

## The internal male and female reproductive apparatus in *Cixidia sikaniae* D'Urso & Guglielmino, 1995 (Fulgoromorpha, Achilidae)

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### Abstract

The morphology of the internal male and female reproductive apparatus in *Cixidia sikaniae* is described and illustrated. It is compared with the reproductive apparatus of other Achilidae taxa. In the male of *C. sikaniae*, the structure of the "ejaculatory duct" is peculiar. The presence of lateral ejaculatory ducts, known up to now exclusively in Cicadomorpha, is here described for the first time in a species belonging to the Fulgoromorpha. The phylogenetic value of some characters of the internal male and female reproductive apparatus within Fulgoromorpha and between Fulgoromorpha and Cicadomorpha is discussed.

**Key words:** morphology, "ejaculatory duct", phylogeny, Auchenorrhyncha.

### Introduction

Even though several papers describe the morphology of the reproductive apparatus of some species of Auchenorrhyncha (e.g., Kershaw & Kirkaldy 1910; Evans 1931; Fennah 1950, Strübing 1955, 1956; Bayer 1965; Helms 1968; Mishra 1979; Afzal *et al.* 1980; Ammar 1985; Bourgoin 1985), there are few comprehensive studies providing phylogenetic relationships based on the characters of the internal reproductive apparatus. Emeljanov & Kuznetsova (1983), Kuznetsova & Kirillova (1990, 1993), Kuznetsova *et al.* (1998), discussed the phylogenetic value of the number of seminal follicles and ovarioles, the morphology of the male accessory glands and, in addition, the karyotype of Auchenorrhyncha. On the basis of the morphology of female external genitalia and ectodermal genital ducts in Fulgoromorpha, Bourgoin (1993) identified several characters which could provide phylogenetic indications at various taxonomic levels. On the basis of the structure of the male reproductive system, Kirillova (1989) discussed the anatomy of