

EIGHT NEW NORTH AMERICAN SPECIES OF ANOBIIDAE WITH KEYS AND NOTES (COLEOPTERA)

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ABSTRACT—The 8 new species described are *Oligomerus angusticollis*, *O. cylindricus*, *O. enervatus*, *O. grossus*, *O. priapus*, *O. texanus*, *Euvrilletta arizonica* and *Utobium granulatum*. A discussion of the characters of *Oligomerus* includes a new diagnosis for it; a key including the new species is provided for the North American species. *Hemicoelus nelsoni* (Hatch) is revalidated, and a key to North American *Hemicoelus* is given. *Oligomerus arbuti* Fisher is transferred to *Xyletomerus*, and *Oligomerus oregonensis* Hatch is synonymized with *arbuti*. The 29 illustrations are of the new species, their near relatives, and the male antenna of *Eucrada robusta* VanDyke.

The following descriptions and notes result largely from my examination of collections recently sent to me.

Oligomerus Redtenbacher

Oligomerus Redtenbacher, 1849:347.

During this work I have seen the holotype of *Oligomerodes delicatulus* Fall (MCZ type number 2464) and have concluded that it belongs in *Oligomerus* NEW COMBINATION.

I have examined the male genitalia of most species of *Oligomerus* (only those of *brevipilis* Fall, *californicus* Fall, and *delicatulus* (Fall) not seen) and found strong generic similarities (below). Characters of the new species below differ somewhat from those of old species of *Oligomerus*, so I here give diagnostic characters for *Oligomerus* (including notes on male genitalia) as follows: antenna 9–11 segmented, intermediate segments not over $\frac{1}{2}$ as wide as segments of club; pronotum produced medially before base into a more or less distinct crest and with other evident to quite distinct irregularities, lateral margin moderately broadly explanate (crest, irregularities, and margin least developed in *sericans*), surface distinctly granulate throughout; elytral striae distinctly punctured (except in *enervatus*, n. sp.); median lobe of male genitalia (fig. 20–26) with a longitudinal ridge (most strongly developed in new species), palplike process of each lateral lobe elongated, narrow, and curving, lateral lobe at apex acute and pointed inward (except in *alternans* Lec.).

For notes on the status of *Oligomerus arbuti* Fisher and of *O. oregonensis* Hatch see below under *Xyletomerus*.

During construction of the key below I examined members of all species.

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KEY TO THE NORTH AMERICAN SPECIES OF OLIGOMERUS

1. Front coxae separated by about $\frac{1}{2}$ transverse coxal diameter; hairs of dorsal surface distinctly bristling (fig. 7); northeast U.S. to Minnesota *sericans* (Melsheimer)
- Front coxae touching to separated by not over $\frac{1}{3}$ transverse coxal diameter; hairs of dorsal surface appressed or weakly bristling (fig. 8, 9), rarely moderately bristling; various localities 2
- 2(1). Length 2.3–2.9 mm; California and Arizona 3
- Length 3.7–7.2 mm; various localities 4
- 3(2). Antenna of 9 or 10 segments; front and middle coxae separated *tenellus* Fall
- Antenna of 11 segments; front and middle coxae touching *delicatulus* Fall
- 4(2). Middle coxal cavities confluent, not separated by meso- and metasternal processes 5
- Middle coxal cavities separated by meso- and metasternal processes 9
- 5(4). Pronotum 0.8 times as wide as elytra; punctures of elytral striae lacking distinct granules; male genitalia as in fig. 26; New Mexico *angusticollis*, new species
- Pronotum 0.9 times as wide as elytra to fully as wide; punctures of elytral striae usually finely granulate; male genitalia as in fig. 20, 21, 23, 24, 25; Texas, Arizona, New Mexico, and Oregon 6
- 6(5). Ninth antennal segment of male about 1.2 times as long as all preceding segments united; Arizona and New Mexico; male genitalia as in fig. 25 *cylindricus*, new species
- Ninth antennal segment of male never longer than all preceding segments united; Texas and Oregon 7
- 7(6). Length 7.2 mm; Oregon; male genitalia as in fig. 23 *grossus*, new species
- Length 3.8–5.2 mm; Texas; male genitalia as in fig. 20, 21, 24 8
- 8(7). Male genitalia with median lobe much elongated, fig. 20, 21; 3.8–4.8 mm *priapus*, new species
- Male genitalia not as above, as in fig. 24; 5.2 mm *texanus*, new species
- 9(4). Pubescence of head and thorax moderately bristling (nearly as strongly as in fig. 7); eastern U.S. to Wisconsin and Louisiana *brevipilis* Fall
- Pubescence of head and thorax not to weakly bristling (fig. 8, 9); various localities 10
- 10(9). Length about 4.1 mm; slender, about 2.8 times as long as wide; California *californicus* Fall
- Length 3.7–7.2 mm; robust, 2.6–2.7 times as long as wide; Oregon and northeastern U.S. 11
- 11(10). Metasternal intercoxal process angulate, acute 12
- Metasternal intercoxal process obtuse to arcuate 13
- 12(11). Elytral intervals distinctly convex; northeastern U.S. *alternans* Leconte
- Elytral intervals weakly convex; Oregon to British Columbia *crestonensis* Hatch

- 13(11). Pronotum at base with depression each side of median crest (fig. 12); elytral striae obsolete; Oregon *enervatus*, new species
 — Pronotum nearly evenly rounded throughout; elytral striae distinct; northeastern U.S. *obtus* Leconte

Oligomerus angusticollis White, new species

fig. 26

General: Body elongate, cylindrical, a little over $3\times$ as long as wide, sides of elytra subparallel for about basal $\frac{3}{4}$; body red brown, antenna brown, head, pronotum, legs and ventral surface clouded with or predominantly brown; pubescence very short, sparse, with a dull yellow luster, that on head and pronotum bristling, that on elytra appressed.

Head: Surface with fine, not dense granules on minutely granulate background; eyes separated by $1.5\times$ vertical diameter of eye. Antenna 11 segmented, roughly $0.8\times$ as long as body in male (last segment absent), 1st segment arcuate, more than $2\times$ as long as wide, 2nd segment widest near apex, a little longer than wide, 3rd through 8th segments weakly serrate, 3rd segment a little longer than wide, segments 4 through 8 transverse, terminal ones most distinctly so, 9th segment longer than all preceding united, sides subparallel, $6\times$ as long as wide, 10th segment similar in shape, $8\times$ as long as wide, (11th segment missing). Last segment of maxillary palpus subfusiform, about $2.5\times$ as long as wide; last segment of labial palpus subfusiform, apex pointed, a little over $2\times$ as long as wide.

Dorsal surface: Pronotum narrow, sides concave in dorsal view, $0.8\times$ as wide as elytra at base, disk with longitudinal crest before base that is weakly compressed, with fine, longitudinal impression from crest to apex; lateral margin sharp, complete, explanate, at extreme side surface concave; sculpture of fine granules, moderate to sparse in density, on finely punctate, moderately shiny background. Scutellum a little wider than long, narrowed to apex. Elytra with distinct, even striae, formed of round to elongate punctures clearly but not precisely aligned in rows, intervals weakly convex, surface minutely granulate-punctate.

Ventral surface: Prosternum before coxae about $\frac{1}{3}$ length of a coxa; anterior coxae elongated, subconical, approximate. Middle coxae touching, subconical. Metasternal intercoxal process angulate, obtuse, surface near middle punctate, at sides granulate-punctate. Abdominal surface finely, densely punctate, 5th segment of male shallowly depressed before apex.

Length: 5.3 mm.

The ♂ holotype (no. 72669 in USNM) and only specimen, bears the data "Cloudcroft, New Mex., Wickham; Wickham Collection 1933".

In addition to the characters given in the key this species differs from *cylindricus* (to which it is most closely allied) in that the lateral lobes of the male genitalia have the apices less strongly produced inwardly.

The specific name, meaning narrow neck, refers to the narrow prothorax.

Oligomerus cylindricus White, new species

fig. 25

General: Body elongate, cylindrical, $2.9\times$ as long as wide, elytral sides subparallel for about basal $\frac{3}{4}$; body and appendages brown to red brown, elytra often a little lighter than remainder; pubescence short, moderately dense, dull tan, largely appressed, that on head and pronotum minutely bristling.

Head: Surface with fine, moderately dense granules on minutely granulate background; eyes separated by $1.6\text{--}1.8\times$ vertical diameter of eye. Antenna 11 segmented, $0.8\times$ as long as body in male, 1st segment arcuate, about $2\times$ as long as wide, 2nd segment widest near apex, a little longer than wide, 3rd through 8th segments weakly serrate, 3rd segment a little longer than wide, segments 4 through 8 transverse, 9th segment a little longer than all preceding segments united and with sides subparallel, about $5\times$ as long as wide, 10th segment similar in shape, about $6\times$ as long as wide, 11th segment $10\times$ or more as long as wide. Last segment of maxillary palpus subfusiform, about $2\times$ as long as wide; last segment of labial palpus similar except apex more pointed.

Dorsal surface: Pronotum about $0.9\times$ as wide as elytra at base, sides as seen from above nearly straight, disk with moderately produced, weakly compressed crest before base, with longitudinal impression from crest to apex; lateral margin sharp, complete, explanate, at extreme side surface nearly flat to weakly concave; sculpture of distinct, moderately dense granules on finely granulate background. Scutellum a little wider than long, apex rounded. Elytra with more or less distinct striae, punctures sometimes in poor alignment, often distinctly granulate, intervals usually convex, surface minutely, transversely rugose.

Ventral surface: Prosternum before coxae nearly $\frac{1}{2}$ length of a coxa; anterior coxae elongate, subconical, narrowly separated. Middle coxae narrowly separated. Metasternal intercoxal process arcuate to weakly angulate, most of surface finely, densely granulate, granulate-punctate near middle. Abdominal surface finely, densely punctate, 5th segment of male depressed before apex.

Length: 4.5–5.9 mm.

The ♂ holotype (in OSU) and 9 ♂ paratypes bear the following "Chiricahua M., VII-26-52. Ar., D.J. & J.N. Knull Collrs." (6 in OSU, 3 in USNM). Seven additional ♂ paratypes have essentially the same data but differ as follows: "VIII-2-52", 1 in OSU; "VII-12-52", 3 in OSU; "VII-29-55", 1 in OSU, 1 in USNM; "VII-22-53", 1 in OSU. Finally a ♂ paratype (in OSU) bears "Sacramento M., VII-29-37, N.M.; D.J. & J.N. Knull Collrs."

For a discussion of a character in addition to that given in the key for separation of this species from *angusticollis* (its nearest relative) see under the latter species.

The specific name refers to the cylindrical body shape.

Oligomerus enervatus White, new species

fig. 12

General: Body elongate-cylindrical, $2.8\times$ as long as wide, elytral sides subparallel for about basal $\frac{3}{5}$; ground color red brown nearly throughout, antennae

slightly lighter and body margins darker, pronotum irregularly, vaguely darkened; pubescence very short, fine, sparse, appressed, with yellow luster, that on pronotum difficult to detect.

Head: Surface with fine, dense granules on minutely granulate background; eyes small, bulging, separated by $2\times$ vertical diameter of an eye. Antenna 11 segmented, $0.3\times$ as long as body in female, last 3 segments a little longer than all preceding united, 1st segment broad, arcuate, 2nd and 3rd segments elongate, each about $2\times$ as long as wide, segments 4, 5, and 7 subequal, each about as wide as long, segments 6 and 8 subequal, about as wide as long and smaller than segments 4, 5, and 7, segments 9 and 10 subequal, but 9 a little longer, broader than 10, each about $2\times$ as long as wide, widest before apex, 11th segment $3\times$ as long as wide. Last segment of maxillary palpus subfusiform, widest medially, a little more than $2\times$ as long as wide; last segment of labial palpus subtriangular, a little longer than wide, outer angle pointed, inner angle broadly rounded.

Dorsal surface: Pronotum widest basally, slightly wider than elytra at base, medially before base with a distinct, produced crest, surface before crest shallowly depressed, each side of crest more distinctly depressed, surface at side inflated; lateral margin sharp, complete, produced and explanate; sculpture throughout of moderate-sized, dense granules on finely granulate background. Scutellum large, about $\frac{1}{3}$ wider than long, apex nearly truncate. Elytral striae subobsolete but traceable on disk and apex, more distinct at sides, intervals almost perfectly flat; sculpture of very fine, minute granulation.

Ventral surface: Prosternum before coxae about $\frac{3}{4}$ length of a coxa; anterior coxae separated by about $\frac{1}{3}$ transverse coxal diameter. Middle coxae separated by about $\frac{1}{3}$ transverse coxal diameter. Metasternal process between middle coxae broadly arcuate, surface granulate-punctate, with granulation predominating anteriorly and at sides. Abdomen granulate-punctate with punctation predominating.

Length: 6.5 mm.

The ♀ holotype (USNM no. 72671) bears the data "Grants Pass, Ore., August 18, 1966, Blk. light trap, Kenneth Goeden; *Hadrobregmus* sp., det. R.L. Westcott".

In addition to the differences given in the key, *obtusus* differs from this species in that the front coxae are separated by about $\frac{1}{4}$ of the transverse coxal diameter, and the last segment of the labial palpus is subfusiform, and about $2\times$ as long as wide. In *enervatus* the front coxae are separated by about $\frac{1}{3}$ of the transverse coxal diameter, and the labial palpus is subtriangular and a little longer than wide.

The specific name, meaning weakened, refers to the weak elytral striae.

Oligomerus grossus White, new species

fig. 23

General: Body elongate cylindrical, $2.8\times$ as long as wide, elytral sides subparallel for about basal $\frac{2}{3}$; body black, infused with red in many areas, tarsi and antennae brown, legs dark brown; pubescence very short, sparse, primarily appressed, head and pronotum with very short, bristling hairs, elytra with sparser bristling hairs, hairs on elytra very vaguely coalescing on intervals.

Head: Surface with fine, dense granules on minutely punctate, granulate background; eyes bulging, separated by $1.5\times$ vertical diameter of eye. Antenna 11 segmented, a little over $\frac{1}{2}$ as long as body in δ , last 3 segments much elongated, $2.7\times$ as long as all preceding united, 1st segment broad, arcuate, 2nd shorter, a little longer than wide, segments 3 thru 8 serrate, each widest apically, 3rd segment almost $1.5\times$ as long as wide, segments 4 and 5 about as wide as long, segments 6, 7, and 8 wider than long, 9th segment widest just beyond middle, about $4\times$ as long as wide, 10th segment weakly arcuate, sides subequal in width at apical $\frac{2}{3}$, about $6\times$ as long as wide. Last segment of both maxillary and labial palpi subfusiform, that of former a little over $2\times$ as long as wide, that of latter a little less than $2\times$ as long as wide.

Dorsal surface: Pronotum nearly as wide as elytra at base, disk with longitudinal crest before base weakly compressed, with fine, longitudinal impression before apex, surface depressed before base and at sides before lateral margin; latter complete, sharp, explanate; sculpture of fine, dense granules on minutely granulate background, disk nearly lusterless, sides moderately shiny. Scutellum moderate in size, a little wider than long, apex rounded. Elytra with traceable striae, latter depressed and set with fine granules, granules primarily in or near depressions of striae, surface very finely punctate and transversely rugose.

Ventral surface: Prosternum before coxae a little less than $\frac{1}{2}$ length of a coxa, anterior coxae subconical, very narrowly separated. Middle coxae subconical, very narrowly separated. Metasternal intercoxal process narrowly arcuate, surface finely granulate-punctate, punctures most distinct near middle. Abdomen finely punctate throughout; 5th segment slightly depressed before apex in male.

Length: 7.2 mm.

The δ holotype (USNM no. 73382) bears the data "ORE., 3 mi. E. of Summer Lk. Lake Co., 12 VIII 69, Kenneth Goeden; *Chrysothamnus nauseosus*".

The male of this species is as large as the female of any of the other described species. If the normal situation of the female being larger than the male of the same species holds for this species, then it will be easily the largest species of the genus.

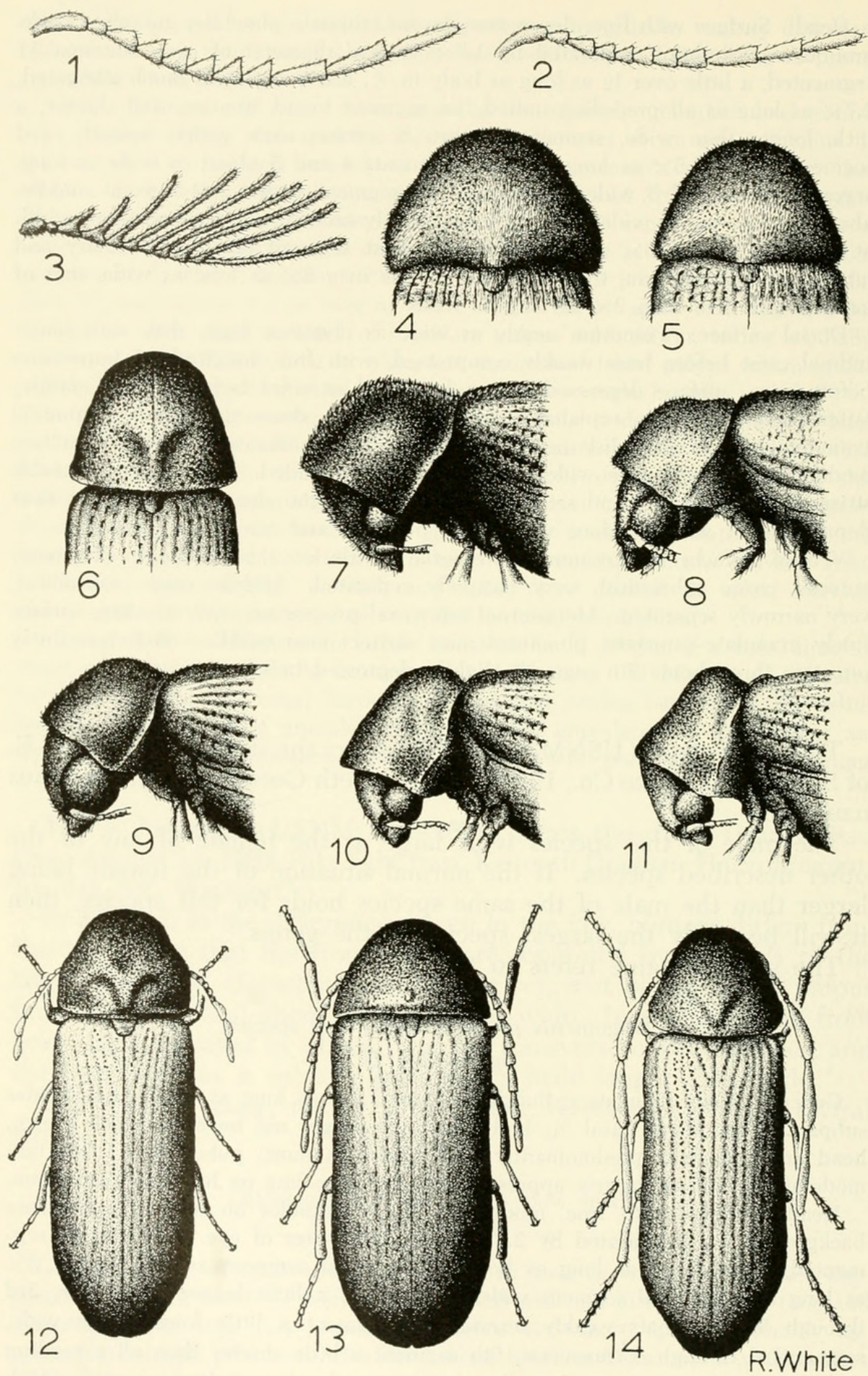
The specific name refers to the size.

Oligomerus priapus White, new species

fig. 14, 20, 21

General: Body elongate cylindrical, about $2.8\times$ as long as wide, elytral sides subparallel for about basal $\frac{3}{4}$; body and appendages red brown to dark brown, head and pronotum predominantly dark brown in most; pubescence short, tan, moderate in density, largely appressed, minutely bristling on head and pronotum.

Head: Surface with fine, moderately dense granules on minutely granulate background; eyes separated by $2.0\times$ vertical diameter of eye. Antenna 11 segmented, about $0.7\times$ as long as body in male, 1st segment arcuate, nearly $2\times$ as long as wide, 2nd segment widest near apex, a little longer than wide, 3rd through 8th segments weakly serrate, 3rd segment a little longer than wide, segments 4 through 8 transverse, 9th segment a little shorter than all preceding united, outer margin very broadly arcuate, nearly $4\times$ as long as wide, 10th



segment similar in shape, about $5\times$ as long as wide, 11th segment about $7\times$ as long as wide. Last segment of maxillary palpus subfusiform, about $2\times$ as long as wide; last segment of labial palpus subtriangular, about $2\times$ as long as wide.

Dorsal surface: Pronotum fully as wide to a little wider than elytra at base, sides from dorsal view nearly straight, disk with moderately produced, weakly compressed crest before base, with feeble indications of impression from crest to apex; lateral margin sharp, complete, explanate, at extreme side surface nearly flat to weakly concave; sculpture of distinct, moderately dense granules, background minutely sculptured, moderately shiny. Scutellum a little wider than long, apex rounded. Elytra with more or less traceable striae formed of granulate punctures, latter often poorly aligned, intervals often weakly convex, surface minutely, transversely rugose.

Ventral surface: Prosternum before coxa nearly $\frac{1}{2}$ length of a coxa; front coxae elongate, subconical, narrowly separated to touching. Middle coxae narrowly separated. Metasternal intercoxal process narrowly arcuate to nearly angulate, surface finely, densely granulate, at middle granulate-punctate. Abdominal surface finely, densely punctate, 5th segment of ♂ flat to weakly depressed before apex.

Length: 3.8–4.8 mm.

The ♂ holotype (in OSU) and 4 ♂ paratypes (2 in OSU, 2 in USNM) bear the data "Davis Mts., VII-11-55 Tex.; D.J. & J.N. Knull Collrs." The data on a single ♂ paratype (in OSU) differs from the above only in "VII-15-55".

This species is quite similar to *texanus*, new species, with the length (5.2 mm for *texanus*) and male genitalia offering the chief differences.

My first thought on examination of the male genitalia of *priapus* was that I had a specimen in which the genitalia were malformed, for on occasion in my anobiid genital dissections, I have found individuals in which the lateral lobes are much reduced from the normal condition in the species. However, I have examined the genitalia of 3 males of *priapus* and all match the illustrations (fig. 20, 21) closely, with the median lobe much produced and curving, and the lateral lobes short. The genitalia of *priapus* are markedly different from that of the other members of the genus that I have seen (fig. 22–26).

The specific name refers to the genitalia.

←

Fig. 1–3. Male antennae. 1, *Euvrilletta serricornis* White. 2, *E. arizonica*, n. sp. 3, *Eucrada robusta* VanDyke. Fig. 4–6. Pronota. 4, *Xyletomerus arbuti* (Fisher). 5, *X. histricus* Fall. 6, *Hemicoelus laticollis* (Fall). Fig. 7–11. Partial views, lateral. 7, *Oligomerus sericans* (Melsh.). 8, *O. crestonensis* Hatch. 9, *O. alternans* Lec. 10, *Hemicoelus nelsoni* (Hatch). 11, *H. gibbicollis* (Lec.). Fig. 12–14. Dorsal views. 12, *Oligomerus enervatus*, n. sp., female holotype. 13, *Euvrilletta arizonica*, n. sp., male. 14, *Oligomerus priapus*, n. sp., male.

Oligomerus texanus White, new species

fig. 24

General: Body elongate cylindrical, a little over $2.8\times$ as long as wide, elytral sides subparallel for about basal $\frac{2}{3}$; head, pronotum, sterna, legs, and antennae dark brown, elytra and abdomen dark red brown clouded with dark brown, tarsi brown; pubescence dark red brown, extremely fine and short, with dull gray-yellow luster, primarily appressed, head and pronotum with very short bristling hairs, elytra with shorter, sparser bristling hairs.

Head: With fine, dense granules on minutely granulate background; eyes bulging, separated by $2\times$ vertical diameter of eye. Antenna 11 segmented, $\frac{5}{8}$ as long as body in male, last 3 segments about $3\times$ as long as all preceding united, 1st segment weakly arcuate, about $2\times$ as long as wide, 2nd segment a little longer than wide, segments 3 thru 8 serrate, 3rd segment longer than wide, segments 4 thru 8 wider than long, 9th segment weakly arcuate, sides subparallel, about $10\times$ as long as wide. Last segment of maxillary palpus widest medially, tip pointed, about $2.5\times$ as long as wide; last segment of labial palpus similar, but tip less pointed.

Dorsal surface: Pronotum slightly wider than elytra at base, disk with moderate, weakly compressed crest before base; lateral margin sharp, produced, complete, explanate; with fine, dense granules on minutely granulate background, disk with weak luster, remainder moderately shiny. Scutellum a little wider than long, apex rounded. Elytra with traceable to obsolete striae formed of irregular, shallow punctures set with granules, surface also minutely granulate and transversely rugose.

Ventral surface: Prosternum before coxae about $\frac{1}{3}$ length of a coxa; front coxae subconical, touching. Middle coxae touching, subconical. Metasternal intercoxal process nearly forming a right angle, surface punctate near middle, granulate anteriorly and at sides. Abdomen finely punctate throughout.

Length: 5.2 mm.

The ♂ holotype (in OSU) and only specimen bears the data "Jeff Davis Co., VII-12-50. Tex; D.J. & J.N. Knull Collrs."

This species is most similar externally to *priapus* from which it differs primarily in length (3.8–4.8 mm for *priapus*) and also in male genitalia. The genitalia of *texanus* are normal in form as opposed to the aberrant genitalia of *priapus* (fig. 20, 21). Also, the lateral lobes of *texanus* are more distinctly tapering to the apex than are those of the genitalia of any other species that I have seen.

Oligomerus crestonensis Hatch

fig. 8

Oligomerus crestonensis Hatch, 1961:316.

The following is intended to supplement the original description of this species. I have assigned the name on the basis of a paratype (in UW) with the following data "Deschutes River, near Terrebonne, Ore., 7-20-41. col. Schuh & Gray; *Oligomerus*?; PARATYPE, *Oligomerus crestonensis*, 1958-M. Hatch".

General: Body $2.7\times$ as long as wide; red brown nearly throughout, pronotum slightly darker; pubescence short, sparse, primarily appressed, head and dorsal surface with short bristling hairs.

Head: Finely, densely granulate; eyes separated by $1.6\times$ vertical diameter of eye. Ninth antennal segment nearly as long as all preceding united; entire antenna a little over $\frac{1}{2}$ as long as body. Terminal palpal segments subfusiform, each about $2\times$ as long as wide.

Dorsal surface: Pronotum $0.85\times$ as wide as elytra at base, surface finely, densely granulate; lateral margin moderately explanate, medially with fine, longitudinal impression. Elytral striae of well-aligned punctures, latter with minute, not distinct granules, intervals between striae weakly convex.

Ventral surface: Prosternum before coxae about $\frac{1}{2}$ length of a coxa; front coxae narrowly separated. Middle coxae narrowly separated, cavities not confluent, separated by meso- and metasternal processes. Metasternal intercoxal process acutely angulate, surface finely, densely granulate. Abdomen finely, densely granulate, 5th segment vaguely depressed before apex.

Length: 5.8 mm.

Utobium Fall

Utobium Fall, 1905:134.

Following is a new species with notes and a partial, revised key to species of *Utobium* including the new species.

Utobium granulatum White, new species

fig. 28

General: Elongate-cylindrical, body $2.5\times$ as long as wide; ground color black, elytral apices brown in part, antennae brown, legs predominantly brown, black in part; surfaces granulate, background shiny; surfaces with moderately dense, moderately long, light colored, generally appressed pubescence, bristling in part on head and abdominal apex, that on elytra predominantly black, but with off white and light orange hairs, light colored hairs forming obscure pattern.

Head: Surface granulation moderately large and dense, background shiny; eyes small, bulging, separated by $2.3\times$ vertical diameter of eye; antenna 11 segmented, last 3 segments enlarged and elongate, segments 5 and 7 subequal to segment 10, segments 1-4, and 6 and 8 small, latter 2 serrate. Last segment of maxillary palpus $2\times$ as long as wide, widest medially, apex broadly arcuate; last segment of labial palpus subtriangular, a little longer than wide, inner angle broadly rounded.

Dorsal surface: Pronotum with moderately large and dense granules, evenly distributed; pubescence along side of pronotum off white with few intermixed pale orange hairs, pubescence medially on pronotum largely dark and difficult to detect, at base with only few light hairs. Elytral granulation dense, moderately large, on shiny background; with patches of light pubescence, off white pubescence most prominent in transverse patch at basal $\frac{1}{3}$ and another at apical $\frac{1}{3}$, light orange pubescence primarily along side and at median suture.

Ventral surface: Metasternum moderately coarsely granulate-punctate. Abdomen finely granulate-punctate.

Length: 5.1 mm.

The ♂ holotype (in USNM, no. 72670) bears the data "Ile d'Anticosti, Riv. Jupiter, Dupl., Quebec, 18-VI-73, Claude Chantal". It was taken on an old balsam fir (*Abies balsamea*).

In my key to species of *Utobium* (White, 1966), the present species runs to near *griseum* though in fact it is most similar to *elegans*. The two differ as follows: in *granulatum* the background color is almost entirely black and the light elytral pubescence is mixed off white and light orange. The background color of *elegans* varies from red brown to dark brown, and the light elytral pubescence is almost entirely off white, with little to no light orange hairs.

I have compared the female holotype of *U. griseum* White with *granulatum* and have made the following notes. In *griseum* the light elytral hairs are almost entirely off white with only a few light orange hairs on the humerus and infrequent ones along the median suture. In *granulatum* the light elytral hairs are mixed off white and light orange with most of the latter being from the humerus to along the side of the elytron and along the median suture. Also the pronotal disk of *granulatum* bears large, dense granules on a shiny background (the specific name is in reference to the granulation); the pronotal disk of *griseum* has small, dense granules on a mostly non-reflective background. Only along the median line of the pronotum of *griseum* is the background shiny.

To accommodate the new species my key to species of *Utobium* should be altered as follows:

1. Ground color of dorsal surface black throughout to nearly throughout 2
- Ground color of dorsal surface mixed orange and dark reddish to dark reddish brown 3
2. Light elytral hairs almost entirely off white, with few orange hairs; pronotal disk granulate and shiny only along medial line; California *griseum* White
- Light elytral hairs about equally off white and orange; pronotal disk granulate and shiny throughout; Quebec *granulatum* White
3. (as present couplet 2)

Euvrilletta Fall

Euvrilletta Fall, 1905:196.

Oligomerodes Fall, 1905:161, NEW SYNONYM.

I have compared *Euvrilletta xyletinoides* Fall with *Oligomerodes catalinae* Fall (type-species of the respective genera) and have found that they are congeneric. The greatest differences that I find are as follows: in the latter species the middle coxae are touching, the last segments of the palpi are fusiform, and the tarsi are long and narrow; in the former species the middle coxae are narrowly separated, the last segments of the palpi are subtriangular, and the tarsi are short and broad. These differences are not sufficient for generic separation.

In addition, the male genitalia are in close agreement; the genitalia of *O. catalinae* (fig. 17) are of the same basic form as that of members of *Euvrilletta* (see fig. 18).

Considering the very high quality of the taxonomic work done by H. C. Fall, it would seem quite unlikely that he would have made the error of describing the same genus in two different subfamilies (*Oligomerodes* in Anobiinae, *Euvrilletta* in Xyletininae), however, he did. On my own part, it can be regarded as an oversight that I had not earlier discovered this synonymy in my work on the Anobiidae. The very high reliance that I have come to place on Fall's work as a basis for my own studies led to an insufficiently critical attitude.

Although the name *Oligomerodes* appeared in print earlier in Fall's paper than did *Euvrilletta*, I select the latter as the name for this category. This genus properly belongs in Xyletininae, and my recent additions to the genus make it the larger of the two (5 species including the new species below, as opposed to 2 species). This selection will best insure stability of nomenclature. My future work will include a key to all known species of *Euvrilletta*.

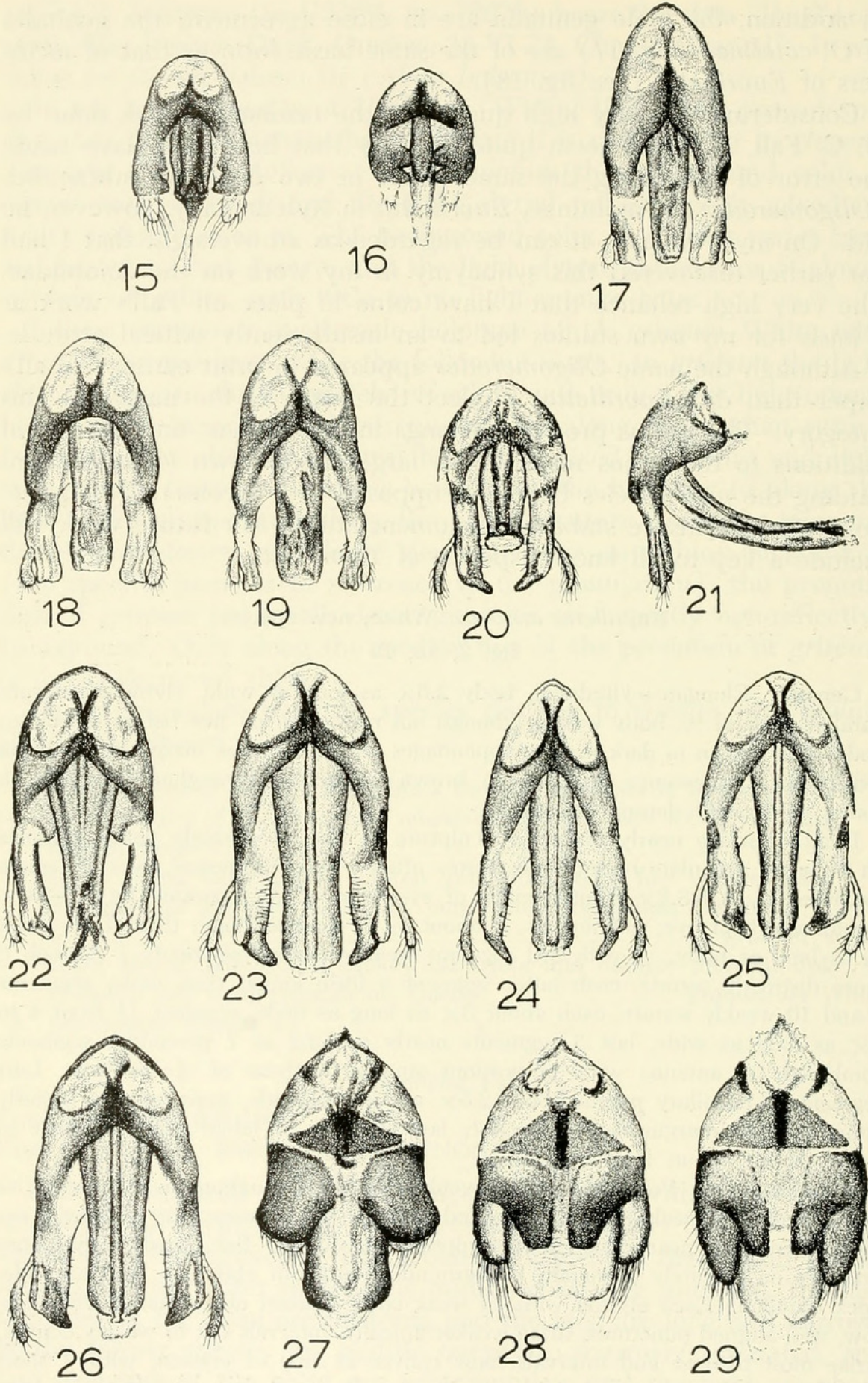
Euvrilletta arizonica White, new species

fig. 2, 13, 19

General: Elongate-cylindrical, body $2.6\times$ as long as wide, elytral sides subparallel in basal $\frac{1}{2}$, body widest (though not markedly so) just before apical $\frac{1}{3}$; body color brown to dark brown, appendages and often some margins and sterna red brown; pubescence dull tan to brown, appressed throughout, with weak luster, moderately dense, very short.

Head: Surface nearly lusterless, sculpture of fine, moderately dense granules on minutely granulate background, vertex often weakly impressed, eyes of female separated by $3.0-3.2\times$ frontal width of eye, eyes of δ separated by $1.6-2.0\times$ frontal width of eye; antenna of δ about $\frac{1}{2}$ as long as body, that of η about $\frac{1}{3}$ as long as body, δ with 3rd segment weakly serrate, segments 4 through 8 more distinctly serrate, each latter segment a little longer than wide, segments 9 and 10 weakly serrate, each about $3\times$ as long as wide, segment 11 from 4 to $5\times$ as long as wide, last 3 segments nearly as long as 7 preceding segments combined, η antenna with proportions similar to those of δ antenna. Last segment of maxillary palpus about $2.5\times$ as long as wide, inner margin broadly arcuate, outer margin nearly straight; last segment of labial palpus similar in shape, about $2\times$ as long as wide.

Dorsal surface: Pronotum nearly evenly rounded throughout in both sexes, at side sometimes weakly inflated, lateral margin sharp, complete, narrowly explanate, surface nearly lusterless, sculpture at side of fine, moderately dense granules on minutely granulate background. Scutellum about as long as wide, apex rounded. Each elytron with 10 weak striae formed of elongated, very narrow, well-aligned punctures, striae weaker apically, intervals flat to weakly convex, striae most distinct and intervals most convex at side of elytron, with 1 short scutellar and 1 subhumeral stria, surface very finely, densely granulate, at base with larger granules.



Ventral surface: Metasternal process behind middle coxae acutely angulate, surface at middle finely, longitudinally grooved throughout, finely, densely granulate. Abdomen finely, densely granulate-punctate, 5th segment normal to vaguely depressed medially.

Length: 3.4–4.9 mm.

The ♂ holotype (in OSU) and 4 ♂ paratypes (3 in OSU, 1 in USNM) bear the data "Chiricahua M., VII-24-70 Ar.; D.J. & J.N. Knull Collrs." Three paratypes (2 ♂♂ in OSU, 1 ♀ in USNM) bear the same data except for the date VII-25-70. Two ♂ paratypes (1 in OSU, 1 in USNM) bear "Portal Ariz., Chiricahua Mts., VII-30-70; D.J. & J.N. Knull Collrs." Two final paratypes (1 ♂, 1 the allotype, both in OSU) bear "ARIZ.: Sta. Rita Mts. Madera Can.", the allotype has the remaining data "2-VIII-72; D.J. & J.N. Knull Collrs.", the other has "VII-18-1969; D.J. & J.N. Knull Collrs." The state is misspelled "ARIR." on the label of the latter specimen.

This species is most closely related to *E. serricornis* White and runs to the latter in my key (White, 1973b); *arizonica* differs from *serricornis* in a number of characters. The intermediate segments of the antenna of *serricornis* (fig. 1) are more distinctly serrate than are those of *arizonica* (fig. 2); the lateral lobes of the male genitalia of *serricornis* (fig. 18) are broader than are those of *arizonica* (fig. 19); and *serricornis* is 4.8–5.8 mm long while *arizonica* is 3.4–4.9 mm long. Also *serricornis* is known just from Nevada, and *arizonica* is known from Arizona.

Hemicoelus Leconte

Hemicoelus Leconte, 1861:204.

Following is revalidation of a species synonymized in error. Past keys to species of *Hemicoelus* are out of date (Fall, 1905; Knutson, 1963) so the discussion is followed by a revised key to species.

Hemicoelus nelsoni (Hatch)

fig. 10, 15

Hadrobregmus nelsoni Hatch, 1961:318.

Genitalic dissection of a good series now available to me has shown this species to be valid. I was thus mistaken in synonymizing it

←
Fig. 15–29. Male genitalia. 15, *Hemicoelus nelsoni* (Hatch). 16, *H. gibbicollis* (Lec.). 17, *Euvrilletta catalinae* (Fall), cotype. 18, *Euvrilletta serricornis* White. 19, *E. arizonica*, n. sp. 20, 21, *Oligomerus priapus*, n. sp. 22, *O. obtusus* Lec. 23, *O. grossus*, n. sp., holotype. 24, *O. texanus*, n. sp., holotype. 25, *O. cylindricus*, n. sp. 26, *O. angusticollis*, n. sp., holotype. 27, *Utobium marmoratum* Fisher. 28, *U. granulatum*, n. sp., holotype. 29, *U. elegans* (Horn).

with *H. gibbicollis* Lec. (White, 1973a, p. 357). In *nelsoni* the median lobe of the genitalia bears 3 teeth (fig. 15) while that of *gibbicollis* lacks teeth (fig. 16), and there are other obvious differences in the genitalia such as in the lateral lobes. The chief external differences are in the form of the pronotum as follows: in *gibbicollis* the peak of the pronotum is more distinctly produced, and the margin is less extensive and is broadly interrupted (fig. 11); in *nelsoni* the peak of the pronotum is less produced, and the lateral margin is more extensive, and is more narrowly interrupted (fig. 10). In addition there are subtle differences in the form of the elytral apices. The strial punctures at the elytral apex of *nelsoni* show a greater tendency for confusion than do those of *gibbicollis*, and the elytral apex of *nelsoni* is more clearly truncate than is that of *gibbicollis*.

KEY TO NORTH AMERICAN SPECIES OF HEMICOELUS

1. Pronotum $0.95\times$ as wide as base of elytra to fully as wide (fig. 6); California *laticollis* (Fall)
- Pronotum 0.7 to $0.9\times$ as wide as base of elytra; various localities 2
- 2(1). Lateral pronotal margin obliterated to weakly indicated by produced, discrete granules, never sharp or distinct before base; northern U.S. and southern Canada *defectus* (Fall)
- Lateral pronotal margin sharp and distinct at least in part before base (sometimes very short) to sharp and distinct throughout 3
- 3(2). Lateral pronotal margin interrupted medially or largely obliterated before base; California to Alaska 4
- Lateral pronotal margin complete throughout; eastern to western North America 5
- 4(3). Lateral pronotal margin narrowly interrupted, pronotal crest less produced (fig. 10); male genitalia fig. 15; Oregon *nelsoni* (Hatch)
- Lateral pronotal margin broadly interrupted, pronotal crest more produced (fig. 11); male genitalia fig. 16; California to Alaska *gibbicollis* (Leconte)
- 5(3). Smaller, length 2.1–2.8 mm; northeastern U.S. *pusillus* (Fall)
- Larger, length 3.1–5.8 mm; northeastern U.S. west to California and north to Alaska 6
- 6(5). Abdomen near middle finely punctate and shiny, with little to no indication of granules; northeastern U.S. to Missouri and Manitoba, Canada; common *carinatus* (Say)
- Abdomen near middle finely punctate and nearly always with distinct, fine granulation, less shiny; northeastern North America west to California and north to Alaska; infrequent *umbrosus* (Fall)

Xyletomerus Fall

Xyletomerus Fall, 1905:197.

Following are new combinations, a new synonym, and a key to North American species of *Xyletomerus*.

Xyletomerus arbuti (Fisher), NEW COMBINATION

fig. 4

Oligomerus arbuti Fisher, 1919:296.*Oligomerus oregonensis* Hatch, 1961:316, NEW SYNONYM, NEW COMBINATION.

Examination of the female holotype of *arbuti* (USNM no. 21427), along with two female paratypes, discloses that Fisher placed this species in the wrong genus. The female holotype of *Oligomerus oregonensis* Hatch (in UW; with data "ORE.: McMinnville, June 5, 1942, K. M. Fender; TYPE *Oligomerus oregonensis* 1957 M. H. Hatch") is identical with *arbuti*.

I have seen 4 males of *X. histricus* Fall (the only other species of the genus). I find a number of differences in comparing the 4 males of *histricus* with the 4 females of *arbuti*, as follows: in *histricus* the eyes are separated by almost exactly 2.5 times the vertical diameter of 1 eye, the head is more sparsely granulate and more shiny, the antenna is more elongate, about 0.35–0.40 times as long as the body, the pronotal sides are weakly inflated (fig. 5), and the length ranges from 2.9–3.1 mm; in *arbuti* the eyes are separated by 2.8–3.0 times the vertical diameter of 1 eye, the head is more densely granulate and less shiny, the antenna is less elongate at about 0.3 times as long as the body, the pronotal sides are distinctly inflated (fig. 4), and the length ranges from 3.2–3.7 mm. I regard it as very likely that the above differences are sexual, and that the 2 species I have examined represent male and female of 1 species. This is not certain, however, and I prefer to await more conclusive data before uniting the two names.

KEY TO NORTH AMERICAN SPECIES OF XYLETOMERUS

1. Length 2.9–3.1 mm; eyes separated by $2.5\times$ vertical diameter of 1 eye; pronotal sides weakly inflated (fig. 5) *histricus* Fall
- Length 3.2–3.7 mm; eyes separated by $2.8\text{--}3.0\times$ vertical diameter of 1 eye; pronotal sides distinctly inflated (fig. 4) *arbuti* (Fisher)

Eucrada robusta VanDyke

fig. 3

Eucrada robusta VanDyke, 1918:6.

Eucrada robusta VanDyke was described from a unique female. Hatch (1961, p. 310) provided a brief description, but again just of the female. I have seen a male from Wallowa Mts., Oregon (in ODA) and have made an illustration of the antenna (fig. 3). Unfortunately, I have no female of the species for direct comparison. The male agrees well with the original description except for antennal differ-

ences. All I can now add to the known data is that the male is 7 mm long, making the known range in length for the species 7–8 mm.

Eucrada robusta and the only other North American species of the genus, *E. humeralis* (Melsh.), are quite readily distinguished. The latter is primarily dull black but with the humeri and most of the pronotum orange, whereas *robusta* is dull black throughout. In addition, *humeralis* occurs from Quebec to South Carolina, and west to Iowa and Michigan; *robusta* is found from British Columbia to Oregon.

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