

Evaluation of Two Strains of Rainbow Trout Stocked into Inland Lakes in Michigan

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Abstract.—Equal numbers of Eagle Lake-strain rainbow trout (EL) and Michigan-strain steelhead (STT; anadromous form of rainbow trout) *Oncorhynchus mykiss* were given distinctive fin clips and stocked into seven experimental lakes each year from 2004 through 2008. Relative growth, survival, and return to creel of the strains were evaluated from samples collected by on-site angler survey, gill netting, electrofishing, and by volunteer anglers. Eagle Lake strain were smaller than STT at stocking but grew faster and erased the size deficit within six months of stocking. Size-at-capture differed between the study lakes, but overall size-at-age did not differ between the strains within each lake. Steelhead comprised 75% of the 590 stocked rainbow trout captured with survey gear. Return to anglers was poor for both strains in large inland lakes, but in smaller lakes 67% of rainbow trout caught by anglers were STT. Although EL may be more vulnerable to angling, their lower survival rate makes STT a more cost-effective fish to stock in small inland lakes. Stocking large inland lakes with either strain is not recommended as return rates to anglers were poor.