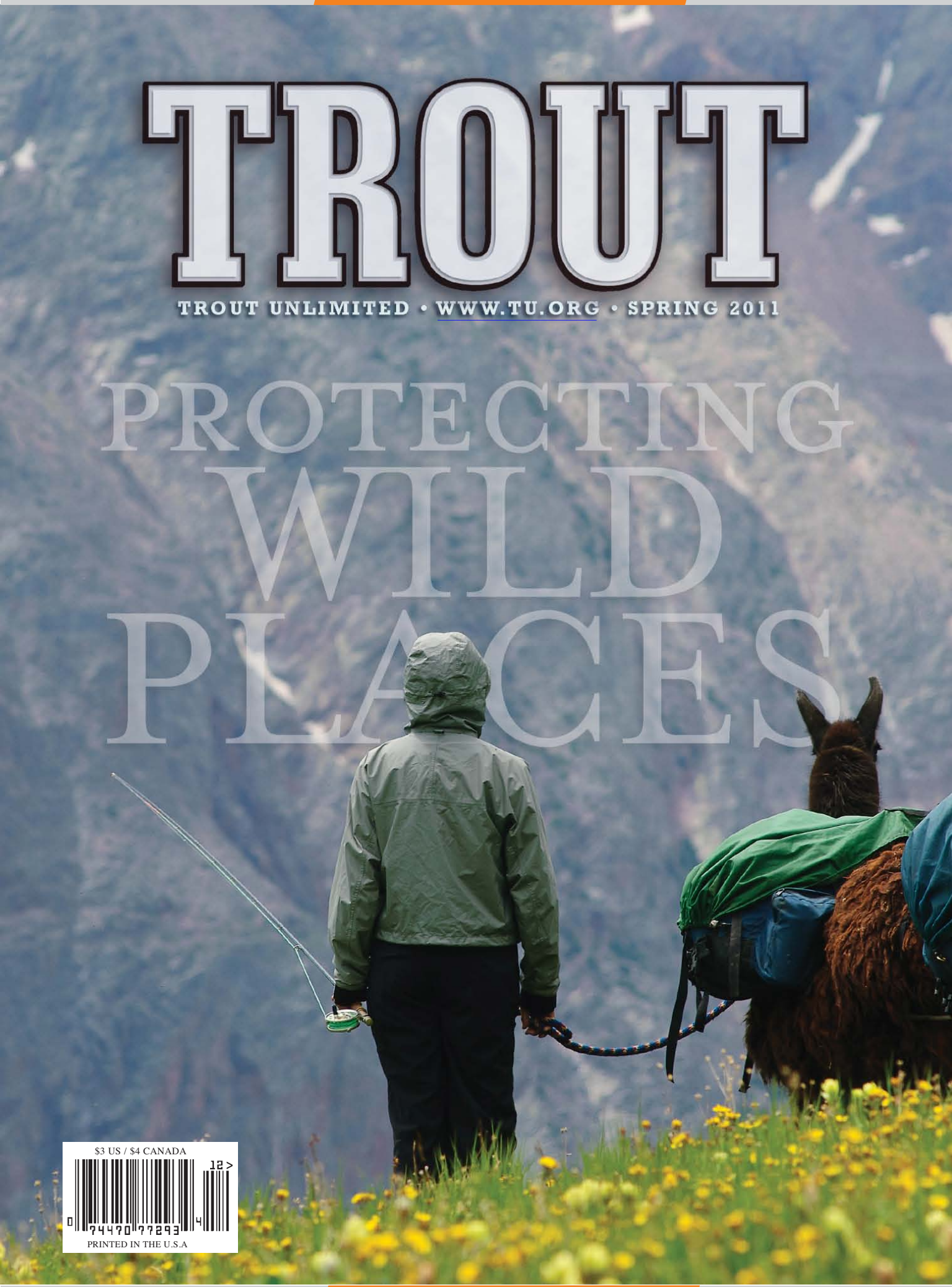
TROUT

TROUT UNLIMITED • WWW.TU.ORG • SPRING 2011

PROTECTING WILD PLACES



$3 US / $4 CANADA
12>
0 74470 77293 4
PRINTED IN THE U.S.A

Spring-creek browns. Alpine brookies. Brush-pile crappies. Big-river rainbows. Delta large-mouths. Glacier-melt steelhead. Coral-flats bonefish. Mangrove snook. Tidewater kings. Beach-break stripers… For every fish, there is a VXP.

Introducing the all-new, exceptionally smooth, fast-action VXP.

From delicate presentations to industrial strength tips and flies, the VXP's light weight and smooth, fast action helps you put the fly closer to your fish of choice. Better yet, the distinctive new taper design and responsive, easy-to-cast performance might just make VXP rods the finest value on the water. To experience the entire VXP lineup, visit one of our specialty retailers.

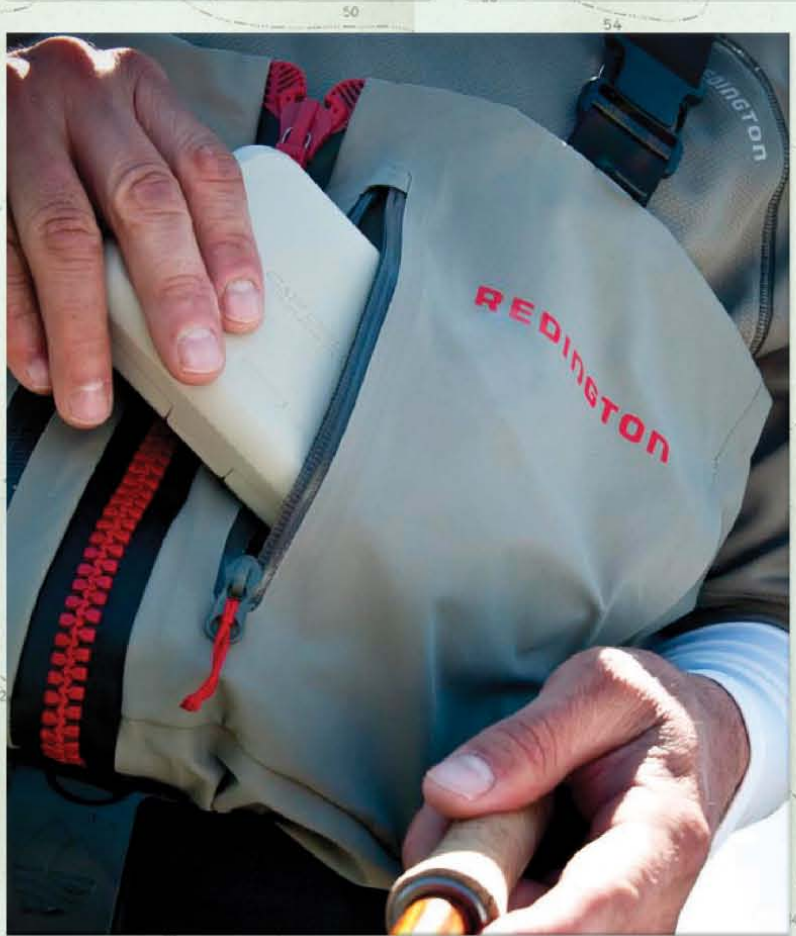
www.sageflyfish.com or call 1-800-533-3004 to request a catalog.

© 2011 All rights reserved.

TCX Z-Axis Xi3 ZXL 99 TXL-F BASS VXP

sage

STITCH HOLES CAN LEAK. WE GOT RID OF 'EM. END OF STORY.



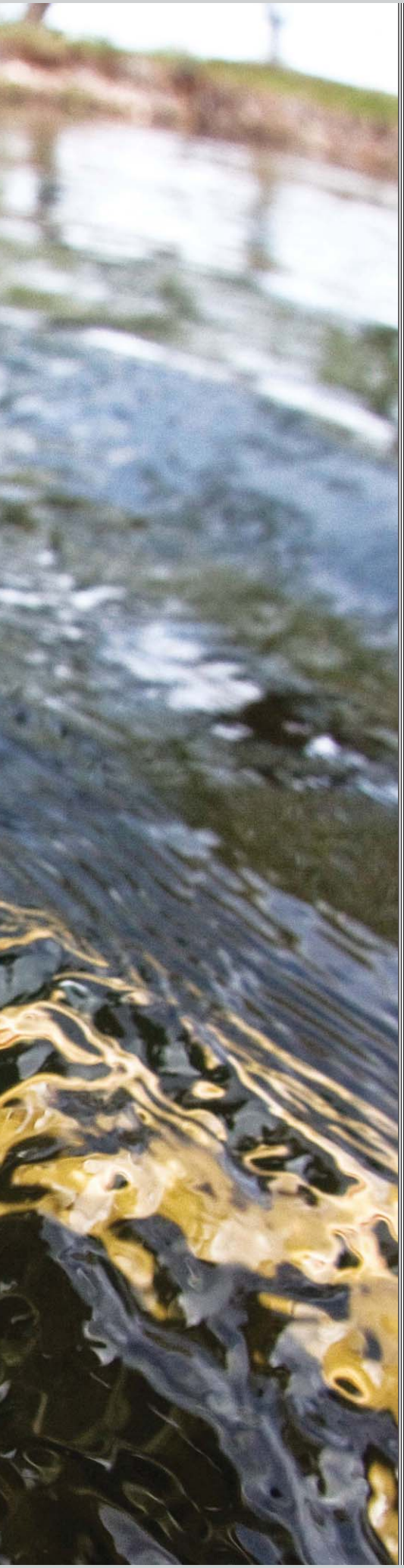
Seam technology licensed via Orvis Patent 7,770,235

Introducing the new Sonic-Pro Waders.

Thousands of stitch holes found in traditional waders just vanished in the blink of superior technology. Sonic-Pro Waders feature seams welded with sound. Smart. And ultra-durable. All three models come stuffed with pockets, for warming hands and stashing tackle. The first time you pull on a pair will be the last time you worry about leaking waders.

Find Sonic-Pro Waders at Skate the Fly (skatethefly.com), The Blue Quill Angler (bluequillangler.com) or ReelFlyRod.com. Or, find a dealer near you at www.redington.com.

REDINGTON®



FRONT COVER PHOTO: THE WEMINUCHE WILDERNESS IN SOUTHWEST COLORADO BY MARK LANCE LEFT: COREY KRUITBOSCH

TROUT

The Journal of Coldwater Fisheries Conservation
www.tu.org
SPRING 2011

14 | Discovery
The pleasure of searching for the unknown. BY CHRISTOPHER CAMUTO

16 | Protecting the Resource
TU Volunteers step-up to police drilling in the Marcellus Shale region. BY MORGAN LYLE

22 | Tangled Up in Growth
Protecting trout and salmon populations from urban growth. BY JEFF ERICKSON

31 | Fishing TU's Home Waters
Pennsylvania's Valley Creek. BY FRED GENDER

32 | Wild Places
TU and *Field and Stream* magazine partner to draw attention to resources that need protecting. BY CHRIS HUNT

42 | Voices from the River
River Home. BY DEBRA MAGPIE EARLING

Departments

5 | **From the President**
6 | **From the Editor**
7 | **Our Contributors**
8 | **Our Readers Write**

10 | **Pocket Water**
Settlement protects San Juan Flows. The Clark Fork returns to its historic channel. TU supports New York's horizontal fracing moratorium. Emails validate TU's concerns over the Frankenfish.

13 | **Question and Answer**
With Anders Halverson, author of "An Entirely Synthetic Fish."

47 | **Actionline**
Grassroots Spotlight: Students work to restore Potomac headwaters.

Colorado chapter helps with creek restoration. Pennsylvania chapter shows youth how to turn their lives around. Connecticut chapter nets a big success. New York stream restoration and bank stabilization project completed. Trout in the Classroom teachers trained in California.

56 | **The Art of Angling**
Trout profiles: Arctic Char. BY DAVE WHITLOCK

58 | **Classifieds**

64 | **Native Fish**
Sockeye Salmon. BY ROBERT BEHNKE

Trout Unlimited Board of Trustees

Chairman of the Board
Jon Christiansen, Milwaukee, Wisconsin

Vice Chairman of the Board of Trustees, Chairman of the National Leadership Council
Larry Harris, Morgantown, West Virginia

President/Chief Executive Officer
Chris Wood, Arlington, Virginia

CEO Emeritus/ Senior Counsel
Charles F. Gauvin, Arlington, Virginia

Secretary
Mark T. Gates, Palo Alto, California

Treasurer
Harris Hyman IV, Kenilworth, Illinois

Secretary of the National Leadership Council
Tom Anacker, Bozeman, Montana

Legal Advisor
David Armstrong, Esq., Greenville, South Carolina

Kai Anderson, Washington, DC
Jim Asselstine, New York City, New York
Sherry Brainerd, Rancho Santa Fe, California
Valerie Colas-Ohrstrom, New York City, New York
Charles Conn, Ketchum, Idaho
Matt Clifford, Oakland, California
Thomas Danco, Los Angeles, California
Mike Dombeck, Stevens Point, Wisconsin
Paul Doscher, Concord, New Hampshire
Bill Egan, Jackson, Wyoming
Wallace C. Henderson, Warrenville, Illinois
George Jenkins, St. David's, Pennsylvania
Richard Johnson, Wilmington, North Carolina
Eaddo Kiernan, Greenwich, Connecticut
Sharon Lance, Centennial, Colorado
Paul Maciejewski, Elma, New York
Nancy Mackinnon, Manchester Center, Vermont
Mick McCorcle, Fairview, Texas
Rick Murphree, Knoxville, Tennessee
Kirk Otey, Charlotte, North Carolina
Kevin Reilly, Santa Fe, New Mexico
Michael W. Slater, Mesick, Michigan
Elizabeth Storer, Jackson, Wyoming
Steve Strandberg, San Francisco, California
Mark Ullman, New Canaan, Connecticut
John Willis, Chicago, Illinois

National Leadership Council Representatives

Chairman
Larry Harris
Secretary
Tom Anacker

Arizona, James Walker
Arkansas, Kerri Russel
California, Jamie Hunter
Colorado, Thomas Jones
Connecticut, Jeff Yates
Georgia, Larry Vigil
Idaho, Carmen Northen
Illinois, Greg Prosen
Iowa, Brett Lorenzen
Kentucky, Dale White
Maine, Bill Oleszczuk
Massachusetts/Rhode Island, Mark Hattman
Michigan, Pat Kochanny
Mid-Atlantic, Bruce Eberle
Minnesota, Steve Carlton
Missouri, Curtis Morgret
Montana, Doug Nation
New Hampshire, Mary Weiss
New Jersey, Rich Thomas
New Mexico, Jason Sides
New York, Ron Urban
North Carolina, John Kies
Ohio, Thomas Allen
Oklahoma, Scott Hood
Oregon, Karl Mueller
Pennsylvania, Jack Williams
South Carolina, Tom McInnis
Tennessee, Richard Davis
Texas, Andy Niland
Utah, Brock Richardson
Vermont, Chris Moore
Virginia, Jack Ward
Washington, Robert Stroup
West Virginia, Dave Fulton
Wisconsin, Bill Heart
Wyoming, John Deakins

State Council Chairs

Arizona, James Stipe
Arkansas, Kerri Russell
California, Drew Irby
Colorado, Sinjin Eberle
Connecticut, Jim Glowienka
Georgia, Mack Martin
Idaho, James Piotrowski
Illinois, Ed Michael
Iowa, Brett Lorenzen
Kentucky, Bill Remaks
Maine, Dan Daly
Michigan, David Smith
Mid-Atlantic, Nicholas Weber
Minnesota, Randy Brock
Missouri, John Wenzlick
Montana, Dan Short
New Hampshire, Burr Tupper
New Jersey, Rick Axt
New Mexico, Bill Schudlich
New York, Dee Maciejeweski
North Carolina, Dale Klug
Ohio, Jim Augustyn
Oklahoma, Jeff Hartman
Oregon, Tom Wolf
Pennsylvania, David Rothrock
South Carolina, Meta Armstrong
Texas, Bill Higdon
Tennessee, John Torchick
Utah, Robert Dibblee
Vermont, Chris Moore
Virginia, Bill Pierce
Washington, Tom Van Gelder
West Virginia, Chris Shockey
Wisconsin, Kim McCarthy
Wyoming, Dave Sweet

Coldwater Conservation Fund

Officers

Chair
Thomas D. Stoddard

Vice Chair
Hamilton E. James
Theodore Roosevelt, IV

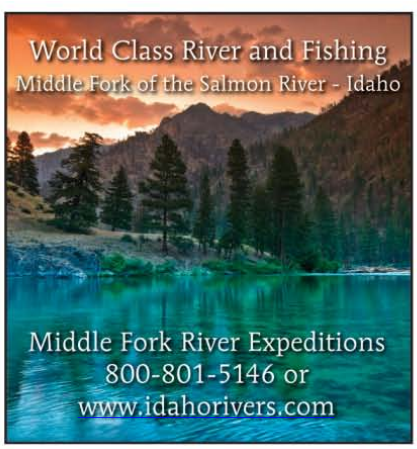
Secretary
James F. Kelley

Directors
Gay Barclay
John B. Bell
Philip A. Belling
Allan E. Bulley, Jr.
Timothy C. Collins
Michael J. Gerber M.D.
Steven B. Gewirz
David P. Hunt
Charles M. Johnson
Stephen Thomas Moss
Edmond Opler, Jr.
Perk Perkins
Leigh Seippel
Robert E. Strawbridge III
Robert J. Teufel
Paul R. Vahldiek
Henry Wendt
George A. Wiegers

Advisory
John E. McCosker, PhD.
Whitney Tilt

Ex-Officio
Jon Christiansen
Charles Gauvin
Larry Harris
Steve Strandberg
Chris Wood

Director Emeritus
John B. Howard, Esq.
Margaret D. Keller
Thomas W. Offutt, III
J. Steven Renkert



TROUT Previous Page | Contents | Zoom In | Zoom Out | Front Cover | Search Issue | Next Page qMags

From the President

[Chris Wood]

No Bull: Room for Us All

Chuck Kaminski, the secretary of TU's 89er Chapter in Oklahoma, sent me a letter recently asking, "What is TU's official view of tailwater fisheries? The majority of the trout waters fished in this region are tailwaters and I want the 'no bull' answer."

I was thinking of Chuck's letter as I listened to Dave Whitlock do a presentation on tailwater tactics for trout at the Zane Grey Chapter meeting in Arizona. Later, Dave and the Zane Grey leadership talked about how to reintroduce Gila trout back into the state, including using them to control invasive and extremely damaging crawfish.

Arizona's two native trout, the Gila and the Apache, are both listed as threatened under the Endangered Species Act. Arizona chapters and members are actively working with the U.S. Fish and Wildlife Service and the Arizona Department of Game and Fish to help recover these species, *but the Zane Grey members still love to fish for tailwater trout*.

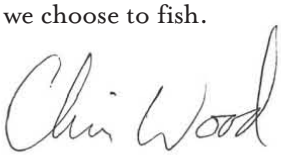
So, as it is with most of us, I learned to fish with bait, then lures, before figuring out how not to embarrass myself with a fly rod. I never chased a hatchery truck, but I still spend many happy afternoons catching hatchery fish with my boys, and yes, we sometimes plunk worms.

TU's vision is to recover robust populations of wild and native fish within a generation so that our children may fish for them in their home waters. Yes, we have a bias toward native trout because they are often rare. Yes, we prefer wild fisheries to "put and take" fisheries as they affirm the TU founders' instructions to "take care of the fish, and the fishing will take care of itself." In many parts of the country, however, native and wild fish are not an option, but in no way does that diminish the conservation orientation of TU's leaders.

Consider the Guadalupe River Chapter in Texas. The Guadalupe River is maintained through stocking. Yet, GRTU is among the strongest of TU chapters in advocating against the development of the Pebble Mine in Alaska. In addition, they are working with state and federal agencies on a proposal to reintroduce imperiled Rio Grande cutthroat trout into Guadalupe Mountains National Park in West Texas.

To intone Robert Travers, we fish because we love to—because we love the places where trout are found whether in remote backcountry areas, tailwaters or urban "put and take" fisheries. Trout and salmon face extraordinary threats including invasive species, climate change and water scarcity, energy development and the potential of genetically modified salmon and trout.

The connective thread of TU is our singular focus on countering these threats and recovering rivers—wherever and however we choose to fish.



TROUT
SPRING 2011 • VOLUME 53 • NUMBER 2

EDITOR
Steven R. Kinsella

ASSISTANT EDITOR
Samantha Carmichael

Trout Unlimited
1300 North 17th Street
Suite 500
Arlington, VA 22209-3801
Ph: (703) 522-0200
Fax: (703) 284-9400
trout@tu.org
www.tu.org

DESIGN
grayHouse design
jim@grayhousedesign.com

DISPLAY ADVERTISING
Will Jordan
will@jwjmedia.com
(406) 248-3666

TROUT UNLIMITED'S MISSION:

To conserve, protect and restore North America's coldwater fisheries and their watersheds.

Trout (ISSN 0041-3364) is published four times a year in January, April, July and October by Trout Unlimited as a service to its members. Annual individual membership for U.S. residents is $35, $40US for residents of Canada and $55US for residents of all other countries. All told, TU offers 10 membership categories. Join or renew online at www.tu.org.

TU does occasionally make its mailing list available to like-minded organizations. Please contact us at the address above if you would like your name withheld.

Postmaster send address changes to:

Trout Magazine
Trout Unlimited
1300 North 17th Street
Suite 500
Arlington, VA 22209-3801

FSC Mixed Sources
Product group from well-managed forests, controlled sources and recycled wood or fiber
Cert no. SW-COC-002556
www.fsc.org
© 1996 Forest Stewardship Council

TROUT Previous Page | Contents | Zoom In | Zoom Out | Front Cover | Search Issue | Next Page qMags

From the Editor

[Steven R. Kinsella]

Doers

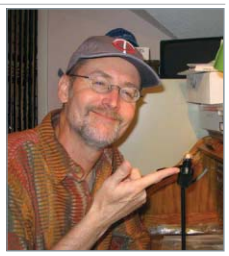
When I became a life member of TU more than a decade ago, I did so not only because I strongly support our mission of protecting, reconnecting, restoring and sustaining the nation's coldwater resources, but because TU is an organization of doers. Morgan Lyle's story on page 16 ("Protecting the Resource") exemplifies this characteristic. The ongoing impacts of hydrofracturing on fragile coldwater resources throughout the Marcellus region are well known, as is TU's work on a state, regional and national level to change laws, require greater disclosure of the chemicals used in the process and increase state monitoring of drilling operations. TU members from Pennsylvania took this activism a step further by recruiting and organizing volunteers to monitor their local rivers for signs of damage from hydrofracturing. Trained in sophisticated water quality monitoring, and highly organized to maximize their impact, the volunteers have become a key buffer between careless hydrofracturing and fragile, native brook trout populations. As the saying goes, actions speak louder than words. In Pennsylvania, TU volunteers are putting that into practice. Not only am I proud of them, I'm proud to belong to an organization of doers.

Our Contributors

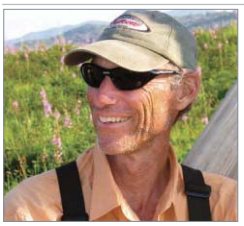
Fred Gender is the southeast regional vice president of the Pennsylvania Council of TU and sits on the board for the Valley Forge Chapter. He has been volunteering with TU since 1988 and has worked on native trout restoration in Great Basin National Park and Great Smokey Mountains National Park. With a fly rod, he chases nearly every fish that swims. He lives in Douglassville, Pa. with his wife and Dutch the wonder dog.

Morgan Lyle grew up within sight of the Catskill Mountains and learned to fly fish for trout on Esopus Creek. He has written for *The New York Times* and *Newsday* and is a regular contributor to *Fly Tyer* magazine, the *New York Outdoor News* and *The Daily Gazette* of Schenectady, N.Y.

Chris Hunt is the communications director for TU's Sportsmen's Conservation Project. Based in Idaho Falls, Idaho, he works to keep the news media informed of SCP's efforts to safeguard fish and game habitat on public lands in the West. Chris is an avid fly fisher and is the author of two fly-fishing books. He also runs a blog at www.eatmorebrooktrout.com. He is married to Liza and they are raising two children—Delaney, 12, and Cameron, 8.

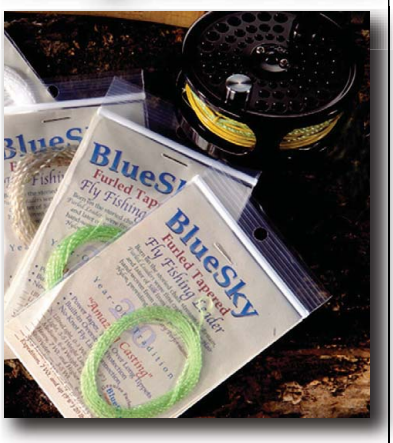


Jeff Erickson has written stories and taken photos that have appeared in dozens of fly-fishing, travel, history and conservation periodicals. He has also spent two decades as a natural resource, land use and outdoor recreation planner in Montana and Minnesota. Jeff currently works at his Helena, Mont. consulting business—Headwaters Policy/Planning Partnership.



Mark Lance works 9 to 5 as a high-tech software marketing professional but is also a freelance photographer and outdoor writer who travels to far corners of the fly-fishing globe in search of fish, compelling imagery and a good story. His photography and writing are published widely across the fly-fishing industry. He is a long-time supporter of TU and former board member of the Cutthroat Chapter in Centennial, Colo. where he resides with his wife Sharon.

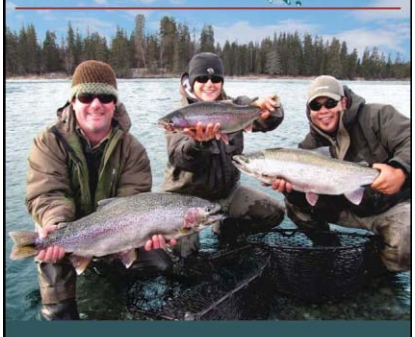
Elevate your Fly Fishing to a new level.



Celebrating 10 years of building the finest hand-woven furled leaders. Sizes for all line weights and conditions. Saltwater and toothy fish, too. The Original, and still the best. Visit us at furledleaders.com.

BlueSky Furled Leaders
1163 Garland St., Green Bay, WI 54301 USA
bluesky@netnet.net • Ph/Fax 920-430-1239

Alaska River Adventures Run Wild



Picture yourself landing a fat 30" trout

Now picture a river where you might hook them 2 at a time

We know a couple spots like that

Come fish with us this fall in Alaska

Alaska River Adventures
907-595-2000
www.AlaskaRiverAdventures.com

Our Readers Write

I think it would greatly improve *Trout* if you would put captions on the photos in the feature articles. Granted, many of them can be ascertained or guessed at by the article's contents, but it still would help if more captions were included. For instance, in the recent issue, only the photo on the title page and one photo in Mr. Schofield's article were identified. Certainly it would have helped to identify the first and last photos in Mr. Miller's article. I live on the Big Thompson River, and it looks like these are probably headwater shots in Rocky Mountain National Park, but how many of your readers would know that? I think the readers would appreciate more captions.

Bert Cushing
Estes Park, Colo.

Editor's note: Point well taken. We'll strive in future issues to provide locations when that information is available. Go to TU.ORG/BLOG *for a detailed explanation on how and when we will label photographs.*

"Frankenfish"

The article by Susan Stranahan, "Monster on the Horizon" was very good. I agree with the multitude that it will only be a matter of time before they escape one way or another into the wild. I can see some foolish soul letting some go into the wild for some personal gain, whether for kicks or giant fish to catch. AquaBounty Technologies must have or is in the process of getting a patent on this "Frankenfish." When these altered Atlantic salmon escape and breed with wild salmon and pass this genetic alteration to wild [fish] and the altered [fish] become the dominant population, will AquaBounty Technologies sue the fishermen who catch these fish because they have a patent/license for these fish? Will we not be able to catch Atlantic salmon? Will commercial fisherman and companies all over the planet not be allowed to catch these genetically altered fish because AquaBounty Technologies owns the patent? Will a fee have to be paid to AquaBounty Technologies to catch these fish?

George L. Hoppert, III
Mentor, Ohio

I am as much concerned about the world environment as the next guy and hope to leave this world a better place for my grandchildren. That said, I must take exception to the tone of Ms. Stranahan's article…There are more pressing concerns in fish farming that need to be addressed immediately such as the pollution caused in ocean pens (sea lice, concentrated excrement from confined fish, over-use of antibiotics) and the need to destroy other populations of "lesser" fish (anchovies for one) to feed the farmed fish. I agree that we need further rational thought and carefully controlled studies on this problem before the program advances any further. But let's hope it is done in a calm, rational manner without any further inflammatory rhetoric.

John M. Eberhardy
Milwaukee, Wis.

Trout magazine accurately described the environmental risks from genetically engineered salmon in its winter, 2011, article "Monster on the Horizon." Since the AquaBounty proposal now pending before the Food and Drug Administration surfaced last fall, ten Senators joined me in calling for a halt to this process while the environmental and food safety risks are assessed and the review process strengthened. I introduced legislation to stop this approval and require labeling of these species. The Senate is poised to debate this issue in the next Congress. A successful legislative response to "Frankenfish," whether tailored to fish or a more comprehensive approach to genetically engineered foods, will take the broad support of the public. I welcome the involvement of Trout Unlimited members in this debate.

U.S. Sen. Mark Begich
Alaska

Has TU ever thought of compiling some of the "Voices from the River" series into a book? The last two in *Trout* (by Tom Reed and Rick Bass) were excellent, very well written pieces.

Andrew R. Forauer
Hanover, N.H.

More on Tattoos

The letters to the editor published in the winter edition of *Trout* from Ronald Stoops and Alex Watson regarding their dismay, disappointment and disgust of fellow TU member Stefan McLeod's tattoos set me back. They, as we all do, have the right to express their opinion—no argument there. However they, as you I fear, have missed the point of the article. Mr. McLeod, a committed member of TU and passionate fishing enthusiast, was an unlikely tipping point in saving a rare and endangered species of cutthroat trout. I thought that is what TU is all about—advocating for the protection of coldwater fisheries and putting the passion of trout fishing into conservation-focused action. To my surprise the public discussion has morphed into expressing prejudiced opinions against TU members with tattoos. You have left me scratching my head.

Mark White
St. Louis Park, Minn.

I was disappointed to find two letters, in the winter edition of *Trout*, criticizing Stephan McLeoud's fishing-inspired tattoos. Why would readers judge a fellow trout fisher over such an insig-

nificant matter? Those of us who have discovered the beauty of trout and their habitats should welcome all who share our commitment to preserving and protecting coldwater fisheries. Matters of personal adornment are irrelevant. By the way, I'm old and have no tattoos.

Chris Flaherty
Lexington, Ky.

I read with interest, the *Trout* winter 2011 issue Pocket Water piece, "*Concerns Grow Over Impacts of Fracing on Groundwater.*" I live and fish in the heart of the Marcellus Shale region of western Pennsylvania. This is an area that has seen its share of environmental destruction from many decades of irresponsible mining, timbering and steel production practices. Water quality improvements in this region come slowly and with tremendous efforts by some very dedicated groups, including local TU chapters. There are several local waterways, most notably the Little Juniata and Stoneycreek rivers that have rebounded from highly polluted to excellent trout fisheries just since I started fly fishing some thirty plus years ago. I am very concerned that the rush to exploit the riches of the Marcellus Shale gas will spur a repeat of the kinds of environmentally destructive practices that we're still coping with from our past. More concerning yet is the unknown possibilities of poisoning our, our children's and grandchildren's drinking water supplies. From what I've read and seen on local news reports so far, TU seems to be taking a cautious approach to what is said or done with regard to the fracing process and of course, stands in support of disclosure and accountability regarding the chemicals used. This is understandable as there is much to be learned yet about these processes. I would ask that TU, being the influential organization that it is, be even more aggressive in the watch-dogging of the drilling operations and if necessary, take a firm stand to help halt drilling pending more research of it's possible long term effects.

Craig Smith
Windber, Pa.

Editor's note: See the article in this issue on TU's policing of Marcellus Shale operations in Pennsylvania.

A brook trout is a char, along with bull trout and Dolley Varden. A brown trout is a true trout and the rainbow trout the only one of the three that is a salmonid. They are all of the same order, but the brown trout and brook trout belong to a different family of the order salmoniformes. Yet, as I read through the pages of my latest *Trout* magazine I still see examples of the misuse of the term salmonid in reference to brook trout—once in "our readers write" section and again in the article "Brook Trout Return to Pennsylvania After 13 Years." Understanding the difference in these fish, beginning with what they are, is paramount to understanding their conservation.

Richard E Harris
Morgantown, Ind.

Your Letters:

Readers are invited to submit letters on anything that appears in *Trout*. We may edit submissions for clarity or length. Send letters to:

Our Readers Write
TROUT UNLIMITED
1300 N. 17th St., Suite 500
Arlington, VA 22209-3801

skinsella@tu.org

TU.ORG/BLOG

Blog Rollup

A sample of what our tech-savvy readers are saying about the issues. Visit tu.org/blog to voice your opinions.

Q&A with John Gierach

This was a great piece especially since I am currently reading John's books. I've just returned to fly fishing and TU after a 20-year absence and it's great to be back. Thanks for your good work!
—Ed Dax

I identify with Gierach. Big time. We're about the same age and have the same rather "old school" outlook on life in general and fly fishing in particular. One difference from personal experience–he looks even worse in a pair of shorts that I do.
—Scott Zieske

Pocket Water

NEWS BITS AND BYTES

TU Supports New York's Horizontal Fracing Moratorium but Urges More Protections

Although outgoing New York Governor David Paterson took a step in the right direction by executing an order placing a moratorium on the issuance of permits for horizontal, hydraulic fracturing until July 2011, by excluding vertical wells from the moratorium he carved out a dangerous exception, according to TU.

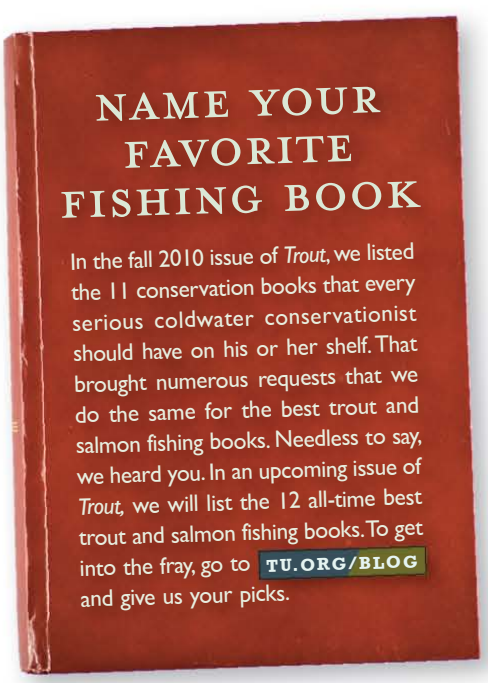
"The governor ignored the will of the people—as expressed by the New York legislature—as well as his earlier statements that gas drilling won't be allowed in New York until we can be sure that it won't harm the environment," says Katy Dunlap, director of the Eastern Water Project.

Dunlap notes that the impacts of hydraulic fracturing have not yet been fully assessed by the state and all types of drilling using this technology should be suspended until the New York Department of Environmental Conservation has determined that it is safe for the environment and humans.

As part of his executive order, former Governor Paterson also directed the DEC to release a revised draft of the environmental impact statement. Dunlap says that directive signaled an understanding that the current draft generic environmental impact statement is fatally flawed and that the potential impacts from hydraulic fracturing on the environment have not yet been fully assessed.

On his first day of office, Governor Andrew Cuomo continued the executive order. "Trout Unlimited now calls on Governor Andrew Cuomo to expand the order to include vertical wells and to fully protect New York's natural resources from the impact of gas drilling and hydraulic fracturing," says Dunlap.

In related news, Governor Cuomo's recent appointment of Joe Martens to be commissioner of the New York Department of Environmental Conservation may bode well for efforts to place more stringent controls on fracing. Martens was president of the nonprofit Open Space Institute since 1998 and was formerly on the board of directors of Catskill Mountainkeeper, a critic of gas drilling.



TU Win Protects San Juan Flows, Prevents Water Speculation

After a lengthy legal battle, TU has reached a settlement in principle with the Pagosa Area Water and Sanitation District and the San Juan Water Conservancy District on the districts' claims for water rights for the so-called Dry Gulch Reservoir and Pumping Station project near Pagosa Springs. The settlement, which still needs to be written into a decree and approved by the district court, sets significant limits on the amount of water the districts can divert from the San Juan River for the proposed project.

"This is a victory for the San Juan River," says Drew Peternell, director of the Colorado Water Project. "The original application could have been devastating, but now we have a settlement that balances the districts' need for water with the health of the San Juan."

The settlement represents a dramatic downscaling of the Dry Gulch project. In 2004, the water districts filed an application for water rights they claimed necessary to serve future population growth in Pagosa Springs and Archuleta County. Under their original application, the water districts could have diverted as much as 128,400 acre-feet of water per year from the San Juan. Under terms of the settlement, the utilities can take no more than 11,000 acre-feet from the San Juan River in any one year and no more than 9,300 acre-feet per year on a 10-year rolling average.

Moreover, the districts are prohibited from diverting water if doing so will cause flows in the San Juan River to drop below minimum flow thresholds designed to protect fish and the environment. These flow thresholds are double the amount of the existing Colorado Water Conservation Board in stream flow water rights.

In 2006, TU appealed a decision of a district court, which had awarded the utilities their 2004 water rights application. Citing concerns that the districts were speculating in water and claiming more water than they needed, in 2007 the Colorado Supreme Court reversed the water court decision and remanded the case. In doing so, the Supreme Court established new, stricter standards for public utilities claiming water rights for future population growth.

In 2008, the district court issued another decree awarding the utilities water rights for a 25,000 acre-foot reservoir and diversions of 150 cfs. TU appealed to the Supreme Court again, arguing that the revised water rights were still speculative and not consistent with credible future water demand projections.

In November 2009, the Colorado Supreme Court agreed with TU, again reversing the water court decision. The Supreme Court reaffirmed its earlier ruling that public utilities must base the size of their water rights on credible evidence of future water needs.

"The settlement underscores that municipal water projects must be based on well-founded, substantiated data about future growth and water needs," Peternell says. "In a time of water scarcity, Colorado must embrace water solutions that meet a range of needs, including municipal growth, agriculture, wildlife and recreation. No water user can take more than its fair share."

REEL SCIENCE

NEWS FROM THE WORLD OF FISHERIES SCIENCE.

Values and Risks of Life on the Edge

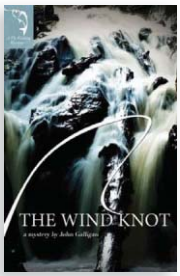
A team of TU scientists recently mapped and described the status of core and peripheral populations of cutthroat trout in the West. Peripheral populations are those on the outside edge of wide-ranging species. These populations are more isolated than populations closer to the core and often occupy harsher habitats. As a result, fish in peripheral populations often possess unique genetic adaptations that may be valuable for future evolution and survival of the species. Although all subspecies of cutthroat trout have declined from historical times, TU scientists found that peripheral populations declined at a much faster rate than core populations. For example, core populations of Bonneville cutthroat trout have declined 62 percent but those populations along the edge have declined by 91 percent. These results clearly show that we need to increase protections for and restoration of these peripheral trout populations.

A PDF of this report is available at www.tu.org/science-team-publications

—Jack Williams, TU's Senior Scientist

Fisheries, November 2010. Vol. 35. Pages 530 - 549.

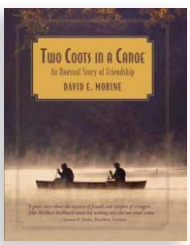
For Your Library



The Wind Knot

John Galligan (Tyrus Books, $14.95, tyrusbooks.com)

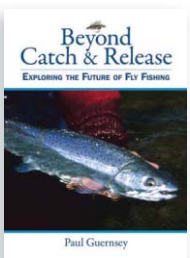
After five years of self-imposed exile on the rivers of America, trout bum Ned "Dog" Oglivie has burned his waders and hat, given away his rod, and turned his Cruise Master RV away from the famous Hemingway water in Michigan's Upper Peninsula, bound for reconciliation with his past. But some men never make it home. This is the fourth book in Galligan's fly-fishing mystery series.



Two Coots in a Canoe: An Unusual Story of Friendship

David E. Morine (Globe Pequot Press, $22.95, globepequot.com)

When retired CEO Ramsay Peard called his old friend David Morine and asked the longtime conservationist if he wanted to canoe the Connecticut River, Morine said he'd do it under one condition: no camping. "We'll rely on the kindness of strangers," he said. Mooching their way down the river and staying with strangers every night, they got an inside look into the lives of people and communities along the river, as well as each other.



Beyond Catch and Release: Exploring the Future of Fly Fishing

Paul Guernsey (Skyhorse Publishing, $19.95, skyhorsepublishing.com)

Written by the former editor-in-chief of *Fly, Rod and Reel* magazine, this 144 page book explores the responsibilities of anglers both on and off the water. A great tool for the novice and experienced angler alike, this informative and easy to read book succinctly covers a wide range of subjects including handling fish, angling manners, conservation ethics and a glimpse at the future of fly fishing.

The Clark Fork Goes Home

History was made last December when the historic Clark Fork River was returned once again to its natural streambed.

More than a century ago, the river's natural flows were interrupted when the Milltown Dam and reservoir were constructed to provide electricity for the local timber industry. More recently, the river was dammed and diverted for the past five years to allow for removal of the Milltown dam and clean-up of the reservoir site, which contained more than three million tons of toxic sediment.

"Trading a polluted, shallow reservoir for what we have now, a naturally functioning channel and floodplain at Milltown, is an important landmark for restoration of one of the West's great but long unappreciated trout rivers," says Bruce Farling, the director of Montana TU.

TU was one of the partners in the successful campaign led by the Clark Fork Coalition to remove the Milltown Dam and restore the original confluence of the Clark Fork and Blackfoot Rivers.

On the same day the Clark Fork entered its new channel, NorthWestern Energy Company signed over the title to 415 acres of river bottom to the state as part of a damage settlement for the century of mining pollution in the reservoir.

To see the restored confluence of the Blackfoot and Clark Fork Rivers, check out the Clark Fork Coalition's Milltown Dam Cam at www.clarkfork.org

Government Emails Support TU's Concerns Over the Frankenfish

A series of government emails and documents obtained through the Freedom of Information Act by the advocacy group Food and Water Watch supports the concerns of TU's staff and scientists that the proposed genetically modified salmon could have serious impacts on wild salmon stocks. The emails and other internal documents came from the U.S. Department of Interior's Fish and Wildlife Service, which has responsibility for protecting fish and wildlife.

In one of the agency emails, a regional USFWS geneticist congratulated a co-worker for pointing out "there is no data to support the claims of a low survival rate in the event of escape, which I agree with you all is a big concern. I also agree that using triploid fish (which AquaBounty claims have undergone a sterilization process) is not foolproof. Maybe they (the FDA) should watch Jurassic Park."

AquaBounty, the creator of the genetically modified salmon, has conceded that up to five percent of the salmon eggs could be fertile, which would pose a risk to the natural salmon species if any of the fertile salmon escaped. While AquaBounty claims there is no likelihood of that, one Fish and Wildlife Service supervisor is quoted as saying, "No matter what precautions you take, fish escape and once they do there is no closing the door."

A story in the winter 2011 issue of *Trout* quoted TU's Senior Scientist Jack Williams as saying, "AquaBounty may do everything in its power to keep these fish out of the wild, but as the technology becomes well known and as production ramps up with other people handling the fish, they may not be so good about following the rules."

Question & Answer

with Anders Halverson, author of "An Entirely Synthetic Fish"

Anders Halverson is the author of the critically acclaimed book, "An Entirely Synthetic Fish: How Rainbow Trout Beguiled America and Overran the World." The book provides a detailed and critical look at the worldwide stocking of rainbow trout beginning in the 1800s and the impact of that practice on native species. Halverson grew up in Colorado fishing the Yampa River with his father, earned a PhD in aquatic ecology and today lives in Boulder, Colo.

What was the one driving factor that led to the worldwide stocking of rainbows?

Fish stocking in general took off in the last part of the 19th century for a number of reasons. One of the most interesting was a deep-seated fear among the leaders of this country and others that industrialization was creating a bunch of "paste-complexioned youth" and "effeminate" men. The cure was to get people out fishing. But the fish had been wiped out in many places from the effects of the industrial revolution. And so they turned to artificially propagating and stocking them.

What has changed in terms of stocking and what has led to that change?

In the 19th century, the primary goal was to introduce fish as widely as possible and create self-sustaining populations … Later, people started examining stocking from an economic perspective … They concluded that stocking catchables was a much more economically efficient proposition. And so catchables dominated fisheries programs in the second half of the 20th century. Today, stocking is being increasingly questioned largely because of the impacts on native fish and native ecosystems.

What lessons can be taken away from the rainbow stocking practices of the past?

One thing that really struck me when I was writing this book was that the rhetoric they used in the 19th century to promote the propagation and introduction of non-native fish was very similar to the rhetoric you hear today about the restoration of native species. They were as sure then that they were doing the right thing as many of us on the other side of the issue are today … I'd urge everyone to be humble in their approach to these issues, and remember that whatever we do is bound to have unpredictable consequences.

What role can conservationists play in righting the fisheries wrongs of the past?

… I think there is so much value in the work TU members do when they go out and work on individual restoration projects … It's fulfilling on a personal level, but it also sends a very powerful message. Passionate volunteers have a disproportionate impact in our society. I also think it's important for everyone to know that they should and do have a voice in the management of our natural resources. Don't let the so-called experts tell you otherwise.

How has your book been received?

… For one thing, people seem to really love reading about the incredible stories behind these fish—they find them as fascinating as I did. One of my primary goals with this book was to tell a good tale, so it's been great to get that kind of response. But it also seems to have touched a nerve, it certainly generates some powerful opinions. Most of the people who have talked to me have embraced the book. But some have blasted it and accused me of arrogance, elitism, that sort of thing. It's better than indifference, I guess.

Today, stocking is being increasingly questioned largely because of the impacts on native fish and native ecosystems.

Watersheds

[BY CHRISTOPHER CAMUTO]

Discovery

MY NEPHEW MICHAEL CALLED ME the other day. He and his wife, Loretta, live near Virginia's Blue Ridge Mountains, once my angling stomping grounds. Michael is the other hardcore angler in the family. I vividly remember taking him trout fishing when he was a teenager, eager as I was, to fish for hours and miles. Once I taught him the mechanics of wading, casting and playing fish, he figured the rest out for himself—the whole soulful jazz and buzz of fishing fast mountain water. We don't fish together as much as we'd like anymore, but I get reports from time to time of his angling in Virginia and West Virginia.

"Uncle," he asked me when that recent conversation turned to fishing, "you know that trickle of water that comes in between the north and south branch?"

He was alluding to a little tributary that flowed near the junction of our two favorite trout streams. I knew it well although I hadn't thought about it in years. To fish either branch, you would park and gear-up in a hemlock-shaded spot alongside the north branch. There was a steep ridge to the west and a small stream—if you could call it that—dribbled down through an imposing mass of wet, mossy granite. A seepage more than a stream most of the year, it couldn't compete with the excellent possibilities up either of the main streams. But I remembered thinking many times that I should take a day to check it out.

"Sure, I remember it."

"Did you ever follow it up the mountain?" he asked without guile.

Even hundreds of miles away here in Pennsylvania my knees ached at the thought of that—a scramble up that steep slope of rocky scree, around and over car-sized boulders and up slick cliffs of Blue Ridge basement rock. Even though I have pretty good credentials as a bushwhacking angler who has followed many a blue line on a topo map, I had to admit to my nephew that I never scratched that particular itch of curiosity.

But Michael had (the tone of his question suggested as much) and he gave me a good report of a series of fine waterfalls and pools nearly all the way to the crest of the Blue Ridge. It was a rough clamber all the way up, but he confirmed that there were small brook trout in the stream, an isolated population best left alone to enjoy their quiet enclave in the company of whatever black bear, bobcat and timber rattlers made use of that rugged little watershed. At least now we knew what was up there.

I was pleased and amused that my fishing nephew had finished a decades-old thought for me, as if the object of such idle angling curiosity could be passed along from generation to generation. And though a bit chagrined at my own lack of initiative, I took his exploration as proof that he knew what trout fishing was all about. Angling is nothing if not a perpetual act of exploration and discovery. Discovery is perhaps the soul of angling—a search for fish and for everything related to the world of fish. The endless possibilities of discovery are perhaps the reason why the fishing habit rarely wears out for individuals and why the angling tradition has persisted with remarkable vigor for centuries.

Discovery in angling takes many forms. For most of us, angling leads to the discovery of rivers near and far. We read maps. We plan trips. We pursue once in a lifetime opportunities in Kamchatka, Patagonia, Scotland, Alaska or we discover the rivers that just happen to flow near where we just happen to live and work. We discover seasons and weather—the nature of summer angling and winter angling or the pleasures of fishing in the rain or in the dark. We discover who we want to fish with—pensive friends and garrulous friends, causal line-tossers and hard-core fishing jocks. And, needless to say, we discover useful things about ourselves.

Discovery is perhaps the soul of angling—a search for fish and for everything related

Thoreau famously wanted his garden to say "beans" and so he hoed and planted; we want rivers to say "trout" and so we cast and mend trying to *dis-cover* fish. Every cast is a search, and every hookup with a good fish a discovery that confirms we are good at finding what is hidden. To the non-angler, fishing is mindlessly repetitive—you've heard the complaint. To the angler, fishing is always fresh, an endlessly renewable act of discovery.

There are discoveries to make and unmake in the tackle we take on stream. We discover flies that work and don't work, remember flies we used years ago or try something new from a friend's fly box. If we are flush one year, we may discover the pleasure of a bamboo fly rod or, tightening our belt, discover a fine old fiberglass stick at a yard sale. We discover we don't need 90 percent of the gadgets we happily discovered years ago. As we angle on, most of us discover we can do more with less on stream—one favorite rod and reel, one fly box—except when it comes to time. We need as much time on stream as possible.

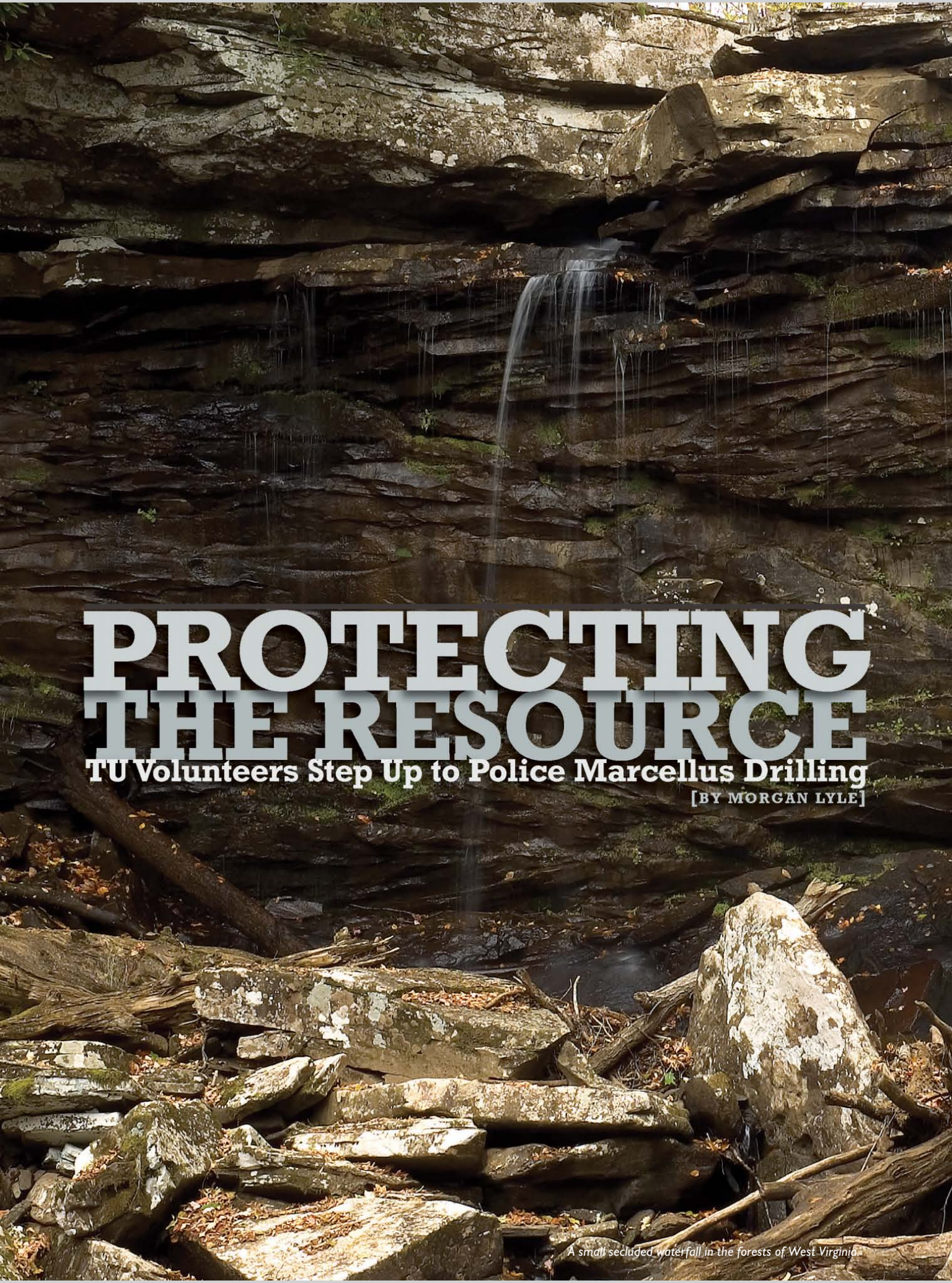
The word angling implies a search for something—for fish, of course, but a lot more than that. Cast for your next trout or, like my nephew Michael, cast about a mountainside for a new stretch of river. Fishing is a way of posing questions, a visceral, pleasurable way of testing the

search for fish to the world of fish.

way things are. What's up this stream? What's beside that rock? What insects are stirring on the streambed? Angling is an art of discovery so casual, so well camouflaged as recreation, that we may well forget the genius of it in the pleasure of the practice. In angling, the possibilities of discovery are infinite.

Chris is the author of "A Fly Fisherman's Blue Ridge" and other books. A columnist and contributing editor for *Gray's Sporting Journal*, he lives on Wolftree Farm in central Pennsylvania.

Appalachian mountain stream, Virginia.



PROTECTING THE RESOURCE

TU Volunteers Step Up to Police Marcellus Drilling

[BY MORGAN LYLE]

A small secluded waterfall in the forests of West Virginia.

When TU members and other river advocates gathered at a fire hall in eastern Pennsylvania last October to learn how to protect trout streams from the gas rush, they were issued stream monitoring equipment, operating instructions, field report forms—and a warning about human nature.

"Even if you see a guy with a tank truck and a hose discharging something into a stream, be courteous," Bob Volkmar told the two dozen or so volunteers in attendance. "Some of these truck drivers can get a little snotty with you. If that happens, leave."

Volkmar was explaining how TU members should conduct themselves as they try to keep an eye on the hundreds of gas wells being drilled in Pennsylvania—most of them in the rural highlands that give rise to fragile, irreplaceable coldwater trout streams. TU members in the Keystone State are fanning out to monitor their local rivers for signs of damage from hydrofracturing, the controversial technique for extracting gas from the Marcellus Shale formation, which underlies Pennsylvania and parts of New York, West Virginia, Maryland, Virginia and Ohio.

Fracing, as it has come to be known, requires water—which is often taken from fragile headwater streams—produces a waste of toxic brine and scars the countryside with well pads, access roads and pipelines. The industry insists the method is safe, but Pennsylvania officials recorded 970 environmental violations statewide from January through October 2010. Spills, fires and blowouts are consistently in the local news. Water is being delivered to homes whose wells have been ruined. More than a thousand miles of roads have been damaged. And as former Gov. Ed Rendell noted last summer, "The Marcellus Shale gas industry is just getting started in Pennsylvania."

Pennsylvania officials say they're watching the energy industry closely. The state's staff of inspectors has been increased from 88 to 196, says Scott Perry, director of the Department of Environmental Protection's Bureau of Oil and Gas Management. "We've got guys voluntarily working the graveyard shift. They'll show up at well sites at 11:30 at night," Perry says.

But with 2,315 wells operating or being drilled, and many more to follow, advocates worry the state inspectors simply won't be able to keep up. Serious damage could be done by a few bad apples—a trucker flushing fracing fluid in a creek rather than hauling it to a treatment plant, a water company stealing from a nearby trout stream to save the expense of transport from another withdrawal site, or a sloppy road builder who neglects to protect a nearby waterway from silt-laden runoff. The inspectors can't be everywhere.

TU is responding to the threat head-on. Longtime sportsman and conservationist David Sewak has been appointed to a new full-time position organizing sportsmen and women to become active on Pennsylvania Marcellus Shale issues, and volunteers from TU chapters across the state are undergoing sophisticated training in water quality monitoring.

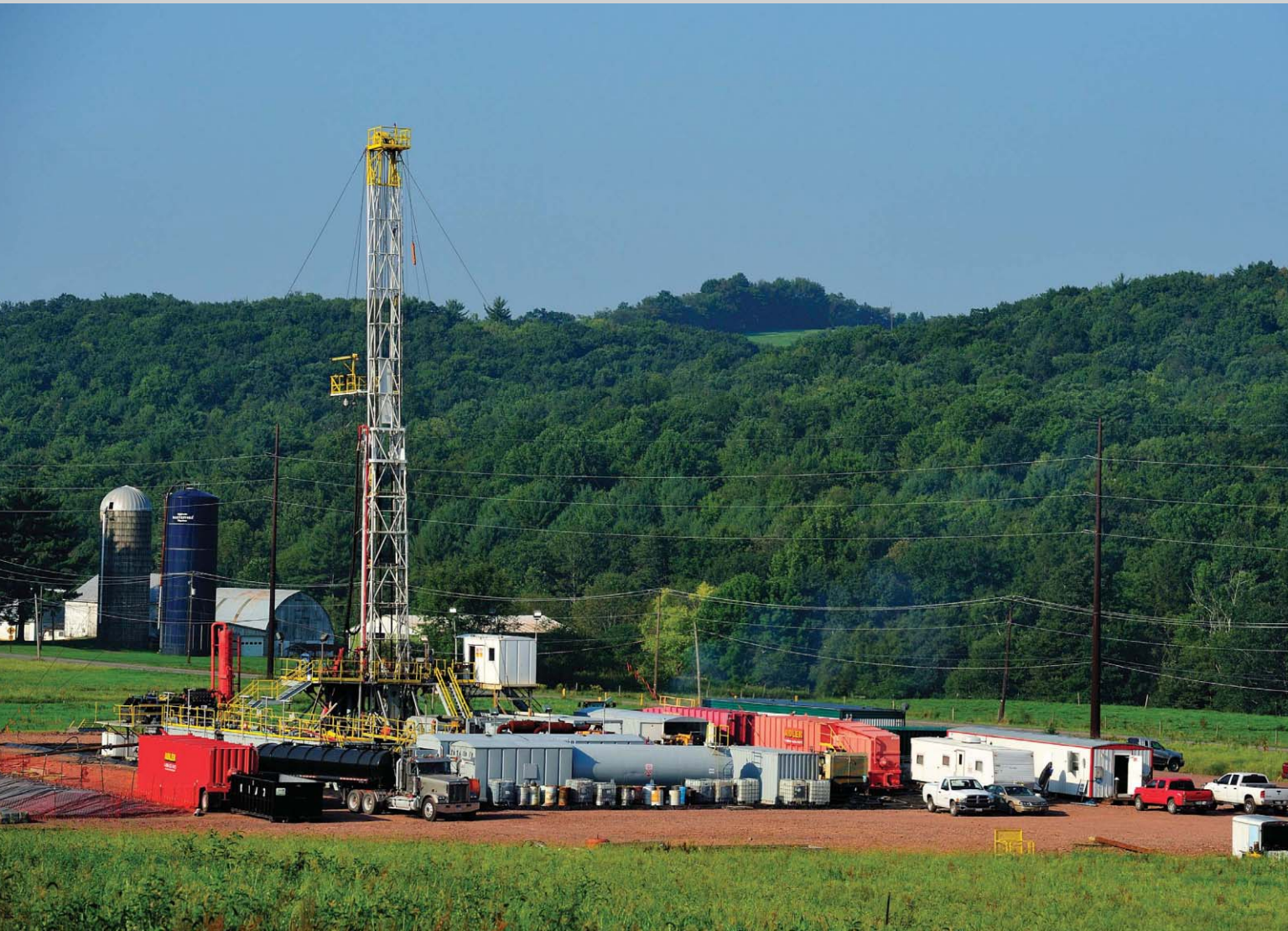
"This is right up our alley," says Volkmar, a member of the God's Country Chapter. "Who's out on the streams more than we are?"

In July, the Pennsylvania State Council and TU National established a Coldwater Conservation Corps, which is training TU members and other sportsmen to sample the flow and water quality of their local streams on a weekly basis. The effort began in the Sinnemahoning Creek watershed through a grant from the Headwaters Resource Conservation and Development Council and its Sinnemahoning Watershed Grant Program. The program was expanded statewide with a $75,000 grant from the Heinz Endowments. TU has contracted with the Alliance for Aquatic Resource Monitoring, based at Dickinson College in Carlisle, Pa., to train chapter members how to sample water, measure stream flow, watch for signs of contamination—and avoid confrontations with truckers hauling fracing water.

"THIS IS RIGHT UP OUR ALLEY. WHO'S OUT ON THE STREAMS MORE THAN WE ARE?"
BOB VOLKMAR

MORGAN LYLE

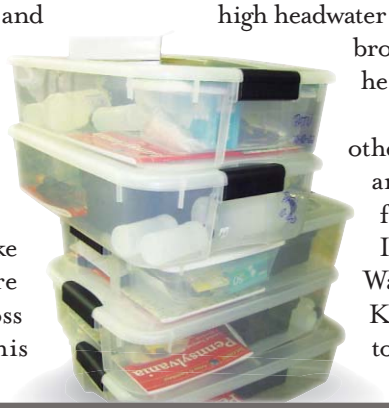
Watkins Glen, New York



"All the work at these drilling sites is being done by contractors and subcontractors," Volkmar told attendees at the training session in Noxen, Pa., a picturesque rural township west of Scranton. "The majority of them play by the rules, but some of them see an opportunity to cut corners. If the designated withdrawal site is 18 miles away but they know of a little stream nine miles away, they can save money."

Volkmar, Pennsylvania State Council member Debra Nardone and director of ALLARM Julie Vastine, told volunteers how to choose sites to monitor and how to measure and record conductivity, pH, total dissolved solids, flow and temperature, using $300 test kits and field manuals. The first round of testing will establish baseline levels; subsequent testing will detect sediment from shoddy construction or spikes in signature fracing chemicals such as barium and strontium. Monitors will also watch for visual cues such as bubbling gas, turbidity, oily surface film or dead fish. Findings of pollution or other degradation will be turned over to the authorities.

Toward the end of a full day of taking notes, flipping through the training manual, strategizing on table-sized watershed maps and squinting at PowerPoint slides on the fire hall's cinder block wall, some of the volunteers pulled on waders and headed across the road to Bowman's Creek, where Vastine showed them how to take samples with a LaMotte Tracer PockeTester.



Training sessions, like the one in Noxen, are being scheduled across the state in 2011. This grassroots effort is vital, because local oversight of Marcellus Shale drilling is lacking. In Pennsylvania, in the name of "streamlining," county conservation districts were excluded from the oversight process by the DEP in the spring of 2009. Across the border in New York, the state has declared its intent to supersede local governments in siting wells. As state governments regulate the gas rush with one hand but welcome it with the other, watchdog citizens are a critical line of defense against despoliation of coldwater habitat.

THIS GRASSROOTS EFFORT IS VITAL, BECAUSE LOCAL OVERSIGHT OF MARCELLUS SHALE DRILLING IS LACKING.

LEFT: VAL ATKINSON ABOVE LEFT: BARRY & CATHY BECK

"This is one of the things that sets Trout Unlimited apart from other conservation groups—the fact that we have this cadre of extremely dedicated, very knowledgeable and passionate people in the field who have a direct interest in and knowledge of local streams and local stream conditions," says TU President Chris Wood. "Their work to monitor and ensure that energy development isn't causing harm to fisheries and water quality is going to be extremely valuable, given the scope and scale of gas development in Pennsylvania, parts of West Virginia and perhaps soon in New York."

Wood noted that 73 percent of Pennsylvania's native brook trout habitat is considered extirpated or greatly reduced, while just 10 percent is intact or mostly so. That 10 percent lies in precisely the places considered most advantageous for gas extraction. "Those remaining streams, which are high headwater streams, those are our brook trout strongholds," he says.

TU volunteers in other gas states are ready and willing to step up for their local rivers. In New York, Eastern Water Project Director Katy Dunlap is working toward a statewide policy that protects waterways from inappropriate withdrawals, and the state council has established a Marcellus Shale committee to explore the possibility of launching a stream monitoring program. TU is also working at both the regional and national levels to require increased compliance with federal regulations, to improve state laws pertaining to regulatory oversight and water regulations, and to reach out to industry to develop voluntary best management practices.

Most energy companies would prefer not to spoil the environment, and Wood says TU may be able to help. Local members have first-hand knowledge of which watersheds are home to wild trout. They also are familiar with proper streamside setbacks and runoff—knowledge that could prevent ecological damage.

"Our hope is that energy companies will realize that Trout Unlimited can be an asset or an adversary," he says. "There's still time to do this right."

Tangled up in Growth

TU Works to Lessen the Impact of Development on Trout and Salmon

BY JEFF ERICKSON

Valley Creek, PA

MATT ROMANO

Growing up in Minnesota's Twin Cities metro area in the 1960s, Kent Johnson often biked to Nine Mile Creek to catch trout. Today, the trout are gone, lost to the impacts of urban development—a story that's been repeated on hundreds of urban trout and salmon streams from coast to coast.

Following the loss of his childhood creek, Johnson, now a board member of western Wisconsin's Kiap-TU-Wish Chapter, learned how poorly planned development can degrade coldwater habitat in a litany of predictable ways.

For example, urbanization often creates spikes in stream flows and temperatures. A summer downpour on sweltering blacktop instead of native vegetation can harm aquatic life when discharged directly into rivers. Those same impermeable surfaces inhibit infiltration, diminishing aquifer recharge.

Pollutants from lawns, streets and failing septic systems also contaminate streams. Construction near stream banks, and the presence of culverts and riprap in floodplains, diminish the natural function of streams, creating downstream erosion and channel changes.

At first glance, urbanization seems incompatible with trout and salmon. Fortunately, TU members throughout the nation are working with multiple partners to prove that notion wrong. And they're showing remarkable success.

A case in point is Wisconsin's Kinnickinnic (known as the "Kinni" to locals) where Johnson and other TU volunteers and partners are working together to protect the river. The Kinni has managed to retain its status as one of the Midwest's finest trout streams in spite of rapid residential and commercial development in Pierce and St. Croix Counties, which saw their populations increase respectively by 10 and 26 percent over the last decade. The retention of that status hasn't happened by accident.

Shaping how cities grow

The Kinni rises 30 miles east of St. Paul, Minn., in the shadow of more than 3 million people. The bustling college town of River Falls divides the upper and lower river. River Falls and the Kinni have long been renowned for wild trout—originally native brook trout, and now abundant browns as well.

Due to increasing development in and around River Falls, local TU members became concerned about thermal impacts and contamination from non-point-source runoff. Beginning in the early 1990s, the Kiap-TU-Wish Chapter established monitoring stations to document the effects of development on the river below River Falls. "Without unbiased scientific information on stormwater runoff," Johnson notes, "it's difficult to have a conversation with city engineers about stream impacts."

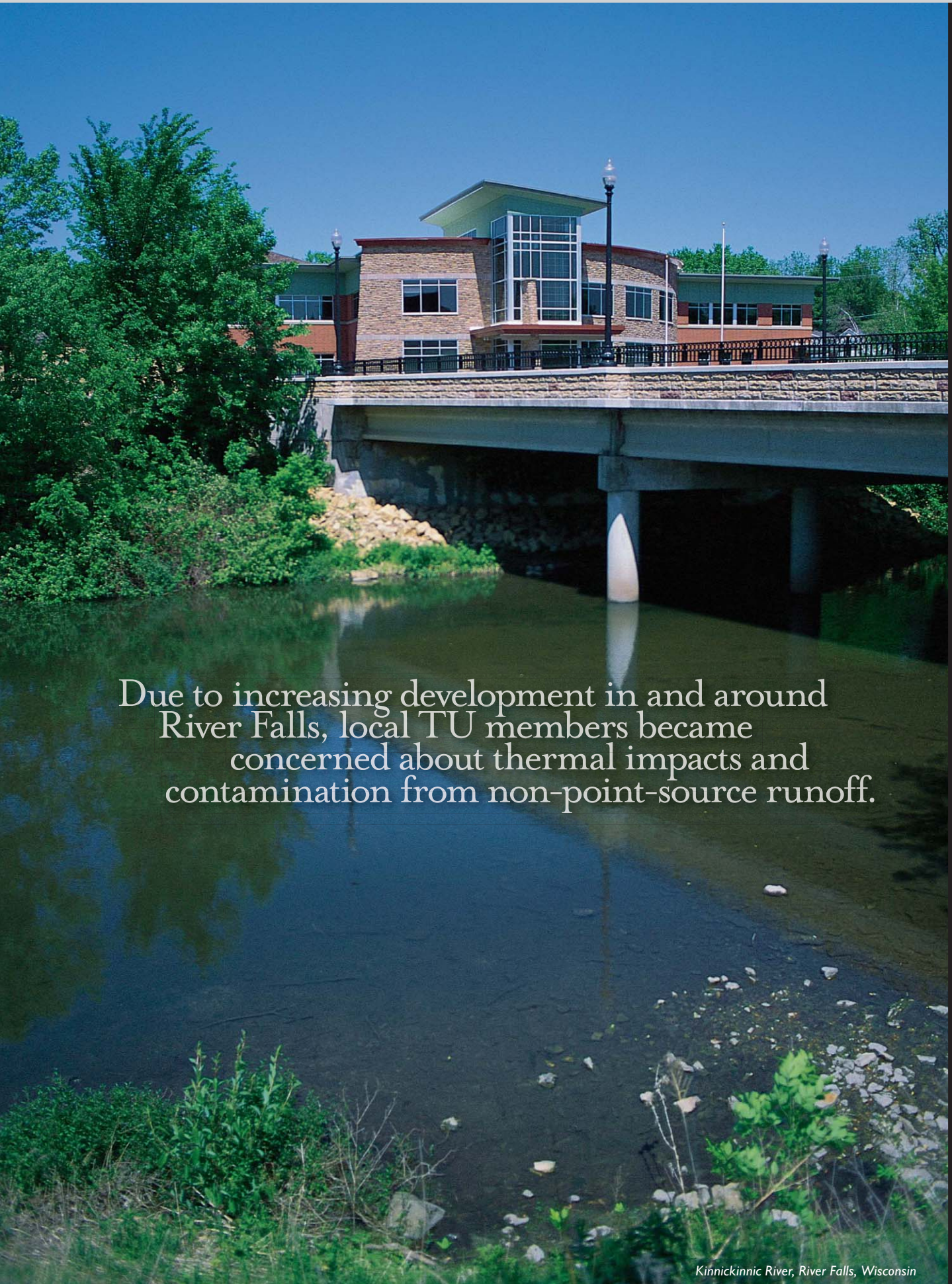
The monitoring showed that runoff was having significant thermal and chemical impacts. During summer storms, stream temperatures could rise 10 degrees Fahrenheit in just 20 minutes as warm, dirty runoff hit the river. The data established a foundation for moving forward with the city and other partners to develop solutions.

In 1994, working together with TU and others, River Falls completed a storm water management plan. Two years later, the city established a utility assessment to help pay for stormwater management projects, with the fee based on a development's amount of impervious surface area.

The city then notched-up their effort to reduce stormwater run-off with the implementation of a new ordinance. The ordinance applies to new development and specified redevelopment, requiring the first 1.5-inches of rainfall

LEFT: CITY OF RIVER FALLS RIGHT: JEFF ERICKSON

TROUT Previous Page | Contents | Zoom In | Zoom Out | Front Cover | Search Issue | Next Page qMags



Due to increasing development in and around River Falls, local TU members became concerned about thermal impacts and contamination from non-point-source runoff.

Kinnickinnic River, River Falls, Wisconsin

TROUT Previous Page | Contents | Zoom In | Zoom Out | Front Cover | Search Issue | Next Page qMags

Overall, the ordinance is preventing more than 90 percent of precipitation on affected properties from flowing directly into the river.

to infiltrate into the ground. Overall, the ordinance is preventing more than 90 percent of precipitation on affected properties from flowing directly into the river.

"People have been pretty creative in meeting the requirements," says Kristy Treichel, River Falls' water resources engineer. Residents may, for example, remove or alter existing impervious surfaces to help meet the regulations. The city offers a $30 rebate on rain barrels to capture runoff from roofs. Precipitation may also be redirected into rain gardens or infiltration swales—depressions that allow water to soak into the ground. Pervious pavers and permeable concrete are used for parking lots, sidewalks and driveways to help facilitate infiltration.

While the cooperative work in River Falls has had significant positive impacts on the lower Kinni, including a reduction in thermal impacts due to stormwater runoff, much of the development pressure has been outside the city. That's where local land protection efforts have helped. The Kinnickinnic River Land Trust recently worked with a landowner to purchase a 113-acre riverside parcel slated for 400-500 new homes. The $1.1 million purchase was creatively funded from a variety of sources, including the Wisconsin Department of Natural Resources and the U.S. Fish and Wildlife Service.

"None of this gets done without money," says Nelson French, KRLT's executive director. KRLT subsequently sold the property to the state, which has undertaken habitat restoration work.

French notes that KRLT only works with willing sellers and has a good relationship with realtors and developers. "Development and conservation are not necessarily incompatible … at the end of the day, people in this community want to protect the river," he says.

Johnson concurs, saying that "once you sit down and talk to people, you realize you have more similarities than differences."

Kinnickinnic River, River Falls, Wisconsin

RIGHT: JEFF ERICKSON

Protecting the resource through partnerships

While picturesque Seaside, Ore. is not a sprawling metropolis like the Twin Cities, the salmon and steelhead running up the Necanicum River to spawn—and their progeny running back down to the Pacific—nonetheless must navigate a phalanx of human-made bottlenecks throughout the watershed.

Alan Moore, TU's Northwest Habitat Programs director, works with the Tualatin Valley TU chapter and their partners, helping to make the Necanicum livable for both people and fish. According to Moore, Seaside is the kind of place "where you can still see wild coho spawners cruising upstream through peoples' front yards."

Thompson Creek, a Necanicum tributary on Seaside's northern edge, ranks among the Necanicum's best wild coho producers, despite being literally a part of Seaside's urban interface. The 80 or more coho pairs spawning in the Thompson's pristine upper reaches annually first swim by an airstrip, along a busy road, through several yards, and, more recently, right by a new housing development.

The housing development's original design featured more than 90 housing units. However, through negotiations with the North Coast Land Conservancy, the developer reduced that number to protect riparian areas, and even donated 80 acres for easements. "The conservancy was able to demonstrate the economic

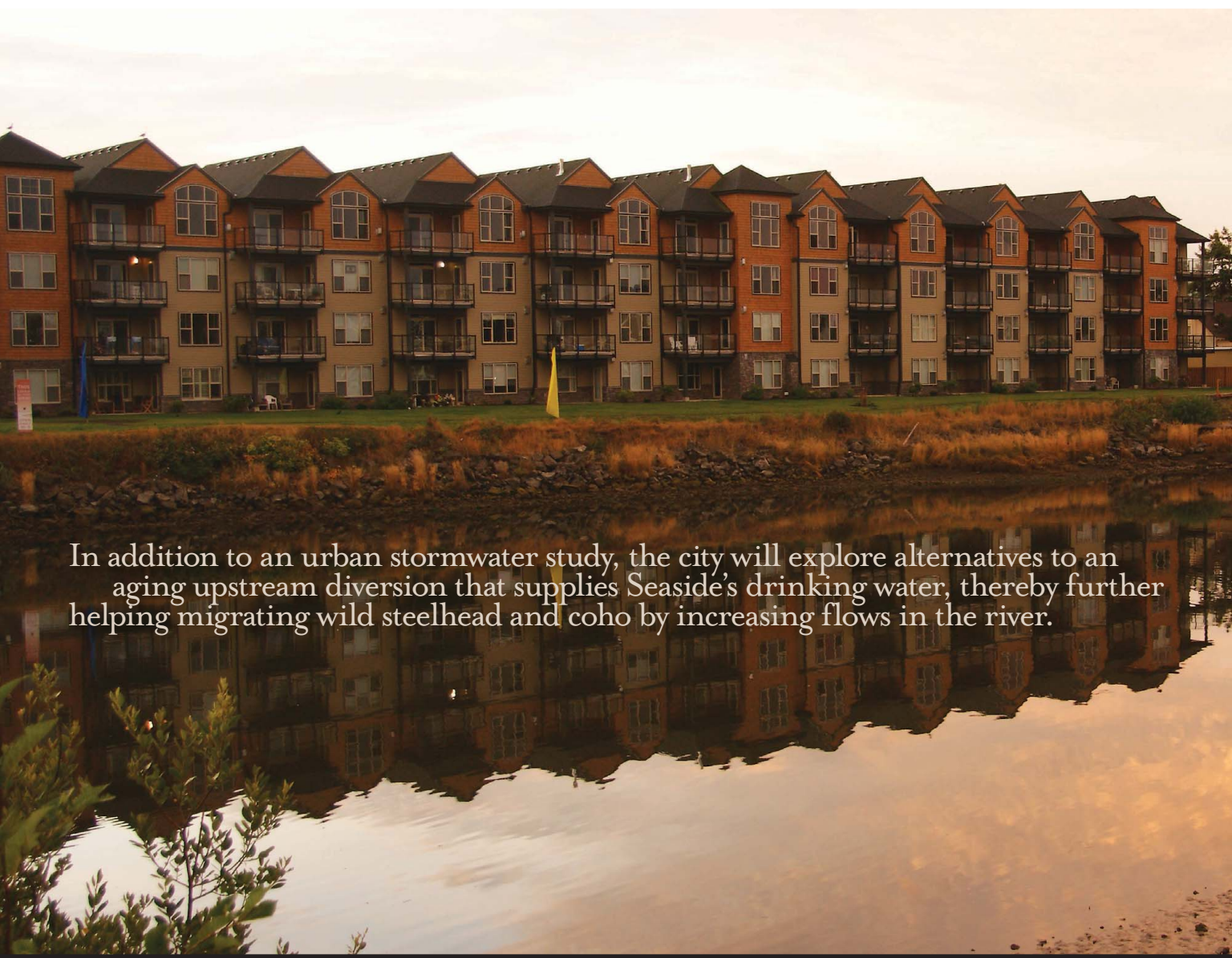
value to the project of having functional fish habitat on-site," Moore says. "The net result was protection and re-investment in the habitat that easily could have been written off otherwise." TVTU, in turn, has worked with the Conservancy since 2008 to restore Thompson Creek's streamside areas near the site, and as a result coho spawning there continues to increase. While in recent years a good run for Thompson Creek coho would have been around 160 adults returning to spawn, this year Conservancy observers counted roughly that number in a single day following a big rain.

Across town at Seaside Golf Club, joint efforts restored fish access and tidal function for miles of spawning and rearing habitat in Circle Creek, another key Necanicum tributary. Funded by a TU Embrace-A-Stream grant and the landowner, TVTU volunteers and their partners replaced the culvert that choked the confluence of Circle Creek with the Necanicum mainstem using a recycled bridge donated by a local construction company.

In addition to the conservation partnerships, getting local government involved has also been critical. According to Neal Wallace, Seaside's public works director, "Things have a tendency to trickle down from the top. In Seaside, the mayor and council want to be good stewards."

Wallace says that, in addition to an urban stormwater study, the city will explore alternatives to an aging upstream diversion that supplies Seaside's drinking water, thereby further helping migrating wild steelhead and coho by increasing flows in the river.

One of Seaside's largest landowners, the Conservancy continues to work closely with TU and other partners throughout the watershed. "We have been able to foster relationships to maintain the connectivity and ecological functioning of the estuary. Each group focuses on their own individual strengths; we don't need to do it all," says Katie Voelke, the Conservancy's executive director.



In addition to an urban stormwater study, the city will explore alternatives to an aging upstream diversion that supplies Seaside's drinking water, thereby further helping migrating wild steelhead and coho by increasing flows in the river.

JIM YUSKAVITCH

Circle Creek

ALLEN L. WOOSLY

Necanicum River, Seaside, Oregon

Voelke says a proposed Necanicum Estuary Natural History Park, which will protect the critical mixing zone between salt and fresh water, is bringing Seaside residents together, not pushing them apart. The project "is bringing the whole community in, not just environmental groups," says Voelke. "What has been so rewarding has been to see what we have in common, which is love of place."

Mike Gentry, TVTU president, agrees on the importance of broad community involvement. "The most significant thing our chapter has done is help create projects that coastal residents recognize as ecologically beneficial as well as good for the community."

Persistence at the local level

When Gen. George Washington's Continental Army hunkered down at Valley Forge in 1777-78, the soldiers would never have imagined the remote landscape along Valley Creek becoming a magnet for urban growth spilling west from Philadelphia.

But today, upstream runoff from impervious surfaces imperils Washington's old headquarters with floods. The same torrents that inundate Valley Forge National Historic Park also threaten native brook trout and wild browns upstream.

As on the Kinni and Necanicum, local TU members have been working collaboratively to address the problems. Beginning in 2000, chapter members helped establish the Valley Creek Restoration Partnership, comprised of TU and other conservation groups as well as the League of Women Voters and a mix of government agencies. "Reach out with partnerships," advises Valley Forge Chapter member Owen Owens. "And when you have to fight, do it with a coalition."

With assistance from TU national, an initial success for the chapter and its allies was forcing the state to designate the Valley Creek watershed as having "exceptional value," which will protect the stream from future uses that may

degrade stream quality. Owens attributes that success to TU's grassroots make up. "When you have a group of volunteers like TU, it makes a huge difference—it stiffens the spines of the regulating agencies," he says.

TU member Frank Donohoe—who regularly attends local planning commission meetings—agrees that the key to permanent change is local involvement. "You've got to get involved at the local level to institute permanent change. Know the township people and engage them and be persistent."

An example of the partnership's persistence occurred in 2003, when they selected Crabby Creek, a tributary to Valley Creek, as a flagship project. The stream had been ravaged by runoff from impervious surfaces, which now cover approximately 30 percent of the drainage, and by the 1990s its population of native brook trout had disappeared.

The restoration hit early bumps when portions of the restoration work washed out but members of the partnership remained undaunted.They viewed it as a learning experience and worked to correct the deficiencies. Brook trout were reintroduced to Crabby Creek in 2009. "The stream is the teacher, not us," says Owens.

As in the other places, outreach has been crucial for the partnership. "Without educational work, you don't get the motivation of landowners," says Owens. Similarly, chapter members are working to provide resource information to the Pennsylvania Turnpike Commission to help improve a proposed highway project. Local schools have also been part of the equation. "Trout in the Classroom has been fantastic," says Donohoe. "The teachers and kids just go bananas."

The efforts have paid big dividends, including the passage of better regulations. "When we started the chapter, no one wanted to listen," says Owens. "Our biggest opponents were township supervisors with ties to the building industry. Now, we have a new generation of leaders who understand how a watershed works."

Owens notes the group's biggest accomplishment and remaining challenge is reducing the volume and rate of stormwater off roofs, roads and parking lots. Ongoing development notwithstanding, he says Valley Creek remains "an exceptional wild trout stream." He maintains that "saving an urban watershed may seem impossible, but if you move in a direction, miracles can happen." He could just as easily have been talking about the Kinni or Necanicum.

Moore echoes that sentiment when he describes the fishery that has benefited from the work that's been done on the Necanicum. "It's getting better rather than worse. You don't want to write off streams because they have been impacted by development; they are amazingly resilient."

Ultimately, rampant development will never be in the best interests of coldwater fisheries. Nonetheless, with collaboration, broad-based planning, creative engineering, adequate funding, community education efforts and sufficient tenacity, even rapidly growing areas can maintain good coldwater habitat, allowing a new generation of kids to search for the magical experience that neighborhood trout and salmon streams afford.

To experience an aerial tour of Seaside, Ore. and the Necanicum River, and videos of coho salmon navigating Thompson Creek as well as protection efforts directed at the Kinnickinnic, go to TU.ORG/BLOG

The Importance of Streamside Buffer Zones

Riparian buffer zones are one of the best tools that exist for protecting coldwater fish from development. Buffer zones help to segregate practices that would otherwise degrade streams by filtering out their effects. The key is to provide a secure area of native vegetation that is wide enough to help shade and protect the bank, filter out pollutants, lessen the impact of floods,and provide habitat. The necessary width of the zone is dependent on many factors, including the types of nearby development, existing quality of the stream and the stream's location within the watershed.

Fishing TU's Home Waters:

Fishing Pennsylvania's Valley Creek

BY FRED GENDER

In the winter of 1777-78, Gen. George Washington and the Continental Army arrived in Valley Forge, a little village 18 miles northwest of Philadelphia, Pa. He selected this area because of its natural characteristics, including the presence of water. During the six-month encampment in the valley, Washington built, trained and inspired an army that would go on to defeat the British and allow a nation to be born…and "a river ran through it." Actually, a river and a creek ran through it—Valley Creek.

Valley Creek is a cold, clear lowland stream that meanders through the Great Valley and the tall grass meadows of Valley Forge National Historical Park before passing directly in front of George Washington's headquarters near its confluence with the Schuylkill River. The presence of significant limestone deposits keeps its waters running cold through the summer and warm in the winter, creating a year-round fishery. The high water quality of Valley Creek, its tributaries and springs supports a Class A Wild Trout Stream fishery. The national park, along with its neighbor the village of Chesterbrook, provides several miles of public access to this 15 to 20-foot wide gem. No-harvest regulations have allowed the population of brown trout to grow old and selective.

You can always tell the anglers who fish "Valley," as they are the ones with patches on the knees of their waders. This small stream requires a stealth approach, long, fine tippets and patience. The dry-fly fishing starts with the new year, when on sunny winter days you can often find trout rising to midges in the afternoon warmth. Long leaders of 9-12 feet tapered down to 7x tippet will be required not to disrupt the stillness of a winter day.

The midge season fades into spring and the best hatches of the year. Trout will actively feed throughout the spring season on blue-winged olives, yellow crane flies, caddis flies and sulphurs. These hatches can be heavy and you can often fish closer and use a shorter leader and heavier tippet. This is also the time of the year when you have those days that you can do no wrong. Enjoy it while it lasts because you're about to be humbled; summer marks a tough time on the creek.

There are no significant hatches during the summer and the fish are wary, having spent the previous three months seeing lots of anglers. However, working the low flows of summer with an ant or beetle imitation can often pay off. In the fall, when the days get shorter and cooler and the browns are getting ready to spawn, they will often drop their summer shyness to rise to little blue-winged olives and fall caddis.

When you get one of these richly colored beauties to your hand you know why you go through the extra effort to catch wild trout. Valley Creek is not only an outstanding natural resource, it flows today, as it has throughout history, across one of the most historic places in our nation, making it everyone's home water.

INSET: TOM WHITTLE RIGHT: BARRY & CATHY BECK

MARK LANCE

San Juan Mountains, Colorado

PLACES

BY CHRIS HUNT

EVERY YEAR, TU INVESTS

thousands of volunteer hours and millions of dollars to reconnect and restore coldwater fisheries habitat. Staff and volunteers alike take great pride in knowing the work they do makes it possible for their children and grandchildren to experience the thrill of a trout on a tight line.

Righting past wrongs is only part of TU's overarching mission. Perhaps the best investment the organization's members make goes toward protecting those intact landscapes that offer untold opportunities for the angler or hunter without the need to go in and fix a host of problems. This is the "protect" component of TU's "protect, reconnect, restore and sustain" conservation model—an effort the Sportsmen's Conservation Project specializes in.

The staff of the SCP identifies intact western landscapes and works to ensure they stay that way in the face of ever-encroaching development. Over the years, the SCP has spearheaded efforts to protect some of America's most iconic places, including Montana's Rocky Mountain Front, the Wyoming Range, New Mexico's Valle Vidal, Idaho's roadless backcountry and dozens of other landscapes that, without TU's advocacy, might not be the special hunting and fishing destinations they are today.

These places likely sound familiar to most TU members. But what about the vast majority of the American sporting public who are not TU members? What about the casual weekend angler or the once-a-year whitetail hunter, or the folks who save for years for that dream trip out West? A year ago, it became increasingly evident that TU was doing a great job educating and mobilizing its "base," but was struggling to reach the sporting public as a whole.

Enter *Field and Stream* magazine. With a monthly circulation of 1.5 million readers and half million monthly online hits, the magazine reaches a demographic that's highly desirable for any conservation organization. It reaches the men and women who love to hunt and fish, but who might not have the information at their fingertips to get directly engaged in conservation efforts designed to protect the resources they cherish.

In 2010, TU and *Field and Stream* launched the Best Wild Places project, which has since become a fruitful partnership for both entities. The partners identified half-a-dozen destinations that offer unique and outstanding sporting opportunities but are faced with threats from a number of sources.

From June to October 2010, TU and *Field and Stream*'s stable of gifted writers—including Hal Herring and Kirk Deeter—toured the six landscapes described below and posted detailed and amazing online content on fieldandstream.com. Then in the December 2010-January 2011 double issue of *Field and Stream*, readers got a look at the six Best Wild Places through the lens of gifted photographer Kevin Cooley.

Here are the Best Wild Places where TU is currently working to protect both the natural resources and the sporting opportunities they provide.

MARK LANCE

Green River, Utah

Roan Plateau

MARK LANCE

THE ROAN PLATEAU, COLO.

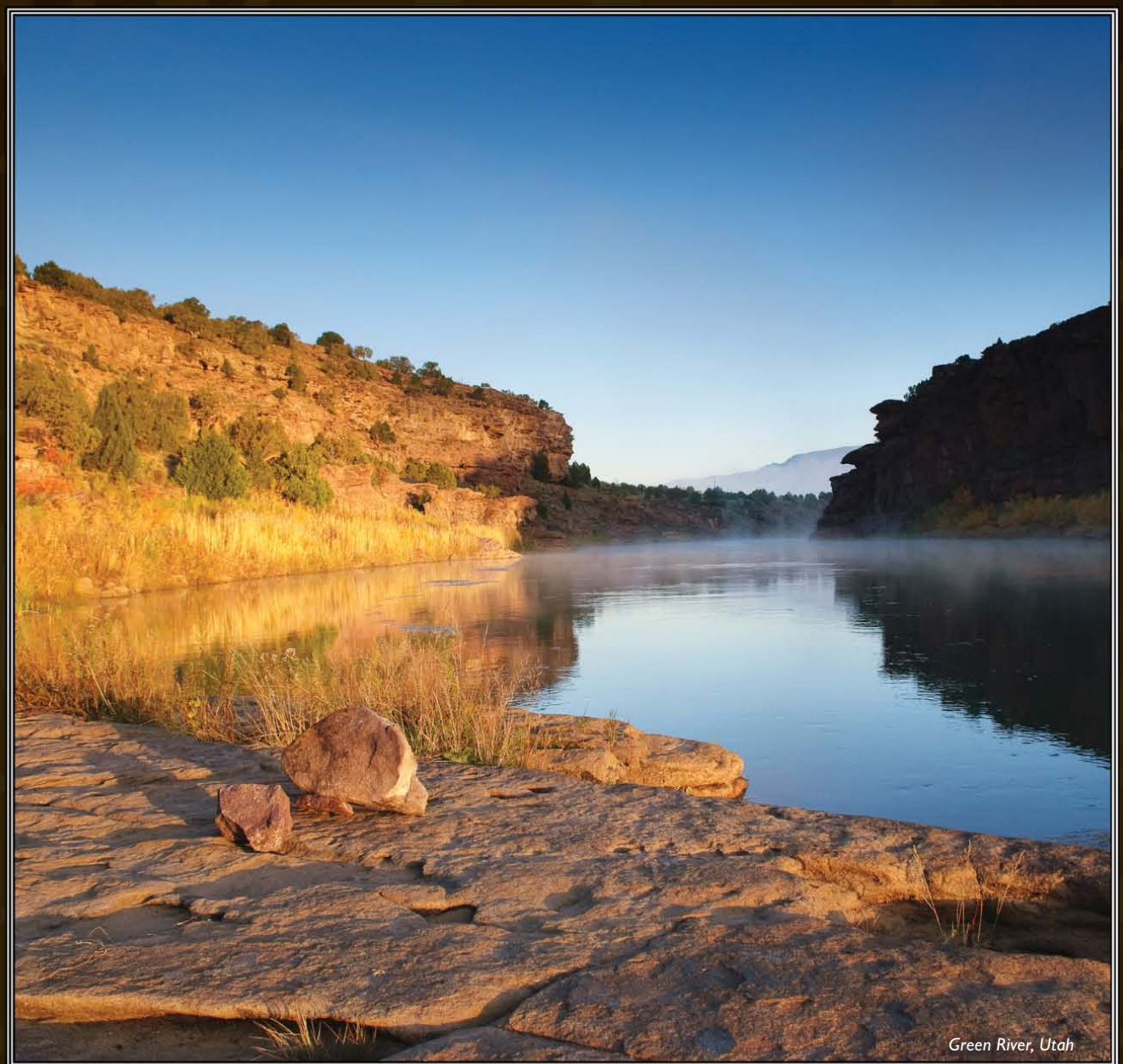
TU members certainly know the basic details about the Roan and its priceless population of Colorado River cutthroat trout. Sadly, the Roan was leased for full-scale natural gas drilling in 2008—generating $114 million as the largest inland natural gas lease sale ever. The Roan is also the last real oasis of fish and game habitat in the Piceance Basin of northwest Colorado, providing trophy mule deer and elk hunting as well as fishing for a unique strain of Colorado River cutts that have evolved for eons above a system of waterfalls. Haphazardly drilling the Roan could very well be the death knell for those native trout populations, and it would certainly have a detrimental impact on big game habitat and hunting opportunities. Today, TU and its conservation partners are embroiled in a legal battle to force a rethinking of the proposed drilling plan. In the meantime, the Roan remains one of the best backcountry hunting and fishing destinations in Colorado.

Animas River

AARON OTTO

THE ALPINE TRIANGLE, COLO.

This vast span of alpine splendor in the heart of the San Juan Mountains is arguably the best of what's left of Colorado. Criss-crossed by an often-used system of four-wheel drive roads, it's also a tourist destination that makes it possible for sportsmen and women to enjoy fishing and hunting opportunities with relative ease. As TU works to "keep it like it is," a number of threats sit on the horizon, not the least of which is the potential for new hard-rock mining activity. In a region where some of the watersheds are just now emerging from dark, polluted pasts—the Animas River, for instance, is becoming a trophy trout fishery as a century's worth of pollution is slowly cleaned up and flushed out—new hard-rock mining for questionable returns could negatively impact the real potential gold mine of the region—tourism.



Green River, Utah

MARK LANCE

THE OUTLAW TRIANGLE, WYO., COLO. AND UTAH

Situated along the remote three-state boundary of Wyoming, Colorado and Utah, this is the region where Butch and Sundance retreated when pursued by the law for their nefarious deeds. It is home to the Green River below Flaming Gorge Dam, perhaps the West's best tailwater trout fishery. It also includes Little Mountain, an "American Serengeti" that is prime habitat for moose, elk, mule deer, pronghorn and native Colorado River cutthroat trout. Efforts are afoot to remove millions of gallons of water from the Green and pipe it over the Continental Divide to Colorado's Front Range, and much of Little Mountain is leased to the oil and gas industry for drilling that could bisect big game migration routes and potentially threaten fragile native trout streams. TU is working to stop the wrong-headed water diversion and to prevent drilling in areas of Little Mountain where industrial-grade activity would severely impact fish and game habitat and hunting and fishing opportunities.

Gila River

THE GILA NATIONAL FOREST, N.M.

Home to one of the most prolific trophy elk herds in the country as well as the rare, native Gila trout, this remote landscape is truly a sporting paradise. Unfortunately, it faces the challenges that come with being productive from the sporting perspective—it's being "loved to death." Bisected by a maze of off-road-vehicle trails that throw silt and sediment into trout streams and interrupt important migration routes, the Gila could benefit from greater restraint within certain sectors of the sporting community. TU is working with local volunteers and the Forest Service to rein in the uncontrolled creation of illegal trails, legitimize functional routes and close or reroute those trails that harm the resources.

Marble Canyon, Kootenay National Park

MINDEN PICTURES/BOB GIBBONS

THE YAAK VALLEY, MONT.

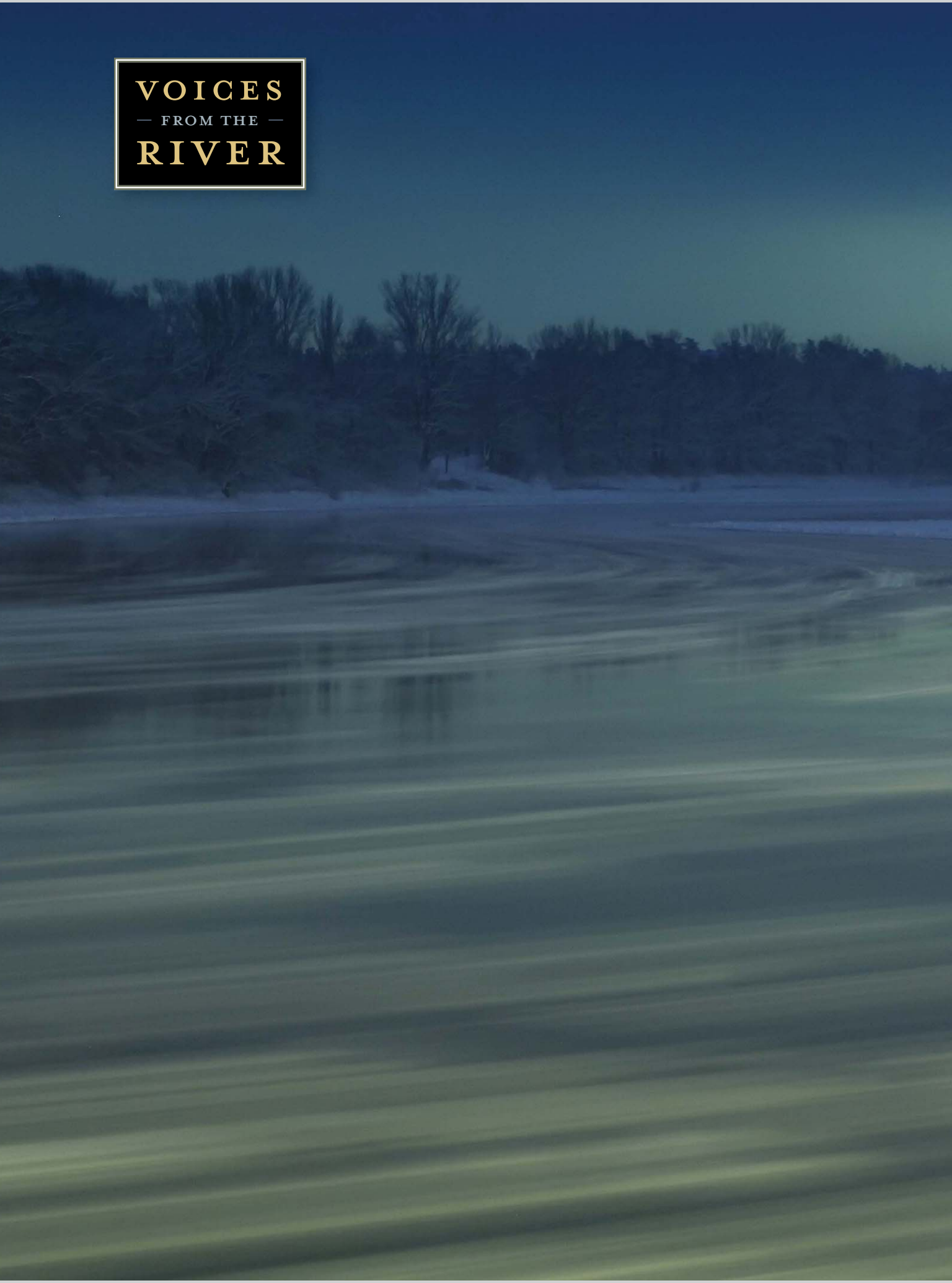
Located a stone's throw from Canada, much of this Rocky Mountain rainforest could one day become part of the first new wilderness complex in Montana in a generation. The area boasts amazing fishing for westslope cutthroats, native redband trout and rare bull trout, as well as excellent deer and elk hunting. Portions of the Yaak were included as new wilderness in Sen. Jon Tester's Forest Jobs and Recreation Act, which unfortunately was put on the back burner in the final days of the last Congress. However, Tester's bill, including its protections for the Yaak, was recently reintroduced in this Congress.

MARK LANCE

THE PINE FOREST RANGE/BLUE LAKES, NEV.

This unique sporting destination is the focus of another of TU's "keep it like it is" campaigns. Much of northwest Nevada's Pine Forest Range, including the Blue Lakes complex, is designated as a BLM Wilderness Study Area—it is managed as wilderness, but not officially protected as such. TU is working with the Humboldt County Commission to make that protection permanent, while revisiting the merits of other WSAs that, over the years, have been impacted by fires and overgrazing —for example, much of the Pine Forest region is overrun with wild burros and mustangs. In an odd turnabout, the best way to improve these landscapes is to remove the WSA designation, which will allow for habitat improvement. Blue Lakes is managed for backcountry fishing for rainbow, brown, brook, cutthroat and tiger trout, and the region is home to excellent mule deer hunting, as well as to some of the best chukar and sage grouse hunting in the country. It might be the best place in the state to shoot a chukar in the morning, and land a 20-inch trout in the afternoon.

To experience a video tour of the Best Wild Places, go to **TU.ORG/BLOG**


VOICES
FROM THE
RIVER

River Home

BY DEBRA MAGPIE EARLING

Rivers tell us stories.

My parents had been looking to buy a house, and when my mother saw the house along the river she wanted it, a house we could just afford and yet a house far removed from the trailer life we had known, a house with a carved wooden banister, a river-stone fireplace, a sleepy house perched above the green tangled currents of the Spokane River. It was the house of my mother's dreams, a luxury house with hardwood floors, a sunny kitchen with a pantry bigger than the room my brother and sister and I shared. I remember my mother and father walking through the open rooms, the gleam of our faces in the picture windows. They surmised that the house was haunted because it was so affordable. It was the home they would raise us in, they told themselves, a safe home with room to grow where we would all find certain happiness.

My parents didn't buy that house; they didn't buy that house my mother told me, because when they stepped outside to look at the lawn that stretched down to the deep river's edge they saw me enter the water. You were fearless, my mother tells me even now; we know we would have lost you to the river. And when she tells me this story I see myself as a child, wading into the cool embracing waters, knowing the story my parents had told themselves was true.

Rivers bear the stories of sorrows. My Aunt Louise died in the blue, cold winter of 1947, long-legged and wistful at the age of twenty-three. The car she was traveling in plummeted off an embankment and landed on its top on the railroad tracks a glance away from the Flathead River at the edge of Perma, Mont. The law-enforcement officials laid her on a flatbed car in the fog-silver night. She was alive still, her dim cloud of breath rising above the heat of her body. It was a night so thick with clouds the valley was lit like heaven. The last and only light my aunt must have seen was the flickering light of the Flathead. The last thing she must have heard was the water stirring deep in the channel, calling her.

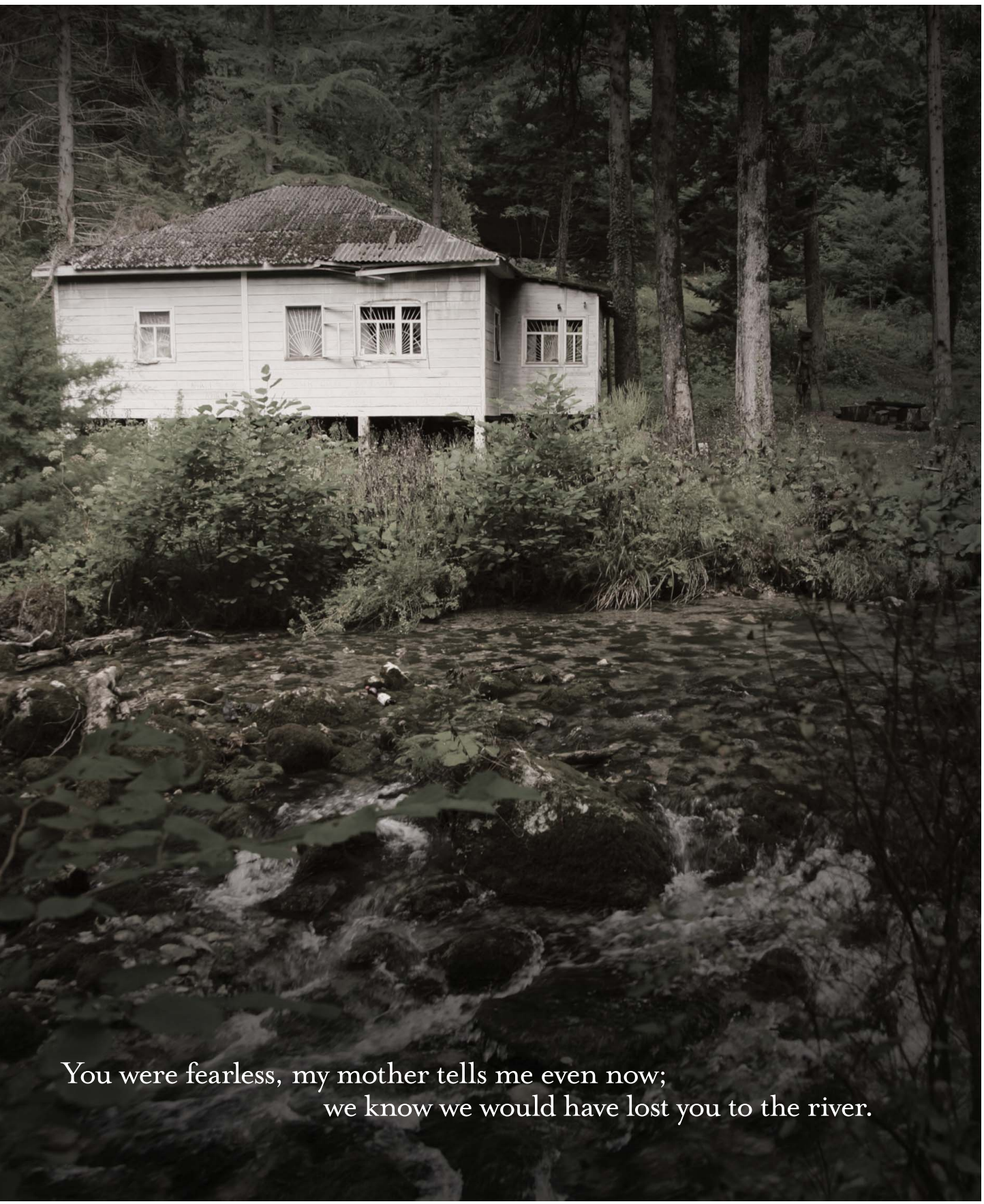
They pushed the accident car into the river. Not many years ago, my mother's old neighbor, who owns the river property where Louise died, called my mother to tell her he had been out in the pasture and looking toward the river, and he saw the shell of the old LaSalle rusting in the waters. After all those years it's still there, he told her.

I had to see it, and a few days later I found myself walking along the old railroad tracks beside the Flathead River. The water ran palest green over the alkali river bottom. The weeds had turned the color of corn silk, the color of my true love's hair, and he walked beside me, silently scanning the river's edge. He stepped quietly on the railroad ties, a man who had grown up along the North Fork of the John Day River, a man who knew the hardship and beauty of water. I believe he told himself the same story my parents had told themselves years ago. He, too, was fearful I would enter the river water. And he was right.

The river called to me, the slow meticulous currents, the sweep of the sweet water churning over boulders the size of my parents' small house, the curl of the slow pools at the river's edge.

Robert understood the pull of river currents, because the river claimed him as a child. He had been running

TROUT Previous Page | Contents | Zoom In | Zoom Out | Front Cover | Search Issue | Next Page qMags

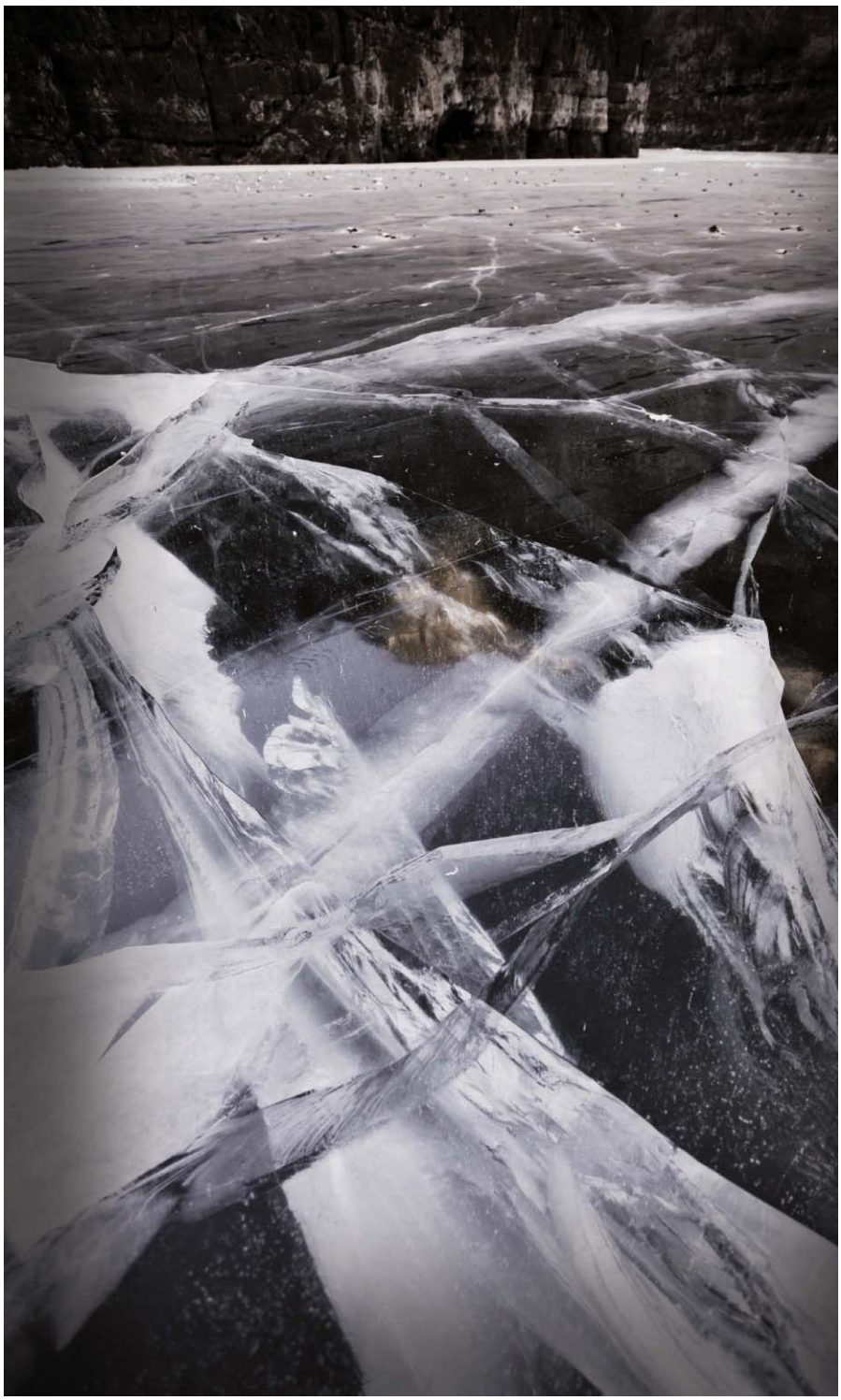


TROUT Previous Page | Contents | Zoom In | Zoom Out | Front Cover | Search Issue | Next Page qMags

cattle across the frozen John Day when his footsteps shattered ice. The day had been loud with the sound of cattle cries, whoops and hollers, and then he had dropped into the deep silence of the cold water, a somber silence the color of dreams. Robert had reached up to grab anything, to catch the lid of the frozen river, but his fingers only glanced the belly of ice worn by the racing water to a cover so slick and smooth it could not be grasped and barely touched. He could see only his father's frantic ice-haloed face for one hard moment above him.

As he told me the story I could see his struggle, a child trapped in a coffin of white light, racing his hands along the shroud of ice, inches beneath the clopping hooves of cattle and his father running the river over him. It was like touching nothing at all, he told me, a soundless surface, a silver, seamless plane that had brought him a calm he hasn't felt since. He told me this story lifting his palms in remembrance, and I could see his face beneath the water glaze. I could see his hands gracing the slip of ice, Robert's father chasing him until finally hooking him with his arm at a rock break, snagged him pale and gasping from the river that had longed to hold him. Robert looked down the long length of the Flathead and hooked his arm through mine.

We walked the Flathead River bank for miles that day, squinting into the sun-hardened water, but we did not find the remnant of the car my young aunt had died in. We found our own imaginings of that car. I see it now, parked in the ride of clear water, sifted by scarlet bramble, the windows long gone. I see myself entering the water looking through the windshield. I see the floorboard worn and broken by water, the back seat gone, the rusted frame. I peer through the back of the river-claimed window and see my aunt's red hair snaking in the riling current. I hear the soft sounds of water pushing at the silted husk, the old car sinking to years. And my imaginings of the car



are more luminous, I believe, than the reality of what I would have known had we found the car. The river told me the story in each wave lap. The river guarded the secret of her memory, guarded me from that last hard look at my family's history. And in some strange and longing way I thank the river for that small grace, because the river waters have cradled my darkest memories.

This is an excerpt of an essay that originally appeared in "The River We Carry With Us: Two Centuries of Writing from the Clark Fork Basin." To read the entire story go to TU.ORG/BLOG

News from the Field

Actionline

West Virginia	Students work to restore Potomac headwaters. 48
Colorado	Collegiate Peaks Chapter helps with creek restoration. 48
Pennsylvania	From the streets to streams— chapter shows youth how to turn their lives around. 49 Hokendauqua Creek gets a little TLC. 50
Connecticut	Hammonasset Chapter nets a big success. 50
New York	Barber Stream restoration and bank stabilization project. 51
California	Trout in the Classroom teachers trained. 51
Other	Youth Conservation Camp schedule. 54 Tips & Tools 52 Stream Champion 55

Grassroots Spotlight

On-the-ground chapter success stories

Students Work to Restore Potomac Headwaters

WEST VIRGINIA

In 2010, nearly 800 students from West Virginia, Virginia, Maryland and Washington, D.C. stepped outside of the classroom to learn about local streams and to plant thousands of trees. All of these youth were participants in TU's Potomac Headwaters Youth Education Initiative.

The project engages students in watershed education and riparian restoration projects at various stream locations throughout eastern West Virginia. Many schools visited a TU restoration site on Big Run, one of the few remaining intact brook trout watersheds in the state. While there, they participated in a variety of activities, focusing on the natural history of the area, land use issues within the watershed, the life and struggles of brook trout and the importance of protection and restoration. All of the students assisted TU volunteers in planting trees at the site.

In the weeks following their trip to Big Run, the students were again engaged in a monitoring and restoration project, but this time on a stream in their locality. TU works with local agencies and landowners to establish new restoration sites within the students' watersheds. In 2010, teachers and students restored riparian forests at six sites in the Potomac River Watershed in West Virginia.

"There are many benefits associated with these local restoration and education projects," says Josh Nease, the project coordinator for TU.

According to Nease, students learn the importance of stewardship and conservation while gaining valuable knowledge about the area they live in. Participating landowners receive assistance in accomplishing their conservation goals, while adding value to their land. Teachers expand their knowledge about watersheds and streams and spawn curiosity within their students, helping foster a desire to learn. As the new forests mature overall stream quality will improve.

Much of the work done by the Potomac Headwaters Youth Education Initiative is implemented in partnership with The Mountain Institute's Appalachian Watershed and Stream Monitors program, a year-long watershed education program for teachers and students. Together, the partnership facilitates a four-day professional development workshop for teachers and outdoor field trips where their students investigate stream health and complete streamside tree planting projects.

Nease says that 16 schools have participated in the restoration projects this school year, planting nearly 3,000 trees along newly protected streams in West Virginia's Potomac Highlands. This work is funded by the National Oceanic and Atmospheric Administration's Bay Watershed and Training program for the Chesapeake Bay.

For more information on local restoration and education projects for students, visit www.tu.org or email Josh Nease at jnease@tu.org.

Collegiate Peaks Chapter Helps with Creek Restoration

COLORADO

The Kerber Creek Restoration Project in the San Luis Valley of Colorado was recently given a prestigious award from the U.S. Forest Service and from the Bureau of Land Management. The USFS gave the project the "Water Partner of the Year" award for the Rocky Mountain Region. The BLM presented project Director Bob Abby with the 2010 "Hardrock Mineral Environmental Award" for implementing principals of sustainable development.

Kerber Creek originates high in the San Juan Mountains of Colorado and flows south and east for 25 miles through the towns of Bonanza and Villa Grove, ending at San Luis Creek. Silver was discovered in Bonanza in 1880 and mining in the watershed continued until the 1970s. Mine tailings accumulated, and high flows and destruction of tailing dams caused acidic mine wastes to be deposited on the stream banks for 19 miles downstream. A massive cleanup began in 1993 and is ongoing. Trout are once again reproducing throughout most of the creek and project volunteers hope to reintroduce native cutthroats.

The Collegiate Peaks Chapter along with TU national are major stakeholders in the project. Elizabeth Russell, TU's mine restoration project manager for Colorado, helped secure a $413,000 grant from the Environmental Protection Agency for the project. Collegiate Peaks volunteers have

been active in bank stabilization, tree planting and phytostabilization, which immobilizes pollutants like heavy metals from further contaminating the stream. Other stakeholders include the Bonanza Stakeholders Group, the BLM, National Resources Conservation Service, U.S. Fish and Wildlife Service, the USFS, Americorp/Vista Team, the Environmental Protection Agency, Colorado Water Conservation Board and Saguache County.

From the Streets to Streams: Chapter Shows Youth How to Turn Their Life Around

PENNSYLVANIA

Members of the Cumberland Valley chapter teamed up with the Cumberland County Youth Action Team to teach fly fishing to local youth. Some of the youth had troubled backgrounds as criminal offenders, while others are clients of Children and Youth Services or are served by the Diakon Lutheran Social Ministries.

Several local companies donated a combined $7,000 worth of equipment and gear. The program is also partially funded by a state grant. The purpose of the two-day program was to teach the kids self-discipline, confidence, patience and the perseverance needed in fishing and in life. Before they even hit the water, they were taught, by TU members like Jerry Kerstetter, how to cast in a meadow.

Chapter President Chet Hagenbarth says that he and chapter volunteers have worked with troubled youth in the past as a part of a community service volunteer program. He noted that the effort is not just about fishing because the youth learn everything that goes into the sport including casting, tying flies, learning about the fish and understanding ways to take care of the environment.

Hokendauqua Creek Gets a Little TLC

PENNSYLVANIA

Last October, the Hokendauqua Chapter, in partnership with the Pennsylvania Fish and Boat Commission, Northampton County Conservation District, Bertsch-Hokendauqua-Catasauqua Watershed Association and Martins-Jacoby Watershed Association, completed their second stream bank restoration project on Hokendauqua Creek. Approximately 100 plus feet of stream bank had been severely eroded from flooding over the past few years 150 yards up stream of the Kreidersville Covered Bridge.

Pine logs and oak lumber were donated and paid for by Martins-Jacoby Watershed Association, rock was donated by ESSROC Italcementi Group of Nazareth, hauling services, time and equipment were donated by Ruggiero Trucking and Excavating of Bethlehem and a back hoe/front end loader was provided by Allen Township, Northampton County. John Mauser of the Hokendauqua Chapter organized and directed the project using plans drawn up by the Pennsylvania FBC and approved by the DEP.

Members of the Hokendauqua Chapter assisting with the labor efforts included Tony Pavone, Joe Schwartz, Greg Scheirer, John Mauser, Al Herman, Dale Ott, Jack Fekula, Kerry Marsh, Mike Cawthray and Dale Steventon. Jim Wilson, watershed specialist and agriculture technician for Northampton County Conservation District, also helped considerably with the labor. Ground fill and planting will be completed in spring of 2011.

The Hammonasset Chapter Nets a Big Success

CONNECTICUT

The Hammonasset Chapter held another highly successful Youth Education Day at Chatfield Hollow State Park in Killingworth, Conn. last October. This was the eighth year of the event and it targeted regional students from schools that participate in the Trout in the Classroom Program. Thirty-six children, ages seven to 13, and their parents spent the morning rotating through three different learning stations. Because kids want to learn by doing and actively taking part in the subjects being taught, the stations, each an hour long, were designed to be fun and to give hands-on experiences in several areas of fly fishing and coldwater conservation.

The first station was a class on local ecosystems and entomology. Taught by several area biologists and entomologists, it involved the students collecting aquatic life in nets for examination and discussion. The second station was fly casting where each student was given a fly rod and was instructed in the basics of casting. With an instructor to student ratio of 1 to 3, they were able to maximize the learning experience for the participants and keep the day moving. Several fun training aids were used, as well as some casting games that kept the kids involved and focused on casting.

Lastly, the participants learned basic fly tying. Everyone had a vise and tools and received instruction on how to tie several basic fly patterns. During the morning session, representatives from the Connecticut Department of Environmental Protection arrived with a stocking truck to surprise the kids. The kids, more than willing to assist the DEP, carried nets and buckets of brown trout down to the water's edge for a quick release. At noon, food was grilled and prizes were awarded. The remainder of the afternoon was spent fishing and having fun.

For additional information on the Hammonasset Chapter's youth education programs contact paul.gray@uinet.com

Barber Stream Restoration and Bank Stabilization Project

NEW YORK

The Barber property is located at the intersection of N.Y. State Route 396 and the brown trout inhabited Onesquethaw-Coeymans Creek, in the town of Bethlehem. Changes in the stream's course above and below the property resulted in the destabilization of approximately 160 feet of streambank. Rapid lateral channel migration jeopardized the Barber's driveway and home, with the creek coming to within 18 feet of the house. Flooding and bank erosion were also responsible for the loss of a farm outbuilding on the northeast side of the creek. The stream was also encroaching on N.Y. Route 396.

In 1999, the Albany County Soil and Water Conservation District was asked to provide assistance with emergency stream bank stabilization. The ACSWCD was granted funds in 2000 to address the problem, a portion of which was immediately used to pay for large rock riprap on the eroded bank. This emergency work, which armored the bank with large rock, began to fail and the stream continued to threaten the home and highway. In 2005, ACSWCD completed a stream stability assessment and conceptual restoration design plan for Onesquethaw-Coeymans Creek, which detailed four possible alternatives for stream management.

Referencing this document and current geomorphic measurements taken by the ACSWCD and local TU volunteers, Carl Schwartz of the US Fish & Wildlife Service designed a project using natural stream design. Roy Lamberton, a volunteer from TU, and the Onesquethaw-Coeymans Watershed Council coordinated the project and obtained the necessary permits from the New York Department of Environmental Conservation and the US Army Corps of Engineers. The Clearwater Chapter provided initial project funding and liability insurance and the USFWS furnished the excavator operator. Volunteers from TU and the OCWC, and staff from ACSWCD and the Town of Bethlehem assisted during construction. DEC's "Trees for Tribs" of the Hudson River Estuary Program provided and planted over 200 trees and shrubs with assistance from TU and OCWC volunteers as well as the landowner. The ACSWCD provided and planted additional sandbar willow seedlings on the banks of the stream.

The project, which was completed in August of 2010, is intended to not only stabilize this section of the stream and reduce sediment input, but also to provide significant trout habitat. The final stream restoration and habitat project includes two rock vanes with J-hooks, three straight rock vanes, a bankfull-high vegetated bench and three root wads. The combined resources provided by all of the partners greatly reduced the cost of this relatively large project.

Trout in the Classroom Teachers Trained

CALIFORNIA

More than 70 California K thru 12 classrooms qualified for the 2011 Trout in the Classroom program. The sixth annual teacher training workshop was completed last December. The project was led by North Bay TU Coordinator Chuck Schultz with assistance from the California Department of Fish and Game's Project Wild curriculum and financed through a grant from the Dennis and Carol Ann Rockey Foundation.

In 2011, 27 newly trained teachers joined 47 previously participating public and private school teachers throughout Marin County. As of January 2011, students from Bolinas to Tiburon and Point Reyes to Sausalito have experienced this in-house aquarium hatching program. The hatching program involves eggs being delivered to each classroom aquarium where students watch as they hatch into alevin then become the free swimming fry. Some of the fry will be released into nearby lakes. The current school year's projected student participation number surpassed 1,400, nearing the chapter's yearly classroom participation goal of 1,800 students. To date, the effort has introduced more than 21,000 local students to the Trout in the Classroom program.

Upon the completion of their training, each certified teacher is assigned a TU chapter mentor who has also gone through a training of their own. Each volunteer mentor helps assist with the installation and maintenance of the aquariums, and is available to enrich classroom activities.

This year's Trout in the Classroom program concluded in early March with the releasing of the hatching fry in upper Lagunitas Creek. All participating classes were assigned a release day at which time Schultz, along with the other TU classroom mentors, offered an outdoor education curriculum.

For an inside look at North Bay's nationally recognized Trout in the Classroom project go to YouTube's "Trout in the Classroom 2010" and check out professional videographer Ed Dudkowski's hatchery-to-release documentary.

Tools & Tips...

From the Tackle Box

By Beverly Lane
Director of Volunteer Operations

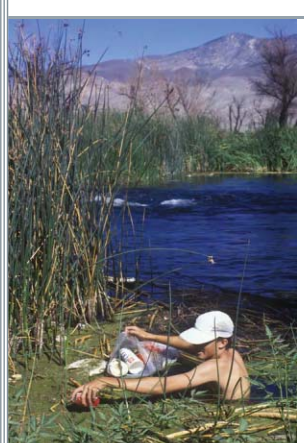
Responsible Raffle Reminder

Raffles are beneficial fundraising tools for chapters and councils but it's also important to remember that there are strict state and federal regulations surrounding their use. Councils and chapters need to be aware of those issues to avoid legal problems. Always check with your state's secretary of state and attorney general to make sure the raffle that your chapter or council is planning complies with state laws and with any applicable local laws. Also, do not sell raffle tickets to someone outside of your state either through the mail or over the Internet. Doing so may violate federal law and the laws of some states. It is better to take the time to check your state's law before conducting a raffle than to run into problems later.

New Version of the Leadership Manual

The most recent edition of TU's Leadership Manual is now available for download in the Tacklebox. The Leadership Manual is the basic reference for TU volunteer leaders at the chapter, council and national level and is an essential read for any new leader. If your chapter or council keeps a printed Leadership Manual binder, please be sure to update it with the 2011 version. If you have any questions, comments or suggested additions, please contact Rob Keith, volunteer operations coordinator.

***21 percent of trout anglers nationwide are female.**



TU's Stream Clean-Up Days: April 23 and June 18, 2011

Please join us for TU's third-annual stream clean-up days. Volunteers around the country will join together on their local rivers and streams, planting trees and removing trash, demonstrating their dedication to protecting and conserving coldwater fisheries. Prizes will be given to the chapter that brings out the most volunteers and gathers the most trash. TU created a guide for chapters and councils to help you create your own successful clean-up event. You can find the guide in the online Tacklebox. It includes tips about selecting a location, getting the word out, materials and services needed, how to thank volunteers and what it takes to win a national prize.

Volunteerism on the Rise

TU's volunteer operations staff would like to sincerely thank each of the 364 chapters and 35 councils that filed the annual financial report on time. The numbers were notable, to say the least—in fiscal year 2010, TU's chapters and councils generated:

- More than 650,000 volunteer hours
- In-kind contribution of $13,844,754
- $8,824,470 in revenue
- $2,315,641 in leveraged or matched funds

Thank you! Your dedication and hard work have once again helped make TU a national leader in the effort to protect, reconnect, restore and sustain America's trout and salmon resources.

Bringing More Women into TU

TU is eager to increase the size and diversity of our membership to broaden support of our mission. One such measure of diversity is the number of women who are TU members. Currently, less than 5 percent of the TU membership are females. We believe this is a missed opportunity for the organization, particularly when you consider that 21 percent of trout anglers nationwide are women. So, in an effort to help identify the causes and potential remedies for this situation, TU sent an online survey in April 2010 to approximately half of the organization's female members (the women for whom we have email addresses.) Of the 2,715 active female members who received the survey, 970 completed it. A full summary of the results can be found at www.tu.org/tacklebox, but here are some highlights:

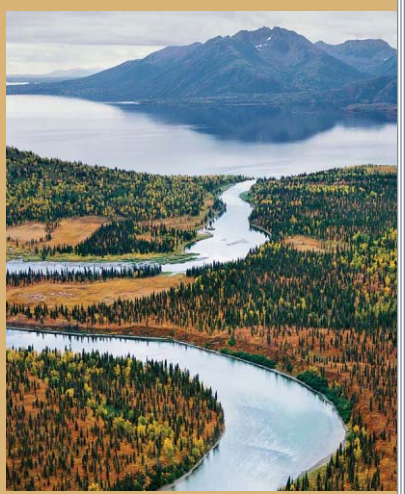
- **86 percent of the respondents have fly fished**
- **60 percent reported that they think the most effective way to get women to attend a chapter meeting would be with a partner, spouse, mentor or buddy**
- **59 percent of respondents indicated that learning to fly fish with another woman appealed to them but only 20 percent thought that women-only would be the most effective program format**
- **44 percent of respondents were interested in youth or family-oriented programs**
- **19 percent were members of women-only fishing or conservation groups**

As you review the survey data, keep in mind that the results reflect the opinions of highly engaged female members who have provided TU with their email addresses—members who opened our email and took the time to respond. Keep an eye out for more news and details associated with the project to bring more women into TU. If you have ideas or want to get involved, send an email to wintu@tu.org. Thanks for your ongoing support!

calendar

All web conference trainings are held at 8 p.m. Eastern time unless otherwise noted. Contact Rob Keith (rkeith@tu.org) to register.

April 12:
Online Training: Bristol Bay, the Pebble Mine and Protecting a Wild Salmon Stronghold
Presenters: TU Alaska staff



April 23, 2011:
TU National Stream Clean-Up Day

May 18:
Online Training: Leaders Only Online Tools Training
Presenters: TU volunteer operations staff

May 12-14:
Southeastern Regional Meeting in Townsend, Tenn.

May 20-21:
Rocky Mountain Regional Meeting in Salt Lake City, Utah

June 18:
TU National Stream Clean-Up Day

September 14-17:
Annual Meeting in Bend, Ore.

2011 Youth Conservation Camps and Academies

The following is a state-by-state schedule of TU's youth conservation schools. Get in touch with these chapters and partners to sign up the young anglers in your life.

Arkansas
Dates: August 1-3 and August 8-10, 2011
Contact: Henry Seay
educate@whiterivertu.com
(870) 508-0509
Location: Dry Run Creek, Mountain Home, AR
www.whiterivertu.org

Colorado
Dates: June 12-18, 2011
Contact: Mike Nicholson,
mcnich5@comcast.net
(303) 987-8425
Location: High Lonesome Ranch, DeBeque, CO
www.cotrout.org

Colorado
Dates: July 21-23 and July 28-30, 2011
Contact: Dennis Cook
rkymtnangler@Q.com
(970) 372-9229
Location: Fort Collins, CO
www.rockymtnflycasters.org

Georgia
Dates: June 5-10, 2011
Contact: Charlie Breithaupt
knc615@windstream.net
(706) 782-6954
Location: Rabun Gap-Nacoochee School, Rabun Gap, GA
www.georgiatu.org

Idaho
Dates: August 1-5, 2011
Contact: James Piotrowski
(208) 331-9200
James@idunionlaw.com
Location: MK Nature Center, Boise, ID
www.tedtruebloodtu.org

Illinois
Dates: July 31- August 5, 2011
Contacts: Barry Coddens
bac248@northwestern.edu
(847) 347-0063
Greg Prosen
g.s.prosen@sbcglobal.net
(630) 986-1310
Location: Ralph A MacMullan Conference Center Roscommon, MI
www.obtu.org/Youth%20Education.htm

Maine
Dates: June 26-July 1, 2011
Contact: Greg Ponte
gponte@roadrunner.com
207-724-2861
Location: Evergreens Campground, Solon, ME
http://www.troutcamp.org/

Michigan
Dates: July 10-14, 2011
Contacts: John Sabina
jsquareds@att.net
(586) 786-1967
Greg Potter
gregpotter@earthlink.net
(269) 781-5700
Location: Ralph A. MacMullan Conference Center, Roscommon, MI
www.kvctu.org

Michigan
Dates: June 4 and 11, 2011
Contact: Robert Sparks
roberts618@aol.com
Location: Suburban Detroit, MI

Minnesota
Dates: June 24-26, 2011
Contact: Diane Weyandt
DWeyandt@pheasantsforever.org
(651) 773-2000
Location: Eagle Bluff Environmental Learning Center, Lanesboro, MN
www.twincitiestu.org

Montana
Dates: July 17-21, 2011
Contact: Penny Ritchie
ritchie.penny@gmail.com
(406) 396-7300
Location: Camp Watanopa, Georgetown Lake, MT
www.montanatu.org

New Hampshire
Dates: July 13-17, 2011
Contact: Yvonne Nanasi
yln@comcast.net
(603) 472-3247
Location: Metallak Lodge, Pittsburgh, NH
www.nhtrout.org/outreach-programs

New Jersey
Dates: June 23-26, 2011
Contact: Jessica Griglak
jessica.Griglak@dep.state.nj.us
(908) 637-4125
Location: NJ School of Conservation, Stokes State Forest Branchville, NJ
www.njfishandwildlife.com

New York
Dates: July 17-23, 2011
Contact: Kurt Nelson
avkurt@mac.com
(607) 372-6330
Location: Hale Eddy, NY
http://web.mac.com/avkurt/Site2/TroutWaters.html

North Carolina
Dates: June 19-24, 2011
Contacts: Linda Byington
nctu.rivercourse@gmail.com
(828) 859-6874
Betsy Craig
ercraig@citcom.net
Location: Lake Logan Center, Canton, NC
www.nctu.org/rivercourse.html

Oregon
Dates: July 28-31, 2011
Contact: Dick Hollenbeck
dick@clackamasrivertu.org
(503) 630-4074
Location: Indian Henry Campground, Mt. Hood Natl Forest, OR
www.clackamasrivertu.org

Pennsylvania
Dates: June 19-24, 2011
Contacts: Clark Hall
chall2636@verizon.net
(717) 697-4549
Mike Klimkos
klimkos@embarqmail.com
(717) 243-3056
Location: Allenberry Resort, Boiling Springs, PA
www.riverscamp.com

Tennessee
Dates: June 20-25, 2011
Contacts: John Thurman
jthur727@bellsouth.net
(865) 494-7771
Jack Betchick
jbetchic@comcast.net
(901) 309-8127
Location: Great Smoky Mountain Institute, Townsend, TN
www.crctu.org

Washington DC, Virginia, Maryland, & West Virginia
Dates: June 26-July 1, 2011
Contacts: Paul Kearney
kearney@tucamp.org
(540) 229-0563
George Gaines
gaines@tucamp.org
(202) 904-3547
Location: Graves Mountain Lodge, Syria, VA
www.tucamp.org

Washington
Dates: June 19-25, 2011
Contacts: Mike Clancy
(360) 753-1259
Jim Brosio
(360) 943-9947
nwycffa@earthlink.net
Location: Gwinwood Conference Center, Lacey, WA
www.nwycffa.org

Wisconsin
Dates: June 24-26
Contact: Henry Koltz
1-414-258-4300
hek@sdelaw.com
Location: UW Stevens Point Field Station, Central Wisconsin
Website: www.wisconsintu.org

Stream Champion

Mick McCorcle

GUADALUPE RIVER CHAPTER, FAIRVIEW, TEXAS

For many years, Mick McCorcle resided in Texas between stints in the Midwest. Since Texas lacked populations of native trout, he resigned himself to fishing in streams and rivers stocked with trout brought in from other places. That changed after Mick set down roots in the Lone Star State in 2003.

"The opportunity emerged to reintroduce Rio Grande Cutthroat Trout, the only trout native to the Rio Grande drainage of Texas, New Mexico and Colorado and to the Pecos River drainage of New Mexico and Texas," says McCorcle.

Inspired by this opportunity, McCorkle is in the midst of pulling together people from Texas Parks & Wildlife's Inland Fisheries Division, the National Park Service and other organizations to bring native fish back to Texas streams. However, native cutthroat were not the first trout he became involved with in Texas.

While living there during the 1990s, McCorcle set out to find the area's best fishing spots. He quickly learned that the best way to find trout in a state with few public lands was to participate in a lease-access program on the Guadalupe River, which required him to sign on as a member of TU's local chapter. The Guadalupe River chapter annually stocks the river with trophy-sized trout (typically 14-24 inches) and then sells lease-access memberships to pay for the trout and the agreements with private landowners along the river.

It wasn't long after joining that McCorcle became involved in much more than tying flies and fly casting. A psychologist and organizational consultant by trade, he quickly made room next to his fly rod for becoming involved in the chapter's operations and leadership, eventually serving on its board of trustees.

"He fixes streams with his motivational and organizational skills," says Jeff Schmitt, former president of GRTU. "He has always been able to get things done among a group of guys who mostly want to sit around and tell fishing stories."

Perhaps most impressive was McCorcle's ability to convince GRTU members to support native trout in streams outside of Texas in the name of coldwater conservation. But with the reintroduction of Rio Grande cutthroat, that has changed.

"Having a chance to catch big, native trout in the middle of Texas is a big deal," says McCorcle. "We finally have the opportunity to engage Texans in restoration projects benefiting our own state."

While working to bring native cutthroat back to Texas, McCorcle remains connected with fishing and with TU, recently demonstrating his long-term commitment to coldwater conservation by becoming a life member and donating an extensive library of fly-fishing books dating back to the 1800's to TU. He and his wife, Brooks, also dedicated a portion of their estate to the organization through the planned giving program

"Over the past decade, TU has become an increasingly important part of my family's life," says McCorcle. "It was time to put our money where our hearts and interests lie. Then it's time to get back to work."

Favorite Fly:
Crackleback, taught to me by its originator, Ed Story of Feather-Craft in St. Louis, 1997.

Favorite Place to Fish:
It's a toss-up between the Guadalupe River and the small mountain streams of northern New Mexico.

Most Memorable Fish:
Arctic char caught 250 miles north of the Arctic Circle on the Nanook River, Victoria Island, Canada, July 2006.

TROUT Previous Page | Contents | Zoom In | Zoom Out | Front Cover | Search Issue | Next Page qMags

[By Dave Whitlock]

Trout Profiles: Arctic Char

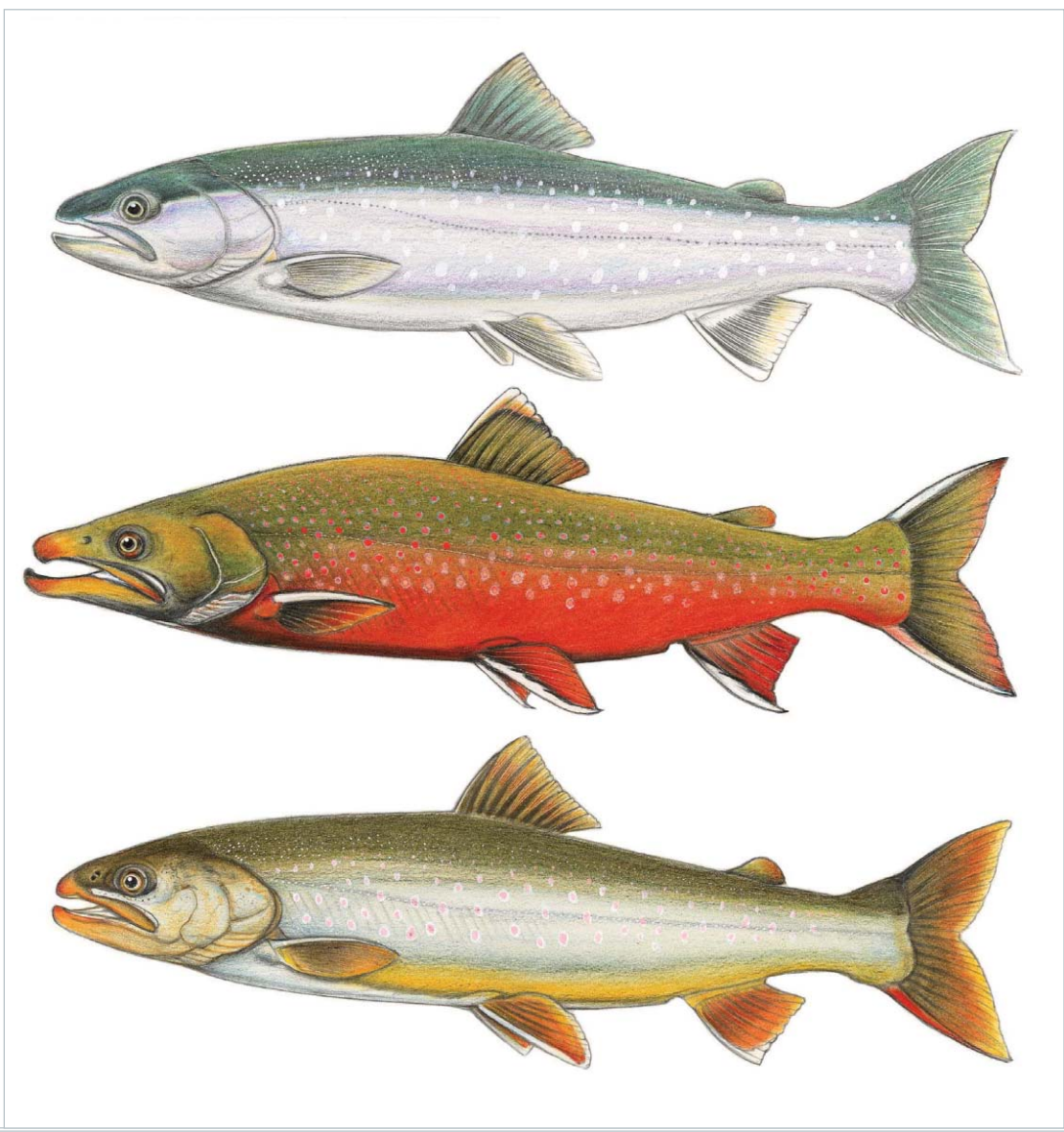
Salvelinus Alpinus

Arctic char are well named as they have evolved to thrive in some of the world's most frigid, ice-laden and hostile places—the streams, lakes and rivers of Europe and North America's Arctic. The size, complexity and harsh climate of their native waters have resulted in many different and unique populations that are still a mystery in many ways to both science and anglers.

Char, in the arc of North America's Arctic region, exist as three separate and complex subspecies. The oquassa can be found in the most northern New England states and southeastern Canada. Three groups of char within this subspecies are the Sunapee, blueback and Quebec red trout. Anglers fishing Labrador's most northern waters for Atlantic salmon, brook trout and lake trout may also have an opportunity to take oquassa.

The subspecies, erythrinus, includes the giants of the Tree River and live in the northernmost Arctic. Taranetzi populate northwestern Alaska, south of the Kenai Peninsula, Kodiak Island and the Alaskan peninsula and is the subspecies that is most often taken by anglers fishing Alaskan waters for Pacific salmon, steelhead, rainbow trout and Dolly Varden.

All three subspecies have populations that live only in the fresh water of their home stream or lake as well as populations that are anadromous, in that they go to sea for brief periods of feeding. The anadromous forms are always larger because of their abundant food advantage. Many Arctic streams and lakes are frozen over for all but two or three months of the year providing very limited food production for the resident char.



TROUT Previous Page | Contents | Zoom In | Zoom Out | Front Cover | Search Issue | Next Page qMags

TROUT Previous Page | Contents | Zoom In | Zoom Out | Front Cover | Search Issue | Next Page qMags

When most anglers think of Arctic char, they recall the yard-long, eye-popping and brilliantly crimson-colored Tree River char often held up by well-known, world-class anglers that appear in fishing magazines. But fly fishers who have actually caught Arctic char in their natural range know that most are a much more likely to be 1 to 4 pounds and moderately colored.

Populations of Arctic char vary considerably in age, color and shape. Most that I have caught or seen are strong but very sleek and slender in shape. The tails are noticeably more forked than other trout and char, except for lake trout. When not in spawning colors, they have olive to bluish-green backs, pink to pearl sides and white bellies. Its fins are usually colorful light-yellows or rich oranges and its pelvic fins have rich, white borders. Char have background spots that are larger and paler than those on Dolly Varden, usually colored from white to pale pink or lavender.

Spawning colors are the crowning glory of the char. At six to eight years, most arctic char mature and spawn. The males develop a distinctive, orange-colored kype and a vivid orange to crimson body coloration that rivals the male sockeye salmon. Pelvic, pectoral, anal fins and the lower tail all become vividly marked with white, black and crimson. Its spots seem to almost pop off its sides with fantastic, fluorescent-red centers.

When I've fished in rivers that contain spawning char, I've noticed that less than half the males actually wore the spawning colors. Due to the frigid water conditions of their natural range, it takes most mature Arctic char three to four years to develop each successive reproductive cycle. This alone should tell us how susceptible these beautiful fish are to imbalances in habitat.

By absolute necessity, Arctic char are opportunistic feeders on aquatic invertebrates, fish eggs and fry, crustaceans and forage fish such as smelt, but even so, their growing season is very short and their growth very slow. One of the few exceptions are the char in the Tree River system. The unique configuration of the estuary and river allow the fish to feed in the ocean, and then for a more extended period in the river, than is common for other char, thus providing a much longer yearly growing season. Instead of a 1 to 4 pound average, these Tree River char average 10 to 20 pounds and the largest on record is 32 pounds, 9 ounces caught in 1982.

All trout, salmon and many other char species are classed as coldwater fish, with their best comfort range being between 45 and 65 degrees F. Arctic char are most comfortable at a frigid 30 to 45 degrees—a temperature that would freeze most trout in their metabolic tracks!

Arctic char will readily take artificial flies and lures that imitate salmon eggs and small fish and are occasionally caught on nymphs and dry flies. Colorful, barbless, single-hook streamers, spoons and spinners, fished near the stream bottom and moved with the classic swing are the most consistent producers.

Because char are so aggressive, considered good eating by many, take so long to mature and do not reproduce yearly, it is easy to have a negative impact on wild populations. So I urge you to practice catch-and-release of these beautiful, incredibly hard-fighting Arctic treasures 100 percent of the time.

Due to the remoteness and extreme northern latitude of the char's native range, there is still much to be learned by anglers and biologists alike about this most interesting fish. If you'd like to learn more about the char, be sure to check out Robert Behnke's monumental work "Trout and Salmon of North America."

TROUT Previous Page | Contents | Zoom In | Zoom Out | Front Cover | Search Issue | Next Page qMags

CLASSIFIEDS

OUTFITTERS & GUIDES

INTERNATIONAL

NEWEST RESORT IN NORTHWESTERN ONTARIO! Lakes, rivers, streams abundant with wild brookies up to 7 pounds. Countless small brookie lakes that have seldom seen anglers. Northern Woods Lodge is remote, yet road accessible with all the amenities. For more information, go to www.northernwoodslodge.com or call (807) 937-6584.

MIDWEST

Northern Driftless Area, www.kinnicreek.com 1-877-504-9705

SOUTH

Exclusive Fly Fishing Club in western N.C. Enjoy over a mile of private trophy trout stream all to yourself! www.hollerfarm.com

Arkansas' White River! McKenzie drift boat fly fishing on Beaver and Bull Shoals tailwaters. Scott Branyan, Ozark Fly Flinger, 888-99-FLING; www.flyflinger.com

Kentucky's Cumberland River Trout. Trophy fish! Ken Glenn's Trout Guiding. http://kenglennstroutguiding.wordpress.com/13 (270) 784-8101.

FISH THE WORLD FAMOUS WHITE and Norfork Rivers in Arkansas! Linger's Guide Service & Fishing Lodge offers complete guide service, lodging and meals in our 5 star lodge facility PLUS a complete shore lunch each day! All you have to do is show up and enjoy what this world famous area has to offer. www.lingersguideservice.com 870-499-5185 or 417-839-0556

WNC Mountains-great fishing! Fishing club, friends, family vacations. Fish the Davidson, Oconoluftee, Tuckasegee, many more trophy waters in 30 min. radius. Large 5 bedroom lodge near Asheville, Maggie Valley, Waynesville. Year 'round fishery. Two beautiful acres with brook, waterfalls www.watersonglodge.com VRBO #306051

Best trout fishing in the east. S.Holston/Watauga River trailraces. Hatches year round. Located on the South Holston River E. Tennessee. Wade or float guide trips. Lodging available. South Holston River Fly Shop. www.southholstonriverflyshop.com (423) 878-2822

Fly fishing buddy Asheville, N.C. Catch and Release rainbows, browns and brookies on western North Carolina rivers. $100 per day phone George 828-225-5760

WEST

IRONHORSE OUTFITTERS. We guide in Arkansas and New Mexico. Wade or float. Great rates! "Art With Attitude" Joepaul Meyers (918) 424-5545 www.ironhorseforge.net

Consider Montana's Bitterroot dry fly fishing at its best. Three days floating, walking, wading. Four nights lodging, airport shuttle, $1495. One or two anglers. Bill Abbot 1-800-363-2408. 32 years experience, MT guide #76

Colorado: High in the Rockies, tucked just below the Continental Divide runs a pristine freestone river. Ski powder at Winter Park Resort all winter, cast to 20" rainbows all summer on this ¾ mile private stretch of the Fraser River from your home on the river. Visit http://www.thegrandestates.com/gallery.asp. To sample the fly fishing and see the home call Dennis Saffell, Broker 970.531.3200.

Southeast Minnesota's Driftless www.ontheflyguiding.com 507-251-9151

Wyoming -Tackle the Wyoming Cutt-Slam Four sub-species of native Wyoming cutthroat trout. One beautiful state. One big challenge: Catch all four. It's the exclusive Wyoming Cutt-Slam challenge and you could be one of the few – but growing – anglers to complete it. Go to www.cuttslam.com for the details. Each cutthroat can be found in different waters but a great central lodge base is The Lodge at Jackson Fork Ranch. 866-953-1290. www.jacksonfork.com

FLIES & GEAR

BAMBOO RODS Buy Sell Consign www.coldwatercollectibles.com (616) 554-6239

Buying and selling fly rods. 50+ fly reels all in excellent or mint condition. For a list write CCP, 8307 Alston Rd; Towson, MD 21204 Call 1-410-296-1746. www.chesapeakproducts.net

The most complete line of exquisite, hand-woven BlueSky Furled Leaders plus our expanded selection of accessories. We're the leader in furled leaders. Ph/Fax 920-430-1239. blueskyfly.com

Bamboo Rod Restore & Repair. New vintage, upgrades for modern lines and reels, 47 years exp. (616) 844-5358 www.reelwood.net or reelwood@att.net

Oak Fly Shop Fixtures: Like new. Fully equip your fly shop. Email active_782@hotmail.com for details.

1991-2011 TWENTY YEARS OF HELPING ANGLERS FOOL FISH Caylor Custom Flies 433 Sawmill Road Todd, N.C. 28684 Toll Free: 866-676-4948 Website: caylorcustomflies.com email: roger@caylorcustomflies.com

FOR SALE

EAST

Penobscot River Waterfront Home Enjoy wildlife and awesome fishing at historic "Shad Rips" in Old Town, Maine. 3 bedroom home close to UMaine. $129k. scott_craig@myfairpoint.net home.myfairpoint.net/~nunatak/nunatak/Shad_Rips.html

Tuckasegee River Front home. Live between Dillsboro and Cherokee in the Beautiful Western North Carolina Mountains with your own river front home. This New 1600 sq. ft home overlooks one of the greatest trout rivers on the east coast. See for yourself at www.CallClay.net. and start your adventure.

WEST

1000+ feet river front, Rio Grande Gold Medal Trout Water, just east of South Fork, Colo., 4.87 Acres. 21 Miles to Wolf Creek Ski Area. Secluded, fast water, large brown trout, great home site. $285,000. 713-515-4441. courtneylgparker@gmail.com

Ten Montana acres, 3bd/3bth, set up as B&B, Little Blackfoot River, 1400 trout/mile, $249,000, ames@blackfoot.net

"YOUR MAN IN MONTANA"— residential, ranch and resort real estate in Southwest Montana. Contact: Michael Thiel, Venture West Realty, (406) 539-4365 or Michael@LandHomeMontana.com

OWNER RETIRING Fly-fishing business for sale. Retail operation and guide service. Western Montana (425) 985-0511.

Salida, Colo. Fly-fishing heaven, real mountain community. Hayden Mellsop real estate guide, buyers' agent to fly fishermen. www.Home-Waters.com Pinon Real Estate Group.

For Sale Secluded Colorado fishing property 5 miles from the airport on the Gunnison River. No covenants, all services in place, over 1 mile of gold medal private fishing. $205,000.00. Call or email for information. Dan McElroy, Broker 970-349-5313, dan@bighornrealty.com

PRISTINE ELK RIVER FRONTAGE PROPERTY 660 feet of private fishing six miles north of Steamboat Springs, Colorado. Immaculate restored log cabin with all new infrastructure (including radiant heat), spacious deck, and guest house, all steps from Elk River on 1.42 acres adjacent to National Forest. $750,000. Contact wendy@anchorrealtysteamboat.com 970-879-9212

WEST BOULDER "800" McLEOD, MONT. Tremendous fly-fishing opportunity in Montana's most noted neighborhood. This 800+/- deeded acres fronts approximately 1-1/2 miles of the highly sought-after West Boulder River with Big Timber and Livingston equal distances away. Absolutely the most unbelievable views you will ever see from Deeded land. The area's surrounding mountain ranges (The Absarokas, Beartooths, Bridgers, Crazies and Snowies) and four major river drainages (Yellowstone, Shields, Main Boulder and West Boulder) are all a part of your viewscape. Ideal for man and wildlife, with elk, deer and upland game birds. Private bridge, roads and utilities are in, making this year-round accessible, undeveloped property just waiting for your imagination. PRICE: $5,850,000. Contact Mark Norem, broker at 406-932-4606 or mark@marknorem.com

MAURER LEMHI RIVER RANCH, Salmon, Idaho Trout and salmon-filled waters of the outstanding and historically famous Lemhi River flows approx. ¾ miles through this nicely self-contained, well cared for cattle ranch. Set in the heart of the spectacular Lemhi River Valley with the towering Bitterroot and Lemhi Mountain Ranges as your backdrop, the Ranch provides access to hundreds of

thousands of acres of public land out the back gate. 608 +/- Deeded acres, plus 274 AUM's on adjoining BLM with approx. 231.7 irrigated acres. Newly remodeled owner's home, guest cottage, spacious shop and equipment storage. Just 9 miles from Salmon. A tremendous value and a fantastic opportunity. PRICE: $2,250,000. PRICE REDUCED: $1,875,000 Call Mark Norem, broker at 406-932-4606, or mark@marknorem.com

FOR RENT

EAST

WILD & WONDERFUL WV Amish-built home near numerous native trout streams, stocked trout rivers. Discount for fellow TU members. www.mtnriverhome.com

SOUTH

1.25AC Waterfront lot on Nantahala River, surrounded by national forest, in W. North Carolina. Great private trout fishing. Utilities in place w/ RV. (850) 230-7518 WK, (850) 215-2527 HM. Email Robert.mcgill@navy.mil

Look at the best spot on the Tennessee Watauga River at www.vrbo.com/81696 or call 423-926-1254 ; 423-292-0808

WEST

Big Hole River, Mont.—Nicely furnished, post & beam cabin, 4 bdrm, 2.75 baths, prime river frontage. $1,150.00 weekly (303) 489-1607 www.montana-rental.com/

AFFORDABLE, four season, maintenance free, efficiency cabin. Nestled on 4.4 acres of wooded high/dry land. A short walk to access the Lily River, a stocked Class 2 Trout Stream; or the Wolf River, heart of the area and one of Wisconsin's fishing treasures. Amidst 530 miles of snowmobile trails and 1000's of acres of public hunting grounds. South of Pickerel, WI. $85,000. Email: wolfriverland@gmail.com

Experience the mighty Missouri River in Montana. Stay in comfort and convenience in Craig, Montana while you fish the world-class Missouri River. Great lodging options for all size groups and budgets along with boat rentals. (406) 235-3433 www.crosscurrents.com

West Yellowstone, Montana Angler's Rest: 4 bedroom, 2.5 baths, full kitchen, sleeps 10—downtown West Yellowstone half mile from Park entrance, minutes from major trout streams. Be comfortable after your day on the stream. www.burkinc.net/anglersrest (301) 461-0902

NEW ZEALAND

New Zealand Fishing Haven— Turnkey 2Bdrm Fully Furnished Townhouse, Campervan, Pontoonboat, much more, in the middle of the best trout fishing country in NZ. South Island, 30K from Gore, "World's Brown Trout Capital". See www.mcfallrentals.com/nzfishhaven $160,000US Consider trade for NW hunting/fishing property. 208-342-4530.

Advertise in Classifieds TROUT

Reach more than 135,000 anglers for just $2.25/word ($2.05/word for members). Send text of ad and payment to:

TROUT Classifieds
1300 North 17th Street, Ste 500
Arlington, Virginia 22209-3801

Ads may be faxed to **(703)284-9400** or e-mailed to **scarmichael@tu.org**.

Classifieds must be prepaid. Count phone number, fax number, ZIP code, street number, abbreviations and email or website address as one word each.

DEADLINES

Winter	November 1
Spring	February 1
Summer	May 1
Fall	August 1

To request a media kit for display advertising, call **(703)284-9422**

Support Trout Unlimited's Outfitters, Guides & Business Members

Whether you're planning a fishing trip or searching for new fly patterns, Trout Unlimited's business members can help. These companies are run by people like you: anglers who love the sport and want to protect it for the next generation.

O Outfitters G Guides L Lodges

ALASKA

Alaska River Adventures O G L
George Heim
PO Box 725
Cooper Landing, AK 99572
(888) 836-9027
george@alaskariveradventures.com
www.alaskariveradventures.com

Alaska West L
Andrew Bennett
166 NW 60th St
Seattle, WA 98107
(425) 985-5938
andrewb@deneki.com
www.alaskawest.com

Brightwater Alaska, Inc O G
11300 Polar Drive
Anchorage, AK 99516
907-344-1340
briteh2o@alaska.net
www.brightwateralaska.com

Denali Fly Fishing Guides O G
Rick McMahan
PO Box 156
Cantwell, AK 99729
(907) 768-1127
2fishon@mtaonline.net
www.denalifishing.com

Deshka Wilderness Lodge G L
Michael Yencha
PO Box 123
Willow, AK 99688
(907) 733-6915
fishdeshka@verizon.net
www.deshkawildernesslodge.com

EPIC Angling & Adventure, LLC L
Rus Schwausch
Alaska Peninsula, AK
(512) 656-2736
rus@epicanglingadventure.com
www.epicanglingadventure.com

Grizzly Skins of Alaska O G L
Rochelle Harrison
PO Box 273
King Salmon, AK 99613
(907) 376-2234
info@grizzlyskinsofalaska.com
www.grizzlyskinsofalaska.com

Keen Eye Anglers G L
Kyle Kolodziejski
P.O. Box 166
Moose Pass, AK 99631
(907) 227-5308
kyle@keeneyeanglers.com
www.keeneyeanglers.com

Kodiak Legends Lodge O G L
Trent Kososki
PO Box 128
Larsen Bay, AK 99624
(877)KLL-4111
info@kodiaklegendslodge.com
www.kodiaklegendslodge.com

Reel Wilderness Adventures, Inc. O L
PO Box 922
Dillingham, AK 99576
1-800-726-8323
reel@aloha.net
www.reelwild.com

Women's Flyfishing O G
Cecilia "Pudge" Kleinkauf
PO Box 243963
Anchorage, AK 99524
(907) 274-7113
pudge@womensflyfishing.net
www.womensflyfishing.net

ARKANSAS

Linger's Guide Service & Fishing Lodge O G L
Jim Brentlinger
PO Box 364
Norfolk, AR 72658
(870) 499-5185
linger@centurytel.net
www.lingersguideservice.com

Outdoor Art Apparel
Slader Agee
10 E Township
Fayetteville, AR 72703
(479) 443-1925
slader@outdoorartapparel.com
www.outdoorartapparel.com

Ozark Angler O G
Chad Kneeland
12305 Chenal Pkwy Ste B
Little Rock, AR 72211
(501) 225-6504
info@ozarkangler.com
www.ozarkangler.com

Phil Landry Flyfishing G
Phil Landry
1898 Oliver Ave
Memphis, TN 38114
(901) 461-8822
pblandry@hotmail.com
www.arkansastroutbum.com

White River Trout Lodge O G L
Jo Anna Smith
752 County Road 703
Cotter, AR 72626
(870) 430-5229
info@whiteriverlodge.com
www.whiteriverlodge.com

CALIFORNIA

Fishhound
Charles Dohs
14101 Valleyheart Dr Ste 200
Sherman Oaks, CA 91423
(818) 783-4751
charles@fishhound.com
www.fishhound.com

Fly Fishers Club of Orange County
Jim Edwards
PO Box 23005
Santa Ana, CA 92711-3005
(714) 337-5899
www.ffcoc.org

North Coast Solar
Brian Hines
1468 Funston Dr
Santa Rosa, CA 95407
(707) 575-3999
brian@ncsr.com

The Pedaler Bike Shop
Jeff Jerge
3826 San Palo Dam Rd
El Sobrante, CA 94803
(510) 222-3420
help@theped.com
www.theped.com

Pit River Company
Brian MacDonald
942 Quarry St
Petaluma, CA 94954
(707) 763-7575
brian@pitrivercompany.com
www.pitrivercompany.com

Tenkara USA
Daniel W. Galhardo
5758 Geary Blvd #226
San Francisco, CA 94121
(415) 238-6613
info@tenkarausa.com
www.tenkarausa.com

The Trout Spot O
Richard Desrosiers Jr.
967 Warburton Ave
Santa Clara, CA 95050-3928
1-800-822-7129
info@thetroutspot.com
www.thetroutspot.com

Wild Life Charters G
Larry Goldsmith
900 Maddalena Rd
Beckwourth, CA 96129
(530) 249-1580
shadowone7814@aol.com
wildlifecharters.net

COLORADO

4UR Ranch L
Aaron C. Christensen, Gen Mgr
PO Box 340
Creede, CO 81130
(719) 658-2202
info@4urranch.com
www.4urranch.com

Angler's Covey O
David Leinweber
295 S. 21st St.
Colorado Springs, CO 80904
1-800-75FISHN
info@anglerscovey.com
www.anglerscovey.com

Colorado River Outfitters O
Paul Killino
4199 Trough Road, Cabin #1
Bond, CO 80423
(970)653-FISH
info@coloradoriveroutfitters.net
www.coloradoriveroutfitters.net

Heads Up Flyfishing G
Ryan McRorie & Jeremy Nolan
308 Silver Queen So.
Durango, CO 81301
(970) 984-8433
mail@headsupflyfishing.com
www.headsupflyfishing.com

The High Lonesome Ranch O G L
Scott Stewart / Scott Bystol
PO Box 88
0275 County road 222
DeBeque, CO 81630
(970) 283-9420
scott@thehighlonesomeranch.com
www.thehighlonesomeranch.com

High Mountain Drifters Guide Service G
Travis Snyder
201 W Tomichi Ave
Gunnison, CO 81230
(970) 641-1845
highmountaindrifters@hotmail.com
www.highmtndrifters.com

North Fork Ranch L
Dean May
PO Box B
Shawnee, CO 80475
1-800-843-7845
info@northforkranch.com
www.northforkranch.com

Rainbow Falls Mountain Trout
Nate Johnson
PO Box 279
Woodland Park, CO 80866
(719) 687-8690
rainbowfallsmt@yahoo.com
www.rainbowfallsmt.com

Rancho Del Rio O G L
Jeff Gibson
4199 Trough Rd.
Bond, CO 80423
(970) 653-4431
rancho@vail.net
www.ranchodelrio.com

Trout's Fly Fishing O
1303 E. 6th Ave
Denver, CO 80218
(303) 733-1434
tuck@troutsflyfishing.com
www.troutsflyfishing.com

Willowfly Anglers O G L
Three Rivers Resort
John Bocchino
130 CR 742
PO Box 339
Almont, CO 81210
1-888-761-FISH
fish@willowflyanglers.com
www.willowflyanglers.com

CONNECTICUT

J. Stockard Fly Fishing O
PO Box 800
Kent, CT 06757
1-877-FLY-TYING
service@jsflyfishing.com
www.jsflyfishing.com

GEORGIA

Atlanta Fly Fishing School
Mack Martin
6105 Paddock Ln
Cumming, GA 30040
(770) 889-5638
www.atlantaflyfishingschool.com
mack@mackmartin.com

Escape to Blue Ridge LLC, Blue Ridge, GA
Pamela Miracle
PO Box 4825
Alpharetta, GA 30023
(866) 618-2521
(706) 413-5321
pamela@escapetoblueridge.com
www.EscapetoBlueRidge.com

Frog Hollow Fly Fishing G L
Kenny Simmons
360Frog Hollow Rd
Dahlonega, GA 30533
(706) 244-4372
kenny@froghollowflyfishing.com
www.froghollowflyfishing.com

River Through Atlanta Guide Service G
Chris Scalley
710 Riverside Rd
Roswell, GA 30075
(770) 650-8630
chrisscalley@bellsouth.net
www.riverthroughatlanta.com

Unicoi Outfitters O
John Cross
PO Box 419
Helen, GA 30545
(706) 878-3083
flyfish@unicoioutfitters.com
www.unicoioutfitters.com

Unicoi Outfitters O
David Hulsey
490 E Main St
Blue Ridge, GA 30513
(706) 632-1880
unicoioutfitters@tds.net
www.unicoioutfitters.com

Upper River Adventures O
Gene J. Rutkowski
PO Box 974
Blue Ridge, GA 30513
1-800-206-8024
generut@tds.net
www.upperriver.net

IDAHO

Middle Fork River Expeditions O G
James Ellsworth
PO Box 70
Stanley, ID 83278
800-801-5146
middlefork@idahorivers.com
www.idahorivers.com

Teton Valley Lodge L
Matt Berry
3733 Adams Rd
Driggs, ID 83422
208-354-8124 or toll free
800-455-1182
flyfish@tetonvalleylodge.com
tetonvalleylodge.com

WorldCast Anglers O G
Mike Dawkins
PO Box 350
Victor, ID 83455
1-800-654-0676
gofish@worldcastanglers.com
www.worldcastanglers.com

MAINE

Appalachian Mountain Club L
Shannon Leroy
PO Box 310
Greenville, ME 04441
(207) 695-3085
sleroy@outdoors.org
www.outdoors.org

Blue Heron Guide Service G
Sean McCormick
80 E River Rd
Whitefield, ME 04353
(207) 549-3355
seanmc@gwi.net

Chandler Lake Camps O G L
Jason Bouchard
P.O. Box 27
Ashland, ME 04732
(207) 290-1424
info@chandlerlakecamps.com
www.chandlerlakecamps.com

Eldredge Bros Fly Shop & Guide Service O
Jim Bernstein
PO Box 69
1480 US Rt 1
Cape Neddick York, ME 03902
1-877-427-9345
info@eldredgeflyshop.com
www.eldredgeflyshop.com

Munsungan Hunting & Fishing Club G L
Jim Carter
PO Box 186
Washburn, ME 04786
(207) 592-8411
jim@munsungan.com
www.munsungan.com

Red River Camps L
JenBrophy-Price
P.O. Box 320
Portage, ME 04768
(207) 554-0420
jen@redrivercamps.com
www.redrivercamps.com

Weatherby's L
Jeff McEvoy
PO Box 69
Grand Lake Stream, ME 04637-3834
(207) 796-5558
info@weatherbys.com
www.weatherbys.com

MARYLAND

Backwater Angler O G
Theaux Le Gardeur
PO Box 156
Monkton, MD 21111
(410) 357-9557
info@backwaterangler.com
www.backwaterangler.com

Ecotone, Inc.
Scott McGill & Jim Morris
PO Box 5
1204 Baldwin Mill Rd
Jarrettsville, MD 21084
(410) 692-7500
info@ecotoneinc.com
www.ecotoneinc.com

Savage River Lodge O G L
Mike Dreisbach
1600 Mt Aetna Rd
Frostburg, MD 21532
(301) 689-3200
mike@savageriverlodge.com
www.savageriverlodge.com

Waterwisp Flies
Jim Greene
PO Box 151028
Chevy Chase, MD 20815
1-800-4-MAYFLY
jgreene@waterwisp.com
www.waterwisp.com

Wisp Resort O G L
Michael Valach
296 Marsh Hill Rd
McHenry, MD 21541
(301) 387-4911
mvalach@wispresort.com
www.wispresort.com

MICHIGAN

Cold Springs Forestry, LLC
Chris Fink & Nate Nelson
E5539 Woodland Ave
Au Train, MI 49806
(906) 892-8665
chris@coldspringsforestry.com
www.coldspringsforestry.com

Outside Hub, LLC
Matt R. Moore
28400 Northwestern Hwy Ste 110
Southfield, MI 48034
(248) 351-6323
mmoore@outsidehub.com
www.outsidehubmedia.com

Whitneyville Land Co LLC - River Edge Development
Paul Renucci
5433 Whitneyville Ave SE
Alto, MI 49302
(616) 450-3757
info@whitneyvilleland.com
www.whitneyvilleland.com

MINNESOTA

Lewiston Area Trout Guides G
Mark Reisetter
165 Whispering Pines Ct
Lewiston, MN 55952
(507) 523-2557
guide@minnesotatrout.com
www.minnesotatrout.com

Namebini G L
Carl Haensel
6614 McQuade Rd
Duluth, MN 55804
(218) 525-2381
info@namebini.com
www.namebini.com

MISSOURI

Rockbridge™ Rainbow Trout Ranch O G L
Alicia Amyx
PO Box 100
Rockbridge, MO 65741
(417) 679-3619
info@rockbridgemo.com
www.rockbridgemo.com

MONTANA

Absaroka Beartooth Outfitters, Inc. O
Cameron S. Mayo
PO Box 318
Big Timber, MT 59011
(406) 579-3866
cameron@aboadventures.com
www.aboadventures.com

Angler's West Flyfishing Outfitters O
Matson Rogers
PO Box 4
Emigrant, MT 59027
(406) 333-4401
info@montanaflyfishers.com
www.montanaflyfishers.com

Big Sky Anglers O
Joe Moore
Outfitter #8939
PO Box 2153
West Yellowstone, MT 59758
(406)581-6059
joe@bigskyanglers.com
www.bigskyanglers.com

Bill Abbot's Trout Fishing Only O G
William M. Abbot Jr.
PO Box 1332
Hamilton, MT 59840
1-800-363-2408
info@abbotsmontanafishing.com
www.abbotsmontanafishing.com

Blackfoot River Outfitters, Inc. O G
John Herzer and Terri Raugland
P.O. Box 17182
Missoula, MT 59808
(406) 542-7411
terri@blackfootriver.com
www.blackfootriver.com

Craig Fellin Outfitters & Big Hole Lodge O L
Craig Fellin
PO Box 156
Wise River, MT 59762
(406) 832-3252
bigholeriver@montana.com
www.bigholelodge.com

Cross Currents O G L
Chris Strainer
311 Bridge St
Craig, MT 59648
(866) 211-3433
strainer@ixi.net
www.crosscurrents.com

Eaton Outfitters O
Chris Eaton
34 W Julie Ct
Bozeman, MT 59718
1-800-755-3474
trtfishr@3rivers.net
www.eatonoutfitters.com

Firehole Ranch L
Lyndy Caine
1130 Firehole Ranch Rd
West Yellowstone, MT 59758
(406) 646-7294
info@fireholeranch.com
www.fireholeranch.com

Gallatin River Lodge O G L
Steve Gamble
9105 Thorpe Rd
Bozeman, MT 59718
1-888-387-0148
sgamble@grlodge.com
www.grlodge.com

Greco's on the Fly O G
Capt. Brett Greco
PO Box 210
Ennis, MT 59729
(406) 640-2627
brettgreco@yahoo.com
www.grecosonthefly.com

Linehan Outfitting Company O
Tim Linehan
472 Upper Ford Rd
Troy, MT 59935-4872
1-800-596-0034
info@fishmontana.com
www.fishmontana.com

Lone Mountain Ranch O G L
Ennion Williams
PO Box 160069
Big Sky, MT 59716
1-800-514-4644
ewilliams@lmranch.com
www.lmranch.com

Long Outfitting O
Matthew A. Long
PO Box 1224
Livingston, MT 59047
(406) 222-6775
info@longoutfitting.com
www.longoutfitting.com

Madison Valley Ranch, LLC L
Elizabeth Warren & Dan Larson
307 Jeffers Rd
Ennis, MT 59729
1-800-891-6158
mvr@3rivers.net
www.madisonvalleyranch.com

Missoula Valley Outfitters O G
Casey Hackathorn
P.O. Box 9241
Missoula, MT 59807
(406) 546-5680
casey@missoulavalleyoutfitters.com
www.missoulavalleyoutfitters.com

Montana Fishing Outfitters O G
Pat Straub and Garrett Munson
716 N Warren
Helena, MT 59601
(406) 431-5089
flyfishpat@yahoo.com
www.dragfreedrift.com

Montana Troutfitters O G L
Kris Kumlien
1716 W Main St
Bozeman, MT 59715
(406) 587-4707
mttrout@troutfitters.com
www.troutfitters.com

Montana Trout Stalkers O G
Joe Dilschneider
PO Box 1406
Ennis, MT 59729
(406) 581-5150
joe@montanatrout.com
www.montanatrout.com

PRO Outfitters O L
Katie Boedecker
PO Box 621
Helena, MT 59624
pro@prooutfitters.com
www.prooutfitters.com

Prudential Montana Real Estate
Bryan C. Atwell, Realtor
1925 N. 22nd Ave., Suite 201
Bozeman, MT 59718
(406) 579.7616
bryan.atwell@prumt.com
www.bryanatwell.com

Semper Fish & Guide O
Chris Fleck
23 Gibbon Rd
Columbus, MT 59019
(406) 321-0564
chris@semperfishandguide.com
www.semperfishandguide.com

Sweetwater Travel Company O G L
Dan, Jeff & Pat Vermillion
5082 US Hwy 89 S
PO Box 668
Livingston, MT 59047
1-888-FISH-BUM
dan@sweetwatertravel.com
www.sweetwatertravel.com

Triple-M-Outfitters O
Mark Faroni
PO Box 64
Dixon, MT 59831
(406) 246-3249
mfaroni@blackfoot.net
www.triplemoutfitters.com

WTR Outfitters O
Michael and Megan Kmon
731 Pax Terra Ln
Ovando, MT 59854
(406) 793-5031
inquiries@wtroutfitters.com
wtroutfitters.com

West Yellowstone Fly Shop O G
Travis Hansen & Justin Spence
PO Box 1643
West Yellowstone, MT 59758
(406) 646-1181
flyfish@wyflyshop.com
www.wyflyshop.com

NEW HAMPSHIRE

Hanover Outdoors O G
Ron Rhodes
17 1/2 Lebanon St
Hanover, NH 03755
(603) 643-1263
info@hanoveroutdoors.com
www.hanoveroutdoors.com

NEW JERSEY

GBW Insurance
Glenn Tippy
3 Gold Mine Rd
Flanders, NJ 07836
1-800-548-2329
gtippy@GBWmail.com
www.GBWInsurance.com

The Perfect Cast O
Tracey Warmus
61 Daly Rd
Far Hills, NJ 07931
(646) 522-3426
info@theperfectcast.com
www.ThePerfectCast.com

Shannon's Fly and Tackle Shop O L
Jim Holland
PO Box 171
Califon, NJ 07830
908-832-5736
shannonsfly@gmail.com
www.shannonsflytackle.com

NEW MEXICO

Brazos River Ranch O G L
Bo Prieskorn
PO Box 3673
Las Vegas, NM 87701
(505) 453-1212
brazoselk@yahoo.com
www.nmoutfitter.com

Doc Thompson Orvis Endorsed Fly Fishing Guide G
PO Box 52
Ute Park, NM 87749
(505) 376-9220
www.flyfishnewmexico.com

Land of Enchantment Guides O G
Noah Parker & Jerry Burton
PO Box 55
Velarde, NM 87582
(505) 629-5688
info@loeguides.com
www.loeguides.com

The Reel Life O G
Toner Mitchell
500 Montezuma St.
Santa Fe, NM 87501
(505) 995-8114
tonermitchell@msn.com
www.thereellife.com

Wild Rivers On The Fly O G L
Wayne Thurber
PO Box 43
Taos Ski Valley, NM 87525
(505)715-6773
wayne@wildriversonthefly.com
www.wildriversonthefly.com

Continued on next page

Continued from previous page

NEW YORK

Dreamcatcher Estates L
Leonard Solomon
411 River Rd
Deposit, NY 13754
(877) 275-1165
housegold1@aol.com
www.dreamcatcherlodgeny.com

North Flats Guiding G
David Blinken
131 East 81 St
East Hampton, NY 10028
(631) 324-2860
dblinken@aol.com
www.northflats.com

Woodstock Hardware
Vincent R. Christofora, Jr.
84 Tinker St
Woodstock, NY 12498
(845) 679-2862
vchristofora@aol.com

NORTH CAROLINA

Nantahala River Lodge L
Annette & Mickey Youmans
27395 Wayah Rd
Nantahala, NC 28781
1-800-470-4718
annette@NantahalaRiverLodge.net
www.NantahalaRiverLodge.net

River's Edge Outfitters O G L
Joe Street & Chris Anderson
280 Oak Ave.
Spruce Pine, NC 28777
(828) 765-FISH
info@flyshopnc.com
www.riversedgeoutfittersnc.com

Rocking L Fly Fishing G
Jeff W. Loftin
49 Allen Ln
Spruce Pine, NC 28777
(828) 467-3326
jeff@jeffloftinflyfishing.com
www.rockingLflyfishing.com

OHIO

Time Timer, LLC
David Rogers
7707 Camargo Rd
Cincinnati, OH 45243
(877) 771-8463
dave@timetimer.com
www.timetimer.com

OREGON

Big Y Fly Co. Inc.
Cameron Larsen
PO Box 215
Maupin, OR 97037
1-866-660-5758
info@bigyflyco.com
www.bigyflyco.com

Deep Canyon Outfitters O
Damien Nurre
906 NE 11 th
Bend, OR 97701
(541) 323-3007
damien@deschutesflyfish.com
www.deschutesflyfish.com

Fish On! Fly & Tackle
Michael Unruh
11186 SE 52nd Ct
Milwaukie, OR 97222
(503) 756-9010
mru75@fishonflies.com
www.fishonflies.com

PENNSYLVANIA

Arnot Sportsmen's Assoc. Inc
Ron Signor
PO Box 142
Arnot, PA 16911-0142
(570) 638-2985
sms2333@PTD.NET

Glendorn L
Damon Newpher
1000 Glendorn Dr
Bradford, PA 16701
1-800-843-8568
dnewpher@glendorn.com
www.glendorn.com

Laurel Highlands Guide Services G
Jim DiBiase
PO Box 156
Melcroft, PA 15462
(724) 433-7151
jdibiase@lhtot.com
www.laurelhighlandsguideservices.com

Seven Springs Mountain Resort O G L
Todd J. Bowersox
777 Waterwheel Dr
Champion, PA 15622
(814) 352-7777
Fishing@7springs.com
www.7springs.com

Woodlands World
Eric Goodwin
27 W Main St
Uniontown, PA 15401
(866) 472-6969
eric.goodwin@nwlr.com
www.woodlandsworld.com

SOUTH DAKOTA

Larva Lace
Lorie K. Hagen
1700 W Cedar
Mitchell, SD 57301
(888) 996-4036
lorie@hagensfish.com
www.unexcelledfishing.com

TENNESSEE

Smoky Mountain Angler O G
Harold & Nancy Thompson
466 Brookside Village Way Ste 8
Gatlinburg, TN 37738
(865) 436-8746
nthompson@gatlinburg-flyshop.com
www.smokymountainangler.com

Smoky Mountain Troutfitters O G
Sean McKay
6617 Cherry Drive
Knoxville, TN 37919
(865) 567-2441
sean@smokymountaintroutfitters.com
www.smokymountaintroutfitters.com

Watauga River Lodge & Outfitter O L
Tim Holcomb
643 Smalling Rd
Watauga, TN 37694
(828) 260-5782
tim@wataugariverlodge.com
www.wataugariverlodge.com

UTAH

Falcon's Ledge O G L
David Danley
PO Box 67
Altamont, UT 84001
(877) 879-3737
david@myutahvacation.com
www.falconsledge.com

Flaming Gorge Resort O G L
Kevin Clegg
1100 E Flaming Gorge Resort
Dutch John, UT 84023
(877) 348-7688
Kevin@flaminggorgeresort.com
www.flaminggorgeresort.com

Park City Outfitters O G L
Brandon Bertagnole
1295 E Whileaway Rd
Park City, UT 84098
1-866-649-3337
bbertagnole@hotmail.com
www.parkcityoutfitters.com

Round Rocks Fly Fishing O G
Victor Nelson
530 S Main
Logan, UT 84321
(800) 992-8774
info@roundrocks.com
www.roundrocks.com

Spinner Fall Guide Service O
Scott Barrus
P.O. Box 350
Dutch John, UT 84023
(877) 811-3474
info@spinnerfall.com
www.spinnerfall.com

VIRGINIA

Ms. Guided G
Kiki Galvin
2004 Dexter Dr
Falls Church, VA 22043
(703) 893-7020
angla56@msn.com
www.msguidedflyfishing.net

WASHINGTON

Emerging Rivers Guide Services G
Derek Young
33902 SE McCullough St
Snoqualmie, WA 98065
(425) 373-6417
Derek@emergingrivers.com
www.emergingrivers.com

Sage Manufacturing
Travis Campbell.
8500 NE Day Rd
Bainbridge Island, WA 98110
1-800-533-3004
info@sageflyfish.com
www.sageflyfish.com

WEST VIRGINIA

Angler's Xstream O
Rich Beckwith
2109 Camden Ave
Parkersburg, WV 26101
1-877-909-6911
fishing @anglersxstream.com
anglersxstream.com

WISCONSIN

BlueSky Furled Leaders
John Cantwell
1163 Garland St
Green Bay, WI 54301
(920) 430-1239
bluesky@new.rr.com
www.blueskyfly.com

Wisconsin John Guides Again O G
Streamdreams Outfitter
John R Nebel
339 Broad St
Menasha, WI 54952
(920) 722-4004
wisjohn@new.rr.com
www.streamdreams.net

WYOMING

Bear Basin Adventures O G
Heath and Sarah Woltman
8103 Hwy 26
Crowheart, WY 82512
(307) 486-2229
bearbasinadventures@dteworld.com
www.bearbasinadventures.com

Fish the Fly Guide Service & Travel O G
Jason Balogh
PO Box 42
Jackson, WY 83001
(307) 690-1139
jb@fishthefly.com
www.fishthefly.com

Lander Llama Co Wilderness Pack Trips O G L
Scott Woodruff
2024 Mortimore Ln
Lander, WY 82520
1-800-582-5262
info@WyomingHiking.com
www.WyomingHiking.com/flyfish.html

Live Water Properties
Alex Maher, Broker/Owner
PO Box 9240
Jackson, WY 83002
1-866-734-6100
macye@livewaterproperties.com
www.livewaterproperties.com

The Lodge at Jackson Fork Ranch L
Dan Abrashoff
607 Upper Hoback Rd.
Little Jackson Hole, WY 82922
P.O. Box 320
Bondurant, WY 82922
1-866-953-1290
dan@jacksonfork.com
www.jacksonfork.com

North Fork Anglers
Tim Wade
1107 Sheridan Ave
Cody, WY 82414
307-527-7274
tw123r4w@yahoo.com
www.northforkanglers.com

Palisades Creek Ranch, LLC
Matt Cardis
PMB #508
PO Box 30,000
Jackson, WY 83002-0600
(307) 733-2421
cardis1@earthlink.net
www.palisadescreekranch.com

Reel Deal Anglers JH, Inc. O G
Rhett J. Bain
PO Box 7696
Jackson, WY 83002
1-877-744-0522
rhett@reeldealanglers.com
www.reeldealanglers.com

Rock Creek Anglers O G
Clark Smyth
1301 Rock Creek Rd
Saddlestring, WY 82840
(888) 945-3876
rockcreekanglers@wyoming.com
www.rockcreekanglers.com

Rocky Mountain Ranch Management
Jim Broderick
PO Box 10516
Jackson, WY 83002
(307) 690-9189
jim@rmrm.biz
www.rockymountainranchmanagement.com

Sweetwater Fishing Expeditions, LLC O G
George H. Hunker III
PO Box 524
Lander, WY 82520
(307) 332-3986
phunker@wyoming.com
www.sweetwaterfishing.com

Two Rivers Emporium O
Mike Kaul
PO Box 1218
Pinedale, WY 82941
1-800-329-4353
2rivers@tribcsp.com
www.2rivers.net

Wind River Outdoor Company O G
One Stop Market
Ron Hansen
PO Box 81
Lander, WY 82520
(307) 332-4427
mail@sweetwatercompany.net
www.windriveroutdoorcompany.com

INTERNATIONAL

ARGENTINA

Carrileufu Valley Lodge
Pancho Panzer
AV San Martin 3463
El Bolson, Rio Negro 8430
Argentina
0054-2944-492419
www.patagoniafishinghosts.com

Chime Lodge O G L
Ruta 60 Km 16 Rio Chimehuin
Junin de los Andes
Patagonia, Argentina
(786)266-5068
info@chimelodge.com
www.chimelodge.com

BAHAMAS

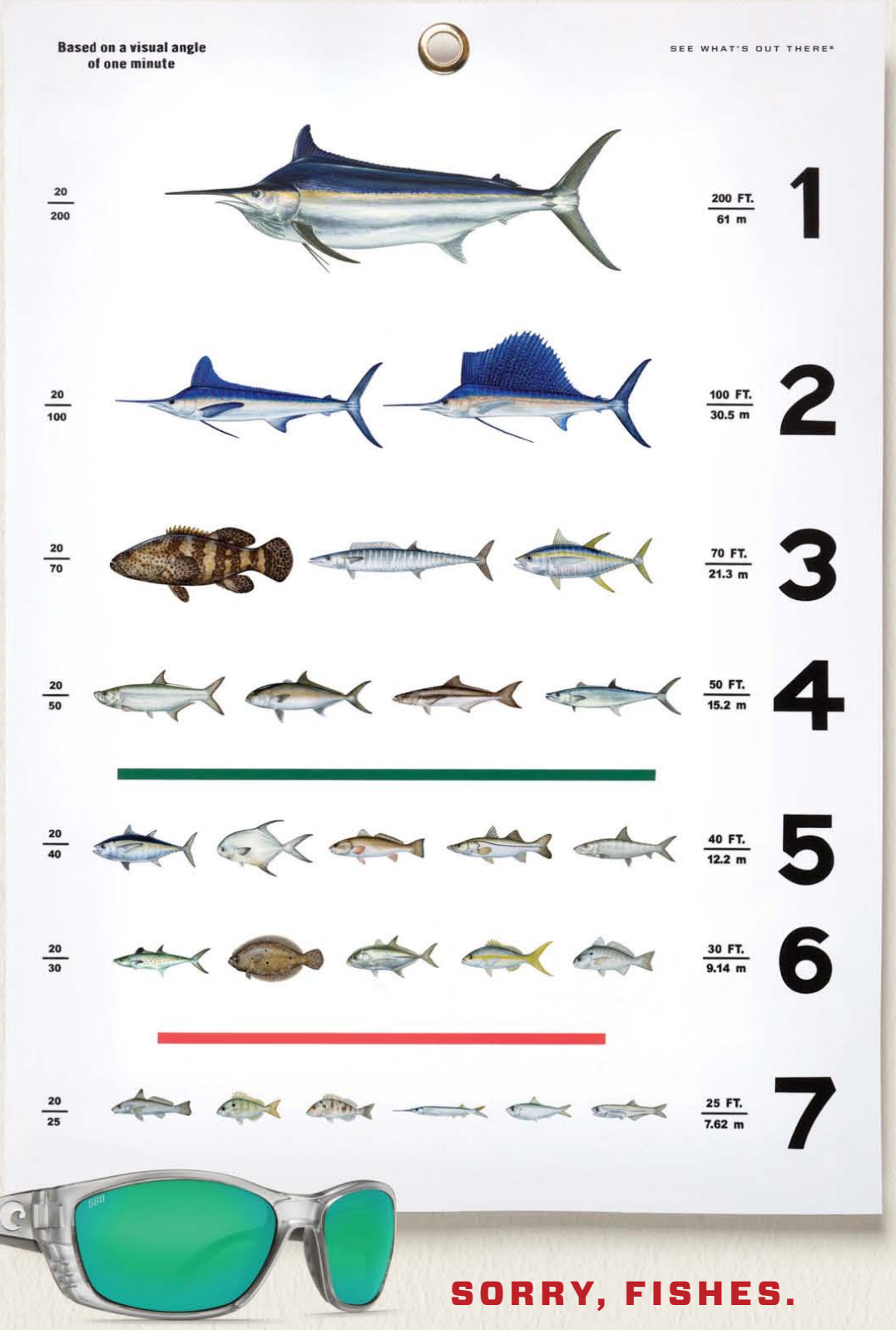
Andros South L
Andrew Bennett
166 NW 60th St
Seattle, WA 98107
(425) 985-5938
andrewb@deneki.com
www.androssouth.com

CANADA

Z-Boat Lodge River Guides Ltd. L
Brad Zeerip
1778 Sleeping Beauty Ln
Terrace, BC V8G 3Z6
1-866-ZBOATBC
bz@zboatbc.com
www.zboatbc.com

Get Involved...

For information on TU's Outfitters, Guides & Business Members program, or to update your listing, please contact Beverly Lane at blane@tu.org.

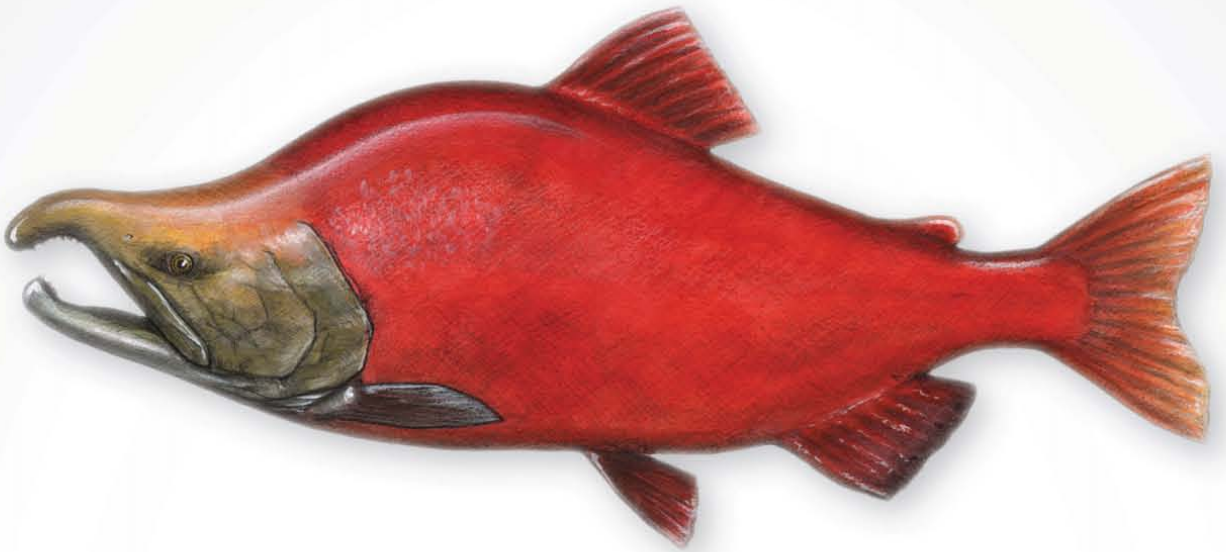


SORRY, FISHES.

The world's clearest sunglasses are now available in prescription. So instead of flipping between your eyeglasses and shades, you'll enjoy the benefits of Costa's advanced technology in both 580P and 580G Rx lenses. The result—you'll see deeper colors, sharper contrast and more fish on your hook. To find an authorized optical retailer near you, visit: CostaDelMar.com

COSTA | RX

NATIVE FISH



Sockeye Salmon

Oncorhynchus nerka

By Dr. Robert Behnke | As a food source, sockeye salmon, also known as red salmon, is the most valuable of the five species of Pacific salmon in North America. Its crustacean diet produces an intense red color to its flesh, commanding the highest price of all canned salmon. Its centers of abundance, associated with large lakes for juvenile rearing, are the Bristol Bay region of Alaska and the Fraser River basin in British Columbia. In the Far East, abundance is centered in Kamchatka. Throughout its range, anadromous sockeye have given rise to a freshwater resident form known as kokanee. Many lakes have both sockeye and kokanee that maintain their separate identities by spawning at different times and in different places. The maximum size of a sockeye is about 15 pounds and about 6 to 7 pounds for kokanee. Many populations of kokanee are stunted and they mature, spawn and die at only 8 to 10 inches (as with all Pacific salmon, sockeye and kokanee die after spawning.) Five populations of sockeye once occurred in lakes in the headwaters of the Salmon River drainage in Idaho, about 700 miles inland. Only one, in Redfish Lake, persisted after four dams were constructed on the Snake River. The Redfish Lake sockeye is listed as endangered under the Endangered Species Act. It is currently maintained by captive breeding.

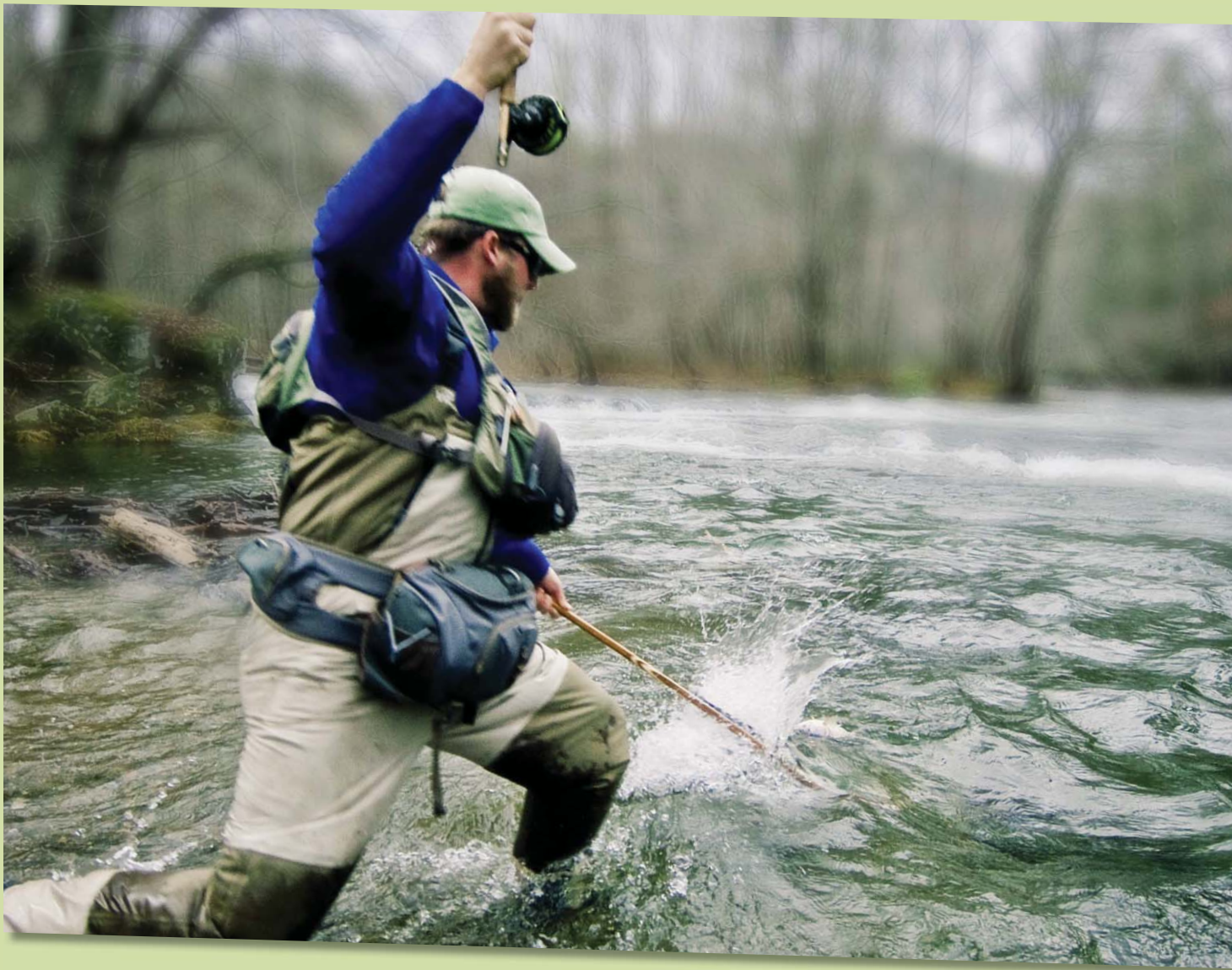
The North American distribution of sea-run sockeye salmon extends from the Yukon River in northern Alaska south to the Columbia River basin.

You Can Help Bring Back the Natives:

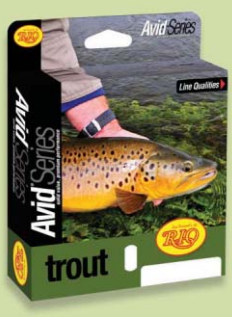
TU has developed a Pacific salmon program designed to protect, reconnect and restore populations of salmon, including the sockeye. For more information, go to www.tu.org/conservation/pacific-northwest-salmon

ILLUSTRATION BY SKETCHANDRELEASE.COM

IF YOU KNOW THE DIFFERENCE BETWEEN A MAYFLY AND A JUNEBUG...



...YOU'RE READY FOR AVID.



AVID FLY LINES, THE NEW PERFORMANCE ENHANCING SERIES BY RIO.

We've all been there, fumbling through your fly box trying to figure out what in the world these trout are eating. But now you've graduated from 'Where's that Garlic Cheese Fly?' to perfecting your curve cast and tightening up the presentation of some Latin-named-thing. RIO's brand new Avid Fly Line series was designed for the evolving angler in mind. Featuring our specialized tapers, various densities and packed with technology, Avid lines are available for a wide variety of freshwater and saltwater angling strategies.

RIO. BECAUSE YOUR FLY LINE MATTERS.

Jim Vincent's RIO

©RPI, Inc. All rights reserved • 5050 S. Yellowstone Hwy • Idaho Falls, Idaho 83402 USA • 800-553-0838 • RIOproducts.com • Made in USA

Non-Profit
US Postage
PAID
Harrisburg PA
Permit # 406