



EPIPHYTIC ALGAL FLORA CHAETOPHORALES OF FRESH WATER PONDS FROM NORTH EASTERN U.P., INDIA

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Abstract

Present paper deals with 8 taxa, 15 genera and 3 varieties of epiphytic Chaetophorales. Out of 8 forms, 3 are addition to north eastern Uttar Pradesh. Genera *Epibolium*, *Leptosiroopsis* and *Pseudulvella* are recorded for the first time from north eastern Uttar Pradesh.

Key words : Algae, Chaetophorales, fresh water ponds, North eastern Uttar Pradesh.

Introduction

Many reports are available on epiphytic fresh water Chaetophorales (Campion, 1956; Saxena, 1962; Sharma and Khan, 1980; Singh *et al.*, 1981; Prasad and Fatma, 1982; Premila, 1990; Khan and Islam, 1999; Habib and Chaturvedi, 2001). In the present paper, 8 taxa of epiphytic Chaetophorales have been collected from Deoria and Gorakhpur district of North eastern Uttar Pradesh, India. District Deoria lies between 26°- 5' and 83°- 79' East. Total area of Deoria district is 2573.5 sq. Km. District Gorakhpur lies between latitude 26°- 40' north and longitudes 83°- 22' East. Geographical area of Gorakhpur district is 3843.8sq Km.

Materials and Methods

For collecting epiphytic Chaetophorales supporting plants of *Chara*, *Hydrilla*, *Ceratophyllum*, *Ipomea* and Submerged grasses were collected. Samples were preserved in 4% formalin with little amount of glycerine. The collection was done for about one year of monthly interval. Photomicrography was done by Nikon lavo fot with attached camera. Identification is made with classical monograph includes Tiffany and Briton (1952), Printz (1964), Tupa (1974) and Prasad and Mishra (1982).

Results and Discussion

Total of 8 taxa 15genera and 3 varieties of epiphytic Chaetophorales are reported from Gorakhpur and Deoria district of north eastern Uttar Pradesh (table 1). *Leptosiroopsis torulosa* Jao, *Epibolium polysporum* Duringer and *Pseudulvella Americana* var. *indica* Philipose are reported first time from Deoria and Gorakhpur district. Fatma (1985) have reported 8 genera of epiphytic algal flora from Lucknow. Premila and Nirmla (1992) reported 10 species of epiphytic green algae Chaetophorales from Nilgris Hill region Tamilnadu. Habib and Chaturvedi (2003) have reported 15 epiphytic algal flora from Kumaon region Uttarakhand. *Stigeoclonium fasciculare* Kutzing and *Coleochaete pulvinata* var. *minor* Braun have been found in polluted and unpolluted water of Gorakhpur district. *Coleochaete pulvinata* Braun, *Coleochaete scutata* minor and *Aphanochaete polychaeta* Fritsch have been reported first time from Deoria district. Rest of the epiphytic Chaetophorales are found in unpolluted water of Deoria and Gorakhpur district.

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Table 1 : Epiphytic Chaetophorales collected from fresh water ponds of north eastern Uttar Pradesh.

S. no.	Epiphytic Chaetophorales
1.	<i>Aphanochaete polychaeta</i> (Hansg) Fritsch
2.	<i>Chaetosphaeridium prinsheimii</i> Klebahn
3.	<i>Coleochaete pulvinata</i> Braun Kutzing
4.	<i>Coleochaete conchata</i> Moebius
5.	<i>Coleochaete pulvinata</i> var. minor Braun
6.	<i>Coleochaete scutata</i> minor Mobius
7.	<i>Coleochaete soluta</i> Pringsheim
8.	<i>Coleochaete soluta</i> var. minor Hansg
9.	<i>Chaetophora incrassata</i> Hazen
10.	<i>Chaetophora pisciformis</i> var. <i>hamato</i> Jao
11.	<i>Chaetophora attenuata</i> Hazen
12.	<i>Stigeoclonium tenue</i> Kutzing
13.	<i>Stigeoclonium aestivale</i> (Hazen) Collins
14.	<i>Stigeoclonium fasciculare</i> Kutzing
15.	<i>Stigeoclonium amoneum</i> Islam
16.	<i>Pseudovella Americana</i> var. <i>indica</i> Philipose
17.	<i>Epibolium polysporum</i> Duringer
18.	<i>Leptosiropsis torulosa</i> Jao

References

- Campion, M. (1956). A survey of the green algae epiphytic on the shells of some fresh water mollusca. *Hydrobiol.*, **8(1-2)** : 38-53.
- Chaturvedi, U. K. and I. Habib (2001). Algal flora of Pithoragarh. *Ibid*, **32(1-2)** : 55-56.
- Chaturvedi, U. K. and I. Habib (2003). Epiphytic algal flora of Kumaon region, Uttarakhand. *J. Indian Botanical Society*, **23** : 21-23.
- Fatma, T. (1985). Epiphytic algal flora of Lucknow. *Chaetophorales Phykos*, **24** : 173-174.
- Khan, M. R. and A. K. M. Nurul Islam (1999). New taxa of Coleochaete (Chlorophyta) from Bangladesh. *J. Asiatic Society Bangladesh Science*, **25(1)** : 51-79.
- Nirmala, R., N. Premila and S. Barathan (1992). A preliminary report on the epiphytic and epiphyllous green algae from Nilgiris Hills, Tamilnadu. *J. Indian Botanical Society*, **71** : 477-478.
- Prasad, B. N. and T. Fatma (1982). *Epibolium polysporum* Duringer : A rare green alga from India. *Geophytology*, **12(2)** : 336-339.
- Prasad, B. N. and P. K. Mishra (1982). Some Chaetophorales from Andman and Nicobar Islands. *J. Phykos*, **21** : 55-58.
- Premila, N. (1990). Epiphytic Chaetophorales from Anamali hill region Tamilnadu. *Phykos*, **29** : 162-164.
- Printz, H. (1964). Die Chaetophoraleen der binnengewässer. Ein Systematische Uebersicht. *Hydrobiologia*, **24** : 1-376.
- Saxena, P. N. (1962). Algae of India -1. *Chaetophorales Bull. Nat. Bot. Garden* no 57 : pp1-55.
- Sharma, Y. S. R. K. and M. Khan (1980). *Algal taxonomy in India*. Today and tomorrow Printers and Publishers, New Delhi pp-147-153.
- Singh, S. P., G. L. Tiwari and D. C. Pandey (1981). Some interesting algal forms from Allahabad. *Phykos*, **20** : 85-90.
- Tiffany, L. H. and M. E. Britton (1952). *The algae of Illinois*, Chicago Press, Chicago.
- Tupa, D. (1974). An investigation of certain Chaetophoralean algae, Nova Hedwigea. *Heft*, **26** : 1-42.