

Result and Discussion

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The work incorporated in the present investigation was carried out within the localities of Satara district. For the collection various possible sites were screened and the blue green algae occurring there were identified. It has been revealed that the blue green algal flora present in the area shows the occurrence of species listed in the Table: 1

The blue green algal flora within the study area is represented by three orders viz. Chroococcales, Pleurocapsales, and Nostocales. Eight families represented in this area belonging to above order are Chroococcaceae, Entophysalidaceae, Pleurocapsaceae, Oscillatoriaceae, Microchaetaceae, Nostocaceae, Scytonemataceae, and Rivulariaceae.

Order Chroococcales is represented by two families namely Chroococcaceae and Entophysalidaceae. The family Chroococcaceae is represented by nine genera *Aphanothece*, *Aphanocapsa*, *Chroococcus*, *Gloeocapsa*, *Gloeothece*, *Merismopaedia*, *Microsystis*, *Synechococcus*, *Synechosystis* and nineteen species, while only one genus from family Entophysalidaceae, viz. *Chlorogloea* (*Chlorogloea fritschi* Mitra) has been found within the study area.

Order Pleurocapsales is represented by single family Pleurocapsaceae and single genus, i.e. *Hyella caespitosa*.

Large numbers of blue green algal forms were found belonging to order Nostocales. Organisms belonging to five families within Nostocales were encountered within the blue green algal flora. Family Oscillatoriaceae has been represented by six genera *Oscillatoria*, *Microcoleus*, *Trichodesmium*, *Polychlamidum*, *Arthrospira*, *Spirulina* and nine species. Family Microchaetaceae, is represented by two genera *Microchaete*, *Fortia* and four species. The family Nostocaceae has been represented by six genera *Cylindrospermum*, *Anabaena*, *Nostoc*, *Pseudoanabaena*, *Aulosira*, *Richelia* and sixteen species. Scytonemataceae represented by three genera *Plectonema*, *Scytonema*, and *Tolypothrix* and four species. The family Rivulariaceae has been represented by two genera *Calothrix* and *Gloeotrichia* and four species. Thus the total flora is represented by thirty genera and fifty eight species within the study area. Out of these thirty genera eighteen genera have been represented by single species. Order Nostocales is represented by maximum species. Five species of *Gloeocapsa*, five species of *Anabaena*, four species of *Aphanothece* and

Table: 1 List of Species collected

Order	Family	Forms observed
Chroococcales	1) Chroococcaceae	1. <i>Aphanothece microscopia</i>
		<i>A. naegeli</i>
		<i>A. pallida</i>
		<i>A. saxicola</i>
		2. <i>Aphanocapsa roseana</i>
		3. <i>Chroococcus minutus</i>
		<i>C. pallidus</i>
		<i>C. schizodermaticus</i>
		<i>C. varius</i>
		4. <i>Gloeocapsa atrata</i>
		<i>G. decorticans</i>
		<i>G. gelatinosa</i>
		<i>G. polydermatica</i>
		<i>G. luteofusca</i>
		5. <i>Gloeothece palea</i>
6. <i>Merismopedia glauca</i>		
7. <i>Microcystis pulvereae</i>		
8. <i>Synechococcus aeruginosus</i>		
9. <i>Synechocystis pevalekii</i>		
	2) Entophysalidaceae	1. <i>Chlorogloea fritschii</i>
Pleurocapsales	3) Pleurocapsaceae	1. <i>Hyella caespitosa</i>
Nostocales	4) Oscillatoriaceae	1. <i>Oscillatoria annae</i>
		<i>O. omcena</i>
		<i>O. subbrevis</i>
		2. <i>Microcoleus paludosus</i>
		3. <i>Trichodesmium hilderbrandtii</i>
		<i>T. lacustre</i>
	4. <i>Polychlamidum varium</i>	
	5. <i>Arthrospira platensis</i>	
	6. <i>Spirulina subsalsa</i>	
	5) Microchaetaceae	1. <i>Microchaete aequalis</i>
		<i>M. tenera</i>
		<i>M. calothrichoides</i>
		2. <i>Fortia bossei</i>
		6) Nostocaceae
	<i>C. indicum</i>	
	2. <i>Anabaena variabilis</i>	
	<i>A. fertilissima</i>	
	<i>A. oryzae</i>	
	<i>A. spiroides</i>	
	<i>A. ambigua</i>	

Table: 2 Heterocystous and Non Heterocystous forms

Sr. No.	Heterocystous forms	Non -Heterocystous forms
1	<i>Microchaete aequalis</i>	<i>Aphanothece pallida</i>
2	<i>M. tenera</i>	<i>A. naegelii</i>
3	<i>M. calothrichoides</i>	<i>A. saxicola</i>
4	<i>Fortia bossei</i>	<i>A. microscopia</i>
5	<i>Cylindrospermum stagnale</i>	<i>Aphanocapsa roseana</i>
6	<i>C. indicum</i>	<i>Chroococcus varius</i>
7	<i>Anabaena variabilis</i>	<i>C. pallidus</i>
8	<i>A. fertilissima</i>	<i>C. minutus</i>
9	<i>A. oryzae</i>	<i>C. schizodermaticus</i>
10	<i>A. spiroides</i>	<i>Gloeocapsa gelatinosa</i>
11	<i>A. ambigua</i>	<i>G. polydermatica</i>
12	<i>Nostoc punctiforme</i>	<i>G. luteofusca</i>
13	<i>N. commune</i>	<i>G. atrata</i>
14	<i>N. calcicola</i>	<i>G. decorticans</i>
15	<i>N. parmelioides</i>	<i>Gloeothece palea</i>
16	<i>N. microscopium</i>	<i>Merismopedia glauca</i>
17	<i>N. rivulare</i>	<i>Synechococcus aeruginosus</i>
18	<i>Aulosira pseudoramosa</i>	<i>Synechosystis pevalekii</i>
19	<i>Richelia intracellularis</i>	<i>Microcystis pulverea</i>
20	<i>Scytonema cinctatum</i>	<i>Chlorogloea fritschii</i>
21	<i>Tolypothrix arenophila</i>	<i>Hyella caespitosa</i>
22	<i>T. limbata</i>	<i>Oscillatoria annae</i>
23	<i>Calothrix fusca</i>	<i>O. subbrevis</i>
24	<i>C. braunii</i>	<i>O. omoena</i>
25	<i>Gloeotrichia intermedia</i>	<i>Microcoleus paludosus</i>
26	<i>G. indica</i>	<i>Trichodesmium hildebrandtii</i>
27		<i>T. lacustre</i>
28		<i>Polychlamidum varium</i>
29		<i>Arthrospira platensis</i>
30		<i>Spirulina subsalsa</i>
31		<i>Pseudoanabaena schmidlei</i>
32		<i>Plectonema radiosum</i>

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