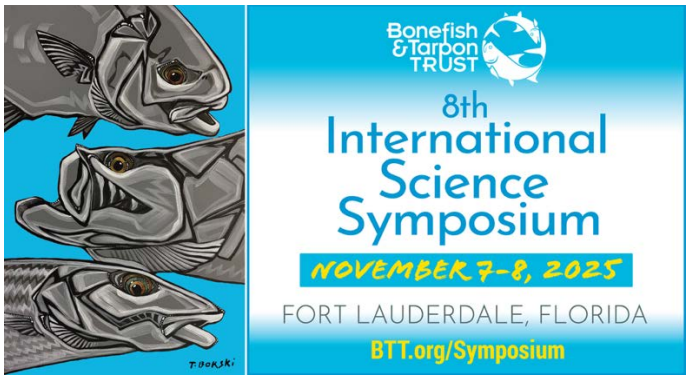


A Vulnerability Index for Juvenile Sportfish Habitats in Charlotte County, Florida

Tim McClinton[1], JoEllen Wilson[2]

In Charlotte County, Florida, nursery habitats for two economically important sportfish (snook and tarpon) are known to exist in close proximity to rapidly accelerating coastal development. Preservation of these nursery habitats and the survival of juvenile sportfish are critical components for maintaining sustainable sportfish populations. In order to identify and prioritize specific conservation opportunities, we have developed quantitative criteria that collectively characterize the vulnerability and value of juvenile sportfish habitats (i.e. coastal ponds). Vulnerability and value criteria, which are primarily based on geospatial analytics from publicly available data sets, are assembled in two matrices which facilitate the scoring of each coastal pond. Vulnerability criteria characterize the risk of habitat degradation due to human disturbances and development pressures. Value criteria evaluate the significance and importance of habitats based on their current functional status and hydrologic ability to support juvenile sportfish. The vulnerability and value scores are then aggregated to identify and prioritize specific targets for future conservation actions. This approach provides the framework for an objective, data-driven vulnerability assessment and may be applicable to other coastal areas with juvenile sportfish habitat endangered by encroaching development.

1) Ocean Research Associates (tim@oceanresearch.net).
2) Bonefish & Tarpon Trust, 2937 SW 27th Ave Suite 203, Miami, FL 33133