



Jackson Region Fisheries Newsletter

Wyoming Game & Fish Department

Focus on the Salt River

One of the most common questions in the Jackson Regional Office during the summer is “Where can I go fishing?” We hope to help provide some ideas in this edition of the newsletter. You’ll find a pullout access map for the Salt River drainage in the center. Let us know if you like the map and if there are other areas where a similar map would be useful.



Bluehead sucker from the Snake River near Moose, Wyoming.

Inside this Issue:

Focus on the Salt River 1

Salt River Enhancement Project— A Need For Teamwork 1

Snake River Cutthroat Trout Movement in the Salt River Watershed 2

Know Your Natives: Bluehead Sucker 4

The Salt River corridor is primarily of privately owned lands. However, in the 1960’s conservation easements were purchased to provide access areas for fishing and, in some cases, hunting. The access map outlines the different easements, including parking areas, boat ramps, and walk-in areas.

The Salt River watershed has been intensively studied over the last decade including analysis of stream and riparian habitat, fish population levels, trout movement, and angler use.

A summary of the trout movement study and information on habitat project initiatives is included in the newsletter.

Wyoming has a unique group of native, non-game fish. In this addition, the focus is on the bluehead sucker and we hope you enjoy learning more about this interesting fish.

Thanks to newsletter contributors Shirley Anderson, Chris Colligan, Mark Gocke, Rob Gipson, Travis Sanderson, and Lara Sweeney.



Jackson Aquatic Habitat Biologist Lara Sweeney surveys the placement of a structure during construction of a habitat project in the Salt River watershed.

Salt River Enhancement Project – A Need for Teamwork

Aquatic habitat in the Salt River valley downstream of Afton has been drastically altered since European settlement. Crops or pastures now dominate the flood plain. Since 1972, habitat management on the Salt River has focused on stream bank stabilization. Log and rock revetments have been the

primary tools used to try to improve habitat and stabilize riverbanks. Although many of the revetments remain intact in low gradient reaches of river, most of those in higher gradient reaches have been destroyed by high flow events or treated channels have been abandoned.

(Continued on page 3)

Snake River Cutthroat Trout Movement in the Salt River Watershed



Inserting a transmitter in a Snake River cutthroat trout.

University of Wyoming Graduate Student Travis Sanderson recently completed a project on the movements of 61 adult Snake River cutthroat trout in the Salt River.

The goal of the project was to describe seasonal habitat associations, movement patterns, and spawning locations of adult Snake River

cutthroat trout that use the mainstem of the Salt River as adult and overwintering habitat. To accomplish the goal, the project looked at habitat use, movement patterns, and spawning locations of adult cutthroat trout that reside in the Salt River.

The project used radio transmitters surgically implanted in the trout to track their movements. Radio transmitters were implanted in the trout during October of 2005. The cutthroat trout were tracked through early August 2006. Each transmitter had a unique signal, allowing individual fish to be monitored. The fish were located every 2 weeks using an antenna and receiver system and flying over the valley, walking the streambanks, or floating the Salt River.

During fall and winter, cutthroat trout seemed to prefer deep, slow habitats in the form of pools. The trout selected the deepest and largest pools in the Salt River. Tagged trout did not move very much throughout the winter. At the onset of spring and through the summer shift to using run and riffle habitats occurred. The trout's

movements also increased during spring and summer. Movement associated with spawning migrations was at the same time flows increased during spring runoff.

Over one-third of the tagged fish in the study area during the spawning season moved into mountain tributary streams. Eleven cutthroat trout moved into spring creeks. Forty percent of the trout remained in the mainstem Salt River or in side channels. The majority of the cutthroat that left the Salt River in the spring returned to the river after the spawning period.

Adult Snake River cutthroat trout were located throughout the Salt River due to available habitat distributed over most of the river. The trout did not have to make long movements seeking suitable habitat because of the wide distribution of available habitat. The cutthroat used gravel riffle areas in mountain tributaries, spring streams, and side channels for spawning.

Snake River cutthroat trout use most of the available streams in the Salt River watershed. The main channel, side channel, spring streams, and mountain tributaries are all used in some aspect during a cutthroat trout life history. Due to the broad distribution of use, maintaining connectivity is of the utmost importance in sustaining the cutthroat population. The information obtained from the study will be very useful in management planning to conserve and protect Snake River cutthroat trout in the Salt River watershed.

“Snake River cutthroat trout use most of the available streams in the Salt River watershed”



Travis Sanderson tracking cutthroat trout on the Salt River.

Salt River Enhancement Project – A Need for Teamwork—continued

(Continued from page 1)

In 1995, the Wyoming Game and Fish Department and the Wyoming Cooperative Fish and Wildlife Research Unit began a major fishery investigation on the Salt River to update information on all aspects of the fishery for future management decisions. One of the primary objectives was to describe the distribution and quality of habitat features important to fish and to facilitate documentation of future trends. The study concluded aquatic habitat management in poor quality areas must begin with riparian management and the use of instream structures should be judicious until a healthy riparian zone is established.

As the human population in the Star Valley continues to increase, potential for suburban development of the floodplain also increases. Such development should be strongly discouraged to maintain a healthy riparian zone. The floods of the mid-1980s also showed that flooding could easily destroy homes built on the floodplain. Armed with this information, the aquatic habitat biologist has joined with a team of landowners and resource managers to improve the Salt River.

The current team members range from the Natural Resource Conservation Service to the local Sportsman for Fish and Wildlife. During February and March of 2007, meetings were held with those stakeholders to discuss concerns with the river. These concerns include various channel alterations, such as flooding, bank erosion, and meander or oxbow

abandonment. In order to effectively deal with these changes, team members came together to identify common issues and develop a plan to address them cooperatively. This focused effort with landowners, state, and federal agencies, and interested conservation groups will be more effective than many small and uncoordinated projects.

The overriding concern is the feasibility of stabilizing a river with the geomorphology, natural meander pattern and agricultural history of the Salt River. The team recognizes the only way to be successful is to start at the most stable upstream point on the river and to work as a comprehensive unit. Therefore, the Salt River Enhancement Project will be initiated in the Clark's Barn area. Clark's Barn is north of Afton and downstream from the confluence of Swift Creek. The river above is dewatered and stable. Landowners in the area are also willing to work cooperatively. This enhancement project will address eight miles of the Salt River and its tributaries.

For the Salt River Enhancement Project, the aquatic habitat biologist's role is to improve fisheries habitat by being an active participant in a diverse team. Together the team will work for the health of the river and the communities of Star Valley. The project will benefit current valley residents, anglers, and future generations.



Constructing a habitat structure using boulders.

“The focused effort will be more effective than many small projects”



A completed structure to improve stream function.



Wyoming Game & Fish Department

PO Box 67
420 North Cache
Jackson, WY 83001

Phone: 307-733-2321 ext 224
Fax: 307-733-2276
Email: Tracy.Stephens@wgf.state.wy.us

"Conserving Wildlife - Serving People"

WE'RE ON THE WEB:
<http://gf.state.wy.us>

WYOMING HUNTING & FISHING HERITAGE '07 EXPO

CASPER EVENTS CENTER ♦ SEPTEMBER 7 - 9, 2007
1-888-EXPO-WYO



Know Your Natives: Bluehead Sucker

Within Wyoming, the bluehead sucker is native to the Snake, Bear, and Green River drainages. In the Jackson Region, a common area to find blueheads is in the Snake River below Jackson Lake. Bluehead sucker are usually found in the main current of streams and larger rivers.

Bluehead sucker usually have a dusky gray or greenish back, a blue top of the head (as indicated by the name), and a bright yellow or white stomach. Adults can reach over 18 inches in length. They have a streamlined body shape. Bluehead sucker adults are usually found in the main current of larger streams or rivers. Juveniles are found in slower water environments, such as side channels of rivers. Bluehead sucker

are not common in reservoirs or lakes. They can be distinguished from other suckers by the lateral notches in their lips (see photo, right).

Young bluehead sucker eat mostly invertebrates. As they age, they will eat algae, plant debris, and occasionally aquatic invertebrates. Bluehead sucker feed mainly in riffles or deep, rocky pools.

While you're out fishing this summer, if you happen to catch a sucker, test your fish ID – you may have caught a bluehead sucker!

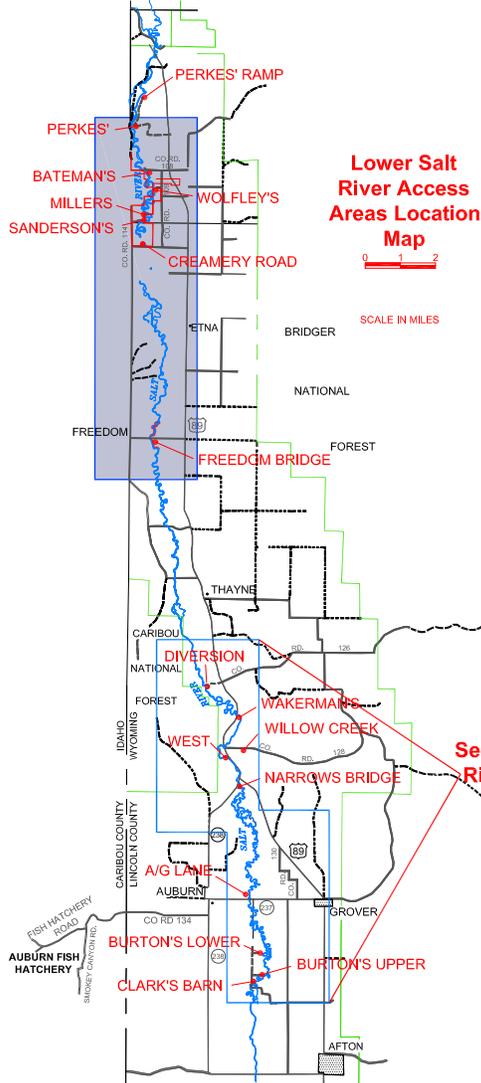


Comparison of a bluehead sucker, left, with a Utah sucker—note the lateral notches in the bluehead sucker lips.

Lower Salt River Access Areas Map



0 1/4 1/2
SCALE IN MILES



Lower Salt
River Access
Areas Location
Map

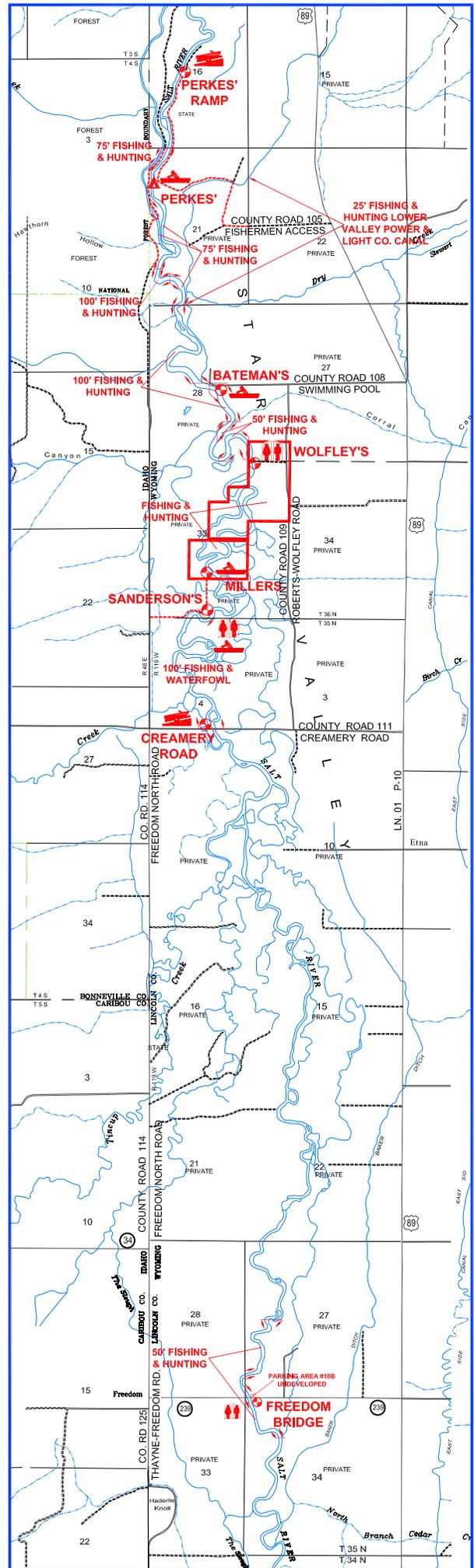
0 1 2
SCALE IN MILES

See Upper Salt
River Access
Map

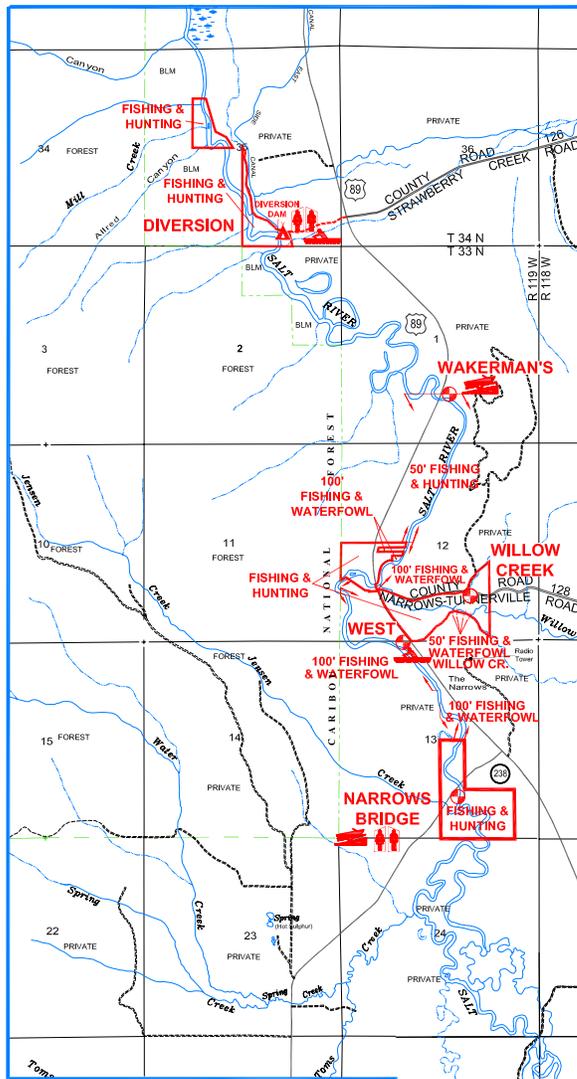
LEGEND

- ACCESS BOUNDARY
- CAMPING AREA
- PARKING AREA
- PRIMITIVE LAUNCH SITE
- BOAT RAMP
- COMFORT STATION
- DESIGNATES PEDESTRIAN ACCESS ABOVE HIGH WATER LINE THIS SIDE OF RIVER
- ACCESS ROAD
- PRIVATE ROAD

The sole purpose of the maps illustrated in this publication is to identify access. These maps are not designed to provide accurate information on public and private land status. Land status is in a perpetual state of flux given exchange and/or sale of public and private lands. As a result, current status of land parcels marked as state, BLM or USFS may be different than that represented in the base map. Please refer to the respective agencies for the current status of the land administered by them. Do not use the information provided in this publication for any other purpose than to identify access. The WGFD does not assure the accuracy of private and public land status depicted in this publication.



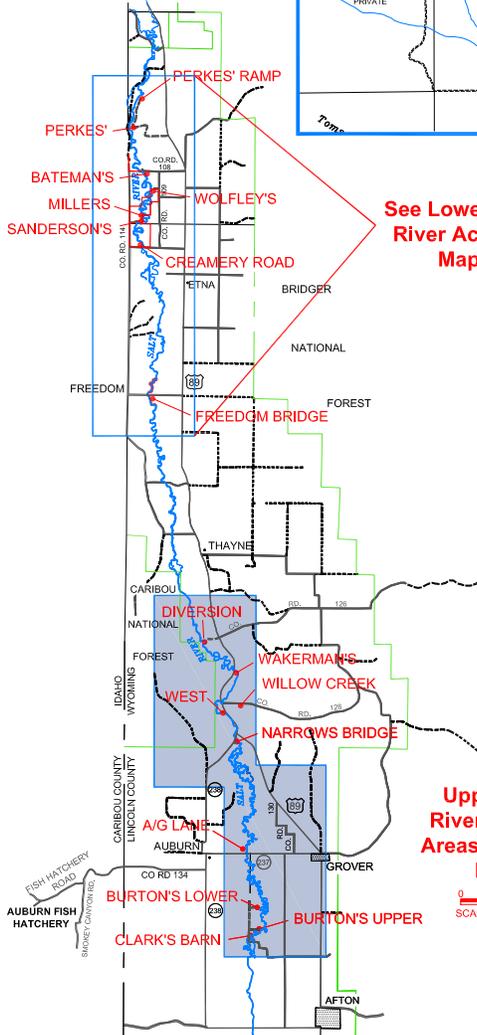
Upper Salt River Access Areas Map



LEGEND

- ACCESS BOUNDARY
- CAMPING AREA
- PARKING AREA
- PRIMITIVE LAUNCH SITE
- BOAT RAMP
- COMFORT STATION
- DESIGNATES PEDESTRIAN ACCESS ABOVE HIGH WATER LINE THIS SIDE OF RIVER
- ACCESS ROAD
- PRIVATE ROAD

The sole purpose of the maps illustrated in this publication is to identify access. These maps are not designed to provide accurate information on public and private land status. Land status is in a perpetual state of flux given exchange and/or sale of public and private lands. As a result, current status of land parcels marked as state, BLM or USFS may be different than that represented in the base map. Please refer to the respective agencies for the current status of the land administered by them. Do not use the information provided in this publication for any other purpose than to identify access. **The WGFD does not assure the accuracy of private and public land status depicted in this publication.**



See Lower Salt River Access Map

Upper Salt River Access Areas Location Map

