

EXECUTIVE SUMMARY

The Hudson River estuary spring recreational fishery was surveyed from 16 March through 17 June 2005 utilizing the same methods used to document the amount of fishing effort, catch, and characteristics of the fishery during a year-long survey conducted in 2001-02.

The tidal Hudson River and tidal tributaries from the George Washington Bridge to Troy Dam comprised the survey area. Fixed-wing aircraft counts of shore anglers and fishing boats combined with angler interviews at nearly 200 access points estimated effort, catch, harvest, and angler attributes. Count flights were allocated between two 6 to 7 week “seasons” (Early and Late Spring) and randomly by daytype and from among four flight paths to describe angler distribution and develop precise effort estimates. Ground interviews were allocated among access sites within three river “sections” according to expected and observed use and randomly between daytypes to gather comprehensive catch and angler attribute data.

Angler distribution during the spring generally tracked the upriver movement of striped bass. Early spring angling by boat and shore anglers was focused in the survey reach south of Bear Mountain Bridge. Late spring boat angling occurred mainly north of the Mid-Hudson Bridge, whereas shore angling continued south of Bear Mountain Bridge, and was also consistent at Troy Dam and several other locations. Estimated angler effort during spring 2005 was 445,331 angler-hours, which amounted to 89,673 fishing trips. Boat fishing represented 64.6% of total estimated spring effort, and was focused north of the Bear Mountain Bridge. Shore-based fishing predominated south of the Bear Mountain Bridge, although substantial early spring boat fishing occurs near Croton and Haverstraw Bay.

Anglers caught an estimated 300,853 fish representing 30 species and harvested 137,239. River herring formed more than 50% of the catch and 83% of the harvest. An estimated 64,201 striped bass were caught, and anglers harvested 11,558 individuals. White perch, catfishes, and American eel comprised most of the catch of other species.

Harvested striped bass mean length was largest in the Hudson River north of Kingston (33.3 in; 846 mm TL), and smallest in the lower estuary south of Bear Mountain Bridge (21.6 in; 549 mm TL). Private boat anglers caught larger striped bass than shore-based anglers. Striped bass harvested by spring tournament anglers were also larger (mean length = 33.4 in; 848 mm TL) than those harvested by other spring anglers (27.2 in; 691 mm TL). Fifteen age classes were represented in the spring 2005 striped bass harvest, with two age class peaks. Age 4 striped bass comprised 23.7% of the aged sample, and Ages 9 and 10 combined formed 24.0% of the sample. The oldest striped bass in the sample was Age 18.

Boat angler CPUE (0.635 fish/h) was higher than shore angler CPUE (0.454 fish/h) overall, and in each Hudson River study section. The overall HPUE was also higher for boat anglers (0.281 fish/h) than shore anglers (0.156 fish/h), primarily due to the high success rate for river herring in Section 3. Otherwise, shore angler HPUE was higher than boat angler HPUE in Section 1 and 2.

Catch and harvest rates for individual species were determined for the primary targeted species. Although 14 species or species groups were targeted by Hudson River anglers, 77.7% of all anglers interviewed sought striped bass. Striped bass fishing accounted for nearly 81% of all spring fishing trips.

Targeted striped bass CPUE and HPUE was higher for boat anglers (0.137 and 0.028 fish/h, respectively) than for shore anglers (0.125 and 0.018 fish/h, respectively). American shad anglers in boats also had higher CPUE (0.586 fish/h) than shore-based shad anglers (0.407 fish/h). The HPUE

by boat anglers (0.184 fish/h) for shad was mainly due to the use of shad as bait. In contrast, the HPUE for American shad from shore was negligible.

New York residents formed 93.3% of the anglers interviewed. Out-of-state and international anglers formed the remainder. At least 15 states plus the District of Columbia were represented in the spring angling community. New York-licensed anglers comprised 52.2% of those interviewed. Boat anglers were licensed at a higher rate (61.6%) than shore anglers (44.2%). Hudson River anglers were predominantly (76%) Caucasian. The next two largest ethnic groups, Hispanic anglers (9%) and African-American anglers (7%), mainly fished south of the Bear Mountain Bridge.

Recreation was the main purpose of fishing trips seeking most species. Angler awareness of fish consumption advisories resulting from contaminant issues was higher north of the Bear Mountain Bridge (97.7%-98.6%) than south of the bridge (86.4%). The proportion of spring 2005 anglers in the lower estuary with knowledge of the advisories represented a slight improvement from the proportion among spring 2001 anglers (77%-80%).

Striped bass tournaments in spring remained popular with Hudson River anglers. Eleven striped bass tournaments were held over two weekends in April and three weekends in May. The largest event occurred in mid-April at Tarrytown and attracted more than 700 entrants. The largest tournament in May attracted 251 entrants.

Estimated angler effort, striped bass catch, and striped bass harvest in spring 2005 each increased compared to estimates developed for the spring 2001 fishery. Overall fishing effort increased by 28%, striped bass catch increased by 48%, and the number of striped bass harvested increased by 65%. The increase in overall effort was largely responsible for the higher catch and harvest estimates, since striped bass catch and harvest rates in spring 2005 were lower than in 2001, particularly among shore-based anglers.

The popularity of the Hudson River striped bass fishery and the ability to harvest a good eating fish continues to dominate spring angling in the estuary. Anglers kept approximately 18% of the striped bass caught. However, the additional mortality associated with catch and release of more than 52,600 striped bass, projected to an overall mortality rate of approximately 31% of all striped bass caught in spring 2005.