Marine Bioinvasions

- MIT Sea Grant has been awarded funding from the National Sea Grant College Program to conduct outreach on exotic species. While certain marine bioinvaders, such as zebra mussels, are well known to the public, others are less familiar. Educating people about how marine bioinvasions occur—and how they can be prevented—is paramount for better protecting fragile marine ecosystems. MIT Sea Grant will be launching a web site that focuses on marine exotics in the North Atlantic; the site will also serve as a clearinghouse for related materials.

In addition, plans are under way for a January 1999 national conference on marine bioinvasions. The conference will focus on routes of entry, with particular emphasis on ballast water, and on the impacts of introduced species to both natural and aquaculture marine communities. Sessions will look at management of introduced species from policy and engineering and technical approaches. Individuals interested in submitting abstracts or learning more about the conference should contact Judy Pederson, MIT Sea Grant Center for Coastal Resources manager, by e-mail at jpederso@mit.edu.

Sounds of the Sea

- Sound plays a crucial role in information exchange in the marine environment, both for marine mammals and for scientists exploring the deep. Underwater sound is the subject of a major exhibit being developed by MIT Sea Grant, the Woods Hole Oceanographic Institution, and the New England Aquarium. Slated to open in late 1998, this educational exhibit is aimed at informing the public about the nature and significance of sound in the oceans. After its stay at the Aquarium, the National Science Foundation-funded project will travel to aquaria throughout the country.

Examining Bluefish Predatory Habits

- A New York Sea Grant study suggests that an abundance of spring- and summer-spawned bluefish is coexisting on the continental shelf, that wind transport may be positively affecting recruitment of the spring-spawned bluefish, and that prey fisheries, including squid and butterfish, are impacted more by bluefish predation than by commercial fishing.

In the study on bluefish recruitment, David Conover, SUNY at Stony Brook Marine Sciences Research Center professor, and Michael Fogarty of the National Marine Fisheries Service at Woods Hole Laboratory in Massachusetts, focused on bluefish predation and population dynamics on the continental shelf. The recently completed study, "Recruitment and Predation by Bluefish On the Continental Shelf," indicates that bluefish are extremely important predators on other continental shelf fishes, primarily preying on bay anchovy, squid, butterfish, striped anchovy, and round herring.

Scientists consider predation a chief cause of mortality in the early life history of fishes. Earlier studies had indicated that bluefish get a head start on growth, primarily because they are spawned in the south Atlantic in early spring—two months before local species begin their spawning season. And a study regarding bluefish predation, conducted three years ago in the Hudson River estuary, suggested that the mortality of young striped bass may be attributed largely to bluefish predation.

The Conover-Fogarty study results indicate that prey biomass consumed annually by bluefish is eight times the biomass of the bluefish population, with the bluefish consuming a higher biomass of squid and butterfish than is harvested by commercial fishing.