



**White Perch (*Morone americana*): Diet and Food Web Support
in the Hackensack Meadowlands**

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Introduction:

The New Jersey Meadowlands Commission (NJMC) through MERI conducted a fisheries resource inventory of the lower Hackensack River and its major tributaries. This study replicated the work that was done during a similar fisheries study between February 1987 and December 1988. The primary purpose of the new study was to inventory the fishery resources of the lower Hackensack River, with an emphasis on determining if the fish community has responded to perceived improvements in water quality over the past 13 years.

The study inventoried the fisheries resources of the lower Hackensack River and its major tributaries (Sawmill Creek, Berry's Creek, Mill Creek, and Cromakill Creek) using four different gear types; otter trawls, trap nets, gillnets and seines. A total of nine trawling locations, six trap net locations, three gillnet locations and three seine locations were fished on a monthly basis during the first year of the study. Fishes collected during the study were identified, counted, measured and weighed. Most were returned to the water. Some were retained for tissue analysis for contaminants, while others were kept for further identification or as voucher specimens.

Additional Studies

We performed two additional studies that supplement the work conducted by MERI. This section describes the additional studies on diet and food web.

Food Habits Study

We used some of the specimens of white perch, *Morone americana*, collected for tissue analysis of contaminants, to perform a food habits study. A close relative of the striped bass (*M. saxatilis*), it is an important food fish in the Chesapeake Bay and elsewhere, and is caught both commercially and for sport. It is an abundant species in the brackish water of the Hackensack estuary, and was one of the most commonly caught fish species in both the current survey and the previous survey a decade ago. This study was performed in order to: 1) identify the prey

