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The Friends of the Teton River is dedicated to understanding and improving ground and surface water resources in the Teton Basin. including the Teton River, its tributaries and wetlands. We will further this mission by conducting scientific research about the Teton waters hed, effectively communicating this information to the public, and implementing on-the-ground improvement projects. In carrying out this mission we will actively cooperate and collaborate with all other groups, agencies and individuals working for the welfare of the Teton Basin.

WATER LINES

A QUARTERLY NEWSLETTER PUBLISHED BY FRIENDS OF THE TETON RIVER

Fish Tales: Update on FTR's juvenile trout project

By Martin Koenig, Graduate Student Researcher, Utah State University

Although the sun was unusually bright for a March morning, the air still had the familiar chill of winter in the valley. It was as though spring had already begun to arrive, chasing the ephemeral blanket of snow from the valley floor. Before I began the long and tedious drive back to Utah State where the rigors of graduate student life awaited me, I thought I would take a casual glance at Fox Creek before heading over the hill. As I reached the small tributary gliding slowly under the 600 South bridge, it became all too obvious that the pair of sandhill cranes in the distant field were not the only travelers to arrive a bit early this year.

One large female sat proudly in plain view guarding the nest she had just excavated, while several others thrashed about in the shallows below. With the unexpected arrival of spawning rainbows in Fox Creek, the FTR Juvenile Trout Project geared up for an early season.

Almost a year has gone by since my arrival on the Juvenile Trout Project. Over the past eleven months, the Juvenile Trout Project has made significant steps towards finding those elusive answers to questions about the valley's trout. Beginning in August, 2004,



Electrofishing for juvenile trout on Fox Creek, August 2003. PHOTO BY MARTIN KOENIG

several reaches of Teton Creek, Fox Creek and the mainstem Teton River were sampled for juvenile trout. Later in October last year, a crew on loan from the U.S. Forest Service Rocky Mountain Research Station in Logan, Utah completed a second round of trout sampling, this time with more locations added to the previous sites. The goal was to get an initial idea of how juvenile trout might be spread throughout the valley floor, and what species are dominating.

The results of these initial surveys show some interesting trends. Eastern brook trout (EBT) were found in all reaches of all streams, indicating that they have widespread presence throughout the valley. Eastern brook trout made up a significant portion of the catch in all streams, but dominated the catch from the upper Teton River almost exclusively. Yellowstone cutthroat trout (YCT) were also present in all

→FISH TALES continues on page 3



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LAYOUT & DESIGN BY MARY LOUHANSEN

Research Director joins staff

Friends of the Teton River is pleased to welcome new Research Director, John Rice.

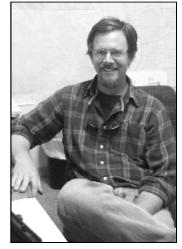
John brings a wealth of hydrogeology experience to FTR. His professional background includes a 15 year career as an environmental consultant, and three years with a conservation nonprofit in Virginia. John's consulting career focused on the investigation and remediation of contaminated soil and groundwater, the location and evaluation of groundwater supplies, and the assessment of environmental conditions for property transactions.

John received a BS degree in Geology from James Madison University in 1982, and a masters degree from Utah State University in Geology in 1987, with a focus on environmental and engineering geology, hydrogeology, and applied geomorphology.

John's MS research involved mapping and dating of landslide and glacial deposits in the Salt River Range, which borders the eastern side of Star Valley, Wyoming. became an early partner and owner of ENSAT Corporation in 1992, and helped grow the company thru the 90's. John saw an opportunity to make a significant difference in 1998, when he identified an important and threatened bottleneck in a regional wildlife migration corridor extending across part of the Shenandoah Valley of Virginia. John purchased a key property in the corridor along the Shenandoah River and placed it under conservation easement, the first in the area. John then worked to get surrounding properties under easement, and to find conservation buyers for important properties that came on the market.

In 2001, John joined the Piedmont Environmental Council (PEC) as a Land Conservation Officer, working primarily on voluntary conservation easement donations in several Virginia counties and assisting PEC with water related projects.

John, an avid hunter and fisherman, had a strong desire to return to the Rocky Mountain region to live. "The extensive wild public lands, open spaces, and beautiful rivers of the west have always had a strong

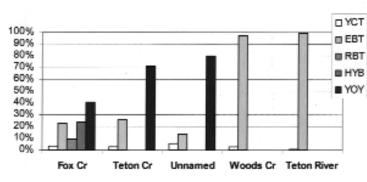


FTR welcomes John Rice

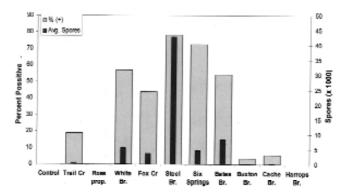
magnetic pull on me". John moved to Teton Valley in January 2004, along with conservationist fellow Babette Thorpe (who recently joined the Teton Regional Land Trust). "This place already feels like home, and I'm excited by the opportunity to be a part of FRT's effort to protect this watershed. FTR's staff and board have put together a very thoughtful, sound, and scientifically based program, and I look forward to helping make FTR's vision for the Teton River watershed become a reality."

Full Moon Reflections

FTR IS EXCITED TO ANNOUNCE our first annual full moon float on Saturday, July 31. Some of the best full moon rises occur right here in Teton Valley and July is the perfect time to be on the river. Festivities at Rainy public access will begin at 7:30 pm with a potluck dinner. FTR will supply pizza and beverages and requests that you bring a favorite summer dish. Boats will depart at 9:30 pm and float down to Packsaddle Bridge. Incredible full moon views guaranteed. (Mother Nature pending, of course!) This float is open to all river-goers, with or without a boat! Please call Brenda at 354-3871 to either sign up or let her know if you have a boat that FTR may use. Participants should sign up by July 15th.



Cumulative percent of total catch by species (<200mm) and stream (Fall, 2003).



Comparison of percent fish infected by whirling disease and mean spore counts per fish by location.

Fish Tales -continued from page 1

streams, but only in very low numbers. Rainbow trout (RBT) and their hybrids (HYB) were found to have a strong presence only in Fox Creek. Recently hatched trout, or young-of-the-year (YOY) that were born that summer were present in only a few locations. "Unnamed Creek", a small spring creek tributary to Teton Creek, contained the highest percentages of YOY fish.

At the time of capture, YOY trout were too small to be distinguished as either rainbow or Yellowstone cutthroat trout. Due to the overall low percentage of rainbow trout present in Teton Creek, it is likely that most YOY fish caught there represent cutthroat trout. However, rainbow trout might make up a significant portion of the YOY fish caught in Fox Creek, as a result of the strong presence of rainbows there.

Yellowstone cutthroat trout have precipitously declined in recent time throughout the Teton valley. Understanding the distribution of juvenile Yellowstone cutthroat trout and the patterns that govern this distribution will be key to developing recovery strategies for these native trout. The 2003 survey data reveal that only Fox, Teton and Unnamed Creek held YOY fish. In the upcoming season, the Juvenile Trout Project will expand its reach to include other tributaries to strengthen our understanding of where juvenile cutthroat are, and why.

Whirling disease has long been thought to be a factor affecting trout populations in the Teton River and its tributaries. With help from the Idaho Department of Fish and Game Eagle Fish Health Laboratory, ten sites were tested for the severity of whirling disease infection. Like many had suspected, whirling disease is present in much of the valley. Results from this first round of tests indicate that whirling disease severity is highly variable throughout the valley. In addition, spore counts from the experiment suggest that whirling disease may

not be responsible for the large declines in trout populations throughout the valley, but perhaps only in some locations, such as lower Teton Creek (Steel Bridge).

When compared to other streams in Idaho heavily affected by the parasite, the Teton River shows low to moderate numbers of spores per fish. Before any firm conclusions can be made regarding the role of whirling disease, more data needs to be collected. Next month, a second round of tests will focus more heavily on spawning tributary streams where juvenile trout are most vulnerable to the disease.

Although the reasons why trout are declining in the Teton Valley remain uncertain, one thing is not; there is still much more work to come before any definite conclusions can be drawn. Presently, the Juvenile Trout Project is in full swing, beginning another busy season of data collection. Early last month, an impressive assortment of graduate students, fisheries professionals and volunteers from Idaho Department of Fish and Game, the U.S. Forest Service and FTR came to Driggs to help with the spring electrofishing surveys. Additionally, a redd survey began on a weekly basis to record when and where trout are spawning in the valley's tributaries and in the Teton River. Also starting last month, temperature-logging instruments were installed on several streams to record changes in water temperature throughout the spring, summer and into the fall. With continued study throughout the rest of this year and next spring, we hope to collect an increasing amount of information that will help in answering the questions regarding the recent trout declines in the Teton River.

This project has received tremendous collaborative support from the following: Idaho Department of Fish and Game and their Eagle Fish Health Laboratory, a U.S. Congressional Appropriation (administered by the U.S. Environmental Protection Agency), Idaho State University, Utah State University and the U.S. Forest Service.

Donor funds study on the impact of flow alterations

MANY, MANY THANKS to John Short for funding a very important new research project: Teton River Hydrologic Regime Alteration and Impacts on Native Trout Populations. The hydrologic regime (the quantity and timing of streamflow) of a river is one of the most important determinants of the type and abundance of aquatic life a river can support. In the upper Teton watershed,water management and use patterns have changed several times over the past 120 years and these changes have had substantial effects on the hydrology of the River and its tributaries. This research will describe the Teton River's natural hydrologic regime prior to human alteration, quantify the degree of change, and investigate correlations between changes in hydrologic regime and Yellowstone cutthroat trout density. The ultimate product of the study will be the formulation of water management strategies that favor the conservation of cutthroat trout.

Rob Van Kirk, professor of mathematics at ISU, will conduct the study. Rob has led similar projects on the South and Henry's Forks of the Snake River and works closely with Bureau of Reclamation to design trout-friendly dam releases.

The Teton River Hydrologic Regime Project is one very important component of FTR's research program, which guides our on-the-ground activities. Thank you again to John Short for his commitment to valuable research.



Lou Gaylord welcomes the sixth graders to Water Awareness Week on the Teton River.



Mike Merigliano sh veget



VOLUNTEERS COOK LUNCH. Above: School Board Members Jim Douglas, left, and Doug Peterson, cook burgers with Alene Breckenridge. Below: Principal Richard Coburn, Mayor Louis Christensen and Scott Davidson tend the grill.



Water Awarenes

WHAT DO SIXTH GRADE STUDENTS and alot of water have in common? Water Awareness Week in Idaho! More than 14,000 students and their teachers throughout the state studied and celebrated Idaho's water resources May 10-14 during the 11th annual Water Awareness Week (WAW). Activities around the state include water festivals, class room presentations and tours of water-related facilities or industries.

Friends of the Teton River worked with Lou Gaylord, Teton Middle Schoolscience teacher, to design and coordinate WAW activities in Teton Valley. On May 10 and 11, we hosted 100 sixth graders at Rainey



Carla Baker, Natural Resource Conservation Service, discusses soils.



Phyllis Anderson, FTR helps with vegetation



ows students how to run a ation transect.



Martin Koenig makes fish prints and discusses fish anatomy with students.

ss Week: MAY 10-14, 2004

Fish and Game Teton River Access and the Fairgrounds. The objectives of the day were to introduce sixth graders to some of the fundamental features of water resources in the Teton Valley and to give them the opportunity to meet professionals who work in water-related fields.

There were six different educational stations teaching topics such as Ground and Surface Water, Water Quality, Soils, Teton River Fish, Riparian Vegetation, Birds and Wildlife. All stations involved "hands-on" learning activ-

ities, which generally included getting wet and/or dirty!

The stations were ledby volunteers from the Natural Resource Conservation Service (NRCS), Friends of the Teton River, U.S. Forest Service, Grand Targhee, Teton Regional Land Trust, and the Teton Middle School. To add to the days' festivities, the City of Driggs and the Teton County school board barbecue dlunchfor the kids and participants. Thank youto the Donald C. Brace Foundation for making this day possible.



Students get a close-up look at a variety of local fish.



board member, on surveys.



Andy Steele, Grand Targhee, plays the extraction game.



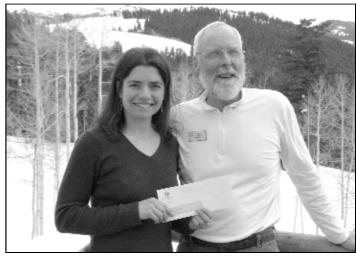
Melissa Pangraze teaches students about water quality.

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Join us on a watershed hike

FTR HAS PLANNED TWO GREAT HIKES to compare and contrast the west and the east side of our watershed. On June 11, we will be exploring Drake Creek at the south end of the Big Hole Mountains. We will look at the tiny headwater streams of the Teton Watershed and gain a new perspective on the southern end of the Teton Basin. Our July 17 east side hike will begin at the Targhee parking lot and include a lift assist, if desired. We will continue up past Mary's and Peaked through classic limestone terrain and drop into the North Fork of Teton Creek. Both hikes were chosen with intermediate terrain in mind, in hopes that people of all ages will participate!

Please sign up ahead of time (June 9 and July 15, respectively). Attendance will be limited to 12 people. We will discuss logistics when you sign up. Please contact Brenda at 354-3871 with any questions.



FTR received a grant for the Habitat Assessment Project from the Targhee Institute Environmental Foundation, founded by the employees of Grand Targhee Resort. Pictured are Andy Steele, Foundation Executive Director, and Bonnie Berger, FTR Development Director. Targhee also donated a portion of last day tickets sales to several local nonprofits including FTR. Thank you to such a generous valley business!

Generous 2004 donors join Stewards

IN JANUARY 2004, the Friends of the Teton River Board of Trustees created a new society to encourage and recognize phil anthropic support of the FTR mission. The board named the organization the Teton River Stewards to demonstrate the importance of citizen involvement in protecting and restoring the Teton Watershedits tribuataries and wetlands. Founding membership is being extended to the first 50 individuals contributing \$1,000 or more to Friends of the Teton River over the course of a single fiscal year.

All Teton River Stewards will receive invitations to a Teton River

float and reception, grateful recognition in the Annual Report and founding member plaque, updates from the Executive Director on a semi-annual basis, the quarterly newsletter Water Lines, a beautiful Dan Burr Cutthroat Print and an Elisa Davis FTRT-shirt.

FTR sincerely appreciates the following Teton River Stewards for joining between January and May, 2004. They provide the foundation to preserve and protect vital water resources in the Teton ValleyFor more information on the Teton River Stewards, please contact Bonnie Berger at 208-354-3871.

Teton River Stewards

FOX CREEK LEVEL (\$10,000 or more)

Donald C. Brace Foundation John Short

TETON CREEK LEVEL (\$2,500-\$4,999)

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0	Members will receive voting privileges, a quarterly newsletter, and regular activity updates. Please send completed application form, with your check or credit card information, to:					
	FRIENDS OF THE TETON RIVER • PO Box 768 • Driggs, Idaho 83422					

NOTICE OF ANNUAL MEETING OF FTR MEMBERS

DATE & TIME: Saturday, June 26 at 6:00 pm. The annual meeting is also the FTR annual riverside party, and is open to the public. (Please see page 8 for more details.)

PLACE: On the west bank of the Teton River, south of Teton Valley Lodge. At the traffic light in Driggs, turn west on Bates road heading toward the Big Hole Mountains. Cross the River and proceed on the main road which bends south. Continue on that road until you reach another 90 degree turn where the road bends east. You will pass a tree farm on either side of the road. Where the road again bends south, proceed straight (east) on the dirt road. Follow the dirt road 1/2 mile until you reach the entrance to the Teton Valley Lodge. Take a right after going under the arch and look for the big white tents. From Victor take Cedron Road to where it turns west at the tree farm. At that point turn right (east towards the river) on the gravel road towards Teton Valley Lodge.

PURPOSE: FTR members elect one-third of the Board of Directors at each annual meeting. At this annual meeting, five current Directors are standing for re-election. They are listed below. The Board highly recommends their re-election. You can also vote for write-in candidates instead of, or in addition to, these five candidates. FTR always welcomes and encourages new participation.

The annual meeting is also a great opportunity for everyone to learn more about FTR's current activities and plans, discuss issues, provide input, and have a great time!

Members who have paid their dues for calendar year 2003 prior to or at the annual meeting and who are 18 years or older are entitled to vote. Only one representative of a family or corporate membership may vote. Votes may be cast (1) in person, (2) by a proxy appointed using the proxy form attached to the ballot, or (3) by mailed or delivered ballot. All mailed ballots must be received no later than July 3 at P.O. Box 768, Driggs 83422 or our offices.

A list of Members is available to any Member at our offices at 36 Little Avenue, Driggs. We hope you will attend to cast your vote in person and engage the Board in discussion.

BALLOT - 2004 Annual FTR Meeting					
I, [please print], vote as a Member/proxy of a Member/representative of the family of/entity of [strike out the ones that do not apply] for the following individuals to serve as members of the Board of Directors of Friends of the Teton River, Inc. I hereby affirm that I am 18 years old or older. Place your initials to the left of each typed name, or write in the name of the person you are voting for on the blank lines and place your initials next to the new name.					
Dan Burr Bill Kelly` Sam Pole John Siverd LeAnn Talbot					
Signature of Member:	Date:				
PROXY APPOINTMENT					
I, [please print]	, hereby appoint				
to vote as [my] proxy [for theannual meeting.	family/corporation] at the FTR 2003				
Signature of Member:	Date:				

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TETON RIVER

5ATUKDAY JUNE 26th 6:00 P.M. JUST SOUTH OF TETON VALLEY LODGE

Come to our party!

PLEASE JOIN FRIENDS OF THE TETON RIVER for the Fourth Annual River Party and Auction on June 26 at the property south of Teton Valley Lodge from 6-9 pm. Share an evening of music, food and fun by the beautiful Teton River. Celebrate successes with friends and hear about FTR's exciting new projects. Bid on auction items including a fly fishing school, scenic airplane trip,

bluegrass tickets, local art, fly rod, health club membership, yurt rental, Nordic season pass, rafting trips, summer sojourn classes, mountain gear and much more. Cost is \$15 per person or \$25 per couple. Kids are free. Membership, which is so vital to all of our work, is included. Tickets can be purchased at the FTR office, 36 Little Avenue. Please call Bonnie at 208-354-3871 with any questions. We sincerely hope to see you there! (Directions to the Party can be found on Page 7.)



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Dedicated to understanding and improving the water resources of Teton Basin.