

Systematic redefinition of the New World Didactyliini  
(Coleoptera: Scarabaeidae: Aphodiinae) with descriptions  
of two new species of *Aidophus* Balthasar

Marco Dellacasa

Universita di Pisa, Centro interdipartimentale  
Museo di Storia naturale e del Territorio  
Via Roma, 79 - 56011 Calci (PI) Italy

Robert D. Gordon

Northern Plains Entomology  
P.O. Box 65  
Willow City, ND 58384 U.S.A.

Phillip J. Harpootlian

206 Fredericksburg Dr.  
Simpsonville, SC 29681 U.S.A.

Zdzislawa Stebnicka

Polish Academy of Sciences  
Institute of Systematics and Evolution of Animals  
ul. Slawkowska 17, Krakow, PL-31-016 Poland

Giovanni Dellacasa

C.P. 921  
16121 Genova Italy

**Abstract.** As now understood, the New World Didactyliini (Coleoptera: Scarabaeidae: Aphodiinae) consists of eleven species of *Aidophus* Balthasar, two of which are new, and the introduced *Australaphodius frenchi* (Blackburn). Keys, descriptions and figures are provided to distinguish all included species.

### Introduction

Members of the tribe Didactyliini can be distinguished from the Aphodiini by the following characters: abdominal sternites often strongly fused; hind tibia often with only vestigial transverse carinae and two apical spurs closely attached such that the first tarsal segment can not be articulated between them.

Dellacasa G. *et al* (2001) determined that most American taxa previously assigned to the genus *Didactylia* d'Orbigny, 1896, belong in *Aidophus* Balthasar, 1963. The purpose of this work is to redefine the systematic position and clear up some nomenclatural questions involved with these taxa through a thorough study of the types. We conclude that *Aphodius* (*Aidophus*) *paraguayanus* Balthasar,

1963, is a junior synonym of *Aphodius infuscatopennis* Schmidt A., 1909; *Aphodius* (*Orodaliscoides*) *pellax* Balthasar, 1960, belongs in the genus *Aidophus*. *Aidophus flechtmanni* Stebnicka and M. Dellacasa, *n. sp.*, from Mato Grosso (Brazil) and *Aidophus skelleyi* Harpootlian and Gordon, *n. sp.*, from Florida (U.S.A.) are herein described.

**Lectotypes** of *Aphodius flaveolus* Harold, 1867, *Aphodius infuscatopennis* Schmidt A., 1909, *Aphodius kansanus* Wickham, 1905, *Aphodius knausii* Fall, 1905, *Didactylia kolbei* Schmidt A., 1911, *Aphodius notatus* Harold, 1859, *Aphodius panamensis* Harold, 1859 and *Aphodius parvus* Horn, 1887 **are herein designated.**

We have examined about 1400 specimens preserved in the following collections:

- AMNH: American Museum of Natural History, New York, NY, U.S.A.
- BCP: Balthasar Collection, National Museum, Prague, Czech Republic
- BMNH: The Natural History Museum [formerly British Museum Natural History], London, Great Britain
- CFC: Carlos C. Flechtman Collection, University of Brasilia, Brazil
- CMN: Canadian Museum of Nature, Ottawa, ON, Canada
- CUAC: Clemson University Arthropod Collection, Clemson, SC, U.S.A.
- CUIC: Cornell University, Ithaca, NY, U.S.A.
- DCG: Dellacasa Collection, Genoa, Italy
- FMLT: Fundacion Muguel Lillo, Tucuman, Argentina
- FMNH: Field Museum of Natural History, Chicago, IL, U.S.A.
- FSCA: Florida State Collection of Arthropods, Gainesville, FL, U.S.A.
- HAHC: Henry and Anne Howden Collection, Ottawa, ON, Canada
- ISEA: Institute of Systematics and Evolution of Animals PAS, Krakow, Poland
- KSU: Kansas State University, Manhattan, KS, U.S.A.
- MCSNG: Museo Civico di Storia Naturale "G. Doria", Genoa, Italy
- MCZ: Museum of Comparative Zoology, Harvard University, Cambridge, MA, U.S.A.
- MHNG: Museum d'Histoire Naturelle, Geneva, Switzerland
- MNHN: Museum National d'Histoire Naturelle, Paris, France
- MZUSP: Museu de Zoologia. Universidade de Sao Paulo, Sao Paulo, Brazil
- NRS: Naturhistoriska Riksmuseet, Stockholm, Sweden
- PESC: Paul E. Skelley Collection, Gainesville, FL, U.S.A.
- PJHC: Phillip J. Harpootlian Collection, Simpsonville, SC, U.S.A.
- PURC: Entomology Research Collection, Purdue University, West Lafayette, IN, U.S.A.
- RDG: Robert D. Gordon Collection, Willow City, ND, U.S.A.
- SMTD: Staatliches Museum fur Tierkunde, Dresden, Germany
- TAMU: Texas A and M University, College Station, TX, U.S.A.
- TMP: Transvaal Museum, Pretoria, South Africa
- USNM: National Museum of Natural History [formerly United States National Museum], Smithsonian Institution, Washington, D.C., U.S.A.
- ZMHB: Zoologisches Museum der Humboldt Universitat, Berlin, Germany
- ZSM: Zoologische Staatssammlung, Munich, Germany

### Key to American genera of Didactyliini

1. Hind tibia with vestigial transverse carinae on outer face; dorsal surface of fore tibia impunctate; middle and hind tibia with short, uneven apical spinules; first segment of hind tarsi without apical spinules in either sex. Brown, yellowish brown or testaceous; epistoma and pronotal disc usually darkened; elytral disc dark or yellowish, often with more or less distinct brownish spots. Length 3.0-5.0 mm. Nearctic and Neotropical region, Mexican Transition Zone ..... *Aidophus* Balthasar
- 1'. Hind tibia with distinct transverse carinae on outer face; dorsal surface of fore tibia with sparse coarse punctures; middle and hind tibia with long, alternately uneven apical spinules; first segment of hind tarsi, in males, with two apical spinules (fig. 1). Blackish brown, elytra sometimes reddish brown. Length 3.0-4.0 mm. Southern Nearctic, Neotropical, Australian and Southern Afrotropical region ..... *Australaphodius* Balthasar

### Genus *Australaphodius* Balthasar

*Aphodius* (*Australaphodius*) Balthasar, 1942: 203; Cassis and Weir, 1992: 87

*Aphodius* (*Phaeaphodius*); Schmidt A., 1922: 208; Cassis and Weir, 1992: 90 (in part)

*Australaphodius*; Bordat, 1990: 314; Stebnicka and Howden, 1995: 763; Dellacasa G., Bordat and Dellacasa M., 2001: 306

**Type species:** *Aphodius melbournicus* Balthasar, 1942 (junior synonym of *Aphodius frenchi* Blackburn, 1892) (monotypy)

**Redescription:** Small (length 3.0-4.0 mm), elongate, convex, shiny, glabrous. Blackish brown, elytra sometimes reddish brown. Head narrowed apically; epistoma gibbous, punctate, with or without apical transverse carina; clypeus emarginate, sides rounded, finely margined, border glabrous; genae

obtusely rounded, setose, many protruding beyond eyes; latter small; clypeal suture distinct, sometimes tuberculate medially. Pronotum transverse, widest medially, simply punctate; sides feebly curved, thickly margined; hind angles rounded; base margined. Scutellum small, narrowly triangular. Elytra rather broad, not denticulate at umbone, striato-punctate; first stria as wide as second apically; lateral striae joining one another preapically. Fore tibia distally tridentate and proximally not serrulate at outer border; dorsal surface with sparse coarse punctures. Middle and hind tibiae with strong transverse carinae on outer face; long, alternately unequal apical spinules. Abdominal sternites fused, sutural borders distinct medially. Pygidium with sparse, straight setae. Sexual dimorphism expressed in males by fore tibia with apical spur sinuate before apex and abruptly deflexed; first segment of middle tarsi with inferior apical spinule at inner border; first segment of hind tarsi with two small inferior apical spinules at inner border. Females with apical spur of fore tibia straight; first segment of middle tarsi without apical spinule. Aedeagus with tegmen feebly convex and parallel sided; parameres straight, acute apically and swollen basally. Epipharynx (fig. 48) transverse; anterior border sinuate on each side; epitorma widely triangular; corypha with several apical spinules; pedia with a row of stout chaetae parallel to chaetopariae; latter more elongate; neesium broad.

**Distribution:** Southern Afrotropical, Australian, Neotropical and Nearctic region.

***Australaphodius frenchi* (Blackburn, 1892)**

(Figs. 1, 5, 48-50)

*Aphodius ambiguus* Boheman, 1858: 51 (not *Aphodius bimaculatus* "variety" *ambiguus* Mulsant, 1842: 202)

*Aphodius frenchi* Blackburn, 1892: 35

*Aphodius brevitarsis* Peringuey, 1901: 388 (not *Aphodius brevitarsis* Reitter, 1894: 186); Schmidt A., 1922: 212 (synonym of *A. frenchi*)

*Aphodius tarsalis* Schmidt A., 1907: 201 (*nomen novum* for *A. brevitarsis* Peringuey, 1901)

*Aphodius (Phaeaphodius) frenchi*; Schmidt A., 1922: 211; Cassis and Weir, 1992: 90

*Aphodius (Australaphodius) melbournicus* Balthasar, 1942: 203; Bordat, 1990: 315; Cassis and Weir, 1992: 87

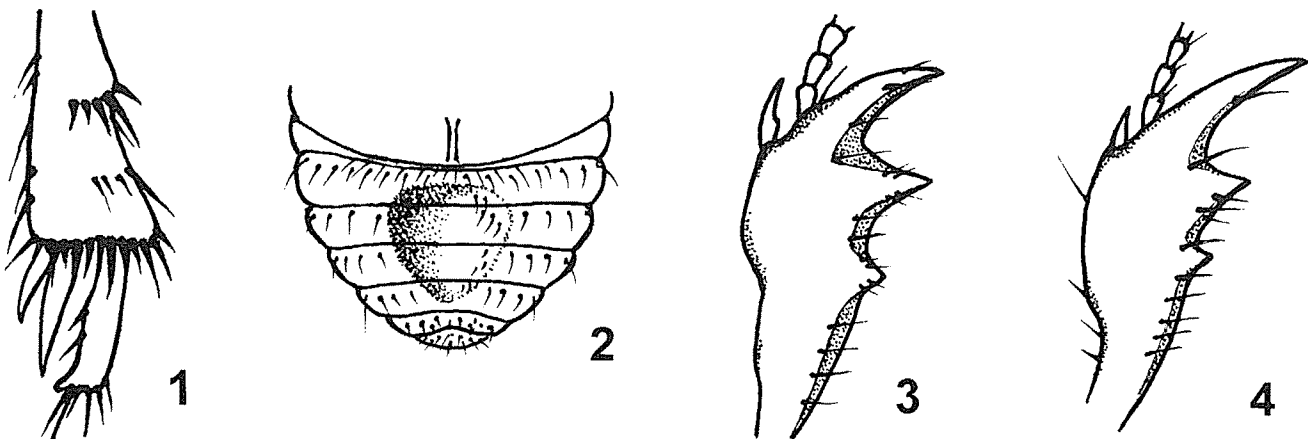
*Aphodius catulus* Balthasar, 1946: 54; Bordat, 1990: 315 (doubtful synonym of *A. frenchi*)

*Australaphodius frenchi*; Bordat, 1990: 315; Stebnicka and Howden, 1995: 763; Dellacasa G., Bordat and Dellacasa M., 2001: 307

**Type locality:** S. Australia (Restricted)

**Type depository:** The Natural History Museum, London (BMNH) (Bordat, pers. comm.) [Subsequent lectotype/paralectotypes, designated by Stebnicka and Howden (1995), in The South Australian Museum, Adelaide]. Two syntypes of *A. melbournicus* are in the Balthasar Collection, Prague (BCP).

**Redescription:** Length 3.0-4.0 mm, elongate, convex, shiny, glabrous. Black, lateral borders of pronotum and sometimes elytra reddish brown. Head with epistoma gibbous, apically with a more or less distinct transverse carina, simply and finely punctate.



Figures 1-4. 1. *Australaphodius frenchi*: right hind tibia and first segment of tarsus of male (dorsal view); 2. *Aidophus kolbei*: abdomen of male (ventral view); 3. *Aidophus notatus*: right fore tibia of male (dorsal view); 4. *Aidophus skelleyi*: right fore tibia of male (dorsal view).

tate; punctation nearly evenly scattered throughout; clypeus distinctly emarginate, sides widely rounded, suture feebly raised, bigibbous medially, more coarsely punctate; genae obtusely angulose, protruding beyond eyes. Pronotum moderately transverse, simply punctate; punctation like that on head but somewhat finer apically and laterally; latter feebly rounded and thickly margined; border with sparse, long setae, denser near apical angles; hind angles obtusely rounded; base distinctly margined. Scutellum small, narrowly triangular, smooth, basally depressed. Elytra not denticulate at umbone, epipleural fold distinct, deeply striate; striae distinctly crenulate; intervals feebly convex, finely and sparsely punctate. Abdominal sternites glabrous, more densely punctate laterally than medially; apical sternite with four or six large setigerous punctures. Pygidium finely punctate with some sparse, long and straight setae. Male: fore tibia with apical spur abruptly bent downward; first segment of middle tarsi with one inferior apical spinule at inner border; first segment of hind tarsi with two inferior apical spinules at inner border (fig. 1); hind tibia with superior apical spur as long as first tarsal segment; latter as long as following three combined. Female: fore tibia with apical spur nearly straight; first segment of middle and hind tarsi without apical spinules; hind tibia with superior apical spur longer than first tarsal segment; latter only slightly longer than following two combined.

**Distribution:** South Africa, Australia, Tasmania, New Zealand (Stebnicka, 2001), U.S.A. (California), Chile

**Material examined:** CHILE: ARAUCANIA: Erccilla, 38.05 S - 72.21 W, 22.X.1990, leg. S. Endrody-Younga, 135 exx. (TMP); BIO-BIO: Concepcion, 15.VIII.1962, leg. Carvejol, 2exx. (DCG); LOS LAGOS: Antillanca, m 700, 40.39 S - 72.16 W, *Nothofagus-Podocarp.* forest, 29.X.1990, leg. S. Endrody-Younga, 125 exx. (TMP); VALPARAÍSO: Concon-Sur, 15.VIII.1970, leg. M. Pino, 17 exx. (DCG); Paso Hondo-Quilpue, 12.IX.1981, leg. E. Arredondo, 4 exx. (DCG); U.S.A.: CALIFORNIA: San Francisco Co., San Francisco, 19.II.1957, leg. McNally J. H., 7 exx. (RDG); San Mateo Co., Daly City, Palo-Mar stables, 31.III.1981, leg. Gross D. F., 1 ex. (RDG).

**Remarks:** Probably a generalist surface dung feeder, at least in California. Most of the Palo-Mar stables specimens (Dan Gross *pers. comm.*) were found in 2-3 day old horse dung deposited in herba-

ceous vegetation, commonly *Ryphanus sativus* Linn. All specimens were collected from October to April.

In the United States, this species is thus far known only from one area in California. How this species arrived is a matter of conjecture, but it may have been transported from the Australian region by military traffic during or immediately after World War II.

### Genus *Aidophus* Balthasar

*Aphodius* (*Aidophus*) Balthasar, 1963: 278 (Aphodiini)  
*Aidophus*; Dellacasa G., Bordat and Dellacasa M., 2001:  
305 (Didactyliini)

**Type species:** *Aphodius paraguayanus* Balthasar, 1963 (original designation) (junior synonym of *Aphodius infuscatopennis* Schmidt A., 1909)

**Redescription:** Small (length 3.0-5.0 mm), elongate subcylindrical, convex to stout, oval; more or less shiny, glabrous. Pale yellowish brown; epistoma, pronotal and elytral disc darkened; elytra infrequently with several elongate brownish spots. Head with epistoma feebly gibbous, punctate, apically more or less distinctly granulose; clypeus distinctly to feebly emarginate, sides rounded, margined, border glabrous; genae rounded, with sparse, long setae, protruding beyond eyes or not; latter rather large; apical suture obsolete; apices usually more coarsely punctate than epistoma. Pronotum transverse, more or less densely and unevenly punctate; sides rounded, thinly margined, with long sparse apical setae; hind angles rounded; base thinly margined. Scutellum small, rather narrow, with sides parallel toward base. Elytra elongate, nearly parallel sided, not denticulate at umbone, distinctly striate; striae superficially punctate, lateral ones joining apically; intervals nearly flat. Fore tibia distally more or less strongly tridentate and proximally not serrulate at outer border; dorsal surface smooth. Middle tibia with feeble transverse carinae on outer face. Hind tibia with faint transverse carinae on outer face; long, unevenly unequal apical spinules. Tarsi rather slender, sometimes longer than tibia. Pygidium with sparse, long and straight discal setae. Abdominal sternites fused. Sexual dimorphism in males expressed by fore tibia with apical spur flattened and truncate or hooked apically or lanceolate; punctation of epistoma and pronotal disc sparser; sometimes abdomen with wide median foveola. Aedeagus

with parameres short, apically curved. Epipharynx broadly transverse; anterior border deeply sinuate medially; epitorma nearly faint; corypha usually without setae; pedia pubescent with intermixed weak and strong spines more or less serially arranged; chaetopariae slender and dense.

**Distribution:** Nearctic and Neotropical region, Mexican Transition Zone.

**Remarks:** *Aidophus* is most closely related to the Afrotropical and Southern Palearctic genus *Didactylia* d'Orbigny, but differs by the following features: head smaller; clypeal and pronotal border finer, fore tibia, in males, not truncate apically; dimorphic characters otherwise expressed. *Aidophus* now includes two Nearctic species distributed in Canada and U.S.A. and nine species from Central and South America. Several apparently new species from Argentina and Brazil, represented only by female specimens, remain undescribed.

**Key to American species of *Aidophus***

(*Aidophus cabrali* (Petrovitz) is not included in the key as it is only known from the female holotype. This taxon resembles *A. impressus* (Petrovitz) with which it shares the shape of eighth and tenth elytral intervals, at least in the female, but the epipharynx is different.)

- 1. Shape stout, oblong (figs. 6-8); Canada to Guyana; pronotum and elytra often with distinct dark markings ..... 2
- 1'. Shape elongate, subcylindrical (figs. 18-21, 40-43); [? Mexico], Panama to Chile and Argentina; pronotum and elytra without distinct markings ..... 4
- 2(1). Base of pronotum distinctly bisinuate; fore tibia, in males, angulately widened at inner border (fig. 3); abdomen distinctly foveolate medially in males. Head reddish brown, distally paler; pronotum yellowish with two reddish brown discal spots; elytra pale yellowish with several reddish brown spots (fig. 6). [? U.S.A. (Arizona)], Mexico, Panama, Colombia, Venezuela, Guyana ..... *A. notatus* (Harold)
- 2'. Base of pronotum evenly rounded; fore tibia not angulately widened at inner border in either sex (fig. 4); abdomen slightly foveolate or not in males. Color various, pronotum and elytra with or without brownish maculation. U.S.A. and Canada ..... 3
- 3(2'). Hind tibia with superior apical spur shorter than first tarsal segment; latter as long as following

two combined; clypeus slightly narrowed apically with curved sides, genae rounded; head and pronotum shiny, densely punctate; genae and lateral borders of pronotum with sparse, moderately long setae; fore tibia with apical tooth not large; abdomen, in males, slightly foveolate medially. Pale yellowish, testaceous to darker brown; head with epistoma reddish brown; pronotum often darkened on disc, frequently with paired lateral brownish spots; elytra with suture reddish brown, sometimes with shadowy brownish maculation especially before preapical declivity (fig. 7). Length 3.0-4.0 mm. Canada (Ontario), U.S.A. (east coast from New Jersey to Florida, Mississippi, Wisconsin and Indiana near Lake Michigan, Nebraska, Texas, Kansas, Oklahoma, New Mexico) ..... *A. parvus* (Horn)

- 3'. Hind tibia with superior apical spur longer than first tarsal segment; latter shorter than following two combined; clypeus distinctly narrowed apically with straight sides, genae obtusely angulate; head and pronotum rather dull, strongly microreticulate, unevenly punctate; genae and lateral borders of pronotum with dense, long setae; fore tibia with apical tooth large, basal one reduced (fig. 4); abdomen, in males, not foveolate. Entirely pale yellowish, sometimes translucent (fig. 8). Length 2.5-3.0 mm. U.S.A. (Florida) ..... *A. skelleyi* Harpootlian and Gordon, n. sp.
- 4(1'). Clypeus distinctly emarginate; epistoma subrugosely punctate, at least toward clypeus; elytral striae rather distinctly punctate, feebly crenulate; abdomen not foveolate in either sex. Pale reddish brown; head and pronotal disc darker; elytra with cloudy elongate discal spot brownish (fig. 18). Length 3.0-4.0 mm. Peru, Brazil, Bolivia, Paraguay, Uruguay, Argentina ..... *A. infuscatopennis* (A. Schmidt)
- 4'. Clypeus subtruncate to slightly emarginate; epistoma simply punctate; elytral striae indistinctly punctate, not crenulate; abdomen with foveola or not in males. Color and length various. Panama southward ..... 5
- 5(4'). Hind angles of pronotum subtruncate or obtuse; genae obtusely rounded; abdomen in males with more or less deep foveola (fig. 2) ..... 6
- 5'. Hind angles of pronotum widely rounded; genae angulate; abdomen in males not foveolate .... 8
- 6(5). Elytral intervals flat; hind angles of pronotum subtruncate; males with apical spur of fore tibia lanceolate. Head, pronotal and elytral disc dark brownish (fig. 21). Length 3.0-3.5 mm. Bolivia ..... *A. kolbei* (A. Schmidt)
- 6'. Elytral intervals feebly convex at least on preapical declivity; hind angles of pronotum obtuse; males

- with apical spur of fore tibia hooked apically. Color various. Length 3.5-4.5 mm. Panama to Brazil ..... 7
- 7(6'). Pronotum densely, unevenly punctate, disc lacking coarse punctures; elytral intervals flat, feebly convex preapically, finely and sparsely punctate. Dorsum brownish; lateral borders of pronotum, elytral base, second interval, apex and lateral borders yellowish (fig. 20). Length 3.5-4.0 mm. Panama, [? Venezuela] .....  
..... *A. panamensis* (Harold)
- 7'. Pronotum densely, evenly punctate, disc with coarse punctures; elytral intervals feebly convex, more convex preapically, more distinctly and densely punctate. Dark brownish; pronotum with lateral borders faintly paler. Length 4.0-4.5 mm. Brazil (Mato Grosso do Sul) .....  
*A. flechtmanni* Stebnicka and M. Dellacasa, n. sp.
- 8(5'). Elytral intervals eight and ten strongly convex on preapical declivity; fore tibia with apical spur, in males, somewhat outwardly curved and evenly acuminate apically; dorsum strongly alutaceous, dull; shape oblong oval. Yellowish brown, head and pronotal disc darkened. Length 3.2 mm. Brazil (Parnagua) .....  
..... *A. impressus* (Petrovitz)
- 8'. Elytral intervals eight and ten nearly flat on preapical declivity; fore tibia with apical spur, in males, not as above; dorsal surface alutaceous, shiny; shape subcylindrical, elytra more or less strongly elongate. Color various. Length 3.5-5.0 mm. Bolivia, [? Mexico], Argentina, Chile ..... 9
- 9(8'). Elytra three times longer than pronotum, intervals impunctate, faintly alutaceous, shiny; fore tibia with apical spur, in males, slightly outwardly sinuate and apically acuminate. Dorsum pale yellowish brown; distal part of head, sides and base of pronotum yellowish; elytron with sutural interval and elongate cloudy discal spot brownish. Length 4.5-5.0 mm. Bolivia .....  
..... *A. pellax* (Balthasar)
- 9'. Elytra two and half times longer than pronotum, intervals finely, unevenly punctate, alutaceous, subshiny; fore tibia with apical spur, in males, obliquely truncate apically. Dorsum testaceous; basal part of head, pronotal disc and sutural interval reddish brown (fig. 19). Length 3.5-4.5 mm. [? Mexico], Argentina, Chile .....  
..... *A. flaveolus* (Harold)

***Aidophus cabrali* (Petrovitz, 1973) comb. nov.**  
(figs. 41, 44)

*Didactylia cabrali* Petrovitz, 1973: 148; Dellacasa M., 1988: 296

**Type locality:** Mamanguape, Parahyba, Bras. [Brazil]

**Type depository:** Museum d'Histoire naturelle, Geneva (MHNG)

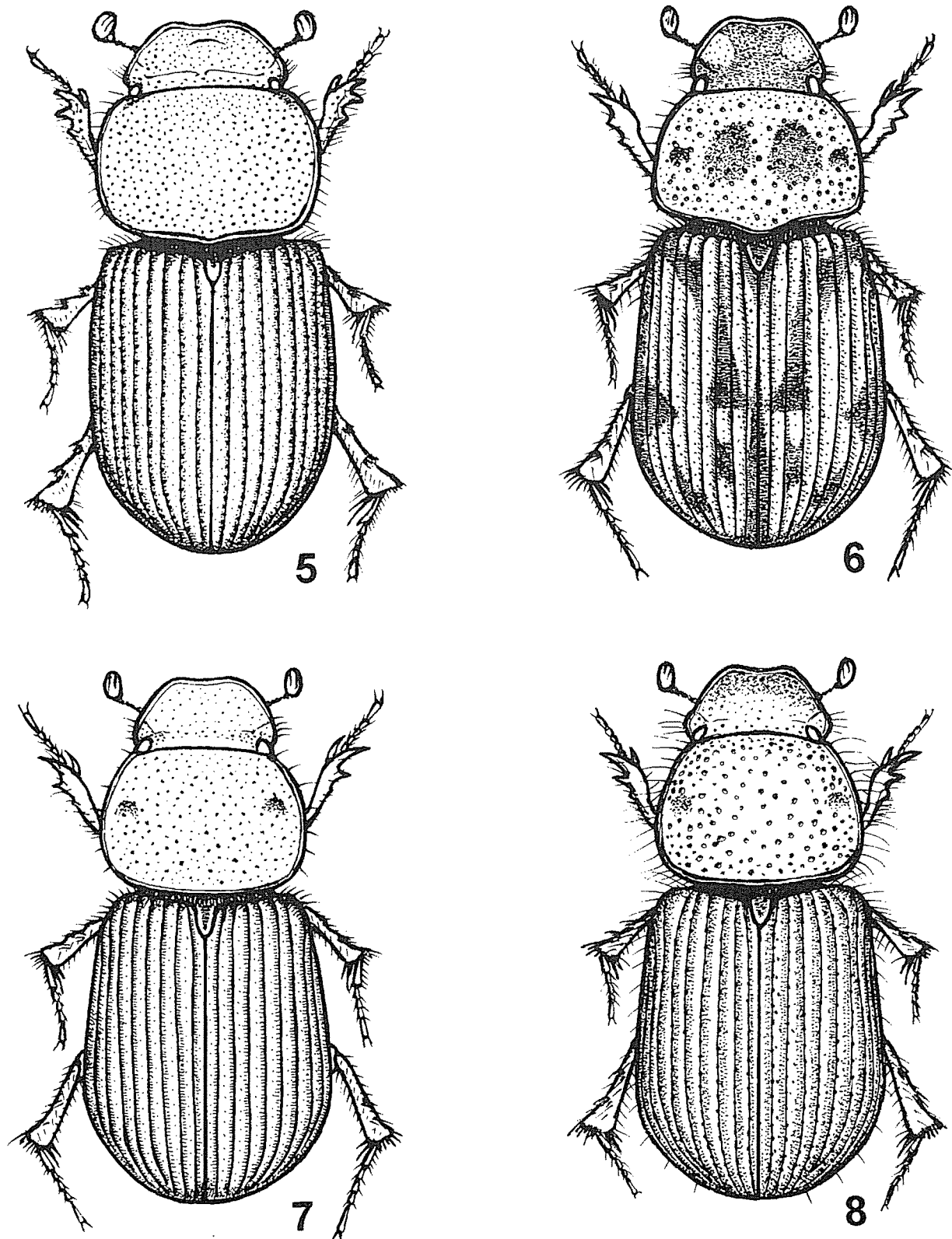
**Redescription of female:** Length 3.2 mm, oblong oval, rather shiny, glabrous. Yellowish brown, head and pronotal disc darkened; lateral borders of pronotum and legs yellowish; antennal club testaceous. Head converging apically, epistoma gibbous, disc finely punctate, punctation subrugose distally; genae obtusely rounded, with short setae protruding barely beyond eyes; clypeus more distinctly and coarsely punctate than epistoma. Pronotum subquadrate, moderately convex; densely unevenly punctate, coarse punctures coarser on sides; lateral borders widely rounded, fringed with rather short and scarce setae; hind angles obtuse; base feebly bisinuate, rather thickly margined. Scutellum somewhat depressed, triangularly elongate, shiny, impunctate. Elytra slightly oval, finely striate; striae distinctly impressed, faintly punctate, not crenulate; intervals feebly convex, finely microreticulate and with sparse and extremely fine punctures; the lateral ones strongly convex preapically. Fore tibia with apical spur rather short, outwardly incurvate and apically acuminate, Hind tibia with superior apical spur as long as first tarsal segment; latter shorter than following three combined.

**Distribution:** This species, based on a single female holotype, is only known from the type locality.

**Remarks:** At first sight, one can suppose that *A. cabrali* could be the female of *A. impressus*. These two taxa have in common, beside color and general features, the lateral intervals strongly convex preapically, recalling, at least, those of *Plagiogonus* Mulsant. They differ as follows: the epipharynx of *A. cabrali* has one central spinule protruding beyond the anterior border of the corypha, *A. impressus* has two; the pronotal punctation is finer and sparser; the proportions of posterior tibia and tarsi differ as well.

***Aidophus flaveolus* (Harold, 1867) comb. nov.**  
(figs. 19, 28-30)

*Aphodius flaveolus* Harold, 1867: 280  
*Didactylia flaveola*; Schmidt A., 1911: 38; Blackwelder 1944: 213; Dellacasa M. 1988: 129



Figures 5-8. Habitus of 5. *Australophodius frenchi* (male, length 4.0 mm; Chile, Valparaiso, Paso Hondo, Quilpui); 6. *Aidophus notatus* (male, length 3.5 mm; Mexico, Veracruz, Tecolutla); 7. *Aidophus parvus* (male, length 3.0 mm; U.S.A., Florida, Levy Co., 3.8 mi SW Archer); 8. *Aidophus skelleyi* (male, length 2.5 mm; U.S.A., Florida, Alachua Co., 2.5 mi SW Archer on Rt. 24).

**Type locality:** Chili [Chile]

**Type depository:** Museum national d'Histoire naturelle, Paris (MNHN)

**Redescription:** Length 3.5-4.5 mm, elongate, subcylindrical, moderately convex, subshiny, glabrous. Testaceous; head posteriorly, pronotal disc and sutural interval reddish brown; legs reddish, antennal club yellowish. Head with epistoma feebly convex, finely and sparsely punctate; clypeus subtruncate apically, sides rounded, thinly margined; genae subacute, long setae protruding beyond eyes; frontal suture obsolete; front finely and sparsely punctate. Pronotum transverse, feebly convex, densely, rather sparsely and unevenly punctate; coarse punctures lacking on disc; sides widely arcuate, thinly margined, border with long setae; hind angles broadly rounded; base evenly curved, thinly margined. Scutellum elongate, narrow, subparallel sided, feebly concave, more or less distinctly microreticulate, impunctate. Elytra elongate, subparallel sided, moderately convex; striae fine, rather deep, feebly and almost indistinctly punctate, not crenulate; intervals distinctly microreticulate, moderately convex, finely and sparsely punctate. Hind tibia with superior apical spur slightly shorter than first tarsal segment; latter as long as following three combined. Male: fore tibia with apical spur curved abruptly downward, obliquely truncate apically; pronotum without coarse punctures on disc. Female: fore tibia with apical spur straight and apically acuminate; pronotum with few coarse punctures on disc.

**Distribution:** ?Mexico (In the collection of the Dresden Museum (SMTD) are five specimens labelled "Yucatan, Centralamerika, Coll. C. Felsche, Kauf 20, 1918". This collecting record needs to be confirmed.), Argentina, Chile

**Type material:**

1 female, **lectotype herein designated** (MNHN), bearing the following labels:

- white, handwritten: Chili
- white, handwritten: *flaveolus*/ Harold
- white, printed: ex Musaeo Harold
- red, printed: *Aphodius flaveolus* Harold, 1867/ lectotypus/ Dellacasa M. des. 2001

1 male, **paralectotype herein designated** (SMTD), bearing the following labels:

- white, handwritten: Chili

- white, handwritten: *flaveolus*/ Nov.
- green, printed: Coll. C. Felsche/ Kauf 20, 1918
- red, printed: *Aphodius flaveolus* Harold, 1867/ paralectotypus/ Dellacasa M. des. 2001

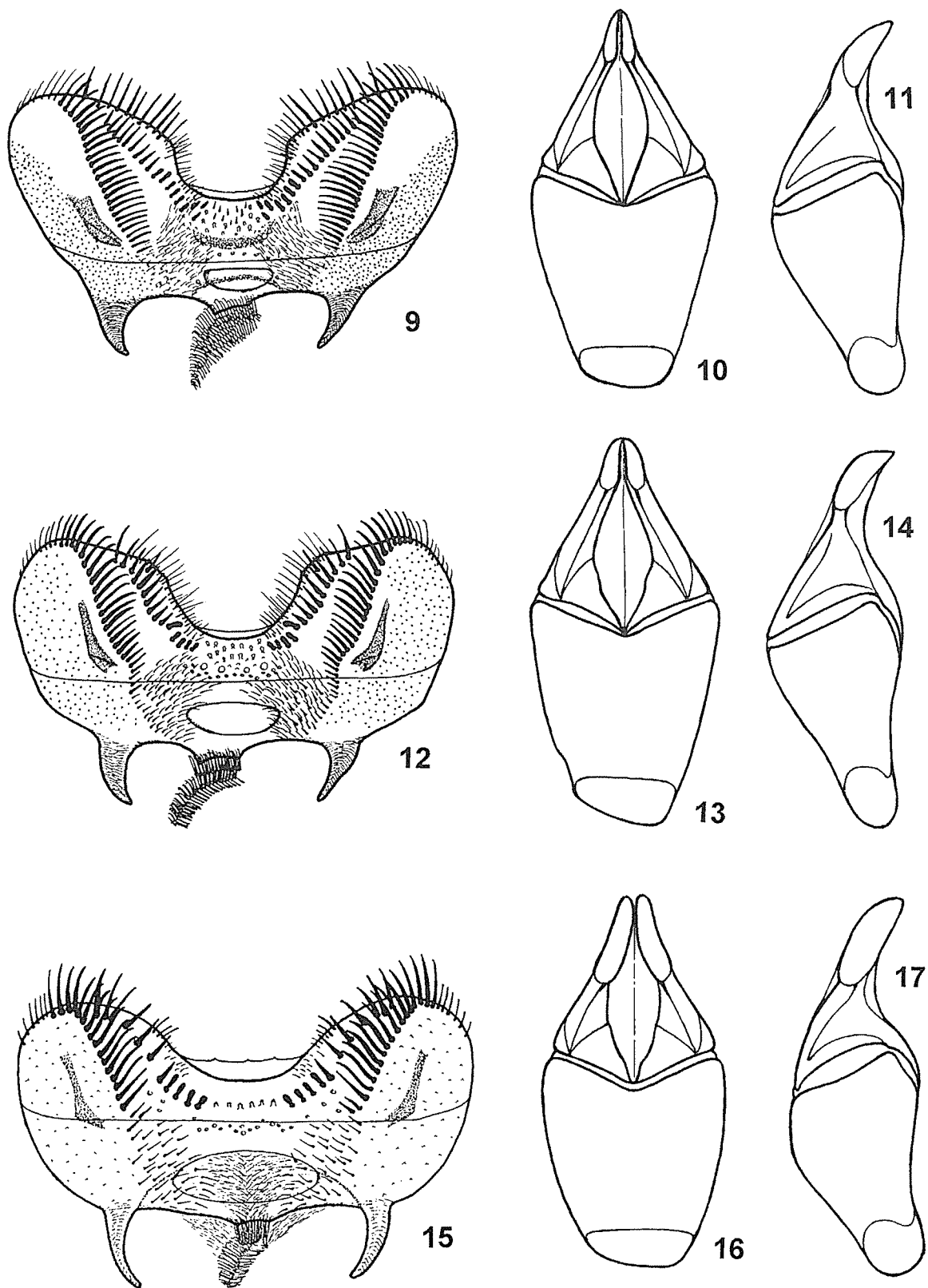
**Material examined: Argentina:** BUENOS AIRES: Bs. As. [Buenos Aires], San Fernando, XII.1959, Daguerre J. leg., 2 exx. (USNM); CHACO: Resistencia, 18[88], Balzan leg., 1 ex. (MCS-NG); CATAMARCA: Alpacinche, 09/10.II.1993, Pena L. E. leg., 180 exx. (DCG); Belen, 24.I.1991, Pena L. E. leg., 77 exx. (DCG); Hualfin, 10.II.1993, Pena L. E. leg., 4 exx. (DCG); Los Nacimientos, 28/29.XI.1983, Pena L. E. leg., 5 exx. (DCG); Punta Balasto, 24.I.1995, Pena L. E. leg., 137 exx. (DCG); *ibidem*, 12.II.1993, Pena L. E. leg., 71 exx. (DCG); CORDOBA: 6 Km E of Chepes, 09.XII.1978, Woodruff R., Runna Cles and Cordo leg., 4 exx. (FSCA); Villafane, I.1947, Martinez A. leg., 5 exx. (HAHC); ENTRE RÍOS: Liebig, 20.XII.1986, Martinez A. leg., 12 exx. (DCG); *ibidem*, I.1987, Martinez A. leg., 1 ex. (DCG); LA RIOJA: nr. Chepes, 09.I.1980, Stange L. A. and Woodruff R. leg., 1 ex. (FSCA); Dique, Los Sauces, 10.XII.1978, Woodruff R., Runna Cles and Cordo leg., 1 ex. (FSCA); Illisca, 08.I.1980, Woodruff R. and Stange L. A. leg., 4 exx. (DCG, USNM); Mascasin, XI.1962, Walz leg., 8 exx. (USNM); Potquia, Amigo, III.1941, Martinez A. leg., 1 ex. (CMN); San Antonio, rt. 29, N of Chepes, 10.XII.1978, Woodruff R., Cordo and Runna Cles leg., 1 ex. (FSCA); Vanegasta, 22.II.1989, Zunino M., Barbero E. and Luzzatto M. leg., 10 exx. (DCG); MENDOZA: Mendoza, 1 ex. (ZMHB); *ibidem*, Coll. Felsche, Kauf 20, 1918, 7 exx. (SMTD); San Rafael, 17.XII.1983, Peña L. E. leg., 1 ex. (DCG); 40Km N San Rafael, 1600 m, 06.XII.1993, Pena L. E. leg., 6 exx. (DCG); SALTA: Curtiembres, 15.II.1993, Pena L. E. leg., 1 ex. (DCG); R. de la Frontera, XII.1959, Daguerre J. leg., 10 exx. (USNM); Tenono, XII.1959, Daguerre J. leg., 2 exx. (USNM); TUCUMAN: Tucuman, Coll. Felsche, Kauf 20, 1918, 1 ex. (SMTD); **Chile:** CHILE, 8 exx. (ISEA, ZMHB).

*Aidophus flechtmani* Stebnicka and  
Dellacasa M., *sp. nov.*  
(figs. 31-33, 42)

**Type locality:** Selvíria (MS BR) [Mato Grosso do Sul, Brazil]

**Type depository:** Museu de Zoologia, Universidade de Sao Paulo, Sao Paulo (MZUSP)





Figures 9-17. Epipharynx and aedeagus (dorsal and lateral view) of: 9-11. *Aidophus notatus*; 12-14. *Aidophus parvus*; 15-17. *Aidophus skelleyi*.