

Lobster Fishery Issues

FLORIDA KEYS NATIONAL MARINE SANCTUARY
ADVISORY COUNCIL

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Florida Fish and Wildlife Conservation Commission
Fish and Wildlife Research Institute
South Florida Regional Laboratory

Issues in Florida's Lobster Fishery

- Florida's most valuable commercial fishery
- Popular recreational fishery
- Significant consumptive activity in FKNMS
- Mortality of lobsters used as bait and in ghost traps
- Trap fishery affects habitat
- Protected species impacts
- Lobsters role in nature
- Trap debris



Fishing Effort and Landings (2014)

Trap Fishery

- Approximately 540 SPLs used
- 488,000 trap certificates
- Avg. share 71% (5.0 million lbs)

Commercial Divers

- 209 with landings (252 lic.)
- Average share 3.6% (196,386 lbs)

Commercial Bullynetters

- 327 licenses with landings
- Average share 3.5% (187,432 lbs)

Recreational Divers

- 156,000 lobster permits (some not used)
- 25% fish only during 2-day sport season
- ~40,000 of 63,000 people fish in Monroe
- Avg. share 23.5% (1.6 million lbs)
 - ~500,000 lbs during sport season
- 1-2% more landings post Labor Day
- Unknown illegal landings



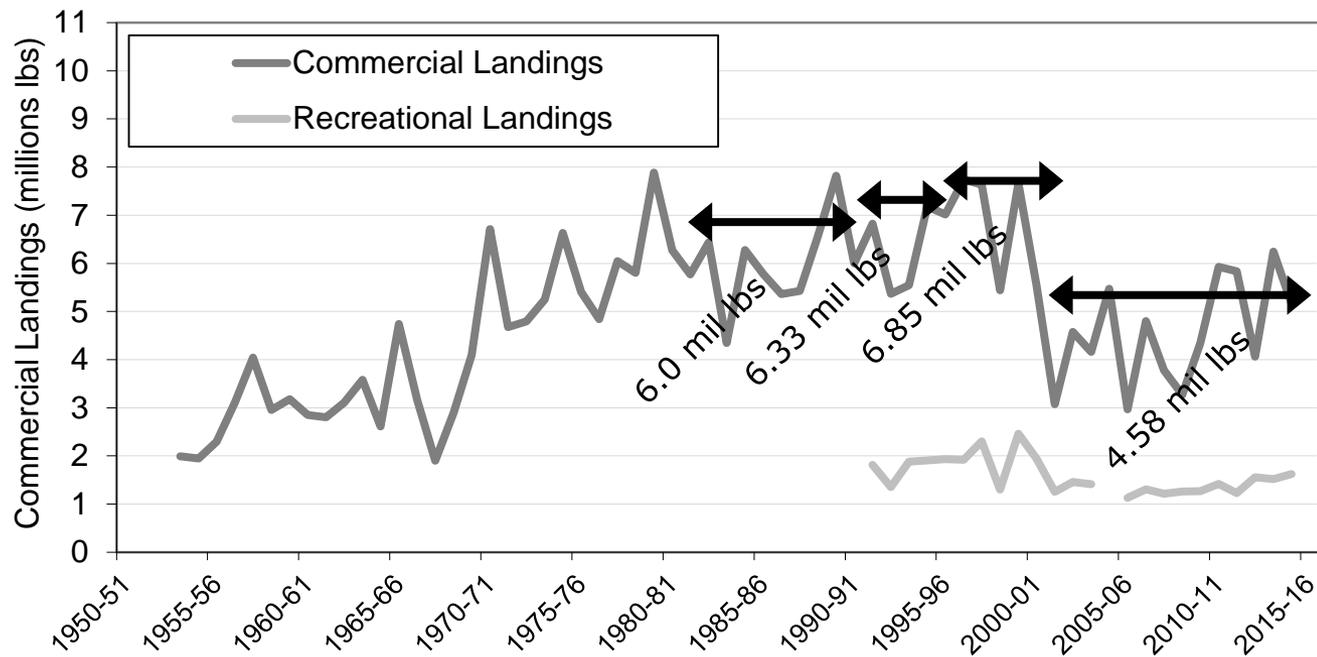
Changing Landings

Past Changes

- Live wells (1986)
- Trap Reduction (1993)
- Population decline (2000)
(maybe PaV1)
- Some recovery? (2010)

Opportunities to Improve Landings

- Attractant mortality
 - 869,000 dead lobster/year
- Ghost fishing
 - $637,622 \pm 74,367$ dead lobster/year



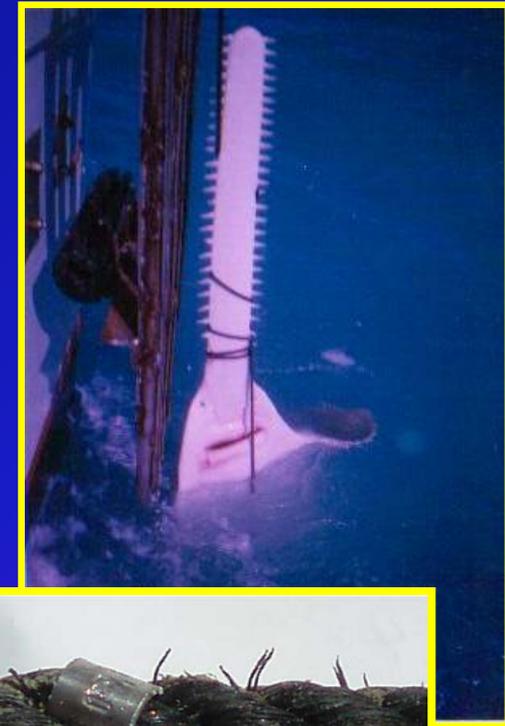
Habitat Conservation Research

- Trap use in Atlantic habitats
 - 2.5% traps on coral
 - 11.3% on hardbottom
 - 39% on seagrass
- Traps move during storms
- Corals, Octocorals, and Sponges damaged or killed
- Alternative trap research to reduce movement
 - Wire traps increased bycatch and ghost fishing



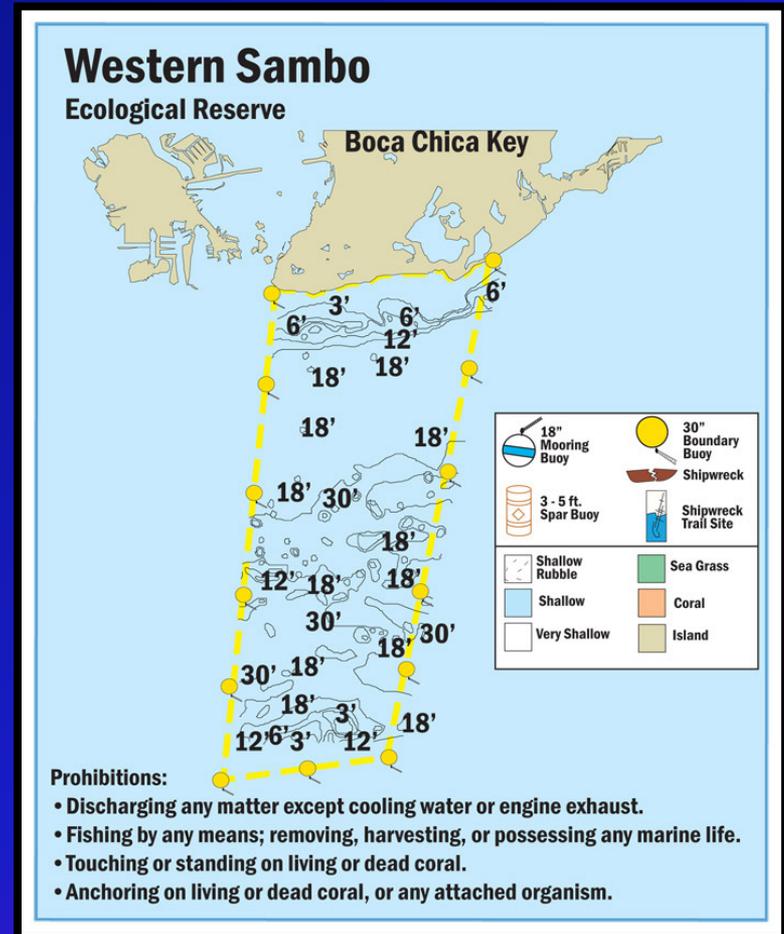
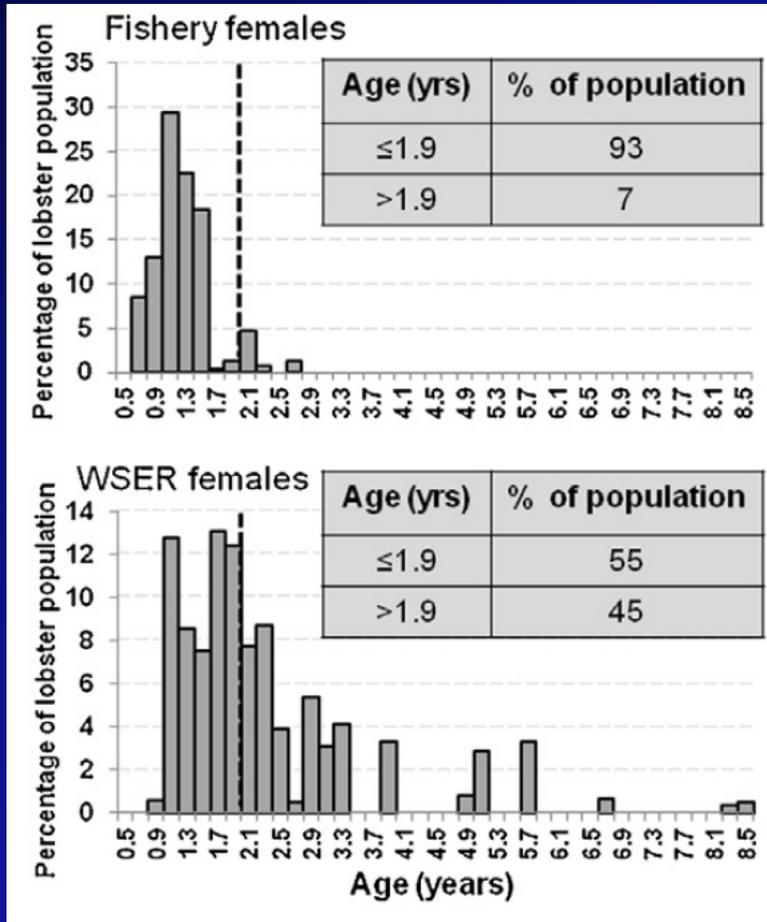
Protected Species Conservation Research

- Protected Species Impacts
 - Sea turtles, marine mammals, and sawfish entangle in ropes
 - Traps damage corals
- Cooperative Research
 - Rope marking
 - Trap movement testing
 - No trap areas



Marine Protected Area Lobster Research

- WSER assessed after 6 years on no fishing
- Increased lobster size
- Increased lobster age
- Older lobsters reproduce earlier and more often



Debris Research

- 70% of submerged debris is traps
- ~18% lobster traps and >1,000 miles of rope lost annually
- 3-5% recovered by trap retrieval (~5,000 traps)
- ~85,000 ghost traps, ~1 million trap remnants
- Debris accumulates on reefs



Recent and Current* Research

Habitat Research

Trap Impacts on Coral
Casita Impacts on Habitat
Marine Protected Area
Assessment*

Biology and Ecology

Age and Growth*
Reproduction
Habitat Utilization
Migration*
Disease – PaV1 Virus
Mosquito Control*

Outreach

FWRI Web page*
Events* and Presentations*
Video*

Stock Assessment

Juvenile Lobster Index**
Postlarvae Recruitment*
Recreational Fisher Monitoring*
Genetics – Source of Florida's
Population*

Support of Management

Annual Catch Limit Assessment*
Fishing Gear Evaluation, Traps,
Ropes, and Protected Species
Marine Debris: Trap Loss
Ghost Fishing*
Baiting with attractants*