

Title: Estuarine biotope mosaics and habitat management goals:
An application in Tampa Bay, Florida, USA

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Abstract:

Many types of anthropogenic stress to estuaries lead to destruction and conversion of habitats, thus altering habitat landscapes and changing the “arena” in which the life history interactions of native fauna take place. This can lead to decreased populations of valued fauna, and other negative consequences. The Tampa Bay Estuary Program pioneered a system-wide management framework that develops estuarine habitat restoration and protection goals based on supporting estuarine-dependent species and the habitat landscapes they require (for example, the extent of seagrass beds, mangrove forests, oyster reefs, or oligohaline marshes) within an estuary. We describe this framework and provide related statistics as methods to help managers set system-wide ecological goals using larger conceptual approaches that are easily communicated to stakeholders and the public; we also discuss applications of the approach to existing and evolving paradigms of estuarine management. The Tampa Bay Estuary Program and partners used this framework to combine a simple and unifying vision with a diverse and complex set of management tools, resulting in greatly improved environmental conditions within Tampa Bay.