

Looe Key Spiny lobster population dynamics project

Lobster trap data

Lobster Trap surveys were a portion of an extensive study of population dynamics and abundance in the Looe Key National Marine Sanctuary.

Two types of traps were deployed at two zones in the sanctuary.

In The off shore ridge zone, wire traps with wooden tops were deployed in two lines of 30 traps.

Traps were placed in 40-46 meters (120 to 140 feet) off shore of Looe Key on a region of low relief hard bottom.

In the deep reef zone, wooden traps were deployed in a line of 15 traps.

Traps were placed in 33 meters (99 feet) in a region of large coral heads eroded on their undersides.

Traps were scheduled to be pulled every two weeks, however due to weather, currents and other reasons, trap soak times ranged from 8 to 36 days. 73% of soak periods were 12-16 days.

Off shore ridge traps were pulled from April 1987 to July 1988 and deep reef traps were pulled from April 1987 to March 1989.

All recoverable traps were pulled as close to scheduled times as allowed by weather and ability to relocate trap lines. Trap loss was extensive in the off shore ridge because, at the time this zone was in the southbound shipping channel.

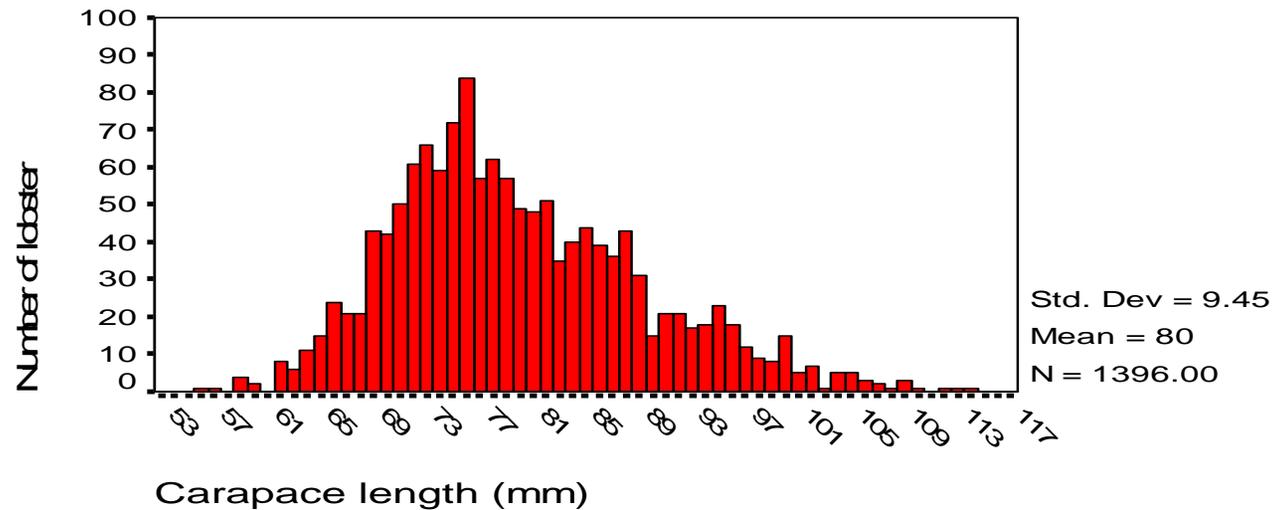
Carapace lengths of all lobsters from each trap were measured to the nearest mm and sexed. Additional data including reproductive state, molt stage, antenna and leg injuries. Any recaptures were recorded. Lobsters were tagged with a numbered t-bar tag between the cephalothorax and abdomen and plastic bird-bands were placed on the antennae. Antennae bands were color coded to indicate zone of first capture. All lobsters were then released.

There were 22 trap pulls in 1987 catching 687 females, and 296 males. In 1988 27 trap pulls caught 282 females, and 131 males, four trap pulls in 1989 were combined with 1988.

Spiny lobster, Looe Key trap data

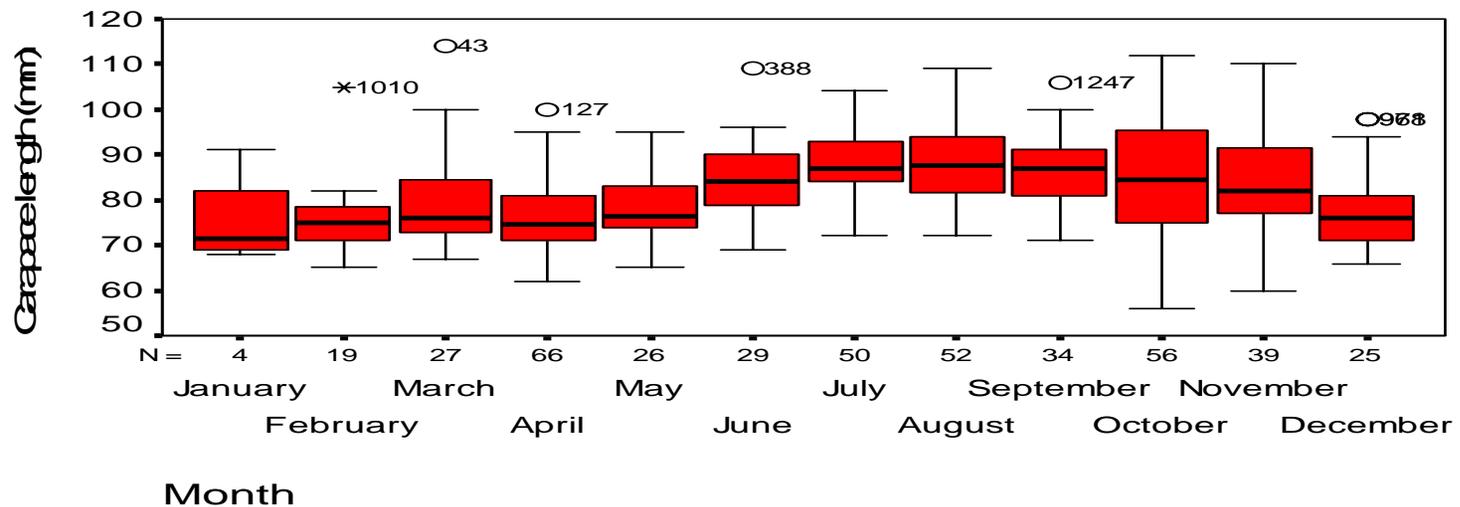
Length frequency

1987 - 1988



Carapace length varied throughout the year, with larger lobsters present during the summer months for both males and females.

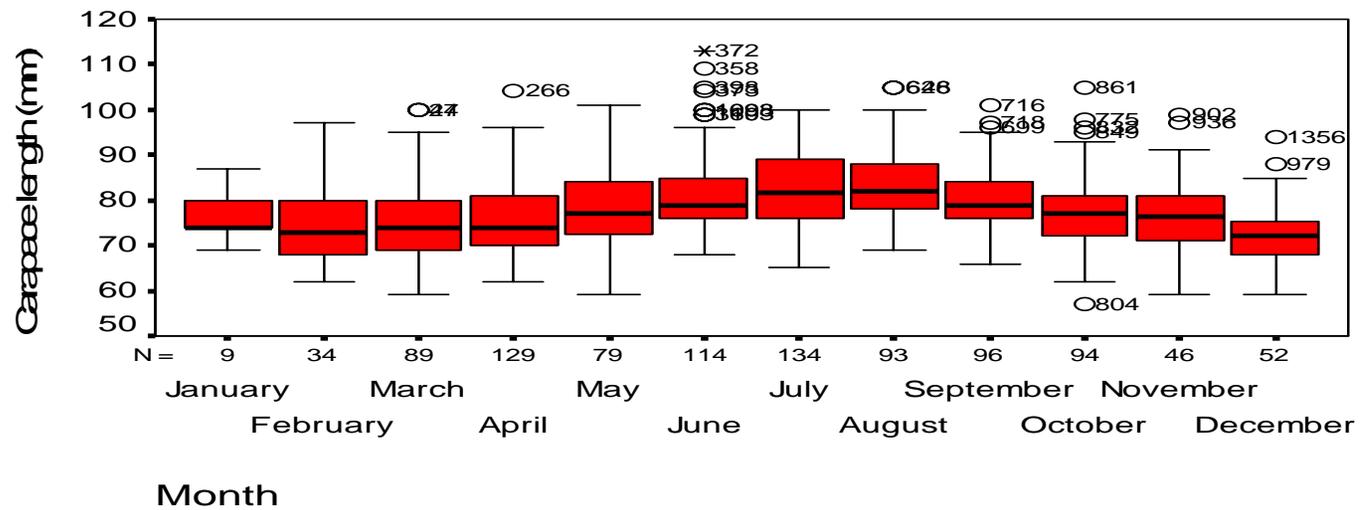
Spiny lobster, Looe Key trap data
Carapace length by month, males
1987 - 1988



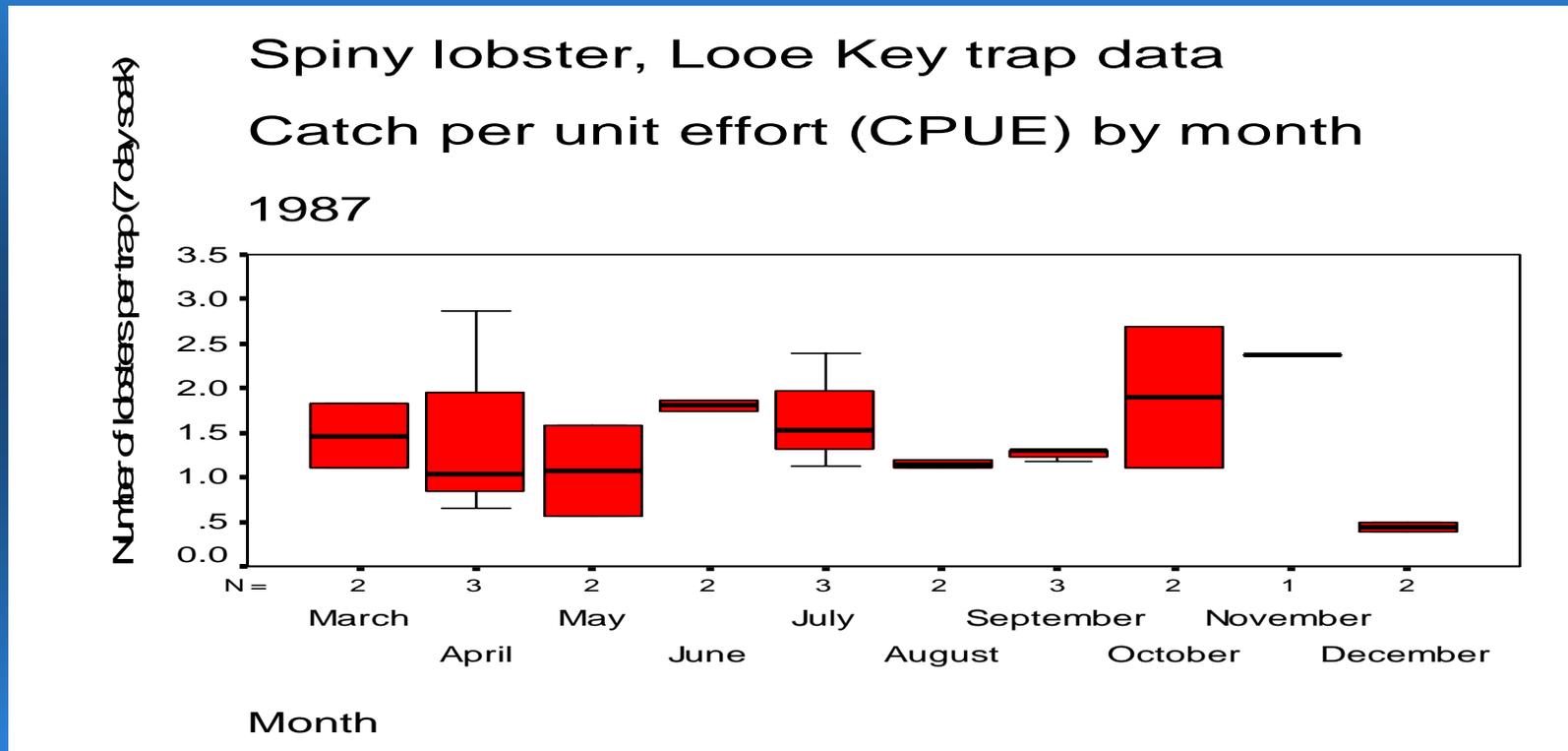
Spiny lobster, Looe Key trap data

Carapace length by month, females

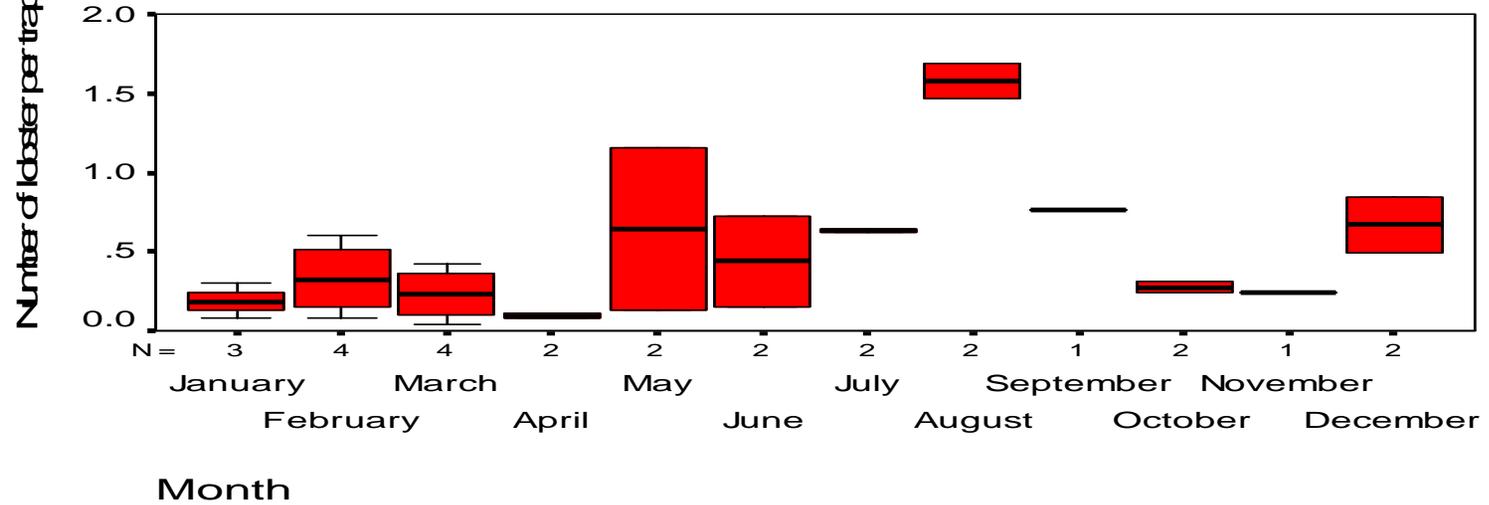
1987 - 1988



Catch per unit effort (standardized to a 7 day soak) varied from month to month and was lower in 1988.



Spiny lobster, Looe Key trap data Catch per unit effort (CPUE) by month 1988



Spiny lobster, Looe Key trap data Catch per unit effort (CPUE) by year

