

# Research Priorities and Recommendations to Support Interjurisdictional Fisheries Management

## JONAH CRAB

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### **STOCK ASSESSMENT AND POPULATION DYNAMICS**

A coastwide stock assessment has yet to be completed for Jonah crab but is considered a high priority need. The assessment will provide much needed data on the status of the Jonah crab resource as well as contribute to recommendations for additional management needs, if any.

### **RESEARCH AND DATA NEEDS**

#### ***Biological***

**Maturity:** The Massachusetts Division of Marine Fisheries recently received a Saltonstall-Kennedy Grant to conduct research to determine male and female gonadal and morphometric maturity for the Gulf of Maine, Georges Bank, and Southern New England areas. Other maturity factors that still need further research include sperm limitations in a male dominated fishery and size ratios of mating crabs.

**Mortality Rates in the Claw Fishery:** Research is needed to determine the fishery-mortality rates of crabs with claws removed as well as the spawning success of crabs missing claws. The time needed to regenerate a new claw is also unknown and is a research priority.

**Claw-Carapace Width Ratio:** A study is needed to establish a claw length to shell width ratio. This will help inform management in the claw fishery.

**Growth Rates:** Research is needed to determine the growth rates of Jonah crabs which are largely unknown. Furthermore, it needs to be determine whether Jonah crabs experience a terminal molt and have a maximum size.

**Seasonality of Growth and Reproduction:** Seasonal changes in the molting and mating of Jonah crabs across their range is unknown and needs to be determined.

#### ***Economic***

**Fishery Description:** Information on the fishery is lacking including the proportion of the market for live/claw/processed crab and the proportion of the fishery sold directly to consumers and dealers.

***Habitat***

Migration: Studies are needed to determine migrations of the Jonah crab population as well as seasonal habitat preferences.