

# Lobster Fishery Issues

## FLORIDA KEYS NATIONAL MARINE SANCTUARY ADVISORY COUNCIL

Tuesday, February 16, 2016



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



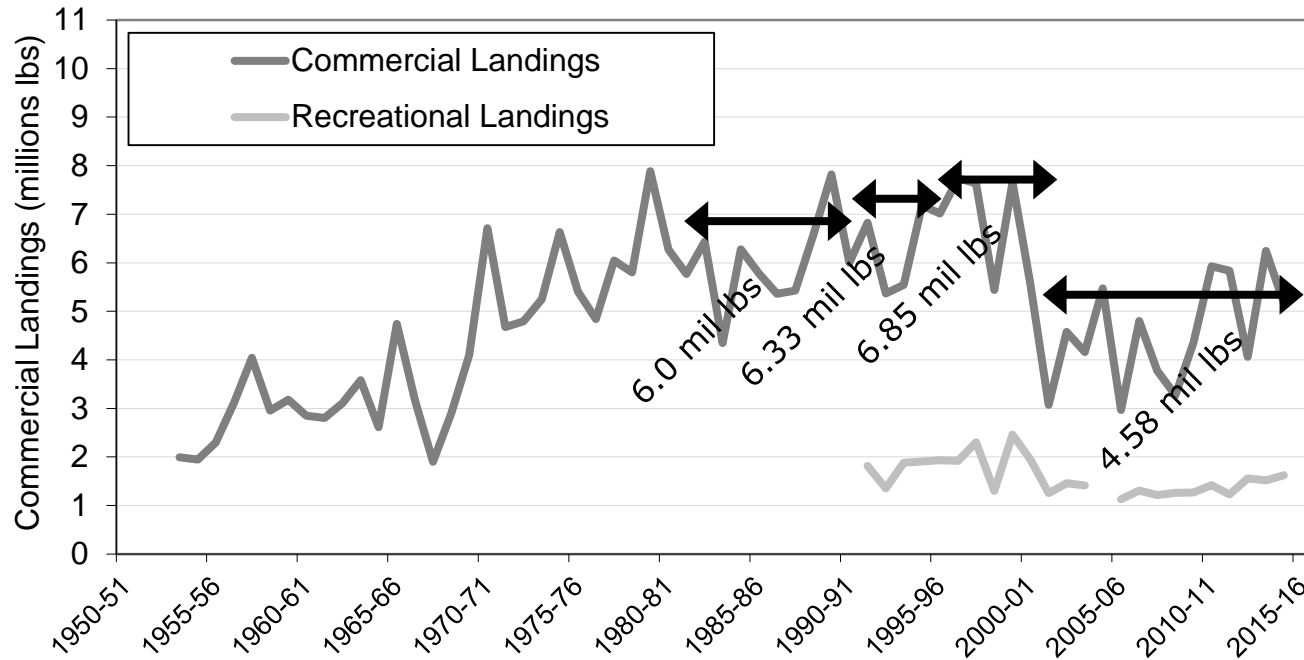
# Changing Landings

## 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





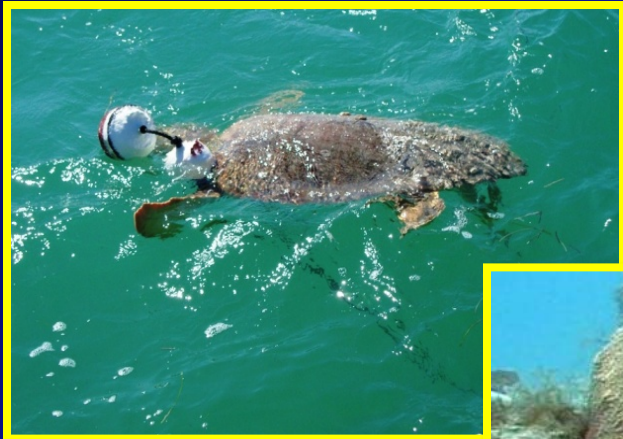
# Habitat Conservation Research

- 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

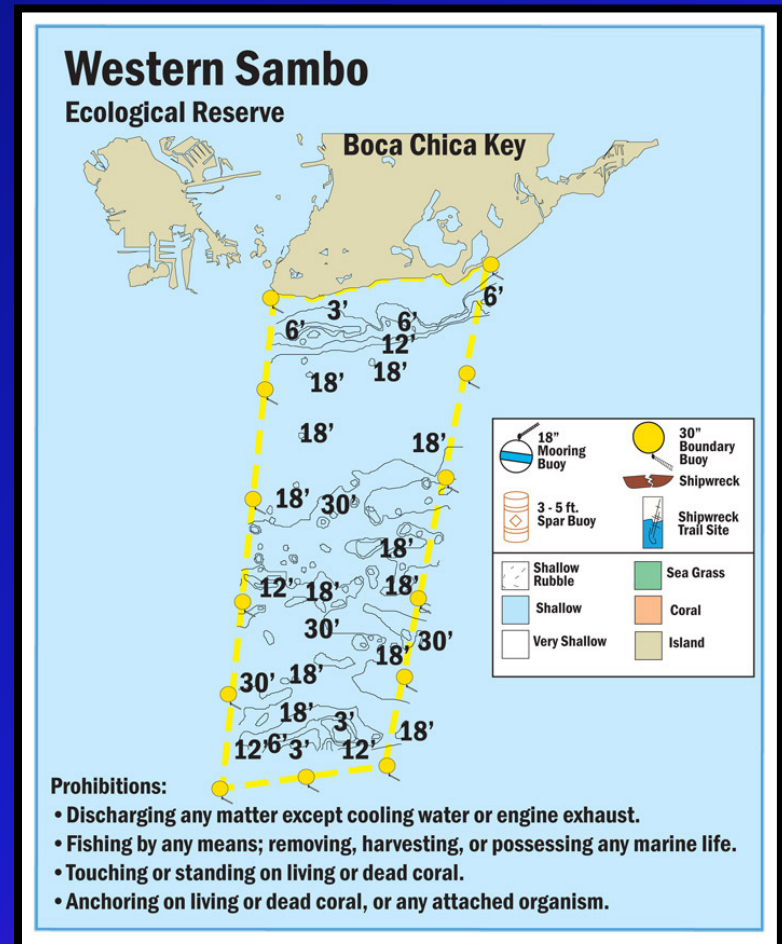
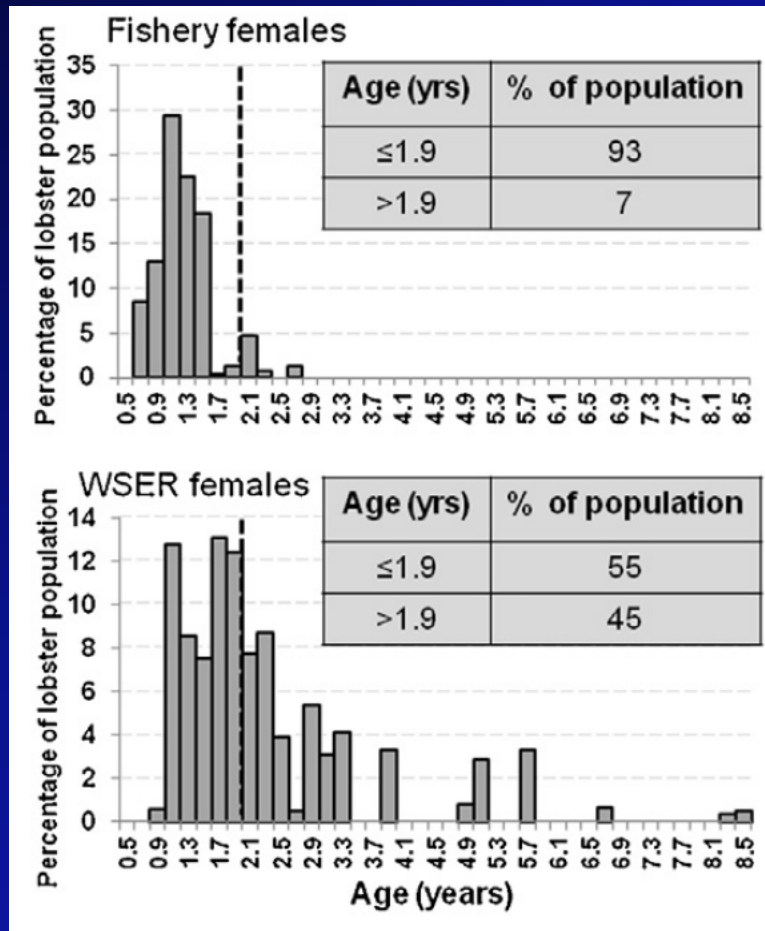
- Protected Species Impacts
  - Sea turtles, marine mammals, and sawfish entangle in ropes
  - Traps damage corals
- Cooperative Research
  - Rope marking
  - Trap movement testing
  - No trap areas





# 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\*