

Rare Monotypic Genus *Leptosiropsis* Jao from Supaul District of North Bihar, India

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Key words: Chlorophyceae, Chaetophorales, *Leptosiropsis*, Monotypic, *Leptosiropsis* Jao

The monotypic genus *Leptosiropsis* Jao was erected by C. C. Jao in 1940 [1]. This is a comparatively rare taxon and has not been reported from anywhere in the world outside the Asian continent [2]. [3-7] made some important contributions on the taxonomy of *Leptosiropsis* Jao from India. Chaetophoralean flora of Supaul district (North Bihar) is poorly understood. Therefore, floristic survey of the order Chaetophorales has been taken up. The present paper describes the morphology and distribution of *Leptosiropsis* Jao belonging to order Chaetophorales under the class Chlorophyceae.

Algal samples were collected from different localities of Supaul district (25°37' – 26°25'N Latitude and 86°22'-87°10'E Longitude) of North Bihar. Collected algal materials were preserved with FAA (Formaldehyde, Glacial acetic acid and 90% alcohol). Each litre of preservative contained: 40% commercial formalin -100C.C., 60% ethyl alcohol - 500C.C., glacial acetic acid - 50C.C. and water -350C.C. To each litre of this solution, 50C.C. of pure glycerine was added to prevent the material from dessication. Prism type camera lucida was used for the drawing and microphotograph of the sample were taken. Identification of the taxon was made with the help of standard literature including monograph [1-2], [4], [6].

In the present study a rare monotypic genus *Leptosiropsis* (type species: *L. torulosa* Jao) is reported. *Leptosiropsis torulosa* C.C. Jao 1940 [1]

Thallus microscopic, irregularly short branched; cells cylindrical, quadrangular to sub-cylindrical or dome shaped, 16-32µm in diameter, 20-52µm long having firm, thick lamellate sheath; sheath 5- 8µm thick; chloroplast single, parietal often with a black spot and always with a central pyrenoid. No zoospore or gamete formation was observed in present specimen.

The present specimen is similar to the type species in all characters, except the presence of orange-yellow colour of alga as in specimen from West Bengal.

Habitat

Freshwater; Collection No. DK-62, February 17, 2022 from a canal (pH 7.5, temp. 24°C) at Baghaeli, Tribeniganj

(Dist. Supaul). Collection No. DK-201, March 6, 2022, from a ditch (pH 6.5, temp. 32°C) at Basantpur (Dist. Supaul).

Association

The present specimen is associated with *Oedogonium*, *Bulbochaete*, *Coleochaete*, *Stigeoclonium* and *Spirogyra* species.

Distribution

Asia: China [1]; Bangladesh [8]; India: Bihar, Uttar Pradesh, West Bengal [2], [9].

The genus *Leptosiropsis* Jao was found as epiphytes on the stems and roots of submerged angiospermic plants, where it was growing in close association with *Oedogonium*, *Bulbochaete*, *Coleochaete*, *Stigeoclonium* and *Spirogyra* species. The pH and Temperature recorded for each site of collection during the present investigation revealed that *Leptosiropsis torulosa* Jao grow at pH range 6.5-7.5 and the lower range of temperature (24°C-32°C) favors the growth.

SUMMARY

During present investigation authors collected the monotypic genus *Leptosiropsis* Jao from two different sites of Supaul district of North Bihar. Earlier the genus was also reported from Bihar by [5-6]. It was also reported by [5], [7] from West Bengal. Hence it is evident that it occurs frequently in some parts of eastern Bihar. Apart from Bihar it was reported from Lucknow by [2-3]. Hence distribution pattern of the genus *Leptosiropsis* Jao reflects its very restricted occurrence. A critical study is needed to ascertain that whether it is due to ecological factors or our poor state of exploration. Lack of plasticity in morphological characters is another point to pay attention because all specimens reported from different localities so far show very little variation in dimension or other characters. Hence a further intense study is needed to understand the nature and systematic position of this rare taxon. During the taxonomic investigations of freshwater filamentous

Received: 06 Nov 2022; Revised accepted: 08 Feb 2023; Published online: 27 Feb 2023

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Citation: Jha DK, Jha RN. 2023. Rare monotypic genus *Leptosiropsis* Jao from Supaul district of North Bihar, India. *Res. Jr. Agril Sci.* 14(1): 350-352.

green algae of Supaul district of North Bihar, the authors recorded a good number of Chaetophoralean algae. In this

communication a rare monotypic genus *Leptosiropsis* (type species: *L. torulosa* Jao) is described and illustrated.

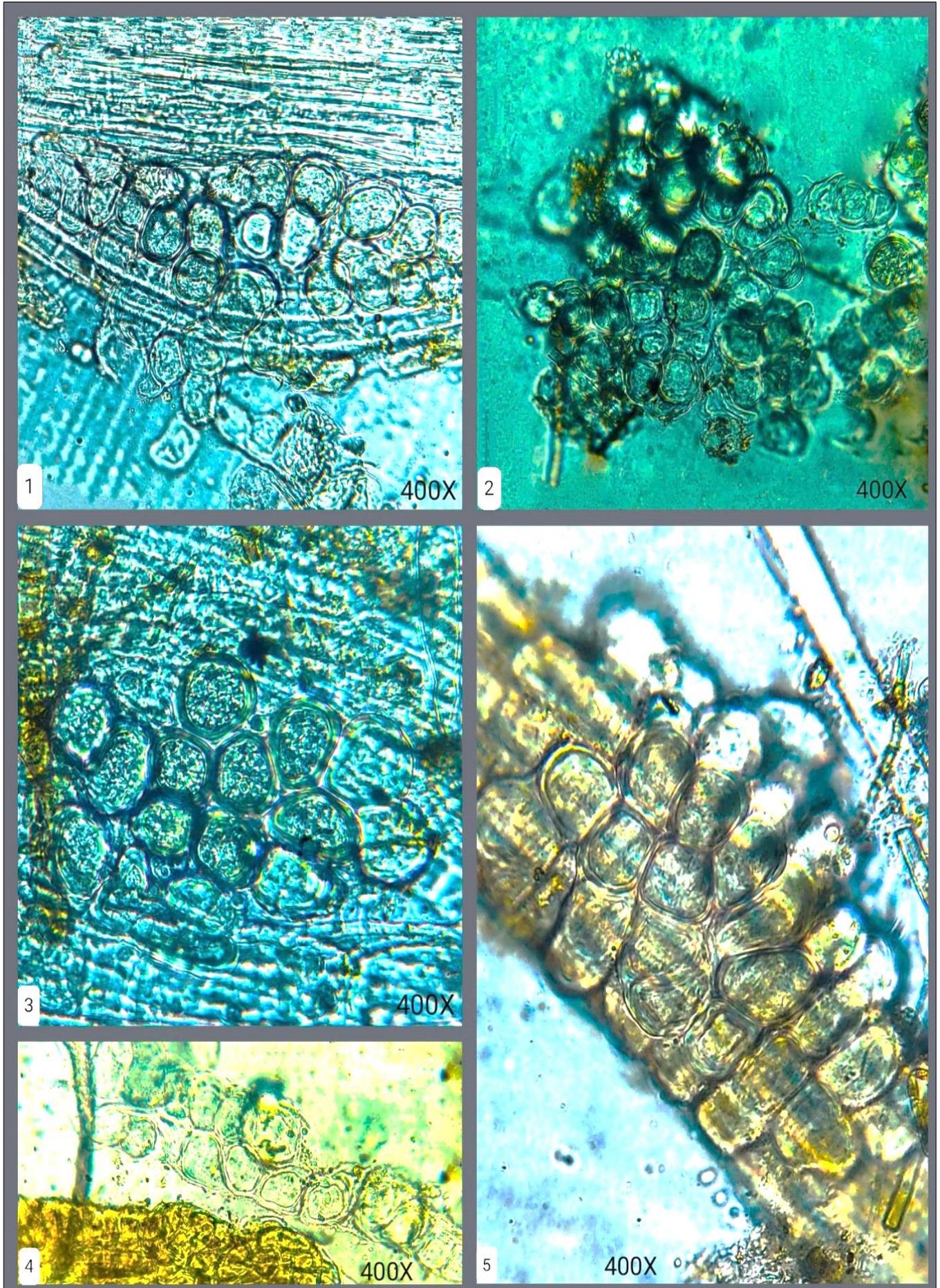


Plate 1; Fig 1-5 *Leptosiropsis torulosa* C. C. Jao 1940

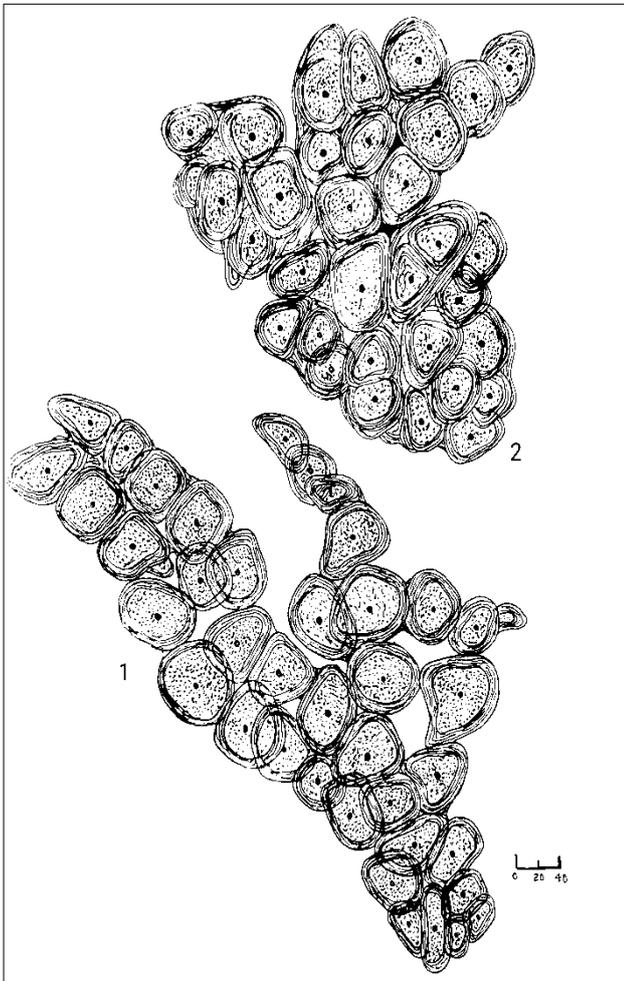


Plate 2; Fig 1-2 *Leptosiropsis torulosa* C. C. Jao 1940

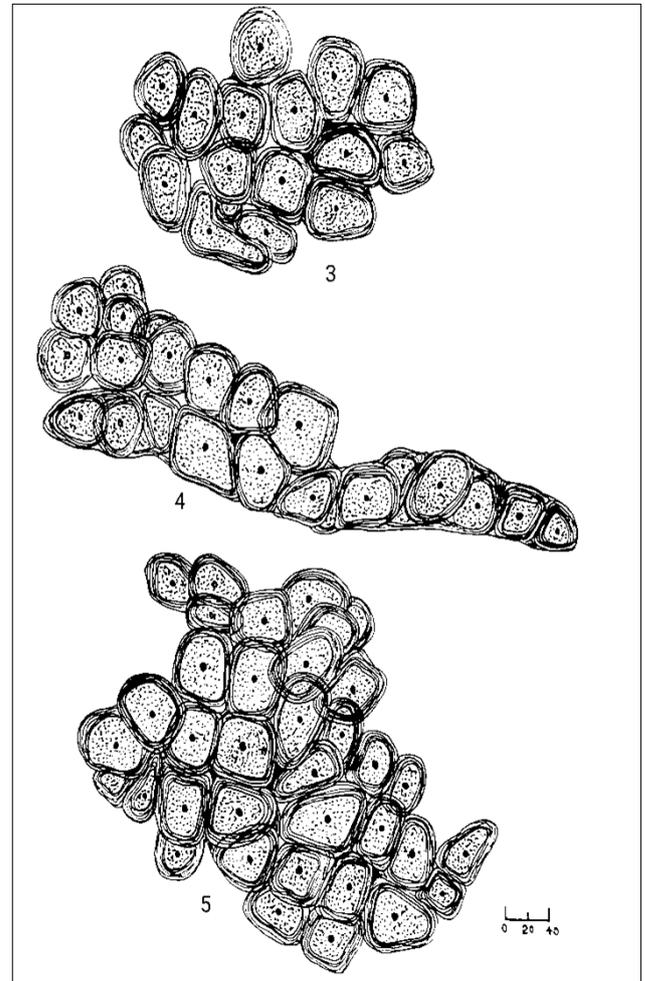


Plate 3; Fig 3-5 *Leptosiropsis torulosa* C.C. Jao 1940

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