Bangladesh J. Bot. **34**(1): 41-43, 2005 (June) **Short communication**

EUGLENAMORPHA HEGNERI WENRICH (EUGLENACEAE): A RARE EUGLENOID FROM BANGLADESH

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Abstract

Investigation on an algal sample collected from a water tank revealed a non-endozoic state of an euglenoid alga *Euglenamorpha hegneri* Wenrich. A detail systematic of the species in presented.

The family Euglenaceae is represented worldwide by the occurrence of 10 genera (Huber-Pestalozzi 1969). Of these, the monospecific and rare genus *Euglenamorpha hegneri* was first recorded from USA (Wenrich 1924). Recently this genus has been collected and this is a new report to the Euglenaceae of Bangladesh.

The type specimen of *Euglenamorpha hegneri* is green, but there is also a colourless derivative. The green or type variety has a cylindrical or cigar-shaped body, chloroplast, stigma, paramylon granules, compact nucleus, three flagella, with swellings on their roots near the stigma. The species is usually endozoic inhabiting the rectum of *Rana* tadpole. Outside the host, the green variety may assume a resting state undergoing encystment in which it may divide and by means of which presumably it reaches the new host (Wenrich 1924). The present collection has been made outside the host as lithophyton grown on the wall of a water tank.

The description of the species has been provided below and is based upon the materials examined.

Euglenamorpha hegneri Wenrich, Biol. Bull. Mar. Biol. Lab. Wood's Hole **47**: 149-175 (1924)

(**Fig. 1**)

Cell globose to slightly pyriform, anterior end papillate, posterior end roundish to slightly attenuated, cell 11-14 µm long and 11-12 µm broad, flagella 3-4 in number, equal in length, 16-17 µm long, chloroplast discoid, numerous, tightly packed within the cell, cyst formation occurred in a durable net like case, maximum diam. 19.2 µm.

Notes: The present study was made from a fixed material, so no metabolic activity of the cells could be confirmed. The free living individuals have the similarity with those cells liberated from the encasement (Fig. 1g). So it might be the young stage of the species. No cigar shaped form i.e., typical to *E. hegneri* (30-45 µm × 4.0-8.0 µm) as reported by Wenrich (1924) could be found.

This species has been reported so far from Pensylvania, Massachusetts and New York (Wenrich 1924, Huber-Pestalozzi 1969, Dillard 2000).

Ecology: Aquatic lithophytes.

Specimen examined: Dhaka, Baldha Gardens, 10 November 2004, sample scraped from a submerged portion of cemented wall at water surface level of a water tank having 2.5 m^2 in area and 1.0 m in depth.

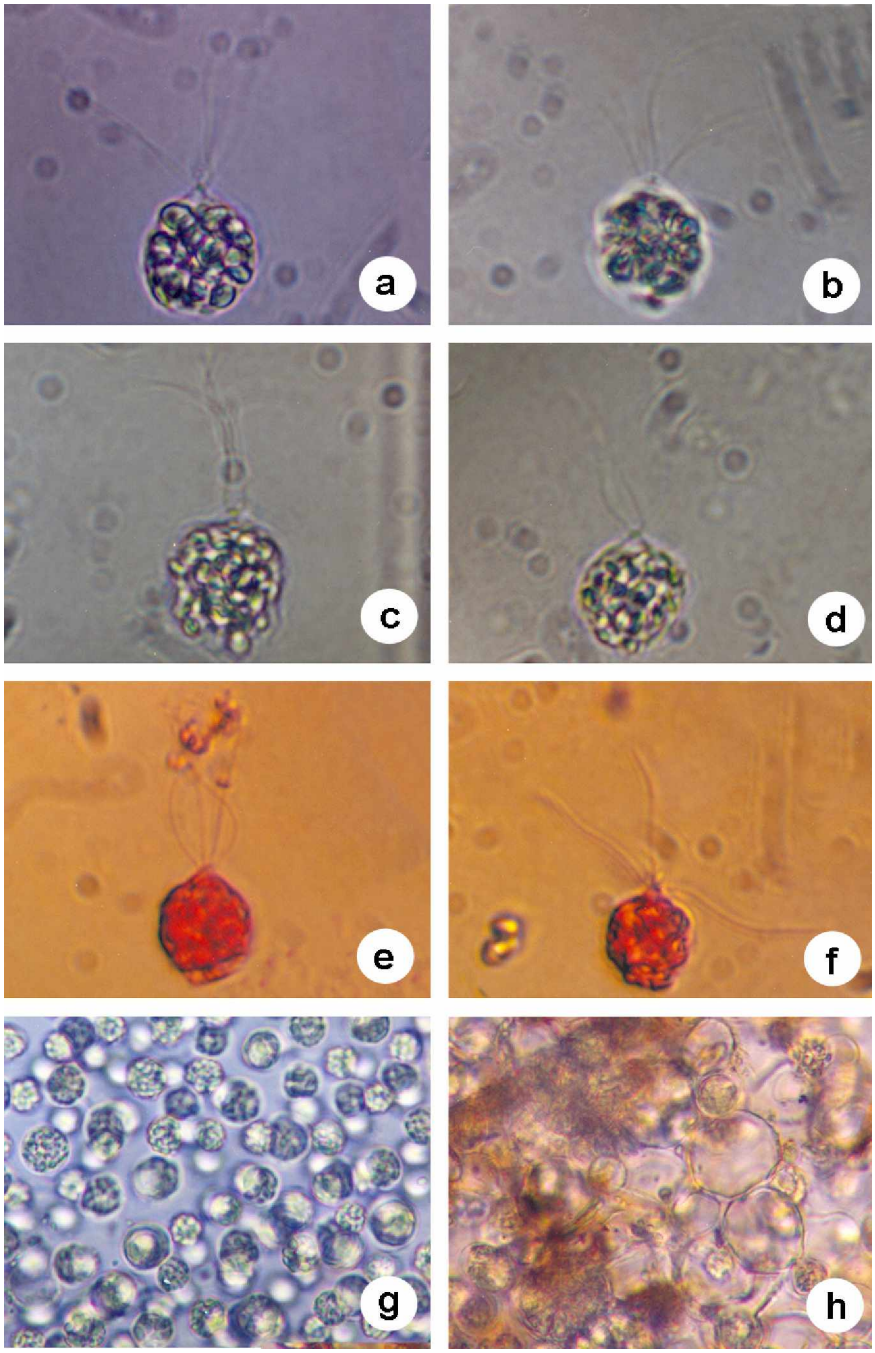

Fig. 1. Photomicrographs of the various stages of *Euglenamorpha hegneri*. a-d. vegetative cells showing the location of flagella and chloroplasts (× 1900); e-f. vegetative cells stained with safranine to show the number of flagella (× 1900); g. young cells liberated from the cyst encasement (× 700); h. encasement of the cysts (× 700).

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