

Regular Article

Genus- *Homoeothrix* (Thuret) Kirchner (Cyanophyceae) from Hartala Lake, Maharashtra

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ABSTRACT: While exploring algal flora of Hartala lake (latitude 21° 00'20.56" north and longitudes 76° 01'31.31" east), District Jalgaon (M.S.) 84 taxa of cyanophyceae were collected. Present communication deals with five taxa of *Homoeothrix*. Of these *Homoeothrix nordstedtii* (Born. et Flah.) Komarek et Kann, *Homoeothrix varians* Geitl. and *Homoeothrix varians* Geitl. var. *major* Geitl. are first time reported from India.

Key words: *Homoeothrix varians*, Hartala lake, Maharashtra

Introduction

Hartala lake is oldest lake located on a small tributary of river Tapi at latitude 21° 00'20.56" north and longitudes 76° 01'31.31" east. The lake has a capacity of 140 millions of cubic feet water and commands an area of 584 acres. Present investigation includes 05 taxa of *Homoeothrix* which belongs to 04 species and 1 variety. Of which 2 species and 1 variety reported for the first time from India. From available literature it seems that very less attention was given on study of *Homoeothrix* except Gonzalves and Kamat (1960); Sarma et al. (1979); Pal and Santra (1985); Mahajan and Nandan (2004).

Materials and Methods

The collections were made early in the morning between 7.00 to 10.00 am during 2005- 2007 from Hartala lake (M.S.). All the collected samples were studied fresh as far as possible and later preserved in 4 % formalin for further studies. Camera Lucida drawings were made with the help of mirror type of camera lucida. The identification of taxa is based on the monograph (Desikachary, 1959) and relevant research paper publications. The material is deposited in the Department of Botany, Dhanaji Nana Mahavidyalaya, Faizpur, district Jalgaon, (M.S.).

Systematic enumeration

Homoeothrix balearica (Born. et Flah.) Lemm. (Fig. 1) (Komarek and Kann, 1973)

Filaments together forming a thallus, filaments erect, unbranched, 10.8 µm broad, 150-160 µm long, thickened at the base, sheath thin close to trichome, trichome 6.9 µm broad, produced into long hair 1.5 µm long. (Coll. No. 234).

Homoeothrix juliana (Born. Et Flah) (Fig. 2) (Desikachary, 1959)

Filaments together forming an olive coloured thallus, filaments unbranched, 6.2-13.8 µm broad; sheath hyaline; trichome straight, upto 9.2 µm broad, constricted at cross-walls; cells shorter at the base longer at apices, 1.2-5.4 µm long, heterocyst basal, 5.4 µm broad. (Coll. No. 230).

Homoeothrix nordstedtii (Born. et Flah.) Komarek et Kann (Fig. 3) (Starmach, 1980)

Filaments many together forming thallus, slightly bent at the apex, filaments upto 200 µm long, 7.7-13.8 µm broad at the base, sheath hyaline, trichome distinctly constricted at the cross-walls; cells isodimetric, basal cells shorter than apical cells, upto 10.8 µm broad, 2.3-7.8 µm long. (Coll. Nos. 230, 254).

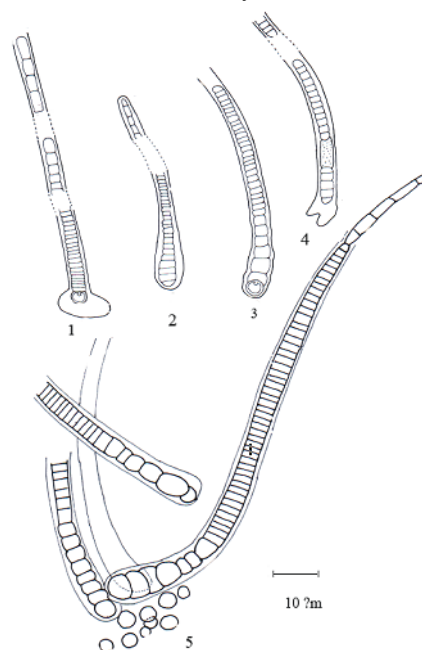
Homoeothrix varians Geitl. (Fig. 4) (Komarek and Kann, 1973)

Thallus in bunches, mucilaginous, more or less yellow brown; filaments slightly bent, unbranched, not thickened at the base, 10.0 µm broad at the base, gradually tapering, sheath very thin, narrow, colourless, distinctly constricted at cross-walls, not granulated; cells mostly isodimetric, 6.1-6.9 µm broad at base, nearly 1/2 or slightly less longer than broad, 3.8-5.4 µm long, end cells rounded. (Coll. Nos. 252, 255).

Homoeothrix varians Geitl. var. *major* Geitl. (Fig. 5) (Komarek and Kann, 1973)

Thallus in bunches, mucilagenous, yellowish-brown; filaments bent at the base, unbranched, gradually tapering, 10.0-13.8 µm broad at the base, sheath narrow, colourless; cells mostly isodimetric, basal cells of trichomes 7.7-10.7 µm broad, cells 1.9-13.1 µm long. (Coll. No. 194).

Plate 1 Fig. 1 *Homoeothrix balearica* (Born. et Flah.) Lemm., Fig. 2. *Homoeothrix juliana* (Born. et Flah.) Kirch., Fig. 3 *Homoeothrix nordstedtii* (Born. et Flah.) Komarek et Kann, Fig. 4 *Homoeothrix varians* Geitl. and Fig. 5. *Homoeothrix varians* Geitl. var. *major* Geitl



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