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Research Article

A NOTE ON OCCURRENCE OF *SPONGILLA LACUSTRIS* (LINNAEUS, 1769) AND *CORVOSPONGILLA* (ANNANDALE, 1911) FROM AURANGABAD, MAHARASHTRA, INDIA

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ABSTRACT

This is the first report on occurrence of sponges from Kagazipura and Sukhuna reservoirs of Aurangabad region. Colonies were collected and identified based on colony morphology and types of spicules. Phylum Porifera is represented by two species i.e. S*pongilla lacustris* and *Corvospongilla sp.* They are both epilithic and epiphytic. More studies are must to understand the diversity and distribution of phylum Porifera in freshwater resources from other parts of Maharashtra.

Key words: *Spongilla*, *Corvospongilla*, Kagzipura, Sukhana, Porifera.

INTRODUCTION

The great majority of the 4500 species of sponges are marine, only single family, the Spongillidae, being represented in freshwater. This family consists of about 150 species (Pennek, 1978). The numbers of freshwater sponge species are about 100 in the world and only 31 species belongs to 11 genera are found in India (Soota, 1991). Species richness of freshwater sponges is high when compare to that of the other freshwater sessile invertebrate taxa like Bryozoa and Cnideria (Manconi and Pronzato, 2008).

In India first scientific study of freshwater sponges was carried out by Annandale (1911) followed by Penney and Recek (1968). In 1976, Khera and Chaturvedi published checklist of freshwater sponges from Indian region. Soota (1991) published checklist and their taxonomic details. Form Maharashtra Annandale (1911) reported occurrence of freshwater sponges from Igatpuri reservoir and from Godavari river basin. Tonapi (1964) reported sponges of Poona. Kakavipure and Yeragi (2008) published sponges of Thane district, Maharashtra. To understand the diversity and distribution of freshwater sponges of Maharashtra more studies are must. This is the first report on occurrence of sponges from Aurangabad region of Maharashtra.

MATERIAL AND METHODS

Initially sponge materials were encountered accidentally while collecting planktonic fauna, in the form of Spicules. Then attempt were made to find the colonies. Sponges were collected from Kagzipura ($19^0$58’16.” N and longitude $75^0$12’ 31”E) and Sukhana ($19^0$48'36"N and $75^0$30' 11"E) water bodies. They were preserved in 70% ethanol. For the preparation of Spicules small piece of sponge and gemmules were boiled in 95% nitric acid, washed with the ethanol and mounted in DPX. Species are identified on the basis of colony morphology and type of Spicules. For identification keys of Annandale (1911), Edmondson (1953), Pennek (1978), and Soota (1991) were used.

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Figure 1. Satellite view of Kagzipura reservoir (A) and Sukhana reservoir (B) (Source: Wikimedia).

RESULTS AND DISCUSSION

Sponges of Kagzipura belong to family Spongillidae and genus *Spongilla* and *Corvospongilla.* (Figure 2) Both species were available on hard substratum like rocks (epilithic), aquatic Macrophytes (epiphytic) and dead shells of bivalve Mollusca. *Spongilla lacustris* (Linnaeus, 1769) was green, showing long cylindrical fingerlike branches. They were attached to both submerged macrophytes and stones. In summer season they become dead, gray colored with large number of gemmules. The well developed colonies were observed in the winter season. In summer season dead colonies with numerous gemmules was recorded form both water bodies. In monsoon season they are totally absent. *Corvospongilla* (Annandale, 1911) was encrusting form and showed similar pattern of seasonal distribution as by *Spongilla lacustris*. In Sukhana only *Spongilla lacustris* were recorded. Soota and Saxena (1983) reported occurrence of freshwater sponges from Rajasthan. According to Devarshi (2006), the absence of rocky substratum, rocky margin and short duration of water retention in lakes and ponds could be plausible reason for absence of sponges. In monsoon season they are totally absent may be due to increased water levels or turbid water. Sponges require cleans water for survival and growth. Tonapi (1964) reported freshwater sponges of Poona. Tonapi (1980) mentioned that after Annandale's (1911) classical volume on freshwater sponges of India, there has been no work on this most ubiquitous group.

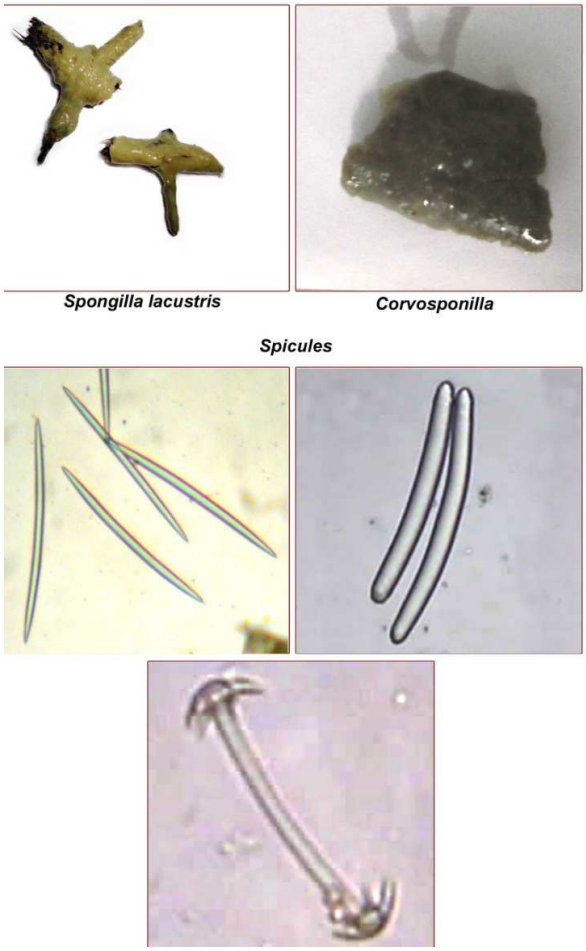

Figure 2. Photographs of *Spongilla* and *Corvospongilla* colony with isolated Spicules.

CONCLUSION

This is the first report on the occurrence of sponges from Aurangabad region and further studies are required from various regions of Maharashtra to understand the diversity and distribution of sponges. The studies on diversity of sponges in relation to abiotic factors and lake basin are imperative to understand their ecology.

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CONFLICTS OF INTEREST

The authors declare that there are no conflicts of interest associated with this article.

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