

## A NEW GENUS OF SCOLYTIDS FROM FLORIDA.

By A. D. HOPKINS.

*Erineophilus* gen. nov.

Fig. 2.

*Head* medium in size; not rostrate, front narrow and fringed in the ♀; broader, convex and nearly smooth in the ♂; anterior margin (epistoma) (Fig. 2, *g*) strongly produced over base of mandibles; eyes oblong, narrow, closely joined to antennal scrobe and extending more than half their length above it. *Maxilla* (Fig. 2, *b*) short, broad; cardo more than one-half as long as remaining portion and less than one-half as broad at base; stipes short continuous with sub-galea but with distinct suture between it and the palpiger, which is large, stout, and as long as the three-jointed palpi, its outer angle bearing numerous long hairs, the tips of which extend beyond the tip of the palpus; galea narrow, as long as palpi, and armed on the inner edge with closely set compressed teeth with rounded tips; palpi stout, distinctly three-jointed, the joints nearly equal in length; joint 1 nearly twice as broad as 2, which is also nearly twice as broad as 3, which is truncate at tip; 1 and 2 with a few hairs on the outer portion toward the anterior margins. *Mentum* (dorsal view) (Fig. 2, *c, d*) short, rather broad, anterior portion broader than base; ligula short, conate, not extending to tip, sparsely clothed with short hairs; palpi difficult to define, appear to be two-jointed and differ in the sexes as indicated in the figures. That of the ♂ (*c*) appears to have the second joint globular and the tip concave, and the inner edge armed with a small chitinous piece, while in the ♀ (*d*) it is narrower toward the tip, obliquely excavated and the surface chitinous. *Antennæ* (Fig. 2, *a*): funiculus six-jointed (appears to be five-jointed in some examples), joint 1 large, globular, nearly as long as the others united, 2-5 about equal length, 5-6 compressed, closely joined, irregular and difficult to determine, except in balsam under high magnification; club oblong, compressed, broadly rounded from middle to tip, narrowing toward base, divided on its outer face by two sutures, the first nearly straight, the second strongly curved, inner surface shining not annulated. In balsam the first suture shows a prominent chitinous piece, as in figure; the remaining surface, especially near the suture, marked with numerous punctures, and clothed with long hairs which rise from minute granules. Scape simple, clavate, scarcely as broad as the first joint of funiculus.

*Front tarsi* (Fig. 2, *f*) slender, shorter than tibiæ, joint increasing in length from base, 1 short and constricted in middle, 2 broader at tip, 3 simple, oval-cylindrical, 4 short and narrow but distinct, 5 rather stout at tip and as long as 2 and 3 together.

*Front tibiæ* (Fig. 2, *e*) stout, broad at base, slightly broader at tip, upper or outer edge armed with three or four stout, broad, triangular teeth, connected with transverse elevations on the outer face, and increas-

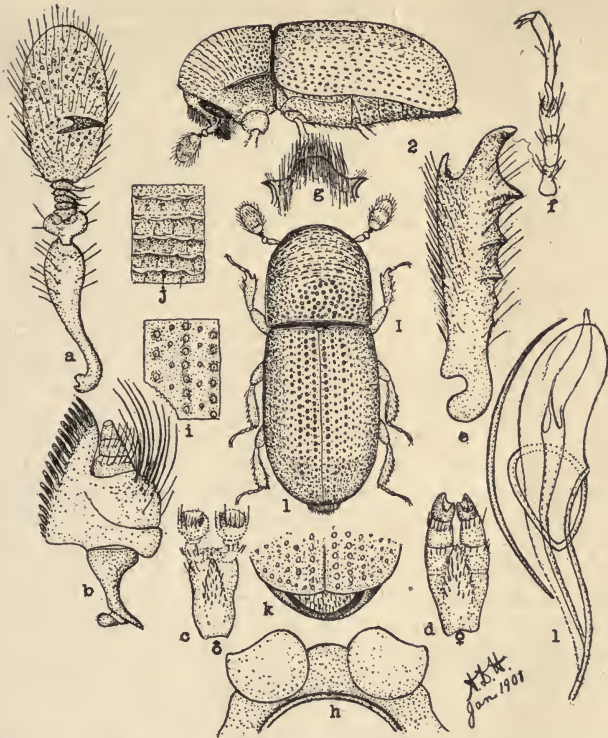


FIG. 2.—*Erineophilus schwarzi* nov. gen., et sp. 1. Adult, dorsal view. x 22.7. 2. Adult ♀ lateral view. x 22.7. a. Antenna (as seen in balsam). x 133.4. b. Maxilla. x 133.4. c. Mentum ♂ (palpi imperfectly defined). x 133.4. d. Mentum ♀. x 133.4. e. Tibia, showing upper surface. x 133.4. f. Tarsus. x 133.4. g. Epistoma. x 133.4. h. Prothorax and coxae. x 66.7. i. Section of elytra. x 66.7. j. Section of pronotum. x 66.7. k. Tip of elytra and abdomen, showing pygidium and edge of last ventral segment. x 50. l. Male organ. x 133.4.

ing in size toward the outer angle, which is strongly produced into a broad outward and upward curved mucron; inner edge nearly straight, pubescent, angle with cylindrical upward curved tooth. Middle and hind tibiae narrow at base, dilated towards tip, and evenly serrated on outer edge; outer angle not produced but broadly rounded to inner angle.

*Front coxae* (*h*) widely separated, large, almost contiguous with anterior margin of prosterum. Middle and hind coxae small.

*Prothorax*: sternum (*h*) broad, sub-quadrate; episternum with posterior portion (2) excavated for reception of femur; notum slightly shorter than broad, sides parallel and margined to middle, anterior portion

broadly rounded, declivous, concealing the head from above, roughened with transverse rugosities (*j*) posterior surface smooth, shining, punctured, basal angle acute.

*Mesothorax*: episternum (2) large, opaque; epimerum very small, narrow, obscure.

*Metathorax*: episternum narrow, elevated, base strongly oblique, ventral angle acute; sternum large, with short median groove toward the posterior margin, in ♀.

*Abdomen*: ventral segments 1 and 2 equal width, both together as long as the others united, 3, 4, and 5 equal length, sutures nearly straight, posterior margin of 5 concave, not strongly reflexed as is usual; pygidium, (*k*), prominent and extending beyond tip of elytra in both sexes, but much more pubescent in the ♂, strongly punctured in the ♀; propygidium smooth, chitinous and the posterior margin more shining in the ♂, not chitinous in the ♀.

*Elytra*: sides parallel or faintly rounded for more than half their length, slightly wider in middle than prothorax, not elevated or roughened at base, but faintly margined; surface nearly smooth, shining, striæ and interspaces punctured in rows, declivity plain.

Type of genus, *Erineophilus schwarzi* described from 18 specimens (11 ♀♀ and 7 ♂♂), submitted by Mr. E. A. Schwarz. Two specimens of each sex were dissected, the remaining 9 ♀♀ and 5 ♂♂ are in the type series, two retained by the author, and the others, including the ♂ and ♀ types, are in the National Museum Collection (No. 6242).

The species upon which this genus is founded may be further described, as follows:

*Erineophilus schwarzi* sp. nov.

Female type (Cocoanut Grove, Fla., April 26).

Length, 1.7 mm.\*; color, yellowish-red; posterior portion of prothorax to abdomen, darker; head and ventral surface dark; legs and antennæ yellow. *Head* with front convex, middle of convex surface polished, shining, densely fringed with long yellow hairs, which extend around the anterior margin almost concealing the epistoma and mandibles. Head withdrawn so that posterior portion cannot be seen. Base of *prothorax* emarginate. Posterior portion of *proëpisternum* shining. Elytra shining, margined at base, surface glabrous, except on sides which are faintly and sparsely pubescent; striæ punctured but not impressed, interspaces not elevated and with median row of punctures slightly smaller than those of the striæ; declivity not steep, smooth, punctures fine, apical margin slightly retuse, exposing the pygidium; ventral segments 1 and 2 distinctly punctured.

Male type (Cocoanut Grove, Fla., September 25).

\* See p. 37, note.

Length, 1.5 mm.\*; equals description of ♀ in all respects except the head, which has the front convex, smooth, sub-opaque, faintly punctured and with faint median line; epistoma clothed with long hairs, extending over base of mandibles.

The characters here defined vary but slightly in the other examples before me. The ♂♂ are generally smaller and vary more in size. When exposed the posterior portion of the head is found to be sub-opaque and punctured to vertex. The elytral striæ and interspaces are slightly more distinct in some examples than in others.

*Systematic Position of the Genus.*

This genus seems to represent a distinct group coming between Blandford's groups Scolytides and Hexicolides. These three groups may be distinguished as follows: *a*

A. "Anterior tibiæ produced at the upper apical angle beyond the tarsal insertion into a mucro, or bifid process" (Blandford); upper border unarmed. Third joint of tarsi bilobed.

SCOLYTIDES.

(Scolyti.)

(Comptoceri.)

(Bothrosterni).

B. Anterior tibiæ strongly produced at the upper apical angle into an upward curved process; upper border armed. Third joint of tarsi not bilobed.

ERINEOPHILIDES.

(Erineophili.)

C. "Anterior tibiæ not produced beyond the tarsal insertion" (Bland.)

HEXACOLIDES.

HYLESINIDES.

TOMICIDES.

\* Detailed measurements and ratios.

1. 9 ♀♀ average 1.66 mm. Maximum 1.75. Minimum 1.50.

2. 5 ♂♂ average 1.53 mm. Maximum 1.65. Minimum 1.30.

1. 9 ♀♀. Mean ratio of length of prothorax to width, 94%.

Mean ratio of length of prothorax to length of elytra, 59%.

Mean ratio of width of elytra to length of elytra, 69%; mean 74 (expresses specific value of composite character.)

2. 5 ♂♂. Mean ratio of length of prothorax to width, 95%.

Mean ratio of length of prothorax to length of elytra, 58%.

Mean ratio of width of elytra to its length, 69%; mean 74 (expresses specific value of composite character.)



The declivous asperated pronotum concealing the head from above indicates affinities with *Tomicides*, but the mouth parts, tibiæ, tarsi, widely separated anterior coxæ, and exposed pygidium furnish characters which separate it from this and all other groups as at present recognized.

I am under obligations to Mr. E. A. Schwarz for the privilege of describing this interesting genus and species. He also suggested the generic name.

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In discussing the paper Mr. Schwarz said that this species was of economic importance, as it bored under the bark of branches of the Banyan trees (*Ficus*), thus killing them.

The first paper read was that of Dr. Dyar, entitled:

#### A NEW FORM OF CLISIOCAMPA FROM COLORADO.

By HARRISON G. DYAR.

*Clisiocampa fragilis*, the common species of this genus in Colorado, feeds upon a variety of plants, including wild cherry, rose and aspen, occasionally, but not normally, on the oak. A larva was met with sparingly in the Platte Canyon near Denver, Colorado, feeding exclusively on the oak and differing in habits and coloration from the common form. Later it was seen in abundance at Sedalia, Colorado. The species is nearly allied to the Californian *C. constricta* Stretch.

The eggs were found on the lower twigs of the dwarf oaks in small rings without any covering; these were eggs of the previous season. The larvæ fed at first in colonies, spinning no tent, only just enough web to hold them to the branches as with *C. distria* of the Atlantic States. Later they wandered separately in search of the young leaves which were all they would eat. The larva has a black head, blue powdered in the sutures. The body is as usual, short haired, the lateral tufts as in *constricta* but more reddish, less contrasting. Orange markings well developed, consisting of a dorsal band constricted at the anterior third of the segment, marked with black and obscurely blue centered; a subdorsal and a lateral line, practically continuous, running into pale orange transverse mottling in the incisures; traces of substigmatal orange. Blue markings reduced; two lateral patches, the posterior one a transverse line cut by the subdorsal band; subventral region washed in pale blue. The black ground color on the sides, especially of joints 3, 4 and 12, appears as conspicuous transverse lines. Hairs reddish, scarcely tufted dorsally, orange or white on the sides.