

Vital Sign: American Crocodile
[Shortened name: Crocodile]

Parks Where Vital Sign will be implemented:

BISC, EVER – SFCN summarizes reports of existing program

Justification/Issues being addressed: The American Crocodile ranked 21st among the 44 SFCN vital signs. The American Crocodile is a top predator within the estuarine ecosystem. Crocodile population dynamics have been linked to resource management activities, especially water management which has resulted in increased salinities in both South Florida estuaries, Biscayne Bay and Florida Bay. Habitat alteration and conversion along western Biscayne Bay, disturbance, and road kill are also issues. Crocodiles, which are listed as a threatened species under the Federal Endangered Species Act, have core nesting areas in Biscayne Bay and Florida Bay.

General Monitoring Questions to be Addressed by the Vital Sign:

- What are the status and trends in the relative distribution, abundance, nesting effort and success, body condition, demographic structure, growth and survival of crocodiles in relation to water levels and salinities throughout mangrove estuaries of EVER and BISC? How do these change during CERP/MOD Waters Everglade's restoration implementation?

Measures

Animals/ shoreline km, nests/region, size distribution, body condition, annual survival, increase in body length

Basic Approach:

At EVER and BISC crocodiles are being monitored as a CERP RECOVER Monitoring and Assessment Program (MAP) project. This project uses a variety of sampling methodologies including, nightlight surveys to estimate densities, capture-recapture sampling for body condition and survivorship, and nest survey for fecundity. This project generates reports that will be reviewed and summarized by the SFCN Wildlife Technician.

Principal Investigators/Key Contacts and NPS Lead:

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Development Schedule, Budget, and Expected Interim Products:

Summarizing the annual report is expected to take about 1 week of SFCN staff time by the SFCN Wildlife Technician. This indicator should begin in 2009. Table indicates proposed SFCN workload upon full monitoring implementation.

Expected SFCN staff time requirements once program is fully implemented in 5 years:

SFCN Staff	Full Time Equivalent (FTE)
Coordinator	
Marine Ecologist	
Fisheries Biologist	
Marine Biologist Technician (So FL)	
Marine Biologist Technician (VI)	
Community Ecologist	
Wildlife Technician (Wildlife)	0.01
Wildlife Technician (Vegetation)	
Quantitative Ecologist	
Data Manager	
GIS/Data Tech	
Interns	
SFCN Total	0.01