SIX NEW ANOBIIDAE FROM NORTH AMERICA WITH KEYS
(COLEOPTERA)

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The new species described are from various North American collections as cited. New or revised keys including the new species are presented for all affected genera except the large genus *Ernobius*. Thanks are due to P. H. Freytag of the Ohio State University (collection referred to as OSU), A. T. McClay of the University of California at Davis (UCD), P. J. Darlington of The Museum of Comparative Zoology at Harvard (MCZ), and V. M. Kirk formerly at Clemson College (CC) for loan of specimens used in this study; also my thanks are extended to P. J. Darlington for examining the type of *Euceratocerus hornii* Lec. The abbreviation USNM refers to the U.S. National Museum.

Genus **Utobium** Fall

Utobium griseum, n. sp.
(Fig. 5)

General: Elongate, cylindrical, body 2.4 times longer than wide; ground color black, surfaces very faintly shiny, abdomen dark reddish, legs dark reddish to distinctly reddish, antennae reddish brown, tarsi lightest; head with bristly grayish, black, and orange pubescence intermixed; dorsal surface with patches of fine appressed grayish pubescence and indistinct black pubescence, orange pubescence very sparse, just detectable, beginning on humeri and becoming obsolete posteriorly, also detectable at elytral suture near middle to apex; ventral surface with fine, appressed, grayish pubescence evenly distributed; head and dorsal surface finely, densely granulate, granulation densest on pronotal disk and base of elytra.

Head: Antennae of single specimen a little less than ⅓ length of body; first segment robust, a little longer than wide; 2nd segment shorter, cylindrical, 2 times longer than wide; 3rd segment slightly longer than 2nd, more slender, over 2 times longer than wide; 4th segment triangular, about as long as and with proportions of 2nd; 5th segment elongate, triangular, broad, nearly as long as 2nd and 3rd combined; 6th segment short, triangular, about as long as 2nd, a little longer than wide; 7th segment elongate, triangular, outer angle rounded, about as long as 5th, nearly 2 times longer than wide; 8th segment nearly identical with 6th; 9th, 10th, and 11th segments elongate, together as long as first 5 segments combined, 9th nearly 2 times longer than wide, outer margin arcuate, 10th triangular, 2 times longer than wide, 11th over 3 times longer than wide, widest near middle; last segment of maxillary palpus 1.5 times longer than wide, widest before middle, apex truncate; last segment of labial palpus triangular, as wide as long.

Dorsal surface: Pronotal disk with 3 transverse to oblique bands of grayish pubescence, these bands interrupted at middle; gray elytral pubescence in irregular patches, near elytral suture forming indistinct oblique bands; irregular large punctures evident on elytra, most distinct near sides.

Length: 7.4 mm.

This species is described from a single individual (holotype, sex unknown) collected at Mt. Lassen, California on 2 July 1963 by D. J. and J. N. Knull; it is in The Ohio State University collection. Following is a key for the separation of the 3 known species of *Utobium*.

KEY TO SPECIES OF **Utobium**

1. Ground color of dorsal surface black throughout; pubescence of dorsal surface predominantly grayish, orange pubescence just detectable at humeri and near elytral suture ..... **griseum** n. sp.
   Ground color of dorsal surface mixed orange and dark reddish to wholly dark reddish brown; dorsal surface usually with abundant orange pubescence in addition to gray pubescence 2
2. Elytral pubescence predominantly gray, orange pubescence much less extensive; ground color of elytra nearly uniformly light reddish to dark reddish brown, lighter areas at suture and apex evident to obsolete ..... **elegans** (Horn)
   Elytral pubescence about equally gray and orange to predominantly orange; ground color of elytra light orange to reddish orange with usually distinctly darker reddish areas near base and before middle to near apex ..... **marmoratum** Fisher

Genus **Ernobius** Thomson

Ernobius hirsutus, n. sp.

(Fig. 1)

General: Body elongate, 2.3 to 2.5 times longer than wide; pronotum nearly as wide as elytra at base; body and appendages reddish orange, head and pronotum a little darker, apex of elytra usually a little lighter than remainder; pubescence yellowish, moderate in density, that of dorsal surface and head distinctly bristling in part; head and pronotum finely, densely punctate, margins of each puncture raised, thus imparting a finely roughened appearance to surface; elytra distinctly more shiny than pronotum, rather densely punctate, margins of each puncture not raised.

Head: Eyes of ♂ separated by 1.6 to 1.8 times their vertical diameter, those of ♀ smaller, separated by 2.0 to 2.2 times their vertical diameter. Antennae 11 segmented, those of ♀ less than half as long as body, those of ♂ ⅔ length of body; 2nd segment (both sexes) short, broad, about as wide as long; 3rd segment elongate, about 2 times longer than wide; 4th and 5th very similar to 3rd, each but slightly shorter than 3rd, segments 6, 7, and 8 similar, as wide as (7) or wider than (6, 8) long, 8th distinctly wider than long; terminal 3 segments of ♀ about ⅓ longer than all preceding; terminal 3 segments of ♂ nearly 3 times longer than all preceding; 9th and 10th segments of ♀ similar, vaguely triangular, outer angle broadly rounded, both about 3 times longer than wide, 11th segment about 4 times longer than wide; 9th and 10th segments of ♂ similar, 9th nearly 4 times longer than wide; ♂ 11th 6.5 to 8 times longer than wide. Last segment of labial palpus nearly triangular, not quite 2 times longer than wide, outer margin oblique. Last segment of maxillary palpus triangular, 2 times longer than wide, outer margin strongly oblique.

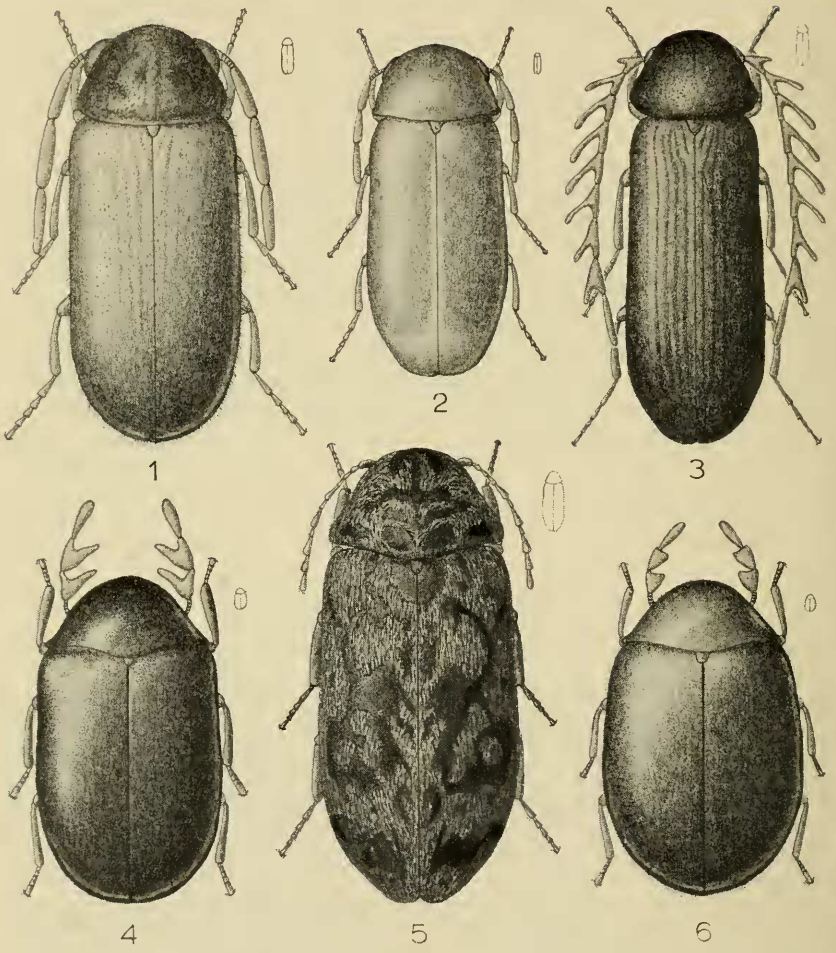

Fig. 1, *Ernobius hirsutus* n. sp., ♂ paratype; Fig. 2, *Ernobius parvus* n. sp., ♂ paratype; Fig. 3, *Euceratocerus grandis* n. sp., ♂ paratype; Fig. 4, *Dorcatoma moderata* n. sp., ♂ holotype; Fig. 5, *Utobium griseum* n. sp., holotype; Fig. 6, *Eutylistus grossus* n. sp., holotype. Small figures equal actual size.

Dorsal surface: Pronotum sharply margined laterally, margins rather broadly explanate and nearly straight from dorsal view, converging anteriorly; pronotal surfaces undulate; elytra with vague indications of grooves, most distinct near suture and at sides.

Ventral surface: Finely, densely punctate.

Length: 3.9 to 5.0 mm.

The description is from 7 individuals (4♂♂, 3♀♀); the data are as follows: ♂ holotype, Greenwood Lake, New Jersey, June 5, 1927, A.

Nicolay (type number 68431 in USNM); 1 ♂ paratype as before, taken on May 12, 1912, one ♂ paratype on May 30, 1943, 1 ♀ paratype on June 5, 1927; 1 ♀ paratype "P. Lawn, L. I.," May-12-12, Shoemaker collection, 1 ♂ paratype, Wyandanch L. I., May-27-1917, F. M. Schott, Pitch Pine; 1 ♀ paratype, West Point, N. Y., May 18, 1913, W. Robinson. All the above type specimens are in the USNM collection.

This species is immediately distinguishable from all other species of *Ernobius* occurring east of the Rocky Mountains in that the pubescence of the dorsal surface is distinctly bristly while the pubescence of the other species is appressed. It appears to be similar to *luteipennis* Lec. and in addition to the above character differs in being nearly unicolorous, *luteipennis* being reddish orange with the pronotal disk and ventral surface blackish. The name *hirsutus* refers to the bristly pubescence of the dorsal surface.

Ernobius parvus, n. sp.
(Fig. 2)

General: Body elongate, 2.3 to 2.6 times longer than wide; pronotum nearly as wide as elytra at base; body and appendages reddish orange to rather dark reddish, suture and side margins usually lighter, elytral apex yellowish; pubescence yellowish, appressed, very fine, short; head and pronotum finely, not densely granulate, slightly denser on pronotum, granules indistinctly of 2 sizes; elytra distinctly more shiny than pronotum, narrowly granulate at base, rather finely, not densely punctate, anterior margin of each puncture just noticeably raised.

Head: Eyes of ♂ separated by 1.5 to 1.6 times their vertical diameter, those of ♀ separated by 1.3 to 1.5 times their vertical diameter. Antennae 11 segmented, those of ♀ less than half as long as body, those of ♂ over half as long as body, 2nd segment (both sexes) short, broad, a little longer than wide; 3rd segment elongate, nearly 3 times longer than wide, as long as next 2 combined; 4th segment as wide as long; 5th a little longer than wide; segments 6, 7, and 8 similar, each a little wider than long; terminal 3 segments of female nearly 2 times as long as all preceding; terminal 3 segments of ♂ 2 times longer than all preceding; 9th and 10th segments of ♀ similar, each about 4 times longer than wide; ♀ 11th segment 4 to 5 times longer than wide; 9th and 10th segments of ♂ similar, each about 4 times longer than wide, 9th as long as previous 6 united; ♂ 11th segment 5 to 6 times longer than wide. Last segment of labial palpus elongate, outer angle oblique, widest near middle, about 2 times longer than wide. Last segment of maxillary palpus elongate, outer angle oblique, 2 to 3 times longer than wide.

Dorsal surface: Pronotum sharply margined laterally, narrowly explanate, lateral margin gradually arcuate from dorsal view; pronotum nearly evenly rounded to side, very vaguely undulate.

Ventral surface: Finely granulate-punctate.

Length: 2.2 to 3.1 mm.

Described from 7 individuals with the following data: Florence, S.C., July 30, 1962, V. M. Kirk, ♂ holotype (USNM No. 69140), allotype, 2 paratypes (1 ♂, 1 ♀); Poinsett State Park, S.C., June 1, 1962,

V. M. Kirk, 1 paratype (♂), and June 6, 1962, 1 paratype (♀); Myrtle Beach, S.C., June 4, 1960, V. M. Kirk (1 ♀). All in USNM.

This species runs in Fall's Key (1905, p. 140) to *granulatus* Lec, and appears most nearly related to it. The chief differences between the two concern the elytral sculpture. The elytra of *granulatus* are finely, densely punctate, and the anterior margin of each puncture is distinctly raised, thus imparting a finely granulate appearance to the elytra. The elytra must be examined under high power and in the correct light to confirm that they are punctate-granulate and not simply granulate. The elytra of *parvus* are more coarsely punctate, and the anterior margin of each puncture is very minutely raised. The elytra appear rather coarsely punctured, with the granulations being just visible under high power. Also the elytra of *parvus* are distinctly more shining than those of *granulatus*, and the length of *parvus is* 2.2 to 3.1 mm. as opposed to 2.3 to 4.3 mm. for *granulatus*. The specific name, *parvus*, meaning small, refers to the size of this species, its minimum length rivaling that of any other North American species of the genus.

Genus **Euceratocerus** LeConte

Euceratocerus grandis, n. sp.

(Fig. 3)

General: Very elongate, narrow, parallel-sided, body 2.9 to 3.2 times longer than wide; nearly always black with reddish faintly evident and appendages more distinctly reddish, sometimes predominantly dull reddish black (one specimen mostly dull reddish-brown with head and pronotum darker-teneral?), somewhat shining; pubescence grayish, very short, fine, moderate in density, appressed on elytra, faintly bristling on pronotum.

Head: Densely, finely granulate; front faintly to not protuberant; vertex very finely, sharply sulcate at midline; eyes of ♂ separated by 1.4 to 1.5 times their vertical diameter, those of ♀ separated by 1.5 to 2.0 times their vertical diameter, antennae of ♂ ¾ length of body, segments 3 to 10 inclusive produced laterally, strongly notched at apex, ramus of 3rd segment shorter than segment, rami of segments 4 to 8 inclusive each about as long as segment, that of 9th segment a little over ½ length of segment, that of 10th about ½ length of segment, 11th segment 7 to 8 times longer than wide; antennae of ♀ ½ length of body, segment 3 triangular, widest at middle, segments 4 to 9 serrate, last segment 3 to 4 times longer than wide; last segment of maxillary palpus elongate, tip pointed, widest near base, inner angle broadly rounded, about 3 times longer than wide; last segment of labial palpus very similar to that of maxillary palpus but slightly less elongate.

Dorsal surface: Pronotum as wide as elytra at base, lateral margins very finely, irregularly serrate, pronotal surface rather densely granulate, granules larger than those of head, most strongly developed on disk, inclined backward in this area; disk a little more prominent at middle posteriorly, median line faintly impressed on anterior slope; elytral striae very fine, lateral 2 most distinctly impressed, intervals nearly flat, surface very finely granulate.

Ventral surface: Tarsi elongate, slender, shorter than tibiae.
Length: 4.0 to 5.9 mm.

This description is from 22 individuals (16 ♂♂, 6 ♀♀) all taken in central and western Texas by D. J. and J. N. Knull. The male holotype was taken at Davis Mts., on June-14-58, the allotype bears the same data; both are in the Ohio State University collection. Fifteen paratypes are from the same locality; the data are as follows (males unless otherwise indicated): June-14-58 (1 in OSU), June-2-37 (1 ♂, 1 ♀ in OSU, 3 ♂♂ in USNM), June-23-64 (1 in OSU), June-2-51 (2 in OSU), June-9-54 (3 in OSU, 1 in USNM), July-11-55 (1 in OSU), July-3-55 (1 ♀ in USNM). Other paratypes are from the following localities: Jeff Davis Co., June-20-52 (1 ♀ in OSU, 1 ♀ in USNM); Gillespie Co., May-7-46 (1 ♀ in OSU); Chisos Mt., June-9-39 (1 ♂ in USNM); Llano Co., April-13-63 (1 ♂ in OSU).

I have previously misidentified this species as *E. hornii* Lec. and have so referred to it in 2 publications: in one (1960, p. 235) all characters referred to as being of *hornii* are actually of *grandis*; in the other (1962, p. 1 and 2) both the characters and the antennal figure presented as those of *hornii* are actually of *grandis*.

The specific name refers to the size of this species; it attains a much greater length than the other 2 members of the genus. The 3 known species of this genus and their sexes can be distinguished with the following key.

Key to Species of **Euceratocerus**

1. Antenna serrate to strongly serrate, shorter, 0.5 to 0.6 length of body, last segment 3 to 4 times longer than wide (females) 2
   Antenna pectinate, longer, not less than ¾ length of body, last segment 5 to 8 times longer than wide (males) 4
2(1). Antenna serrate, apical margin of intermediate segments faintly notched; length 4.0 to 5.9 mm ..... **grandis** n. sp.
   Antenna strongly serrate, apical margin of intermediate segments distinctly notched; length 2.6 to 4.0 mm. 3
3(2). Pronotal disk with distinct anterior, longitudinal impression; light reddish brown; Ohio, Georgia, South Carolina ..... **gibbifrons** White
   Pronotal disk lacking a distinct impression; dark reddish brown to nearly black; Texas ..... **hornii** Lec.
4(1). Rami of 9th and 10th antennal segments not or slightly over ½ length of segment; length 4.0 to 5.9 mm ..... **grandis** n. sp.
   Rami of 9th and 10th segments as long as or distinctly longer than segment; length 2.6 to 4.0 mm. 5
5(4). Rami of intermediate antennal segments about 3 times longer than segment; dark reddish brown to nearly black; Texas ..... **hornii** Lec.
   Rami of intermediate antennal segments not over 1.5 times as long as segment; light reddish brown; Ohio, Georgia, South Carolina ..... **gibbifrons** White

Genus **Dorcatoma** Herbst

Dorcatoma moderata, n. sp.

(Fig. 4)

General: Elongate-oval, 1.7 times longer than wide; dark reddish brown, body margins and appendages lighter, head and pronotum sometimes blackish; pubescence yellowish, very fine, moderate in density, appressed; head very finely, densely punctate, punctures separated on an average by about their diameter; pronotum finely, densely punctured, punctures separated on an average by about their diameter, these larger than those of head; metasternum and abdomen finely, densely punctured.

Head: Eyes of ♂ separated by about their vertical diameter, those of single ♀ separated by a little less than 1.5 times their vertical diameter; head adjacent to eye distinctly sulcate; 8th and 9th antennal segments of ♂ moderately produced laterally, moderately, not deeply emarginate apically, 8th segment a little wider than long, 9th nearly as wide as long, 10th about 3 times longer than wide, broadest near apex; 8th and 9th segments of ♀ with proportions much as those of ♂, somewhat emarginate apically, 10th segment about 3 times longer than wide, broadest near apex; last segment of labial palpus triangular, broadest apically, outer angle rounded, about 1.5 times longer than wide; last segment of maxillary palpus elongate triangular, outer margin but slightly oblique, over 2 times longer than wide.

Dorsal surface: Elytra at side with 2 distinct, deep striae from base to near apex, upper shorter, both punctate apically, a finer 3rd stria present above these from base to near middle of elytra.

Ventral surface: Metasternum at center with a deep, longitudinal, narrow slit, this becoming a simple groove at posterior ⅓; 5th abdominal segment of ♀ flat, that of ♂ rather convex, in both sexes deeply, rather roughly sulcate at apex.

Length: 3.0 to 3.4 mm.

The type series consists of 3 individuals taken at Aweme, Manitoba on June 26, 1920 by N. Criddle. They were bred from fungus and are from the P. J. Darlington collection. The holotype (♂) and the allotype are in MCZ, one ♂ paratype is in the USNM.

The name *moderata* refers to the 8th and 9th segments of the ♂ antenna; these are moderately produced in comparison with other members of the genus. The North American species of *Dorcatoma* known to me can be separated by means of the following key. The name *falli* has recently been proposed by myself (1965, p. 114) as a substitute for the name *dresdensis* (Herbst) which was erroneously applied by Fall (1905, p. 262).

Key to North American Species of **Dorcatoma**

1. Pubescence of upper surface erect; length 1.7 to 2.2 mm ..... **setulosa** Lec.
   Pubescence of upper surface recumbent; length 2.3 to 3.4 mm. 2
2. Metasternal fovea large, circular ..... **pallicornis** Lec.
   Metasternal fovea narrow, slit-like, often greatly reduced 3

3. Third (uppermost) elytral stria vaguely indicated only near middle of elytra; reddish black to (usually) black ..... **falli** White
Third stria distinct from base to near middle of elytra; reddish brown to dark reddish brown 4
4. Third elytral stria sharply impressed from base to level of 1st or 2nd abdominal segment; length 2.3 to 2.8 mm.; California to British Columbia ..... **integra** (Fall)
Third elytral stria less distinct, extending from base to level of hind coxa; length 3.0 to 3.4 mm.; Manitoba ..... **moderata** n. sp.

Genus **Eutylistus** Fall

Eutylistus grossus, n. sp.

(Fig. 6)

General: Rather broadly oval, body 1.5 to 1.6 times longer than wide; elytra dark reddish brown, elytral margins, much of pronotum, head, 1st antennal segment, ventral surface and legs lighter in hue, antenna (except 1st segment) dull orange; pubescence yellowish, short, not dense, bristling; body surfaces rather distinctly shining, head very finely, rather densely punctured, pronotum finely, densely punctured, punctures a little larger than those of head, elytra with fine, rather dense punctures arranged in longitudinal bands, these separated by narrower, smooth, faintly impressed lines, metasternum and abdomen finely, densely punctured.

Head: Eyes separated by 1.6 times their vertical diameter (♀ ?); antenna 10-segmented, 8th and 9th segments rather transverse, somewhat emarginate apically, each about 1.5 times longer than wide, 10th segment straight, 3 times longer than wide (foregoing probably ♀ antenna); last segment of labial palpus rather triangular, tip pointed, apical margin notched, about 1.5 times longer than wide; last segment of maxillary palpus triangular, tip pointed, outer margin straight, about 2 times longer than wide.

Dorsal surface: Elytra with 2 lateral striae, lower one beginning before middle and continuing to apex just before suture, most strongly impressed beyond middle; upper stria beginning before middle and becoming obsolete within posterior 3rd of elytra, much shorter than lower stria.

Ventral surface: Metasternum at center with a longitudinal, slit-like fovea, continued posteriorly as a groove; metasternal lobe not at all constricted by tarsal grooves; abdominal sutures most distinct at sides, anteriorly arcuate at center, last one most strongly so.

Length: 2.2 to 2.8 mm.

This species is founded on 2 individuals, apparently both females, though this is by no means certain. Both were taken at Tanbark Flat, Los Angeles Co., California, the holotype on May-8-1950 by A. T. McClay (in UCD), and the single paratype on July-13-1952 by H. L. Mathis (in USNM); the latter individual lacks antennae.

The specific name refers to the size of this species; it attains a greater length than any other species of *Eutylistus* with the possible exception

of *ulkei* Fall. *E. grossus* is most similar to *incomptus* (Lec.) and can be distinguished from it and the other members of the genus by means of the following key. Members of all species except *ulkei* have been seen in compiling this key.

KEY TO NORTH AMERICAN SPECIES OF **Eutylistus**

1. Lower of 2 (or 3) lateral elytral striae complete, distinctly impressed from base to apex 2
   Lower of 2 (or 3) lateral elytral striae incomplete, distinct only at apical half, absent or very obscure at basal half 4
2(1). Elytra with only 2 lateral striae; northeast U. S. to Florida ..... **intermedius** (Lec.)
   Elytra with a short, upper, 3rd stria; Florida 3
3(2). Third elytral stria basal ..... **granus** (Lec.)
   Third elytral stria median ..... **levisternus** Fall
4(1). Elytral punctures dense, forming longitudinal bands separated by narrow smooth lines (fig. 6); eastern states, Texas, and California 5
   Elytral punctures not as above, sparse, forming more or less regular rows or punctures irregular; Texas and Florida 8
5(4). Elytra with a well-defined 3rd stria 6
   Elytra without a well-defined 3rd stria 7
6(5). Lateral striae coarse, 3rd stria more median in position; eastern states to Texas ..... **tristriatus** (Lec.)
   Lateral striae finer, 3rd stria more posterior; California ..... **ulkei** Fall
7(5). Reddish brown; length 2.2 to 2.8 mm.; California ..... **grossus** n. sp.
   Reddish brown to mostly black; length 1.8 to 2.3 mm.; eastern states ..... **incomptus** (Lec.)
8(4). Metasternal punctures large, distinct, forming a series before posterior margin; base of metasternal lobe narrowed by tarsal grooves ..... **fallax** Fall
   Metasternal punctures very small, fine, not forming a series before posterior margin; base of metasternal lobe not narrowed by tarsal grooves ..... **facilis** Fall

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