

- TAYLOR, W.R. 1964. The genus *Turbinaria* in eastern seas. *Journal of the Linnean Society of London (Botany)* 58: 475-490, 3 pls, 8 figs.
- TAYLOR, W.R. 1966. An interesting *Caulerpa* from the Andaman Sea. *Journal of Phycology* 1: 154-156, 1 fig.
- TAYLOR, W.R., JOLY, A.B. & BERNATOWICZ, A.J. 1953. The relation of *Dichotomosiphon pusillus* to the algal genus *Boodleopsis*. *Papers of the Michigan Academy of Sciences, Arts and Letters* 38: 97-107(-108), pls I-III.
- TOMLINSON, P.B. 1986. *The Botany of Mangroves*. Cambridge University Press, Cambridge, UK. 419 pp.
- TREVISAN, V.B.A. 1845. *Nomenclator algarum...* Padoue (Padova). 80 pp.
- TRONCHIN, E.M. & DE CLERCK, O. 2005. Brown algae, Phaeophyceae. 95-129. In: De Clerck O., Bolton J.J., Anderson R.J. and Coppejans E. Guide to the Seaweeds of Kwazulu-Natal. *Scripta Botanica Belgica* 33: 294 pp.
- TRONO, C.G. (Jr) 1997. Field Guide and Atlas of the Seaweed Resources of the Philippines. Makati City, Philippines, Bookmark. 306 pp.
- TSENG, C.K. 1984. *Common Seaweeds of China*. Beijing: Science Press. 316 pp.
- TSENG, C.K. & LU, B. 1979. Studies on the Sargassaceae of the Xisha Islands, Guangdong Province, China. II. *Stud. Mar. Sin.* 15: 1-12.
- TSENG, C.K. & LU, B. 1999. Studies on the biserrulic *Sargassum* of China: II. The series *Coriifoliae* J. Agardh. In Abbott, I.A. (ed.) *Taxonomy of Economic Seaweeds with references to some Pacific species* 7. Publ. Calif. Sea Grant College System, La Jolla, CA, 3-22.
- TSUDA, R.T. 1972 Morphological, Zonational, and Seasonal studies of two species of *Sargassum* on the reefs of Guam. *Proceedings of the International Seaweed Symposium* 7: 40-44.
- VAN DEN HEEDE, C. & COPPEJANS, E., 1995. The genus *Codium* (Chlorophyta, Codiales) from Kenya, Tanzania (Zanzibar) and the Seychelles. *Nova Hedwigia* 62: 389-417.
- VAN DEN HOEK, C. 1963. Revision of the European species of *Cladophora*. Brill E.J., Leiden. 248 pp., 1 fig., 55 pls, 18 maps.
- VAN DEN HOEK, C. 1982. A taxonomic revision of the American species of *Cladophora* (Chlorophyceae) in the North Atlantic Ocean and their geographic distribution. *Verhandelingen der Koninklijke Nederlandse Akademie van Wetenschappen, Afdeling Natuurkunde, Tweede Reeks* 78: 236 pp., xi + 248 pp.
- VAN DEN HOEK, C. & CHIHARA, M. 2000. A taxonomic revision of the marine species of *Cladophora* (Chlorophyta) along the coasts of Japan and the Russian Far-east. *National Science Museum (Tokyo). Monographs* 19: 1-242.
- VERBRUGGEN, H. 2005. Resegmenting *Halimeda*. Molecular and morphometric studies of species boundaries within a green algal genus. PhD, Ghent University, 213 pp. Available online at: <http://www.phycology.ugent.be/publications.html>

- VERBRUGGEN, H., LELIAERT, F., MAGGS, C.A., SHIMADA, S., SCHILS, T., PROVAN, J., BOOTH, D., MURPHY, S., DE CLERCK, O., LITTLER, D.S., LITTLER, M.M. & COPPEJANS, E. 2007. Species boundaries and phylogenetic relationships within the green algal genus *Codium* (Bryopsidales) based on plastid DNA sequences. *Molecular Phylogenetics and Evolution* 44: 240-254
- VERHEIJ, E. & PRUD'HOMME VAN REINE, W.F. 1993. Seaweeds of the Spermonde Archipelago, SW Sulawesi, Indonesia. *Blumea* 37: 385-510.
- VROOM, P.S., SMITH, J.E. & SMITH, C.M. 2001. Observations of reproduction in *Rhipidosiphon javensis* (Halimedineae, Bryopsidales) in Hawaii (Research Note). *Phycologia* 40: 97-100.
- WEBER-VAN BOSSE, A. 1898. Monographie des Caulerpes. *Annales du Jardin Botanique de Buitenzorg*. 15 : 243-401, pls XX-XXXIV.
- WEBER-VAN BOSSE, A. 1905. Note sur le genre *Dictyosphaeria* Dec. *Nuova Notarisia* 16: 142-144.
- WEBER-VAN BOSSE, A. 1928. *Liste des algues du Siboga, IV. Rhodophyceae. Troisième partie. Gigartinales et Rhodymeniales et tableau de la distribution des Chlorophycées, Phaeophycées et Rhodophycées de l'Archipel Malaisien*. Vol. 59d pp. 393-533, figs. 143-213, pls XI-XVI. Leiden.
- WEST, J.A. 1991. New algal records from the Singapore mangroves. *Garden's Bulletin Singapore* 43: 19-21.
- [www.algaebase.org](http://www.algaebase.org): see GUIRY, M.D. & GUIRY, G.M. 2008
- WOMERSLEY, H.B.S. 1984. *The Marine Benthic Flora of Southern Australia. Part I*. Government Printer, Adelaide. 329 pp.
- WON, B.Y., CHO, T.O. & FREDERICQ S. 2004. *Centroceras clavulatum* (Ceramiaceae, Rhodophyta): A cosmopolitan species? Partnerships for enhancing expertise in taxonomy (PEET). *Fifth Biennial Conference: spatial and temporal issues in taxonomy*. University of Illinois at Urbana-Champaign. [www.conferences.uiuc.edu/peet/posters/PP23EP11.pdf](http://www.conferences.uiuc.edu/peet/posters/PP23EP11.pdf)
- WON, B.Y., CHO, T.O. & ZIEMAN, J.C. 2004. *Centroceras clavulatum* (Ceramiaceae, Rhodophyta): a cosmopolitan species? Partnerships for enhancing expertise in taxonomy. [www.conferences.uiuc.edu/peet/posters/PP23EP11.pdf](http://www.conferences.uiuc.edu/peet/posters/PP23EP11.pdf)
- WRIGHT G. 1994. De Sri Lanka Reisingids. (Translation by Nabbe R. of Odyssey illustrated guide to Sri Lanka). Elmar B.V., Rijswijk. 294 pp.
- WYNNE, M.J. 1995. Benthic marine algae from the Seychelles collected during the R/V *Te Vega* Indian Ocean expedition. *Contributions from the University of Michigan Herbarium* 20: 261-346.
- WYNNE, M.J. 1998. A study of *Padina antillarum* (Kützinger) Piccone and a comparison with *P. tetrastromatica* Hauck (Dictyotales, Phaeophyta). *Cryptogamie, Algologie* 19: 271-289.

- WYNNE, M.J. & DE CLERCK, O. 1999. First reports of *Padina antillarum* and *P. glabra* (Phaeophyta-Dictyotaceae) from Florida, with a key to the Western Atlantic species of the genus. *Caribbean Journal of Science* 35: 286-295.
- WYNNE, M.J. & NORRIS, R.E. 1991. *Branchioglossum pygmaeum* sp. nov. and new records of other delesseriaceous algae (Rhodophyta) from Natal, South Africa. *Phycologia* 30: 262-271, 26 figs.
- WYNNE, M.J., SERIO, D., CORMACI, M. & FURNARI, G. 2005. The species of *Chondrophycus* and *Laurencia* (Rhodomelaceae, Ceramiales) occurring in Dhofar, the Sultanate of Oman. *Phycologia* 44: 497-509.
- WYSOR, B. & DE CLERCK, O. 2003. An updated and annotated list of the marine algae of the Caribbean coast of the Republic of Panama. II. Phaeophyceae. *Botanica Marina* 46: 151-160.
- YAMADA, Y. 1925. Studien über die Meeresalgen von der Insel Formosa. 2. Phaeophyceae. *Botanical Magazine (Tokyo)* 39: 239-254, VI figs.
- YAMAGISHI, Y. & MASUDA, M. 2000. A taxonomic revision of a *Hypnea charoides-valentiae* complex (Rhodophyta, gigartinales) in Japan, with a description of *Hypnea flexicaulis* sp. nov. *Phycological Research* 48: 27-35.
- YENDO, K. 1917. Notes on algae new to Japan. VI. *Botanical Magazine (Tokyo)* 31: 75-95, 3 figs.
- ZANARDINI, G. 1844. Corallinee. *Enciclopedia Italiana (Venezia)* 6: 1013-1036.
- ZANARDINI, G. 1851. Algae novae vel minus cognitae in mari Rubro a Portiero collectae. *Flora* 34: 33-38.
- ZANARDINI, G. 1872. Phycearum indicarum pugillus a Cl. Eduardo Beccari ad Borneum, Sincapoore et Ceylanum annis MDCCCLXV-VI-VII collectarum quas cognitae determinavit, novasque descripsit iconibusque illustrare curavit Joannes Zanardini. *Memorie del Reale Istituto Veneto di Scienze, Lettere ed Arti* 17: 129-170, pls i-xii.

### 13. Acknowledgements

The authors gratefully acknowledge the Ghent University and the Research Foundation - Flanders for subsidizing some of the collecting trips. Our thanks also go to the University of Ruhuna for putting the infrastructure of the Botany Department at our disposal, Anka Riemsma and Enzo Azolla for the use of facilities of the Dickwella Resort and Spa, for the friendly hospitality, including the use of the swimming pool, for the chats, the coffees.

We thank Delia Zimmler and the divers of Ypsilon for the nice dives around Beruwela.

The divers of the other dive centers from where deep-water collecting was organized are also acknowledged.

Our sincere gratitude is extended to colleagues Prud'homme van Reine for the extensive discussions on *Caulerpa* taxonomy, Verbruggen for the information on *Halimeda* and *Codium* and Mattio for the discussion and suggestions on *Sargassum*. We also thank Upali Mallikarachchi, Saman and Kumara Naurunnage for their help in organizing some of the field trips and for helping preparing some of the specimens respectively.

We owe special thanks to Cyrille Gerstmans for the lay-out of the plates.

We are deeply indebted to Prud'homme van Reine for his valuable completions to, corrections and constructive criticisms on the original manuscript.

### 14. Photographic credits

The pictures were made during numerous stays in Sri Lanka between 1998 and 2008. Most habit pictures were taken *in situ* in February 2008 by O. Dargent. High magnification details were photographed after formalin preserved specimens by F. Leliaert and O. De Clerck, either using a dissecting microscope or a light microscope provided with a digital camera in the laboratory in Ghent. The material was first stained, green algae with methylene blue, red algae with aniline blue. The herbarium specimens were scanned.

Coppejans Eric: 2A-D; 3A-F; 5E; 6A-H; 7B; 8B, C; 9A, E; 11A; 12C, E, F; 13A-D, F; 15A, B, D-F; 16A, C, E, F; 17B-H; 22A-C, F, I; 23B, C; 26A, C; 28A-F; 29A-G; 32A; 33D, F; 37A; 42A; 46A, C, D, F, G; 47A-G; 48A-F; 49A-G; 67A; 69; 70A; 125A; 129A, B; 145A, B; 151A, B; 161A, B; 171B.

Dargent Olivier: 2E; 4A-G; 5A-D; 7A, C-E; 9B-D; 8A; 10A-F; 11B-D; 12A, B, D; 13E; 14A-D; 15C; 16B, D; 17A; 18A-D; 19A-F; 20A-F; 21A-G; 22D, E, G; 23A, D-F; 24A-F; 25A-D; 26B, D-F; 27A-H; 30A-D; 31A, B; 32B-H; 33A-C, E; 34B-F; 35A-C, E, G-I; 37B-G; 39A, B, D; 40A-G; 41A, C-H; 42B-F; 44E, F, I; 45E, F, J; 46B, E; 50A-C; 51-63; 64A; 65; 68; 71-87; 90-103; 106-108; 110; 111A, B; 112A; 113A, B; 114A; 115A; 116-118; 120-124A; 126-128, 130-144; 146-148A; 149; 152-154A; 155-160; 162-166A, B; 168A; 170A; 171A; 174, 175; 177, 178A, B; 180A; 181; 182A; 183A; 184; 185.

De Clerck Olivier: 31C-E; 35D, F-H; 39E; 44A-D, G, H; 45A-D, G-I; 105; 109; 111C, D; 112B; 113C; 114B.

Leliaert Frederik: 34A; 36A-F, J; 39C; 41B; 64B; 66; 67B; 70B, C; 88; 89; 104; 115B; 119A, B; 124B; 125B; 145C, D; 148B; 150; 154B; 166C; 167A, B; 168B, C; 169; 170B, C; 172; 173; 176; 178C; 179; 180B; 182B; 183B, C.

## 15. About the authors



**Eric Coppejans** (°1948) is Senior Full Professor at Ghent University (Belgium) and Visiting Professor at the University of Ruhuna (Sri Lanka). He carries out phycological research since 1970, with focus on taxonomy of Caulerpales and floristic accounts, mainly from the Indo-Pacific. His scientific research resulted in about 150 scientific papers, a Seaweed Flora of the northern French coast and several Field Guides. His first contact with the Sri Lankan seaweeds was in 1997, with observations and collecting on a yearly basis since then.



**Frederik Leliaert** (°1973) is a postdoctoral fellow in the Phycology Research Group at Ghent University. His main research interest has been systematics and evolution of green seaweeds, in particular siphonocladalean algae. During the past 10 years he has also been involved in several collecting trips and floristic studies in the tropical Indo-Pacific. Currently, he is investigating bacterial associations in green macro-algae, using culture experiments and molecular tools.



**Olivier Dargent** (°1973) is a biology teacher in a secondary school in France. His PhD-thesis (1998), prepared in the Ghent Phycology Research Group, was on taxonomy of the genus *Halimeda*. Since 1998, he has been involved in fieldwork, for collecting and underwater photography of seaweeds, mainly in the Indo-Pacific area. His pictures have been published in several Field Guides or to illustrate books on marine biology.



**Rasanga Gunasekara** (°1970) is probationary lecturer in the Department of Botany, University of Ruhuna in Sri Lanka. His research on the seasonality of seaweeds on a beachrock platform in Dickwella is in preparation in the Ghent Phycology Research Group. He is currently following an ERASMUS Mundus course in Marine Biodiversity and Conservation, at Ghent University, Belgium.



**Olivier De Clerck** (°1971) is Assistant Professor and head of the Phycology Research Group at Ghent University. He is interested in systematics and evolutionary diversification of marine macroalgae. He, therefore, combines molecular phylogenetic techniques with morphology and culture experiments. Although having acquired a broad floristic knowledge of European and tropical Indo-Pacific macroalgae over the years, his main interest remains with the brown algal genus *Dictyota*. His current research focuses on diversification and molecular aspects of speciation of brown algae in European waters.

## 16. Appendix 1 – Taxonomic index

Taxa described in this book are **bold**, taxa illustrated (but not described) are underlined, taxa only mentioned in the text are in normal font, recent synonyms only discussed in relation to identification and to names of species are in smaller font. Species epithets, as well as infraspecific epithets, are followed (between brackets) by genus and/or species names. Numbers in bold indicate the page the taxa are described.

### A

<b>Acanthophora</b> .....	15, 33, <b>214</b>
<b>acerosa</b> ( <i>Gelidiella</i> ) .....	26, 28, <b>166</b>
<i>Acetabularia</i> .....	44
<b>acicularis</b> ( <i>Chondracanthus</i> ) ..	42, <b>184</b>
<u><i>Acrochaetium</i></u> .....	41, 46
<u><i>Acrosorium</i></u> .....	71
<b><i>Actinotrichia</i></b> .....	<b>158</b>
<b>adhaerens</b> ( <i>Jania</i> ) .....	<b>176</b>
<i>aegagropila</i> ( <i>Valonia</i> ) .....	98
<i>aerea</i> ( <i>Chaetomorpha</i> ) .....	84
<u><i>africana</i></u> ( <i>Rhodomelopsis</i> ) .....	60
<b><i>africanum</i></b> ( <i>Rhizoclonium</i> ) .....	22, <b>92</b>
<b><i>Ahnfeltiopsis</i></b> .....	24, <b>186</b>
<i>albida</i> ( <i>Cladophora</i> ) .....	88
<b><i>amadelpa</i></b> ( <i>Avrainvillea</i> ) .	32, 54, <b>122</b>
<b><i>amamiensis</i></b> ( <i>Cottoniella</i> ) .....	42, <b>208</b>
<i>amansii</i> ( <i>Gelidium</i> ) .....	124
<b><i>Amphiroa</i></b> .....	28, 44, <b>174-176</b>
<i>Anadyomene</i> .....	35, 46
<i>anastomosans</i> ( <i>Phyllodictyon</i> ) .....	56
<b><i>andamanensis</i></b> ( <i>Caulerpa filicoides</i> var.) .....	<b>104</b>
<b><i>antennina</i></b> ( <i>Chaetomorpha</i> ) .....	13, 19, 24, <b>84</b>
<b><i>antillarum</i></b> ( <i>Padina</i> ) .....	<b>138</b>
<b><i>arabicum</i></b> ( <i>Codium</i> ) .....	24, 32, <b>102</b>
<b><i>argus</i></b> ( <i>Wrangelia</i> ) .....	<b>204</b>
<b><i>armata</i></b> ( <i>Chondria</i> ) .....	28, <b>216</b>
<b><i>Asparagopsis</i></b> .....	28, 35, 58, 60, <b>172</b>
<i>asplenioides</i> ( <i>Caulerpa taxifolia</i> f.) ..	118
<b><i>Asteronema</i></b> ...	19, 22, 46, 47, 142, <b>152</b>
<u><i>Augophyllum</i></u> .....	60
<i>australis</i> ( <i>Padina</i> ) .....	140
<b><i>Avrainvillea</i></b> .....	17, 32, 53, <b>122-124</b>

### B

<u><i>Balliella</i></u> .....	41
-------------------------------	----

<i>bartayresii</i> ( <i>Canistrocrapus crispatus</i> ) .....	132
<i>bartayresiana</i> ( <i>Canistrocrapus crispatus</i> ) .....	132
<i>binderi</i> ( <i>Bostrychia</i> ) .....	214
<b><i>Boergesenia</i></b> .....	52, <b>92</b>
<i>boergeseni</i> ( <i>Hypnea</i> ) .....	180
<b><i>boergeseni</i></b> ( <i>Padina</i> ) .....	<b>140</b>
<b><i>Boodlea</i></b> .....	46, 56, <b>94</b>
<b><i>Boodleopsis</i></b> .....	<b>124</b>
<i>boryana</i> ( <i>Padina</i> ) .....	140
<b><i>Bostrychia</i></b> .....	18, 22, <b>214</b>
<b><i>Botryocladia</i></b> .....	24, <b>198</b>
<i>brachygona</i> ( <i>Sphacelaria</i> ) .....	130
<u><i>Brachytrichia</i></u> .....	21
<b><i>breviarticulatum</i></b> ( <i>Asteronema</i> ) .....	19, 22, 46, 47, <b>152</b>
<b><i>brevipes</i></b> ( <i>Caulerpa sertularioides</i> f.) .	116
<b><i>Bryocladia</i></b> .....	28, <b>216</b>
<b><i>Bryopsis</i></b> .....	26, 42, 46, <b>100</b>

### C

<b><i>caerulescens</i></b> ( <i>Pterocladia</i> ) .....	24, 26, <b>166</b>
<b><i>caespitosa</i></b> ( <i>Chlorodesmis</i> ).....	26, <b>126</b>
<i>californica</i> ( <i>Sphacelaria</i> ) .....	130
<i>Callithamnion</i> .....	46
<b><i>calodictyon</i></b> ( <i>Tolypocladia</i> ) .....	46, <b>222</b>
<b><i>Caloglossa</i></b> .....	18, <b>206</b>
<b><i>canaliculata</i></b> ( <i>Gracilaria</i> ) .....	28, <b>168</b>
<b><i>Canistrocarpus</i></b> .....	42, <b>132</b>
<i>capensis</i> ( <i>Cladophora</i> ) .....	88
<i>capillacea</i> ( <i>Jania</i> ) .....	176
<b><i>Carpopeltis</i></b> .....	28, <b>190</b>
<i>Catenella</i> .....	18
<b><i>Caulerpa</i></b> .....	17, 18, 24, 26, 28, 30, 32, 35, 40, 46, 53, 56, 58, <b>104-118</b>
<b><i>cavernosa</i></b> ( <i>Dictyosphaeria</i> ) .....	26, 52, <b>96</b>
<b><i>Centroceras</i></b> .....	15, 21, 46, <b>198</b>

**Ceramium** ..... 16, 17, 46, **200**  
**ceranoides (Liagora)** ..... **162**  
*cervicornis (Hypnea)* ..... 182  
**ceylanica (Champia)**..... 19, 24, 42, **194**  
**ceylanica (Dictyota)** ..... 28, 32, **134**  
*ceylanica (Porphyra)* ..... 158  
**ceylanica (Ralfsia)** ..... 22, **130**  
*ceylanica (Sarcodia)* ..... 190  
**ceylanicus (Chondrophycus)** ..... **220**  
**Chaetomorpha** ..... 13, 17, 18, 19,  
24, 28, 33, 46, **84-86**  
**Champia** ..... 19, 24, 42, **194**  
**charoides (Hypnea)** ..... **180**  
*Cheilosporum* ..... 178  
*chemnitzia (Caulerpa racemosa var.)* ....  
106  
**Chlorodesmis** ..... 26, 46, **126**  
**Chnoospora** ..... 19, 21, **142**  
**Chondracanthus** ..... 42, **184**  
**Chondria** ..... 28, 202, **216**  
**Chondrophycus** ..... 73, **220**  
*ciliolatum (Acrosorium)* ..... 71  
**ciliolata (Dictyota)** ..... **136**  
**Cladophora** ..... 24, 28, 46, **86-90**  
**Cladophoropsis** ..... 46, 56, 63, 86, **94**  
*clathratus (Hydroclathrus)* ..... 52  
**Claudea** ..... 32, 39, 46, **208**  
**clavulatum (Centroceras)** ..... 21,  
46, **198**  
**coccinea (Vanvoorstia)** ..... **212**  
**Codium** ..... 17, 24, 32, 58, 63, **102**  
*coelothrix (Cladophora)* ..... 90  
**Colpomenia** ..... 32, 52, **144**  
**composita (Boodlea)** ..... 46, 56, **94**  
**compressa (Ulva)** ..... **76**  
*corneum (Gelidium)* ..... 164  
**corticata (Gracilaria)** ..... 13, 26, 28,  
60, **168**  
**Cottoniella** ..... 42, **208**  
**crassa (Chaetomorpha)** ..... 28, **84**  
*crassa (Gracilaria)* ..... 168  
**crassifolium (Sargassum)** ..... **144**  
**crispatus (Canistrocarpus)** ..... **132**  
*cristaefolium (Sargassum)* ..... 144  
*crouanioides (Balliella)* ..... 41  
**cultrata (Jania)** ..... 24, 28, **178**  
*cuneiformis (Hormophysa)* ..... 35  
*cupressoides (Caulerpa)* ..... 35

**cylindracea (Caulerpa racemosa f.)** ...  
30, **114**  
*Cystoseira* ..... 35

## D

*dasyphylla (Chondria)* ..... 202  
*delicata (Platysiphonia)* ..... 41, 60  
**delicatula (Dictyopteris)** ..... 26,  
51, **134**  
*denticulata (Martensia)* ..... 210  
**Dermonema** ..... 13, 19, 21, 55, **162**  
*Dichotomaria* ..... 44  
**Dictyopteris** ..... 26, 35, 45, 46, **134**  
**Dictyosphaeria** ..... 25, 26, 52, 56, **96**  
**Dictyota** ..... 17, 28, 32, 35, 42, 46,  
55, 58, 63, **134-136**  
**Dictyurus** ..... 24, 39, 46, **206**  
**discoidea (Halimeda)** ..... 28, 30, **120**  
*divaricata (Dictyota ceylanica)* ..... 134  
*dotyi (Taenioma)* ..... 212  
*dumosa (Dictyota)* ..... 136  
*duplicatum (Sargassum)* ..... 144  
**durvillei (Halymenia)** ..... 46, **192**

## E

*ecoronata (Turbinaria ornata f.)* ..... 148  
*Ectocarpus* ..... 152  
*edulis (Hydropuntia)* ..... 63  
**erecta (Avrainvillea)** ..... 53, **124**  
*Ernodesmis* ..... 56  
**Euptilota** ..... 46, **202**  
**Euryomma** ..... 42, 46, **188**  
**evesiculosa (Turbinaria ornata var.)** ..  
25, **150**  
**exposita (Caulerpa mexicana f.)**... **108**

## F

**Falkenbergia** ..... 58, 60, **172**  
**fasciata (Ulva)** ... 13, 19, 24, 28, 46, **76**  
*fasciculata (Galaxaura)* ..... 160  
**fastigiata (Valonia)** ..... 28, **98**  
*fenestrata (Ulva)* ..... 80  
**fergusonii (Caulerpa)** ..... **104**  
**fergusonii (Euptilota)** ..... 46, **202**



*filamentosa* (*Cottoniella*) ..... 208  
***filamentosa* (*Galaxaura*)** ..... 160  
*filamentosa* (*Spyridia*) ..... 204  
*filicina* (*Grateloupia*) ..... 192  
***filicoides* (*Caulerpa*)** ..... 35, 104  
*flabellum* (*Udotea*) ..... 35  
*flaccidum* (*Ceramium*) ..... 200  
*flexuosa* (*Cladophora*) ..... 88  
*floridensis* (*Rhipidosiphon*) ..... 126  
***foliacea* (*Amphiroa*)** ..... 28, 174  
***forbesii* (*Boergesenia*)** ..... 52, 92  
***fragilis* (*Actinotrichia*)** ..... 158  
***fragilis* (*Martensia*)** ..... 39, 46, 210  
***fragilissima* (*Amphiroa*)** ..... 174  
*frappieri* (*Dermonema*) ..... 162  
*fraxinifolia* (*Neurymenia*) ..... 35  
***friabilis* (*Dictyota*)** ..... 136  
*Fucus* ..... 39  
***fusiformis* (*Spyridia*)** ..... 202

## G

***Galaxaura*** ..... 40, 44, 160  
***Gelidiella*** ..... 26, 28, 166  
***Gelidiopsis*** ..... 196  
***Gelidium*** ..... 24, 73, 164  
***geppiorum* (*Codium*)** ..... 32, 102  
*glomerulata* (*Tolypocladia*) ..... 222  
***Gracilaria*** ..... 13, 26, 28, 33, 46,  
 60, 168-172  
*gracile* (*Dermonema*) ..... 162  
***gracilis* (*Halimeda*)** ..... 30, 55, 120  
***Grateloupia*** ..... 28, 71, 192, 200  
*grossedentata* (*Dictyota*) ..... 136  
*gymnospora* (*Padina*) ..... 140

## H

***Halimeda*** ..... 4, 17, 28, 30, 32, 44,  
 53, 55, 58, 61, 120-122  
*Haloplegma* ..... 39  
***Halymenia*** ..... 46, 192  
*Hanowia* ..... 39  
***herpestica* (*Cladophora*)** ..... 86, 100  
*heteroplatos* (*Pterocladia*) ..... 164  
***hikkaduwensis* (*Gracilaria*)** ..... 170  
***hildenbrandii* (*Falkenbergia*)** ... 58, 60  
*Hormophysa* ..... 35

***hornemannii* (*Portieria*)** ..... 35, 186  
*humifusa* (*Dictyota*) ..... 136  
*humii* (*Caulerpa serrulata* var.) ..... 116  
*Hydropuntia* ..... 63  
*Hydroclathrus* ..... 52  
***Hypnea*** ..... 15, 17, 26, 42, 180-182  
***hypnoides* (*Spyridia*)** ..... 26, 28, 204

## I

***imbricata* (*Caulerpa*)**... 26, 32, 106, 108  
*indica* (*Chaetomorpha*) ..... 84  
***intermedia* (*Jania*)** ..... 19, 24, 178  
*interrupta* (*Caulerpa taxifolia* f.) ..... 118  
***intestinalis* (*Ulva*)** ..... 33, 78  
*isthmocladum* (*Codium*)..... 102

## J

***Jania*** ..... 19, 24, 28, 44, 73, 176-180  
***javensis* (*Rhipidosiphon*)** ..... 126  
***jungermannoides* (*Leveillea*)** ..... 220

## L

*laciniata* (*Porphyra*) ..... 158  
***lactuca* (*Ulva*)** ..... 78  
*laetevirens* (*Caulerpa peltata* var.) ... 106  
***Laurencia*** ..... 16, 17, 18, 24, 26,  
 28, 42, 73, 218  
***Laurencioids*** ..... 218  
***laxa* (*Caulerpa racemosa* var.  
*cylindracea* f.)** ..... 30, 114  
***lentillifera* (*Caulerpa*)** ..... 26, 106  
*leprieurii* (*Bryopsis pennata* var.) ..... 100  
***leprieurii* (*Caloglossa*)** ..... 18, 206  
***Leveillea*** ..... 220  
***Liagora*** ..... 44, 58, 162  
***ligulatus* (*Polyopes*)** ..... 26, 28, 46, 194  
*linum* (*Chaetomorpha*) ..... 33, 84  
***lithophila* (*Grateloupia*)** . 28, 71, 192, 200  
***Lobophora*** ..... 32, 35, 46, 138  
*longiseta* (*Caulerpa sertularioides* f.) .. 116

## M

***macroloba* (*Halimeda*)** ..... 53

<b>macrophysa</b> ( <i>Caulerpa racemosa</i> f.) ..	
26, <b>112</b>	
<i>macrourum</i> ( <i>Taenioma</i> ) .....	212
<b>magneanus</b> ( <i>Canistrocarpus</i> ) .....	42,
<b>132</b>	
<b>maillardii</b> ( <i>Carpopeltis</i> ) .....	28, <b>190</b>
<b>marginale</b> ( <i>Nitophyllum</i> ) ..	32, 46, <b>210</b>
<i>marginifractum</i> ( <i>Augophyllum</i> ) .....	60
<b>marshallense</b> ( <i>Ceramium</i> ) .....	<b>200</b>
<b>Martensia</b> .....	39, 46, <b>210</b>
<i>membranacea</i> ( <i>Cladophoropsis</i> ) .....	94
<b>mexicana</b> ( <i>Caulerpa</i> ) .....	<b>108</b>
<i>Microdictyon</i> .....	42, 46
<i>micrarthrodia</i> ( <i>Jania</i> ) .....	176
<i>microphysa</i> ( <i>Caulerpa</i> ) .....	106, <b>110</b>
<i>micropterum</i> ( <i>Gelidium</i> ) .....	164
<b>minima</b> ( <i>Chnoospora</i> ) .....	19, 21, <b>142</b>
<b>minor</b> ( <i>Padina</i> ) .....	<b>140</b>
<i>misakiensis</i> ( <i>Amphiroa</i> ) .....	174
<b>montagneana</b> ( <i>Sarcodia</i> ) ..	28, 60, <b>190</b>
<i>montagnei</i> ( <i>Boodlea</i> ) .....	47
<b>multifida</b> ( <i>Claudea</i> ) .....	32, 39, 46, <b>208</b>
<b>Murrayella</b> .....	18, 22, 46, <b>222</b>

## N

<i>nanum</i> ( <i>Taenioma</i> ) .....	212
<i>natalensis</i> ( <i>Jania</i> ) .....	178
<b>natalensis</b> ( <i>Laurencia</i> ) .....	42, <b>218</b>
<i>nelsoniae</i> ( <i>Skeletonella</i> ) .....	41
<i>Neomeris</i> .....	44
<i>Neurymenia</i> .....	35
<b>Nitophyllum</b> .....	32, 46, <b>210</b>
<i>novae-caledoniae</i> ( <i>Sphacelaria</i> ).....	130
<b>novae-hollandiae</b> ( <i>Sphacelaria</i> ) ....	<b>130</b>

## O

<b>occidentalis</b> ( <i>Caulerpa racemosa</i> var.)	
<b>114</b>	
<i>okamurae</i> ( <i>Microdictyon</i> ) .....	45
<i>opaca</i> ( <i>Cladophora</i> ) .....	28, 32, 88
<b>opuntia</b> ( <i>Halimeda</i> ) .....	28, 32, <b>122</b>
<b>ornata</b> ( <i>Turbinaria</i> ) .....	25, <b>148</b>
<i>Osmundea</i> .....	218

## P

<b>pachynema</b> ( <i>Valoniopsis</i> ) .....	26, 46,
55, <b>100</b>	
<b>Padina</b> .....	15, 28, 30, 44, 46, <b>138-140</b>
<b>Palisada</b> .....	<b>218</b>
<b>pannosa</b> ( <i>Hypnea</i> ) .....	26, 42, <b>182</b>
<b>papillosa</b> ( <i>Palisada</i> ) .....	<b>218</b>
<b>parvula</b> ( <i>Caulerpa</i> ) .....	<b>108</b>
<i>pedicularioides</i> ( <i>Osmundea</i> ) .....	218
<b>peltata</b> ( <i>Caulerpa</i> ) .....	106, <b>110</b>
<b>pennata</b> ( <i>Bryopsis</i> ) .....	26, <b>100</b>
<b>pericladus</b> ( <i>Murrayella</i> ) .....	22, 46, <b>222</b>
<b>perpusillum</b> ( <i>Taenioma</i> ) .....	<b>212</b>
<b>pertusa</b> ( <i>Ulva</i> ) .....	46, <b>80</b>
<b>Peyssonnelia</b> .....	46, 55, <b>184</b>
<i>Phyllodictyon</i> .....	46, 56
<i>pinnata</i> ( <i>Caulerpa</i> ) .....	39
<i>pinnatus</i> ( <i>Fucus</i> ) .....	39
<b>platycarpa</b> ( <i>Euryomma</i> ).....	42, 46, <b>188</b>
<i>Platysiphonia</i> .....	41, 60
<i>Plocamium</i> .....	186
<i>plumula</i> ( <i>Sphacelaria</i> ) .....	130
<b>polycystum</b> ( <i>Sargassum</i> ) .....	<b>146</b>
<b>Polyopes</b> .....	26, 28, 46, <b>194</b>
<i>polypodioides</i> ( <i>Dictyopteris</i> ) .....	35
<b>polypodioides</b> ( <i>Stoechospermum</i> ) .....	32, 46, <b>142</b>
<i>Polysiphonia</i> .....	17, 46
<b>Porphyra</b> .....	19, 21, 46, <b>158</b>
<b>Portieria</b> .....	26, 35, 62, 73, <b>186-188</b>
<b>prolifera</b> ( <i>Cladophora</i> ) .....	<b>88</b>
<b>prolifera</b> ( <i>Ulva</i> ) .....	<b>80</b>
<i>Pterocladia</i> .....	164
<b>Pterocладиella</b> .....	24, 26, <b>166</b>
<i>purpurea</i> ( <i>Porphyra</i> ) .....	158
<b>purpurascens</b> ( <i>Dictyurus</i> ) .....	26,
46, <b>206</b>	
<i>pupurascens</i> ( <i>Rhodymenia</i> ) .....	170
<b>pusilla</b> ( <i>Boodleopsis</i> ) .....	<b>124</b>
<i>pusillum</i> ( <i>Gelidium</i> ) .....	164
<b>pygmaea</b> ( <i>Ahnfeltiopsis</i> ) .....	<b>186</b>

## Q

<i>quoyi</i> ( <i>Brachytrichia</i> ) .....	21
---	----

## R

- racemosa* (*Caulerpa*) ..... 24, 26, 30,  
32, 56, **112**  
*Ralfsia* ..... 22, 52, **130**  
*ramalinoides* (*Gracilaria corticata* var.)  
170  
*remota* (*Caulerpa racemosa* f.) ..... **114**  
*repens* (*Dictyopteris*) ..... 134  
*repens* (*Gelidiopsis*) ..... **196**  
*reticulata* (*Ulva*) ..... 46, **82**  
*Rhipidosiphon* ..... **126**  
*Rhizoclonium* ..... 22, **92**  
*Rhizophora* ..... 18  
*Rhodomelopsis* ..... 60  
*Rhodymenia* ..... 62, 170  
*rigida* (*Ulva*) ..... **82**  
*rubra* (*Peyssonnelia*) ..... 184  
*rugosa* (*Galaxaura*) ..... **160**

## S

- salicornia* (*Gracilaria*) ..... 26, **172**  
*Sarcodia* ..... 28, 60, **190**  
*Sargassum* ..... 13, 25, 28, 53, 56,  
58, 73, **144-146**  
*scalpelliformis* (*Caulerpa*) ..... 35  
*Sciurothamnion* ..... 60  
*scoparia* (*Gelidiopsis*) ..... 196  
*secunda* (*Bryopsis pennata* var.) ..... 100  
*sericea* (*Cladophora*) ..... 24, **88**  
*serrulata* (*Caulerpa*) ..... **116**  
*sertularioides* (*Caulerpa*) ..... 24, 26,  
32, 54, **116**  
*sinuosa* (*Colpomenia*) ..... 32, 52, **144**  
*Siphonocladus* ..... 56  
*Skeletonella* ..... 41  
*skottsbergii* (*Botryocladia*) ..... 24, **198**  
*socialis* (*Cladophora*) ..... **90**, 160  
*Spatoglossum* ..... 45  
*spectabilis* (*Vanvoorstia*) ..... 39, **212**  
*Sphacelaria* ..... 61, **130**  
*spicifera* (*Acanthophora*) ..... 33, **214**  
*spinella* (*Hypnea*) ..... 182  
*spiralis* (*Chaetomorpha*) ..... 47, **86**

- Spyridia* ..... 26, 28, **202-204**  
*srilankia* (*Gracilaria*) ..... 170  
*stegengae* (*Sciurothamnion*) ..... 60  
*Stoechospermum* ..... 32, 46, **142**  
*Struvea* ..... 56  
*suborbiculata* (*Porphyra*) ..... **158**  
*sundanensis* (*Cladophoropsis*) ..... 56,  
**94**

## T

- Taenioma* ..... **212**  
*taxifolia* (*Caulerpa*) ..... 28, **118**  
*taxiformis* (*Asparagopsis*) ..... 28, 35,  
58, 60, **172**  
*taylorii* (*Ceramium*) ..... 200  
*tenella* (*Bostrychia*) ..... 22, **214**  
*tenellus* (*Chondracanthus*) ..... 184  
*tenuior* (*Jania natalensis* var.) ..... 178  
*tetastromatica* (*Padina*) ..... 138  
*Thuretia* ..... 39  
*thwaitesii* (*Bryocladia*) ..... 28, **216**  
*Tolypocladia* ..... 17, 46, **222**  
*tribuloides* (*Sphacelaria*) ..... 130  
*tribulus* (*Amphiroa*) ..... 174  
*Tricleocarpa* ..... 44, 160  
*trinodis* (*Cystoseira*) ..... 35  
*tripinnata* (*Portieria*) ..... 26, 62, **188**  
*Turbinaria* ..... 25, 58, **148-150**  
*turbinatifolium* (*Sargassum*) ... 25, **146**  
*turbinarioides* (*Sargassum*) ..... 146  
*turbinata* (*Caulerpa racemosa* var.) ... **110**

## U

- Udotea* ..... 35, 61  
*Ulva* ..... 13, 15, 18, 19, 24, 28, 33,  
38, 46, 63, **76-82**  
*umbellata* (*Caulerpa sertularioides* f.) ....  
116  
*umbilicalis* (*Porphyra*) ..... 158  
*ungulata* (*Jania*) ..... **180**  
*utricularis* (*Valonia*) ..... 52, **98**

## V

<b>vagabunda (Cladophora)</b> .....	28, <b>90</b>
<i>valentiae</i> ( <i>Hypnea</i> ) .....	180
<b>Valonia</b> .....	28, 52, 56, <b>98</b>
<b>Valoniopsis</b> .....	26, 46, 55, <b>100</b>
<b>Vanvoorstia</b> .....	39, <b>212</b>
<b>variabilis (Gelidiopsis)</b> .....	<b>196</b>
<b>variegata (Lobophora)</b> .....	32, 35, 46, <b>138</b>
<b>Vaughaniella</b> -stage ( <i>Padina</i> ) .....	140
<i>ventricosa</i> ( <i>Valonia</i> ) .....	56

<i>vermicularis (Ahnfeltiopsis)</i> .....	186
<i>verrucosa (Jania)</i> .....	178
<b>versluysii (Dictyosphaeria)</b> .....	25, <b>96</b>
<b>verticillata (Caulerpa)</b> .....	28, 46, <b>118</b>
<b>virens (Dermonema)</b> .....	13, 19, 21, 55, <b>162</b>

## W

<b>Wrangelia</b> .....	<b>204</b>
<i>wrightii (Anadyomene)</i> .....	35, 46

## 17. Appendix 2

Table 1. The Tansley scale for indication of species abundance in a quadrat (quantitative sampling) or larger area (semi-quantitative sampling).

Tansley scale	
d	dominant
c	co-dominant
a	abundant
f	frequent
o	occasional
r	rare
s	sporadic

Table 2. The Braun-Blanquet's sociability scale for the indication of a species' life form.

Braun-Blanquet's sociability scale	
1	solitary
2	in small groups or tufts
3	in larger groups, cushions or humps
4	in mats or very large groups
5	covering approx. the entire quadrat

Table 3. Braun-Blanquet cover-abundance scale.

Braun-Blanquet scale	Range of cover
r	< 5 %; very few individuals
+	< 5 %; few individuals
1	< 5%; numerous individuals
2	5 – 25 %
3	25 – 50 %
4	50 – 75 %
5	75 – 100 %

