CHROMOSOMES OF *APROSTOCETUS EURYTOMAE* (NEES, 1834) (HYMENOPTERA: EULOPHIDAE)

LUCIAN FUSU[1*]

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Abstract: The chromosomes of *Aprostocetus eurytomae* (Nees, 1834) are studied for the first time. The karyotype of this species has five pairs of metacentric chromosomes of gradually decreasing length. Chromosome morphology and number in *Aprostocetus eurytomae* is very similar to that of *Aprostocetus* (s.str.) sp. (group *epicharmus*) as reported by Gokhman (2004).

INTRODUCTION

Eulophidae is the most extensively studied family of Chalcidoidea in terms of cytogenetic information. Thirty-six species were studied to date including six species of *Aprostocetus* (Gokhman, 2004) and our study aims to provide some additional data on the cytogenetics of the group. *Aprostocetus eurytomae* (Nees, 1834) is a parasitoid of the larvae of the cynipid wasp genus *Diplolepis* (Hymenoptera: Cynipidae), including *Diplolepis rosae* (L., 1758), that produces galls on different species of *Rosa* (Graham 1987, Askew et al. 2006).

MATERIAL AND METHOD

Specimens used in this study where obtained by dissecting galls of *Diplolepis rosae* (L., 1758) collected on *Rosa canina* L. in the Botanical Garden of Iasi, Romania. In two larval chambers of a gall, 6 and respectively 8 pupae of an eulophid wasp were found. Some of them were used for the cytogenetic investigation while others were maintained in gelatin capsules in order to rear adults for identification. Voucher specimens are preserved in author’s collection at “Al. I. Cuza” University of Iaşi.

Chromosome preparations were obtained from the ovarian tissue of female pupae using the technique of Imai *et al.* (1988). Karyograms were constructed arranging homologue chromosomes by decreasing length and the classification used for centromere position follows Levan *et al.* (1964) and Imai *et al.* (1977).

RESULTS AND DISCUSSIONS

The karyotype of *Aprostocetus eurytomae* (Nees, 1834) consists of five pairs of relatively small chromosomes ($2n = 10$). All chromosomes are dibrachial, metacentric and form a gradually decreasing row (but chromosomes of the first three pairs are somewhat longer than those of the last two pairs). Chromosome 1 has 5 – 6 μm in length and chromosome 5 has 3.5 – 3.7 μm in length (Fig. 1). A karyotype with 10 chromosomes is the smallest record for the family Eulophidae. This chromosome number was recorded in 4 of the 36 species for which karyologycal data are known (Gokhman, 2004). Chromosome morphology and number in *A. eurytomae* is very similar to that of *A.* (s.str.) sp. (group *epicharmus*) as reported by Gokhman (2004).

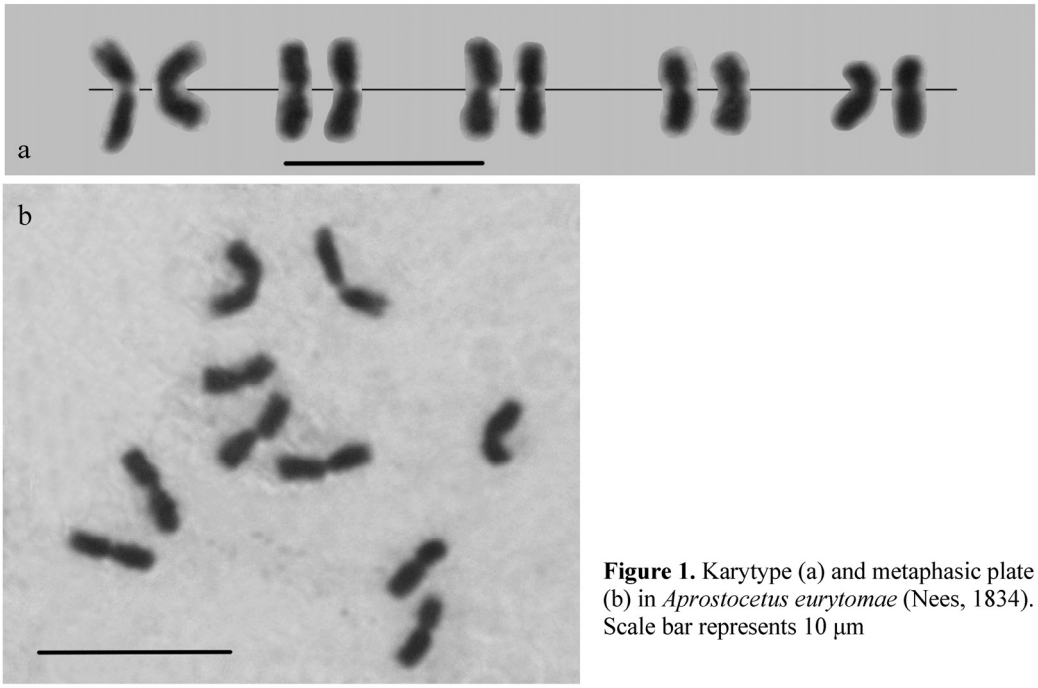

Figure 1. Karytype (a) and metaphasic plate (b) in *Aprostocetus eurytomae* (Nees, 1834). Scale bar represents 10 μm

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1 - "Alexandru Ioan Cuza "University of Iasi, B-dul Carol I, Nr. 20A, 700506, Iasi-Romania
* - lucfusu@hotmail.com

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