

**Vital Sign: American Alligator**  
[Shortened name: Alligator]

**Parks Where Vital Sign will be Implemented:**

BICY, EVER – SFCN summarizes reports of existing program

**Justification/Issues being addressed:** The American Alligator ranked 22<sup>nd</sup> among the 44 SFCN vital signs. The American Alligator is considered an ecosystem engineer in the Greater Everglades due to its role in maintaining alligator holes (aquatic refugia in the dry season). Additionally, it is a top predator and can influence many other species. Alligators have been monitored as a keystone species in the Everglades over the last 20 years. Scientists have linked alligator population dynamics to resource management activities, especially to water management.

**General Monitoring Questions to be Addressed by the Vital Sign:**

- What are the status and trends in the relative distribution, abundance, body condition, alligator hole occupancy, nesting level, and demographic structure of alligators in various habitats in relation to water levels in EVER and BICY? How do these variables change during CERP/MOD Waters Everglade's restoration implementation?

**Measures:**

Animals/km, Sex ratio, Size distribution, Body condition index, Alligators per hole, Nests/km<sup>2</sup>

**Basic Approach:**

At EVER and BICY alligators 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, nest survey for fecundity, and hole occupancy. 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 Wildlife Technician time. 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