

# Large-scale movements, spawning locations, and structure of the Gulf of Mexico blue crab spawning stock



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# Goal

To examine large-scale movements of spawning female blue crabs within and among estuaries and offshore waters of the Gulf of Mexico using a large-scale, Gulf-wide mark-recapture study.

# Methods



\$5 REWARD: (800) 624-2857  
or [www.crabtags.org](http://www.crabtags.org)

**B00,001**

UNIVERSITY RESEARCH  
see reverse side



# 18,230 crabs tagged since March 2016



March 2016: tagging begins

October 2016: ~5,000 crabs tagged

October 2017: 12,403 crabs tagged

October 2018: 17,786 crabs tagged

March 2019: 18,230 crabs tagged

# Recaptures

- 3602 recaptures reported, ~19.7% recapture rate
  - Commercial crabbers: 85%
  - Recreational: 7%
  - Commercial shrimpers: 3%
  - Other: 5%
- >500 individuals have reported recaptures.

# New in 2018: tagging in Gulf Islands National Seashore

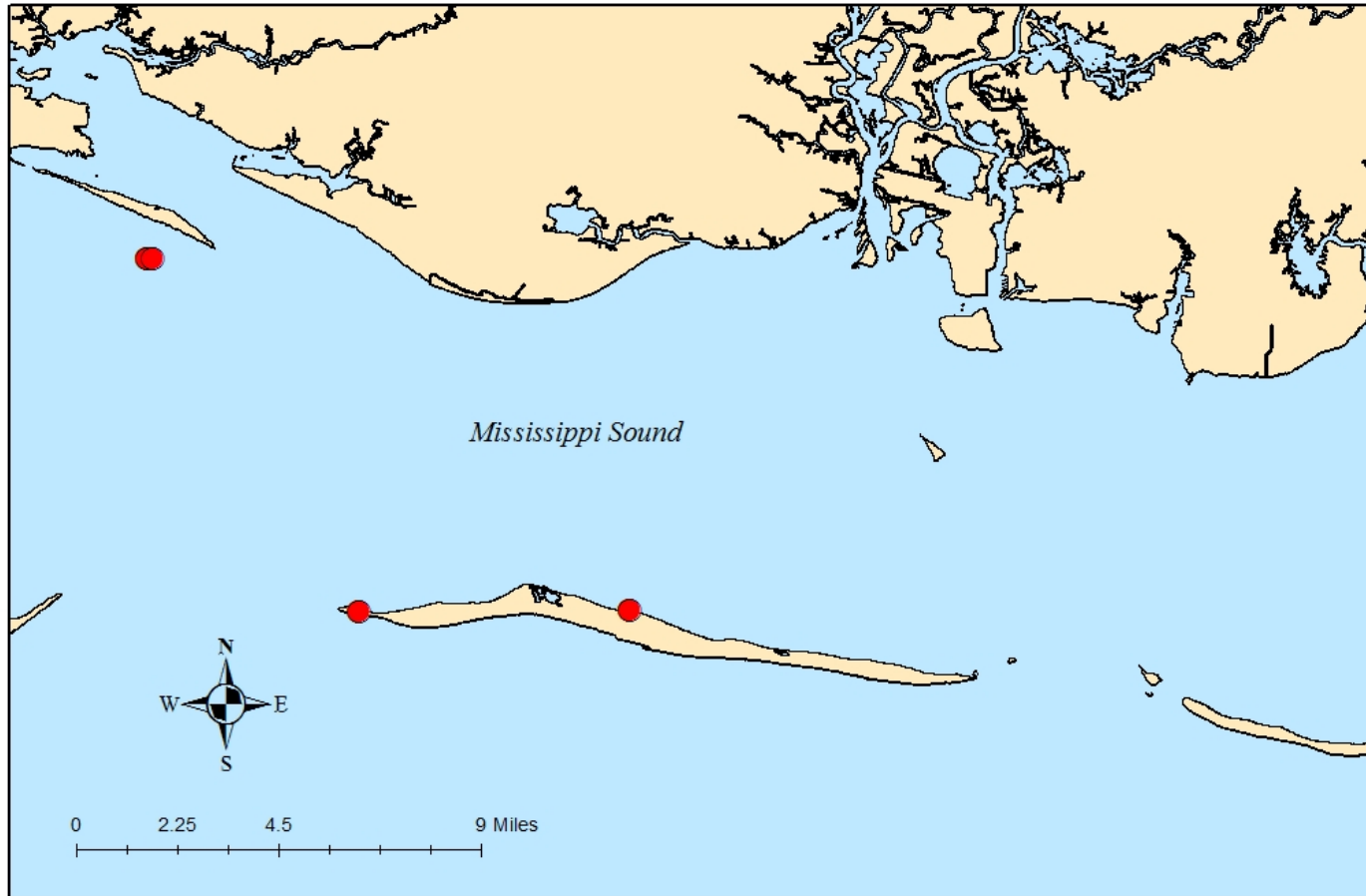


288 mature females tagged in August, 2018



# New in 2018: tagging in Gulf Islands National Seashore

4 recaptures as of 3/15/19



# New in 2018: tagging in Gulf Islands National Seashore

- Frequently >15 mature females per trap.
- Likely important spawning area for Mississippi Bight.
- Will continue tagging in Spring 2018.
- Seeking funding to initiate blue crab monitoring at Horn and Ship Islands.





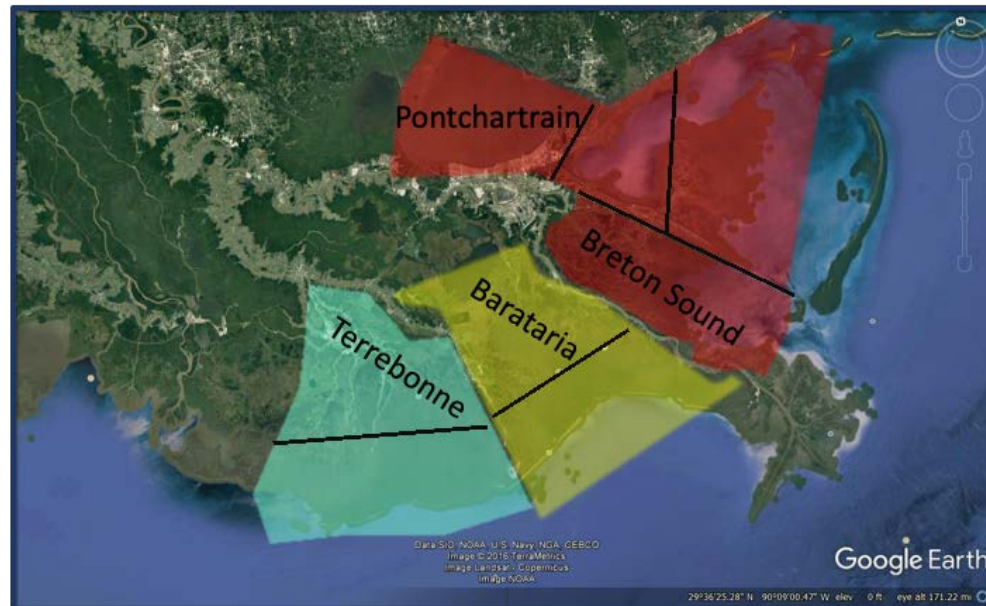
# Planned for 2019



- Mar–Jun: continued tagging, goal of 22,000 crabs.
- Jun–Sep: data analysis.
- Complete report available by Fall 2019 GSMFC meeting.

# Other relevant research

- Migratory movements and fishing mortality of the Louisiana blue crab spawning stock
  - Estimating exploitation rates using high- and low-value tags
  - Commercial vs. recreational exploitation rates
  - Detailed movement data within LA estuaries
  - Assessing sperm stores to examine potential for sperm limitation.
  - Status: data collection complete. Analysis underway.



# Other relevant research

- Active telemetry to examine migratory mechanisms and fine-scale movement patterns.
  - Lower Pontchartrain Basin/W. Mississippi Sound.
  - Status: testing equipment, will begin in May 2019, conclude August 2019.
- Reproductive output of spawning female blue crabs in offshore waters of the Gulf of Mexico.
  - Mature females collected from SEAMAP trawl surveys for fecundity, egg quality, future reproductive potential.
  - Analyses of historical data to develop index of abundance.
  - Status: manuscript in preparation.
  - Continued collections in future years.