

Two new species of *Aphanogmus* (Hymenoptera: Ceraphronidae) of economic importance reared from *Cybocephalus nipponicus* (Coleoptera: Cybocephalidae)

GREGORY A. EVANS¹, PAUL DESSART² & HOLLY GLENN³

¹ USDA/APHIS/PPQ, BARC-WEST, Building 005, Beltsville, Maryland 20705, USA;
(Gregory.A.Evans@usda.gov)

² Posthumous, Institut Royal des Sciences Naturelles de Belgique, Departement. d'Entomologie Rue Vautier 29, B-1040 Bruxelles, BELGIUM

³ Tropical Research and Education Center, University of Florida, Homestead, Florida, 33031, USA.

Abstract

Two new species, *Aphanogmus albicoxalis* and *Aphanogmus inamicus* are described and illustrated from specimens reared from *Cybocephalus nipponicus*, a cybocephalid beetle that feeds upon *Aulacaspis yasumatsui*, a newly introduced pest of cycads in Florida.

Key words: Ceraphronidae, new species, *Cybocephalus*, biological control

Introduction

The armored scale, *Aulacaspis yasumatsui* Takagi [Hemiptera: Diaspididae], was described from specimens found on a *Cycas* species in Bangkok, Thailand (Takagi 1977). In 1996, severe infestations of this species were discovered on *Cycas* species in the Montgomery Foundation, located in Coral Gables in southern Florida, which contains one of the largest and finest collections of palms and cycads in the world. Since then, *A. yasumatsui* has spread throughout most of Florida. Its host range includes the following genera of plants: *Ceratozamia*, *Cycas*, *Dioon*, *Encephalartos* [Cycadaceae], *Zamia* [Zamiaceae], and *Stangeria* [Stangeriaceae].

Dr. Richard Baranowski, in collaboration with Banpot Naponpeth, Director of the Natural Biological Control Research Center at Kasetsart University, found a cybocephalid (formerly Nitidulidae) beetle feeding on *A. yasumatsui* in Thailand and subsequently introduced it into Florida. The beetle was originally identified by S. Endrödy-Younga as *Cyb-*