately transverse, *ca* 9/10 as long as wide. **Venter.** First abdominal sternum weakly transversely impressed basally between hind coxae, remainder transversely flattened; 5th sternum broadly, deeply, transversely impressed in apical 1/2. **Genitalia and associated structures.** See Fig. . Length, pronotum and elytron: 3.10 mm.

Etymological Note.—

Type locality.—Venezuela, State of Monagas, 4 kilometers South of El Rosario, 300'.

Remarks and Comparative Notes.—

Range.—Known from northern Brazil, and Venezuela.

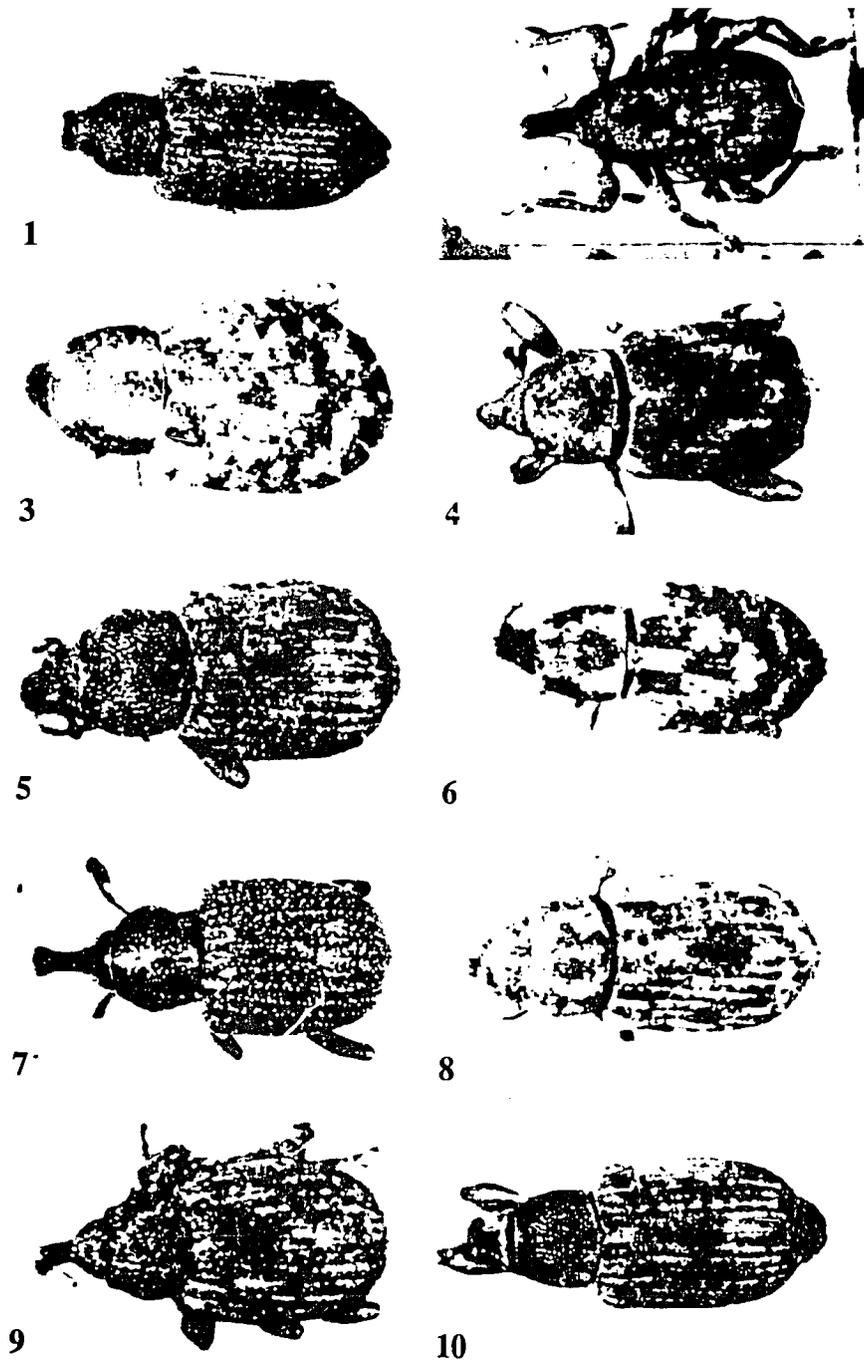
Material Examined.—**BRAZIL:** **Bahia:** Encruzilhada, 960 m., XI-1972, M.Alvarenga (2, CWOB). **Minas Gerais:** Buritia (Ribeirão Confins) 29-31-X-1964 (1, MSPC) Exp. Dep. Zool.; Pirapora, XI-1975, (1, CWOB) M.Alvarenga. **Rio Grande do Norte:** Macaíba, 15-III-1952 (1, MSPC) M.Alvarenga col. **VENEZUELA:** **Apure:** 16 km. W. El Salman de Apure, 340', sweeping underwater grass, 24-VII-1988 (5,) C. & L.O'Brien & G.Wibmer; 26 km. W. El Salman de Apure, 340', 24-VII-1988 (22,) C. & L.O'Brien & G.Wibmer; 32 km. S.E. San Juan de Payara, 300', 25-VII-1988 (1,) C. & L.O'Brien & G.Wibmer. **Bolivar:** 15 km. E. Caicara, 310', on *Rhynchospora*, 28-VII-1988 (59,) C. & L.O'Brien & G.J.Wibmer; 17 km. E. Caicara, 250', 28-VII-1988 (147,) C. & L.O'Brien & G.J.Wibmer; 29 km. E. Caicara de Orinoco, 180', on *Eleocharis*, 29-VII-1988 (71,) C. & L.O'Brien & G.J.Wibmer; Uputa, Hwy. 10, 30-VII-1988 (113,) C.W. & L.O'Brien & G.Wibmer. **Guárico:** N. Calabozo Dam, 350', 22-VII-1988 (131,) C. & L.O'Brien & G.Wibmer; Calabozo Dam, near City, 22-VII-1988 (81,) C. & L.O'Brien & G.Wibmer; 1 km. S. Dos Caminos, 570', 27-VII-1988 (11,) C. & L.O'Brien & G.Wibmer; 28 km. S.W. Calabozo, 250', handpicked feeding on aquatic grasses, 23-VII-1988 (3,), [no host] VII-27 (2,), C.W. & L.O'Brien & G.Wibmer; 35 km. N. Calabozo, 610', 21-VII-1988, (303,) C. & L.O'Brien & G.Wibmer; 61 km. S.W. Calabozo, 260', on *Eleocharis*, 23-VII-1988 (281,) C. & L.O'Brien & G.Wibmer; 87 km. S.W. Calabozo, 290', 23-VII-1988 (7,) C. & L.O'Brien & G.Wibmer; 8 km. S. Las Mercedes, on *Eleocharis*, 28-VII-1988 (98,) C. & L.O'Brien & G.Wibmer; Hato Las Lajas, 24-26-VI-1966 (49,) F.Fernandez-Y., A.D.Ascoli; 20 km. W. San Fernando de Apure, on *Thalia* and *Sagittaria*, 24-VII-1988 (2,) C. & L.O'Brien & G.Wibmer; 47 km. N.W. San Fernando de Apure, sweeping underwater grasses, 26-VII-1988 (19,) C. & L.O'Brien & G.Wibmer; 12 km. N. Sta. Rita, 420', 28-VII-1988 (1, CWOB) C. & L.O'Brien & G.Wibmer. **Monagas:** 35 km. N. Guasipati, 950', 30-VII-1988 (28,) C. & L.O'Brien & G.Wibmer; 5 km. S. Maturin, Hwy. 10, 300', 1-VIII-1983 (15,) C.W. & L.O'Brien & G.Wibmer; 7 km. N. Maturin, 200', 1-VIII-1988 (1,) C.W. & L.O'Brien & G.Wibmer; 11 km. S. Maturin, Hwy. 10, 350', 1-VIII-1988 (421,) C.W. & L.O'Brien & G.Wibmer; 21 km. S. Maturin, Hwy. 10, 350', 31-VII-1988 (654,), 1-VIII-1988 (184,) C.W. & L.O'Brien & G.Wibmer; 43 km. S. Maturin, 300', 1-VIII-1988 (411,) C. & L.O'Brien & G.Wibmer; 53 km. S. Maturin, 300', 1-VIII-1988 (60,) C. & L.O'Brien & G.Wibmer; 61 km. S. Maturin, 300', 1-VIII-1988 (726,) C. & L.O'Brien & G.Wibmer; 4 km. S. El Rosario, 300', 31-VII-1988 (holotype, allotype and 49 paratypes,) C. & L.O'Brien & G.Wibmer; 7 km. E. El Tejera, 650', 2-VIII-1988 (273,) C. & L.O'Brien & G.Wibmer.

Bibliography

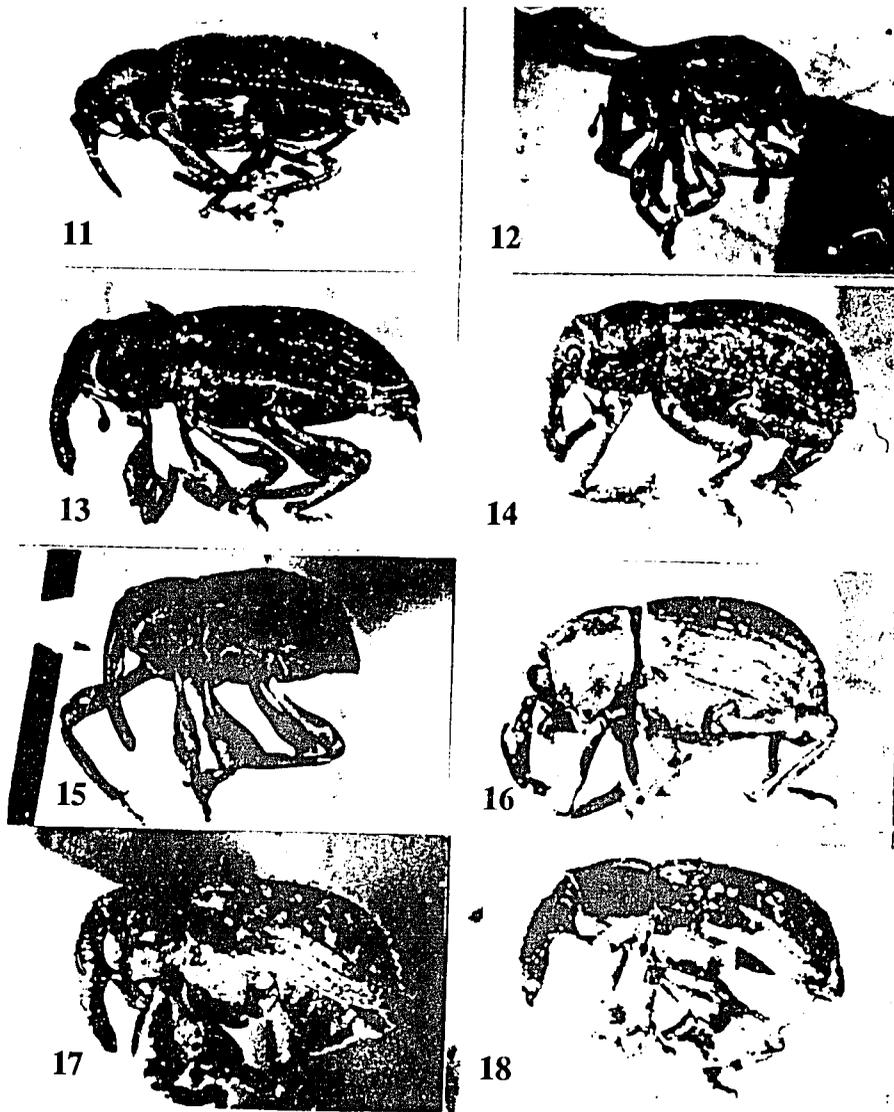
- Boheman, C. H. 1833-1845. *In* Schönherr, C. J. vols. 1-8.
- Brèthes, J. 1910. Coleópteros argentinos y bolivianos. *An. Soc. Cient. Argent.* 69:205-227, illus. [Curc. pp. 208-227.] [Also reprinted as pp. 3-25.]
- Champion, G. C. 1902-1906. *Biologia Centrali-Americana. Insecta. Coleoptera. Rhynchophora. Curculionidae. Curculioninae* (part), vol. 4, pt. 4, pp. 1-144, pls. 1-8 (1902); pp. 145-312, pls. 9-16 (1903); pp. 313-440, pls. 17-21 (1904); pp. 441-600, pls. 22-29 (1905); pp. i-viii, 601-750, pls. 30-35 (1906).
- Chevrolat, [L. A.] A. 1879. (Description de trois nouvelles espèces de Curculionides du genre *Pantoteles*). *Bull. Soc. Entomol. Fr.*, 1879, pp. CLXII-CLXIV.

- Costa-Lima, A. [M.] da. 1936a. Dois curculionideos daninhos no Rio Grande do Sul. *Campo* 7(84):23-23, illus.
- Duval, G. 1945. Uma nova espécie de "*Lissorhoptrus* Lec." (Col.-Curc.). *Arq. Inst. Biol., São Paulo* 16:337-342, illus.
- Fabricius, J. C. 1792. *Entomologia systematica emendata et aucta. Secundum classes, ordines, genera, species adjectis synonymis, locis, observationibus, descriptionibus.* Proft, Hafniae. Vol. 1, XX + 538 pp. [Curc. pp. XI, 379-490.]
- Fabricius, J. C. 1801. *Systema eleutheratorum secundum ordines, genera, species: adiectis synonymis, locis, observationibus, descriptionibus.* Bibliopoli Academici Novi, Kiliae. Vol. 2, 687 pp. [Curc. pp. 412-545.]
- Faust, J. 1888. Neue Rüsselkäfer aller Länder. *Stett. Entomol. Ztg.* 49(7-9):284-311.
- Germar, E. F. 1817. (Note), *in* *Miscellen und Correspondenz - Nachrichten.* *Mag. Entomol.* 2:339-341.
- Germar, E. F. 1833-1843. *In* Schönherr, C. J., vols. 1-7.
- Gyllenhal, L. 1833-1843. *in* Schönherr, C. J. vols. 1-7.
- Hustache, A. 1926. Contribution à l'étude des Curculionides de la République Argentine (première note). *An. Mus. Nac. Hist. Nat. Bernardino Rivadavia* 34:155-261, illus.
- Hustache, A. 1929. Nouveaux Curculionides de l'Amérique du Sud. *Rev. Soc. Entomol. Argent.* 2(10):227-232.
- Hustache, A. 1932. Curculionides de la Guadeloupe. *Faune des Colonies Françaises, 1931[1932], vol. 5, pp. 1-142, illus. (Troisième partie.)*
- Kolbe, H. [J.] 1911. Ein neuer hygrophiler Rüsselkäfer aus Argentinien. (Col.). *Dtsch. Entomol. Zeitschr.*, 1911, pp. 315-317.
- Kuschel, G. 1952. Revision de *Lissorhoptrus* LeConte y géneros vecinos de América (Ap. 11 de Coleoptera Curculionidae). *Rev. Chil. Entomol.*, 1951[1952], 1:23-74, illus.
- Kuschel, G. 1956. Révision de los Premnotrypini y adiciones a los Bagoini (Aporte 17 sobre Coleoptera Curculionoidea). *Bol. Mus. Nac. Hist. Nat., Santiago de Chile* 26:187-235, illus.
- LeConte, J. L. 1876. *In* LeConte, J. L., and G. H. Horn.
- LeConte, J. L., and G. H. Horn. 1876. The Rhynchophora of America, north of Mexico. *Proc. Am. Philos. Soc.* 15(96):i-xvi, 1-455. [LeConte: pp. i-xvi, 1-12, 112-442; Horn: pp. 13-112.]
- O'Brien, C. W. 1990. *Neobagoidus carlsoni*, new genus, new species of aquatic weevil from Florida. *Southwest. Entomol.* 15(1):71-76, illus.
- O'Brien, C. W., and G. J. Wibmer. 1981. An annotated bibliography of keys to Latin American weevils, Curculionidae *sensu lato* (Coleoptera: Curculionoidea). *Southwest. Entomol., Suppl.* (2):1-58.
- O'Brien, C. W., and G. J. Wibmer. 1982. Annotated checklist of the weevils (Curculionidae *sensu lato*) of North America, Central America, and the West Indies (Coleoptera: Curculionoidea). *Mem. Am. Entomol. Inst.* (34):i-ix, 1-382.
- O'Brien, C. W., and G. J. Wibmer. 1984. An annotated bibliography of keys to Latin American weevils, Curculionidae *sensu lato* (Coleoptera: Curculionoidea) (Supplement I). *Southwest. Entomol.* 9(3):279-285.
- O'Brien, C. W., and G. J. Wibmer. 1984. Annotated checklist of the weevils (Curculionidae *sensu lato*) of North America, Central America, and the West Indies -Supplement 1. *Southwest. Entomol.* 9(3):286-307.
- O'Brien, C. W., and G. J. Wibmer. 1989. Revision of the Neotropical weevil genus *Argentinorhynchus* Brèthes (Coleoptera: Curculionidae). *Ann. Entomol. Soc. Am.* 82(3):267-278, illus.

- O'Brien, C. W., and G. J. Wibmer. 1989. Revision of the Neotropical genus *Neohydronomus* Hustache (Coleoptera: Curculionidae). *Coleopt. Bull.* 43(3):291-304, illus.
- O'Brien, C. W., and G. J. Wibmer. 1989. Two new South American species of the weevil genus *Argentinorhynchus* Brèthes (Coleoptera: Curculionidae). *Southwest. Entomol.* 14(3):213-223, illus.
- Pascoe, F. P. 1881. New Neotropical Curculionidae.—Part V. *Ann. Mag. Nat. Hist.*, ser. 5, 7:299-308.
- Say, T. 1831. Descriptions of new species of Curculionites of North America, with observations on some of the species already known. New Harmony, IN. Pp. 1-30. [LeConte (ed.), 1859, vol. 1, pp. 259-299.]
- Schönherr, C. J. 1823, 1825. Curculionides. *Isis Oken*, 1823, heft X, columns 1132-1146; heft V, columns 581-588. [2 columns per page.] [Title usually cited as "Tabula synoptica familiae curculionidum" ("Tabulae synopticae" in 1825).]
- Schönherr, C. J. 1836. Genera et species curculionidum cum synonymia hujus familiae. Roret, Paris; Fleischer, Lipsiae. Vol. 3, pt. 1, pp. [I-II], 1-505; pt. 2, pp. 506-858. [Pp. 823-831 are addenda to vol. 1.]
- Schönherr, C. J. 1838. Genera et species curculionidum cum synonymia hujus familiae. Roret, Paris; Fleischer, Lipsiae. Vol. 4, pt. 2, pp. 601-1121 [+ pp. 1122-1124 (Corrigenda to vol. 3).]
- Schönherr, C. J. 1843. Genera et species curculionidum cum synonymia hujus familiae. Roret, Paris; Fleischer, Lipsiae. Vol. 7, pt. 2, pp. 1-461. [Pp. 454-461 are Corrigenda and Addenda to vol. 6.]
- Wibmer, G. J., and C. W. O'Brien. 1986. Annotated checklist of the weevils (Curculionidae *sensu lato*) of South America (Coleoptera: Curculionoidea). *Mem. Am. Entomol. Inst.* 39:i-xvi, 1-563.
- Wibmer, G. J., and C. W. O'Brien. 1989. Additions and corrections to annotated checklists of the weevils of North America, Central America, and the West Indies, and of South America. *Southwest. Entomol.*, Suppl. (13):1-49.
- Wibmer, G. J., and C. W. O'Brien. 1989. Two new Neotropical genera in the weevil tribe Stenopelmini. *Southwest. Entomol.* 14(4):395-407, illus.



Figures 1-10: 1, *Hypselus ater*; 2, *Neochetina bruchi*; 3, *Pistiacola cretatus*; 4, *Genus I species 1*; 5, *Neobagous coarcticollis*; 6, *Pistiacoloides wojciki*; 7, *Cyrtobagous singularis*; 8, *Genus V species 1*; 9, *Tanysphiroideus parvulus*; 10, *Genus XVI species 1*.



Figures 11 - 18: 11, *Hypselus ater*; 12, *Neochetina bruchi*; 13, *Genus XVI species 1*; 14, *Neobagous coarcticollis*; 15, *Ochetina uniformis*; 16, *Genus I species 1*; 17, *Pisticiola cretatus*; 18, *Pisticioloides wojciki*.

Table I

STENOPELMINI -- GENERIC CHARACTERS
LATIN AMERICAN & NORTH AMERICAN GENERA

1. 0) Rostrum curved (when viewed along a median lateral line).
 - 1) Rostrum straight.
- U. 2. 0) Rostrum longer than prothorax.
 - 1) Rostrum subequal to prothorax.
 - 2) Rostrum shorter than prothorax.
- U. 3. 0) Rostrum not distinctly broadened nor narrowed in apical portion.
 - 1) Rostrum more or less evenly expanding from base to apex.
 - 2) Rostrum suddenly quadrately broadened in apical portion.
 - 3) Rostrum attenuately narrowed to apex.
- U. 4. 0) Dorsal surface of rostrum nearly completely glabrous.
 - 1) At least basal 1/3 of dorsal surface of rostrum densely clothed with setae.
 - 2) At least basal 1/3 of dorsal surface of rostrum clothed with scales.
 - 3) Dorsal surface of rostrum clothed with opaque waterproof coating only (usually at least in basal 1/2, often abraded).
5. 0) Suprascrobal groove lacking.
 - 1) Suprascrobal groove present, not exceeding apex of scrobe.
 - 2) Suprascrobal groove present, extending to apex of rostrum.
- U. 6. 0) Suprascrobal groove lacks pubescence (scales).
 - 1) Suprascrobal groove with very sparse scales (hydrofuge?).
 - 2) Suprascrobal groove densely clothed with hydrofuge scales.
 - 3) Suprascrobal groove densely clothed with hydrofuge pubescence.
7. 0) Antennae inserted in front of middle (subapical).
 - 1) Antennae inserted at or near middle.
 - 2) Antennae inserted behind middle (subbasal).
8. 0) First segment of antennal club not longer than all others combined.
 - 1) First segment of antennal club longer than all others combined.
- U. 9. 0) Antennal scape just reaching eyes.
 - 1) Antennal scape not or scarcely reaching eyes.
 - 2) Antennal scape extending over eye.
 - 3) Antennal scape extending beyond eye.
10. 0) Antennal funicle 7-segmented.
 - 1) Antennal funicle 6-segmented.

- U. 11. 0) First segment of antennal club not glabrous, with normal or hydrofuge pubescence.
 - 1) First segment of antennal club glabrous or almost so.
- 12. 0) Eyes lateral, not contiguous beneath.
 - 1) Eyes latero-ventral, not contiguous beneath.
 - 2) Eyes nearly contiguous beneath.
- 13. 0) Postocular lobes lacking.
 - 1) Postocular lobes feeble.
 - 2) Postocular lobes moderate to strong.
- 14. 0) Scutellum distinct.
 - 1) Scutellum indistinct.
 - 2) Scutellum not visible.
- 15. 0) Sutural interval not depressed.
 - 1) Sutural interval depressed.
- 16. 0) Elytra not strongly convex.
 - 1) Elytra strongly convex.
- 17. 0) Elytral striae not with enlarged foveae.
 - 1) Elytral striae with enlarged foveae.
- 18. 0) All tibiae without apical mucro or uncus.
 - 1) Only anterior tibiae with mucro or uncus.
 - 2) All tibiae with apical mucro or uncus.
- 19. 0) All tibiae lacking praemucro.
 - 1) Fore and middle tibiae with praemucro.
 - 2) All tibiae with praemucro.
- 20. 0) Middle tibiae normal.
 - 1) Middle tibiae bladelike with evenly strongly curved outer margin.
- U. 21. 0) Middle tibiae without elongate swimming hairs.
 - 1) Middle tibiae with few to many, long, stout, curved swimming setae (not soft hairs).
 - 2) Middle tibiae with elongate swimming hairs (inner & outer margins) for most of length.
- U. 22. 0) Tibiae without indented area.
 - 1) Tibiae with indented area clothed with hydrofuge pubescence.
 - 2) Tibiae with indented area clothed with hydrofuge scales.
- U. 23. 0) Tibiae with inner margin not dentate.
 - 1) At least fore tibiae with inner margin loosely dentate.
 - 2) At least fore tibiae with serrate denticles on inner margin.
- 24. 0) Femora without hydrofuge scales or hydrofuge pubescence on inner face (or with some on

apical portion).

- 1) Femora with hydrofuge scales or hydrofuge pubescence on inner face.
- U.25. 0) Tarsi not clothed with hydrofuge scales or hydrofuge pubescence.
- 1) Tarsi clothed completely with hydrofuge pubescence.
 - 2) Tarsi clothed (at least in part) with hydrofuge scales.
- U.26. 0) Fore and middle coxae without subapical or apical seta.
- 1) Fore and middle coxae with one subapical or apical seta.
 - 2) Fore and middle coxae with 2 or more subapical or apical setae.
- U.27. 0) Tarsi with two symmetrical claws.
- 1) Tarsi with two markedly asymmetrical claws.
 - 2) Tarsi with single claw.

28. 0) Tarsal segments not linear.
 - 1) Tarsal segments linear to sublinear (width of 3rd subequal to 1 & 2).
29. 0) Third tarsal segment deeply bilobed.
 - 1) Third tarsal segment emarginate, but not deeply bilobed.
 - 2) Third tarsal segment truncate.
30. 0) Fourth tarsal segment not visible in lateral view.
 - 1) Fourth tarsal segment visible in lateral view.
31. 0) Last tarsal segment clearly extending beyond third.
 - 1) Last tarsal segment not or scarcely extending beyond third.
32. 0) Prosternum not antero-medially sulcate.
 - 1) Prosternum antero-medially sulcate (at least with longitudinal ridges or elevations in front of fore coxae).
33. 0) Fore coxae contiguous.
 - 1) Fore coxae not contiguous.
34. 0) Scales of median area of prosternum and of abdominal sterna 3, 4, & 5 not hydrofuge nor agglutinate.
 - 1) Scales of median area of prosternum and usually of abdominal sterna 3, 4, & 5 hydrofuge (not agglutinate).
 - 2) Scales of median area of prosternum and usually of abdominal sterna 3, 4, & 5 agglutinate.
35. 0) Prosternum not medially swollen or projecting ventrally behind coxae.
 - 1) Prosternum projecting ventrally behind coxae.
36. 0) Suture between first and second abdominal sterna straight.
 - 1) Suture between first and second abdominal sterna curved.
37. 0) Waterproof coating not present.
 - 1) Waterproof coating present.
38. 0) Not all scales of body hydrofuge.
 - 1) All scales of body hydrofuge.
39. 0) Rostrum not gibbous at base, between eyes.
 - 1) Rostrum gibbous at base, between eyes.
40. 0) Head not concealed in dorsal view.
 - 1) Head concealed (in dorsal view) by anteriorly projecting pronotum.
41. 0) Scrobes completely lateral, completely visible in lateral view.
 - 1) Scrobes directed ventrally, not completely visible in lateral view.

- U.42. 0) Scape with many, widely distributed setae.
 - 1) Scape with one to several, usually subapical setae.
 - 2) Scape glabrous.
 - 3) Scape clothed in part with scales.
- 43. 0) Tarsal claws divergent.
 - 1) Tarsal claws approximate.
- 44. 0) Lacking pad(s) or scale(s) between tarsal claws.
 - 1) Hydrofuge pad(s) or scale(s) between tarsal claws.
- 45. 0) Mesepimeron normal.
 - 1) Mesepimeron with dorso-anterior, anteriorly projecting tubercle (usually clothed with projecting scales).
- 46. 0) Metasternum normal.
 - 1) Metasternum with depression in front of hind coxae.
 - 2) Metasternum with posteriorly directed ventral shelf-like projection.
- U.47. 0) Middle coxae moderately separated, mesosternum normal.
 - 1) Middle coxae moderately separated, mesosternum strongly convex, usually projecting anteriorly.
 - 2) Middle coxae subcontiguous to contiguous.
- 48. 0) Fore coxae not strongly elongated.
 - 1) Fore coxae strongly elongated.
- 49. 0) Tarsal segments with ventral to lateral, moderate to short hairs or pubescence.
 - 1) Tarsal segments with ventral to lateral, long, fine swimming hairs.
- 50. 0) Apical, tomentose or pubescent segments of antennal club symmetrical, evenly obtusely to acutely produced.
 - 1) Apical, tomentose or pubescent segments of antennal club asymmetrical (usually strikingly shifted to one side).
- 51. 0) Outer margin of apex of tibiae lacking denticle or specialized scalelike process.
 - 1) Outer margin of apex of tibiae with denticle or specialized scalelike process.
- 52. 0) Tarsal segments together (of each leg) shorter than tibia.
 - 1) Tarsal segments together (of each leg) as long as tibia, or longer.
- 53. 0) 1st and 2nd abdominal sterna of female flat to weakly convex, on same level as 3rd, 4th and 5th sterna.
 - 1) 1st and 2nd abdominal sterna of female vaulted, on a markedly different level than 3rd, 4th and 5th sterna.

54. 0) Claw segment lacking long curled setae.
 1) Claw segment with 1 or 2 long curled seta(e).
- U. 55. 0) Elytral intervals with row of moderately distinct to distinct setae.
 1) Alternate elytral intervals only with row of moderately distinct to distinct setae.
 2) Alternate elytral intervals only with row of scarcely evident setae.
 3) Elytral intervals lacking row of setae.
60. 0) Apodemes shorter to somewhat longer than median lobe, inserted at base of median lobe, dorsal plate sometimes present.
 1) Apodemes *ca* as long as to somewhat longer than median lobe, dorsal plate often indistinct.
 2) Apodemes much longer than median lobe, inserted far from base of median lobe (often on apical 1/2), dorsal plate indistinct.
61. 0) Flagellum and pseudoflagellum absent.
 1) Flagellum present, rodlike.
 2) Flagellum present, whiplike.
 3) Flagellum absent, pseudoflagellum present, ending in long to very long, fusiform structure.
- U. 62. 0) Membranous sac largely exceeding tips of apodemes.
 1) Membranous sac almost reaching or somewhat exceeding tips of apodemes.
 2) Membranous sac far from reaching tips of apodemes.
63. 0) Endophallic structures distinct, forming discrete sclerites.
 1) Endophallic structures indistinct.
- U. 64. 0) Closed apically but not completely sclerotized, with long parameroid lobes.
 1) Open, apically membranous.
 2) Closed apically (a complete sclerotized ring), with 2 short to indistinct, inwardly directed processes; parameroid lobes reduced.
 3) Closed apically (a complete sclerotized ring), with 2 medium-sized (usually fused), inwardly directed processes not reaching sides; parameroid lobes reduced.
 4) Closed apically (a complete sclerotized ring), with 2 long, inwardly directed processes fused to sides; parameroid lobes reduced.
 5) Closed apically (a complete sclerotized ring), with 1 median, inwardly directed process; parameroid lobes reduced.
65. 0) Arms usually slender, free.
 1) Arms apically expanded, free.
 2) Arms apically expanded, fused.
- U. 66. 0) Apodeme well-developed, rodlike or slightly expanded at base.
 1) Apodeme well-developed, expanded dorsoventrally or ventrally on basal portion, lacking lateral extensions.
 2) Apodeme distinctly laterally expanded on basal portion, lacking lateral extensions.
 3) Apodeme distinctly laterally expanded on basal portion, with moderately narrow to very broad, lateral extensions on part or all of its length.
 4) Apodeme reduced or indistinct.

- 67. 0) Slightly to distinctly broadened basally but lacking processes (at times with "fibrous" bundle).
 - 1) Distinctly broadened basally, with anteriorly directed, short to medium-sized, rodlike processes.
 - 2) Distinctly broadened basally, with anteriorly directed, long to very long, rodlike processes.
- 68. 0) Apical margin strongly thickened, with complete "liplike" edge.
 - 1) Apical margin thin, usually of equal thickness throughout.
- U.69. 0) Apodeme bifurcate on apical portion.
 - 1) Apodeme not bifurcate but laterally expanded on apical or median portion.
 - 2) Apodeme not bifurcate, subequal in width throughout or somewhat expanded at base.
- 70. 0) Not reticulate.
 - 1) Partially or completely reticulate.
- U.71. 0) Ramus distinct, short to medium-sized.
 - 1) Ramus indistinct.
 - 2) Ramus distinct, long to very long.
- 72. 0) Spermathecal gland and spermathecal duct (or ramus and nodulus) close to each other, arising on opposite end from cornu.
 - 1) Spermathecal gland and spermathecal duct (or ramus and nodulus) not close to each other, former usually arising near base of cornu.
- 73. 0) Spermathecal duct membranous, flexible, coiled at least in part.
 - 1) Spermathecal duct membranous, flexible, not coiled.
 - 2) Spermathecal duct sclerotized, rigid, not coiled.
- U.74. 0) Stylus present, apical.
 - 1) Stylus present, subapical.
 - 2) Stylus lacking.
- 75. 0) Coxite more or less semicircular in cross-section.
 - 1) Coxite flattened in cross-section.
- 76. 0) Margin of female 10th tergite smooth to irregular.
 - 1) Margin of female 10th tergite denticulate.
- 77. 0) Apex of female 9th tergite rounded to somewhat emarginate.
 - 1) Apex of female 9th tergite moderately to strongly emarginate.
- 78. 0) Male 10th sternite undivided, often with apodeme.
 - 1) Male 10th sternite divided into two large and one small plate, distinctly connected by membrane.
 - 2) Male 10th sternite divided into two large plates.

Table 3 (continued)

Strict consensus tree

