

EUSTIGMATOPHYCEAE**MISCHOCOCCALES**

Monopsidaceae

Nannochloropsis salina Hibberd

0.002*

21a

Pleurochloridaceae

Polyedriella helvetica Vischer et Pascher

0.25*

2a

PELAGOPHYCEAE**PELAGOMONADALES**

Pelagomonadaceae

Pelagomonas calceolata Andersen et Saunders

0.02*

21a

PHAEOPHYCEAE**CUTLERIALES**

Cutleriaceae

1 *Cutleria hancockii* Dawson

392

0.4

0.8*

1.6

unp

Gallus

MI:DAPI

2 *Cutleria multifida* (Smith) Greville

50

10

490

0.5

1.0*

2.0

unp

Gallus

MI:DAPI

DESMARESTIALES

Arthrocladiaceae

3a *Arthrocladia villosa* (Hudson) Duby

46-54

14

245

0.2

0.5*

1.0

unp

Gallus

MI:DAPI

3b *A. villosa*

270

0.3

0.5

1.1*

unp

Gallus

MI:DAPI

Desmarestiaceae

4 *Desmarestia aculeata* (Linnaeus) Lamouroux

392

0.4

0.8

1.6*

unp

Gallus

MI:DAPI

5 *Desmarestia viridis* (O. F. Müller) Lamouroux

c.44

16

416

0.4

0.8

1.7*

unp

Gallus

MI:DAPI

DICTYOTALES

Dictyotaceae

Dictyota ciliolata Kützing

1.4*

MI:DAPI⁽¹⁾*Dictyota ciliolata*

NV = 9.2*

MI:DAPI⁽¹⁾*Dictyota ciliolata*

NV = 8.8*

MI:DAPI⁽¹⁾6a *Dictyota menstrualis* (Hoyt) Schnetter, Horning et Weber-Peukert

32

18

539

0.5

1.1

2.2*

unp

Gallus

MI:DAPI

6b *Dictyota menstrualis*

1.65*

MI:DAPI⁽¹⁾*Dictyopteris delicatula* Lamouroux

1.48*

MI:DAPI⁽¹⁾*Dictyopteris delicatula*

1.5*

2.7*

MI:DAPI⁽¹⁾*Dictyopteris delicatula*

NV = 13.2*

NV

Dictyopteris hoytii Taylor

2.3*

MI:DAPI⁽¹⁾*Dictyopteris hoytii*

2.0*

MI:DAPI

7a *Dictyopteris polypodioides* (De Candolle) Lamouroux

28-32

6

637

0.6

1.3*

2.6

unp

Gallus

MI:DAPI

[illegible]

30	Sargassum echinocarpum J.Agardh			319	0.3	0.7	1.3*	unp	Gallus	MI:DAPI
31	Sargassum filipendula C. Agardh			196	0.2	0.4	0.8*	unp	Gallus	MI:DAPI
	Sargassum filipendula						1.4*			MI:DAPI ⁽¹⁾
32	Sargassum fluitans Børgesen			196	0.2	0.4	0.8*	unp	Gallus	MI:DAPI
33	Turbinaria ornata (Turner) J. Agardh			196	0.2	0.4	0.8 *	unp	Gallus	MI:DAPI
LAMINARIALES										
Alariaceae										
34	Alaria esculenta (Linnaeus) Greville	56	4	686	0.7	1.2	2.5*	unp	Gallus	MI:DAPI
35	Ecklonia radiata (C.Agardh) J. Agardh			588	0.6	1.3	2.6*	unp	Gallus	MI:DAPI
36	Undaria pinnatifida (Harvey) Suringar			580 [†]	0.6	1.3*	2.6	8	Gallus	FC:EB
Laminariaceae										
37	Agarum clathratum Dumortier	c.44	16	588	0.6	1.2	2.0*	unp	Gallus	MI:DAPI
38a	Laminaria digitata (Hudson) Lamouroux	62	4	686	0.7	1.4	2.7*	unp	Gallus	MI:DAPI
38b	L. digitata			640 [†]	0.7	1.4*	2.8	8	Gallus	FC:EB
38c	L. digitata			490	0.5*	1.0	2.0	20		RK
39a	Laminaria saccharina (Linnaeus) Greville	62	3	588	0.6	1.3*	2.6	unp	Gallus	MI:DAPI
39b	L. saccharina			720 [†]	0.8	1.6*	3.2	8	Gallus	FC:EB
SPHACELARIALES										
40	Sphacelaria rigidula Kützinger	50-60	21	882	0.9	1.8*	3.6	unp	Gallus	MI:DAPI
41	Sphacelaria sp.			775 [†]	0.8	1.7*	3.4	8	Gallus	FC:EB
42	Sphacelaria sp. 4315			882	0.9*	1.8	3.6	unp	Gallus	MI:DAPI
SPOROCHNALES										
43	Carpomitra costata (Stackhouse) Batters	c.30	11	392	0.4	0.8	1.6*	unp	Gallus	MI:DAPI
44	Perithalia caudata (Labillardière) Womersley	31-43	15	466	0.5	0.9	1.9	unp	Gallus	MI:DAPI
	Sporochnus pedunculatus (Hudson) C. Agardh					0.8*				MI:DAPI ⁽¹⁾
	Sporochnus pedunculatus						1.7*			MI:DAPI ⁽¹⁾
PINGUIOPHYCEAE										
?	Phaeomonas									
?	Pinguiochrysis									
?	Pinguiococcus									
SYNUROPHYCEAE										
?	Mallomonas									
?	Synura									
XANTHOPHYCEAE										
BOTRYDIALES										

Botrydiaceae									
<i>Botrydium cystosum</i> Vischer					0.4*		RBC	MI:DAPI	
MISCHOCOCCALES									
Botryochloridaceae									
<i>Sphaerosorus composita</i>					0.5*		RBC	MI:DAPI	
Ophiocytaceae									
<i>Ophiocytium arbuscula</i> (A.Brown) Rabenhorst					0.6*		RBC	MI:DAPI	
<i>Ophiocytium capitatum</i> Wolle					0.6*		RBC	MI:DAPI	
Pleurochloridaceae									
<i>Polyedriella helvetica</i> Vischer et Pascher					0.25*	2a			
TRIBONEMATALES									
Heteropediaceae									
<i>Heterococcus brevicellularis</i> Vischer					0.5*		RBC	MI:DAPI	
<i>Heterococcus chodatii</i> Vischer					0.3*		RBC	MI:DAPI	
<i>Heterococcus crassulus</i> Vischer					0.3*		RBC	MI:DAPI	
<i>Heterococcus fuornensis</i> Vischer					0.3*		RBC	MI:DAPI	
<i>Heterococcus protonematoides</i> Vischer					0.4*		RBC	MI:DAPI	
<i>Pseudobumilleriopsis pyrenoidosa</i> Deason et Bold					0.5*		RBC	MI:DAPI	
Tribonemataceae									
<i>Tribonema regulare</i>					0.5*		RBC	MI:DAPI	
<i>Tribonema ulotrichoides</i> Pascher	30	17a			0.2*		RBC	MI:DAPI	
<i>Xanthonema solidium</i> (Vischer) P. C. Silva					0.2*		RBC	MI:DAPI	
<i>Xanthonema</i> sp.					0.3*		RBC	MI:DAPI	
VAUCHERIALES									
Vaucheriaceae									
<i>Vaucheria repens</i> Hassall					0.3*		RBC	MI:DAPI	
<i>Vaucheria synandra</i> Woronin					0.6*		RBC	MI:DAPI	

¹ The Ectocarpales, Scytosiphonales, Chordariales and Dictyosiphonales are paraphyletic with respect to each other, forming a highly interwoven clade (Siemer *et al.*, 1998; Kogame *et al.*, 1999). Recently, a formal circumscription of these orders into the Ectocarpales *sensu lato* was proposed (Rousseau and Reviers, 1999a; Rousseau *et al.*, 2001) which left many taxa in strange alliances or as outliers (Draisma *et al.*, 2001). In the present study, taxa were not assigned to specific families as phylogenetic relationships in this order remain unresolved.

