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Southeast Region

2012 Annual Fisheries Report

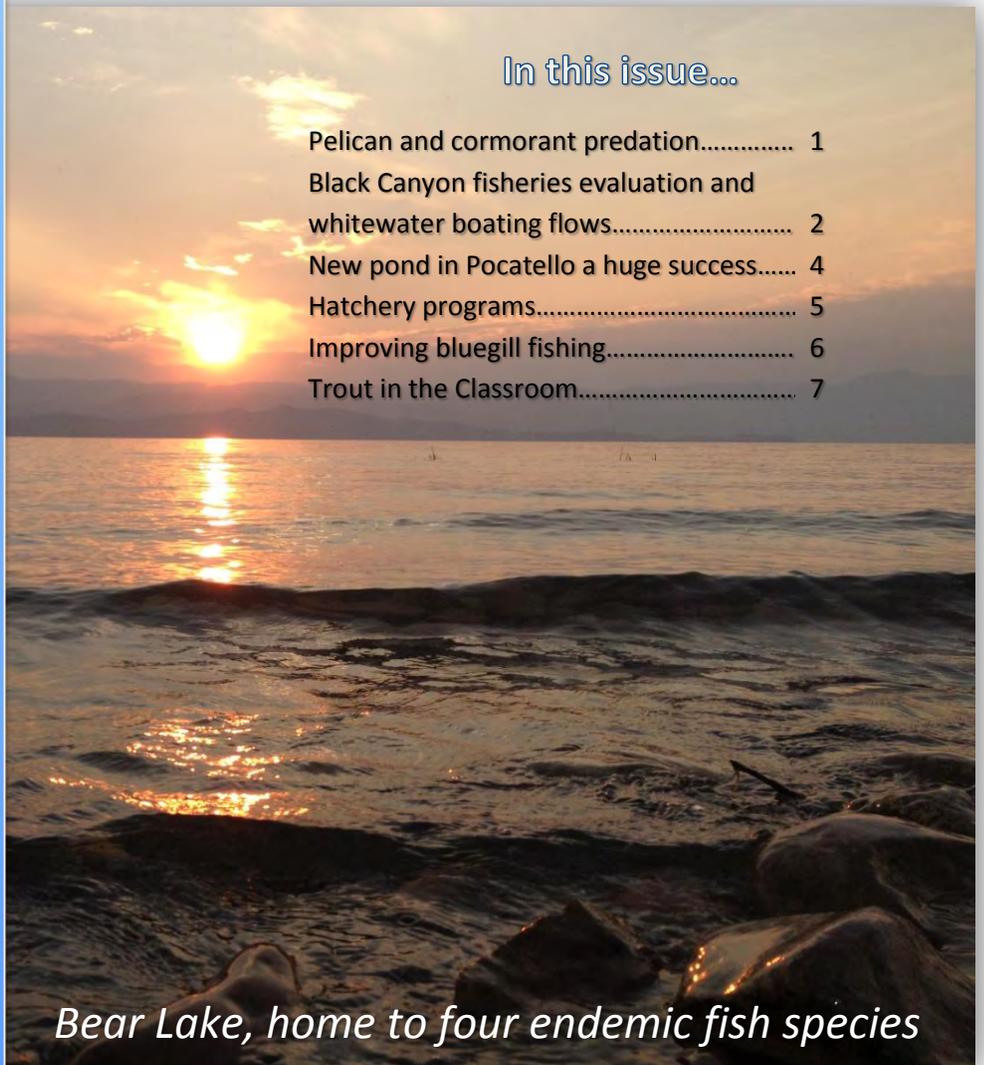


Greetings, I am honored to be the fishery manager for the Southeast Region of Idaho Department of Fish and Game. I hope you enjoy the first annual issue of the southeast Idaho fisheries report. This report introduces many of our employees and provides a small sample of their projects that improve fishing opportunities, coordinate regional aquatic education programs, develop fishing and boating access sites, and complete fish habitat projects. If you have any

questions regarding projects highlighted in this issue please contact me at david.teuscher@idfg.idaho.gov.

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Bear Lake, home to four endemic fish species

Pelican and Cormorant Predation on Trout: A Continued Management Challenge



Birds consumed 48% of all the rainbow trout stocked in Chesterfield Reservoir.....

In 2012, we recovered 474 fish tags from the pelican and cormorant nests located on two Blackfoot Reservoir islands. That number was the largest recovery of fish tags ever recorded from the Blackfoot bird colony and demonstrates very significant fish predation impacts. Most of the tag recoveries came from native cutthroat trout populations. Some of the tags were implanted in trout to study bird predation, but many of the recovered tags were from unrelated studies and even from trout tagged in other states. Recovered tags came from the Salt River in Wyoming, the Blackfoot River, Chesterfield Reservoir, the Bear River below Grace Dam, the South Fork Snake River, and the Teton River. We were able to estimate total predation rates from a few of the study

locations including the Blackfoot River and Chesterfield Reservoir. Total predation rates were 24% of adult cutthroat trout tagged in the Blackfoot River System. In Chesterfield Reservoir, birds consumed over 9,000 of the rainbow trout stocked in May. That number made up 48% of the total spring stocking effort for Chesterfield Reservoir.

Predation by double crested cormorants nesting alongside pelicans at Blackfoot Reservoir had a major impact on our newly established conservation hatchery program for Bonneville cutthroat trout. We tagged 8-inch cutthroat trout released in the Bear River below Grace Dam to evaluate survival, monitor habitat preferences, and to determine if downriver

irrigation canals were a significant cause of mortality. The losses to bird predation appear to far exceed impacts of irrigation canals. In 2012, cormorants consumed a minimum of 40% of all the Bear River released cutthroat trout. Those losses are a major setback for the conservation hatchery program.

In 2012, measures to reduce bird predation impacts included non-lethal hazing, construction of an exclusion fence on the nesting islands, and oiling eggs. The exclusion fence removes space that could be used by nesting birds. Oiling eggs reduces the number of young pelicans produced at the Blackfoot colony.



Biologist spraying vegetable oil on pelican eggs from nests located at Willow Island in Blackfoot Reservoir. The oil prevents hatching and is part of the management strategy being used to reduce predation impacts by pelicans on Yellowstone cutthroat trout. Treated nests were marked with florescent spray paint to determine the effectiveness of the oil treatment.

Black Canyon Fisheries Evaluation: Potential Impacts of Whitewater Boating Flows

As part of the relicensing agreement for the hydropower dams on the Bear River, the whitewater boating interests negotiated for the opportunity to have recreational boating flows below Grace Dam. Those flows are created by sending a pulse of water down the river for about 8 hours. The pulse of water increases river flows from about 75 cubic feet per second to 900 cubic feet per second. In 2012, a field study was initiated to evaluate the potential impacts of boating flows, if any, on Bonneville cutthroat.

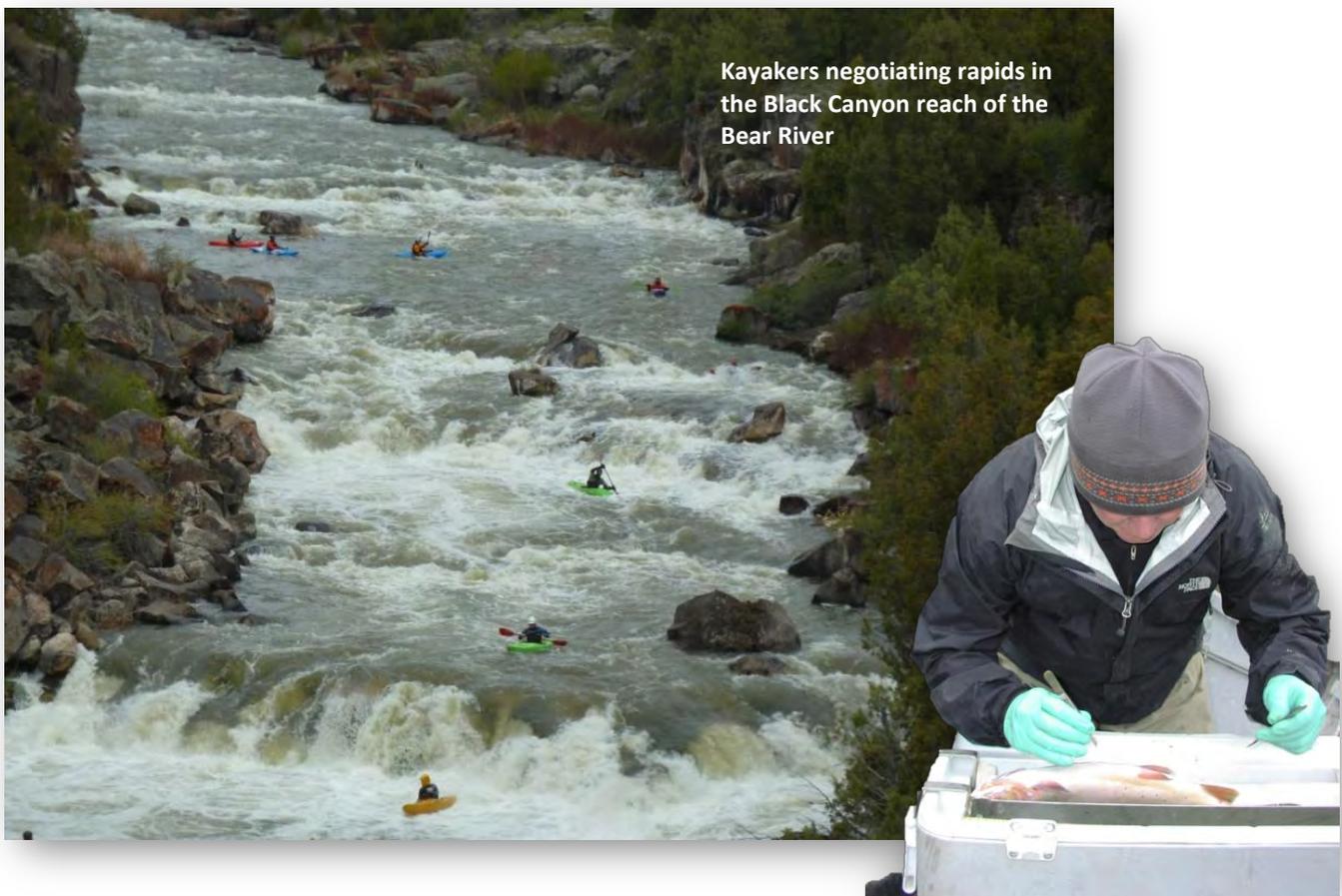


Fisheries crew surveying cutthroat trout populations in the Black Canyon of the Bear River in September 2012.

To complete the study, hundreds of cutthroat trout reared at our Grace State Fish Hatchery were tagged and released below Grace Dam. Two types of fish tags were used (radio telemetry tags and PIT tags). To track radio tagged trout, four radio receivers were strategically placed in the Black Canyon. Movement by radio telemetry tagged fish was monitored continuously by the fixed site radio receivers. The PIT tags are much smaller and are only detected if a tagged fish swims within three feet of the detection cable. The detection cable was placed on the bottom of the river and is downriver of the boater take-out. The detection cable records the time and date of fish that pass over it. Therefore, if fish are displaced downriver during whitewater boating flows, that movement will be recorded.

The specific questions of this study include:

1. Do Bonneville cutthroat trout spawn in the canyon where boater flows occur? If spawning occurs, are eggs or young Bonneville cutthroat trout displaced by the boater flows?
2. Do boater flows flush adult cutthroat trout downriver? If so, do the adult fish return after the flows recede?
3. Do boater flows increase Bonneville cutthroat trout entrainment in irrigation canals?



Kayakers negotiating rapids in the Black Canyon reach of the Bear River

Ryan Hillyard, a regional fishery biologist implanting a radio tag in a Bonneville cutthroat trout caught on the Bear River. Ryan is the lead fisheries investigator of the whitewater boating flow evaluation.

The whitewater boating flow study is just getting underway, but a few preliminary results can be shared. First, the biggest surprise from the study to date was documenting the huge losses of conservation hatchery trout to bird predation (see summary of bird losses on page 1). Second, behavior of trout during boater flows varied. Some of the trout were displaced downriver during the peak flows, but other fish did not move. Third, none of the tagged cutthroat trout were entrained during boater flows in the irrigation diversion located at the bottom of the canyon.

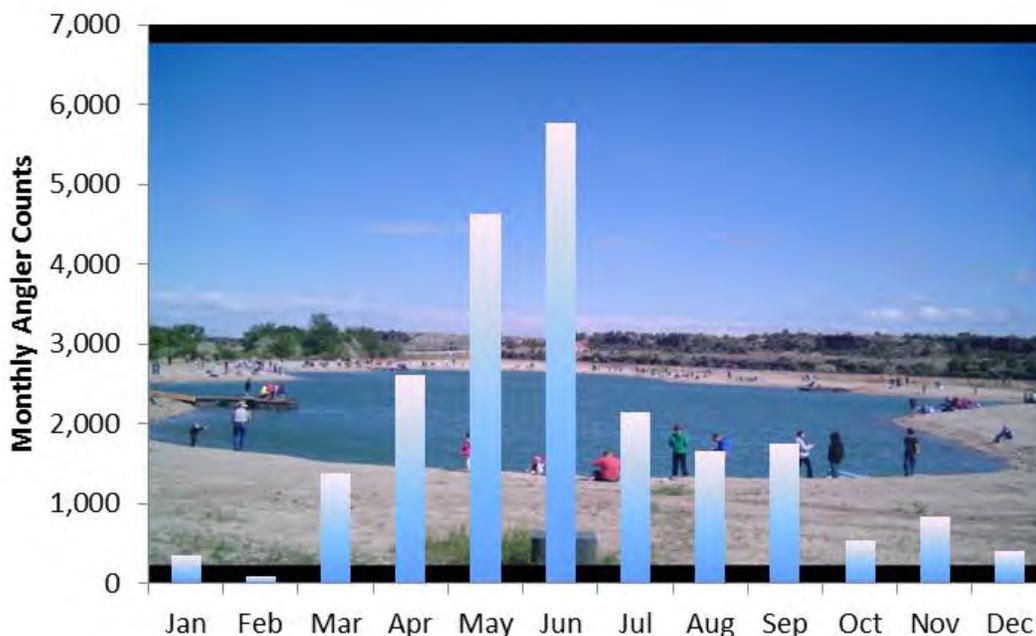


Fish monitoring site to detect downriver movement during whitewater boating flows.

New Pond in Pocatello: A Huge Success

Anglers flocked to the new pond constructed at the Edson Fichter Nature Area in Pocatello. We monitored use at the pond using electronic counters and hourly photographs. During 2012, about 22,000 angler trips were made to the pond. Fishing peaked in May and June. Even ice fishing was a hit at the new pond.

Development at the pond and nature area is not complete. In 2013, we hope to construct a new bathroom near the entrance, continue to develop the native plant community that was disturbed during construction, and build some shaded rest areas along the path that surrounds the pond.



Anglers fishing the new pond located at the Edson Fichter Nature Area in Pocatello.

Hatchery Stocking Program and Breaking Ground on A New Sockeye Salmon Hatchery

Most of the recreational fisheries in the Southeast Region are supported by the release of hatchery produced rainbow trout. The Grace and American Falls hatcheries are the two primary hatcheries supporting our local fisheries. Hagerman Hatchery also contributes fish to local waters. Their combined efforts resulted in the release of over 1.1 million rainbow trout being stocked in 2012. The top four stocking sites include the Snake River, American Falls, Blackfoot, and Chesterfield reservoirs.

About 60% of all the fish stocked in the region go to those waters, which produce over 120,000 angler visits annually.

Hatchery rainbow trout are stocked in another 51 locations in the region. Most of the stocking locations are in reservoirs and ponds. We also stocked a large number of fish in the Bear and Portneuf rivers. Other species of fish stocked in the region include kokanee salmon, lake trout, and Bonneville cutthroat trout. The conservation hatchery program for Bonneville cutthroat trout has been a real highlight for the region the past two years. About 40,000 cutthroat trout have been released from the Grace hatchery. The program is funded by



Photograph by Steve Larsen showing a hatchery rainbow trout that Sherry Larsen caught at Chesterfield Reservoir.

PacifiCorp for mitigation related to the four hydropower dams located on the Bear River. The conservation hatchery program is responsible for restoring native cutthroat trout to several streams where the species has been missing for decades!

Idaho Fish and Game is making good progress toward the completion of the new sockeye salmon hatchery. If construction continues as planned, the new facility will have a grand opening in September of 2013. The hatchery is located near the town of Springfield and will raise up to 1,000,000 smolts to be released annually in the upper Salmon River and Stanley Basin Lakes. Doug Engemman will manage the sockeye hatchery and can be reached at:

douglas.engemann@idfg.idaho.gov

Bigger Bass can Improve Bluegill Fishing in Franklin County Reservoirs



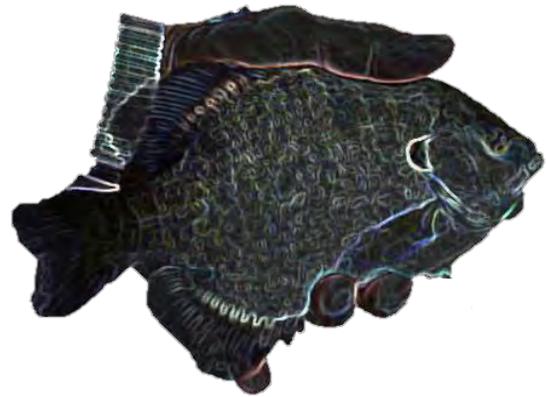
Arnie Brimmer, Fishery Biologist

Where can I go to catch big bass and where can I go to catch nice bluegills? These are the two questions I receive most frequently. Where to send folks to catch big bass is an easy question to answer; Condie or Glendale reservoirs. These two reservoirs are managed under special bass rules and routinely produce quality-sized fish. The second question is a little tougher to answer.

Several of the smaller irrigation storage reservoirs in Franklin County have bluegills in them but rarely produce the size of fish anglers prefer. The main reason for this is the bass and bluegill populations found there are out of balance. In reservoirs where the two species are found together, bluegills provide the forage base for bass. When not enough large bass are present to consume surplus bluegill, the bluegill population tends to increase to the point where they eat themselves out of house and home. This results in a large population of stunted bluegill. On the other hand, if enough large bass (>12") are present in the bass population, they can effectively reduce the number of bluegills produced and those that remain grow to a size anglers are interested in. Generally speaking, a bass population that has at least 20% of its individuals exceeding 12 inches in length will produce a desirable bluegill population.

Johnson Reservoir is a perfect example of a bass and bluegill population that is unbalanced. This fishery has been plagued over the years with a large population of stunted bluegill and very few bass exceeding 12 inches.

In 2011, we tried to remedy the imbalance by stocking larger bass to Johnson Reservoir. All of these bass were well over 12 inches in length



and likely started consuming bluegill shortly after they were stocked. We returned to Johnson a year later to evaluate our efforts. Our results show that in just one year we were able to effect change in both the bluegill population and the bass population. Overall, bluegill sampled in 2012, were longer and heavier than bluegill sampled in 2010. Similarly, the bass population now has a proportion of large bass near 20%. Since our effort has shown promise, we plan to continue the project for the next year or two. Who knows, maybe next year when anglers ask me where to go to catch nice bluegills, I can tell them Johnson Reservoir.

Trout in the Classroom



Jennifer Jackson,
Conservation and
Education Coordinator

The fish aquarium in the library of Lewis and Clark Elementary in Pocatello is covered with little nose smudges and hand prints from some

inquisitive youth. That's because the 4th graders at that school

are being treated to a face-to-face experience with some of Idaho's native wildlife— young cutthroat trout.

These fish aren't your ordinary classroom pets. They are an important part of Idaho Fish and Game's efforts to get kids connected to Idaho's wildlife resource through the Trout in the Classroom (TIC) program-- an opportunity to raise Idaho trout species from eggs to fingerlings right in the classroom before releasing them to the wild.

Lewis and Clark Elementary has been rearing and releasing cutthroat trout (Idaho's state fish) as part of the TIC program for over 10 years now. They used to be the only TIC school in the southeast region. However, since 2008, twenty additional schools in Shelley, Blackfoot, Moreland, American Falls, Rockland, Pocatello, Marsh Valley, Bancroft, Soda Springs, and Preston have taken on this unique educational opportunity—mostly rearing rainbow trout from eggs. And, also new to TIC this year is the Idaho Museum of Natural History on the ISU campus in Pocatello!

The growth of the TIC program in southeast Idaho simply would not have been possible without the incredible generosity of two community partners-- the Southeast Idaho Flyfishers and our Chubbuck Petco store.

The Flyfishers club donated thousands of dollars for the purchase of tanks, supplies, and chillers which maintain the temperatures of tanks at an optimal range for trout. Club members have also donated hours in the classroom to help teachers and students with everything from tank set-ups to fish releases. And, the group has even paid for some class field trips associated with the TIC program.

Programs like TIC get kids connected to their wildlife resource in a personal way. By "hooking" their interest in wildlife conservation and outdoor recreation activities early on, they will likely grow into knowledgeable and caring stewards of the wildlife resource.



Franklin Middle School

Kathi Sweet, a new TIC teacher at Thirkill Elementary School in Soda Springs, illustrates this point: "Our fish hatched on Valentine's Day...7:02 a.m. they

began...kids at school thought it was a gift just for them. Lined up down the hall to get a look...little magnifying glasses in hand. What an awesome program. Our kids have been naming their little fish, especially a little one who seems to [be struggling]...he has been named Mr. Wiggles and the whole school is cheering him on everyday hoping he will be tough enough to make it. Thank you for giving us this wonderful opportunity to learn together."

Acknowledgements

We are very lucky to work with so many professionals and volunteers outside of our own agency. Thanks for helping us perpetuate, preserve, and protect the fishery resources of the southeast region.

*IDFG volunteers
U.S. Fish and Wildlife Service
U.S. Forest Service
U.S. Bureau of Land Management
Idaho Dept. of Environmental Quality
Utah Division of Wildlife Resources
Soil and Water Conservation Dist.
Carriboo Conservancy Inc
Sagebrush Steppe Land Trust
Trout Unlimited
Greater Yellowstone Coalition
Southeast Idaho Fly Fishers
Snake River Valley Bass Club
Bear Lake Watch
Love Bear Lake
PacifiCorp*

spawning in Fish Haven Creek. The success is working its way downstream to Bear Lake where the proportion of wild cutthroat trout caught by anglers has increased markedly in the past two years.

- The dry summer of 2012 resulted in sharp declines in storage for most reservoirs in southern Idaho. We need good snow pack and a wet spring to hold on to the strong fisheries that developed during the 2011 water year.
- One of the largest multi-agency and volunteer habitat improvement projects to hit the region got off to a great start last fall with the return of Pebble Creek to its natural channel, construction of a groundwater well for off-stream livestock watering, and the construction of a riparian fence along the Portneuf River. Thanks to the landowners, state and federal agencies, the Carriboo Conservancy, the soil and water conservation district, Trout Unlimited, the South East Idaho Fly Fishers, and even a large group of students from North Gem School in Bancroft contributed to the project. Thanks Everyone!

Other Happenings...

- Idaho Department of Water Resources denied a water right necessary for the proposed construction of a dam in the Oneida Narrows of the Bear River.
- Sculpin populations in Bear Lake are benefiting from more spawning habitat when that lake was full 2011-12.
- Stream restoration projects on Fish Haven Creek are making a difference. Fish surveys indicate that large runs of Bonneville cutthroat trout are now



Pebble Creek restoration work October 2012.