

Mote Marine Laboratory smalltooth sawfish research update

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Update topics

- Fishery interactions
- Site fidelity
- Archival tagging



Fishery interactions – shrimp trawl

- Documented at least 5 events with mortality of at least 6 animals.
- Most from area around Marquesas Keys and Tortugas.
- Two from reports to MML database.
- Two from reports from NOAA Fisheries enforcement.
- All large animals.



Fishery Interaction – pompano gillnet

- One possible capture of sawfish with pompano sized-gillnet tangled on saw.
- No documented mortality.
- Location unknown.
- Large animal (355 cm).



Fishery interactions – shark longline fishery

- 7 records, most from FLMNH observer database.
- Most in the Eastern Gulf of Mexico region, one in deep water off northern Georgia.
- All released alive.
- All large animals.

Fishery interactions – drift gillnet

- Single observation by NOAA contracted observer.
- East coast of Florida.
- Released alive.
- Large animal.

Fishery interaction – recreational line fishery

- Largest number of interactions by far reported.
- Majority are released alive, occasional mortality by those who do not know regulations.
- Occur throughout range.
- Animals of all sizes caught.

Site fidelity

- Using acoustic monitors (Vemco VR2) to monitor the site fidelity of juvenile sawfish.
- Four areas being studied.
- Sawfish fitted with acoustic tags.



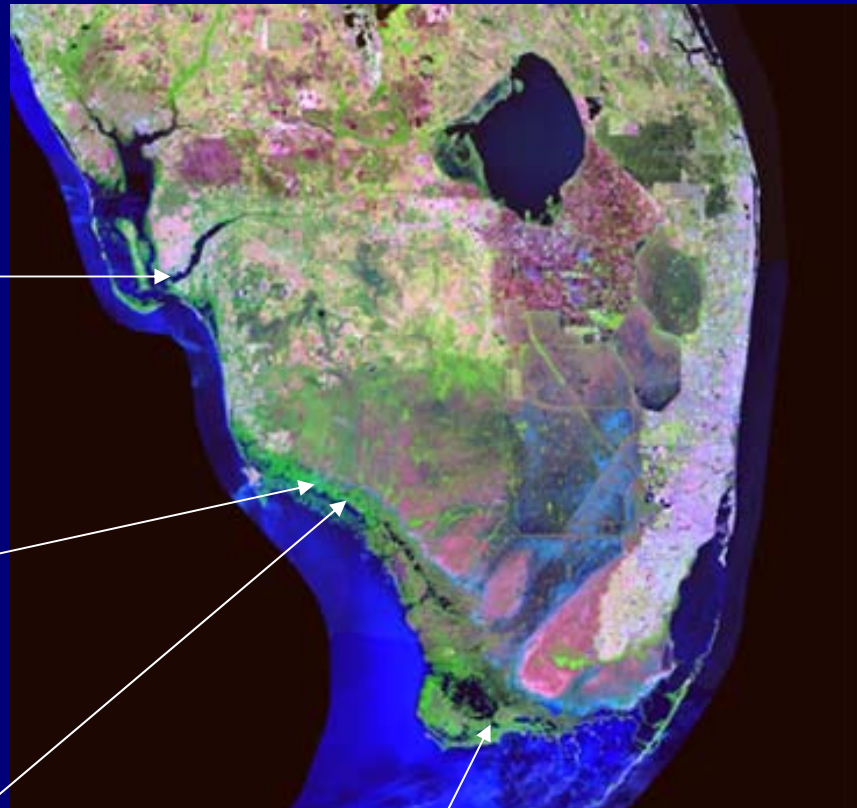
Site fidelity - locations

Caloosahatchee River
(20 monitors)

Faka Union Bay
(3 monitors)

Hurddles Creek
(3 monitors)

Coot Bay
(3 monitors)



Site fidelity - tagging

- Vemco V8 tags (8 mm diameter).
- Battery life estimated at 6-9 months.
- Send signal every 1 to 2 minutes.



Site fidelity - analysis

- Period of tag reception to determine period of residence and level of site fidelity.
- Combined with short periods of active tracking.
- Periods of arrival/departure will be correlated with environmental parameters.

Archival tagging

- Examining the depth, temperature and salinity preference.
- Star-Odi CTD tags attached to first dorsal fin.
- Store data every 5 minutes.
- Tags removed every few weeks, downloaded and replaced.

