

## Chiaramonte, Luciano—Idaho Department of Fish and Game

### **Presentation Title: Air exposure, fight times, and deep-hooking rates of steelhead caught in Idaho fisheries**

Luciano Chiaramonte  
Fisheries Research Biologist  
Idaho Department of Fish and Game  
1414 E Locust Ln, Nampa, ID 83686  
(208) 854-8906  
[luciano.chiaramonte@idfg.idaho.gov](mailto:luciano.chiaramonte@idfg.idaho.gov)

Potential effects of air exposure and fight times on fish caught and released by anglers have been increasingly studied in recent years, yet little is known about how long anglers actually fight the fish and expose them to air before releasing them. In the present study, air exposure and fight times were measured for anglers catching and releasing fish in popular steelhead *Oncorhynchus mykiss* fisheries in Idaho, and other relevant factors were also recorded such as fishing gear (fly or non-fly), occurrence of anglers photographing their catch, landing method (with net or by hand), and whether the fish was hooked deeply. A total of 432 steelhead were observed being landed, from which 395 fight times and 251 air exposure times were recorded. The longest interval of air exposure for all steelhead caught and released averaged 28.1 s (95% CI, 25.9–31.3 s), and the vast majority of anglers (88%) held steelhead out of water for less than 60 s. Air exposure was not significantly different by gear type but was estimated to be 1.69 times longer if the angler took a photo of their catch; anglers using flies were 58% more likely to photograph their catch than nonfly anglers. Fight time averaged 130 s (95% CI, 119.3–140.7 s) and differed significantly by gear type, with fly anglers taking an estimated 1.54 times longer to land fish than nonfly anglers. Deep-hooking rates were 0% for fly and bait and/or jig terminal tackle and 1% for lures. In the context of previous studies that have measured post-release mortality of caught-and-released salmonids, the effects of these fight and air exposure times and deep-hooking rates in Idaho steelhead fisheries are likely negligible.