Diet Analysis of the Striped Bass (Morone saxatilis) along the North Shore of Massachusetts

Robert Murphy – murphy.rob@husky.neu.edu
Jonathan Grabowski – j.grabowski@neu.edu
Northeastern University Marine Science Center

There is a long history of fishing for striped bass in the United States. More specifically, the recreational fishery is extremely important to the economy of Massachusetts.

Overfishing nearly wiped out striped bass in the Western Atlantic, but it recovered during the 1990’s thanks in part to effective management actions.

Striped bass is a voracious predator that likely influences other economically important species such as the American lobster.

Exploring striped bass-lobster interactions will contribute to future efforts to adopt an ecosystem based approach to fisheries management in the Gulf of Maine.

During the spring, striped bass leave their main spawning grounds such as the Chesapeake Bay and migrate north into the Gulf of Maine.

Previous studies have demonstrated that adult striped bass prey largely on fish when at the southern extent of their range, but our preliminary findings suggest that striped bass switch to foraging largely on benthic crustaceans during their migration through southern New England.

In addition, we found that older striped bass rely heavily on lobsters (see figure to the right) and may be influencing lobster population dynamics in the Gulf of Maine.

Future research investigations will focus on examining striped bass population dynamics, predator-prey interactions and impacts on coastal food web dynamics.

This work is aimed at integrating an understanding of how fisheries species interact into coastal management efforts in Massachusetts.