

Vital Sign: Marine Infaunal Community
[shortened name: Marine_Infaunal]

Parks Where Vital Sign will be Implemented:
BICY, BISC, BUIS, DRTO, EVER, SARI, VIIS - deferred

Justification/Issues being addressed: Marine Infaunal Community ranked 36th among the 44 SFCN vital signs. Infaunal benthic communities include bivalves (clams), worms (polychaetes and oligochaetes), amphipod crustaceans, insect larvae, etc., that live within the marine substrate. They are heavily preyed upon by crabs and fish. Community composition and structure differ with habitat, salinity, and dissolved oxygen. Community composition is sensitive to changes in water quality, particularly contaminants (e.g., pesticides, heavy metals), changing salinity, and dissolved oxygen (related to nutrient and organics enrichment). Infaunal benthic communities are indicators of overall estuarine health in FL Bay and Biscayne Bay, and can be valuable indicators in ecotonal areas or areas of suspected contaminant input. They respond to the general water quality and contaminant levels at a site through time. A South Florida index for biological integrity has yet to be developed.

General Monitoring Questions to be Addressed by the Vital Sign:

- What are the status and trends in the distribution and abundance of important indicators and keystone organisms, especially with respect to salinity and nutrient gradients?

Measures:

Species composition, abundance, distribution, species richness/ diversity, in conjunction with water and sediment quality monitoring

Basic Approach:

Deferred due to insufficient funds/staff time

Principal Investigators/Key Contacts and NPS Lead:

N/A

Development schedule, budget, and expected interim products:

N/A