



***Prasiolopsis ramosa* Vischer – New addition to the algal flora of Asia**

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| Received: 04 May 2015 | Accepted: 23 June 2015 |

ABSTRACT

Prasiolopsis ramosa Vischer (Trebouxiophyceae, Chlorophyta), a filamentous green alga, is reported for the first time from Sikkim Himalayas, with morphometric descriptions along with supporting illustrations. This is also a new distributional record of the taxon from Asia.

Key Words: *Prasiolopsis ramosa*, new record, Asia.

INTRODUCTION

Prasiolopsis ramosa Vischer (Trebouxiophyceae, Chlorophyta) is a filamentous green alga, reported from several sub-aerophytic habitats like tree barks and building facades mostly from Europe (Ettl & Gärtner 1995) and few localities of New Zealand. There were also few records from the marine habitats of Helgoland. In the present study, while studying the algal flora of Sikkim Himalayas, the species was collected from a waterfall with perennial water source. The thallus of the alga was embedded within the mucilage of an algal consortium. This is a new record from India as well as from Asian Continent.

METHODOLOGY

The alga was collected from a sub-alpine waterfall of Eastern Himalayas in Sikkim, India, sampled during January, 2014. The collected sample was preserved with 4% formaldehyde solution and deposited in Central National Herbarium, Howrah, India (CAL). Microscopic observations and morphological study was made with Nikon microscope Ni-11 fitted with Nikon Digital Camera

DS-Ri1-U3 and operated by Nikon Imaging Software NIS-D+EDF. Identification and distributional study of the algae was made following Ettl & Gärtner (1995).

RESULTS

Prasiolopsis ramosa Vischer, Ber. Schweiz. Bot. Ges. 63: 184. 1953. *Pleurococcus vulgaris* Meneghini 1842 emend. Brand, Arch. Protistenk. 52: 338, fig. 55-77. 1925. **Fig. 1 a - c**

Thallus comprising of short, branched filaments; younger filaments uniseriate; multiseriate and parenchymatous when mature; apical portion of the filaments tapering, mature filaments 38-94 µm wide; cells closely packed, irregularly arranged, iso-diametric to broadly oval, 4.2-6.5 µm in diameter, cells uninucleate with stellate chloroplast, with one pyrenoid; apical cell slightly elongated.

Habitat: Growing epilithic in the peripheral wall of the waterfall in a thick, slimy consortium of other algae, i.e. *Ecballocystopsis himalayensis*, *Heterococcus brevicellularis*, *Aulacoseira alpigena* and *Nitzschia inconspicua*.

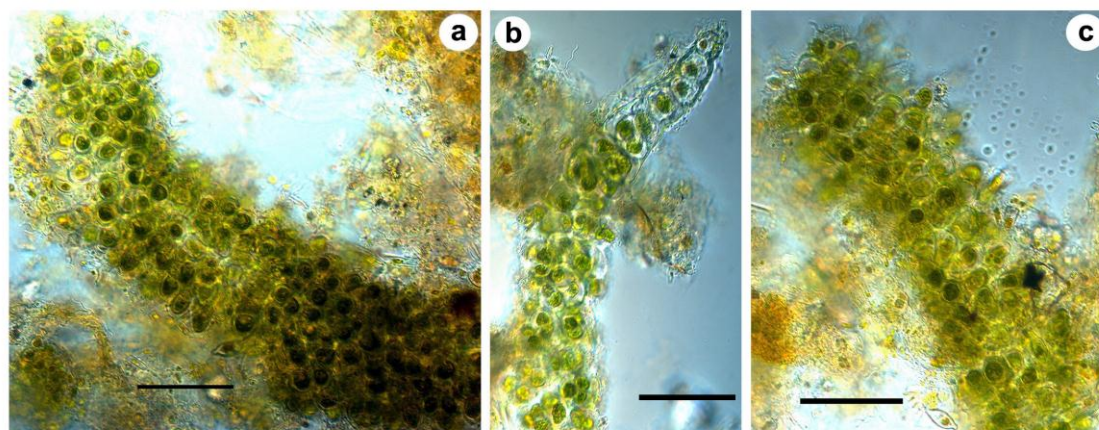


Fig. 1. a – c. Morphological features of *Prasiolopsis ramosa* Vischer. (Scale for Fig. 1-3 = 50 µm)

Specimens examined: India, Sikkim, East Sikkim district, Gangtok, Banjhakri waterfall, 27°21.065' N, 88°36.432' E, c. 1748 m, 16.01.2014, S.K. Das 62768 (CAL).

Distribution: Helgoland (Kornmann & Sahling 1974; Bartsch & Kuhlenskamp 2000), Spain (Munoz-Medina *et al.* 1974), Switzerland (Karsten *et al.* 2005; Rindi *et al.* 2007), New Zealand (Broady *et al.* 2012; Heesch *et al.* 2012), Ukraine (Mikhailyuk *et al.* 2013)

Notes: *Prasiolopsis ramosa* was previously reported from Europe and other sub-tropical localities, only confined to aero-terrestrial habitats like tree barks and moist walls. The present taxon was found growing in a waterfall on moist rock under dripping water. Further the cellular dimension as well as the width of the matured filament is comparatively smaller in comparison to the earlier published records.

ACKNOWLEDGEMENTS

The author is grateful to the Director, Botanical Survey of India, for facilities and encouragement. The author is also thankful to Dr. Kanad Das (BSI), for his useful advices improving the manuscript.

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