
MANAGEMENT OF ANTHROPOGENICALLY DERIVED HYBRID POPULATIONS: EXPLICIT RECOGNITION OF ASSUMPTIONS

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Hybridization and introgression between native and introduced species is one of the most challenging issues currently facing fisheries managers. While recognizing we are simplifying arguments, we suggest two hybrid management paradigms have emerged. The first posits that as long as introgression is at moderate to low level, and the resulting hybrids are morphologically and ecologically similar to the native taxon, they should be considered a member of the parental species. The alternative view suggests that conservation efforts should be focused on pure native genomes that have evolved in response to localized selective pressures and hybridized populations are a conservation threat. We suggest that both management approaches are based on a few key assumptions about the nature and ultimate outcome of hybrid fitness and ecology. Although these assumptions are implicit in the arguments presented by both sides of the debate, neither the assumptions nor the management

implications of violations of those assumptions are consistently clarified and discussed. In our poster, we present a framework that addresses various assumptions surrounding hybridization in cutthroat trout (*Oncorhynchus clarkii*) populations by introduced rainbow trout (*O. mykiss*) and the ecological outcomes each assumption would predict. We further suggest hybridization management actions should have clearly defined goals and be explicit about their assumptions. Finally, we provide an example of our framework applied to a common management action used to manage hybrid invasions: the use of barriers.