

**Idaho Department of Fish and Game,
July – September, 2001**

Kootenai River Fisheries Recovery Investigations

Quarterly Progress Report and Summary of Activities

Project Personnel:

Vaughn Paragamian, *Principal Fisheries Research Biologist*
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Field Work Completed or in Progress and Summary of Results

White Sturgeon

White sturgeon eggs collected during the 2001 spawning season were staged to estimate spawning date. A total of 139 white sturgeon eggs were collected during the 2001 spawning season, preliminary results indicate only 80 (58%) were viable. The first spawning event is estimated to have occurred on May 29 and the last on June 29, 2001 (Figure 1). Only seven events are thought to have taken place.

We expended 502.7 h of gillnetting effort during July and August 2001 while sampling for juvenile white sturgeon. We captured a total of 416 hatchery white sturgeon and 10 wild juvenile white sturgeon. Three of the wild juveniles were recaptures and seven were new fish. Age analysis of finrays from the seven new juvenile white sturgeon indicated two were of the 1995 year class, two from 1996, two from 1997, and one from 1998.

Burbot

Final telemetry surveys for burbot were completed for the season in September 2001. Five of the 10 sonic tagged burbot were relocated, #211, 226, 227, 230, and 234. Burbot 234 and 230 had moved very little while 211, 227, and 226 had moved 8, 19.5, and 7.5 km, respectively and all were still located in Idaho. The later three

burbot were all tagged in the vicinity of Ambush Rock (rkm 245.5) just prior to and during the 2001 spawning season. Burbot 211 moved from rkm 245.4 to rkm 237.3, burbot 226 progressively moved downstream after the spawning season but in September moved upstream from rkm 170 to rkm 177.5, while #227 continued a downstream movement in September from rkm 242.5 to 223.0.

Rainbow and Bull Trout

We conducted drift net sampling for juvenile trout outmigrants in Boulder, Caboose, Curley, Debt, and Sand creeks and the Moyie River. Outmigrating rainbow trout were caught in Boulder and Sand creeks and the Moyie River. Calculations to estimate total numbers of outmigrants have not yet been completed. Young of the year rainbow trout were also caught in Debt Creek, but the stream was running subterranean at the mouth by mid July, preventing fish from outmigrating. This reflects the low water conditions this year. We snorkeled Boulder Creek and the Moyie River in mid August to estimate numbers of age 0 rainbow trout remaining in these streams. Numbers have not been calculated yet, but Boulder Creek appeared to have a strong year-class. A bull trout (probably a subadult) was also seen in Boulder Creek.

Radio telemetry continued weekly, concentrating on bull trout movements. Two bull

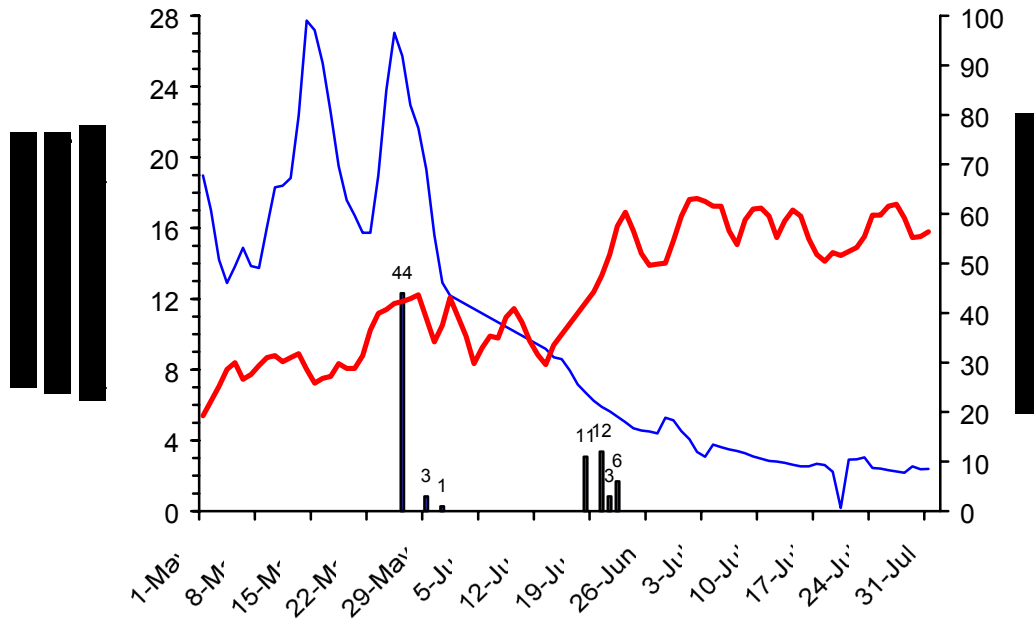


Figure 1. Temperature, flow, and number of white sturgeon eggs and spawning event date, Kootenai River, Idaho, 2001. Blue line is flow and red is temperature.

trout ascended O'Brien Creek, Montana, while two others were located in the Kootenai River at the O'Brien Creek confluence. Radio-tagged bull trout were not located in any other tributaries.

Annual fall electrofishing on the Kootenai River occurred in September and early October in cooperation with the Kootenai Tribe of Idaho. Sites at Hemlock Bar, Cow Creek, Shorty's Island, and Porthill were sampled. Scales were collected from whitefish and peamouth to monitor growth rates. Lengths and weights of all species were recorded. Data are currently being entered and summarized. These data will be used to follow trends in the fish community, and to establish baseline data prior to proposed nutrient enhancement of the river.

The Kootenai River creel survey continued. Most angling pressured moved to the

canyon section of river upstream of the Moyie River confluence.

A biological assessment (BA) was written for the proposed rainbow trout spawning channel in the Moyie River. Bonneville Power Administration submitted the BA to the U. S. Fish and Wildlife Service (USFWS) for their review in August. The USFWS returned the BA in late September saying they concurred with the finding of "May affect but will not adversely affect" the listed species which could potentially be found in the area. After receiving the letter of concurrence, applications were submitted for the proper permits from the U. S. Army Corps of Engineers, and the Idaho Departments of Water Resources, Lands, and Environmental Quality. The work cannot be sent out for bids until these permits are received. We are still hoping to start work on the spawning channel late this fall.

Activities Planned for Next Quarter

White Sturgeon

-Telemetry will be conducted monthly through December. It will be coordinated with trout and burbot studies.

Burbot

-Sonic tagged burbot telemetry will continue once a month and will be coordinated with white sturgeon and trout telemetry.

-Burbot sampling with baited hoopnets will begin in mid-October.

-Blood samples will be collected from all burbot to measure plasma steroid concentrations.

-Sonic transmitters will be implanted in 10 mature burbot in anticipation of a low flow test in December.

Rainbow and Bull Trout

- Bull trout redd surveys will begin.

-Radio-telemetry will continue weekly, concentrating on bull trout movements.

-The creel survey will continue (eight weekdays and four weekend days/month).

-2001 data entry and summarization will begin.

-Acquire bids for the spawning channel work and begin work if time permits before winter.

Meetings Held/Attended and Communication

Jody worked the wildlife booth at the Boundary Co. and North Idaho Fairs.

Vaughn revised a ms. on fish community changes, the ms. was resubmitted to the North American Journal of Fisheries Management as a brief, editorial review requested more detail in methods and findings.

Vaughn talked to the Bonner co. Sportsmans Club.

Vaughn did two radio interviews with a Sandpoint radio station.

Jody reviewed a manuscript submitted for publication to the Transactions of the American Fisheries Society..

Vaughn wrote one news releases and did two TV spots with a BPA video contractor, the spots were aired on a Spokane FOX TV station.

Vaughn and Charlie Holderman of the Kootenai Tribe are coauthoring a ms. (as time permits) on juvenile white sturgeon food habits, benthic species composition, food availability, and food selection by juvenile white sturgeon.

The Kootenai River Fisheries Research crew held a Project Review Meeting in Coeur d'Alene.

Vaughn provided an oral presentation - white sturgeon recovery for the Boundary County Commissioners.

Cc. Charlie Craig (BPA)(3)
Sue Ireland (KTOI)
Jay Hammond (BC Fisheries)
Colin Spence (BC Fisheries)
Brian Marotz (MFWP, Kalispell)
Gregg Hoffman, Mike Hensler (MFWP, Libby)
Jeff Laufle (USACE, Seattle)
Steve Duke, Bob Hallock (USFWS)
Shanda Dekome (USFS, Sandpoint)
Virgil Moore, Steve Yundt, Greg Tourtlotte, Ned Horner, Chip Corsi, Greg Johnson (IDFG)
Boundary County Commissioners

