

Current Projects - Lakes, Ponds and Reservoirs

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Management of Hybrid Striped Bass in Iowa

Hybrid striped bass have become a sought-after species both in Iowa's large federal impoundments and in its urban fisheries. Many states have stocked hybrid striped bass (male white bass *Morone chrysops* × female striped bass *M. saxatilis*) (also referred to as original cross or palmetto bass) due to its popularity among anglers. In particular, hybrid striped bass exhibit fast growth, are aggressive, are considered to have superior fighting abilities, and are capable of reaching large sizes and providing a trophy fishery. Although hybrid striped bass continue to expand their distribution through movement and additional stockings, little is known about managing these sport fish.

One of the objectives of this study was to identify an economical mark for hybrid striped bass. Freeze-branding (as shown in photo above) was effective on both 40 – 50 mm TL and larger (mean = 136 mm TL) hybrid striped bass. Nine hundred to 1,400 hybrid striped bass were tagged per crew-h (2-person crews). Mortality rates did not differ between freeze-branded and control fish (handled in a similar manner to freeze-branded fish, but not branded). Hybrid striped bass effectively retained their mark over a 6 ½ month period. Hybrid striped bass continued to grow through winter in the hatchery, gaining an average of 32.1 mm TL.

Hybrid striped bass were also marked with oxytetracycline. Reader estimated mark quality did not differ between the two readers for the oxytetracycline treatments (500 ppm; 700 ppm) or structures (otoliths and dorsal spines). Mark quality was ranked significantly higher by two readers for hybrid striped bass otoliths treated at 700 ppm versus the 500 ppm treatment. Mark quality was similar for otoliths and dorsal spines treated at both concentrations. Time to estimate spine mark quality was significantly higher for dorsal spines treated at 500 ppm, but time to determine otolith mark quality did not differ between treatments.

This study also sought to initiate a standard sampling program (fall gill netting) to assess population characteristics (size distribution, condition, and catch-per-unit-effort) and growth of hybrid striped bass in Saylorville and Red Rock reservoirs. We determined that population characteristics were generally good, although numbers of hybrid striped bass stocked into these reservoirs could likely be increased. Red Rock Reservoir's hybrid striped bass year-classes were truncated at age 3, whereas Saylorville Reservoir had hybrid striped bass from age 0 to age 7. The lack of year-classes at Red Rock Reservoir may be simply due to fish not being stocked during these years, flushing of hybrid striped bass, or unknown mortality working on stocked fish; this warrants further investigation. Overall growth in the two reservoirs is slightly less than that of other Midwestern reservoirs. This is not unexpected because Iowa is situated more northerly than other states with better hybrid striped bass growth.