

Record of Two Species of Gastrotricha from Littoral Epiphytic Habitat of Kagzipura Lake, Aurangabad, Maharashtra, India.

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ABSTRACT

Gastrotricha is generally less studied phylum in India and information about its diversity and density is scanty. The present paper reports occurrence of *Polymerurus nodicaudus* and *Chaetonotus elegans* species of Gastrotricha in periphytic habitat of Kagzipura Lake, District Aurangabad, Maharashtra. This is the first report on gastrotrich from this region.

INTRODUCTION

Gastrotricha are aquatic micro invertebrates (<1 mm) with a worldwide distribution in freshwater, estuarine, and marine benthic habitats where they are an important component of the benthos and periphytic habitats [1,2,3]. According to Ruppert [4], *Phylum Gastrotricha* consists of about 750 species. The phylum Gastrotricha has a cosmopolitan distribution with densities up to 100.000 individuals per m<sup>2</sup> [5,6]. Gastrotricha are divided into two orders, Macrotrichida and Chaetonotida on the basis of morphological and Biological characteristics. This phylum is insufficiently known because of their microscopic size, the fragility of the body and the consequent difficulty of study [7].

According to Tonapi [8], Indian gastrotrich although one of the most common freshwater organisms is not justifiable on any account. No worthwhile work has been done on these smallest metazoans in this vast country. Very little is known regarding the distribution of different species of freshwater Gastrotricha in India. The previous workers on Gastrotricha in India are Stewart [8], Naidu [9], Dhanapathi [10], Rao and Chandra Mohan [11], Visvesvara [12,13] and Sharma [14]. As per the reviewed literature about 23 species are recorded from India.

MATERIAL AND METHOD

Kagzipura Lake which is located between latitude 19° 57' N and longitude 75° 15' E near Kagzipura village about 20 Km from Aurangabad. In this study, the periphytic samples like epiphytic, epixylic and epilithic were collected for micro invertebrates. Gastrotricha were found associated with macrophytes which are collected by picking up method developed by Masataka et.al [15].

In brief, the lake water was filtered with the help of 40µ mesh-net to avoid contamination of free living micro invertebrates. The filtered water is poured into about 1litre polythene bags. Macrophytes are cut with the help of scissors, picked up and placed in polythene bags. Leaves were script into water and primary observations were made under dissecting microscope. Gastrotricha are segregated and preserved in 4% formalin and stained with the help of Rose Bengal stain. Samples were mounted in glycerol and observed under compound microscope at high resolution for taxonomic identification.

### Gastrotricha



*Chaetonotus elegans*



*Polymerurus nodicaudus*

### RESULTS AND DISCUSSION

In the present study two species of Gastrotricha are recorded, namely *Polymerurus nodicaudus* and *Chaetonotus elegans*.

#### *Polymerurus nodicaudus*

- *Polymerurus nodicaudus* is about 262 to 278  $\mu$  long.
- Body is slender and three lobed head with a well developed Kephalion.
- *P. nodicaudus* is typical periphytic and cosmopolitan in distribution. Previously it is recorded from Europe, South and North America and Asian countries like Japan, Korea, Israel and India.

#### *Chaetonotus elegans*

- The total length of body is about 150 to 165  $\mu$ .
- Body is slender and two longer spines at the end of each lateral row of spines.
- The head is five lobed, with well developed Kephalion and four tufts of short cilia.

This is the first report of Gastrotricha from Marathwada region. Understanding diversity and distribution of this group in freshwaters of India is less. These types of studies will help to understand the freshwater biota of this region.

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