

South Fork Boise River

Collaboration to Conserve the South Fork Fishery



The South Fork of the Boise River from Anderson Ranch Dam to Neal Bridge is the premier wild rainbow trout fishery in southwest Idaho. Located less than a 90-minute drive from downtown Boise, the South Fork has been a highly valued fishery for many fly fishermen for 30 years since “blue ribbon” fishing rules were instituted.

Recent evidence suggests this fishery may be in decline. With the significant population growth in southern Idaho, fishing pressure has increased to the point where interested angler groups and government agencies are paying attention to the status of the fishery.

Look inside to learn more about the issues, how you can get involved and help support forthcoming research and conservation efforts.

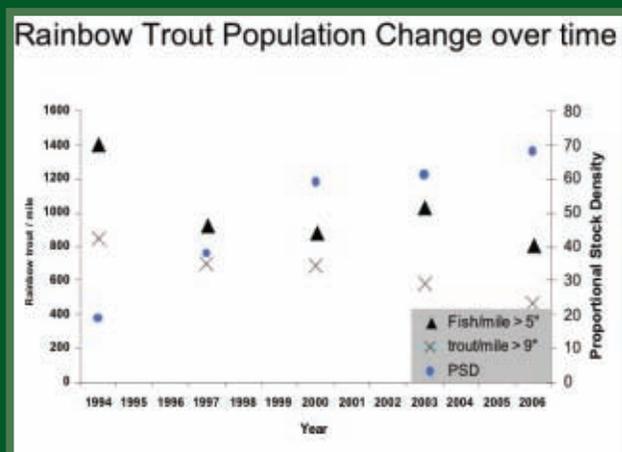
The headwaters of the Boise River originate high in the Sawtooth Wilderness. The composition and climate of the granite headwaters limit stream productivity that support native trout. Yet by the time waters reach the South Fork Boise River below Anderson Ranch Dam, it's a mid elevation stream dominated by basalt cliffs and a warmer southern Idaho desert. The river is more productive and it grows big fish.

Anderson Ranch Dam was completed in 1954 and is managed to store and release water for irrigation in the Boise Valley. The Bureau of Reclamation operates the dam in a coordinated fashion with

downstream reservoirs, which creates opportunities for favorable water flows, such as stable wintertime flows of 300 cubic feet per second, generally understood to be beneficial to the fishery.

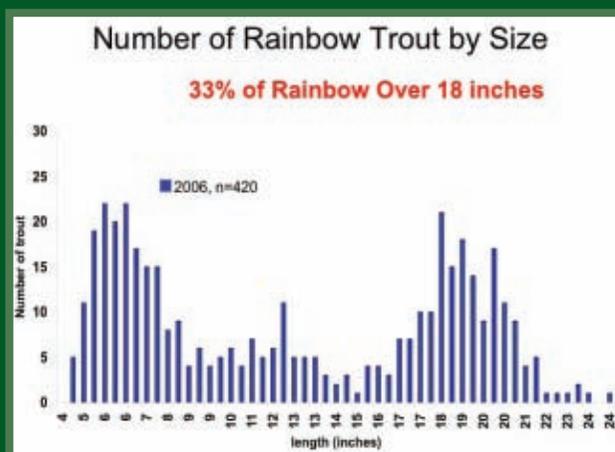
Tail water fisheries experience regular, consistent water flow and temperature compared to natural streams, allowing fish longer growing seasons and healthy habitat for invertebrates that the fish eat. At the same time dams prevent fish from migrating to headwater streams to spawn. And dams trap gravels upstream that otherwise would move through a river replenishing in-stream spawning areas with new gravel.

Continued monitoring by Idaho Fish and Game shows the wild rainbow trout population in the South Fork Boise River has been trending downward in recent years.



This graph shows estimates of trout densities (fish/mile) over several years for all fish more than five inches and all fish more than nine inches in length. In addition, there is a measure of proportional stock density of "quality" sized fish (larger than 16-inches). The graph shows a decline, through time, of wild rainbow trout densities and in particular among the smaller-sized (5-9 inch) fish in the South Fork Boise. At the same time the proportion of quality sized fish is increasing.

The fish survey in 2006 revealed a noticeably low number of fish in the 10-16" range. These low numbers of medium-sized fish are confounding in the face of larger numbers larger fish.



Indeed, the most recent electrofishing survey by Idaho Fish and Game found some of the largest rainbow trout ever. The number of juvenile trout alone cannot account for the additional recruitment of these larger fish to the South Fork Boise population.

Apparently the South Fork Boise attracts larger sized rainbow trout from outside the immediate area sampled between Anderson Ranch Dam and Danskin Bridge. Recent radio telemetry studies confirm that bull trout travel great distances to the South Fork Boise, and anecdotal information exists on rainbow trout moving from the South Fork to other watersheds. But this begs the question, where are these fish coming from, and how much of the fishery is a locally-produced South Fork Boise population?

Local anglers, clubs and governing agencies have been meeting recently to discuss what problems may be affecting the health of the fishery, and what options may be available to conserve and restore the highly prized wild rainbow trout of the South Fork Boise.

All involved parties agree we must first gain a better understanding of trout populations, spawning activity and habitat conditions if we are to launch any successful conservation efforts. A number of projects are planned for 2008, several with interesting volunteer opportunities.

Three priority areas for inquiry include

- Assessing the small tributaries for support of off channel spawning and rearing;
- Monitoring spawning areas in the mainstem river and determining limitations; and
- Sampling the South Fork Boise fishery to determine the genetic relationships of the local fish population with that of wild rainbow trout sampled in other locations in the South, North and Middle forks of the Boise River.

The following pages describe the work in more detail, where volunteers can help, and your opportunity to provide financial support to this important initiative.

Help Sponsor Research to Conserve the South Fork Boise Fishery

Yes! I want to help with the efforts to improve fishing on the South Fork Boise River through improved understanding of the fishery. I will be a sponsor of the Trout Sampling Genetic Study
Enclosed is my tax-deductible contribution of \$25.00 per fish:

NAME: _____

ADDRESS: _____

CITY: _____ STATE: _____ ZIP: _____

EMAIL: _____ PHONE: _____

NAME(S) of FISH, \$25 ea: _____

YES, I AM INTERESTED IN VOLUNTEERING. PLEASE CONTACT ME.

Clip this form and mail with a check to Trout Unlimited, P.O. Box 1971, Boise, ID 83701

Collaborating Partners:



South Fork Conservation Projects

Tributary assessment

A number of small tributaries drain directly into the South Fork Boise River, but their contribution of spawning and rearing habitat is poorly understood. Potential tributary enhancement projects could be effective, but the first step is learning whether fish are presently using the tributaries and the water conditions and habitat present in those tributaries.

River Spawning Redd Survey

It is known that rainbow trout spawn in some areas of the mainstem South Fork Boise. Updating information on the spawning areas is needed because the main river lacks the smaller sized gravels commonly found in a natural river. Volunteers will be needed to assist US Forest Service biologists to conduct a redd survey in the main stem of the river as done in the past. We also plan to extend the survey downstream of Danskin Bridge to the beginning of the canyon reach.

Trout Genetics Study

The center piece of the 2008 conservation research will be a genetic study to understand the origins of the fish that make up the South Fork fishery. We will sample fish from the South Fork Boise below Anderson Dam, and the (nonlethal) tissue samples will be used to profile the local rainbow trout population and compare it to an existing library of genetic profiles for wild rainbow trout populations throughout the headwaters of the North, Middle and South Fork of the Boise River.

southforkboise.org
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Volunteer for South Fork Boise Conservation Research Projects!

Tributary assessment

Volunteers are needed to survey South Fork Boise tributaries to monitor flows throughout May and into the summer, and to conduct a redd count in early June for evidence of spawning activity. Volunteers will be instructed in redd identification. We will use GPS units and photographs to pinpoint locations of identified redds.

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Trout Genetics Study

Participating local fishing clubs will coordinate a South Fork Boise fishing outing on Saturday, July 12 to collect tissue samples for genetic analysis based on hook & line methods. **Volunteers are needed to contribute their angling skills or driftboat use in the name of science!**

Anyone wishing to get more information about these projects or be a volunteer may contact Mike Toalson with Ted Trueblood Trout Unlimited at mtoalson@cablone.net or 208-899-8612 or Dick Fencer with Boise Valley Flyfisherman at fishindic@aol.com.