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A NEW GENUS, TWO NEW SPECIES, AND A SPECIES KEY
FOR BYRRHODES

(COLEOPTERA: ANOBIIDAE)

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ABSTRACT—The new genus *Striatheca* with the new species *S. lineata* is described from southeastern U. S. The new species *Byrrhodes grandis*, from Maryland and South Carolina, is described; *B. grossus* White is synonymized with *B. ulkei* Fall; and a revised key to *Byrrhodes* is presented.

A new species of anobiid from the southeastern United States is sufficiently distinct from described genera to warrant a new generic name.

Striatheca, n. gen.

Type-species: *Striatheca lineata*, new species.

General: Body elongate-robust; pubescence moderate in length and density, not obscuring surface sculpture.

Head: Large; front nearly evenly rounded throughout; carina over antennal base distinct, meeting with impressed groove over eye; eyes large, bulging, not notched; antenna 10 segmented, 1st segment large, only 1 visible in retraction, 2nd segment much smaller, oval, segments 3 through 7 very small, segments 8 through 10 distinctly enlarged, segments 8 and 9 triangular, 10th segment elongate oval, last 3 segments together longer than all preceding united; last segment of maxillary palpus elongate triangular, tip pointed, last segment of labial palpus triangular, broad; undersurface of head between eyes distinctly excavated for reception of antennae, excavation posteriorly delimited by raised carina in shape of a 3.

Dorsal surface: Pronotum nearly as a segment of a sphere, at sides somewhat concave, surface punctate, anterior angle nearly a right angle, posterior angle not evident, lateral margin sharp, produced; scutellum moderate in size, rounded apically, wider than long; elytron with distinct humerus and 10 complete,

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distinctly impressed striae and a short scutellar stria, striae 1 and 10, 2 and 9, 3 and 4, 5 and 8, and 6 and 7 meeting at elytral apex; lateral elytral margin foveate for hind leg.

Ventral surface: Prosternum short and broad, concave, longitudinally carinate at center, base produced and pointed; fore coxae elongate, diagonal, touching, concealed in retraction, anterior surface flat; mesosternum concave, produced between middle coxae, nearly vertical posteriorly; middle coxae oval, separated, nearly vertical, concealed in retraction, anterior face flat; metasternum with about anterior third markedly inflexed each side of center, inflexed portion delimited posteriorly with strong carina that is continuous from side to side, metasternum anteromedially produced into concave, hooklike process; metasternum with deep longitudinal groove, arising anteriorly in a fovea beneath raised carina, extending to apex, metasternum at sides most distinctly rounded before posterior margin; metepisternum very narrowly exposed, slightly widest posteriorly; metepimeron not visible; hind coxae widely separated, nearly parallel sided, attaining elytra at side; first abdominal segment distinctly depressed each side for hind legs, margin behind depression produced, carinate, first segment at center excavate for tarsi, each excavation bordered by distinct, diagonal carina, this portion of first segment triangular in shape, first segment shortest, 3rd and 4th short, subequal, 2nd moderate, 5th longest, all sutures distinct throughout, 2nd weakly bisinuate, 3rd and 4th weakly arcuate.

Striatheca belongs to the subfamily Dorcatominae and is nearest the genus *Protheca* Lec. The 2 differ in that the elytral striae of *Striatheca* consist of deeply impressed lines and are distinct throughout; the elytral striae of *Protheca* consist of rows of punctures and are less distinct to absent at the elytral apex. Also, the anterior portion of the metasternum in *Striatheca* is produced into a narrow, hooklike process concealed in retraction; that of *Protheca* is produced into a broad lobe which forms the anterior part of the tarsal grooves and is visible in retraction.

In my key to the North American genera of Anobiidae (White, 1971) *Striatheca* keys to *Byrrhodes* at couplet 46. To separate them the following should be inserted.

- 46a(46). Metasternum produced anteriorly into a broad lobe visible in retraction and usually with a linear pit at center *Byrrhodes*
 Metasternum produced anteriorly into a narrow hooklike process concealed in retraction, metasternum at center longitudinally grooved throughout *Striatheca*

Striatheca is a neo-Latin name of feminine gender formed by taking the termination -theca and combining with it stria- which refers to the strongly developed elytral striae.

Striatheca lineata, n. sp.

Figs. 1, 2, 3

General: Body elongate-robust, 1.9 to 2.0 times as long as wide; pubescence yellowish, moderate in length and density, erect or inclined, that of ventral

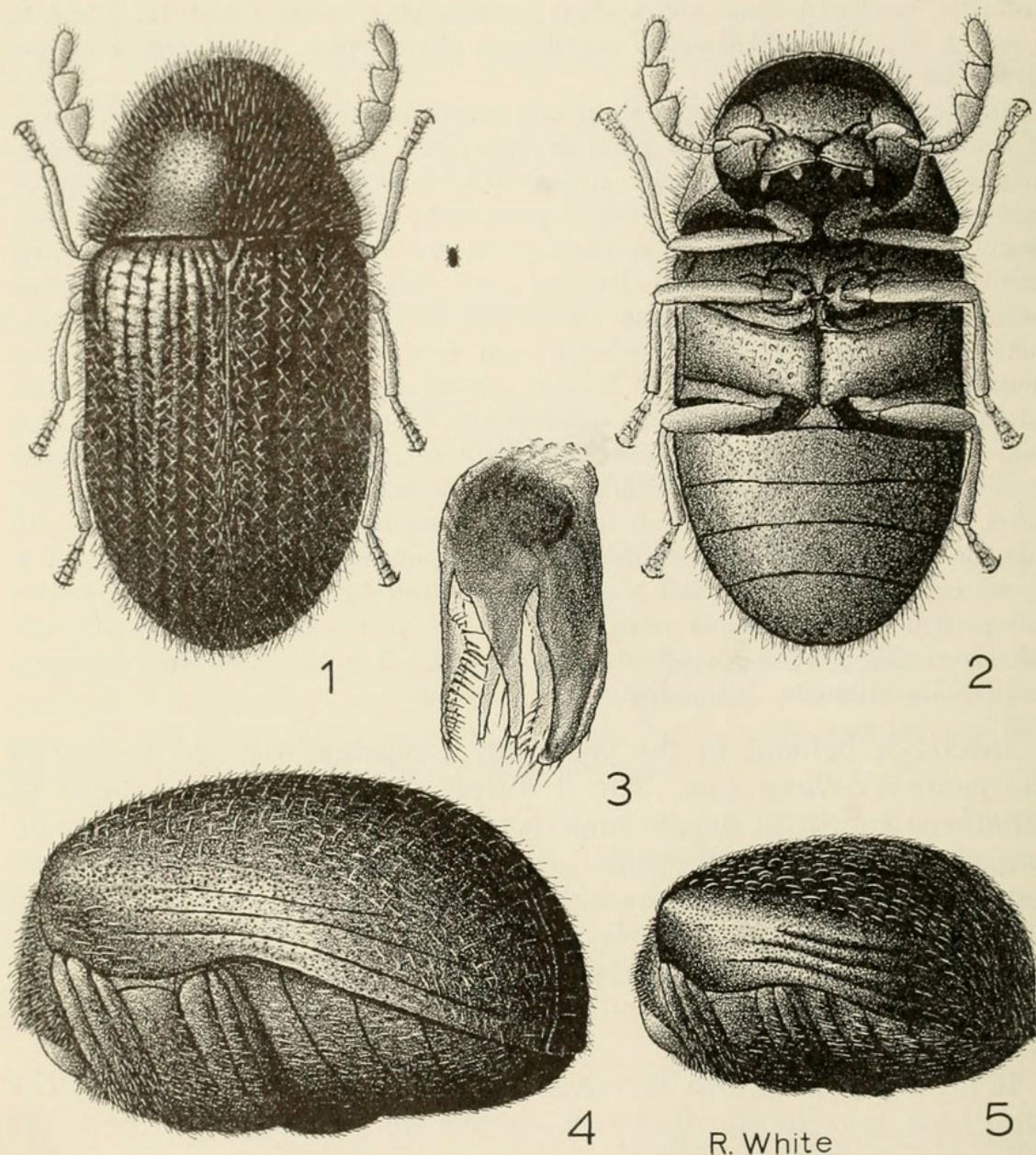


Fig. 1, 2, 3, *Striatheca lineata* White; Fig. 1, dorsal view, small figure equals actual size; Fig. 2, ventral view; Fig. 3, genitalia of male holotype, dorsal. Fig. 4, *Byrrhodes grandis* White, diagonal view. Fig. 5, *Byrrhodes tristriatus* (Lec.), diagonal view.

surface inclined posteriorly, that of head inclined anteriorly, that of elytra erect, hairs forming regular rows each side of a stria, hairs of each row inclined over adjacent stria, thus hairs of each pair of rows crossing above stria, hairs along elytral suture inclined backward; elytra black, shining, margins more or less distinctly clouded with red, pronotum dull dark red, disk usually more or less distinctly clouded with black to predominantly black with margins clouded with red, head and 1st antennal segment dull dark red usually clouded with black, ventral surface dull dark red usually clouded with black, legs dull red orange, antennae dull orange.

Head: Front distinctly, deeply punctured, punctures slightly irregular in size, separated on an average by a little more than their diameter, surface shining; eyes separated by 1.7 to 1.8 times vertical diameter of eye; 1st antennal segment large, nearly as long as last (10th) segment, 2nd segment oval, less than $\frac{1}{2}$ length of 1st, 3rd segment oval, over $\frac{1}{2}$ length of 2nd, segments 4-7 small, subequal, each a little wider than long, last 3 segments distinctly enlarged, clearly longer than all preceding united, segments 8 and 9 triangular, a little longer than wide, segment 10 oval, a little over 2 times as long as wide; last segment of maxillary palpus about 2 times as long as wide; last segment of labial palpus a little longer than wide.

Dorsal surface: Pronotum with discal punctures distinct, somewhat irregular in size and density, those at base separated on an average by less than their diameter, those near apex separated on an average by about their diameter, punctures toward sides becoming larger, more irregular in size and shape, at extreme side punctures very irregular and running together, surface nearly scabrous; elytral striae deeply, distinctly impressed, margins minutely irregular, along each side of a stria with fine setate punctures regularly placed and with raised margins, intervals smooth, nearly flat.

Ventral surface: Metasternal punctures large, dense, irregular in size and shape, running together in some places, least dense before posterior margin; abdomen finely, densely punctate, punctures round, varying somewhat in size, much smaller than those on metasternum, separated on an average by a little over their diameter; 5th segment somewhat flattened at center, apex grooved.

Length: 2.0 to 2.4 mm.

Described from 5 specimens. The male holotype (USNM 71724) bears the data "MISS: Harrison Co., Gulfport, June 10-1968, LH Williams coll., collected at blacklight trap". Two paratypes (USNM) bear the data "MISS. Harrison Co., Gulf Park Coll., June 16-1969, Coll. L. H. Williams, Light trap". Two additional paratypes are in the Florida State Collection of Arthropods at Gainesville, Florida: 1 bears the data "McRae, Ga., J. W. Patton coll. 9 VI 63, coll. at light"; the other, "Weems property, Red Water Lake, Putnam Co. Fla., H. W. Weems, Jr., 27-28-V-1967, blacklight trap".

I have found no external sexual characters and cannot be certain of the sex of the paratypes without dissection.

The male genitalia (fig. 3) were drawn with light transmitted through them from a white background.

Byrrhodes grandis, n. sp.

Fig. 4

General: Rather broadly oval, body 1.5 to a little over 1.6 times as long as wide; body dark dull red to dark brown, body margins black, abdomen and, to a lesser extent head, pronotum, and sides of elytra lighter than remainder of body, antenna, except first segment, orange; pubescence dull yellow, short, moderate in density, on dorsal surface semi-bristling, elytra with nearly erect, convergent hairs over nonpunctate elytral lines, pronotum with scattered, nearly

erect hairs; body surfaces shining; body finely, densely punctured, punctures largest, most dense on elytra, arranged in longitudinal bands separated by narrow, non-punctured lines, latter in some places minutely impressed, punctures of head, pronotum, metasternum and abdomen nearly comparable in size and density.

Head: Eyes separated by slightly less than their vertical diameter (δ), or separated by a little less than 1.3 times their vertical diameter (φ); antenna 10-segmented; in male, 8th antennal segment emarginate apically, slightly longer than wide, outer margin sinuate, 9th segment emarginate apically, nearly 1.5 times as long as wide, 10th segment weakly arcuate, slightly widest near apex, about 2.6 times as long as wide; in female 8th antennal segment emarginate apically, a little over 1.2 times as long as wide, outer margin nearly straight, 9th segment weakly emarginate, nearly 1.8 times as long as wide, 10th segment as that of male; maxillary palpus triangular, 2 times as long as wide, labial palpus triangular, slightly wider than long, outer tip pointed, inner tip rounded.

Dorsal surface: Pronotum at side weakly concave; elytral punctures arranged into longitudinal bands delimited by narrow nonpunctate lines, lines sometimes minutely impressed, bands averaging 5 punctures wide; side of elytron with 3 striae, all sharply, distinctly impressed, lowest stria distinct from about posterior limit of metasternum to very near elytral suture at apex, weakly developed to absent from metasternum to elytral base, middle stria distinct from level of metasternum to near elytral apex, becoming weaker posteriorly, sometimes weakly developed to near elytral base, uppermost stria distinct from about level of hind coxa to about level of 4th abdominal segment, sometimes weakly developed to about anterior limit of metasternum, becoming weaker posteriorly, sometimes upper stria noticeably weaker than lower 2; elytra at side nearly vertical, not inclined between outer margin and lowest stria.

Ventral surface: Metasternum at center with a longitudinal slit-like fovea, usually continued posteriorly as a groove; anterior metasternal lobe not constricted by tarsal grooves; abdominal sutures most distinct at sides, weaker but evident at center, suture between 2nd and 3rd segments weakly, anteriorly arcuate at center, next suture more distinctly arcuate, last suture most distinctly arcuate; abdomen longitudinally, weakly concave at center from 3rd to 5th segments, more distinct in female.

Length: 2.8 to 3.1 mm.

This species is described from 5 individuals. The male holotype (USNM, 71717), the allotype (USNM), and a female paratype (in W. H. Tyson collection) bear the data "Bristol, MD., II-1970" and were taken by W. H. Tyson. The holotype bears "Reared Brack, fung.", the allotype has "ex Bracken fung." (*sic*), and the paratype has "ex: Bracken fungus". Two additional paratypes (USNM, 1 male, 1 female) bear "9181 27c, Hopk US, Greenville, S. C., J. E. Smith Coll., June 5/12, Liquidambra styraciflua". On a Hopkins card is the additional data "Ptinid beetle which lives on fungi Sweetgum bush".

Among East Coast species *B. grandis* is most similar to but larger than *B. tristriatus* (Lec.); the former is 2.8 to 3.1 mm in length, the

latter is 2.0 to 2.8 mm. Also, the intervals between the elytral striae of *grandis* are flat (fig. 4), whereas the intervals between the elytral striae of *tristriatus* are convex (fig. 5).

The nearest relative of *grandis* is *ulkei* from California. In *ulkei* the interval between the lowest elytral stria and the elytral margin is distinctly inclined outward at the bottom and not in the same plane as the intervals above; this interval in *grandis* is vertical and in the same plane as the intervals above.

Byrrhodes ulkei (Fall)

Byrrhodes ulkei (Fall), 1905:266.

Byrrhodes grossus (White), 1966:235. NEW SYNONYMY.

I have recently examined the 2 cotype specimens of *B. ulkei* and found them to be the same species that I described as *grossus*. The description in the key to species of *Eutylistus* Fall (= *Byrrhodes*) by Fall (p. 265) as follows, "Elytra with a well defined though shorter third inner stria at sides", is intended by Fall to apply to *ulkei*, but does not. Fall (p. 266) also gave the following description "The inner stria begins farther back, not attaining anteriorly the posterior margin of the metasternum, and is formed by one of the smooth lines becoming finely impressed". This description is very misleading. What is referred to by Fall as the third, or inner elytral stria, is a very feebly, and (in the type) irregularly impressed line which is not at all comparable in depth or distinctness to the 2 impressed striae. The feebly impressed line is comparable to the feeble lines to be found on the puncture-free lines near the elytral base and suture, and it cannot be accurately termed a stria.

Following is a key to species of *Byrrhodes*. It accommodates the above change, the new species, and *B. setosus*. I have seen all of the species during construction of the key.

KEY TO NORTH AMERICAN SPECIES OF *Byrrhodes*

1. Each elytron with 10 distinct striae; 2.7 to 3.5 mm long; Florida to Mississippi *setosus* Lec.
- Each elytron with 2 or 3 distinct striae; 1.3 to 3.1 mm long; widely distributed 2
- 2(1). Lowest lateral elytral stria deeply impressed anteriorly and attaining elytral fovea for middle legs 3
- Lowest lateral stria distinct only to level of hind coxa or metasternum or weakly impressed to absent anteriorly, not attaining fovea for middle legs 5
- 3(2). Elytra with just 2 distinct lateral striae; northeast U. S. to Florida
- *intermedius* (Lec.)
- Elytra with a short, upper, 3rd stria; Florida to Mississippi 4

- 4(3). Third elytral stria extending from base to level of hind coxa; southern Florida *granus* (Lec.)
 Third elytral stria extending from level of metasternum to level of 4th abdominal segment; Florida to Mississippi *levisternus* (Fall)
- 5(2). Elytral punctures dense, forming longitudinal bands separated by narrow, smooth lines; eastern States, Texas, and California; 2.0 to 3.1 mm long 6
 Elytral punctures not as above, sparse, forming more or less regular rows, or irregular; Texas to Florida; 1.5 to 2.0 mm long 9
- 6(5). Elytron with an upper, distinct 3rd stria nearly or just as strong as lower striae 7
 Elytron without a 3rd upper stria as above 8
- 7(6). Intervals between elytral striae flat or nearly so (Fig. 4); 2.8 to 3.1 mm long *grandis* White
 Intervals between elytral striae convex (Fig. 5); 2.0 to 2.8 mm long *tristriatus* (Lec.)
- 8(6). Reddish brown; 2.2 to 3.0 mm long; California *ulkei* (Fall)
 Reddish brown to mostly black; 1.7 to 2.3 mm long; eastern U. S. *incomptus* (Lec.)
- 9(5). Metasternal punctures large, distinct, forming a series along posterior margin; base of metasternal lobe narrowed by tarsal grooves; South Carolina to Florida to Mississippi *fallax* (Fall)
 Metasternal punctures very small, fine, not forming a series along posterior margin; base of metasternal lobe not narrowed by tarsal grooves; Texas *facilis* (Fall)

My thanks are offered to George Wallace of the Carnegie Museum for the loan of type specimens of *Byrrhodes ulkei* (Fall), to Lonnie H. Williams of the Southern Forest Experiment Station for allowing me to retain for the USNM collection the specimens of *Striatheca lineata* White, and to Robert Woodruff of the Florida State Collection of Arthropods for loan of specimens.

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