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Studies on the genus *Aphodius* of the United States and Canada (Coleoptera: Scarabaeidae): X. Some new species from central North America

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Abstract: Six new species of *Aphodius* Illiger (Coleoptera: Scarabaeidae) are described from the central United States. They are: *Aphodius ashworthi*, *Aphodius barri*, *Aphodius gardneri*, *Aphodius salsburyi*, *Aphodius sayi*, *Aphodius ulkei*.

Introduction

Survey work in specialized habitats or niches continue to produce new species of North American *Aphodius* Illiger. Some of these species are here described to make names available for several upcoming studies.

Materials and Methods

One of the pending studies mentioned above is a review of the Nearctic Aphodiini (Gordon and Skelley, in prep). The majority of this fauna is inappropriately placed in Old World subgenera (considered genera in Dellacasa *et al.* 2001). Because of the uncertain placement of these species, and the continued debate on what generic limits are in the Aphodiini, all species described here are tentatively placed in *Aphodius*. Their generic or subgeneric placement will be considered later.

An attempt was made to present data verbatim from the labels, including the irregular punctuation and lack of italics. This list is organized alphabetically by state, with the initial citing of a state being bold for easy referencing. The bolding is mine and does not appear on the labels.

Materials were studied over many years, from many different collections. Specimens cited are in the following collections: CMNH - Carnegie Museum of Natural History - Ulke Collection, Philadelphia; EGR - E. Riley, Texas A&M, College Station; FSCA - Florida State Collection of Arthropods, Gainesville; GAS - Glenn A. Salsbury, Greensburg, Kansas; HH - Henry and Anne Howden, Ottawa; JEW - James Wappes, Bulverde, Texas; MJP - M. J. Paulsen, Lincoln, Nebraska; PES - Paul E. Skelley, Gainesville, Florida; RHT - R. H. Turnbow, Jr., Enterprise,

Alabama; SEMC - Snow Entomological Museum, University of Kansas, Lawrence; TAMU - Texas A&M University, College Station; UIM - University of Idaho, Moscow; UNL - University of Nebraska, Lincoln; USNM - U. S. National Museum of Natural History, Smithsonian Institution, Washington, D. C.; WBW - William B. Warner, Chandler, Arizona.

Descriptions

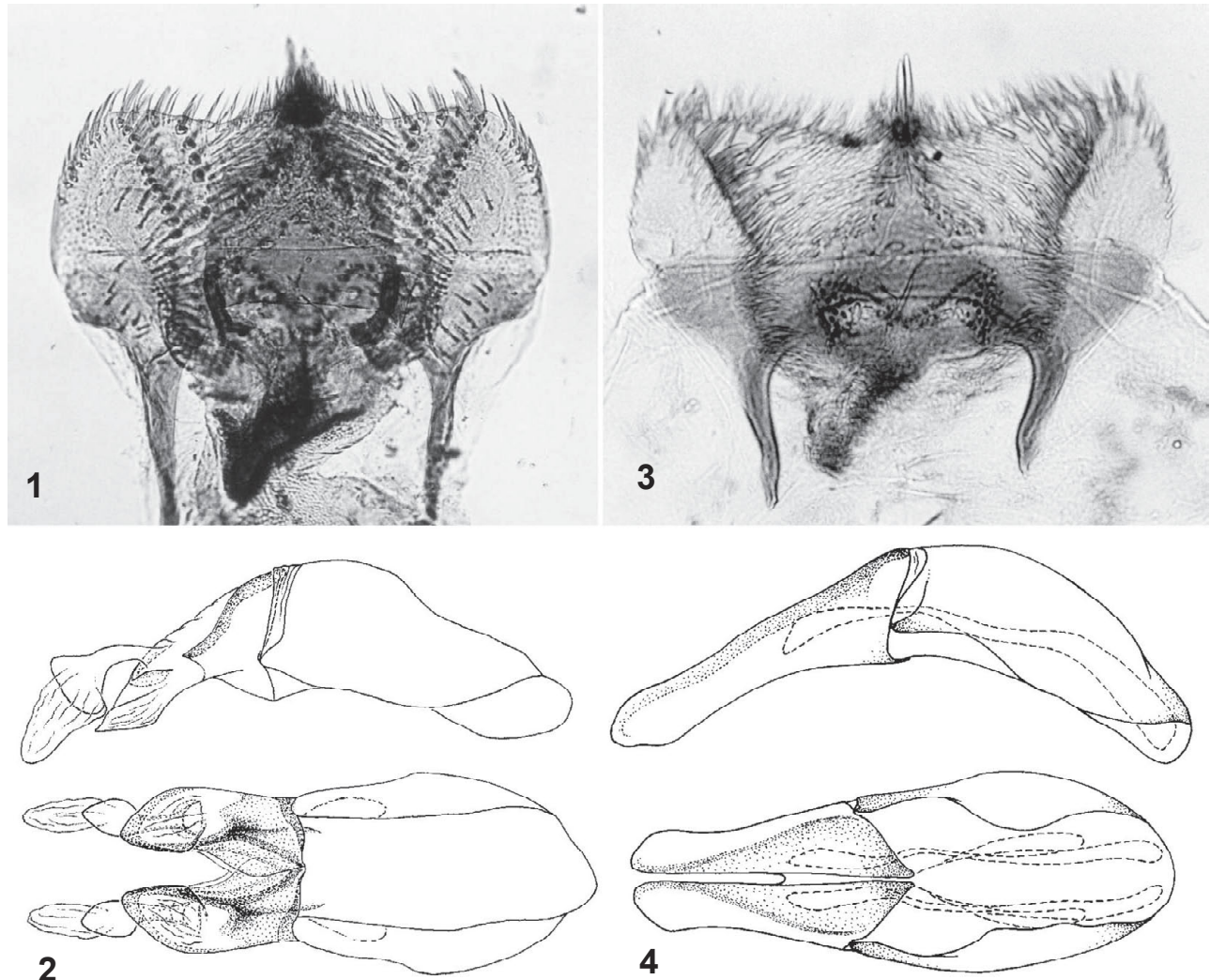
Aphodius ashworthi Gordon new species (Figures 1-2)

Description: Holotype male, length 5.6 mm, width 2.4 mm. Form elongate, widest behind middle of elytra. Color entirely pale brownish yellow. Head with clypeus and frons convex; surface punctured throughout, punctures separated by about a diameter except sparse on median area of clypeus. Pronotum quadrate, wider than elytral bases; surface shiny, with intermixed fine and coarse punctures, coarse punctures nearly absent on disc, becoming dense, nearly contiguous in lateral 1/4. Elytron shiny throughout, slightly rugose at extreme apex; intervals convex, with fine, nearly invisible punctures. Metasternum flat, slightly alutaceous with moderately coarse punctures separated by less than 4 times one diameter. Epipharynx as in Fig. 1. Male genitalia as in Fig. 2.

Female: Similar to male except pronotum more convex, without depression near posterior angle.

Variation: Length 4.5 to 6.0 mm, width 2.3 to 2.7 mm. Color varies from brownish yellow to dark brown (dark brown specimens uncommon).

Type material: Holotype male: **Utah**, San Juan Co., 7000', 12mi E Monticello, 20-VIII-1973, Robert Gor-



Figures 1-4. *Aphodius ashworthi* and *A. barri*, epipharynx and male genitalia in lateral and ventral view. 1-2) *Aphodius ashworthi*; 3-4) *Aphodius barri*.

don, Burrow of *Cynomys gunnisoni zuniensis* (USNM). Allotype: **Wyoming**, Carbon Co., Rawlins, 17-VI-84, Robert Gordon, ex burrow of *Cynomys leucurus* (USNM). Paratypes, 169: (7) same data as allotype; (8) **Arizona**, Flagstaff, 23-V-1978, Robert Gordon, burrow of *Cynomys gunnisoni zuniensis*; (9) USA: AZ: Coconino Co., Mormon Lake (E. side) vi-24-1995, W. B. Warner, collected ex burrow of *Cynomys*; (26) USA: AZ: Coconino Co., Flagstaff, US 89, 3 mi. N. jct. with I-40; AUG-21-2005, W. B. Warner, scooped out of *Cynomys* burrow (prairie dog) (1) USA: [Kansas] KS: Kearney Co., 15 mi. SW of Lavin, VII-16-21-1993, ex *Cynomys* burrow; (1) Kansas, Kearny Co., 15 mi SW Lavin; Kiowa Co., 10 mi NW Mullinville; (4) **Nebraska**, Keith Co., 6 mi S of Paxton, 4-IX-2004, M.J.Paulsen, in loose dirt inside *Cynomys ludovi-*

cianus, prairie dog, burrow; (2) same data except 6-IX-2004; (1) same locality except, N41.06 - W101.40, 14 May 2004, M.J.Paulsen, in flight, prairie dog town; (2) same locality except date 9 OCT 2005; (2) **Nebraska**, Arthur Co., Arapaho Prairie (TNC Preserve), 6 Nov 2004, in flight at dusk, M.J.Paulsen; (1) **Nebraska**, Thomas Co., Nebraska National Forest, 8 JUL 1989, M.L. Jameson, riparian open woodland; (2) **Nebraska**: Morrill Co., 2.7 mi. W. Bridgeport, 26-VIII-2005, R.H.Turnbow, burrow of black tailed prairie dog; (2) **New Mexico**, Catron Co., Luna, 10-VI-1987, Robert Gordon, burrow of *Cynomys gunnisoni zuniensis*; (4) **New Mexico**, Catron Co., O Bar O Ranch, 10 mi NW Beaverhead, 7-VI-1987, Robert Gordon; (1) **South Dakota**, Wind Cave National Park, 11-VIII-1973, Robert Gordon, burrow of *Cynomys ludovicianus*; (61)

same data as holotype; (26) **Utah**, Wayne Co., Lyman, Horse Valley Ranch, 28-V-1974, Robert Gordon, from burrow of *Cynomys parvidens*; (3) **Wyoming**, Rawlins, 23-VI-1977, Gordon and Ashworth, ex burrow of *Cynomys leucurus*; (2) Wyoming, Carbon Co., Rawlins, 31-VII-1973, Robert Gordon, burrow of *Cynomys leucurus*; (1) Wyoming, Medicine Bow, 19mi S, 22-VI-1977, Robert Gordon, burrow of *Cynomys ludovicianus*. (GAS) (MJP) (PESC) (RHT) (UNL) (USNM) (WBW).

Remarks: *Aphodius ashworthi* is most similar to *Aphodius aquilonarius* Brown, but lacks the distinctly reflexed pronotal margins as in *A. aquilonarius*, and the dorsal color tends to be paler, especially on the apical declivity. Most specimens were collected in prairie dog burrows, and are associated with every species of prairie dog occurring north of Mexico. Most specimens were taken inside the burrow entrance, but some were occasionally found feeding on dung pellets buried in the mound outside the entrance (pers. obs.).

Etymology: The species is named for Allan Ashworth, a good friend, beetle collector, and fossil collecting geologist who possesses a rare understanding of the art of collecting cryptic coprophages.

***Aphodius barri* Gordon**
new species
(Figures 3-4)

Description: Holotype male, length 6.5 mm, width 3.4 mm. Form robust, elongate, widest in apical half of elytra. Color brownish yellow; head darker yellowish brown; pronotum dark reddish brown medially, lateral 1/4 paler yellowish brown; elytron with sutural margin narrowly dark brown. Head with frons slightly wrinkled, with feeble, transverse ridge; frontal suture with distinct median tubercle. Pronotum slightly wider than elytral base, smooth, slightly alutaceous, punctures small medially, becoming coarser and denser in lateral 1/4, separated by 1 to 6 times one diameter; lateral margin with marginal line thin, curved in apical 1/4, nearly straight in basal 3/4; basal margin not angled forward in lateral 1/4. Elytron alutaceous, slightly shiny; interval slightly convex, finely punctured. Metasternum with median area slightly depressed, densely, coarsely punctured. Mesotrochanter and mesofemora with numerous punctures bearing long setae. Metafemur with many coarse punctures bearing long setae near posterior

margin. Epipharynx as in Fig. 3. Male genitalia as in Fig. 4.

Female: Similar to male except frontal suture raised medially, lacking distinct tubercle; pronotum equal in width to elytral base, lateral margin feebly, evenly curved from base to apex.

Variation: Length 5.0 to 6.6 mm, width 2.5 to 3.7 mm. Head and pronotum vary from dark to pale brownish yellow.

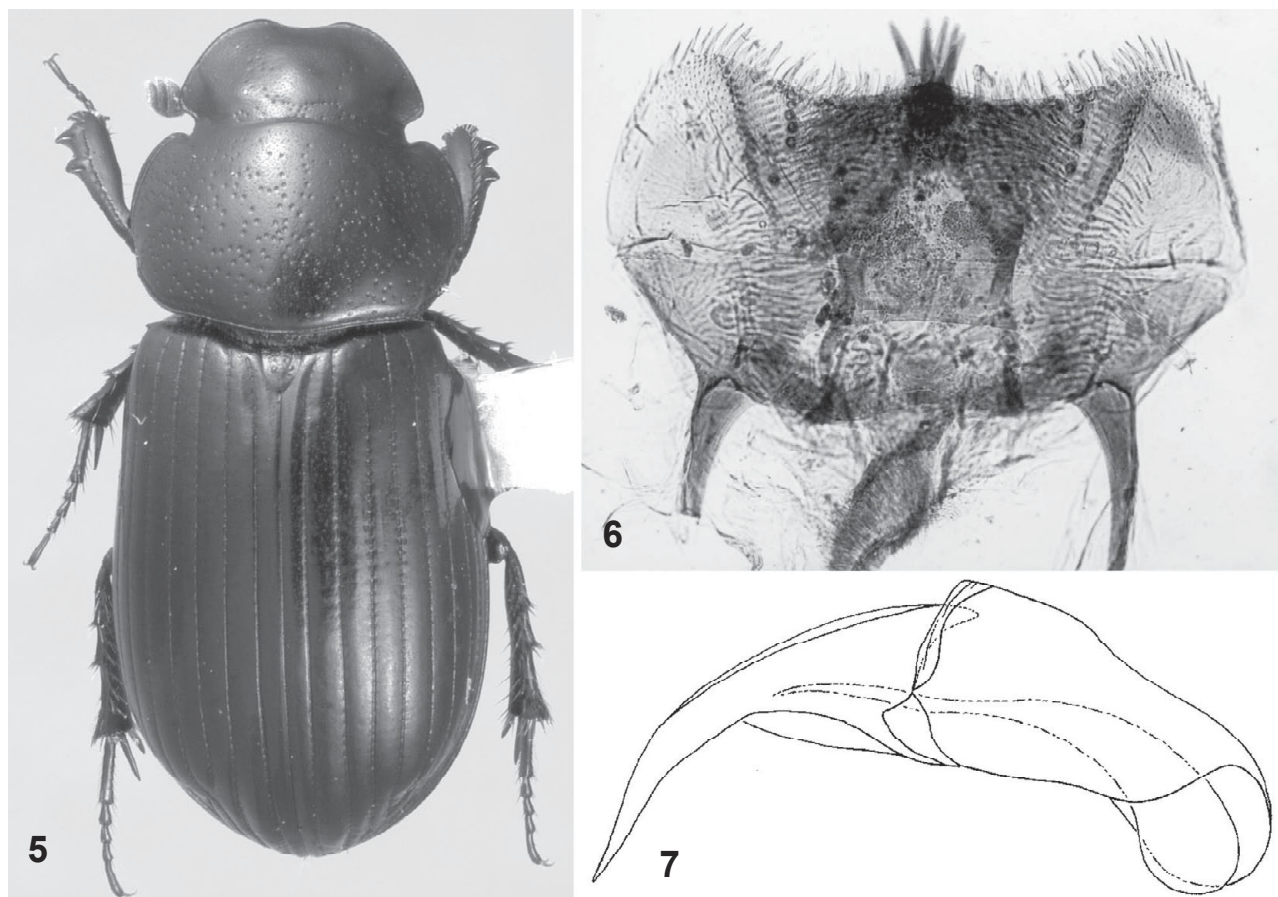
Type material: Holotype male: **Idaho**, Owyhee Co., Bruneau Sand Dunes, near Bruneau, Sept. 14, 1965, Eric Yensen and Joe Sheldon, collectors (USNM). Allotype: same data as holotype (USNM). Paratypes, 72: (62) same data as holotype; (6) U.S.A., Idaho, C. and A. v. Nidek, Bruneau Sand Dunes, 24-31-V-1986; (2) Idaho, Fremont Co., 5 mi. NW St. Anthony, IX-6-67, W.F. Barr Collector; (2) **Nebraska**, Sheridan Co., Lakeside, 15 mi S, IX-1-34, LW Quate Collector. (UIM) (UNL) (USNM) (WBW).

Remarks: This species appears to be restricted to deep sand habitats and is probably a detritivore. However, all specimens were collected at light, so no biological data are available.

Etymology: The species is named for Bill Barr, noted coleopterist with the University of Idaho, and collector of part of the type series.

***Aphodius gardneri* Gordon**
new species
(Figures 5-7)

Description: Holotype male, length 8.0 mm, width 4.1 mm. Body (Fig. 5) oblong, elongate, widest behind middle of elytra, constriction at bases of pronotum and elytra feeble. Color piceous to reddish piceous throughout. Head and clypeus smooth, finely punctate, punctation barely visible. Pronotum rectangular, side slightly explanate in anterior half; hind angle bisinuate; base with complete marginal line; surface with dense, barely perceptible fine punctures, coarse punctures irregularly scattered over entire surface except sparse medially near apical margin. Elytron with humerus denticulate; striae distinctly impressed, stria punctures fine, closely spaced; intervals with minute, barely visible punctures. Metasternum long; wing completely developed. Anterior tibial spur curved inward at apex; inferior mesotibial spur short, curved



Figures 5-7. *Aphodius gardneri*. 5) Dorsal habitus; 6) Epipharynx; 7) Male genitalia in lateral view.

inward. Epipharynx as in Fig. 6. Male genitalia as in Fig. 7.

Female: Description as for male except pronotum not as broad, not explanate in anterior half; anterior tibial spur slender, feebly curved downward; inferior mesotibial spur straight, unmodified.

Variation: Length 7.25 to 9.25 mm, width 3.90 to 4.0 mm.

Type material: Holotype: **Missouri**, Packrat Cave, Shannon Co., 6.5 mi NW Round Spring, 18 Apr. 1984, J.E. Gardner (USNM). Allotype: same data as holotype (USNM). Paratypes, 11: (2) same data as holotype; (2) Missouri, Chimney Rock Cave, Barry Co., 9 mi. E. Cassville, 22 January, 1980, J.E. Gardner; (4) Missouri, Hilltop Cave, Texas Co., 11 mi NNW Licking, 5 Apr. 1979, J.E. Gardner; (2) Missouri, Little Cave, Pulaski Co., 6 December 1978, J.E. Gardner; (1) **Texas**, Belfrage. (USNM). **Other specimens:** **Oklahoma**. Latimer Co., XII-1987, Karl

Stephan; Seminole Co., 9 mi SE Bowlegs Whiskey Cave, 4.I.1974, W.H. Black. (EGR) (FSCA) (HH) (UNL).

Remarks: This species is similar in appearance to the Pacific Coast *A. (Stenotothorax) sparsus* LeConte. The following characters distinguish *A. gardneri*: male pronotum larger, broader, more strongly explanate in apical half; elytral striae with closely spaced punctures; and male anterior tibial spur curved inward rather than abruptly hooked. All paratypes were collected in Missouri caves with the exception of the paratype labeled "Texas, Belfrage" which has no further data. "Belfrage" is not a locality. Gustaf Wilhelm Belfrage, was a Swedish collector who moved to Texas in the 1860s (pers. comm. M. Forshage).

Specimens from Oklahoma are considered to be *A. gardneri* but differ slightly from the typical form and are not designated as paratypes. They differ very little but have more pronounced posterolateral angles and slightly coarser clypeal punctures.

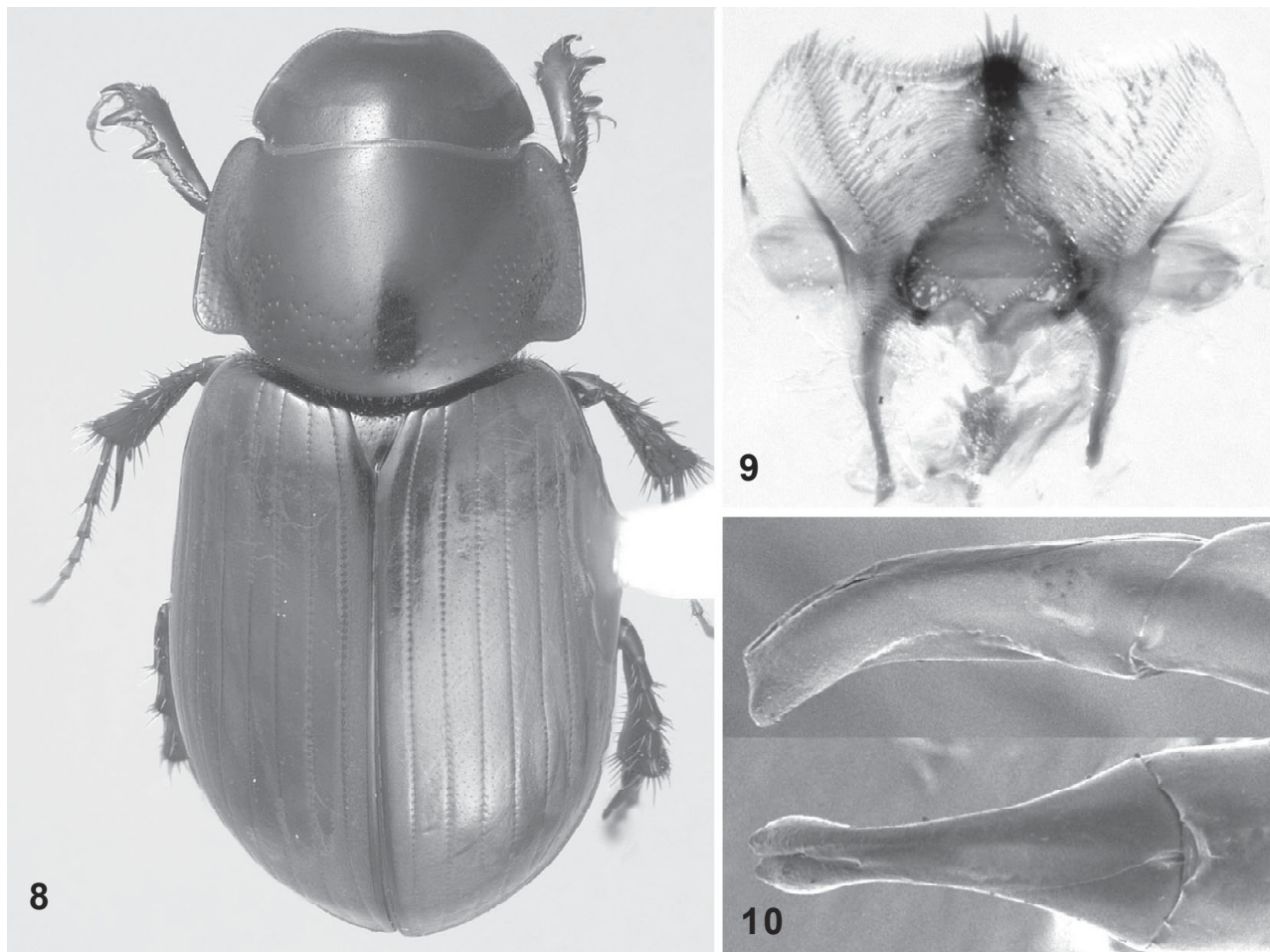
The collector of most of the type specimens, J. E. Gardner (pers. comm.), stated that packrats inhabit the caves where specimens were collected, often in large numbers. No direct evidence links *A. gardneri* with packrat dung, but it is reasonable to suppose such a connection exists in view of the known proclivities of *A. sparsus*.

Etymology: This species is named for J. E. Gardner who collected all of the Missouri specimens examined.

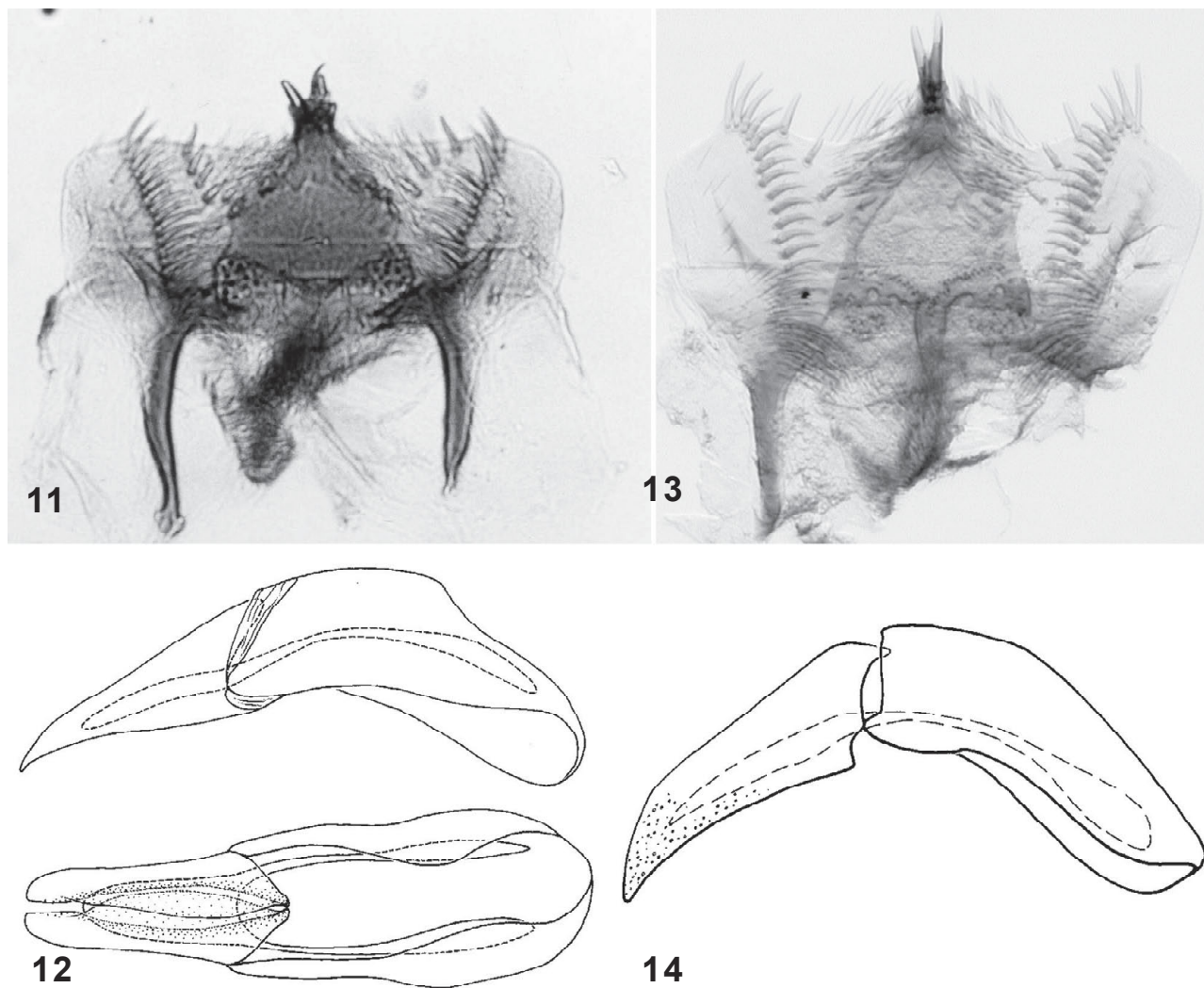
***Aphodius salsburyi* Gordon**
new species
(Figures 8-10)

Description: Holotype male, length 5.8 mm, width 2.9 mm. Body (Fig. 8) short, broad, widest posterior to middle of elytra; color dark reddish brown except anterior margin of head, lateral pronotal margin and elytron paler yellowish brown. Head finely punctured,

impunctate medially, punctures separated by less than to several times one diameter, clypeus smooth, apex broadly, feebly emarginate, lateral angle broadly rounded. Pronotum broad, as wide as widest portion of elytron, constricted at basal 1/6; lateral margin extremely broadly explanate, feebly flared; posterior angle forming right angle with base, rounded, deeply excavated; basal margin not bordered, strongly sinuate with median 3/4 strongly projecting posteriorly; pronotal surface shiny, nearly impunctate medially except with some coarse punctures on median projection, lateral 1/4 with intermixed coarse and fine punctures, punctures separated by one diameter or more, becoming denser toward lateral margin, contiguous in and near posterolateral concavity. Elytron shiny, striae distinctly impressed, strial punctures large, separated by less than one diameter, intervals feebly convex with many fine, irregularly scattered punctures. Protibia with apical spur slightly enlarged, evenly curved, approximately equal to length



Figures 8-9. *Aphodius salsburyi*. 8) Dorsal habitus; 9) Epipharynx; 10) Male genitalia in lateral and dorsal view.



Figures 11-14. *Aphodius sayi* and *A. ulkei*, epipharynx and male genitalia in lateral and ventral view. 11-12) *Aphodius sayi*; 13-14) *Aphodius ulkei* (male genitalia in lateral view only).

of basal 2.5 tarsal segments. Meso- and metatrochanter with 4 long setae, inner 2 setae longer than outer 2. Meso- and metafemur with irregular row of long setae along hind margin from trochanter to femoral apex. Mesotibia with apical setal fringe composed of alternating long and short setae, long setae as long as inferior tibial spur, inferior spur half length of superior spur, slender, unmodified. Metatibia with apical fringe as for mesotibia except long setae shorter than inferior apical spur, inferior metatibial spur 2/3 length of superior spur, superior spur as long as basal tarsal segment. Epipharynx (Fig. 9) transverse, side rounded, apical margin sinuate, epitorma conical, corypha slightly protruding above anterior margin, with apical clump of rather short spinules, pedia almost glabrous laterally, distinctly pubescent toward epitorma, chaetopariae moderately dense, short. Male gen-

italia (Fig. 10) with paramere long, curved, parameres united for most of length.

Female: Similar to male except pronotum slightly narrower, more convex; protibial spur less strongly curved.

Variation: Length 5.5 to 6.0 mm, width 2.5 to 3.1 mm.

Type material: Holotype: Texas, Mason Co., Pontotoc, Kothman Ranch, 18/1/1997, *Geomys texensis* nest, Godwin, Wappes, Gibson. (USNM). Allotype: Same data as holotype. (USNM). Paratypes, 42: (3) **Kansas.** Kiowa Co., 5 mi N Greensburg; 20 Nov. 1996, G. Salsbury, in flight; (2) same data except date

8 Dec. 1996; (1) Kansas, Kiowa Co., 10 mi NW Mullinville, 30 Mar. 1997, G. Salsbury, in flight; (1) same locality, 30 Mar. 1997, G. Salsbury, prairie dog burrow. (4) **Texas**, Llano Co., Llano, 19 mi. NW, 16-23/I/1995, *Geomys texensis* burrows, Wm. Godwin, J. Wappes; (1) Texas, Llano Co., nr. Briscoe Mt.; (4) Texas, Mason Co., Pontotoc, Kothman Ranch, 19/I/1997, *Geomys texensis* nest, Godwin, Wappes, Gibson; (1) **Nebraska**, Greeley Co., 10 mi. N. Greeley, 3-X-2004, M.J. Paulsen, in flight before sunset; (1) Nebraska, Greeley Co., 10 mi. N. Greeley, W. jct. Hwys 281 & 91, N41.697 - W98.542, 10 Oct 2004, M. J. Paulsen, sandhills, in flight pre sunset; (2) same locality, 3 Apr 2005, M.J. Paulsen, sandhills, in flight late afternoon to sunset; (2) same locality, 3 Apr 2005, M. J. Paulsen, in pocket gopher burrow, *Geomys bursarius*, in fur of dead gopher; (1) same locality, 3 APR 2005, M. J. Paulsen, Sandhills, in flight late afternoon to before sunset; (14) same locality, 17 Apr 2005, M. J. Paulsen, feces-baited pitfall trap in burrow of pocket gopher, *Geomys bursarius*; (2) same locality, 17 APR 2005, M. J. Paulsen, sandhills, in flight pre sunset; (1) same locality, 24 Apr 2005, M. J. Paulsen, [pocket] gopher burrow baited pitfall; (3) Nebraska, Sheridan Co., 3.2 mi S of Lakeside, N 42°00'27" W 102°23'22", Sandhills prairie, in flight before sunset; 1195 m, 14 OCT 2005, M. J. Paulsen. (GAS) (JEW) (MJP) (PESC) (TAMU) (UNL) (USNM).

Biology: *Aphodius salsburyi* has been found in burrows of pocket gophers (*Geomys* spp.) in Texas and Nebraska, and in burrows of prairie dogs (*Cynomys ludovicianus*) in southern Kansas. It has also been collected in flight over burrowing rodent colonies in Kansas.

Remarks: *Aphodius salsburyi* is most similar to *A. oklahomensis* Brown and *A. atwateri* Cartwright in external morphology and male genitalic structure. *Aphodius salsburyi* is characterized by the basally constricted pronotum and the unmodified inferior mesotibial spur in males, thus far unique in this group of rodent burrow associates.

Etymology: The species is named for Glenn Salsbury, a long time colleague, excellent beetle collector, and collector of some of the paratypes listed above.

Aphodius sayi Gordon
new species
(Figures 11-12)

Description: Holotype male, length 4.4 mm, width 2.1 mm. Form elongate, widest in apical half of elytra. Color yellowish brown; head reddish brown with dark brown vertex; pronotum dark brown except lateral 1/6 reddish brown; elytron primarily yellowish with narrow dark brown, transverse band medially, elytral declivity pale reddish brown. Head coarsely punctured, wrinkled anterior to frontal suture, with strong, transverse ridge; frontal suture with large, low median tubercle; clypeal apex with large, distinctly triangular tooth on each side. Pronotum convex, wider than elytral bases, smooth, with coarse punctures separated by 1 to 3 times one diameter medially, becoming nearly contiguous laterally; lateral margin with lateral line thin, slightly curved in anterior 1/4; basal margin angled forward in lateral 1/4. Elytron shiny; intervals convex, finely, sparsely punctured. Metasternum with median area slightly depressed, shiny, sparsely, densely punctured. Mesotrochanter, mesofemora with sparse, somewhat coarse punctures, those along posterior margin bearing setae. Metafemur with several coarse punctures throughout, those near posterior margin bearing setae. Epipharynx as in Fig. 11. Male genitalia as in Fig. 12.

Female: Similar to male except pronotum slightly narrower.

Variation: Length 3.7 to 4.9 mm; width 1.7 to 2.3 mm. Elytron with postscutellar spot on second interval often absent; apical declivity of elytron often with dark brown, transverse area occupying most of declivity.

Type material: Holotype male: **Texas**, Denison, 2/13/08, Hunter No 1463, CR Jones Collector (USNM). Allotype: Texas, Dallas, 1.6.07, R.A. Cushman collector (USNM). Paratypes, 72: (2) **Kansas**, Topeka, Popenoe, Apr 27; (1) [Kansas] Riley Co., Nov, Marlatt; (1) Kansas Douglas Co., 900 ft., R. H. Beamer; (3) Kansas, Wellington; (1) **Nebraska**, Omaha, Oct. 15, 1923, Owen Bryant Collector; (2) Nebraska, Lancaster Co., Roca, fallow field, in flight dusk, 19-X-2003, M.J. Paulsen; (1) Nebraska, Cass Co., Platte River State Park, meadow in flight at dusk, 1-IV-2004, M.J. Paulsen; (1) [**Oklahoma**], Ardmore, I.T., 4.5.08, Hunter No 1487, C.R. Jones Collector; (3) Oklahoma, Cotton Co., Devol, 2-29-44, G.A. Bieberdorf; (3) Oklahoma, Hobart, xi-15-49, Mrs. G.E. Martin; (2) Oklahoma, Payne County, XI-14-1923, IV-5-1925, W.J. Brown; (3) Oklahoma, Stillwater, XI-15-23, W.J.B; (4) [**Texas**] Tex., no further data; (6) Texas, Belfrage; (2) Texas, Arlington, 2.20.08, Hunter No 1467, C.R.

Jones Collector; (4) Texas, Calvert, 2.27.8, Hunter No 1482, C.R. Jones Collector; (1) same data as allotype; (2) Texas, Dallas; (2) Texas, Dallas, XII.21.06, R.A. Cushman collector; (1) Texas, Dallas, III.2.08, E S Tucker Collector; (2) Texas, Dallas, II-15-13; (17) same data as holotype; (7) Texas, Gainesville, 12-15-21, 12-4-22, EERussell Collector; (2) Texas, Junction, Cimble [Kimble] Co., III-29-30, A. & M.E. Blanchard; (1) Texas, N. Braunfels; (2) Texas, N. Braunfels, 17.11.95, H. Soltau Collection; (1) Texas, N. Braunfels, Coll. Hubbard and Schwarz; (6) Texas, Wolfe Cy., II.17.08, Hunter No. 1465, C.R. Jones Collector. (MJPC) (SEMC) (USNM).

Other specimens: **Kansas.** Riley Co., Manhattan. **Texas.** Brazos Co., Batts Ferry. (GAS) (TAMU).

Remarks: *Aphodius sayi* is closely related to *A. serval*, sharing similar genitalia and external features. *Aphodius sayi* has a clypeus bearing distinct, triangular teeth and a head that is rugose with a transverse clypeal ridge. *Aphodius serval* has a clypeus bearing abrupt angulations, not teeth, and has a head that is coarsely punctate, but flattened. Nothing is known of the biology of *A. sayi*, but it probably occupies the same general niche as *A. serval*.

Etymology: This species is named for Thomas Say whose contributions to American entomology have been many.

***Aphodius ulkei* Gordon**
new species
(Figures 13-14)

Description: Holotype male, length 5.8 mm, width 2.8 mm. Form elongate, widest behind middle of elytra. Color reddish yellow except head, pronotum, leg darker reddish yellow. Clypeus bidentate, frons rugose, with some fine punctures laterally. Vertex finely punctured, punctures separated by one diameter or less. Pronotum finely punctured medially in apical 1/3, punctures separated by one diameter or less, punctures extremely coarse basally laterad of median area, 8-10 times as large as punctures on vertex, separated by one diameter, punctures near lateral margin less coarse, nearly contiguous; posterior angle obsolete; lateral margin crenate, anterior, posterior depressions well defined; basal margin crenate in lateral 2/3. Elytron with surface shiny, glabrous, punctures on interval slightly larger than

on anterior 1/3 of pronotum, separated by one diameter or more. Epipharynx as in Fig. 13. Male genitalia as in Fig. 14.

Female: Similar to male except pronotum not as broad; anterior and posterior depressions not as deep.

Variation: Length 4.8 to 5.8 mm, width 2.6 to 2.8 mm.

Type material: Holotype male: **Colorado**, Nunn, Pawnee Grassland Range 36, Owl Cr. Crossing, April 15, 1971, coll. R. Lavigne, F. Lavigne. (USNM). Allotype: [**Nebraska**] "Neb", Henry Ulke Beetle Coll. CMNH Acc. No. 1645 (CMNH). Paratype, 1: Same data as allotype. (CMNH).

Remarks: *Aphodius ulkei* is related to *Aphodius (Cinacanthus) crenicollis* Fall, differing in shape and punctuation of the pronotum. Although the habitat is unknown, it is probably a rodent burrow associate as are other species in the group. There are prairie dogs on the Pawnee National Grassland in Colorado, and also in western Nebraska where the allotype and paratype were probably collected.

Etymology: The species is named in honor of Henry Ulke, noted American coleopterist and colleague of J. LeConte and other prominent coleopterists of the time.

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Dellacasa, G., P. Bordat and M. Dellacasa. 2000 [2001]. A revisional essay of world genus-group taxa of Aphodiinae (Coleoptera Scarabaeoidea: Aphodiidae). *Memorie della Società Entomologica Italiana* 79: 1-482.