

Mayor, A.G., 1924, Structure and ecology of Samoan reefs: Carnegie Institution of Washington Publication, no. 340, p. 1-25.

Schmidt, T.W., and Pikula, L., 1997, Scientific studies on Dry Tortugas National Park: An annotated bibliography: U.S. Department of Commerce, National Oceanic and Atmospheric Administration, and U.S. Department of the Interior, National Park Service, 108 pp.

Vaughan, T.W., 1916, Results of investigations of the ecology of the Floridian and Bahaman shoal-water corals: Proceedings of the National Academy of Science, v. 2, p. 95-100.

Wells, R.C., 1922, Carbon-dioxide content of sea water at Tortugas: Papers of the Tortugas Laboratory, v. 18, p. 87-93.

### **Study of Living Algae in the Tortugas Produced the "Bible" for Identifying Those of the Tropical Atlantic**

Diane S. Littler, Senior Scientist, Harbor Branch Oceanographic Institution

Mark M. Littler, Senior Scientist, NMNH, Smithsonian Institution

To us, it seems like the Tortugas Laboratory, maintained for many years by the Carnegie Institution of Washington, is still in existence even though the actual facility has been gone for many years. We refer to the algal literature and specimens that originated at the facility almost every day. Many of the latter are housed and available for study in the algal herbarium of the National Museum of Natural History, Smithsonian Institution. The "bible" for marine algal identification for the Caribbean, William Randolph Taylor's *Marine Algae of the Eastern Tropical and Subtropical Coasts of the Americas*, published in 1960, was initiated and inspired by the work that he did at the station between 1924 and 26. He writes in the first line of the preface, "This work is the direct, if slowly matured, result of the three stimulating summer periods I spent at the former Dry Tortugas Laboratory of the Carnegie Institution of Washington (1924 and 26)." He states the conditions were Spartan but ideal for field and simple laboratory studies.

Algal taxonomy benefits tremendously from studying living material, as opposed to dried, pressed (mostly damaged) specimens that most herbarium-based researchers are forced to use, especially in the early part of the 1900s. The opportunity to work at a field station such as the Carnegie Lab in the Dry Tortugas gave Taylor not only the inspiration of seeing the plants alive but also added enormously to his ability to describe accurately the species color, texture, and other features that are critical for identification and are often missed or impossible to obtain from pressed specimens. Taylor's initial intent was to prepare a checklist of the algae at the Dry Tortugas to aid other workers at the lab who were working in other fields; however, he found such a rich flora in the area that the checklist soon developed into *The Marine Algae of Florida with Special Reference to the Dry Tortugas*, published by the Carnegie Institution of Washington in 1928, which he eventually expanded upon and developed into *Marine Algae of the Eastern Tropical and Subtropical Coasts of the Americas*, to this day, a critical resource for anyone working with seaweeds in the Western Atlantic.

### **References**

Taylor, W.R., 1928, The marine algae of Florida with special reference to the Dry Tortugas: Publications of the Carnegie Institution of Washington, no. 379, [v] + 220 pp.

Taylor, W.R., 1960, Marine algae of the eastern tropical and subtropical coasts of the Americas: University of Michigan Press, Ann Arbor, xi + [iii] + 870 pp.

#### **Citation:**

Diane S. Littler and Mark M. Littler. 2005. Study of living algae in the Tortugas produced the "Bible" for identifying those of the tropical Atlantic. Page 36., in: E.A. Shinn and W. C. Jaap, Field guide to the major organisms and processes building reefs and islands of the Dry Tortugas: the Carnegie Dry Tortugas Laboratory centennial celebration (1905-2005). University of Miami Rosenstiel School: Miami, FL

# **Field Guide to the Major Organisms and Processes Building Reefs and Islands of the Dry Tortugas: The Carnegie Dry Tortugas Laboratory Centennial Celebration (1905 – 2005)**

Eugene A. Shinn<sup>1</sup>, and  
Walter C. Jaap<sup>2</sup>



<sup>1</sup>U.S. Geological Survey  
600 4<sup>TH</sup> Street South  
St. Petersburg, Florida 33701, USA

<sup>2</sup>Fish and Wildlife Research Institute  
Florida Fish and Wildlife Conservation Commission  
100 8<sup>TH</sup> Avenue SE  
St. Petersburg, Florida 33701, USA