MEDCOAST 99 – EMECS 99 Joint Conference, Land-Ocean Interactions: Managing Coastal Ecosystems
9 – 13 November 1999; Antalya, Turkey, E. Özhan (Editor)

Changes in Land Cover in Coastal Areas and Implications for Fishery Habitat

James P. Thomas

National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Office of Habitat Conservation (F/HC), 1335 East-West Highway, Silver Spring, MD 20910, U.S.A. Tel +01-301-713-2325
Fax +01-301-713-1043 e-mail: James.Thomas@noaa.gov

Abstract

Coastal ecosystems receive virtually all of the water flowing off the continental United States. As the human population increases, so do waste loads and use of the landed surface. Changes in land use result in change in land cover, which affects water quality and, subsequently, coastal and estuarine habitats and their living resources.

The National Oceanic and Atmospheric Administration (NOAA) has undertaken a program, the Coastal Change Analysis Program (C-CAP), to monitor change in land cover of the coastal region of the U.S. on a one-to-five year repetitive basis. The coastal region covered by C-CAP includes those land and water components of watersheds within the U.S. that most directly influence estuarine and coastal marine habitats utilized by living marine resources. The major land cover classes include Uplands, Wetlands, and Water and Submerged Land, which includes submerged rooted vascular plants. Satellite imagery is the primary data source for coastal Wetlands and Uplands.

Data for the Chesapeake Bay and other regions in the U.S. (i.e., Alaska, Pacific Northwest, and New England) suggest changes in adjacent uplands may be of greater importance than heretofore thought relative to areal changes in coastal wetlands and potential effects on water quality, aquatic habitat, and living resources. For this reason, a holistic view of the coastal region, beyond just coastal wetlands, is extremely important for developing the understanding necessary for the protection, maintenance and restoration of estuarine and coastal habitats and the living marine resources dependent on them.