

Tiger Trout Research



TRANSFORMING UNDESIRABLE FISH INTO QUALITY FISHING OPPORTUNITIES FOR ANGLERS

What are tiger trout and how can Colorado's lakes benefit?



Many of Colorado's coldwater lakes contain fish species, such as suckers and minnows, which provide little value to anglers, compete with managed sport fish, and have the potential to reduce water quality. However, these undesirable fish may be valuable prey items. Sterile fish that have the ability to grow to predatory size quickly and eat the unwanted fish could act as a biological control agent and provide a unique fishing opportunity. Being unable to reproduce, sterile fish can be closely managed through stocking and harvest regulations. Tiger trout, a sterile hybrid between male brook trout and female brown trout, have the potential to fill this role. Tiger trout have already been stocked in some Colorado lakes. Our understanding of what tiger trout eat and how well they grow and survive in lakes with different species of undesirable fish remains limited, and should be fully investigated as a management tool.



Fine-mesh net full of fathead minnows.



Flushing the stomach of a young tiger trout to evaluate diet (this fish was eating insect larvae).



Three-year-old, 5 1/2 lb tiger trout from a lake containing fathead minnows.

Study objectives

Factors such as number of tiger trout stocked per acre of lake and the presence of small-bodied minnows versus larger-bodied suckers may affect the ability of tiger trout to grow quickly enough and survive long enough to eat and suppress the population of undesirable fish. The objective of this research is to quantify the feeding, growth and survival of tiger trout stocked into lakes with different species of undesirable fish. Results will help CPW prioritize which lakes receive tiger trout, inform appropriate numbers to stock, and calibrate expectations on the effectiveness of tiger trout as a biological control agent. Informed stocking translates into (1) efficient use of the limited number of tiger trout produced by our hatchery system, (2) a greater chance tiger trout will perform well at the onset of stocking, and (3) more rapid development of a quality fishing opportunity for anglers.

Early results

Preliminary observations *suggest* that tiger trout grow well and can suppress populations of undesirable fish in lakes containing small-bodied minnows. For example, based on catch rates in nets (number of fish captured per hour of soak time), fathead minnows were much more numerous in three lakes where tiger trout were either absent or only present for one year (**blue bar** in figure to right) compared with two lakes where tiger trout were present for 2-3 years (**red bar**). In addition, tiger trout grew from an average of 4.0 inches at time of stocking to 19.2 inches after just 3 years in one of the lakes. Continued study and monitoring is needed to validate this apparent strong influence of tiger trout.

