

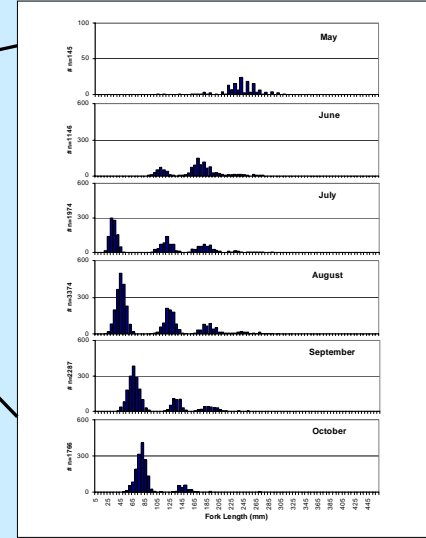
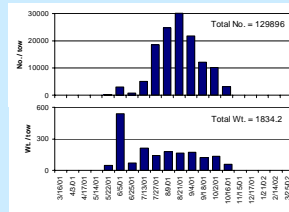
FISHES OF BUZZARDS BAY



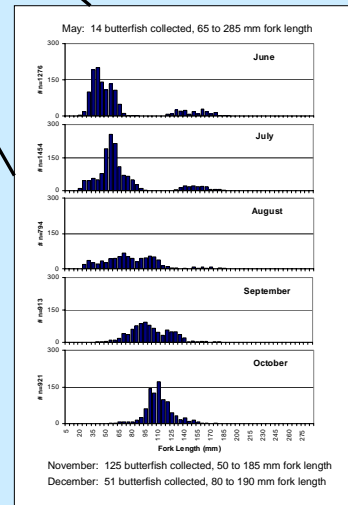
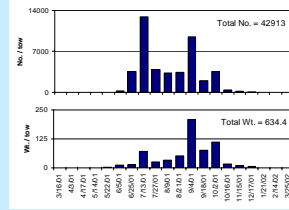
From: INTRAANNUAL VARIATION IN FISH POPULATION CHARACTERISTICS AND SEAFLOOR HABITAT RELATIONSHIPS IN A LARGE ESTUARINE EMBAYMENT: BUZZARDS BAY, MASSACHUSETTS

By Anthony R. Wilbur, Massachusetts Office of Coastal Zone Management, Boston, MA and Matthew Camisa, Massachusetts Division of Marine Fisheries, Pocasset, MA

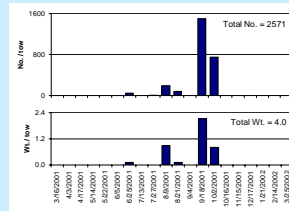
Scup, *Stenotomus chrysops*



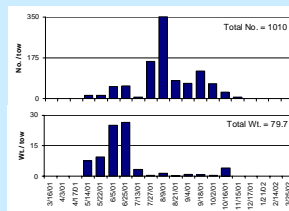
Butterfish, *Peprilus triacanthus*



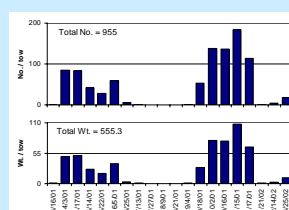
Bay anchovy, *Anchoa mitchilli*



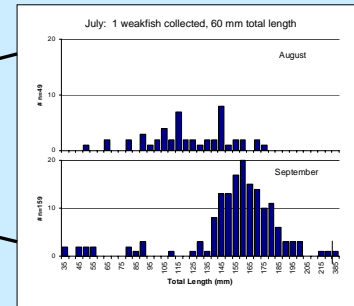
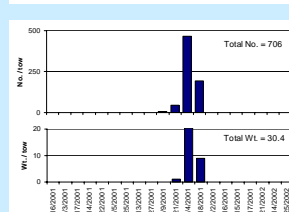
Black sea bass, *Centropomus striata*



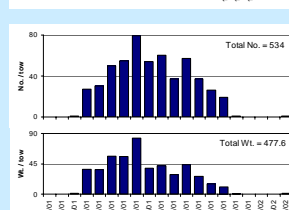
Little skate, *Leucoraja erinacea*



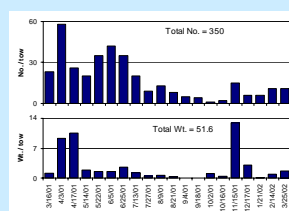
Weakfish, *Cynoscion regalis*



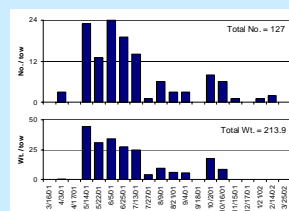
Summer flounder, *Paralichthys dentatus*



Winter flounder, *Pseudopleuronectes americanus*



Tautog, *Tautoga onitis*



SUMMARY

- This study was the first to assess intraannual characteristics of the fish community of deeper Buzzards Bay waters; the study improved our understanding of fish ecology in Massachusetts waters.
- Buzzards Bay supported a relatively diverse fish assemblage, including 57 fish species and species with both boreal and temperate affinities.
- Mean weight (kg) per tow for all species combined peaked in June and was dominated by mature adult fishes.
- Mean number per tow for all species combined peaked in August, predominately comprised of juvenile fishes.
- Buzzards Bay provided important nursery habitat for a relatively diverse fish community, particularly for scup, butterfish, bay anchovy, black sea bass and weakfish (many other species collected at lower numbers).
- Adult and older juvenile fishes dominated spring, late fall and winter catches, and young-of-year fishes were largely collected in summer and fall.
- Mud and sandy mud habitat seemingly provided similar functions and values; landscape features and seasonal occurrence of algae appeared to influence catches.
- Study results facilitated the identification of environmentally sensible dredged material management approaches. The fish study, along with existing literature, provided a baseline assessment to evaluate potential impacts associated with dredged material disposal.

FISH ILLUSTRATION CREDITS

Juvenile fish species were illustrated by Susan Kaiser and Nancy Arthur and reproduced from Able and Fahay (1998). Adult fishes illustrations are from Murdy et al. (1997).

Able, K.W. and M.P. Fahay. 1998. *The First Year in the Life of Estuarine Fishes in the Middle Atlantic Bight*. Rutgers University Press, New Brunswick, New Jersey.

Murdy, E.O., R.S. Birdsong and J.A. Musick. 1997. *Fishes of Chesapeake Bay*. Smithsonian Institution Press, Washington DC.

ACKNOWLEDGMENTS

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