



The first record of *Astichus* Förster (Hymenoptera: Eulophidae: Entiinae), parasitoids of Ciidae (Coleoptera) in bracket fungi, from the Afrotropical Region and the description of four new species from South Africa

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Abstract

The genus *Astichus* Förster (Eulophidae: Entiinae) is recorded for the first time from sub-Saharan Africa and four new species are described from South Africa: *A. micans* n. sp., *A. silvani* n. sp., *A. gracilis* n. sp. and *A. naiadis* n. sp. *Astichus* species are known as parasitoids of Ciidae (Coleoptera) tunnelling and living in bracket fungi. The South African species emerged together with Ciidae from a variety of bracket fungi from many localities in the region. They are easily separated from known *Astichus* species from other regions in the world by their distinctive colour and patterning. A key to the South African *Astichus* species, distribution maps, and notes on biology are included, as well as identifications of Ciidae and bracket fungus specimens encountered in the study.

Key words: Euderinae, fungus beetles, Agaricomycetes, Polyporales, endo-parasitoid

Introduction

Species of *Astichus* Förster are among the most beautiful of the parasitic Hymenoptera, with striking metallic colouration and intricate wing patterns. As far as known, they are all parasitoids of fungus beetles (Coleoptera: Ciidae) living in bracket fungi (Agaricomycetes). The four species described here are all exceptionally striking and beautiful with their boldly patterned wings and iridescent, coloured stripes on the head and thorax, making it exciting to work with them. They can easily be distinguished from each other and from other described *Astichus* species by *inter alia* the distinctive patterns of the female forewing, the pattern and colour of the stripes on head and thorax of the female and the colour and shape of both the female and male antennae. A short diagnosis is given under each species description and the features to differentiate them from the most similar-looking described species are mentioned. A key to the South African species is included.

The *Astichus* species described in this paper are associated with Ciidae from bracket fungi found on fallen tree trunks or on weakened trees in forests, on stream banks or in moist, shady areas. Because *Astichus* had not been recorded from South Africa or from the Afrotropical Region previously, this part-time study was initiated in 2002. Fruiting bodies of many different bracket fungi from many localities were collected opportunistically while hiking and travelling. Two distribution maps are included.

In the literature *Astichus* spp. are recorded as parasitoids of ciid beetles, but very little seems to be known about their biology. The biology, host preferences and distribution of ciid beetles, which mostly tunnel and live in bracket fungi, are better known. However, ciids were not well collected in South Africa previously and, as a result, *Astichus* species have not been encountered. They were not found in extensive sweeping and other traditional collecting methods done in the country previously. Information on and identifications of the South African Ciidae and bracket fungi encountered in this study are recorded.