# NORTH AMERICAN SCIARIDAE (Diptera). 1. A NEW SPECIES OF SCATOPSCIARA AND LECTOTYPE DESIGNATION OF EUGNORISTE OCCIDENTALIS COQUILLETT<sup>1</sup>

# By Wallace A. Steffan

### BISHOP MUSEUM, HONOLULU

Abstract: A new sciarid, Scatopsciara dendrotica Steffan, is described from California and a lectotype is designated for Eugnoriste occidentalis Coquillett. Both S. dendrotica and E. occidentalis are figured.

This is the first of a series of papers on North American Sciaridae. Terminology and measurements are as in Steffan (1966). The following new species was collected by investigators studying the parasites, predators and associated insects from ponderosa pine (*Pinus ponderosa* Douglas) attacked by the bark beetle *Dendroctonus brevicomis* LeConte. The larvae of this sciarid feed either under the bark or in the gallaries of *D. brevicomis*.

### Scatopsciara dendrotica Steffan, new species Fig. 1a-h.

 $\eth$ . Head: Eye haired (short hairs extending only slightly beyond curvature of facets); eyebridge 2-3 facets wide. Vertexal bristles barely extending beyond level of lateral ocelli; occipital bristles numerous, subequal to or slightly shorter than vertexal bristles. Antenna: Flagellomeres subequal, decreasing only slightly in length apically, flagellomeres 2-13 each with short distal necks, flagellomere 4 (fig. 1c) about  $2\times$  as long as wide, neck about 1/2 as long as width of section, flagellar hairs subequal to width of sections; prefrons with median patch of 18 bristles, subequal to or shorter than flagellar hairs; clypeus with 1-2 median bristles. Palpus: 3-segmented (fig. 1e); segment 1 globular with 1 dorsolateral seta and dorsomedial sensory patch of numerous short sensory pegs; segments 2 and 3 about 2/3 length of 1st, 2 with 5 setae, 3 with 2 apical and 5 subapical setae.

**Thorax:** Notum with moderately strong acrostichals and dorsocentrals, supraalars strong, scutellum with 8 setae, ppn bare, apn with 1 strong seta, proepisternum with 4 strong setae, posterior epimeron of mesothorax about  $3 \times$  as long as wide.

Wing: (Fig. 1a). 1.10-1.40 mm. Costa extending about 3/5 distance between tips of  $R_5$  and  $M_1$ ; Sc faint; costa,  $R_1$  and  $R_5$  with macrotrichia, posterior wing veins bare,  $R_1$  short, ending well before base of M-fork; ratio of r-m to M-petiole: 8:38; ratio of base of M to Cu-petiole: 18:8; r-m generally bare, occasionally with 1 distal seta. Legs: leg ratio: anterior, 32:34:16; posterior, 42:46:22; foretibia with indistinct apical tibial comb of 2-3 unilateral setae distinctly

<sup>1.</sup> Partial results of a grant to Bishop Museum from the U. S. National Institutes of Health (AI-01723-10).

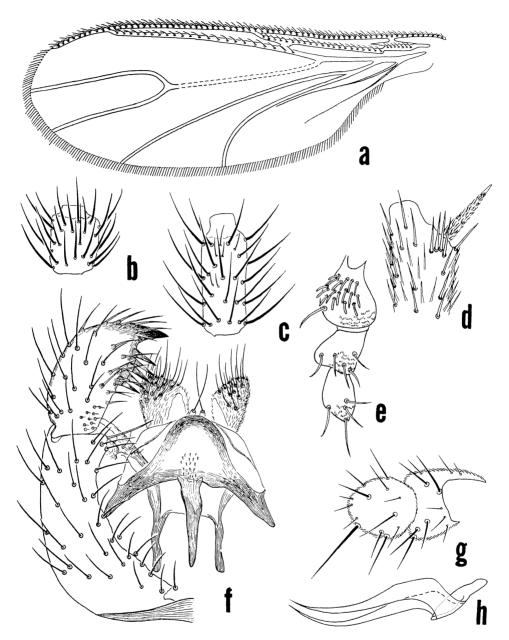


Fig. 1. Scatopsciara dendroctina n. sp.: a, wing; b, flagellomere 4 of  $\varphi$ ; c, flagellomere 4 of  $\varnothing$ ; d, apex of foretibia of  $\varnothing$ ; e,  $\varnothing$  palpus; f,  $\varnothing$  genitalia, ventral; g,  $\varphi$  cercus; h, vaginal furca.

longer than general tibial setae (fig. 1d). Tibial spurs: foretibia single; midtibia double, one spur greatly reduced; hindtibia single and shorter than width of tibial apex.

Abdomen: Terga and sterna with short sparse hairs except sterna I which is bare, sternum VIII and tergum VIII with posterior row of setae. 3 terminalia (fig. 1f). Basistyli separated ventrally by broad notch; dististylus with strong apical spur and 5 stout mesoapical bristles, genital rod swollen apically and weakly forked; tegmen well sclerotized basally and medially; dorsal apodeme long and slender.

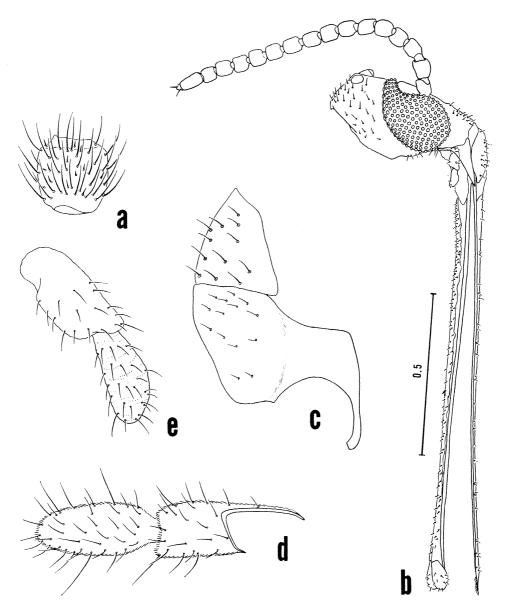


Fig. 2. Eugnoriste occidentalis Coquillett,  $\mathfrak{P}$ : a, flagellomere 4; b, head; c, anterior pronotum and posterior epimeron; d, cercus; e, palpus.

9. Similar to ♂ except for genitalic differences and shorter flagellomeres; flagellomere 4 only slightly longer than wide (fig. 1b). Wing: 1.62-1.70 mm. ♀ terminalia; cercus short (fig. 1g); vaginal furca as figured (fig. 1h).

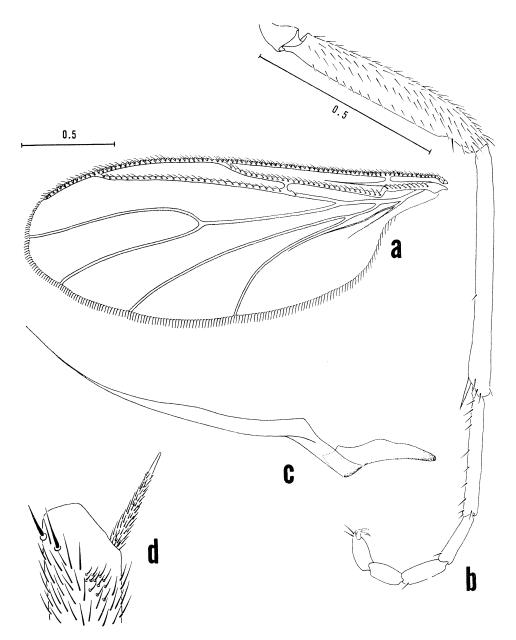


Fig. 3. Eugnoriste occidentalis Coquillett,  $\varphi$ : a, wing; b, foreleg; c, vaginal furca (with only one arm drawn); d, apex of foretibia.

Holotype & (California Academy of Sciences, San Francisco), California, El Dorado Co., N. C. Blodgett Forest, 13.3 km E. of Georgetown, A16-25W, 22.VII.65, emerged 9.XII. 65, ex *Pinus ponderosa* Douglas, D. L. Dahlsten, Nr. 674. Allotype \$\times\$: same data as holotype except E2083-70S, 29.IX.65, emerged 23.X.65, Nr. RB477. Paratypes: same data as holotype except \$1\tilde{\sigma}\$ E2083-15N, 19.VIII.65, emerged 28.IX.65, Nr. RB375; \$1\tilde{\sigma}\$ E2083-15E, 29.IX.65, emerged 23.X.65, Nr. RB 474; \$1\tilde{\sigma}\$ A16-25W, 17.VI.65, emerged 15.VII.65, Nr. RB4; \$1\tilde{\sigma}\$ A16-20E, 17.VI.65, emerged 15.VII.65, NR. RB3; \$1\tilde{\sigma}\$ E2083-10W, 29.IX.65, emerged 23.X.65, Nr. RB476; \$1\tilde{\sigma}\$ E2083-5N, 29.IX.65, emerged 23.X.65, Nr. RB479; \$1\tilde{\sigma}\$ E2083-5N, 29.IX.65, emerged 23.X.65, Nr. RB479;

Remarks: S. dendrotica appears to be closely related to Scatopsciara acuta (Johannsen) and differs primarily by the presence of the stout setae on the mesoapical margin of the dististylus.

# Eugnoriste occidentalis Coquillett, 1896

Coquillett (1896) described this species from 399 collected by Cockerell at Las Cruces, New Mexico. These specimens were all mounted on the same pin with the following data: "Las Cruces, N. Mex., June 8 Ckll." One of these specimens has been remounted in Canada balsam and is designated here as lectotype. The slide has been labeled "Lectotype" and bears the USNM type number 3653. The following redescription is based on the female lectotype.

9. Head: (fig. 2b): Eye hairs short (hairs extending only slightly beyond curvature of facets); eye bridge 3 facets wide. Vertexal bristles short; occipital bristles short and sparse. Antenna: Flagellomeres 1-13 subequal, flagellomere 4 about as long as wide with short neck (fig. 2a), flagellomere 14 about  $2\times$  as long as others, flagellar hairs short; prefrons and clypeus with patch of numerous short bristles; labium and proboscis greatly elongated. Palpus 2 segmented (fig. 2e), both subequal in length, 2 narrower; both with numerous short bristles.

Thorax: Notum with weak acrostichals and dorsocentrals, lateral region of notum with numerous short bristles and 2-3 stronger supraalars, ppn bare, apn with 12 moderately long bristles (fig. 2c); proepisternum with 14 shorter bristles (fig. 2c); posterior epimeron of mesothorax broad, about as long as wide. Wing: (fig. 3a). Costa extending 5/9th distance between tip of  $R_5$  and  $M_1$ ; Sc well developed; costa,  $R_1$  and  $R_5$  with macrotrichia, r-m with one distal macrotrichia;  $R_1$  ending before base of M-fork; ratio of r-m to M-petiole: 26:70, petiole evanescent; ratio of base of M to Cu-petiole: 20:18. Legs: Foreleg (fig. 3b) ratio: 51:57:30; hindleg: 72:91:30. Foretibia with indistinct patch of 9-10 bristles (fig. 3d); foretibial spur single, ratio of length of spur to width of tibial apex, 40:25, midtibial spurs double, subequal: 40; hindtibial spurs double, subequal: 50:30. Abdomen: Terga and sterna with short sparse hairs. P terminalia: cercus long (fig. 3d); vaginal furca as figured (fig. 3c).

# LITERATURE CITED

Coquillett, D. W. 1896. A new dipterous genus related to Gnoriste. Proc. Ent. Soc. Wash. 3: 321-22.

Steffan, W. A. 1966. A generic revision of the family Sciaridae (Diptera) of America North of Mexico. *Univ. Calif. Publ. Ent.* 44: 1-77.