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Phytonic diversity of Jalgaon district, Maharashtra (India)

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Abstract

This article provides relevant information about the algal flora of Jalgaon District, Maharashtra (India) and develops an outline of algal data bases of Jalgaon region, sites for algal studies, noticed and unnoticed algal rich area of Jalgaon district. The present comprehension of fresh and marine algae of world is considerable and numbers of algae are indentified and subsequently cultured. In contrast some information is available in literature but it is not compiled as a database. A total number of 539 taxa belonging to 4 classes are found in Jalgaon.The relative percentage of Cynophyceae, Chlorophyceae, Bacillariophyceae and Euglenophyceae is 40.44, 41.55, 10.38 and 7.60 respectively. The taxonomy and morphological study given by earlier researchers but still there is lot of scope to elaborate information about the algae of Jalgaon region regarding on physiology and biochemical aspect, antimicrobial activity and methods of algal cultivation.

Keywords: Fresh water algae, Taxonomy, Phytonic and Jalgaon

Introduction

Jalgaon District is located in the North-West region of the state of Maharashtra. It is bounded by Satpuda mountain ranges in the North, Ajanta mountain ranges in the South, Dhule District in the West and Buldhana district in the East. Jalgaon is rich in volcanic soil which is well suited for cotton production. Jalgaon district receives an average rainfall of about 750 mm and the temperature varies from 10 ^{0}C to 48 ^{0}C in peak summer with an area of about 11,700 sq km, Jalgaon district has a population of about 4 million. The main objective of the present review is to gather information reported by researchers in past. The occurrence of large number of algae in different parts of Maharashtra has been reported by various authors and this scientific knowledge is the result of many years investigation. In Maharashtra algal studies were started in 1847 when Griffith describes fertilization in *Eudorina elegans* collected from the pools in Bombay. In 1933, Borgesen worked on fresh and marine algae of Bombay. Later on some of the major contributions from Maharashtra are those by Dixit (1936), Gonzalves and Joshi (1945), Gunale and Balkrishnan (1981), Pingale (1981), Sarode (1984), Gole et. al (1985), Jagdale et. al (1987), Trivedi et. al (1990), Badve et. al (1993), Patil (1995) and More (1997). In Jalgaon district algae does not occurs in sufficient quantities to render its commercial application as a result it has been diminutive investigated by Marathe (1969), Barhate (1983), Kottawaar (1985), Mahajan, Mahajan and Patil (1995), More (1997), Mahajan (2001), Borse, Lohar and Bhave (2003), Jawale and Chaudhari (2004) and Puranik is working on cynobacteria. Antibacterial

activity and enzyme activity (Catalase, Urease, Amylase and Lipase) were studied by Patil and Mahajan (2011).

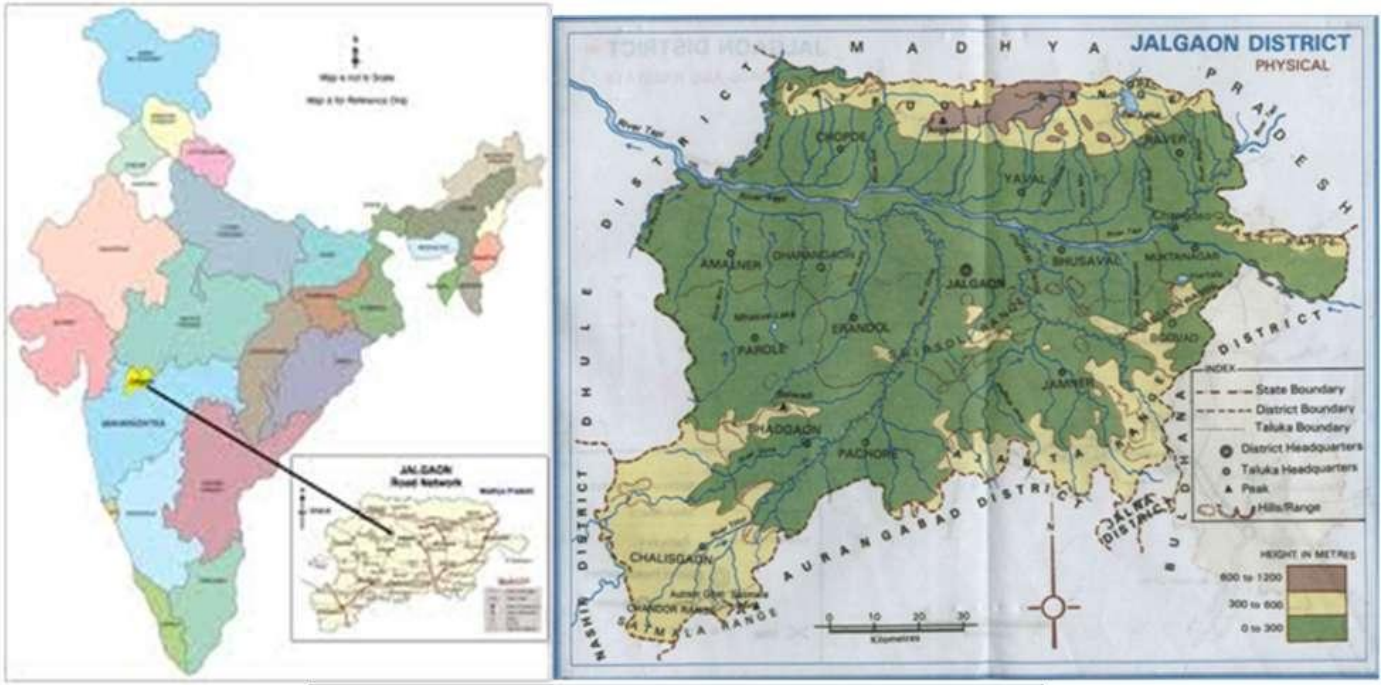

Figure 1 Geographical position of Maharashtra (India)

The importance of algae in the world is increasing continuously. In India algae are not much used in such a manner, so to enhance the involvement of algal material for sharing the load of increasing population on daily required resources such as Biofule, food, medicinal drugs, nutritional requirements. Algal uses in pollution control and many algae are also used as pollution indicator. It is necessary to compile the flora of algae available in region. The objectives of these studies are;

1. To evaluate the degree of pollution in aquatic environments and its utility in pollution control.
2. To make uses of algae for human welfare.
3. Algae as foder for domestic animals to increases animal product productivity.
4. Algae as source of raw material for industrial products.

Major Sites for algal study in Jalgaon District

1. Major lakes in Jalgaon district; Hartala, Velhala, Meharun, Anjala, Padmalaya and Unapdev etc.

2. Major Dams in Jalgaon district; Girna Dam, Hatnur Dam (Tal: Bhusawal), Manyad (Tal: Chalisgaon), Bori (Tal: Parola), Bhokarbari (Tal: Parola), Suki (Tal: Raver), Abhora (Tal: Raver), Hivra (Tal: Pachora), Agnavati (Tal: Pachora), Tondapur (Tal: Jamner), Mangrul (Tal: Raver), Bahula (Tal: Pachora).
3. Minor Dams of Jalgaon district; Nimn tapi at Amalner, Anjni at Erondol, Warkheda lendhe at Chalisgaon, Jonadhankheda at Muktainagar, Mutrannala at Raver, Waghzera at Yawal, Ghodasgaon at Pachora and Gud madham prakalap Malapura at Chopda.
4. Rivers of Jalgaon District: Tapi, Girana, Anjani, Waghur, Purna, Kang, Sur, Bori, Waki, Aner, Karwand, Panzara, Jamkhedi, Malangaon, Burai, Rangawali, Mor and Bahula.

Studied stations of Jalgaon district

There are many places of algal flora those can be studies extensively form above very few places are studied by the investigators are Hartala lake, Anjala lake, Unapdev hot springs and Tapi river. Still many places are not taken into account by earlier invertigators, so there is lot of scope for researcher to work on these aspects of phytonic diversity of algae.

Table 1 Algal Flora of Jalgaon district

Sr.No	Order	Family	Bionomial	Reference No.
1	Chroccoccales	Chroococcaceae	*Aphanocapsa biformis* A.Br.	24
2			*Aphanocapsa banarisensis* Bharadwaj	18, 19, 25, 26
3			*Aphanocapsa crassa* Ghose	19, 25, 26
4			*Aphanocapsa grevillei* (Hass.) Rabenh	18, 19, 25, 26
5			*Aphanocapsa koordersi* Strom	19, 25, 26, 28
6			*Aphanocapsa montana* Cramer	19, 25, 26, 28
7			*Aphanocapsa roseana* De Bary	19, 25, 26
8			*Chroococcus cohaerens* (Breb.) Nag.	24, 25, 26
9			*Chroococcus hansgirgi* Schmidle	19, 25, 26, 29
10			*Chroococcus minimus* (Keissler) Lemm.	25, 26, 29
11			*Chroococcus minor* (Kuetz.) Nag.	28
12			*Chroococcus minutus* (Kuetz.) Nag.	19, 25, 26, 29
13			*Chroococcus montanus* f. Banarasensis (Rao, C.B.) Nom. Nov.	18
14			*Chroococcus montanus* Hansg.	19, 26

15			*Chroococcus turgidus* (Kuetz.) Naeg.	18
16			*Chroococcus varius* A.Br.	25, 26, 29
17			*Coelosphaerium kuetzingianum* Nag.	19, 26
18			*Dactylococcopsis raphidiodes* Hansg.	18, 19, 25, 26, 29
19			*Gloeocapsa calcarea* Tilden	19, 25, 26
20			*Gloeocapsa compacta* Kuetz.	28
21			*Gloeocapsa crepidinum* Thuret.	19, 25, 26
22			*Gloeocapsa kuetzingiana* Nag.	19, 24, 25, 29
23			*Gloeocapsa punctata* Naeg.	18, 19, 25, 26, 29
24			*Gloeocapsa rupestris* (Lyngs) Bornet v. maxima West	26, 29
25			*Gloeocapsa samoensis* Wille.	25
26			*Gloeocapsa samoensis* Wille v. *major* Wille	25, 29
27			*Gloeocapsa stegophila* (Itzings) Rabenh. v. *crassa* Rao. C.B.	25, 26, 29
28			*Gloeothece membranacea* (Rabenh.) Born. Et Flah.	18
29			*Gloeothece samoensis* Wille.	26
30			*Gloeothece samoensis* Wille. v. *major* Wille.	26
31			*Merismopedia convolute* Breb.	26
32			*Merismopedia elegans* A. Br.	18
33			*Merismopedia minima* Beck	19, 26
34			*Merismopedia punctata* Mayen	19, 26
35			*Merismopedia Teuissima* Lemm	19, 26
36			*Microcystis aeruginosa* Kuetz.	19, 25, 26, 29
37			*Microcystis elabens* (Breb.) Kutz.	24
38			*Microcystis flox-aquae* (Wittr.) Kirchner	25, 26, 29

39			*Microcystis marginata* (Mehegh.) Kuetz.	25, 26
40			*Microcystis robusta* (Clark) Naygaard	25, 26, 29
41			*Microcystis viridis* (A.Br.) Lemm.	25, 26, 29
42			*Synechococcus aeruginosus* Nag.	25, 26
43			*Synechocystis aqualitis* Saur.	19, 25, 26, 28, 29
44			*Synechocystis pevalekii* Erceg.	19, 25, 26, 28
45		Entophysalidaceae	*Chroococcidiopsis indica* Desikachari	25, 26
46			*Johannesbaptistia pellucid* (Dickie) Taylor and Dr.	26, 29
47	Pleurocapsales	chaemosiphonaceae	*Chamaesiphon rostaffinskii* (Rostaf) Hansg.	25, 26
48			*Chamaesiphon sideriphilus* Starmach v. *glabra* Rao. C.B.	25, 26
49			*Stichosiphon sansibaricus* (Hieron.) Dr. and D.	24, 25, 26, 29
50		Pleurocapsaceae	*Myxosarcina burmensis* Skuja	24, 25, 26
51	Nostocales	Oscillatoriaceae	*Homoethrix balaerica* (Born. et. Flah.) Lamm.	26
52			*Homoethrix hansgirigi* (Schmidle) Lemm. v. *constricta* nov.	26
53			*Homoethrix iuliana* (Manegh.) Kirchn.	26
54			*Arthrospira plantensis* (Nordst.) Gomount	18
55			*Lyngbya allorgei* Fremy	25, 26, 29
56			*Lyngbya aestuarii* Liemb. ex. Gomont	19, 25, 26, 29
57			*Lyngbya borgertii* Lemm.	19, 25, 26, 29
58			*Lyngbya ceylanica* Wille. v. *major* Pandey & Mirta	18
59			*Lyngbya ceylanica* Wille.	19, 24, 25, 26
60			*Lyngbya cryptovaginata* Schkorbatow	19, 25, 26
61			*Lyngbya cryptovaginata* Schkorbatow v. *major* Prasad et al.	18

62			*Lyngbya digueti* Gomont	19, 25, 26
63			*Lyngbya epiphytica* Hieron	19, 25, 26, 28
64			*Lyngbya gracilis* (Menegh.) Rabenh.	18
65			*Lyngbya hieronymusil* Lemm.	19, 25, 26
66			*Lyngbya hieronymusil* Lemm. v. *crassivaginata* Ghose.	19, 25, 26, 28
67			*Lyngbya infixa* Feremy	19, 25, 26
68			*Lyngbya laxespiralis* Skuja	18, 19, 25, 26
69			*Lyngbya limnetica* Lemm.	19, 25, 26, 29
70			*Lyngbya martensiana* Menegh	19, 24, 25, 26
71			*Lyngbya martensiana* Menegh ex Gom	29
72			*Lyngbya mesotricha* Skuja	19, 25, 26
73			*Lyngbya nordgardhii* Wille	19, 25, 26
74			*Lyngbya perelegans* Lemm.	19, 25, 26
75			*Lyngbya putealis* Mont.	19, 25, 26
76			*Lyngbya putealis* Mont. Ex Gom	29
77			*Oscillatoria agardhii* Gomont	18
78			*Oscillatoria amoena* (Kuetz.) Gomont	18
79			*Oscillatoria anne* Van Goor	18
80			*Oscillatoria bervis* (Kuetz.) Gomont	19, 21, 23, 25, 26, 30
81			*Oscillatoria calcuttensis* Biswas	25, 26
82			*Oscillatoria chalybea* (Mertens) Gomont	19, 24, 25, 26
83			*Oscillatoria chilkensis* Biswas	25, 26
84			*Oscillatoria curviceps* Ag. Ex. Gomont	18, 26
85			*Oscillatoria curviceps* Ag. v. *angusta* Ghose	18, 19, 25
86			*Oscillatoria formosa* Bory.	21, 23, 28, 31

87			*Oscillatoria formosa* Bory. f. *loktakensis* Bruhl & Biswas	19, 21, 26
88			*Oscillatoria hamelli* Fermy	25, 26
89			*Oscillatoria irrigua* Kuetz	19, 25, 26
90			*Oscillatoria jasorvensis* Vouk.	25, 26
91			*Oscillatoria laetevirens* (Crouan) Gomont	18, 19, 24, 25, 26, 29
92			*Oscillatoria limnetica* Lemm.	19, 25, 26, 28, 29
93			*Oscillatoria limnosa* Ag. Ex Gomont	18, 19, 21, 24, 25, 26 30
94			*Oscillatoria margaretifera* Kuetz.	25, 26, 29
95			*Oscillatoria nigro-virids* Thwaites	19, 25, 26
96			*Oscillatoria obcura* Bruhl et Biswas	18
97			*Oscillatoria ornate* Kuetz	19, 25, 26
98			*Oscillatoria perornata* Skuja	19, 24, 25, 26, 28
99			*Oscillatoria perornata* Skuja v. *attenuate* Skuja.	25, 26
100			*Oscillatoria princeps* Vouicher ex Gomont	19, 21, 23, 28, 31 25, 26
101			*Oscillatoria pseudogeminata* Schmid	19, 25, 26
102			*Oscillatoria pseudogeminata* Schmid v. *unigranulata* Biswas	19, 25, 26
103			*Oscillatoria quadripantculata* Bruhl and Biswas	19, 25, 26
104			*Oscillatoria raoi* De Toni.	18, 19, 25, 26
105			*Oscillatoria reciborskii* Wolosz.	19, 24, 25, 26
106			*Oscillatoria rubescens* D.C. ex Gomont	19, 25, 26
107			*Oscillatoria simplicissima* Gomont	18
108			*Oscillatoria subtillissima* Kuetz.	18, 19, 25, 26, 29

109			*Oscillatoria tenuis* Ag.	19, 21, 25, 26
110			*Oscillatoria tenuis* Ag. v. *tergestina* Rabenh	19, 25, 26, 29
111			*Oscillatoria terebbriformis* Ag.	19, 25, 26, 28
112			*Oscillatoria vizagapatensis* Rao C.B.	25, 26, 29
113			*Phormidium ambiguum* Gomont	19, 25, 26, 28
114			*Phormidium angustissiumum* West and West	19, 25, 26
115			*Phormidium autumnale* (Ag.) Gomont	19, 21, 30 25, 26
116			*Phormidium bigranulatum* Gardner.	25, 26
117			*Phormidium calicicola* Gardner.	19, 25, 26
118			*Phormidium corium* (Ag.) Gomount v. *capitatum* Gardner	19, 25, 26
119			*Phormidium fragile* (Menegh.) Gomont	19, 24, 25, 26, 28
120			*Phormidium gyralis* Prasea & Melhrotra	18
121			*Phormidium incrustatum* (Nag.) Gomont	19, 25, 26
122			*Phormidium inundatum* Kuetz.	19, 25, 26, 29
123			*Phormidium jadinianum* Gomont	19, 25, 26, 28
124			*Phormidium lucicium* (Kuetz.) Gom.	25, 26
125			*Phormidium mille* (Kurtz.) Gomont	18
126			*Phormidium mucosum* Gardner v. *arvense* Rao, C.B.	19, 25, 26
127			*Phormidium papyraceum* (Ag.) Gomont	25, 26, 29
128			*Phormidium parchydermaticum* Fremy.	19, 25, 26
129			*Phormidium purpurascens* (Kuetz.) Gomont	19, 25, 26, 29
130			*Phormidium retzii* (Ag.) Gomont	19, 24, 25, 26
131			*Phormidium rotheanum* Itzigs	19, 25, 26, 28
132			*Phormidium stagnina* Rao. C. B.	18
133			*Phormidium subincrustatum* Fritch and Rich	19, 24, 25, 26

134			*Phormidium tenue* (Menegh.) Gomont	18, 19, 25, 26
135			*Phormidium usterii* Schmidle	19, 25, 26
136			*Symploca cartilaginea* (Mont.) Gomont	19, 25, 26, 29
137			*Symploca muralis* kuet. And Gom.	25
138			*Symploca muscorum* (Ag.) Gomont	19, 24, 25, 26
139			*Spirulina abbreviate* Lemm.	18
140			*Spirulina majo*r kuetz. Ex Gom.	19, 24, 25, 26
141			*Spirulina meneghniana* Zanard ex. Gomont	19, 25, 26
142			*Spirulina princeps* W. et G.S. West	18
143			*Schizothrix muelleri* Nag	26, 29
144		Nostocaceae	*Anabaena ambigua* Rao C.B.	18, 25, 26, 29
145			*Anabaena doliolum* Bharad.	1, 18
146			*Anabaena fertilisimma* Rao C.B.	1, 18, 19, 25, 26
147			*Anabaena khannae* Skuja	25, 26
148			*Anabaena laxa* (Rabenh) A. Br.	18
149			*Anabaena lyengarii* Bharad.	1
150			*Anabaena naviculoides* Fristch	1
151			*Anabaena oscillarioides* Bory ex Born. Et Flah.	1
152			*Anabaena sphaerica* Bornet et Flabault v. *attenuata* Bharad.	1
153			*Anabaena sphaerica* v. *tenuis* West. G.S.	18
154			*Anabaena spinosa* Tiwari.	25, 26
155			*Anabaena spiroides* Klebahn.	18
156			*Anabaena vaginicola* Fritsch et. Rich f. *fertilissima* Prasad	1
157			*Anabaena variabilis* Kutz. v. *ellipsospora* fritsch	1
158			*Cylindrospermum gorakhpurense* Singh. R.N.	1,

159			*Cylindrospermum indicum* Rao. C.B.	1, 25, 26, 29
160			*Cylindrospermum licheniforme* Kutz. ex Born. et Flah	1,
161			*Cylindrospermum majus* Kutzing ex Born. et Flah	1,
162			*Cylindrospermum michallovskoense* Elenkin	1
163			*Cylindrospermum muscicoa* Kutz. ex Born et Flah.	1, 18
164			*Cylindrospermum planktonicum* singh, R.N.	18
165			*Raphidiopsis curvata* Fritch and Rich	25, 26, 29
166			*Raphidiopsis indica* Singh, R.N.	18, 19, 25, 26, 29
167			*Raphidiopsis mediterranea* Skuja.	24
168			*Aulosira fertilizzima* Ghose	18
169			*Nostoc carneum* Ag. ex Born et. Flah.	18
170			*Nostoc carneum* Ag. f. *minor* Bhardwaja	1
171			*Nostoc coeruleum* Lyngb.	19, 25, 25, 29
172			*Nostoc colocicola* Breb.	19, 25, 26
173			*Nostoc commune* Vaucher ex. Born et Flah.	18
174			*Nostoc ellipsosporum* (Desm.) Rabneh.	19, 25, 26, 28
175			*Nostoc ellipsosporum* (Desm.) Rabneh. Ex Born. et. Flah.	1
176			*Nostoc ellipsosporum* (Desm.) Rabneh. Ex Born. et. Flah. v. violacea Rao, C.B.	1
177			*Nostoc ellipsosporum f. minor* Prasad et al	18
178			*Nostoc hatei* Dixit.	1
179			*Nostoc linckia* (Roth) B. and F. v. *arvense* Rao. C. B.	19, 25, 26
180			*Nostoc muscorum* Ag. ex Born and Flah.	18, 19, 25, 26
181			*Nostoc paludosum* Kuetz. Ex Born. et Flah.	1, 18

182			*Nostoc piscinale* Kutzing ex Born. et. Flah	1, 19, 24, 25, 26, 28
183			*Nostoc pruniformae* (L.) Ag.	25, 26
184			*Nostoc punctiformae* (Kuetz.) Hariot.	1, 19, 25, 26, 28, 29
185			*Nostoc spongiformae* Agardh ex. Born. et Flah. v. *violacea R*ao, C.B.	1, 25, 26
186			*Nostoc spongiformae* Ag. v. *varians* Rao, C.B.	29
187			*Nostoc sphaericum* Vaucher	19, 25, 26
188			*Nostoc spongiformae* Agardh ex Born. et. Flah.	1
189		Scytonemataceae	*Scytonema bewsii* Fritsch et Rich	18
190			*Scytonema coactile* Mont.	25, 26
191			*Scytonema fritschii* Ghose	18
192			*Tolypothrix distorta* v. *penicillata* (Ag.) Lemm.	18
193			*Tolypothrix nodosa* Bharad.	18
194			*Tolypothrix robusta* Gardner	18
195		Rivulariaceae	*Calothrix brevissima* West, G.S.	25, 26
196			*Calothrix brevissima* West, G.S. v. *chakradharensis* v. Nov	26
197			*Calothrix castellii* (Massal.) B. and F.	25, 26
198			*Calothrix castellii* (Massal.) B. and F. v. *somastipurense* Rao, C.B.	29
199			*Calothrix clavata* West.G.S.	25, 26
200			*Calothrix contarenii* (Zanard.) Born. et Flah	18
201			*Calothrix desikacharyensis* Vasishta	18
202			*Calothrix fusca* (Kuetz.) Born. et Flah	18
203			*Calothrix javanica* de Wilde.	25, 26
204			*Calothrix marchica* Lemm.	25
205			*Calothrix marchica* Lemm. v.*intermedia* Rao C.B.	26, 29

206			*Calothrix membranacea* Schmidle	25, 26
207			*Calothrix parietina* Thuret ex Born. et and Flah.	18
208			*Gloeotrichia indica* Schmidle	25, 26, 29
209			*Gloeotrichia pilgeri* Schmidle	25, 26
210			*Gloeotrichia raciborskii* v. *bombayense* Dixit	19
211			*Gloeotrichia raciborskii* Wolosz.	18, 25, 26
212			*Gloeotrichia raciborskii* Wolosz. v. *kashiense* Rao C.B.	18, 25, 26
213			*Gloeotrichia raciborskii* Wolosz. v. *conica* Dixit	25, 26
214			*Gloeotrichia raciborskii* Wolosz. v. *longispora* Rao C.S.	25, 26
215			*Rivularia aquatica* De Wilde.	18, 25, 26, 29
216			*Rivularia beccariana* (De Wilde) Geitler.	25, 26
217	Stigonematales	Nostochopsidaceae	*Mastigocladus laminosus* Cohn. v. *indicus* Desikachary.	26
218		Stigonemataceae	*Stigonema hormoides* (Kuetz.) Born et. Flah.	25, 26
219	Volvocales	Chaetopeltidaceae	*Chaetopeltis orbicularis* Berth	27
220		Chlamydomonadaeae	*Carteria arenariae* Iyengar	7
221			*Carteria ellipsoidalis* Bold	10
222			*Carteria globosa* Korschikoff	10
223			*Carteria maharashtrensis*	8
224			*Carteria multifilis* (Fres.) Dill	7
225			*Carteria peterhofiensis* Kors.	10
226			*Chlamydomonas acuta* Kors.	13
227			*Chlamydomonas atactogama* Kors.	13
228			*Chlamydomonas conferta* Kors.	13
229			*Chlamydomonas conoides* lyengar	13
230			*Chlamydomonas cylindrocystiformis* Iyengar	10

231			*Chlamydomonas ehrenbergii* Gorosch.	10
232			*Chlamydomonas globosa* v. *arenariae* lyengar	13
233			*Chlamydomonas gleogama* Kors.	13
234			*Chlamydomonas indica* Mitra	10
235			*Chlamydomonas microsphaera* Pascher & Jahoda	10
236			*Chlamydomonas microsphaera* f. *minor* Iyengar	10
237			*Chlamydomonas oocysticola* lyengar	13
238			*Chlamydomonas orbicularis* Pringsheim v. *indica* Iyengar	10
239			*Chlamydomonas pertusa* Chod.	10
240			*Chlamydomonas pertusa* v. *indica* lyengar	13
241			*Chlamydomonas pertusa* v. *minor* v. Nov.	13
242			*Chlamydomonas planoconvexa* Iyengar	10
243			*Chlamydomonas pseudopertyi* Pascher	10
244			*Chlamydomonas pseudopolypyrenioidea* Iyengar	10
245			*Chlamydomonas reinhardi* Dang.	10
246			*Chlamydomonas subcaudato* Wille.	13
247			*Chlamydomonas umbonata* Pascher	13
248			*Chlamydomonas vacuolata* Sieminska v. *maharashtrensis* v. nov.	10
249			*Chlamydomonas zebra* Kors.	13
250			*Chloromonas pseudoplatyryncha* (Pascher) Sliva.	10
251			*Chloromonas urinaria* Iyengar	10
252			*Chlorogonium elongatum* (Dang.) France v. *plurivacuolatum* Skuja	7
253			*Chlorogonium euchlorum* Ehrenb.	10
254			*Chlorogonium leiostracum* Strehlow	10
255			*Chlorogonium spirale* Scherffel & Pascher	10

256			*Furcilla stigmatophora* (Skuja) Korsch.	10
257			*Sphaerellopsis bistigmata* sp. Nov.	7
258			*Sphaerellopsis lefevrei* Bourr.	7
259			*Sphaerellopsis ovalis* Skv.	10
260		Phacotaceae	*Cephalomonas granulate* Higinbotham	10
261			*Coccomonas orbicularis* Stein	10
262			*Dysmorphococcus indicus* Iyengar	7
263			*Dysmorphococcus variabilis* Takeda	10
264		Platymonadaceae	*Platymonas cordiformis* (N.Carter) Korsch.	7
265		spondylomoraceae	*Pyrobotrys gracilis* Kors.	11
266		Volvocaceae	*Eudorina cylindrical* Korschikov	11
267			*Eudorina elegans* Ehr.	11
268			*Gonium compactum* Iyengar	7
269			*Gonium formosum* Pascher f. suecica H.P.	7
270			*Gonium pectoral* Muell.	11
271			*Pandorina cylindricum* Iyengar	11
272			*Pandorina morum* (Muell.) Bory	11
273			*Pandorina morum* v. major Iyengar	11
274			*Pandorina unicocca* Rayburn et Starr	11
275			*Pleodorina sphaerica* Iyengar	11
276			*Volvox prolificus* Iyengar	11
277			*Volvox tertius* Meyer	7
278	Cladophorales	Cladophoraceae	*Cladophora glomerata* (L.) Kuetz.	21, 27, 29
279	Chlorococcales	Chlorococcaceae	*Schroederia setigera* (Schroeder) Lemm.	27
280		Hydrodictyaceae	*Hydrodictyon reticulatum* (Linn.) Legerheim	29
281			*Pediastrum boryanum* (Turp.) Menegh.	23, 31
282			*Pediastrum duplex* Mayen.	30

283			*Pediastrum duplex* Mayen. v. *reticulatum* Lagerheim	29
284			*Pediastrum integrum* Naegeli.	12
285			*Pediastrum ovatum* (Ehr.) A. Braun	29
286			*Pediastrum tetras* (Ehr.) Ralfs. v. *tetrahedron* (Corda) Hansg.	24
287			*Tetraedron gracile* (Reinsch) Hansg.	27
288			*Tetraedron incus* (Teiling) G.M.Smith	27
289			*Tetraedron muticum* (A.Braun) Hansg.	21, 27, 30
290			*Tetraedron proteiformae* (Turner) Brun.	27
291			*Tetraedron quadratum* (Reinsch) Hansg. f.*minus* (Rein.) De Toni	27
292			*Tetraedron regulare* Kuetz.	27, 28
293			*Tetraedron trigonum* (Naegeli) Hansg.	27
294			*Tetraedron trigonum* (Naegeli) Hansg.f.*gracile* (Reinch) De Toni	27
295		Oocystaceae	*Nephrocytium agardhianum* Naegeli	27
296			*Oocystis borgei* Snow	27
297			*Oocystis crassa* Wittrock.	27
298			*Oocystis irregularis* (Petkof) Printz.	27
299			*Oocystis macrospora* (Turner) Brunnthaler	27
300			*Oocystis naegelii* A.Braun	27
301			*Oocystis naegelii* Wittr.	24
302			*Oocystis solitaria* Wittrock.	27, 29
303		Selenastraceae	*Kirchneriella lunaris* (Kirchner) Moebius	27, 28
304			*Selenastrum gracile* Reinsch.	27
305			*Selenastrum minutum* (Naegeli) Collins	27, 28
306			*Selenastrum westii* G.M.Smith.	27

307		Coelastraceae	*Coelastrum microporum* Naegeli	21, 27, 29, 30
308			*Coelastrum sphaericum* Naegeli	27
309		Scenedesmaceae	*Crucigenia tetrapedia* (Kirchner) Moebius.	27
310			*Crucigenia tetrapedia* (Kirchner) W. et. G.S.West	28
311			*Scenedesmus acuminatus* (Lagerh.) G. S. West	21
312			*Scenedesmus arcuatus* v. *allahabadensis* Chadha et Pandey	15
313			*Scenedesmus arcuatus* (Chodat) G.M.Smith v.*major* G.M.Smith	27
314			*Scenedesmus arcuatus* (Lemm.) Lemm.	24, 27, 29
315			*Scenedesmus arcuatus* (Lagerh.) Chodat v. *minor* Smith	15
316			*Scenedesmus arcuatus* (Lemm.) Lemm.v.*gracilis* Hortobagyi	15, 27
317			*Scenedesmus arcuatus* Lemm. v.*capitatus* G.M.Smith	15, 27
318			*Scenedesmus armatus* (Chodat) G.M.Smith	15
319			*Scenedesmus armatus* v. *bicaudatus* (Gugliemetti) Chodat	15
320			*Scenedesmus bernardii* G.M.Smith	27
321			*Scenedesmus bijugatus* f. *irregularis* Wille	15
322			*Scenedesmus bijugatus* (Turpin) Kuetz.	15, 27
323			*Scenedesmus bijugatus* (Turpin) Kuetz. v. *alternans* Borge.	28
324			*Scenedesmus bijugatus* (Turpin) Kuetz. v. *alternans* (Reinsch) Hansg f. *parvus* (G.M.Smith) Philipose	27
325			*Scenedesmus bijugatus* (Turpin) Kuetz. f. *bicellularis* (Chodat) Philipose	27, 28
326			*Scenedesmus bijugatus* (Turpin) Kuetz. f.*flexiosus* Lemm.	27, 28

327			*Scenedesmus bijugatus* (Turpin) Kuetz. Kuetz.v.*minor* (Hansg) G.M.Smith	27
328			*Scenedesmus bijugatus* (Turpin) Kuetz. v.*grevenitzii* (Bernard) Philip.	27
329			*Scenedesmus bijugatus* (Turpin) Kuetz. v.*irregularis* Wille	27
330			*Scenedesmus denticulatus* Lagerheim	15
331			*Scenedesmus dimorphous* (Turpin) Kuetz.	15, 21, 27, 30
332			*Scenedesmus dimorphous* (Turpin) Kuetz.f.*tortus* G.M.Smith	15, 27
333			*Scenedesmus hystrix* Lagerheim	27
334			*Scenedesmus incrassatulus* Bohlin	27
335			*Scenedesmus longus* Meyen v. *dispar* (Breb.) Smith	15
336			*Scenedesmus obliquas* (Turpin) Kuetz.	15, 21, 27, 28, 30
337			*Scenedesmus opollensis* P.Richter	24, 27
338			*Scenedesmus opollensis* P. Richter v. *mononensis* Chodat	15
339			*Scenedesmus perforates* Lemm.	12
340			*Scenedesmus philipos* Chadha et Pandey	15
341			*Scenedesmus platydiscus* (Smith) Chodat	15
342			*Scenedesmus quardricauda* (Turpin) Breb.	21, 27, 29, 30
343			*Scenedesmus quardricauda* (Turpin) Breb.v. *bicaudatus* Hansg.	27
344			*Scenedesmus quardricauda* (Turpin) Breb. v. *eualternans* Proschk	15
345			*Scenedesmus quardricauda* (Turpin) Breb.v.*longispina* (Chodat) G.M.Smith	15, 27
346			*Scenedesmus quardricauda* v. parvus Smith	15

347			*Scenedesmus quardricauda* v. *quadrispina* (Chodat) Smith	15
348			*Scenedesmus quardricauda* v. westii Smith	15
349			*Scenedesmus sooi* v. bicaudatus f. *danubialis* Hortob	12
350	Ulotrichales	Ulotrichaceae	*Ulothrix moniliformis* Kuetz.	27
351			*Ulothrix oscillarina* Kuetz.	27
352			*Ulothrix tenuissima* Kuetz.	27
353			*Ulothrix zonata* (Web.) Kuetz.	23, 27
354	Oedogoniales	Oedogoniaceae	*Oedogonium biformae* (Nordist) Hirn.v.*tenue* Paruk	27
355			*Oedogonium cardiacum* v. *cardiacum* & *minor*	16
356			*Oedogonium glabrum* F. glabrum Hall.	5
357			*Oedogonium globosum* F. v. *globosum* (Nordst.) Hirn	5
358			*Oedogonium hindustanense* v. hindustanense Kam.	16
359			*Oedogonium iowense* Tiff. f. *iowense*	3
360			*Oedogonium khannae* f. *khannae* Skuja	16
361			*Oedogonium khannae* f. *minus* Ganz. & Jain	16
362			*Oedogonium kufferathii*	16
363			*Oedogonium latiusculum* Tiff.	27
364			*Oedogonium leave* (Wittr.) Hirn v. *indica* var. nov.	5
365			*Oedogonium maharastrense* Kam	16
366			*Oedogonium mitratum* (Hirn) Hirn v. *mitratum*	3
367			*Oedogonium nobile* (Wittr.) Him.	28
368			*Oedogonium pretense* Trans. v. *crassum* Gonz. & Jain	5

369			*Oedogonium pretense* Trans v. *pretense*	3
370			*Oedogonium pretense* Trans v.*scrobiculatum* Bourr.	3
371			*Oedogonium pseudotumidulum* Gauth Liev.	16
372			*Oedogonium rufescens* v. refescens f. *tenuis* Venk.	16
373			*Oedogonium sociale* f. *kanwaense* Singh	16
374			*Oedogonium variabile* Roll	5
375			*Oedogonium varians* v. *varians* (Wittr. & Lund.) Hirn	16
376	Centrales	Coscinodiscaceae	*Melosira granulate* (Ehr.) Ralfs.	21, 29, 30
377			*Melosira islandica* O.Muell	29
378			*Cyclotella cantenata* Brun.	29
379			*Cyclotella meneghiniana* Kuetz.	21, 23, 30, 31
380			*Cyclotella stelligera* Clove et Grun.v.*tenuis* Hustedt.	29
381	Pannales	Fragllariaceae	*Fragilaria capucina* Dems v. *lanceolata* Grun.	4
382			*Fragilaria capucina* Dems. v. *arctica* A.Cl.	4
383			*Fragilaria capucina* Dems. v. *major* v. Nov.	4
384			*Fragilaria capucina* Dems. v. *sarodensis* v. Nov.	4
385			*Fragilaria intermedia* Grun.	24, 29
386			*Fragilaria lapponica* Grun. v. *muktaii* v. Nov.	4
387			*Fragilaria pinnta* E.Hust. v. *acuminate* Mayer	4
388			*Fragilaria rumpens* (Kuetz.) Carl.v.*fragilarioides* (Grun)A.Cl.	29
389			*Fragilaria ungeriana* Grun.	28
390			*Fragilaria virescens* Ralfs	4
391			*Fragilaria virescens* Ralfs f. *clavata* Grun.	4
392			*Fragilaria zafarii* Sarode & Kamat	29

393			*Synedra acus* Kuetz.	21, 29, 30
394			*Synedra acus* Kuetz.v.*radicans* (Kuetz) Hustedt.	29
395			*Synedra ulna* (Nitz.) Ehr.	4, 21, 24, 30
396			*Synedra ulna* (Nitzsch) Ehr.v. *oxyrhynchus* (Kuetz.) Van Heurck	4
397			*Synedra ulna* (Nitzsch) Ehr.v. *oxyrhynchus* (Kuetz.) Van Heurck f. *jalgaonensis* f. Nov.	4
398			*Synedra ulna* Ehr.v.*biceps* Kuetz.	28
399			*Synedra ulna* Ehr.v.donica (Kuetz.) Grun.	28
400		Achnanthoideae	*Amphora maharashtrensis* Sarode and Kamat	29
401			*Cocconeis plcaentula*	21, 30
402			*Cymbella affinis* Kuetz.	29
403			*Cymbella lanceolata* (Ehr.)V.H.	28
404			*Cymbella turgidula* Grun.	29
405			*Cymbella ventricosa* Kuetz.	24, 28, 29
406			*Gomphonema acuminatum* Ehr.v.*turris* Ehr.	29
407			*Gomphonema gracile* Ehr.	29
408			*Gomphonema gracile* Ehr.v.*lanceolata* (Kuentz.) Cleve.	28
409			*Gomphonema lanceolatum* Ehr.	24, 29
410			*Gomphonema parvulum* (Kuetz.) Grun.	21, 30
411			*Gomphonema subventricosum* Hustedt.	28
412			*Gomphonema tergestinum*	24
413			*Gyrosigma attenuatum* (Kuetz.) Rabh	29
414			*Navicula cryptocephala* Kuetz.	21, 30
415			*Navicula cryptocephala* Kuetz.v.*subsalina* Hustedt.	28
416			*Navicula cryptocephala* v.*veneta* (Kutz.) Grun.	30

417			*Navicula cuspidata* Kuentz.v.*ambiqua* (Ehr.) Clove	24, 29
418			*Navicula cuspidata* Kuetz.	21, 24, 30
419			*Navicula grimmi* Krasske.	29
420			*Navicula mutica* Kuetz.	29
421			*Navicula salinarum* Grun.v.*intermedia* (Grun) Cleve.	28, 29
422			*Navicula viridula* Kuetz.	21, 30
423			*Pinnularia interrupta* W.Smith.	29
424			*Rhopalodia gibba* (Ehr.) O.Muell.	24, 29
425			*Surirella capronii* Brog.	29
426			*Surirella ovata* Kuetz.	29
427			*Surirella tenera* Greg.v. *nervosa* A.S.	29
428			*Nitzschia closterium* W.Smith.	24, 29
429			*Nitzschia obtuse* W.Smith.	28, 29
430			*Nitzschia palea* (Kuetz.) W. Smith	21, 30
431		Achnanthaceae	*Achnanthes Hungarica* Grun.	29
432	Coleochaetales	Cloeochaetaceae	*Coleochaete Spp.*	27
433	Zygnematales	Zygnemataceae	*Closterium acerosum* (Schrank) Ehr.	21, 27, 30
434			*Closterium attenuatum* Ehr.	27
435			*Closterium calosporum* Wittr.v.*maius* W.&W.	27
436			*Closterium cythia* De. Not.	29
437			*Closterium dianae* Ehr.	24, 27
438			*Closterium ehrenberghii* Menegh	27
439			*Closterium lanceolatum* Keutz.	27, 28
440			*Closterium leibleinii* Keutz.	21, 24, 27, 29, 30
441			*Closterium moniliferum* (Bory) Ehr.	27

442			*Closterium parvulum* Naegeo.v.*angustatum* W.&W.	27
443			*Closterium pritchardianum* Archer	29
444			*Closterium turgidum* Ehr.v.*borgei* (Borge) Defl.	24, 27
445			*Cosmarium awadhensis* Prasad & Mehrotra	2
446			*Cosmarium bicardia* Reinsch.	2
447			*Cosmarium bioculatum* Breb. v. *canadense*	
448			*Cosmarium bipunctatum* Borge.	2, 24
449			*Cosmarium circulare* Reinsch v. *minus* Hansgirg.	2
450			*Cosmarium connatum* Breb. W. & W.	24, 27
451			*Cosmarium divergens* Krieg.	2
452			*Cosmarium granatum* Breb.	2
453			*Cosmarium granatum* Breb. v. *rotundatum* Krieg.	2
454			*Cosmarium imperssulum* Elfv.	2
455			*Cosmarium imperssulum* Elfv. f. *minus*	2
456			*Cosmarium levae* Raben. v. *octangularts*	2
457			*Cosmarium meneghinii* Breb. f. *tricrenata* Turn.	2
458			*Cosmarium moniliformae* (Turpi) Ralfs v.*limneticum* W.&W.	27
459			*Cosmarium obtusatum* Schmidle.	27
460			*Cosmarium phaseolus* Breb. v. *subbireme* Racib.	2
461			*Cosmarium plicatum* Reisch.	27
462			*Cosmarium portianum* Arch. v. *majus* Scott & Prescott	2
463			*Cosmarium portianum* Arch. v. *nephroideum* Wittr.	2
464			*Cosmarium pseudoconnatum* Nordist.f.*major* Wille.	27
465			*Cosmarium pseudoexiguum* Racid.	24, 27

466			*Cosmarium pseudopyramidatum* Lundell	2
467			*Cosmarium regnellii* Wille v. *psuedoregnellii* (Messik.) W Krieg.	2
468			*Cosmarium reniformae* (Ralfs) Arch.	2
469			*Cosmarium sexangulare* Lund.	27
470			*Cosmarium speciosum* Lund.	28
471			*Cosmarium subspeciousum* Nordst. v. *transiens* Messlk	2
472			*Cosmarium subtumidium* Nordst. v. *borgei* Krieg. & Gerl.	2
473			*Cosmarium subtumidium* Nordst. v. *minor* Strom	2
474			*Cosmarium tinctum* Ralfs.	27
475			*Cosmarium vexatum* West	2
476			*Cosmarium wembaerense* Schimdle	2
477			*Mougeotia angusta* (Hassal) Kirchner	27
478			*Mougeotia floridana* Transeau.	27
479			*Mougeotia maltae* Skuja	27
480			*Mougeotia recurva* (Hassall) De Toni	24, 27
481			*Mougeotia sphaerocarpa* Wolle.	27
482			*Spirogyra biformis* Jao.	6, 27
483			*Spirogyra castanacea* G. C. Couch	6
484			*Spirogyra communis* (Hassall) Kuetz.	27
485			*Spirogyra fragilis* Jao	6
486			*Spirogyra gracilis* (Hassall) Kuetz.	27, 28
487			*Spirogyra hollandiae* Taftr	6
488			*Spirogyra hyaline* Cleve.	27
489			*Spirogyra incostans* Collins	24, 27
490			*Spirogyra patelii* sp. Nov.	6

491			*Spirogyra pratensis* Transeau.	27
492			*Spirogyra skujae* Rabdhawa.	24
493			*Spirogyra transeauiana* Jao	27, 29
494			*Spirogyra triplicate* (Collins) Transeau.	27
495			*Spirogyra variformis* Transeau	6
496			*Zygnema coeruleum* Czyrda	29
497			*Zygnema mucigenum* Randhawa	28
498			*Zygnemopsis minuta* Randhawa	27
499	Euglenozoa	Euglenophyceae	*Euglena acus*	23, 31
500			*Euglena clavata* Skuja	20
501			*Euglena gaumei* All. et.al Lef.	20, 22, 24, 29
502			*Euglena oxyrius* Schmarba	23
503			*Euglena texta* (Duj.) Hubner	20
504			*Trachelomonas granulose* Swir.	20, 22
505			*Trachelomonas dubia* Swir	20
506			*Trachelomonas intermedia* Dang.	20
507			*Trachelomonas lefeveri* Defl.	20
508			*Trachelomonas superb* Swir.	20
509			*Trachelomonas volvocina*	31
510			*Phacus abrubtus* Korsch	22, 29
511			*Phacus acuminatus* Stokes	20, 22
512			*Phacus acuminatus* Stokes. v. *americana* Pochm.	20, 24
513			*Phacus agilis* Skuja	20, 22
514			*Phacus ankylonoton* Pochm	22, 29
515			*Phacus anomalus* Fritch et. Rich	22, 29
516			*Phacus arnoldi* Swir.	20
517			*Phacus caudatus* Hubner	20, 22, 24, 29

518			*Phacus curvicauda* Swir.	20, 22
519			*Phacus cylindracceus* Popova	22, 28
520			*Phacus dangeardi* Lemm.	20, 22, 29
521			*Phacus granum* Drezpolski	20
522			*Phacus hameli* All.et Lef.	20, 22, 28, 29
523			*Phacus lingicauda* (Ehr.) Duj.v.*cordata* Hub.Pesta.	20
524			*Phacus longicauda* (Ehr.) Duj.	20
525			*Phacus longicauda* (Ehr.) Duj.v.*tortus* Lemm.	24
526			*Phacus musculus* Poch.	20, 22
527			*Phacus orbicularis* Hobner.	20, 22
528			*Phacus oscillans* Klebs.	28
529			*Phacus peteloti* Lefere.	20, 22
530			*Phacus pleuronectus* (O.F.M.) Duj.	20, 21, 30
531			*Phacus polytrophos* Pochm.	20, 22
532			*Phacus pseudoplatalea* Hubner.	20
533			*Phacus pyrum* (Ehr.) Stein	20, 21, 23, 30, 31
534			*Phacus raciborskii* Drezpolski	20, 22
535			*Phacus tortus* (Lemm.) Skv.	20, 24
536			*Phacus triqueter* (Ehr.) Duj.	20
537			*Petalomonas involuta* Skuja	22, 29
538			*Petalomonas platyrhyncha* Skuja	22
539			*Petalomonas prototheca* Skuja	20, 22, 24

Table 2 Algal Taxa of Jalgaon district

Sr.No.	Class	Order	Family	Genus	Spceies	Varities	Forms
1	Cynophyceae	Chroococcales	Chroococcaceae	*Aphanocapsa*	7		

2				*Chroococcus*	9		1
3				*Coelosphaerium*	1		
4				*Dactylococcopsis*	1		
5				*Gloeocapsa*	9	3	
6				*Gleothece*	3	1	
7				*Merismopedia*	5		
8				*Microcystis*	6		
9				*Synechococcus*	1		
10				*Synechocystis*	2		
11			Entophysalidaceae	*Chroococcidiopsis*	1		
12				*Johannesbaptistia*	1		
13		Pleurocapsales	chaemosiphonaceae	*Chamaesiphon*	2	1	
14				*stichosiphon*	1		
15			Pleurocapsaceae	*Myxosarcina*	1		
16		Nostocales	Oscillatoriaceae	*Homoethrix*	3	1	
17				*Arthrospira*	1		
18				*Lyngbya*	22	3	
19				*Oscillatoria*	36	3	2
20				*Phormidium*	23	1	
21				*Symploca*	3		
22				*Spirulina*	4		
23				*Schizothrix*	1		
24			Nostocaceae	*Anabaena*	14	2	1
25				*Cylindrospermum*	7		
26				*Raphidiopsis*	3		
27				*Aulosira*	1		
28				*Nostoc*	20	4	2
29			Scytonemataceae	*Scytonema*	3		

30				*Tolypothrix*	3		
31			Rivulariaceae	*Calothrix*	13	3	
32				*Gloeotrichia*	7	5	
33				*Rivularia*	2		
34		Stigonematales	Nostochopsidaceae	*Mastigocladus*	1	1	
35			Stigonemataceae	*Stigonema*	1		
36	Chlorophyceae	Volvocales	Chaetopeltidaceae	*Chaetopeltis*	1		
37			Chlamydomonadaeae	*Carteria*	6		
38				*Chlamydomonas*	24	5	1
39				*Chloromonas*	2		
40				*Chlorogonium*	4	1	
41				*Furcilla*	1		
42				*Sphaerellopsis*	3		
43			Phacotaceae	*Cephalomonas*	1		
44				*Coccomonas*	1		
45				*Dysmorphococcus*	2		
46			Platymonadaceae	*Platymonas*	1		
47			spondylomoraceae	*Pyrobotrys*	1		
48			Volvocaceae	*Eudorina*	2		
49				*Gonium*	3		1
50				*Pondorina*	5	1	
51				*Volvox*	2		
52		Cladophorales	Cladophoraceae	*Cladophora*	1		
53		Chlorococcales	Chlorococcaceae	*Schroederia*	1		
54			Hydrodictyaceae	*Hydrodictyon*	1		
55				*Pediastrum*	6	2	
56				*Tetraedron*	8		2
57			Oocystaceae	*Nephrocytium*	1		

58				*Oocystis*	7		
59			selenastraceae	*Kirhneriella*	1		
60				*Selenastrum*	3		
61			Coelastraceae	*Coelastrum*	2		
62			Scenedesmaceae	*Crucigenia*	2		
63				*Scenedesmus*	39	19	5
64		Ulotrichales	Ulotrichaceae	*Ulothrix*	4		
65		Oedogoniales	Oedogoniaceae	*Oedogonium*	22	11	1
66		Coleochaetales	Cloeochaetaceae	*Coleochaete*	1		
67		Zygnematales	Zygnemataceae	*Closterium*	12	3	
68				*Cosmarium*	32	12	3
69				*Mougeotia*	5		
70				*Spirogyra*	14		
71				*Zygnema*	2		
72				*Zygnemopsis*	1		
73	Bacillariophyceae	Centrales	Coscinodiscaceae	*Melosira*	2		
74				*Cyclotella*	3	1	
75		Pannales	Fragllariaceae	*Fragilaria*	12	7	
76				*Synedra*	7	5	1
77			Achnanthoideae	*Amphora*	1		
78				*Cocconeis*	1		
79				*Cymbella*	4		
80				*Gomphonema*	7	2	
81				*Gyrosigma*	1		
82				*Navicula*	9	4	
83				*Pinnularia*	1		
84				*Rhopalodia*	1		
85				*Surirella*	3	1	

86				*Nitzschia*	3		
87			Achnanthaceae	*Achnanthes*	1		
88	Euglenophyceae	Euglenozoa	Euglenophyceae	*Euglena*	5		
89				*Trachelomonas*	6		
90				*Phacus*	27	3	
91				*Petalomonas*	3		
					539	105	20

Conclusion and Remarks

A total number of 539 taxa belonging to 4 classes are found in Jalgaon.The relative percentage of Cynophyceae, Chlorophyceae, Bacillariophyceae and Euglenophyceae is 40.44, 41.55, 10.38 and 7.60 respectively. The 40.44 % of Cynophceae distrubited in four orders Chroococales (21.10%), Pleurocapsales (1.8%), Nostocales (76.1%) and Stigonematales (0.9%) containing 35 genera and 218 species. The Chlorophyceae is about 41.55 % which is distributed in seven orders and 37 genera 224 species, Volvocales (26.333%), Cladophorales (0.44%), Chlorococcales (31.69%), Ultrichales (1.78%), Oedogoniales (9.82), Coleochaetales (0.44 %) and Zygnematales (29.46%). Bacillariphyceae is 10.38% containg 2 orders Centrales (9.80%) and Pannales (91.07%) having 15 genera and 56 speices, whereas Euglenophyceae are distributed in four genera Euglena (12.19), Trachelomonas (14.63%), Phacus (65.85%) and Petalomonas (7.31%) and 41 species. Of these 539 taxa are species of algae belonging to different groups and the rest are varieties (105), and forms (20). Figure 2 describes distribution of algae in Jalgaon district and figure 3, 4, 5 and 6 illustrate distribution of different order of Cynophyceae, Chlorophyceae, Bacillariphyceae and Euglenophyceae of Jalgaon district.

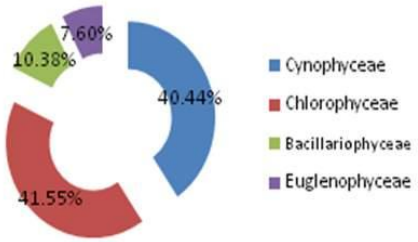

Figure 2 Distribution of algae in Jalgaon district

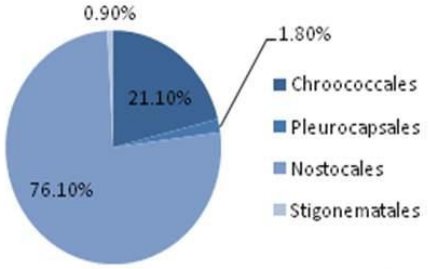

Figure 3 Cynophyceae of Jalgaon district

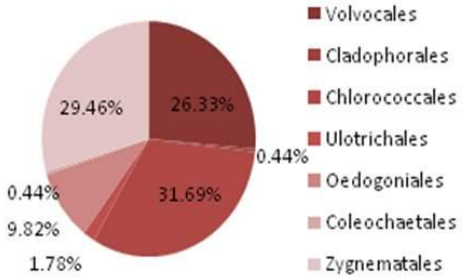

Figure 4 Chlorophyceae of Jalgaon district

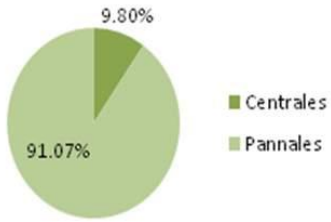

Figure 5 Bacillariphyceae of Jalgaon district

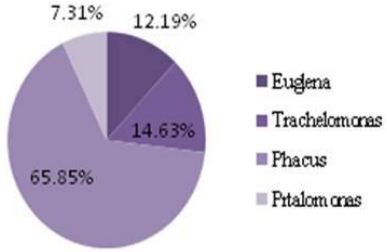

Figure 6 Euglenophyceae of Jalgaon district

These algae are distributed under 91 genera belonging to 32 families under 14 orders. Considering the enormous data on angiosperms with reference to their taxonomical and medicinal aspect, algae and other lower cryptogams are relatively neglected. Therefore, more emphasize has to be desirable to ponder study with respect to physiological, biochemical, pharmalogical aspects. Such study may lead to elucidation of biopotential of these algae in food, biofuel, fertilizer and allied industries that would help to mankind.

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