

***Waminoa brickneri* n. sp. (Acoela: Acoelomorpha) associated with corals in the Red Sea**

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Abstract

While the majority of acoels live in marine sediments, some, usually identified as *Waminoa* sp., have been found associated with corals, living closely appressed to their external surfaces. We describe a new species collected from the stony coral *Plesiastrea laxa* in the Red Sea. *Waminoa brickneri* n. sp. can infest corals in high numbers, often forming clusters in non-overlapping arrays. It is bronze-colored, owing to the presence of two types of dinoflagellate endosymbionts, and speckled white with small scattered pigment spots. Its body is disc-shaped, highly flattened and circular in profile except for a small notch at the posterior margin where the reproductive organs lie. The male copulatory organ is poorly differentiated, but comprises a seminal vesicle weakly walled by concentric layered muscles, and a small penis papilla with serous glands at its juncture with the male pore. The female system comprises a separate female pore, ciliated vagina, seminal bursa, 4–8 weakly sclerotized nozzles, and paired ovaries. Similarities with *Haplodiscus* spp. as well as features characteristic of the Convolutidae, including similarity in 18S rDNA sequence, warrant reassigning *Waminoa* to the Convolutidae.

Key words: turbellarians, endosymbionts, *Haplodiscus*

Introduction

The Acoela comprises mostly free-living flatworms common in intertidal and subtidal marine environments. The group has recently garnered attention because molecular sys-