(1942). Two of the three keys studied have changed from barren coral and sand strips to substantial islets largely covered with vegetation within the last 63 years. The configuration of one of these has been completely altered. All three keys have changed considerably in shape. Vegetational communities have shown similar changes and maturity. Mangrove areas (red and white) have become established and enlarged. Australian pines and other exotics, introduced to Loggerhead Key, have spread over much of the island and now are found on Bush Key.

*Investigation supported by NIH Grant ST01 ES00126 from National Institute of Environmental Health Sciences.

BS-19 Growth Response of Selected Marine Fungi to a Variety of Energy and Nitrogen Sources.* P.L. SGUROS, J. SIMMS, J. RODRIGUES, Florida Atlantic Univ.-- Humicola alopallonella, Culcitalna achraspora and Halosphaeria mediosetigera, cellulolytic marine isolates, were grown in a basal medium consisting of tris (hydroxymethyl) aminomethane (THAM), KH_2PO_4, thiamine, biotin and yeast extract ash in artificial seawater (Lyman and Fleming) singly augmented with more than 100 inorganic and organic nitrogen (N) sources and carbon (C) sources. All procedures were based on gravimetric growth measurements. Best N source responses were quantitated with and without THAM and pH changes recorded. Generally, responses were uniformly selective. While all inorganic N substrates were utilized, only urea, xanthine and nine amino acids allowed comparable growth. Few C substrates were acceptable and most were inert compared with glucose, fructose, mannose, and cellobiose. Response to D-glycosides and sugar acetates revealed growth patterns similar to those of terrestrial species.

*Research supported by the Office of Naval Research.

BS-20 Vegetation analysis in the Dry Tortugas by Remote Sensing.* H.J. TEAS, P. B. SCHROEDER, Univ. of Miami. The Dry Tortugas are a group of islands located about 70 miles west of Key West, Florida. Detailed ground truth observations have been carried out on the four large islands in the Dry Tortugas using aerial photography and I^2S image enhancement equipment. It has been possible to distinguish several vegetation associations and to identify a number of plant species. The areas that have been differentiated include: associations of the strand-beach, strand-dune, and strand-scrub types; specific stands of Uniola (sea oats), Sesuvium, Suriana, Rhizophora (red mangrove), and Laguncularia (white mangrove); and also individual plants of Bursera (gumbo-limbo) and Conocarpus (buttonwood), as well as a variety of introduced specied such as Casuarina (australian pine), Cocos (coconut), and Phoenix (date palm).

*Supported by NASA grant NGL-10-007-010 and NIEHS Training Grant ST01 ES00126.

BS-21 Hormonal Control in Aging Cultures of Lemna minor. J. P. OSTROW. Texas A & M Univ.- - This paper reports the presence of inhibition in aging cultures of Lemna minor, and describes research into the nature of this inhibition.