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RESEARCH ARTICLE

DIFFERENT ORDERS OF CYANOPHYCEAE AT MEHEKARI WATER RESERVOIR

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ABSTRACT

Cyanophycean algae are also known as blue green algae or cyanobacteria. These were found in a wide range in India and worldwide. These are important contributors to aquatic biology of fresh and marine waters. Eleven species of cyanophyta bearing different orders were recorded from the study area. The study was carried out during present investigation to explore algal diversity. Present communication deals with cyanophycean species, observed at Mehekari water reservoir. A detailed report of present study is described in the present paper.

Key words:

Order, Cyanophyta, Mehekari, Reservoir

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INTRODUCTION

Mehekari Lake is constructed on the Seena River in Ashti tehsil of Beed district of Maharashtra. The study was carried out to explore the presence of different orders of the cyanophyta at water reservoir. Earlier the author reported the algal species of chlorophyceae from the water reservoir.

MATERIALS AND METHODS

Random sampling technique has been used for collection of algal samples. The collections were made during the period of November 2019 to December 2021 at monthly intervals. The samples were taken to laboratory and were preserved in 4% formalin for further taxonomic investigations. Temporary Mounts of algal specimen were prepared with suitable stains and observed under compound microscope. Identification of taxa was carried out by using Bharadwaja and Tiwari (2010), Boone and Castenholz (2001), Desikacharya (1959), Dey et al. (2009) Prescott (1951), Prasad and Srivastava (1992), and other relevant monographs and available literature.

RESULTS AND DISCUSSION

Gloeocapsakuetzingiana Nag: Desikachary, 1959, p118, pl 23, f 4 Thallus thin, soft, brownish or blackish; cell densely arranged in colony, 125 μ diam.; cells without sheath 5 μ diam., with sheath 7.5 μ diam., blue green; sheath yellow to brown, not lamellated.

G. punctata Nag: Desikachary, 1959, p 115, pl 23, f 2 Thallus gelatinous, light blue green; cells with sheath 5 μ broad, cell without sheath 1.5 μ , blue-green; sheath thick, colourless, unlamellated or scarcely lamellated; cells 2-16 in groups or colonies, about 25 μ diam.

Chroococcus macrococcus (Kuetz.) Rabenh. Desikachary, 1959, p 101, p 27, f 9 Thallus mucilaginous, somewhat broad, yellowish brown, more or less dilated; cells spherical, 2-4 together, also single, 45 μ diam., with sheath 67.5 μ diam.; sheath thick, colorless, lamellated.

Aphanocapsa bififormis A.Br. Desikachary, 1959, p 134, pl 21, f 3. Thallus olive green, gelatinous, often expanding; cells 5 μ diam, spherical, mostly with a special envelope; loosely

arranged, 2-4 together in a common mucilaginous envelope, nanncytes about 2 μ diam.

A. grevillei (Hass.) Rabenh. Prasad and Srivastava, 1992, p 36, pl 5, f 2. Thallus light blue green, spherical densely arranged and embedded in gelatinous matrix; cells spherical, 2.5 μ in diameter, closely arranged, individual envelope not distinct; cell contents blue green, homogenous without gas vacuoles; cell wall thin and smooth.

Merismopediaelegans A.Br. Prescott, 1951, p 459, pl 101, f 1 Colony irregularly quadrangular, composed of 16 or more compactly arranged, ovate cells, with the row of cells, becoming distorted in older and longer colonies; cells 5 μ in diameter, 7.5 μ long; contents bright blue green.

M. punctata Meyen. Prescott, 1951, p 459, pl 102, f 10 A rectangular plate of 64 ovate cells, usually loosely arranged, sometimes in compact groups of 4-8 individuals, the groups are widely separated within a broad gelatinous envelope, cells 2.5 μ .

Gloethecerhodochlamys Skuja. Desikachary, 1959, p 125, pl 25, f 13. Thallus minute and microscopic, more rounded, blue green, red or purple; cells ellipsoidal to short cylindrical with rounded ends, 2.5 μ in size.

Gomphosphaeriaaponina Kuetz. Desikachary, 1959, p 150, pl 28, f 3. Cells pyriform or cuneate, cordate at longitudinal cell division, 12.5 μ broad and 15 μ long, blue-green or yellowish mostly with a distinct mucilaginous envelope, placed at the ends of regularly dichotomously branched radial mucilaginous stalks; colony large 62.5 μ in diameter.

Oscillatoriaacuta Bruhlet Biswas, orth. mutGeitler. Desikachary, 1959, p 240, pl 39, f 5. Trichomes solitary, hardy, brittle not constricted at the cross walls; 90 μ long, usually quite straight, narrow at the apex, which may be straight but is more often abruptly bent aside; cells 3 μ long, contents bluish green, finely granular, sometimes with some larger granules close to the surface.

O. proboscidea Gomont. Prasad and Srivastava, 1992, p 69, pl 8, f 9. Trichomes single, dark blue green; not constricted at cross walls, 6-12 μ in diameter, cells $\frac{1}{4}$ times as long as broad, 2.5 μ long; cell contents light blue green, homogenous, without gas vacuoles, granules distributed irregularly throughout but usually towards septa; end cells almost truncate, capitate with thick convex outer membrane; cell wall thick and smooth.

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