

ATOLL RESEARCH BULLETIN

No. 77

A check list of marine algae from Ifaluk Atoll, Caroline Islands

by

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Issued by

THE PACIFIC SCIENCE BOARD

National Academy of Sciences--National Research Council

Washington, D. C.

December 31, 1961

A check list of marine algae from Ifaluk Atoll, Caroline Islands

by Isabella A. Abbott^{1/}

The marine algae of Ifaluk Atoll and of the Caroline Islands in general appear to be similar to those from the Marshall Islands, as described by Taylor (1950) and Dawson (1956, 1957). The Carolines are for the most part low atolls and their algal floras might be expected to be similar. Some of the volcanic islands in the Caroline group should, on the other hand, furnish a more diverse flora.

The present check-list contains algae collected over a four-month period and represents the most intensive collection of algae from the Caroline Islands. It probably includes 80-90% of the algae of a low atoll near the Equator.

There are a total of 54 new records (31 green algae, 1 brown, 22 red) among 85 species reported here for the Caroline Islands. Schmidt (1928) in summarizing the work of earlier investigators, reported a total of 77 species. To this number, about 20 more species have been reported by various Japanese workers in scattered publications.

I wish to thank Dr. Harold J. Coolidge for making possible a grant of funds from Contract N7onr29116 between the Office of Naval Research and the National Academy of Sciences. I am greatly indebted to my husband, Donald P. Abbott, for making these collections for me. The Ifaluk Survey, sponsored by the Pacific Science Board, took place in 1953 and is described by Marston Bates and D. P. Abbott in the volume *Coral Island, Portrait of an Atoll*, Scribner's, 1958.

In the list that follows, algae which were collected at more than 10 stations are listed as very common; those collected at 5-10 stations as common; and those at fewer stations as rare. The specimens have been deposited in the University of Michigan (UM), University of California at Berkeley (UC), Bishop Museum (BM), U.S. National Museum (US), and the Chicago Natural History Museum (CM). Some residual collections are at the Hopkins Marine Station of Stanford University (HMS). An asterisk denotes a new record for the Caroline Islands.

Chlorophyceae

- *Enteromorpha lingulata J. Ag. Rare. HMS
- *Enteromorpha torta (Mertens) Reinbold. Rare. UM, UC, BM, US, CM, HMS.
- *Enteromorpha sp. Common. UM, UC, US, CM.
- *Ulvella lens Crouan. (On Microdictyon okamurai). Rare. HMS.
- *Chaetomorpha antennina (Bory) Kützing. Rare. UM.

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- *Rhizoclonium samoense Setchell, prox. Rare. HMS.
Cladophora sp. Very common. UM, UC, HMS.
- *Cladophora fuliginosa Kütz. Common. UM, UC, BM, HMS.
Valonia aegagropila C. Ag. Very common. UM, UC, BM, US, HMS.
- *Valonia ventricosa J. Ag. Rare. UM, UC, HMS.
Valonia utricularis C. Ag. Rare. UM, UC, BM, HMS.
Dictyosphaeria cavernosa (Forssk.) Børg. Very common. UM, UC, BM, US,
HMS, CM.
- *Dictyosphaeria versluysii Weber-van Bosse. Very common. UM, UC, BM,
US, HMS.
- *Boodlea composita Brand. Very common. UM, UC, BM, US, CM, HMS.
Anadyomene wrightii Gray. Rare. UM, UC, HMS.
Microdictyon okamurai Setchell. (The commonest marine alga). UM, UC,
BM, US, CM, HMS.
- Caulerpa antoensis Yamada. Very common. UM, UC, BM, US, CM, HMS.
- *Caulerpa ambigua Okamura. Rare. UM.
- *Caulerpa bikinensis Taylor. Rare. UM.
- Caulerpa serrulata (Forssk.) J. Ag. (and varieties). Very common.
UM, UC, BM, US, CM.
- Caulerpa urvilliana Montagne (and forms). Very common. UM, UC, BM,
US, HMS, CM.
- *Bryopsis sp. Rare. HMS.
- Udotea argentea Zanardini. Common. UM, UC, BM, US, HMS, CM.
- *Udotea indica A. and E. S. Gepp. Rare. UM, UC, HMS.
- *Udotea orientalis A. and E. S. Gepp. Rare, UM, UC, BM, HMS.
- *Avrainvillea obscura J. Ag. Rare. UM, UC, BM, HMS.
Avrainvillea sp. UM, UC, CM.

- *Rhipilia diaphana Taylor. Rare. UM.
- *Rhipilia geppii Taylor. Common. UM, UC, BM, US, HMS, CM.
- *Rhipilia orientalis A. and E. S. Gepp. Common. UM, UC, BM, US, HMS.
- *Halimeda fragilis Taylor. Rare. HMS.
- *Halimeda gracilis Harvey (and form). Very common. UM, UC, BM, US,
HMS, CM.
- *Halimeda lacunalis Taylor. Rare. UM, UC.
- Halimeda micronesica Yamada. Very common. UM, UC, BM, US, HMS, CM.
- Halimeda opuntia (L.) Lamx. (and forms). Very common. UM, UC, BM, US,
HMS, CM. Note: The formae elongata, hederacea, triloba and
renschii are distributed between UM, UC, and BM.
- *Halimeda stuposa Taylor. Very common. UM, UC, BM, US, HMS, CM.
- *Halimeda taenicola Taylor. Common. UM, UC, BM, US, HMS.
- Halimeda tridens (Ellis et Sol.) Lamx. Rare. UM, UC.
- Halimeda sp. UM. (7 specimens).
- *Halicornyne wrightii Harvey. Rare. UC.
- *Neomeris annulata Dickie. Rare. HMS.
- *Neomeris vanbosseae Howe. Rare. UM, UC.
- *Acetabularia parvula Solms-Laubach. Common. UM, UC, BM, US, HMS.
- *Vaucheria sp. Rare. HMS.
- *Dichotomosiphon sp. Rare. UM, HMS.
- *Pseudodichotomosiphon constricta Yamada. Rare. UM, UC, BM, HMS.

Phaeophyceae

- *Ectocarpus mitchellae Harvey. Rare. UM, UC.
- Sphacelaria sp. HMS.
- Pocockiella variegata (Lamx.) Papenf. Very common. UM, UC, BM, US,
HMS, CM.

Rhodophyceae

- Asterocytis ornata (C. Ag.) Hamel. Rare. UM, UC, US.
- *Goniotrichum elegans (Chauvin) Zanard. Rare. HMS.
- Erythrotrichia carnea (Dillwyn) J. Ag. Rare. UC.
- *Liagora ceranoides Lamx. Rare. UM, UC, BM, US, HMS.
- *Liagora kahukuana Abbott. Rare. UM, UC, BM, US, HMS.
- *Liagora sp. (3 collections). HMS.
- *Galaxaura filamentosa Chou. Rare. UM, UC, HMS.
- Galaxaura fastigiata Decaisne. Rare. UM, HMS.
- *Goniolithon frutescens (Foslie) Foslie. Rare. UM, UC, HMS.
- *Porolithon onkodes (Heydrich) Foslie. Very common. UM, UC, BM, US,
HMS, CM.
- *Porolithon gardineri (Foslie) Foslie. Very common. UM, UC, BM,
US, HMS.
- *Porolithon aequinoctiale (Foslie) Foslie. Common. UM, UC, BM,
US, HMS.
- *Porolithon sp. (4 specimens). UM, UC, BM.
- *Lithothamnion sp. Common. UM, UC, BM, HMS.
- *Fosliella farinosa (Lamx.) Howe. Very common on other algae.
- Jania sp. Very common. UM, UC, BM, US, HMS.
- Hypnea nidulans Setchell. Rare. UM, UC, BM, US, HMS, CM.
- *Hypnea spinella (C. Ag.) Kützling. Common. UM, UC, BM, US, CM.
- *Wurdemannia miniata (Drap.) Feldmann et Hamel. Rare. HMS.
- *Rhodymenia sp. Rare. HMS.
- *Ceramium sp. Common. UM, UC.
- Centroceras clavulatum (C. Ag.) Montagne. Rare. UC.
- Centroceras minutum Yamada. Common. UM, UC.

- *Antithamnion sp. Rare. HMS.
- *Griffithsia tenuis C. Ag. Rare. HMS.
- *Griffithsia rhizophora (Grun.) Weber-van Bosse. Rare. HMS.
- Haloplegma duperreyi Montagne. Common. UM, UC, BM, US, HMS, CM.
- Heterosiphonia wurdemannii (Bail.) Falkenb. Rare. HMS.
- Dasya adhaerens Yamada. Rare. UM, UC.
- Hypoglossum minimum Yamada. Rare. UM.
- *Polysiphonia subtilissima Montagne. Very common. UM, UC, US, HMS, CM.
- *Herposiphonia tenella (C. Ag.) Naegeli. Very common. UM, UC, BM,
US, HMS.
- Leveilleia jungermannioides (Mart. et Her.) Harvey. Rare: Occurring
on species of Halimeda. UM, UC, BM.
- *Laurencia mariannensis Yamada. Very common. UM, UC, BM, HMS, US.
- Laurencia perforata (Bory) Montagne, prox. Common. UM.
- Laurencia sp. (two specimens). UM.
- Chondria sp. (1 specimen). HMS.

Angiospermae

- Halophila ovalis R. Br. Common. UM, UC, BM, US, HMS.

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