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## Wildlife, parks to genetically alter saugeye to preserve walleye genetics

## High-tech process makes hybrid fish sterile, protects pure-strain walleye

PRATT – Fisheries biologists with the Kansas Department of Wildlife and Parks are embarking on an imaginative saugeye propagation project that promises positive effects on the state walleye population, as well as other species. Because walleye populations in some lakes have struggled despite stocking programs, the agency has helped fill this niche by stocking hybrid saugeye, a cross between the walleye and the sauger. The resulting fish is one that displays hybrid vigor, growing faster and larger than the sauger and perhaps more adaptable to high flow-through reservoirs than the walleye.

The problem with the normal cross-breeding process — which produces a "diploid" hybrid - is that diploid saugeye may spawn with purestrain walleye, diluting the genetics of the walleye population. They may also be washed out of a reservoir and travel downstream to another lake, with the potential to dilute another walleye population's genetics. The new process for creating saugeye — called "triploid induction" - may solve this problem. Triploid induction of a chromosome number to create a potentially faster-growing, but sterile, fish. A specific chromosome pair critical to reproduction is fracon the DNA helix.

This is the first year for KDWP to attempt this process, and they will be using hydrostatic pressure chambers on the agency's walleye barge right where eggs are harvested on Milford Reservoir. After the eggs are harvested from wild females caught in the lake, it takes four minutes to add milt (sperm), stir the mix, and get the eggs into the pressure chambers. Approximately 24 ounces of eggs are placed in each chamber, which are then pressurized to 9,500 pounds per square inch (psi) for 10 minutes. The genetically-altered, fertilized eggs will then be taken to the Pratt Fish Hatchery to complete the incubation process.KDWP's goal for its maiden voyage into the world of triploid fish production is three million eggs, with the hope of producing one million saugeve. After hatching, some of the fry will be stocked in Lake Afton, Harvey County Lake East, and Wellington City Lake. Others will be held at the Pratt

is a technique that allows genetic manipulation Hatchery and grown large enough to take blood samples to test the success rate of triploid production.

This visionary new process holds promise tured, creating a third chromosome in that spot for other species, as well. White crappie, which can quickly overpopulate and stunt fish growth in smaller impoundments, could be triploid-induced, making white crappie stocking of smaller state fishing lakes and community lakes possible. Grass carp, which are stocked to control aquatic vegetation, could also be put through this process, eliminating reproduction of an essentially undesirable nonsport fish in Kansas waters, and even waters in other states into which our rivers flow. The potential for triploid induction to control the reproductive capabilities of certain fish offers exciting possibilities for fisheries biologists and researchers, but the ultimate beneficiary will be the angler. With the possibility of creating large numbers of desirable but faster-growing and sterile saugeye, Kansas anglers can look forward to ample opportunities to catch more saugeye while knowing the walleye they catch are pure-strain. And perhaps soon, anglers will enjoy crappie fishing in their favorite smaller lakes.



Norton Wildlife Area Waterfowl Report Waterfowl numbers — Less than 50 light geese.

- Water level Reservior is 17.2 ft below conservation pool.
- Hunting conditions Reservoir is open (no ice).
- Expected hunting success Poor, due to small numbers of light geese.

Comments — Light goose conservation order is the only waterfowl season currently open. Refuge is no longer in effect



