



## Revision of the African horntail genus *Afrotremex* (Hymenoptera: Siricidae)

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### Abstract

*Afrotremex* is one of ten extant genera of Siricidae, known as horntails or woodwasps. Species are restricted to the central forested regions of Africa. Their biology and economic significance are unknown. However, the host of one species, *A. xylophagus*, is known. Their larvae are wood-boring insects. The genus consists of six species: *Afrotremex hyalinatus* (Mocsáry), *A. violaceus* Pasteels, *A. comatus* Goulet, n. sp., *A. opacus* Goulet, n. sp., *A. pallipennis* Goulet, n. sp., and *A. xylophagus* Goulet, n. sp. The genus is characterized, its phylogenetic placement is discussed, and a key to species is provided. For each species (if pertinent), the following are included: synonymy, diagnosis, comparative diagnosis, description, type material, origin of specific epithet, taxonomic notes, and range.

**Key words:** Ethiopian, Siricidae, horntails, *Afrotremex*, species key, phylogeny

### Introduction

*Afrotremex* is a small genus of Siricidae restricted to central Africa. In the study of the Siricidae of the Western Hemisphere (Schiff *et al.* 2012), the genus was briefly discussed and characterized and included in a key to extant world genera. During that study, several questions arose when studying images of two *Afrotremex* specimens at the National Museum of Natural History, Smithsonian Institution (USNM). I discovered that the two specimens were clearly two different species, although both resembled the description of *A. hyalinatus* (Mocsáry). Did these specimens represent two new species or was one of them *A. hyalinatus*? The other problem was the identity of *A. violaceus* Pasteels. Was *A. violaceus* separated from *A. hyalinatus* only on wing color pattern, and were *A. hyalinatus* and *A. violaceus* just two discrete color forms of *A. hyalinatus*? Having in hand 12 specimens for study and the diagnostic characteristics of *A. hyalinatus*, I could then proceed with this study and answer these questions. Despite the very few specimens, I felt it was important to publish this work to clarify the species of the genus and to show that *Afrotremex* is probably a species rich genus within the Siricidae.

R1, and basal 0.3 of 3R1 (Fig. T7.20). Hind wing clear in basal 0.5 and light brown tinted in apical 0.5 and along margin of anal lobe (Fig. T7.2). **Abdomen.** Generally brown to dark brown; terga 2–8 with lateral triangular reddish brown spot becoming light reddish brown to white along lateral margin (Fig. T7.15, T7.17 and T7.19); sternum 8 with posterior margin before median excision and apical 0.7 of sternum 9 reddish brown (Fig. T7.16); sterna 4–8 along lateral margin in apical 0.5 light reddish brown (Fig. T7.18).

**HEAD.** Head narrower than in female: flagellomere 1 0.9 as long as flagellomere 2, flagellomere 2 1.6 times as long as wide, and flagellomeres 3–10 longer than wide. Setae on clypeus, frons and postocellar area clearly clubbed at apex, and on frons 0.2–0.3 as long as diameter of lateral ocellus (Fig. T1.3, insert).

**THORAX.** Hind leg short and thick and in outline quite typical of siricid males; metatibia 4.7 times as long as wide and 1.3 times as long as metatarsomere 1; metatarsomere 1 3.6 times as long as wide and as long as metatarsomeres 2–5 combined (excluding claws); metatarsomere 5 as long as combined metatarsomeres 2 and 3.

**ABDOMEN.** Abdomen narrow and segments about equally long medially (segment 8 slightly longer) and in outline quite typical of siricid males. Tergum 9 visible and with obvious teeth anterior each long seta. Harpes with a tooth anterior to long setae. Surface of terga with numerous medium-sized setae. The microsculpture varies between each tergum: tergum 1 and 2 completely matt with deeply pitted sculpticells; tergum 3 mainly matt but shiny (sculpticells either scale-like or flat) in posterior 0.1; tergum 4 and 5 matt and shiny in posterior 0.3–0.4; terga 6 and 7 matt in basal 0.5 and shiny in apical 0.5; and tergum 8 matt in basal 0.2 and shiny in apical 0.8. Sternum densely pitted and surface between pits with isodiametric meshes with flat sculpticells; pits with pitted sculpticells. Posterior edge of sternum 8 deeply excised, excision about 2 times as wide as long; and sternum about 0.5 as long as length of sternum 9.

**Host.** The two specimens were reared from *Antrocaryon klaineum* (Anacardiaceae) a tree from central Africa.

**Origin of specific epithet.** From Greek meaning “wood eater” referring the emergence of the specimens from the wood of *Antrocaryon klaineum* (Anacardiaceae) as noted on the label.

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