

AMERICAN WHITEWATER

Conservation • Access • Events • Adventure • Safety

BY BOATERS FOR BOATERS Nov/Dec 2011

YOUR BRAIN ON WHITEWATER: THE MENTAL GAME

ARE PADDLERS AN INDICATOR SPECIES?

INTEGRATING RECREATION AND NATURE ON DAM CONTROLLED RIVERS





A VOLUNTEER PUBLICATION PROMOTING RIVER CONSERVATION, ACCESS AND SAFETY

American Whitewater Journal Nov/Dec 2011 - Volume 51 - Issue 6

COLUMNS

- 5 The Journey Ahead by Mark Singleton
- 12 Paddler Fitness by John Amtmann and Matt Doble
- 35 River Voices: Packrafting in Patagonia by Sarah Fox and Gardner Johnston
- 39 In Memoriam: Remembering Boyce Greer by Greg Hanlon, Ed Clark, and Adam Herzog
- 42 Safety: Accident Summary by Charlie Walbridge
- 50 Board Bios

STEWARDSHIP

- 7 Pit River Update by Megan Hooker
- 7 Flow Studies Complete for the Rubicon and Middle Fork American Rivers by Dave Steindorf
- 8 Bringing Spring Runoff Back to Rivers by Megan Hooker

MENTAL GAME

- 15 A Whitewater Tale of Humility by Steve Graybill
- 17 Balancing Fear and Confidence by Pete Bellande
- 20 Mind Over Matter on the Grand by Courtney Wilton
- The Mental Side of Whitewater by Mary DeRiemer
- 26 No Vacancy! by Carin Tinney
- 28 A Class V Cataraft State of Mind by Will Conley
- 33 Dig Down Deep by Rebecca Carter







Game on! Stacey Thompson leads Courtney Wilton through Lava Falls, Grand Canyon (AZ). The Colorado and its tributaries face threats resulting from uranium mining on the canyon rim.



PURPOSE

RIVER STEWARDSHIP: AN INTEGRATED APPROACH

Our mission: "To conserve and restore America's whitewater resources and to enhance opportunities to enjoy them safely," is actively pursued through our conservation, access, safety and education efforts under the umbrella of River Stewardship. The only national organization representing the interest of all whitewater paddlers, American Whitewater is the national voice for thousands of individual whitewater enthusiasts, as well as over 100 local paddling club affiliates.

AW's River Stewardship program adheres to the four tenets of our mission statement:

CONSERVATION: AW's professional staff works closely with volunteers and partner organizations to protect the ecological and scenic values of all whitewater rivers. These goals are accomplished through direct participation in public decision-making

processes, grassroots advocacy, coalition building, empowerment of volunteers, public outreach and education, and, when necessary, legal action.

RIVER ACCESS: To assure public access to whitewater rivers pursuant to the guidelines published in its official Access Policy, AW arranges for river access through private lands by negotiation or purchase, seeks to protect the right of public passage on all rivers and streams navigable by kayak or canoe, encourages equitable and responsible management of whitewater rivers on public lands, and works with government agencies and other river users to achieve these goals.

SAFETY: AW promotes paddling safely, publishes reports on whitewater accidents, maintains a uniform national ranking system for whitewater rivers (the International Scale of Whitewater Difficulty) and publishes and disseminates the internationally-recognized American Whitewater Safety Code.

EDUCATION: AW shares information with the general public and the paddling community regarding

whitewater rivers, as well as river recreation, conservation, access, and safety. This is accomplished through our bimonthly *AW Journal*, a monthly e-news, americanwhitewater.org, paddling events, educational events, and through direct communication with the press.

Together, AW staff, members, volunteers, and affiliate clubs can achieve our goals of conserving, protecting and restoring America's whitewater resources and enhancing opportunities to safely enjoy these wonderful rivers.

AW was incorporated under Missouri nonprofit corporation laws in 1961 and maintains its principal mailing address at PO Box 1540, Cullowhee, NC 28723; phone 1-866-BOAT-4-AW (1-866-262-8429). AW is tax exempt under Section 501 (c) (3) of the Internal Revenue Service.

American Whitewater Journal Staff

Editor Ambrose Tuscano P.O. Box 913, Soda Springs, California 95728 e-mail: editor@americanwhitewater.org

Graphic Design/Production/Photo Editor Megan Seifert

Assistant Editors Erica J. Seifert, Barry Tuscano

Contributing Writers

Mark Singleton, Dave Steindorf, John Amtmann, Matt Doble, Steve Graybill, Pete Bellande, Courtney Wilton, Megan Hooker, Mary DeRiemer, Will Conley, Rebecca Carter, Sarah Fox, Gardner Johnston, Greg Hanlon, Ed Clark, Adam Herzog, Charlie Walbridge, Carin Tinney

Photo Contributors

Jeff Paine, Chris Tulley, John Amtmann, Alden Bird, Ken Wealty, Tommy Gram, Dick Sisson, Phil DeRiemer, Hanno Shopp, Andrew Ludke, Will Conley, Sarah Fox, Gardner Johnston, Mark Cramer, Trip Kinney, Adam Herzog, Alex Knupp, Rebecca Carter

> Events / Advertising Coordinator Jeff Paine phone 828-398-0321 e-mail: jeff@americanwhitewater.org

> Safety Editor Charlie Walbridge Route 1, Box 329F, Bruceton Mills, WV 26525 e-mail: ccwalbridge@cs.com

> > Stewardship Reports Editor

Kevin Colburn, kevin@americanwhitewater.org

Missing Copies and Address Changes

Carla Miner, carla@americanwhitewater.org

American Whitewater is printed by Boyd Brothers Printing, Panama City, Florida. All rights reserved.

EDITORIAL DISCLAIMER

The opinions expressed in the features and editorials of American Whitewater are those of the individual authors. They do not necessarily represent those of the Directors of American Whitewater or the editors of this publication. On occasion, American Whitewater publishes official organizational policy statements drafted and approved by the Board of Directors. These policy statements will be clearly identified.

Board of Directors & Staff

BOARD OF DIRECTORS

Chris Bell chris@boatingbeta.com Asheville, NC

Rich Bowers rich@hydroeform.org Bellingham, WA

Dave Cernicek cernicek@cluemail.com Jackson, WY

Adam Cramer cramerica@gmail.com Bethesda. MD

Leland Davis leland@

brushmountainpublishing.com Swannanoa, NC

Kent Ford

kent2003@performancevideo.com

Durango, CO

Jennie Goldberg jennie@nwwhitewater.org Seattle, WA

Chris Hest kayakasia@yahoo.com San Francisco, CA

Don Kinser dkinser@ediltd.com Marietta, GA

Evie Locke evelynlocke@verizon.net Charlemont, MA Eric Nies nies@runbox.com New Paltz, NY

Norwood Scott wns111@sbcglobal.net San Francisco, CA

Charlie Walbridge, Honorary ccwalbridge@cs.com
Bruceton Mills, WV

BOARD OFFICERS

President: Norwood Scott

Vice President: Chris Bell

Secretary: Jennie Goldberg Treasurer: Don Kinser

.

At Large: Kent Ford and Evie Locke

AW STAFF

Laura Blalock Finance Manager Cullowhee, NC

laura@americanwhitewater.org

Kevin Colburn National Stewardship Director

Missoula, MT kevin@americanwhitewater.org

Nathan Fey
Colorado Stewardship Director
Longmont, CO
nathan@americanwhitewater.

org

Megan Hooker Stewardship Assistant Portland, OR megan@americanwhitewater. org

Jay Loschert Dolores River Stewardship Assistant Dolores, CO jay@americanwhitewater.org

Carla Miner Membership Manager West Valley City, UT carla@americanwhitewater.org

Jeff Paine Outreach Director Asheville, NC jeff@americanwhitewater.org

Thomas O'Keefe Pacific NW Stewardship Director Seattle, WA okeefe@americanwhitewater.org

Mark Singleton Executive Director Cullowhee, NC mark@americanwhitewater.org

Dave Steindorf California Stewardship Director Chico, CA dave@americanwhitewater.org

> TOLL FREE NUMBER 1-866-262-8429



THE IOURNEY AHEAD

s you read through this issue of the American Whitewater Journal, high profile dam removal projects are underway in the Pacific Northwest on the White Salmon and Elwha Rivers that will add opportunities for new paddling experiences. Thomas O'Keefe, American Whitewater Pacific Northwest Stewardship Director, has been a force of nature corralling these projects for the past decade. Let me share some information with you from Tom that outlines what role American Whitewater has played in these removals.

Elwha River

The removal of Elwha Dam and Glines Canyon Dam affords an important opportunity to reconnect a river. It will provide salmon with access to some of the highest quality habitat on the West Coast—habitat that has been unavailable for decades. It won't only be the fish that are celebrating though. Whitewater paddlers eagerly await the opportunity to experience an enhanced version of one of the region's most spectacular whitewater rivers.

The Elwha River is unique among rivers of the Olympic Peninsula as it cuts through several different geologic strata. This unique geology results in a diversity of salmon habitat and also creates a regionally unique whitewater resource. With deep and inaccessible gorges and challenging whitewater, the river represents one of the most spectacular backcountry paddling resources in the country.

Recreational users will be able to experience a free-flowing river all the way from the wilderness backcountry of the Grand Canyon of the Elwha to the ocean. The lower dam has buried a section of river with a gradient of approximately 38 feet per mile while the section behind the upper dam is 90 feet per mile.

American Whitewater has actively supported this restoration effort for the past 20 years. Early in the process when



Restoration of the Elwha, via removal of Glines Canyon (pictured) and Elwha Dams, will constitute the nation's largest dam removal and river restoration project.

Photo by Jeff Paine

the loss of recreational opportunities • on the reservoirs was highlighted as a negative impact of dam removal, we provided comment on the recreational and local economic benefits of a freeflowing river without dams. On rivers across the country we have witnessed firsthand the benefits that dam removal provides to local communities and we have been able to share this perspective • throughout the process. Securing funding for the project was a long process but in partnership with our colleagues in the conservation community we made many trips to Washington DC to advocate for this project and are thrilled to see those efforts finally come to fruition.

White Salmon River:

Editor's Note: to meet Journal deadlines this was submitted before the October 26th removal date.

On the morning of October 26th 2011 at approximately 10:30 a.m. PacifCorp will plast a hole through Condit Dam to open a 13-foot by 18-foot drain tunnel that will drain the reservoir over a period of approximately six hours. By the end of the day the White Salmon River will be free-flowing for the first time in a century.

- Removing Condit Dam is the most cost effective solution for the dam owner, PacifiCorp.
- Dam removal will open 33 miles of habitat for steelhead and 14 miles of habitat for chinook, chum, and coho salmon.
- Dam removal will open up five miles of recreational boating runs and provide for additional recreational opportunities on the river. About 25,000 boaters use the river each year and recreation is of increasing importance to the local economy.

American Whitewater signed the settlement agreement to remove the dam in 1999. Over the past decade we have run the gauntlet of regulatory and political hurdles to bring this project to fruition. While we have worked with many partners on this effort over the years American Whitewater provided capacity in the following specific areas:

 Provided technical expertise on the recreational benefits of a restored river in a proceeding where "loss of

THE IOURNEY AHEAD

recreation" was initially cited as a • negative outcome of dam removal.

- Mobilized grassroots campaign and local citizens in support of dam removal through direct community outreach, organizing local education forums, and working through the Headwaters Institute and local outfitter Wet Planet to assist in training river guides who reach more than 25,000 visitors who come for whitewater rafting annually.
- Organized a national ad campaign in partnership with New Belgium Brewing to highlight the river. Additionally we served as the local face for the 2007 American Rivers Most Endangered Rivers report along with Friends of the White Salmon.
- Worked at the local, state, and national level meeting with agency staff and elected officials to provide critical status updates on the project and develop coordinated strategies leading to issuance of final permits necessary for the project to proceed.

Both the Elwha and White Salmon River restoration projects demonstrate that what's good for fish is also good for boating. The interests of habitat restoration and recreation work in tandem through the stewardship efforts of American Whitewater. These projects are important not only for recreational users but for fish and other organisms that depend on the connectivity and flows rivers provide. Projects such as these create a triple bottom line: they provide local communities a sustainable economic

base, they result in healthier rivers, and they provide opportunities for improved boating flows and access.

Our organization's ability to take the long view on river stewardship is made possible through your membership support. We continue to appreciate the importance of rivers and their role in supporting the health and well being of the paddling community. At American Whitewater, we remain committed to giving back to these special places through our river stewardship program.

Monh

Executive Director, American Whitewater

No more renewal notices!



Sick of renewal notices in the mail?

Sign up for auto-renewal on your AW membership and you'll never get another. Your membership won't lapse and you'll be helping us save our limited funds and trees!

New and renewing members:

americanwhitewater.org/join

Current members:

1-866-262-8429



STEWARDSHIP

PIT RIVER, CALIFORNIA: A BIT OF CELEBRATION AND A LOT MORE WORK

BY MEGAN HOOKER

FTER MUCH ANTICIPATION and two summers of no whitewater opportunities, regularly scheduled whitewater boating flows are coming to the Pit River in Northern California each October. The first scheduled releases took place over the weekends of October 1 and 2 and 15 and 16. This summer, the Federal Energy Regulatory Commission issued an order calling for the flows. And while American Whitewater can't wait to see you all out on the river, our work here is far from over.

The Pit provides an excellent whitewater run and offers a unique combination of geology, scenery and waterfalls. When the river is flowing, it has something to offer everyone. From Class II to Class IV water, the area contains sections that appeal to boaters with a wide range of skill levels. Before American Whitewater became engaged in the relicensing process for this project, these opportunities were few and far between, as the operation of the Pit 1 Hydroelectric Project has had a hefty impact on whitewater recreation as well as the aquatic species that call the river home. The previous license allowed PG&E to divert essentially all of the water out of the Pit River, with the instream flows made up of leakage from their dam plus whatever side springs came in along the way. The project diverts the river's flow around a fantastic section of whitewater. and while the new minimum instream flows mandated by the project's FERC license are an improvement, they are still a fraction of what the river's natural flows would be. With the requirement to leave some water (but not much) for aquatic species, whitewater recreation opportunities on the reach have been decimated.

Between 2003 and 2009, paddlers took advantage of summer flushing flows

that were mainly in place to prevent aquatic vegetation growth and improve water quality. These flushing flows were temporarily cancelled in 2010 because of concern that they were harming the endangered Shasta crayfish. The science in this case is weak, and we are working hard to ensure that the agencies step up and assess the situation fairly.

This summer, the utility made a move toward permanently canceling the summer flushing flows. As American Whitewater tracks the situation and contends with a tangled web of multiple state and federal agencies and environmental laws, we are keeping our focus on making sure that solid science remains the base for making decisions that have such a huge impact on the river.

In the meantime, we're pleased that there will be four boating days instead of none on this stunning reach this year, and we look forward to seeing you on the Pit River! Be sure to check our website for future whitewater release schedules and updates on the summer flushing flows.





Classic California Class V, Rubicon River.
Photo by Chris Tulley

FLOW STUDIES COMPLETE FOR THE RUBICON AND MIDDLE FORK AMERICAN RIVERS (CA)

BY DAVE STEINDORF

VER THE PAST 15 years, American Whitewater has been involved in relicensing negotiations for over fifteen hydroelectric projects in California, and spearheaded efforts for upwards of 40 recreational flow studies. In June of 2011, we put one more of these efforts in the "Done" column.

After six years of planning, preparing, and waiting, flow studies for the relicensing of Placer County Water Agency's hydroelectric projects on the Middle Fork American and Rubicon Rivers are complete. Over the last two years, we completed flow studies on four river reaches, which included one first descent and one helicopter evacuation of one of the boating teams. The flow studies are being completed to inform conditions in a new FERC license (anticipated in 2013) for the PCWA's project operations. American Whitewater, along with other members of the boating community, has been a key player in these negotiations.

Catching flows on the Rubicon in the sweet spot: not too high, not too low.

Photo by Chris Tulley

STEWARDSHIP

The Rubicon was the last river that needed to be studied in the system. The effort to get this one finished was challenged by limitations of the release structures below Hellhole Reservoir. When we learned in 2008 that PCWA could only release a maximum of 70 CFS from the outlet works at Hellhole Dam, we knew that getting this flow study scheduled was going to be a challenge. Fortunately, 2011 proved to be one of the wettest years on record in California.

Even so, getting the information that we needed during the flow study was a nail biter right to the end. In May of this year we began tracking flows and snowpack levels in an attempt to forecast when the Rubicon would be in our target flow range of 500 to 600 CFS. Flows in the Rubicon stayed well above 1,000 CFS for most of June and into the beginning of July. Then on July 9, the flows dropped from 650 CFS to under 500 CFS in a single day, blowing right through our target flows. Fortunately, a team of boaters happened to be on the water as the flows came down, and we were able to gather critical information about the boatability of the Rubicon in this lower range from them.

This rapid drop in flows also pointed out an issue that American Whitewater has been highlighting for several years. Flows transition from high spring flows to summer base flows much more quickly on rivers below dams than they do on freeflowing rivers. When this happens, quite often flows can go from levels that are unrunnably high to unrunnably low over the course of a single day (see "Bringing Spring Runoff Back to Rivers" below). While this can create frustration for recreational boaters, it is even more devastating for the aquatic species who call these river systems home. Their evolution is based upon the natural gradual flow recession that occurred in Western river systems before dams existed.

These studies will help to inform new license conditions on the PCWA projects.

The new license conditions that are being proposed will not only improve boating opportunities, but will also bring about more natural flow conditions by slowly reducing spill flow events in the spring. This will help protect fish, frogs, and other species that live in the Middle Fork American and Rubicon Rivers.

American Whitewater would like to thank all of the boaters who participated in these flow studies, and extend a special thank you to Hilde Schweitzer for her efforts in helping to plan, organize, and provide the report to the boating community on these studies. It is largely through her efforts that these studies have succeeded.

Many years ago, we were laughed out of the room for suggesting flow studies. Today, we're grateful to see that the tide has turned, and that these studies are a valid part of determining flows in the dam relicensing process. The next step for the Rubicon will be for us to analyze the information from the flow studies and use it to develop a final flow schedule, which will be submitted to FERC in November of 2011. Stay tuned for updates!

BRINGING SPRING RUNOFF BACK TO RIVERS

BY MEGAN HOOKER

ADDLERS ARE WELL versed in the differences between free flowing rivers and those that flow at the whim of dam operators. We understand how unnatural flow patterns change the places we love to play. In fact, the awareness of this within the paddling community runs deeper than it may for most river managers because we're down in the river, seeing the differences for ourselves.

Not only can most paddlers read a hydrograph, but we can also tell how rivers behave in different seasons. And with 70% of the flow in Western rivers coming from snowmelt, we're intimately in tune with the fact that the best runs on free flowing



A paddler dodges trees that have taken root in the main channel of the South Fork American River (CA). This sort of overgrowth is typical on rivers with flows that are altered by dam operations.

rivers happen when the snow is melting in the spring and early summer.

We're also well aware that flows on rivers impacted by dams can be less predicable than a teenager's moods. Sometimes they sleep most of the day and then, without warning, turn into the Tasmanian Devil. Flows can often go from unrunnably high to unrunnably low in a matter of days, or even hours. With the advent of online flow information, paddlers have an easy time picking and choosing which rivers to play on—depending on what's flowing and what isn't. And if flows don't change radically between the time paddlers leave the house and when they get to the put-in, it's easier to have a great run.

In the early days, paddlers were less fortunate. They would have to wet their finger, put it in the air and hope that their flow predictions were correct. When asked about how well this worked, California river explorer Richard Montgomery said, "We got skunked a lot." He also said that they usually had a free flowing river with a predictable flow as a "back up plan."

Unfortunately, the fish, frogs, bugs and other aquatic life that call these rivers home don't have the luxury of online flow information, and they certainly can't hop back in the car and find an undammed river

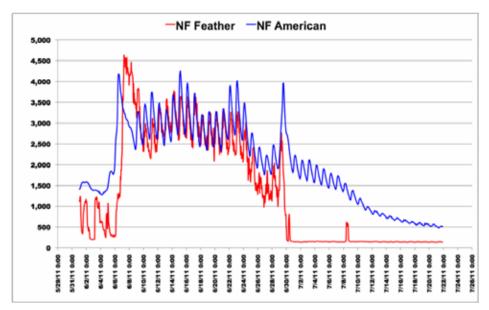
system to sustain them. While unnatural and unpredictable flows are inconvenient and frustrating for paddlers, it can mean life or death for our fellow river dwelling species. As is true of most things in our society, the simple and inherent flow of a river and the evolutionary patterns of frogs or bugs don't gel with today's politics and financial bottom lines, but here at American Whitewater, we're working to change that.

Why Spring Runoff Matters

Free flowing rivers are dynamic and always changing, but this change comes with a healthy dose of predictability—and many aquatic species have evolved and established life patterns based within this dynamically predictable structure. Perhaps one of the most important changes comes as spring turns to summer, when spring snowmelt flows finally reach their peak and gradually begin to recede to a summer base flow (see North Fork American hydrograph for an example). The spring runoff and "snowmelt recession" (shown between 6/30/2011 and 7/22/2011 in the hydrograph) is a critical occurrence that makes western rivers unique.

By contrast, rivers that are subject to dam operations typically have hydrographs that drop sharply from the peak spring flow to low summer base flows (see hydrograph, with the North Fork Feather as an example). This not only eliminates the best part of the boating season, but also harms the species that have evolved and adapted to the predictable and gradual recession of flows. The elimination of the natural flow regime can create a "flatlined" hydrograph, and the metaphor is certainly apt for the river—it's dead.

These systems miss out on the best part of the year, when flows are cold and gently receding, and the river has time to interact with its floodplain, delivering nutrients throughout the ecosystem. The when and how of spring runoff has a direct and tangible impact on river health, from how the rocks in the river move and what



Hydrographs comparing the flows of a river impacted by hydroelectricity (the NF Feather in red) with a free flowing river (the NF American in blue). Note how flows gradually drop between the peak spring snowmelt and the low summer base flows (i.e. "snowmelt recession" between 6/30/2011 and 7/22/2011) on the NF American, vs. the free fall and relative flat line on the NF Feather.

habitat gets created, to which river critters are queued up for breeding.

Spring runoff also keeps vegetation from taking root on the river's banks and cobble bars, keeping vegetation at the edge of the high water channel (see photos). If you're a frog, cobble bars provide protection from high velocity flows-necessary habitat if you're concerned about the wellbeing of your tadpoles. It's stressful for aquatic species when habitat critical to their reproduction is covered in alders. As a paddler, you've probably been irked by this too. It's less than ideal to be dodging limbs as you make your run. And when sandy beaches are few and far between, it's no fun hacking through the vegetation to find a campsite. More seriously, performing a rescue on a vegetation-choked channel makes an already challenging situation that much harder.

During this time of spring runoff, conditions are perfect throughout the river for bugs, fish, frogs, and boaters, and the system is teeming with life. It's free of the stresses

that come during the erratic flows of the winter and low flows of the summer, giving the river a chance to come alive.

Bringing Spring Runoff Back to Dammed Rivers

There's often a perceived tension in the world of river restoration between recreation and conservation interests, which is wholly unfortunate. Recreation actually has guite a bit to offer the world of conservation, and vice versa. As recently as 10 years ago, American Whitewater's focus in California was primarily on gaining recreational releases to provide more boating opportunities. While this met our recreation interests and we didn't find any evidence that these flows caused harm in the system, in many cases advocating for recreational flows put us at odds with resource agencies and other recreational and conservation interests. Needless to say, the tension around the topic of recreational flows can be thick.

For American Whitewater in California, working through this tension eventually

STEWARDSHIP



Vegetation takes hold on the North Fork Feather River (CA), where the gradual recession of annual spring flows to summer base flows is absent. In a healthy California river system, the trees in the picture on the right would be farther up the bank. It takes only a short time for the vegetation to take hold. The picture above was taken in 2002, while the picture below is from 2009.



led to a deeper understanding of how recreation and conservation can go hand in hand. In 2006, whitewater flows were targeted as the cause of the decline in the population of the Foothill Yellow Legged Frog on the Feather River. Flows were cancelled, giving American Whitewater's Dave Steindorf an opportunity to step back and take a close look at flows on the Feather and compare them to hydrographs from free flowing systems. Clearly they were not the same, and existing project operations likely had more to do with the

decline than the recreational flows. Dave sat down with researchers at U.C. Davis to discuss the differences. This conversation lead to a pivotal paper published by Sarah Yarnell, Joshua Viers and Jeffery Mount in 2010 which highlights the importance of the snowmelt recession for riparian health. ("Ecology and Management of the Spring Snowmelt Recession" was published in the February 2010, Vol. 60 No. 2 edition of BioScience, and can be found online at: http://watershed.ucdavis.edu/pdf/Yarnell_etal_BioScience2010.pdf)

Federal Energy Regulatory Commission relicensing negotiations are the main arena for determining flows on rivers with hydropower dams, and American Whitewater staff spend *a lot* of time at these meetings representing your interests. There are simple ways to operate dams so that they mimic the flow of an undammed river, including gradually turning the flow down after a peak flow instead of abruptly cutting it off. And while it's encouraging that these practices are gaining more traction, most utility companies still hold fast to their bottom line. Unfortunately, this means that a river below a dam can look like a pond or like a 1,000 year flood event—take your pick (or in some cases, it can be both, all within the span of a few days). American Whitewater's participation in these relicensing negotiations has been critical to ensuring that the river's interests are also at the table.

The discoveries made in the aftermath of the cancellation of the flows on the Feather and other rivers throughout the Sierras shape much of American Whitewater's work in California and throughout the West today. While the process was painful, the effort has been well worth it. Today, the importance of natural flow regimes—and spring runoff in particular is gaining more support as a framework for the conservation, restoration, and management of rivers. As a result, the conversation has shifted in relicensing negotiations throughout California and the West, including those on the Yuba, McCloud, and Middle Fork American/ Rubicon Rivers, and on water resource projects on the Colorado and Dolores Rivers in Colorado.

Bringing spring runoff back to systems impacted by dams is a clear example in which what's good for the river is good for recreation—and of how American Whitewater continues to bring healthier rivers and more reliable recreation opportunities to rivers throughout West.

GET YOUR GREEN CARD TODAY!

SUBSCRIBE TO KAYAK SESSION MAGAZINE, CONTRIBUTE TO AW EFFORTS EVEN FURTHER AND SAVE MONEY!

Here's how: As an AW member, you save money when subscribing to Kayak Session. If that's not enough, your purchase awards another 5 bucks back to AW's effort to change the world.

If that doesn't change the world, it can at least make it a little sweeter...





50% discount on Kayak Session Subscriptions!
30 USD for one year subscriptions
5 dollars back to AW for every subscription purchased

Save, Support, Enjoy

Special offer available only with the use of the present form (photocopy accepted)

Please sign me up for one ye	ear (four issues)			
Start my subscription with:		next issue		
		Phone		
		·		
Method of payment:	☐ Mastercard	☐ Visa ☐ Check		
Credit card number				
Signature				
You may fax this form and/o	r credit card orders	to: 828-586-2840		

PADDLER FITNESS

FOCUS ON FLEXIBILITY

BY JOHN AMTMANN AND MATT DOBLE

PHOTOS BY JOHN AMTMANN

N THE PREVIOUS issue we discussed how applicable the old cliché "An ounce of prevention" is to paddler health, which led us to discuss the importance of good paddling posture for paddling efficiently. Good paddling posture, and good paddling technique in general, is difficult without a healthy range of motion, also known as flexibility.



Figure 1: Hip Flexor Stretch – Remaining seated for prolonged periods can cause one's hip flexors to gradually lose flexibility. This stretch will help maintain and improve hip flexor flexibility. Matt Doble and Meaghen Randall demonstrate the proper position for this stretch.

Flexibility

Flexibility can be defined as the range of motion of a joint or group of joints (Alter, 1996); various factors determine joint range of motion. The first factor is the architecture of the joint. For example, the hinge joint of the elbow allows for relatively modest movement when compared to the ball and socket joint of the shoulder; the major difference in range of motion in these two joints is their respective architecture. Age and sex also play a role: younger people tend to be more flexible than older people. and females tend to be more flexible than males. Also, active people tend to be more flexible than inactive people. Connective tissue, such as tendons, ligaments, fascial sheaths, joint capsules, and skin also determine joint range of motion.

Connective Tissue: What does it do?

Tendons	Connect muscle to bone		
Ligaments	Connect bone to bone		
Fascia	Aids in maintaining integrity in the individual components (muscle fibers) of the muscle		
Capsule	Surrounds the joint and secretes synovial fluid, which helps to lubricate the joint		

As the strength and conditioning coordinator for the Montana Tech basketball teams, I communicate with the strength and conditioning coaches at Michigan State University, a perennial powerhouse in college hoops, to make sure I'm on the right track with regards to our basketball strength and conditioning program. The Spartan strength and conditioning manual stresses the importance of the flexibility training program, and states that flexibility exercises may reduce the likelihood of injury to muscle tendon units (Vorkapic, 2002).



Figure 2: Hamstring Stretch – Hamstring flexibility is required to maintain posture while seated in a kayak. This stretch targets the hamstring group. Note: use an object such as a stability ball or stool for support if balancing in this position is difficult.



Figure 3: Quad Stretch – For an effective quad stretch, assume the hip flexor stretch position and bend the rear leg up at the knee. Again, if balancing in this position is difficult use an object to stabilize yourself.

Some research supports this assertion. In one study researchers assessed the lower body flexibility in 146 male soccer players prior to the 1999-2000 season (Witvrouw, Danneels, Asselman, D'Have, Dirk, 2003). All of the examined players were monitored throughout the season to determine the presence and severity of injury. Players who suffered a hamstring (N = 31) or quadriceps (N = 13) muscle injury during the season were found to have significantly lower flexibility in these muscles before their injury compared with the uninjured group. No significant differences in muscle flexibility were found, however, between players who sustained an adductor muscle injury (N = 13) or a calf muscle injury (N = 10) and the uninjured group.

Researchers concluded that these results indicate that soccer players with an increased tightness of the hamstring or quadriceps muscles have a higher risk for a subsequent musculoskeletal injury to those areas, but not necessarily to the groin or calf areas.

So, there are conflicting reports on the relationship between flexibility and injury. Most experts agree, however, that there appears to be an ideal *range* of flexibility that will help prevent injury, and that flexibility may be one of many factors involved in the development of an injury.

Injuries are, often, the result of both The ACSM recommends the following intrinsic and extrinsic factors. Intrinsic causes may include the age, weight, and overall physical fitness of the paddler. Extrinsic factors would include boat dimensions, river flow, or environmental factors such as weather (Hackney, 1994).

You don't have to be a college level athlete to reap the benefits of a flexibility training program. In our opinion, flexibility training needs to be a regular component of a paddler's training sessions. Along with the possibility of reducing the occurrence of injury, properly performed stretching exercises may help to relieve lower back pain, muscular cramps, muscular soreness, and reduce stress.



Figure 4: Anterior Spine Stretch 1 - This stretch helps to maintain flexibility of the connective tissue in front of the spine. Don't allow the hips to rise off the mat; come down onto your elbows if necessary.

Guidelines

There are two general approaches to stretching: static and dynamic. Static and dynamic stretching both may improve flexibility, but we recommend static stretching because it is in keeping with the American College of Sports Medicine's (ACSM) guidelines for achieving and maintaining flexibility.

When should you stretch? The body's temperature is usually higher at the end of a workout session compared to the beginning of the session, and this may be a safer and more effective time to stretch.

guidelines (2000):

Туре	A general stretching routine that exercises the major muscle and/or tendon groups.
Frequency	A minimum of 3 days per week
Intensity	Moving the body segment to a position of a comfortable stretch
Duration	15-30 seconds
Repetitions	3 to 4 for each stretch

A few important notes paddlers should be mindful of:

- Some stretching exercises may not be appropriate for some participants because of prior injuries or other conditions, or because the exercises have been identified as unsafe. Avoid the contraindicated exercise shown below.
- Stretch to the point where you feel a comfortable stretch in the target muscle group, NOT pain. NO BOUNCING!
- Focus on deep breathing and avoiding breath holding. The recommended time, 15-30 seconds, should be spent concentrating on deep breathing and relaxing the muscle group being stretched.

If you want to make most effective use of your stretching time, make sure to target the common tight spots, which include the hamstrings, hips and low back but, keep in mind, research indicates that maintaining a healthy range of motion in all the joints/ major muscle groups is important for preventing musculoskeletal injuries.

The following easy sequence is a safe set of stretching movements that target the hip flexors, posterior thigh (hamstrings), anterior thigh (quadriceps muscle group), and anterior spinal musculature.



Figure 5: Anterior Spine Stretch 2 – another version of the anterior spine stretch is to use a stability ball.

Stretches:

Figure 1, Hip Flexor Stretch Figure 2, Hamstring Stretch Figure 3, Quad stretch Figure 4, Anterior Spine Stretch 1 Figure 5, Anterior Spine Stretch 2

A common stretch that should be avoided is the hurdler's stretch. This stretch has been commonly used to target the hamstrings (when leaning forward) and the quadriceps (when leaning backward). The traditional form of this stretch causes external rotation of the flexed knee and, consequently, excessive stress to the medial collateral ligament and medial meniscus. There are a variety of modifications to safely adjust the hurdler's stretch, one modification is to bring the foot of the bent knee to the inside of the thigh rather than to the outside.

Figure 6, Hurdler's Stretch Figure 7, Modified Hurdler's Stretch

Remember, an ounce of prevention is worth a pound of cure, and the information in these six Paddler Health and Fitness articles can help to develop fitness enough to enjoy injury-free paddling and improve paddling performance for decades to come.

Nov/Dec 2011 13

PADDLER FITNESS



Figure 6: Hurdler's Stretch – Avoid this position. It places excessive stress on the knee.

References

Alter, M. 1996. *Science of Flexibility*. Second Edition. Champaign, IL: Human Kinetics.

American College of Sports Medicine. 2000. ACSM's Guidelines for Exercise



Figure 7: Modified Hurdler's Stretch – One way to modify this stretch is by placing your foot on the inside of the opposite thigh. Ahh, that's better.

Testing and Prescription. Sixth Edition. Philadelphia: Lippincott Williams & Wilkins.

Hackney, R. 1994. Nature, prevention, and management of injury in sport. (ABC of Sports Medicine). *British Medical Journal*.

May 21, Vol. 308, Issue #6940, pp. 1356-1359.

Mannie, K. 2003. Flexible Perspectives on Stretching. *Coach and Athletic Director*. December, Vol. 73, No. 5, pp. 6-9.

Powers, S., Howley, E. 2001. *Exercise Physiology: Theory and application to fitness and performance.* Fourth Edition.

New York, NY: McGraw – Hill.

Vorkapic, M. 2002. 2002 Summer Strength and Conditioning Manual (Michigan State University).

Witvrouw, E., Danneels, L., Asselman, P., D'Have, T., Dirk, C. 2003. Muscle flexibility as a risk factor for developing muscle injuries in male professional soccer players: a prospective study. *The American Journal of Sports Medicine*. Jan-Feb, Vol. 31, Issue #1, pp. 41-46.

Membership Installment Plans!



Big support, small payments

Now, you can choose to pay for any \$250+ membership in four or twelve payments. It makes that \$750 Lifetime membership just \$62.50 a month. Easy as \$62 pie:)

New and renewing members:

americanwhitewater.org/join

Current members:

1-866-262-8429



A WHITEWATER TALE OF HUMILITY

HOW RACING SLALOM CHANGED MY LIFE

BY STEVE GRAYBILL

HOSE WHO HOLD a PhD know very much about very little. I do not mean this in a derogatory way. Quite the contrary, they are experts in their field; the best of the best. Often, they can know more about very little than the rest of us know about very much. I also believe professional athletes are the PhD holders of their respective sports. I am not made in the mold of one to have a PhD. I lack the discipline to know everything or close to everything there is to know about very little. Instead, I prefer to know a little about a lot. Once, however, I did believe there was an area of my life that was an exception: I thought I might be able to hold a PhD in the field of whitewater kayaking. I was wrong!



Steve and Alden after another fun day on West Virginia's Classic Upper Blackwater. **Photo by Alden Bird**

A BRIEF HISTORY

As I was entering my teenage years my father became enamored of whitewater, by which I mean fully addicted. It would not be long before he introduced me to the sport. My father briefly flirted with kayaking, however, his whitewater career was primarily experienced from the starboard, stern-side of rubber rafts and, in the past ten years, behind a pair of oars. I did not have the same instantaneous addiction to whitewater as my dad, rather my love for whitewater took time to develop.

In 1988 and 1989, from March to June, my dad and I spent our weekends together guiding rafts on the Cheat River in Albright, West Virginia. We would make the four-hour-plus drive from the Washington DC area each weekend. Some of you familiar with this drive might say that it is only a three-hour drive, which it is today. However, we were making the trip in the pre-I-68 days, on old two-lane route 40... geez that makes me feel a little old...uh...I mean Old-School! Anyway, during the second year of guiding my dad decided to

try kayaking and got us both Perception Mirages. Once I had the kayak it was not long before I decided that rafts just were not my thing. However, as I started college kayaking was put on the back burner. It would not be until several years later, after a crappy break-up, that I discovered that kayaking would be the hobby that would become my passion. I remember spending every weekend taking my Hydra Dragon Fly (an upgrade over the Mirage) out to Mather Gorge, and I also remember talking to some cute girls in more modern boats at the putin one day who asked me, "Hey, did you get that boat at the Smithsonian?" I would have to upgrade—and soon!

Shortly thereafter I bought a new playboat that was shorter than my car and allowed me to fit in with the cool kids. I remember driving to Anglers to sleep in my car to avoid morning traffic and to get Maryland Chute to myself for a couple of hours on weekdays when I did not have to work. At other times, usually paddling after work and on weekends, I started to meet and become part of a community of boaters. If there

is one place that I experience community more than any other it is with my kayaking friends. I had my crappy playboat, but a playboat nonetheless, when I first started hearing about creeking. I would be playing at Maryland Chute and see these people in bulbous boats come floating down the river wearing elbow pads. I soon discovered that they were running Great Falls, about a mile upstream. The creek boat would be the next addition to my quiver.

Soon after I met Bobby Miller, Bryon Dorr, and Joe Stumpfel. They would become my kayaking crew. Bobby, Bryon, and Joe would instill so much confidence in my ability as a boater. I was just young enough to still believe I was invincible. While driving hours and sometimes days to get to rivers and creeks we would become great friends and paddle really crazy stuff together. We spent many weekends paddling the Upper Blackwater, Red Creek, The North Fork of the Blackwater and other West Virginia and Pennsylvania creeks. We also made a trip or two to the Delaware Water Gap—home

of steep creeks made famous in Bobby Miller's Sucker Punch.

One of the most epic days we had was running the Holtwood section of the Susquehanna River at 550,000 plus cfs, the third highest flow on record for this stretch of river. I remember being the first one to put on for this run in a mangle of trees with a lot of current; it was sketchy to say the least! With the Holtwood flood and what seemed like countless other Class V runs under my belt I had arrived in the boating world! It would not be long, though, before Bryon and Joe moved to other parts of the country. Bobby and I would occasionally paddle on some local creeks after that, however, for the most part my days spent running steep creeks were few and far between.

My decline in days spent on steep creeks coincided with me moving into a house with three other kayakers...well actually two other kayakers and one C-1er. Yes, a C-1er—one of those crazy boys and girls who prefer to kneel rather than sit on their butts for their whitewater experience. This C-1er, Alden Bird, happened to be training to make the US Olympic Whitewater Slalom Team. It did not take much coaxing from Alden before I had a Slalom boat and Olympic dreams of my own. I was one bad-ass creek-boater and before long I was going to be one bad-ass slalom racer...or so I thought.

HOW RACING WHITEWATER SLALOM CHANGED MY LIFE

The house that I was sharing with three other kayakers was in Brookmont, MD. From there, it was a mere five-minute walk to the Feeder Canal which had slalom gates hung year round on Class II whitewater. Moreover, it was only a 40-minute drive away from the Dickerson Power Plant, which had slalom gates on challenging Class III-IV whitewater. We even had access to the David Taylor Model Basin, an indoor pool about a half-mile long, designed to test naval vessels—it was great for winter-time workouts when the river froze. Couple

that with an ultra-competitive and highly motivated C-1er housemate, and I had everything I needed to get in shape and hone my skills to make my mark in the world of whitewater slalom. Alden and I trained together six to seven days a week at times.

My first race would be the only race that I walked away from with any confidence. The Housatonic Area Canoe and Kayak Squad, HACKS for short, has a really fun Slalom Series in the Connecticut area and it is where Alden learned to paddle from C-1 legend Jamie McEwan. Alden and I decided to make a trek up there for their Covered Bridge Slalom on the Housatonic River. In my first slalom race I would walk away with bronze in the men's division and also a dubious gold in the recreation boat class. I did not realize it at the time, but this class was made up mostly of pre-teen beginner paddlers. I did feel really bad for taking a trophy away from an eight-year-old.

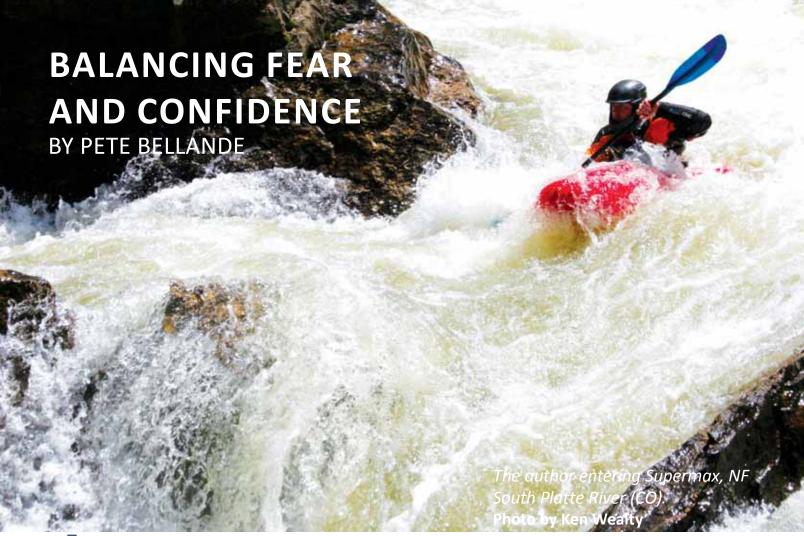
Then, in February of 2007, I attended the first of several big slalom races, the Glacier Breaker on the Nantahala River in North Carolina. Although I refused to believe or accept it at the time, this was where I would learn that elite whitewater slalom kayakers are in a class that I would never belong to. Whitewater racers typically use their percentages off the fastest times to gauge their progress in the sport. If you are ten percent off of the fastest time you are not doing badly. That is, with practice and determination there is hope that you can join the ranks of the elite-class. I recall being between 50 and 60 percent off of the fastest time at the Glacier Breaker. I said to myself, "Okay, next time I will get it down to 40 percent, and then work on 30 percent, and in a year, several months before the Olympic trials, I would be close to 10 percent.

A year later, in March of 2008 I would be racing in the Dickerson Open trying to earn a chance to race in the Olympic Trials. During the year leading up to the Dickerson Open I did not improve my percentages off

of the fastest times. I often asked myself how I could be so bad at the one thing that I was so good at, the one thing that I knew very much about? I still do not have a great answer for that question. Despite knowing I would not make the Olympic Team, I still wanted to be able to say that one day I raced at the Olympic Trials and gave it everything I had. I earned that opportunity at the Dickerson Open.

It was not easy going to a race I knew I had no chance of winning. Part of me feels like it was a masochistic life decision to attend that race. However, I did learn a great lesson from my slalom racing experience. I realized that I was not a bad-ass racer and even that I was not a bad-ass creekboater (Just an aside here: not all slalom racers run creeks, but the ones who do... yeah they are bad-ass creek boaters.). Me, I tended to run things a little bit above my skill level—I think because it made me feel big, sometimes even better than the local folks I saw on the Potomac. Slalom racing, however, showed me that I am not better than anyone.

While I do not see anything wrong in having kayaking define at least part of who I am, racing whitewater slalom showed me that I don't need to be defined by how good I am at it. In fact, how good or bad we are at something should never define who we are. Unless, perhaps, you are bad at saying "please" and "thank you." Kayaking remains one of three things in my life that never grow old (in case you are wondering the other two are God and my relationship with my wife). Kayaking is something "very little" that I am comfortable knowing a great deal about. While not holding a PhD, particularly in the athletic sense, perhaps you could say I hold a Masters Degree in whitewater kayaking. However, not until I raced slalom did I learn that on the water I am just another boater...nothing more, nothing less. And I am okay with that!



FEW MONTHS AGO, I made what I hope will become an annual springtime rite of passage. My car, loaded up with paddling and camping equipment, drove through the Eisenhower Tunnel, up over Vail Pass (which still had feet upon feet of snow on either side of the road) and then down into the verdant Grand Valley. I was taking my buddy Daniel for his first desert creeking experience on the Escalante. Just like the year before, I found myself a bit nervous on the drive out due to the "Off the couch Class V" nature of Escalante's early season.

While Escalante is certainly not full on Class V, its cold muddy water can still deliver a beat down and I found myself more anxious than usual as I slid into my boat the next day. The morning sun was relatively low in the sky and gave the little brown waves in the warm-up boogie water a hint of silver.

It had been almost half a year since I'd last paddled, but the sensation of being on the water felt as natural as ever. The paddle

fit comfortably in my hands and my boat, properly outfitted, became the extension of my body that it needed to be. I had a half-mile of beautiful desert Class II-III warm up paddling and so I used that time to think about just what it takes to be on my mental game.

The physical skills of kayaking (paddling forward, making lateral adjustments, rolling, etc.) are pretty uncomplicated compared to the psychological aspect of the sport. I have taught people to roll in thirty minutes' time. Yet, with over a decade of creeking experience under my belt, I still find myself getting butterflies at the put-in.

Daniel and I came to the first horizon line—a seven- or eight-foot drop called "leap of faith." Here, the boater wants to float to the lip on the left side of the creek, orient his boat to point down a right curler and then take a late boof stroke towards the bottom. Daniel went first and disappeared over what appeared to be the edge of the

world without incident. It was my turn and my heart was beating. Truth is, I'd always had a wonky line at this drop. While never getting into any kind of serious trouble, I'd find myself back-endered or having to push my way around a rock at the bottom. As I approached the drop this latest time, the overhanging branches brushed my helmet and I reminded myself that I had paddled much harder drops. Besides, a backender wouldn't kill me. At the lip, I hooted to Daniel in the eddy below, waited that extra half-second for my boof-stroke and landed without even getting my face wet.

Fear and whitewater are pretty much inseparable and it can be tricky to know how much value to give fear at any given time. I'm pretty sure that fear is a good thing. It kept the cavemen from trying to wrestle a bear, keeps highway drivers from cutting off semi trucks and keeps kayakers from trying to make a first descent of Niagara Falls. Fear helps keep us safe—but, like all good things, if given too much power or attention, it can screw us up. For those



The author at Rib-Ripper on the Escalante (CO).

Photo by Tommy Gram

of us addicted to a sport where fear is an integral component, that fear can easily become a distraction.

I try to recognize fear for what it is and have a few tools in my employ to help me manage it on the river, thus giving me the confidence I need to reach my potential as a kayaker.

A great tool for managing fear and gaining confidence (not to mention that it's a good workout and plenty of fun) is playboating. All you need to playboat is a roll. If you don't have the roll, you really shouldn't be kayaking whitewater in the first place, so there are no excuses. Most park and play spots are Class II-III with numerous people nearby to help out with a rescue in case of a swim. A thirty-minute playboating session can easily result in ten to fifteen rolls. And I promise those rolls will yield confidence. Also, playboating will give you experience surfing holes—something that comes in handy when you find yourself in a hole you don't want to be in.

Daniel Lundberg side boofing in the crux of Supermax, NF S. Platte (CO). Photo by Ken Wealty Other tools? Mix up your boating crew and go out with paddlers who are better than you. They can show you new lines and add security to any whitewater trip. Irrational fear is toxic and contagious, so it's good to find folks to paddle with who exude the type of confidence you aspire to have.

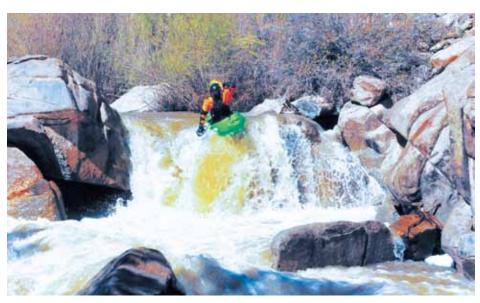
While playboating and paddling with seasoned boaters are concrete steps one can take to improve a paddling mindset, there is another not so concrete tool—one that may seem ridiculous in a "this is the crap my mom talks about from watching too much Oprah" sort of way. Still, I find it useful. When the knowledge is there that I

have the skills to paddle a particular section of river yet still feel a bit uneasy, I verbally remind myself while paddling that I have what it takes to pull it off. I have literally gone into drops shouting encouragement to myself.

Going back to that day on Escalante Creek, Daniel and I came to one of the bigger drops of the run called Waterslide and got out to look. Waterslide is a tricky drop that has doled out a lot of trouble to kayakers this season. We got out to scout and watched as two or three kayakers boat it without a problem. I felt good about it. Sure, fear was present, but I knew that running the drop successfully was well within my ability level. Besides, I'd never had a problem there before and there was plenty of safety set up. After making the decision, I went back to my boat, got in and sealed my skirt. As I crossed the eddyline, the nose of my boat started to point downstream. About ten feet or so from the horizon line, I glanced by the small wave as planned and told myself "You have this. You've paddled much harder drops and will do fine here." And guess what? I was right.

Maybe it's because I'm getting older or maybe it's because I have seen some serious carnage over the past few years, but I find myself increasingly mindful of





Gavin hand paddling Leap of Faith on the Escalante (CO).

Photo by Tommy Gram

my mental kayaking game—with new challenges and fears greeting me with each new season.

More recently, I attended American Whitewater's Baileyfest. The Bailey section of the North Fork of the South Platte has one rapid, Supermax, that significantly stands out from the rest of the rapids in difficulty. While I have run it in the past, I'd pretty much portaged it all last season. This past Saturday, I arrived at the rapid with, for the first time in awhile, an open mind to running it. We watched a few lines—some botched some not. I took a look at the consequences and decided that I was both confident in my ability to make the line and willing to accept those consequences if I didn't. It didn't hurt that there was guite a crowd present and plenty of safety set up.

Putting on my skirt at the top of the rapid, I thought about this perfect blend of fear and confidence: enough fear to take the rapid seriously and to provide the elevated heartbeat that whitewater boaters have come to love, and enough confidence to know that all would turn out fine. I exited the top eddy, floated into the top of the rapid, let go of the fear, paddled boldly and styled my line. At the bottom, high-fives

and smiles were to be found in the eddy. The tone was set for a perfect rest of the day. Looking back, the forty seconds or so I spent running "Supermax" were some of the best of this year. And, as it turns out, those who didn't have a great line on Supermax were fine as well. In fact, the biggest laughs came from a friend who swam out of his boat in the rapid's run-out.

Back in May, when the season was just getting started, Daniel and I had perfect lines on the Escalante. At the end of the run, we got to "the gorge," a short but very intense stretch. Paddlers can either take out before or after this gorge. I've run it a few times, but that day the water was high. Even though I knew that the two potential trouble spots were relatively swimmer friendly and even though there were a plenty of very good boaters in our group to help with any rescue, I opted out.

Maybe I should have run it—I'm pretty sure things would have gone fine down there that day. Also, I know that success breeds success and confidence breeds confidence. But sometimes it can be better to take the conservative route. At the end of the day, I am happy with my decision. While I try to apply logic in my attempt to balance the scales of fear and confidence, it doesn't change the fact that sometimes I'd rather go with my gut.



MIND OVER MATTER ON THE GRAND

BY COURTNEY WILTON

SEE A LINE on the right side," Stacey said as we all looked glassy eyed at the monster rapid named Lava Falls. Lava, as the locals call it, is the biggest rapid on the Grand Canyon section of the Colorado River—a class nine on the Canyon's ten-point rating system. Our group was perched above the rapid "scouting," looking for a way through the fury of water. I, myself, didn't see a line on the right or the left. And the middle contained a massive hole that just looked heinous. "Whatever you do," advised a Park Service ranger we'd met a few days earlier, "don't go middle." Boy, was that an understatement.

Sixteen of us (mostly from Oregon and Washington) had put on fourteen days and around 180 river miles earlier. Our friend Rob had been fortunate enough to secure

a coveted private permit, which gave us access to the Canyon. Eleven of the group, including my wife Hillary, rode in five 18-foot rafts and the other five, including myself, in hard shell kayaks.

We'd had a great trip so far. The Grand Canyon section of the Colorado is interesting in that it's mostly made up of meandering flatwater. These stretches give you time to think and admire the canyon's spectacular beauty. However, interspersed among the flat stretches are around 160 rapids—many of them huge, intimidating maelstroms that demanded respect, skill, and a little luck. And so it went. Pool, rapids. Pool, rapids. In boater talk, the Colorado wasn't technical (requiring quick moves or turns) but was just plain big, with very large waves, holes, boils, and eddies. Nothing in the Northwest compares to the size of its water. It was intimidating.

Among the five kayakers in our group were three Class V twenty-somethings. Stacey

and Ty had extensive guiding experience in Costa Rica and on the North Fork of the Payette in Idaho, and Isabelle had guided in Mexico and Canada. All were superb kayakers and also nice, funny, extraordinarily helpful people. Rounding out the crew were Kathy and myself, fiftysomething, long time boaters; definitely way more Class III weekend warrior than anything approaching expert. The juxtaposition of the former guides with the averages Joes/Janes made for good comedy at times. Whereas the pros were mostly unphased by the big water ("Hey diddle, diddle, right down the middle" was their catch-phrase), Kathy and I were often "gripped" as they say, and at times more in survival mode than vacation mode.

Now, at Lava, even the pros were a little nervous. "What do you think, Courtney?" Stacey asked. Actually, I was thinking a lot of things while trying not to psych myself out.

AW STEWARDSHIP

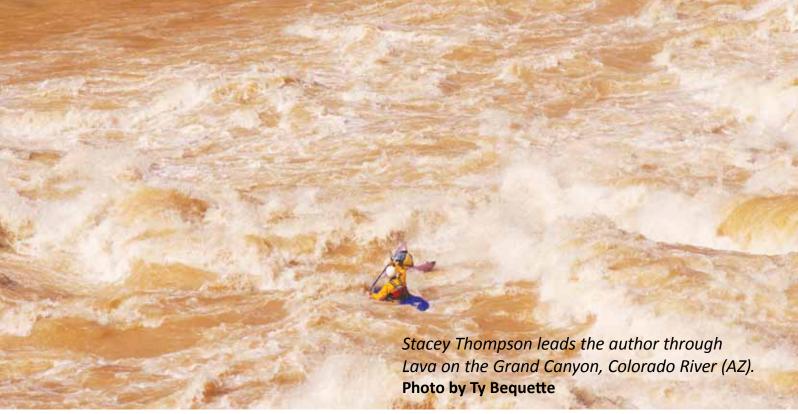
PROTECTING THE GRAND CANYON

BY MEGAN HOOKER

For those lucky enough to have been through the Grand Canyon of the Colorado River, telling your story (or stories, if you're even luckier) of making it through Lava, swimming at Havasu Falls, and sleeping under the stars on the sand are rites of passage. Doing so links you with every other person who has paddled through this unique national landmark. Telling your story before the backdrop of radioactive contamination and dry tributaries and springs might create some additional camaraderie, albeit not the kind we'd like to experience...

While some aspects of a Colorado trip can be daunting (the challenge of getting a permit, saving up, and making it through Lava and Crystal intact, for starters), so are some of the threats the Colorado River and the Grand Canyon face today. One threat is uranium mining, which threatens to diminish the quality and amount of water coming down the Colorado's main tributaries, including Havasu Creek, the Little Colorado River, and Kanab Creek. Fortunately, in 2011 the Bureau of Land Management proposed a 20-year moratorium on uranium mining on the rim of the Grand Canyon. American Whitewater joined with the Outdoor Alliance and non-commercial whitewater kayakers, rafters, and canoeists to support a plan that would protect over one million acres of land. Additionally, in the event that the plan does not move forward, we voiced concern over the agency's lack of consideration of the impacts of mining on the thousands of people who swim in, drink from, and hike by the Colorado and its tributaries each year.

Thanks in large part to all the paddlers who added their voices to the call to protect the Grand Canyon, Havasu Creek, Kanab Creek and the Little Colorado River, a temporary moratorium was implemented for over 1 million acres in July of 2011. We are hopeful that this interim protection will lead to permanent protection. We should know the final decision by early 2012.



What are the odds of missing the middle hole? I thought there was supposed to be an easier line on the left! How hard would it be to break through the two lateral waves on the right and go center after the hole? If I go right and swim how ugly could it get? Will they think I'm weak if I skip the rapid and walk around? This isn't worth it! But, you've done every rapid so far—don't chicken out now!

Kathy was equally unenthusiastic. I realized we could both legitimately rationalize portaging. No shame there. But, what an unbelievable thrill it would be to go for it. And, we had some very skilled boaters to follow and who would be there for us—even if the line did look sketchy and the rapid downright dangerous.

"OK, I'm in," I heard myself saying to Stacey.
"Really?" Kathy looked at me with surprise and, I think, a little irritation. "Yeah, I think it's doable."

"I know both of you can do it," said Stacey. I wondered to myself if she really meant it or just wanted us to take a chance or even entertain her with our carnage. In any event, while the rafters continued to ponder their routes the average Joes decided it best not to prolong the agony and headed off to run the biggest rapid of their respective lives.

I've heard whitewater kayaking described as hours of anticipation followed by seconds of terror. Stacey lead and as we enter the rapid and I was immediately overtaken by its size and sound. The waves were huge and the water roaring. The massive middle hole seen so easily from above disappeared in the waves once we were at water level. I literally felt like I was in an ocean and I couldn't see a thing. I was also following Stacey way too close—something I tend to do from time to time when my anxiety level increases. I just hoped she knew where she was going-I certainly didn't. With a minor mid-course adjustment we skirted disaster and the massive hole to the right as planned. Next were the lateral waves. I paddled as hard as I could to maximize boat speed and managed to punch through the first one without too much trouble. "Hey, that wasn't so bad!" I thought. But, the second one looked much bigger. I paddled with all my might and hit it straight on...and was stopped in my tracks by the force of the wave. I stalled! This usually leads to a flip, a loss of line, and possibly a swim. It was not a good moment. But, I kept thrashing with my paddle and somehow clawed through the rest of the wave and out the worst of the rapid. Kathy and Isabelle followed shortly thereafter and had similar runs. At the bottom I was filled with an unbelievable sense of relief and accomplishment. I just

did Lava Falls! Thank you Stacey and thank you river gods!

We set safety for the rafters and watched tensely as all managed carnage free runs—barely. Whew! That night in camp the relief was palpable and the stories ever expanding along with our alcohol consumption. The worst was over and we survived, even arguably thrived!

Renowned psychologist Abraham Maslow describes peak experience as "especially joyous and exciting moments in life, involving sudden feelings of intense happiness and well-being, wonder and awe, and possibly also involving an awareness of transcendental unity or knowledge of higher truth" Without being overly dramatic, I believe part of what binds the whitewater paddling community is that common guest and appreciation for the jaw dropping moments inherent in our sport, be it from a thrilling rapid, spectacular scenery, or simply great teamwork and/ or companionship. In this instance, the willingness to take calculated risk combined with overcoming significant fears created just that feeling and made for a lifetime memory.

We paddled out of the canyon two days later...and back into our normal lives.

THE MENTAL SIDE OF WHITEWATER

STORY BY MARY DERIEMER PHOTOS BY PHIL DERIEMER

Overcoming Fears

HEN I STARTED boating, my hero said that 90% of the sport is mental, that once a paddler gets a certain degree of skill, how far she goes depends on what's going on in her head. After years of whitewater experience, I've found that statement to be fairly accurate. To understand why, let's look at (a simplification of) how the brain works.

When taking on a new challenge, some amount of energy is spent in overcoming barriers. Mental distractions such as fear are by far the biggest. If distractions are present, there is less room for processing, or even remembering things you already know. Information theorists say that the mind has a certain channel capacity—the maximum amount of information is called the signal. Everything that gets in the way of the signal is noise, like static on the radio. Fear is the loudest kind of mental static and it decreases ones capacity to take in information.

How can you quiet the noise of fear? The first step is to listen to the static: actually pay attention to what the fear itself is saying. Is the fear of an actual danger, or of a perceived one? Once you separate the two, the fear becomes more manageable. Let's listen in on the mental channel of a paddler experiencing fear:

"There's the eddy—rocks! I don't want to flip! Get my angle—a hole! I don't want to drown!!!"

The actual danger is so minute, but these fears are very real, flooding the body with adrenalin and blocking the mind's channel capacity.

The experienced kayaker knows that he or she is more likely to dislocate a shoulder



On the river do the same things repeatedly in order to turn the scary into the routine. When a rapid or maneuver becomes boring, you will no longer fear it.

than to be trapped in a boat. Fear gets us thinking the opposite. You will not drown while boating if you use good sense and follow basic safety procedures. The real dangers-shoulder dislocations, cold water, a long day, getting in over your head-aren't the kinds of dangers that grip your gut and jam all your channels. Most things you are likely to be afraid of are not really dangerous. It's more likely that you have overestimated the risk and underestimated your skills. To help develop a realistic evaluation of your skills and the risks, get input from the more experienced paddlers in your group. And, if you feel fear arising, ask yourself what is the cause. Is it real or is it perceived?

Adopt this mindset to change the belief systems in your head. These will help desensitize you to your fears and overcome them (for an example of desensitizing yourself to fear, see the "Bombproofing Your Roll" section below)!

One of the most effective approaches to loosing fear is through gradual exposure. Can you ever remember being bored and scared at the same time? If you find yourself

fearful, practice until you're bored before pushing to the next level.

Experience fears so that you have proof that the fearful outcome your in your mind isn't reality. Part of that is swimming. Leave your boat on shore and swim in eddys, in safe rapids and swim in small holes that flush. Take rescue classes. This will give you a sense of control.

When learning, mistakes are a good thing! If you watch children starting to walk, they often laugh with glee when they fall down. When learning to kayak, you are not only the mad scientist but also the laboratory mouse. Approach learning with curiosity, humor, and openness! Smiling changes the chemistry in the brain and opens the channel capacity to learning—even if you aren't really feeling smiley!

Pre-trip head centering sets the tone for the day. Don't let your fear take you downstream during the shuttle. When you're miles above THE RAPID in playful Class II, keep your mind focused. Remind yourself where you are and that you will

only boat what's right in front of you. Always give yourself the portage option.

Silly as it might sound, singing works to decrease fear. So does visualizing yourself as though you are your kayaking role model.

At the end of the day, notice how you describe your runs to others. Keep it positive! Even if you had a "bad" run, DON'T describe it! Instead, say how you would make changes to have a successful run next time.

Creating Confidence

Many paddlers have been told that they have the skill to run more challenging rapids, but they hold back. What drives us? What limits us? To find out, we need to learn a bit about how the brain works.

People like to perform their best and so purposefully, although often unconsciously, seek out conditions that produce a state of optimal arousal in the brain. A paddler cannot perform at her peak when her brain is either overwhelmed or bored. Each of us has our own measure of just what optimal is. People participate in kayaking because of the intrinsic feelings of enjoyment, wellbeing, and personal achievement it causes.

This state of being, which lies outside the parameters of worry and boredom, is called "being in the zone" or having a "flow" experience.

Here are some conditions that are necessary for a paddler to be in the zone. The activity is completely voluntary, the motivation is intrinsic, the outcome is uncertain. There is just the right amount of challenge. Flow can only be experienced when the ability to influence the outcome by applying personal competence is matched to the situation's risk.

What makes being in the zone worth repeating the activity? The goal is clear and the feedback is immediate. Action and awareness merge into pure, uninterrupted concentration. The field of stimulus becomes centered and limited. There is an experience of "self forgetfulness." There is a feeling of control over one's actions in the environment. The experience is so enjoyable and meaningful that the individual hopes to reproduce this state by repeating the activity!

Knowing this about our minds, we can cultivate a type "C" personality, one that objectively evaluates our commitment,

control, and confidence over a challenge. Commonly, there is the rapid or river that represents your personal *step up*. Your mentor has assured you that your skills are up to the challenge, yet you've held yourself back. The first question you must ask yourself is, "Do I want to do this?" Remember, your motivation must be intrinsic and the decision voluntary.

If you decide "yes" then guide yourself through this process. It will help you step out of the emotional side and into the physical side, and help you create an attitude of control and confidence.

- First measure the difficulty of the parts. Break the rapid down move by move. Have you ever done similar moves on any other river? Have you done similar moves upstream?
- Rate the difficulty on your own scale.
 Can you make that ferry? Can you catch that eddy?
- Rate your ability. How successful were you with similar moves? How is your energy?
- Imagine the worst outcome. How likely is that to occur? What are more realistic consequences? Are you willing to suffer the most likely consequence?
- Evaluate your group and location. Do you have confidence in the support your group can provide? Does the environment provide the necessary margin of error to let you take on this challenge today?

Next create a "can do" attitude by visualizing your run. See yourself successfully dealing with the crux move. Which paddle blade goes into the curler? What posture and boat edge is needed? Continue to see your line all the way through to the final

The field of stimulus becomes centered and limited when you are in the zone.





up to perfect your technique. Video is an invaluable tool to see what you're doing.

To help get a realistic evaluation of your skills, get input from more experienced

paddlers.

eddy. If progress stops at a certain feature, you'll need to work through it until you see yourself successful. Use only positive and realistic self-talk. Quiz the better paddlers in the group. Watch their runs to reinforce your plan. Remember that a great percentage of the work is done above the move. From each staging eddy, where did the successful boaters line up? What landmarks can you use to lead you to the positive line?

On the other hand, if you are happier seeing the take-out than the put-in, perhaps your motivation is not intrinsic. How many of us have run a rapid because "so-and-so ran it and I'm better than he is," or because the group we paddled with created an atmosphere of judgment? You'll never boat in the zone at peak performance if something other than joy is driving you.

What drives us changes day-to-day, even moment-to-moment. Let yourself focus on the water in front of you and realistically evaluate your skill and the difficulty. Know that YOU want to take on this challenge, or not. Only you can control the conditions that allow you to have a flow experience.

For paddlers who are in the zone, action and awareness merge into uninterrupted concentration.

Some days it may be by nailing every move in a familiar rapid. Another day it could be while running a rapid for the first time.

Bombproofing Your Roll

So, what is a roll anyway? It's a movement. It's a complicated movement that relies on synchronization, but it isn't hard. If your pool roll isn't effortless, get a tune-

So now you've got a great roll in the pool. It's effortless. Although you've practiced

many drills to simulate combat, in moving current it just isn't there. Instead you have a sloppy, difficult roll that often requires more than one try, when it works at all.

What can you do to keep the smooth roll with you when you hit whitewater? Finish the movement. That sounds too simple, but it's true. The first 80% of the movement is

not enough. You have to finish it.

What tends to happen on whitewater? Most often, your roll doesn't fail; rather you fail to do your roll! During an unexpected flip, the mind can fill with fear or over-analysis: "This roll doesn't feel right," or "I'm not safe," or "I don't have enough air." This negative commentary short-circuits the



roll movement and results in instinct taking over. The result? The head pulls up and the blade dives down.

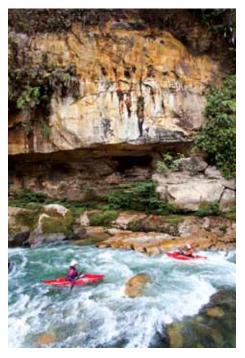
If you want a reliable combat roll then you have to do the roll movement 100%, start to finish.

So, how do you stay focused? Fill your mind with a mantra and the intention to finish every roll. Having a mantra that takes you to your finish position is invaluable. "Back hand

to ear" is a common one to keep the back hand from punching. "Watch the blade" keeps the head from jerking up. Attention to the positive also helps keep your mind from being overwhelmed by fear.

Here are some exercises to clear your mind. This is a process called desensitization, intended to reprogram fear into comfort.

First off, being underwater is part of our sport. Can you accept that? Mentally,





embrace that in the kayaking world of mere mortals like us, being up-side-down is to be expected. Moreover, it is *OK* to be underwater. If you expect to be underwater and you are comfortable there, you will roll—even in the rapids.

Find some mellow place where you know you'll roll up. Have a friend there with the insurance of a bow rescue present. You want to feel 100% confident that you are OK. Decide on a mantra that puts you at ease, like, "I have lots of air," or "I'm OK." Then, with lots of air, your nose plugs, a mask, whatever helps you feel comfortable, tuck, flip and stay under for a while.

Open your eyes. Look around. Be curious! What does the water feel like? What's the temperature? Move out of and back to your set up. Is the water pushing you? Is it putting pressure on one of your blades? How is your body responding to the current? Then, once you've hung out for awhile, take a bow rescue. Describe your exploration. Use only adjectives from the physical realm: cold, bubbly, green. Don't let your mind say it was scary or dangerous.

Using your mantra that keeps you at ease, flip again and purposely do the whole

Having confidence in the support of your group is key to pushing your limits.

Use a mantra to keep you at ease. "I'm OK," "Back hand to ear," and "Watch the blade," are mantras that will help you finish your roll, instead of pulling down and lifting your head.

roll movement, from start to finish.

Choose different places to practice being up-sidedown and rolling up. Your goal is to get comfortable everywhere. You want to get so familiar being under

water that you almost don't even notice when you flip! Hang around on mild eddy lines and at play spots. Spend time in deep, tail waves at the bottom of rapids. Gradually move to safe spots within rapids. You are training your mind to stay calm and clear, and focusing on finishing your roll, no matter what. This desensitization process loosens your mind's hold over you, replacing the chatter and filling your mind with intention.

Use your roll often. Some paddlers get so balanced they rarely flip. But when they do they may find their roll isn't working so well anymore. Once one side is reliable, learn your other side. You won't lose your on-side roll; you'll come away with two rolls instead! Use them equally. Rolling consistently in whitewater requires you to place mind over matter, so be sure your mind is trained to finish every roll you start!

Mary DeRiemer and her husband Phil own DeRiemer Adventure Kayaking. They have been teaching since the early 1980s and guide throughout the US, Bhutan and Ecuador. They collaborated and co-instructed on The Kayak Roll, a DVD by Performance Video. info@adventurekayaking.com www. adventurekayaking.com

NO VACANCY!

BY CARIN TINNEY

HERE ARE DAYS when I'm just ON. Those days I wake up so excited that it's hard to gear up because I'm shaking with eagerness to get on the water. ON days for me are usually determined before I get to the river. Usually when I'm ON, I got a great night's sleep, ate a tasty breakfast, my workweek was not too stressful, the weather is ideal, trusted paddlers are present, and the planned river for the day is at the perfect level.

On those ON days, I try new moves, play a little longer, jump to the front of the pack rather than wait to see how others fare. I'm far from uncalculated in risk-taking, I just don't have as many competing thoughts in my head that prevent me from being bold. I worry less about myself and more about sucking every ounce of life from the river.

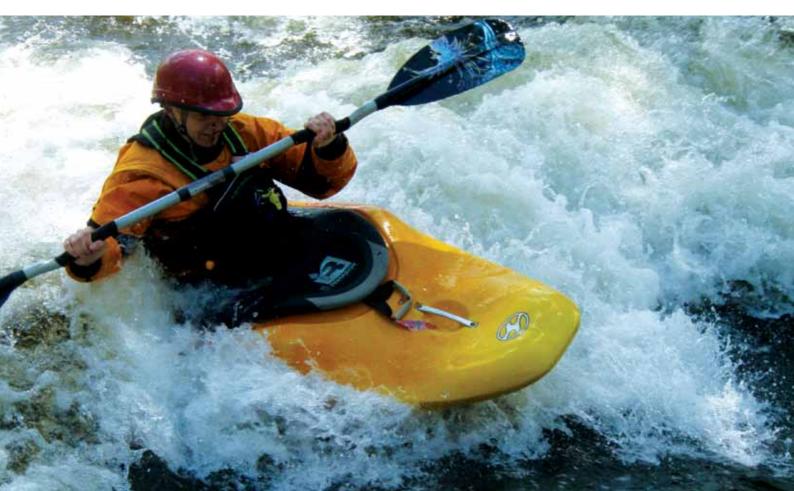
With every sunrise, there is a sunset; for every wet season, there is a dry one;

and for nearly every one of my ON days I have an OFF one. Off days happen when conditions aren't as optimal: no sleep, achy back, or simply an inability to clear my head of life's everyday challenges. All these factors make me vulnerable to intrusive and competing thoughts. I occasionally have head demons that tell me I'm too weak to make that ferry, too tired to try the harder line, or too cold to swim if I miss the boof. While these thoughts put up a good fight, there is an even more invasive species of river demons...

Like many paddlers, my own past experiences, the bad swims of others shared around the campfire, and my own imagination can be uninvited guests on the river. You just don't know when these memories will sneak in. Sometimes I can have the memory before the start of the day, deal with it, and get over it; sometimes they happen in the middle of a rapid. On ON days, I say "Carin: GAME ON, just paddle!" On days that I'm off and just simply more vulnerable (missed some moves, got stuck

in a bad hole), I start analyzing, thinking way too much about it and I eventually screw up.

This spring, I had the opportunity to paddle Will's Creek in Maryland (this was my first "real" creek) where I was introduced to sticky rocks. I was brought up loving rocks-aiming for rocks, kissing rocks, and trusting that I'd eventually slide off of them. On Will's Creek, this wasn't the case as I broached a few times, once in a pretty hairy place. After that experience, when I see a rock just at or slightly above water level, I tense up and my brain kicks in. My reaction on an ON day: "Stop looking at the rock and paddle." Off day reactions: "That rock is covered in moss...maybe it's not, you will slide off...no, you'll get stuck, stop looking at it... I need to look at it to get around it, don't worry you've got the skill to do it...you have reason to worry; there's a tricky drop coming up, look where you want to go...how can I when the rock is in the way?" Clearly, the latter takes more time and energy, so on off days I usually



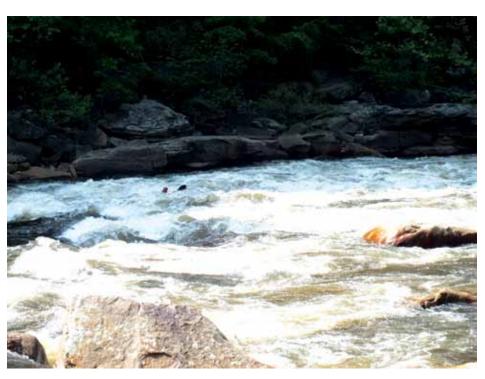
stop paddling and flip in those situations because I wasn't born with the ability to walk and chew gum at the same time—or in this case, paddle and think at the same time. I suppose until the memory fades and I've had enough positive experiences to counter those few broaches that memory will trigger some kind of thought reaction, rather than a gut level instinctual move.

There are countless more memories I'm not so fond of that sometimes get in the way of me being bold on off days: The wicked freezer brain episode during a February paddle and the ensuing ear infection; the upside down descent into a sticky hole, followed by the crushing of my fingertip (nine stiches!); hitting a standing wave the wrong way and having so much air knocked out of my lungs I didn't have time to roll; eddying out, grabbing for a branch and pulling down a water snake (did I mention I'm terrified of snakes?).

My hope is that I can keep these intrusive memories in balance before they sign a lease. I've seen many paddlers come into the sport and drop out or take a serious step back after paddling for a few years on harder rivers. I often wonder if their brains get the better of these folks, if the intruders took up residence in the gray matter. Why do those negative memories sit heavier and last longer for some of us? Is there a tipping point? I have a friend, a mentor really, who broke his back going over Ohiopyle falls and returned to paddling within a few months nothing seems to scare him. Another friend dislocated his shoulder and barely missed a beat. But on the other hand, a classmate of mine from three years ago who hit his head on a rock once, now won't try anything that might make him flip because he never wants that to happen again. So many take instructional classes, but don't come back. Is it fear, the thought of another tiring swim? I can't even fathom the idea that they didn't like the sport—inconceivable!

Opposite: Surfing on the Brodhead Creek (PA).

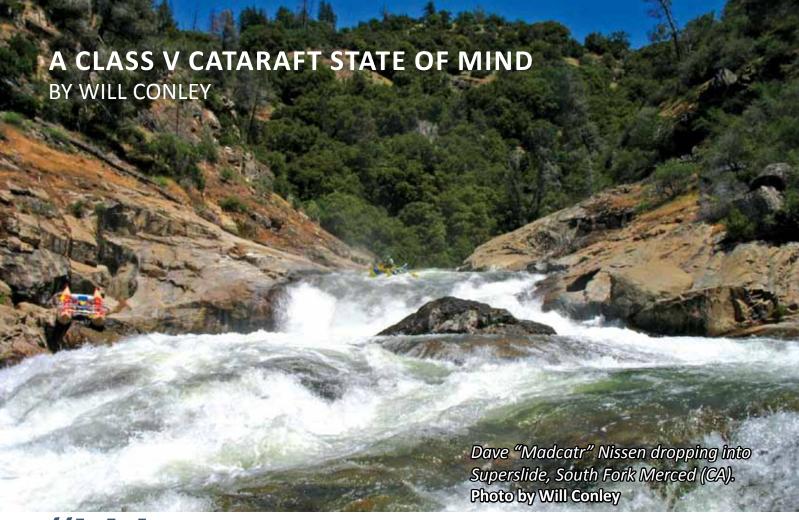
Photo by Hanno Shopp



Managing the fear on my first run of High Falls Rapid in the Cheat Canyon (WV). Photo by Andrew Ludke

I love paddling and can't imagine life without my boat. I can't help but wonder though, what if I witness a death on the river or get caught in an undercut (and survive)? Will it change the game for me? Technically, the more you paddle the more you'll experience both good and bad, but the more you paddle, the more the older, negative memories fade. Clearly, the demons are also teachers and ignoring them would be unwise. From a technical place, I always reflect on the experience and extract the lessons, but as objective as this process is, for me the residual emotions linger. So for now, I work towards creating optimal river day conditions to make me less vulnerable. It's about putting that "No Vacancy" sign outside the motel; I do things like bring my pillow camping, go to bed a little early, pack lots of clothing so I can fine tune on river day, create todo lists for things I didn't get to at work, say a little prayer when I'm particularly nervous.... Doing all of these little rituals, gives my skills a fighting chance against the pesky intruders.





ANT A ROPE?" I heard Mark shout from the bank as I pulled myself into the cockpit and leapt into the seat. I was upright again but was drifting downstream losing valuable seconds to make the eddy.

"No!" I shouted.

I focused on my oarlock as I aligned the oar shaft for my one chance to re-set before being swept over a horizon line where the river vanished into a series of as yet unseen Class V drops. The oar popped into place just in time, and several pulls later I joined Dave in the safety of the eddy.

I had just taken a sacrificial flip after being fed into a cliff where I promptly wallpapered. Now panting with adrenaline pumping after re-flipping my boat on the fly, I walked down the shore for our next scout. Another solid Class V waited below, with a meaty crux at the intersection of two big diagonals. The river disappeared again below the short runout.

We all nailed the line, but the hydraulic force of the fold blew both of my oars and now I was scrambling again. Only this time, I didn't get the oars re-set until I was past the eddy. I looked at a small wave to my right, decided not to catch an emergency surf, and back-stroked for a quick boat scout at the horizon line. Mark hollered, "Right-third!" as I stood on the scout rails and the full magnitude of the 15-footer came into view. The landing looked clean, so centerright it was. I made a quick downstream push on the oars and drove my 11-foot cataraft over the edge.

"You okay?" Dave and Mark asked as they pulled in. Fortunately, we had each had clean lines on the drop. "Yup." I was unhurt and my gear was fine, but I was a bit shaken. Both Dave and Mark are good friends who have been in similar positions before and, recognizing the situation as stable, gave me the mental space I needed as I took a deep breath and regained composure. My first 20 minutes of day three on the South Fork of the Merced had been exhilarating: failing to fully execute a must-make move,

pinning, intentionally flipping, re-flipping, having a freak gear failure (I've never blown both oars at the same time before or since), and running a very large horizon line blind.

There wasn't much else for me to say except, "Mind if I lead?"

Whitewater is a great activity because there is something for everyone: captain or passenger, rafter or kayaker, client or guide, roadside or wilderness, day-run or multi-day. Different boaters may find similar degrees of satisfaction in Class III and Class V. Having the physical ability, experience, and proper gear for a run goes a long way. However, if your head isn't in the right place, that other stuff may not matter.

Regardless of skill level, one's mental approach ultimately shapes success and enjoyment. Push into wilderness and/or multiday Class V in a raft without anyone who knows the run and one's ability to prepare, problem solve, maintain objectivity, and manage stress affects

not only the quality of the outcome, • but survival.

There were two ways I could have gone that morning on the South Merced. Boating timidly in Class V is a recipe for disaster and spending the rest of the trip following my buddies would have been a disservice to us all. My mind needed to be re-focused and there was only one way turn a confidenceshaker into a confidence-builder: get in the lead. I've been fortunate to run with two guys who bring an analytical approach to whitewater similar to my own. Mark Cramer, Dave Nissen, and I have assembled a mental tool-box that has facilitated safe and enjoyable trips into some of the wildest and most challenging whitewater that few, if any, oar-boaters have seen.

On River Rules: Have them, love them, live them

The structure of these rules (many of which are well known) should be sufficiently comprehensive to apply to all situations, but flexible enough to facilitate improvisation while dealing with the variability across those situations.

- When in doubt, scout. If you can't see the bottom/exit from a rapid or an intermediate eddy prior to committing, you should be in doubt.
- The lead boat is in charge. If they signal to eddy-out or hold. Do it (or be prepared for a talking-to).
- Maintain (preferably visual) contact with your group. Unless explicitly agreed upon, keep upstream and downstream boats in sight. Have radios or some other contingency plan in place if there is a chance for extended separation.

Mark Cramer on the Middle Fork Feather (CA).

Photo by Will Conley

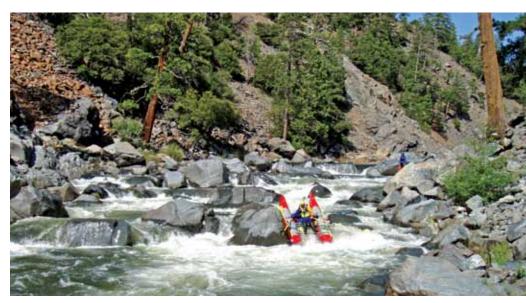
- Have a briefing prior to launching. The briefing should particularly focus on communications and known hazards. It should calibrate everyone's brain. Our group has been using the same briefing for over four years now. While it's particularly important when we've got one or more folks that don't run with us regularly, a review is always beneficial for the rest of us.
- Don't get separated from your boat.
 This is the #1 rule of the Class V catarafter. Your boat is your lifeline.
 Your PFD is a distant back-up. We've all violated this rule at some point and we all work hard to ensure it never happens again.
- Self-rescue. Each boater is responsible for his own safety. Just because you're in a group, doesn't mean anyone will be able to do anything for you in a Class V or V+ environment. Be mentally prepared and rigged for self-rescue. Help will come if it can, but be wary of plans that depend upon it.
- Preserve gear. This may mean portaging something you know you could run, but recognize some potential for major gear failure (e.g. frame breakage) that would compromise the integrity of the trip and everyone on it.

Being Honest About Your Abilities

This is an important part of AW's Safety Code. I've seen folks run well-established Class IV+ runs with the occasional Class V-rapid get self-congratulatory and throw the phrase "Class V boater" around. This is OK as long as they stay within that realm. There is a big difference between being a boater that runs the occasional Class V rapid and those who do Class V runs more regularly. It doesn't matter which you are, just be honest with yourself. Be trained and practiced in rescue and first aid. Talking about being safe is one thing, living it is another.

Situational Awareness

Be continuously cognizant of your surroundings and understand their relationship to your objectives. This includes anticipating how a sometimes sudden change in one variable will affect the course of events. At a minimum, have a plan, a back-up plan, and back-up for your back-up plan and sequence in order of probability. When scouting, it is easy to be distracted by the unknown presented by the river. However, once standing on land, the river is no longer the primary hazard and other considerations should take precedence. A disproportionately high number of river accidents actually happen along the bank. Minding foot and hand placement on



scouts and portages can prevent falls, avoid rattlesnake encounters, reduce poison oak contact, and other pitfalls that can derail a trip. Maintaining situational awareness also assists an objective assessment of runnability on a rapid-by-rapid basis. Upon having several portages in a concentrated area, it is possible to slip into the portage doldrums and keep portaging when it is unnecessary. Aside from improving safety, maintaining situational awareness helps conserve energy and time.

Wilderness Experience: There's no substitute

Our core group of wilderness Class V buddies has a collective experience of 90 years with no individual having fewer than 20 years of working and playing in remote settings. There's an acquired attitude that comes with such experience that governs self- and gear-preservation as well as

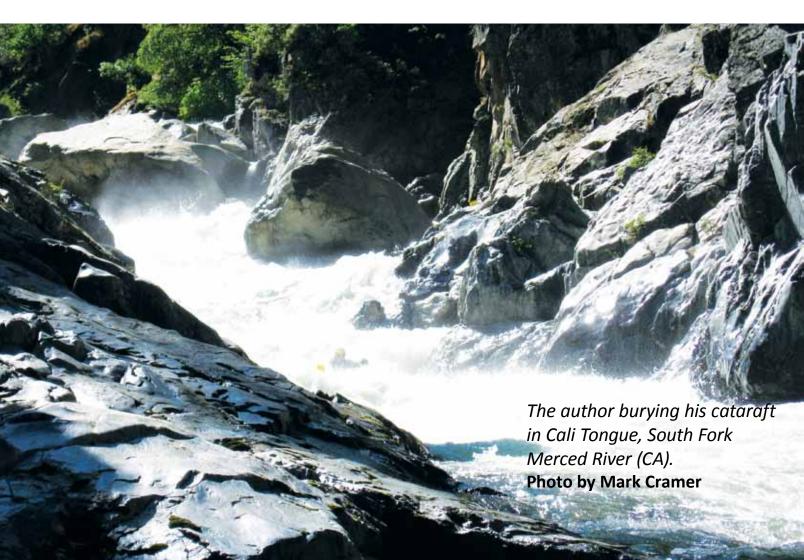
planning for contingencies. Navigation of a Class V (or any river) is superimposed on top of that. In a true wilderness setting, be willing to portage and don't expect a government agency to swoop in when the going gets rough.

Be Prepared

Yes, I was an Eagle Scout. Much of what I learned as a boy has served me well through adulthood, but one doesn't have to have been a Boy Scout to reap the rewards of preparing for the worst and hoping for the best. While gear is an essential part of preparedness, this article isn't about that. Prepare yourself with the knowledge to succeed. Real-time and historical streamflow and weather data are invaluable. Be knowledgeable and practiced in technical rope rescue and first-aid techniques.

Be Ready for the Askance Look

Look up nearly any Class V run in the goto guidebooks and more often than not it will say "No" next to "Rafts." Many of these runs can in fact be rafted, some quite enjoyably if you've got the skills and a willingness to work for it. The hard part can be determining which runs are, in fact, raftable; especially if you can't find anyone who's done it. Direct communication with kayakers will be of varying degrees of assistance, but will tend to echo the guidebook. I rarely bother to ask "Is it raftable?" because fact of the matter is, many don't have the perspective to answer the question. Most will be happy to share what they know of a run. Most won't want to be there on the same day you are if you decide to go. That's OK. While eating lunch on the 49 to Bridgeport section of the South Yuba (CA) one day, a group of kayakers drifted by, waved politely but avoided eye



Mark Cramer victorious after running the last big drop on the Rubicon River (CA).

Photo by Will Conley

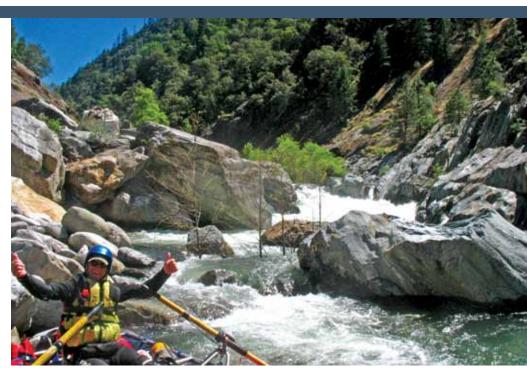
contact and wasn't interested in talking. No biggie. It was obvious they figured we were in over our heads and didn't want to be around when carnage ensued. Which brings me to what I call...

Cataraft Pride!

There's a common perception that having a kayaker along makes every trip safer. However, the notion of "the safety kayaker" is a bit dogmatic. While I've lost count of the times I've rescued kayakers and/or hauled kayaks and other equipment downriver, I've been rescued by a kayak exactly once, the third time I was ever on a river. Having one or more kayakers along may provide some additional safety, but kayaks and catarafts have their relative strengths and weaknesses. Cats are just as capable of probing a line and setting safety in the pool below. The mid-rapid performance of a cat with a swimmer in tow is hindered less than a kayak and the boatman has a better angle on the water when boat scouting. Kayaks are smaller and faster and capable of catching micro-eddies where setting safety or scouting would be difficult to impossible for a cat. It is difficult to describe the satisfaction of completing a run none of your group has ever seen before in rafts only. If you want to invite kayaks along, do so because you want to, not because you feel like you have to.

Take Your Time

So the guidebook says it's an overnight trip. Yeah, some hair-boat kayakers have blazed through it in 6 or 8 hours. The guidebook also said it wasn't raftable, remember? Rafts can boat-scout, but not like kayaks. Further, they can't run everything kayaks run, and in, general just aren't as fast as kayaks. Once you've accepted this truth, you've freed your mind of the irrelevant constraints of "the guide book." Bankscouts take longer and portages with prudently loaded rafts take 4-5 times (or more) longer than with a kayak. When we do Class V multi-days, we find it best



to add at least a day or even double the guidebook's estimate on travel time. Just to be safe, add a safety factor and bring another day or two's worth of food.

Don't Forget the Home Front

Inform family and friends of your intended whereabouts and schedule as appropriate. It definitely helps to "coach" their expectations in terms of when to expect communications and when or (more importantly) when not to call in the authorities. A friend's wife who had graciously agreed to run the epic shuttle, but was otherwise unfamiliar with our approach, called Search and Rescue when we hadn't gotten back to camp from packing our boats into the Upper Kings prior to dark. We set out to find a phone and/or rangers that night to calloff the search...albeit unsuccessfully. I was woken from my slumber atop the raft trailer at about 3 a.m. when a very nice deputy shined his spotlight in my face. We got things cleared-up and, thankfully, no one had been mobilized for a night search. Earlier this summer as we headed to the put-in for the Rubicon, we knew there was a significant rain event coming and had made contingencies for spending a couple days off the river including a temporary

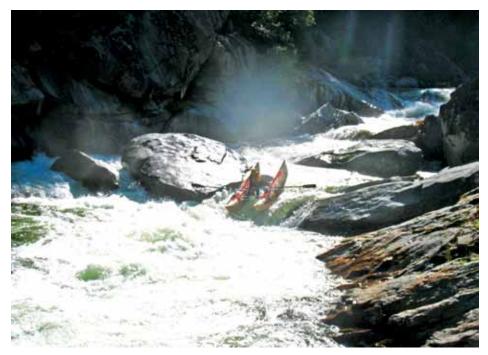
hike-out and we notified folks accordingly. Making sure that our loved-ones are aware that we plan on self-extraction and budget extra time can avoid having the authorities notified prematurely and unnecessarily putting first-responders at risk.

Past Performance is no Guarantee of Future Results

I know people who pride themselves on having boated Class III or IV for 30 years without a flip. Upon venturing into Class IV+ or V- water, their first flip may not come on their first or second run, but as the saying goes, we are all in between flips and swims. When they inevitably have their first flip, they are caught off-guard because they carried an unrealistic assessment of their ability into heavier water. This may or may not result in some analysis which may or may not lead them to discover the actual cause of the problem.

Dance with the Date you Brought

Some folks upon encountering trouble on more difficult runs make the assumption the problem lies with the boat. They then sell their gear, and buy the latest and greatest. This will get them by for a time, but when you're off-line, you're off-line and



all boats are in-between flips. Boat design has come a long way, but while newer cats are more enjoyable and forgiving, they still flip, albeit differently. An old boat underneath a skilled boatman will perform better than a new boat driven by a rookie.

The River Doesn't Care

This is one of the most important points in maintaining perspective. The South Fork of the Merced doesn't care how many times I've been down the North Fork of the Payette. For that matter, the North Fork Payette doesn't care how many times I've been down the North Fork Payette. Last winter I passed the 100-run mark on my local training run. Despite having a similar regard for the Wind River as for an old friend, I can never be lulled into thinking that sentiment is reciprocated. No matter how familiar you are with a run, if you put your boat in the wrong place, the river will stomp you. Sometimes you'll get a pass; be very thankful when you do, but never expect one.

"Never Give the River a Free Shot"

This is a saying of Mark's that means in Class V whitewater, you will get beat down and the effect is cumulative. Therefore,

preparing and executing to your potential reduces the likelihood of a technical knock-out.

Know Your Place

We're all guests on the river and should be humble in our approach. Humility is individual-specific and can be in short supply in many adventure sports. "Boater ego" can create conflict amongst group members and cloud judgment. I've found a number of humbling places over the years such as scouting Taffy Puller on the North Payette. One of my most memorable was a short walled-in section of the Middle Feather shortly before the big portage where the canyon seems to whisper, "You don't belong here. You might pass through, but you'll never belong." Coupled with a humble attitude, I use Leave No Trace tactics.

"Meter Your Adrenaline"

This is Dave's synthesis of energy conservation. Folks who whoop and holler after completing their first Class V rapid of the trip are borrowing prematurely against the reserve they're going to need for the next 15 Class Vs, 5 or 10 portages, and 50+scouts over the subsequent three days.

Mark Cramer exiting an early Class V on the South Fork Merced (CA). **Photo by Will Conley**

After-action Review (AAR)

AARs are common practice in wildland firefighting and emergency response. Whether things go as planned or not, it's helpful to have a constructive discussion of what worked, what didn't, and why. This can be at the end of the day and/or the end of a trip.

The challenges presented by whitewater are a big part of its appeal. Being competent and confident without being cocky is important, but that can be a challenge unto itself. A strong, but flexible mindset prepares one to deal with contingencies while facing up to tough decisions. A disciplined implementation of the above mental tools will increase one's probability of safe and successful navigation in remote and hazardous environments. Which brings me to the final and most liberating part...

Guide? We Don't Need no Stinking Guide!

A number of years ago, we were getting ready to run 49 to Bridgeport on the South Yuba with some of our cat-brethren from California, Unfortunately, our friend Steve's boat blew a seam on the bank while we were waiting to launch. A couple of the other guys mentioned calling off the trip since Steve was the only one that had seen the run before. Dave. Mark and I made our intentions clear that we were running as soon as we helped Steve pack his boat back up the hill. We also made it clear that we wouldn't fault anyone else for not going. The others decided to come along and we had a great run. To this day, that is one of my favorite day-runs—nothing that some prudent scouting can't address. As the saying goes in Class V, "If you need someone to show you the lines, then you probably shouldn't be there."

DIG DOWN DEEP

BY REBECCA CARTER

N THE WAY into the eddy I flipped over in squirrelly water and, oddly enough, tried to stand up in my playboat. I was literally trying to get my feet under me to push myself out of the boat. I never even thought to roll or pull the skirt. While upside down and freaking out, I had let go of my paddle, so rolling wasn't really an option any more. The only thing running through my brain at that moment was to get the hell out of my boat. I was stranded—alone, upside down, in the flatwater of an eddy having a panic attack. I finally grasped that standing up in the boat was impossible and pulled my skirt to exit. When my head popped out of the water, I was surprised to find myself in four feet of water, breathless and literally up a creek without a paddle.

About three months prior I had flipped while playing in a wave and whacked my head on a very hard rock. The rock stamped a circle of pain four inches in diameter on the left side of my head. I grabbed my head while still upside down and cradled it in my arms repeating "Ouch, my head hurts" several times over. The plastic helmet I was wearing offered me protection from the rock but didn't absorb much impact, causing my brain to vibrate in my skull. I got back in my boat after sitting on the bank assessing the situation. I put in another ten minutes on the water, throwing some ends and stern stalling on the eddy line before calling it quits.

The brain swelling, double vision, irritability, and massive overwhelm didn't set in until the next morning. For almost a month, I couldn't function to take care of myself. Everything from laundry to dishes to making my bed was completely overwhelming. I finally gave up and stayed home from teaching kindergarten for several weeks, trying to rest and return to a normal state. Since I'm an extremely independent and strong willed woman, I made myself walk to the post office daily. It got me out in the



Becca Carter paddling the Upper Nantahala River Photo by Alex Knupp

fresh air and off of the couch. Sadly enough, I shuffled along the sidewalks of Bryson City dazed, in my pajamas with uncombed hair. I suffered vertigo as well as irrational fear and anxiety. It took me nearly six months to get back into normal sleeping habits and feel as though I was myself again. How I managed to teach kindergarten after only three to four hours of sleep a night, I have no idea. Nor did I have any sense of the impact that my injury would have on my life in the future.

Although it was probably too soon, I hopped back in my boat after a couple of months and paddled a short distance on the Nantahala before stopping above the Falls. On my head, was a brand new, shiny white, composite helmet that sat low on my ears. Being able to return to the river was triumphant for me. My life had revolved around kayaking since I attended raft guide school in 2006. I left my job, sold my house, and moved to the mountains with aspirations to become a whitewater kayak instructor. Before the concussion, I had been a rising Class IV boater, beginning to learn the ropes of Wilson Creek and having done some creeking in Mexico. I was stepping up my game that winter, heading to a harder river every Saturday morning, believing that was what made me a good boater. My injury forced me to kayak with a new perspective, many days compelling myself to push through the fear that I might get hurt again doing the very thing that I love.

During my time of healing, I turned to Team River Runner, a non-profit organization that uses whitewater kayaking as rehabilitative therapy for injured armed service members. I had been interested in the organization prior to my concussion, but knew that I needed to do something to make a bigger impact other than be an occasional volunteer. It became very personal for me. I wanted to share kayaking with others who may be struggling with either a physical or psychological injury. For me, kayaking requires commitment, trust, focus, and determination. Most of all, it asks that we be present and in the moment. Being on the water takes us away from all the obnoxious, incessant chatter that is yammering in our heads and ironically brings us into a very quiet place, right in the middle of roaring whitewater.



Establishing the Asheville Chapter of Team River Runner was nothing but divine. Not only did the Chapter come together with the help of amazing people in the Western North Carolina community, but we were able to gather donated gear for next to nothing. The use of the Warren Wilson DeVries Aquatic Center was offered to our Chapter for free and volunteers came out of the woodwork to teach kayaking basics. I also had to go back to the basics. I learned how to kayak from my friends, without much professional instruction. Now I was having the opportunity to learn from legends and top notch instructors who would come for our pool sessions. I took a step back from running the hard stuff and worked on refining my strokes. It gave me a boost and helped me to become well-rounded as a boater. I got to try different kinds of boats as well as an open canoe. Many nights. I demonstrated the wet exit on in the Warren Wilson pool for new Veterans in the program. This made me become more comfortable being upside down again, alongside some of my Vets who immensely disliked being trapped inside the cockpit of a kayak under water. I was awed by their determination to try everything I asked of them, even when it was unfamiliar and scary. Building trust between me and a Vet was the key to having a successful wet exit and t-rescue and eventual roll. At that time,

their needs mimicked mine—their ability to be mentally prepared and successful at kayaking was based on trust.

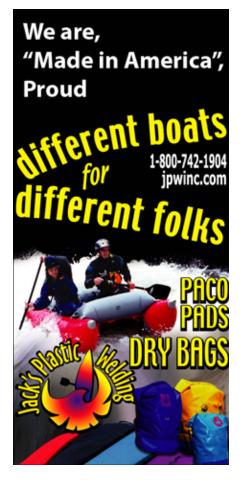
Personally, I am more likely to take risks when I trust my friends to have my back. I can't help but wonder if our kayaking circles of trust mimic those found among men and women at war. Although we kayak with a web of friends, it goes without saying that we must rely on ourselves in the end. Because, at the crux moment, it is me, alone, sitting at the top of the drop choosing my line. And I am the one that must dig down deep and find the courage to take the strokes. Even with the good guidance of others, I am responsible for my choices. This is where kayaking gets spiritual for me. It's the moment when I do something I didn't believe I could do. It's where I dig down deep and find the ability, confidence, and commitment to make something happen.

For me, how I kayak is how I do life. I can always get in my boat and see where I am struggling overall in my life. I love those moments when there isn't any struggle, only flow. Boaters do live on the edge and we face big risks, regardless of the size of the whitewater we face. It's how we react and respond that makes the difference. I try to remember this, especially on busy water.

TRR Asheville, sponsored by Endless River Adventures, preparing to paddle the Nantahala River for the first time.

Photo by Rebecca Carter

I make a choice and something happens. And that's all there is in that moment. It's nothing personal. The water isn't "doing" something to us. It's our vehicle for feeling alive in the moment. All too often, we focus on the humiliation of a swim, but it's actually a gift from the Universe that shows us the power of being human and the Godliness of the flow when we're not fighting it. The line between the two is almost tangible. Perfection isn't what I am seeking when I'm kayaking, just the feeling of being complete and whole. The water doesn't judge me and I love that. So, whatever adversity I face, I'll get back in my boat, mostly because I feel freedom from my cares and an acceptance of myself that doesn't happen so easily without the skirt and helmet.



RIVER VOICES

PACKRAFTING IN PATAGONIAEXPLORING A CHILEAN WILDERNESS PROPOSED FOR HYDROPOWER DEVELOPMENT

BY SARAH FOX AND GARDNER JOHNSTON

T DOESN'T TAKE long for us to figure out that the four sheep riding next to us in the back of the dumptruck will be our dinner this evening. By this point, we've grown accustomed to finding ourselves in unusual situations. I guess if we had wanted an ordinary honeymoon, we would have gone to Cancun.

Half a year earlier, Sarah had suggested an alternative to the usual wedding gifts of cutlery and serving platters. And by the end of it all, our friends and family had kicked in enough for us to purchase two packrafts. After a few warm-up trips on nearby rivers, and combined with our background in rafting and kayaking, we were ready to pack up the boats and head south for a more serious endeavor.

For months leading up to the trip, Gardner spent his evenings pouring over maps and aerial photos, trying to find routes through the rugged Patagonian Andes that would offer just the right combination of remoteness, exploration, and adventure. Our planning and research finally led us to the Aysén Region of Patagonia—latitude 47 degrees south—the wild southern counterpart of our home in Hood River, Oregon.

Over the past six weeks, we've been working our way north from the southern tip of the continent. Up to this point, we've incorporated packrafting into treks in Torres Del Paine and Fitz Roy. But these were just warm ups, a chance to escape the crowds at these popular trekking meccas. This trip will be different. Our route will traverse valleys,

Packrafting on the Rio Baker.
Photo by Sarah Fox

glaciers, lakes, and rivers along the eastern edge of the northern Patagonia Ice Field. And in contrast to Paine and Fitz, we won't see another soul. Much of our route will be on the Rio Baker, a wilderness river that is the largest in all of Chile. It is also slated to receive two large hydroelectric dams, which is part of our motivation to travel to this far corner of the world and see this magnificent river in its pristine condition.

But this trek almost didn't happen. More than once we ran into obstacles that delayed our start, including bumping along in the back of a dumptruck full of firewood and four freshly skinned sheep. Making the most of a delay, we'd headed over to Valle Chacabuco—the future Patagonia National Park. There we happened to cross paths with Conservacion Patagonica folks (www.conservacionpatagonica.org) and others who were heading to the annual Patagonia Sin Represas (Patagonia Without Dams) protest rally on the Rio Baker. The dumptruck was our ride to the rally, and we eventually realized that the cargo was for the rally's asado, or traditional Patagonian barbecue. We were just happy to be getting there any way we could; this was our chance to learn more about the dams and the Sin Represas effort.

For the past five years, multinational corporations Endesa and Colbun have been working to get approval for what is called the HidroAysén Project. This project would include the construction of five dams in Chile, including two dams on the Baker River and three dams on the Pascua River, an even more remote river draining the eastern edge of Chilean Patagonia's southern ice field. An estimated 14,000 acres would be flooded and 1.500 miles of transmission lines would be constructed to move electricity from the Patagonia region of southern Chile to the more populated regions in the north. The project is estimated to cost \$7 billion. HidroAysén asserts that the project "not only represents a cost-effective, sustainable, reliable, and ecologically viable source of energy, but is also compatible with tourism, agriculture, and livestock development in the Aysén region" (www.hidroaysen.cl/ eng). But not all Chileans are convinced. Recent polls show that more than 60% of Chileans oppose the project. Critics of the project cite a number of different drawbacks, including environmental impacts, displacement of local farmers, impacts on Chile's tourism industry, and the concern that much of the project is owned by foreign investors.



RIVER VOICES

After the rally, we head up to our departure point at the small town of Puerto Bertrand, Chile, where we've hired a local rancher, Luis, to transport us in his wooden skiff to the starting point of our trek. It's raining, and we only get occasional mist-shrouded views of the distant peaks where we're headed. This seems to be how Patagonia works—on its own terms. More than once, when asking locals for a weather report, we'd get a chuckle, a glance outside, and something along the lines of "if you don't like the weather just wait five minutes." It was true. The one constant of the weather here is that it was constantly changing. And so you learn to roll with it, and comfort yourself knowing that if it seems miserable at the moment, it was bound to change soon.

Luis cuts the motor as we near the shore. The sudden silence, more than anything, signals that the adventure is about to begin. Now our world will be defined by the fundamentals—food, water, shelter, navigation ... and of course, finding as

many opportunities as possible to use our packrafts.

We spend three days in the first valley, hiking our way upriver on rough trails and rocky outcrops. We occasionally use our packrafts to ferry across the broad glacial river to access easier walking on the opposite shore. At the head of the valley, we leave the river and climb to the crest of a ridge among towering peaks. At the top, we're rewarded with our first view of the Nef Glacier, a ribbon of ice extending eastward from the heart of the Northern Ice Field. Outside of the polar regions, this ice field, and its larger sibling to the south, Campo de Hielo Sur, comprise the longest, most continuous masses of ice in the world. We spend most of a day winding our way across the Nef, navigating a surreal landscape, and never keeping a straight course as we weave among crevasses, glacial meltwater streams, and emerald blue pools.

Crossing the glacier, we are lucky to be graced with good weather, which makes crevasse-dodging along the way feel relatively easy. But barely a day later, we are engulfed in driving rain as we approach another other-worldy landscape. It seems like we have set foot onto a post-apocalyptic land. Before us stretches a barren lake bed, muddy and full of silt. Stands of blackened tree trunks are evidence of a once flooded forest. We had learned previously that this was the scene of a GLOF, or Glacial Lake Outburst Flood. For those not familiar with this phenomenon, GLOFs are caused by the sudden draining of ice-dammed lakes. In the case of this lake, which covers approximately two square miles, the water drained out in about two days, eventually reaching the Rio Baker and increasing its volume by thee to four times its usual size—no small feat considering this is the largest river by volume in a country pulsing with rivers.

Over the past five months the lake has partially refilled and is now being supplied



by a river that flows thick with sediment. It's more like a mud slurry—not fully liquid—and it blurs the boundary between water and riverbed. We have never seen anything like it and are not sure if what lies below the opaque surface is suitable to traveling in our packrafts. But we have arrived at a pinch-point. We have to make a decision to either brave the uncertain waters in our rafts, or travel overland up a steep, loose moraine that looks as if it could crumble into the lake at any moment. We choose the packrafts.

For us, packrafting is not so much about crazy whitewater or the adrenaline rush from death-defying rapids. Sure, there are certainly those who use these rafts for amazing feats of river-running, but for us, they are about a different type of adventure. It's the feeling you get when you reach a bend in a remote river and have no idea what's around the next corner. Or of going to the furthest extent in hard-toreach places—and then going further. Or the sense of calm that comes after days of hiking, weight on your back, boots on your feet, and then loading it all onto a raft and floating. You get to look around more when you don't have to watch where you step. And perhaps, at the end of the day, it's as simple as that.

After being nearly upended by the river of mud, we enter the young GLOF lake itself, and are finally able to float along, amidst icebergs and pouring rain, until we reach the shoreline just short of the ice dam. At a rocky beach, we deflate our rafts and once again take to the land. We hike down valley to the snout of the Colonia Glacier.

Here, the calving ice of the glacier enters Lago Colonia, which is the source of the Colonia River. Twenty miles downstream, the Colonia River adds its flow to the Rio Baker on its quest for the Pacific. Now our packrafting begins in earnest. It will be our only mode of transportation from here to the ocean.

We push off from shore below the Colonia Glacier and paddle across the four-mile long Lago Colonia. With current and wind in our favor, we quickly reach the outlet of the lake, the birth of Rio Colonia. We awake the next morning to a well-earned bluebird day as we set forth on the Colonia. Our rate of travel increases 10-fold as we negotiate the entrance rapids. When we're not distracted by reading river currents, our gaze is skyward—a gentle paddle stroke can spin you around for a 360-degree panorama of magnificent peaks. Later that afternoon, as we drift farther down valley, the river gradient eases and we are kept occupied with choosing between multiple river channels. The splitting, converging, and splitting again of channels signals that we are floating through the broad delta where the smaller Rio Colonia enters the larger Rio Baker.

At the Patagonia Sin Represas rally, we'd stood miles upstream from our current location on the edge of the azure waters of the Rio Baker. Now, more than a week later, we meet the mighty Baker face to face again. Its waters now run an olive-teal color, suggesting it's been busy between there and here, taking in the turbid glacial waters of several upstream tributaries. The Baker runs through some of the least populated areas of Patagonia, which makes for an ideal spot to see a river as it is—no roads running alongside, no power lines crisscrossing—just steep canyons, valleys lined with jagged peaks, and water you can cup in your hand and drink straight up.

Trekking along Lake Cachet 2, which was recently emptied during a Glacial Lake Outburst Flood (GLOF)

Photo by Gardner Johnston



Packrafts on the banks of the Rio Colonia.

Photo by Gardner Johnston

But what makes the scenery of the Baker River so striking also makes it ideal for hydropower. The Rio Colonia enters the Baker between two major canyons—the sites of the two proposed dams. These natural constrictions make ideal locations to build dams capable of impounding massive volumes of water, water that can be released at a moment's notice to generate electricity. The ranching lands and small farms we are floating by would be displaced by the reservoir. The nearby landowners have learned to exist with the natural rhythms of the river, but these rhythms will fundamentally change once the dams are built. Exactly how things will change, however, is relatively unknown. For many, one of the most striking things about these proposed projects is the lack of scientific understanding about how this river functions, how well it would support hydropower development, and what might be the ecological impacts of such a massive project. In June of this year, the Chilean courts agreed that there has not been enough technical review of this project, a decision that has halted the government approval process, for now.

RIVER VOICES



Patagonia Sin Represas (Patagonia Without Dams) rallies on the banks of the Rio Baker, March 2011.

Photo by Sarah Fox

We continue our float, now on the much wider Rio Baker. Most of the river is relatively flat, but fast moving. In the current, we travel 10 kilometers per hour, and that's when we're not paddling. But with this much water, it's important not to underestimate the river. We've seen unique hydraulics before, but never the bizarre forces operating on a river of this scale and power. In some places, bends or constrictions in the river create surging eddy lines and boil fields, bulging masses of water that rise above the river level and grab at the sides of our rafts. These chaotic and unpredictable currents seem poised to suck us in and spit us out without warning.

The great thing about packrafting is that you don't need Class V whitewater to get your heart beating. We discover this firsthand on a rapid called Gonzalez, a series of standing waves that cycle from nine-foot curling peaks to nearly flat. If the timing is right, the line through the waves appears easy enough to negotiate, but when the waves are surging and breaking, it makes for sporty packrafting. The problem is, the other lines through the rapid offer their own challenges. To the left of the waves is a boil field that threatens to slam you against a cliff and to the right is a chaotic

eddy line that would be difficult to cross in a packraft. It's the kind of rapid that makes for a bumpy joyride in a regular raft; but quite the adventure in our tiny packrafts.

We portage to scout. Gardner opts for the center line, ride the waves all the way through and hope to get lucky with the surge timing. He loads into his raft, fastens his spray skirt, and shoves off. He paddles hard for river left, fighting a pulling current that seems set on forcing him right. Viewing from a rock on the bank, Sarah presses record on the video camera-it doesn't roll for very long. If you've ever wondered what it looks like when a large man in a small raft, launches vertically up the face of a breaking wave and rolls into a perfect backflip, we have the video. Gardner swims the rest of the long rapid, but stubbornly hikes up and runs it again in Sarah's boat (this time sans swimming). "That was one of the most terrifying things I've ever done," he says.

Below Gonzales, the river is punctuated by only a few rapids, which are of the easy Class I and II sort; but this placidity has one significant interruption, the canyon at El Salton. This dramatic canyon, with its raging whitewater, is the proposed site

for one of the dams, and it's clear why. The massive river narrows down into a gauntlet confined by towering cliffs. The canyon culminates in a 10-foot falls before finally settling down as the cliffs widen to form a huge pool. In this, one of the most remote parts of the river, where the only access is via the river or helicopter, it's difficult to imagine the transformation of this wildness into an industrial site. Not to mention the impacts on what has become a classic recreational adventure. Local outfitters (check out www.aguahielo.com and www.adventurepatagonia.com) have created thriving businesses that rely on wilderness and a free-flowing Baker River. Rolando Toledo, a Chilean who guides multi-day Baker River trips in sea kayaks, would lose his flagship expedition. "I run a five-day tourism program along the Baker River that has been my main activity and income for the last four years," Toledo says. "The two giant dams will destroy not just my business, but a lifestyle."

It's rainy with a low cloud cover on our final day on the river. Snow from the previous night has dusted the mountain sides. The occasional glimpse of jagged peaks tempts us with what hides behind foggy veils. Already we are wondering when we can return and what we will see? Mountains that are hidden on this trip? Transmission lines? Will the river even be runable from Rio Colonia to the ocean, or will it be blocked by dams? We end the trip passing from river to ocean as we arrive at the tiny coastal town of Caleta Tortel, From mountains and valleys to ice fields and rivers and out to the ocean, we've reached the end. We paddle to a dock and deflate our rafts, strap them to our packs, sling it all on our backs and walk into town.

Editor's Note: for more information on the proposed dams in Chile and the efforts to stop them, visit: patagoniasinrepresas.cl/. The controversy is central to 180° South, an excellent film about climber Jeff Johnson's journey to Patagonia, featuring Yvon Chouinard and Doug Tompkins.

IN MEMORIAM

REMEMBERING BOYCE GREER

By: Greg Hanlon

Y NAME IS Greg Hanlon and Boyce is my best friend. My brother the English teacher would likely take issue with the tense of the verb is, but I am not sure it will ever seem appropriate to speak of my friendship with Boyce in the past tense. I met Boyce over 20 years ago on the Ashuelot River, which

may well be the most polluted, ugliest, and overall lamest stretch of water in the North East. At that time, I had no way to envision what our relationship would become, the places we would go together or the experiences we would have. We kayaked, skied, and hiked, but mostly drove, drove, and then drove some more. This allowed for endless hours of conversation. Those who know Boyce know how chatty he can be, so needless to say I did most of the talking. It didn't take very long to figure out that Boyce was different. He is smarter, tougher, more determined, kinder, and simply the most solid person I have ever met. As we paddled more

and more, it became obvious that, both on and off the river, he was able to deal with people and life in an enviable way. He had an uncanny way of cutting through the crap and focusing directly on what was important. Neither fear, excitement or any unproductive emotions got in the way of the goal, whatever that goal may have been. His capacity to solve problems, and get things done was unmatched, and as a result everything we did was more efficient and simply more fun. Boyce lived to his potential and his potential was tremendous. He was inspirational to be around and he made all of us better through his unfailingly consistent positive example. He is a true role model and will always be my hero. I know I am lucky to have paddled and lived, not in his shadow, but in the glow of his personality.

It seems like an unlikely coincidence that Boyce's initials are B.I.G. or Big as his wife Anne often called him. Boyce went big in everything he did, his education, his career, his adventures, but most of all his dedication and love for his family and friends. Being Boyce's friend has been a tremendous privilege, and the greatest compliment I can imagine. In a strange way it has been similar to being in high school and having the quarterback, valedictorian as your best friend. His friendship will always be a great source of pride and confidence.



Photo by Trip Kinney

As we are all now sadly aware, at Boyce's level, the line is a fine and exhilarating place to operate, and Boyce was the master at staying on the right side of the line. He often took me there with him and for that I am grateful and forever different.

There is however one interesting contradiction in Boyce's personality that drove me nuts. On one hand Boyce is an intrepid adventurer, and on the other an unrelenting creature of habit. These traits always seem in opposition to each other, but they were somehow both firmly ingrained in him. Once he found something he liked to do, or a place he liked to go, Wildcat, The Grand Canyon, The Salmon, The Toreau, or the Romaine River, to name a few, it became part of the schedule year after year. When on the river, he would

stare incessantly at his gps so he could be certain that we put in, ate lunch, camped, portaged and did everything exactly as we had done on previous trips. A couple of years ago on the Romaine River, as we paddled up to "the lunch spot," as determined down to the foot by Boyce's ever handy, waterproof GPS our friend Tom asked "what if we're not hungry"? Tom who incidentally, refuses to wear a watch so to avoid any form of routine, was clearly new to the program, because as we all knew that "the lunch spot" was "the lunch spot"

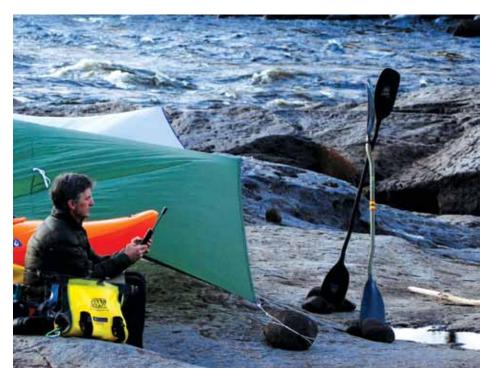
and we could not possibly eat even 50 yards downstream. So as usual we, including Tom, took out some food and ate at "the lunch spot," hungry or not.

I don't think the full reality of this will set in until the next big rain storm when I would, without fail, get a morning call from Boyce with just 4 words, "what are you thinking." I always found this strange because we both knew what each other were thinking; the appropriate questions would have been when and where. When Boyce called if at all possible we went. We all knew it was going to be good even if was really bad.

My relationship with Boyce went well beyond the time we spent together on the rivers, but paddling was always central. Boyce often told me how important is was for him to get out and play, and how he never wanted to be one of those people who got so busy with work, and life that he no longer had time to go out and play with friends. With all Boyce has accomplished in his life, I am still floored at how often and how hard he went out to play. I will be forever thankful for all the time I spent with Boyce in his sandbox.

I am not a very spiritual person, but the only way I can stomach this is to imagine that Boyce is with our friend Chuck Kern, in a place where it rains every day, all rivers drop 300 ft/mile and they are driving an RV

IN MEMORIAM



The Trip Leader.

Photo by Trip Kinney

with no roof racks because as Boyce always said "the boats will be stored underneath." Boyce we love you, thanks for everything. You will never be forgotten!

Ed Clark

LTHOUGH I AM a relative latecomer to the sport and I only had the good fortune of knowing him for the last decade of his life, his loss is unimaginable. He was a pioneer and his passion for rivers was perhaps unsurpassed. I found in him a sense of self that I have rarely seen in others; competence, calmness amidst chaos, self-fulfillment, and joie de vivre. This shaped my experience of our sport and the magical experience of rivers in ways that will stay with me for the rest of my life. He helped me progress faster than I had any right to. There is no one whose opinion meant more to me than his. More than anything his grace under pressure and ability to move on to the next challenge regardless of the last were an inspiration to us all. Organization was his middle name. My biggest regret is ever saying no to a trip

I could have gone on with him. The tragedy of his passing cannot be overstated and my great good fortune of spending time with him also cannot be exaggerated. Many of the best times I have spent in the 21st century were with him...many trips on the Taureau, wilderness trips on the Magpie and Romaine and the privilege of showing him down a couple of Quebec classics he'd managed to overlook. Husband to Anne, father of Tessa, Corey and Riley, paddler extraordinaire, duct tape connoisseur,

Boyce, I'll never be on the water again without thoughts of you.

Adam Herzog

oyce Greer was the coolest person I ever met. The first time we paddled together was about a week after I moved to New England, in 2009. I quickly got acquainted with the local paddlers and we went

Boyce on Fowler River (NH). Photo by Adam Herzog

straight to the Taureau section of the Jacques Cartier.

The Taureau is legendary in northeastern kayaking circles, and Boyce and his crew pioneered the run in the early 90s. They made the long drive every year for 20 years, often more than once per summer.

Boyce was the trip leader on my first run, as he was on every trip. He naturally assumed the role of boss, without being bossy. He did not say much as we set shuttle. "What's up with this guy" I wondered, "he doesn't talk much."

It was an amazing day of kayaking Class V whitewater, deep in Quebec's boreal forest. Boyce led us through countless drops with style and ease. We arrived at the Sieve Drop, a commonly portaged rapid in the heart of the gorge. Boyce fired into the meat after a quick, decisive scout. "I like this guy's style" was my next thought about him.

We swatted black flies and drank warm beer at the take-out and Boyce loosened up a bit, telling us two decades of Taureau stories.

After a full day of difficult whitewater, we finished the ridiculously long shuttle. Most of us were sticking around to play the



following day, but Boyce had an important meeting. He rallied the seven plus hour drive home, solo. "I don't know if I could do that drive right now," I said around the campfire that night. Boyce took it in stride.

We returned later that summer with Anne, Boyce's wife. In true Boyce style we rolled down the rugged put in road in the big RV at 2 a.m. Most people don't want to drive their cars and trucks down the rutted out, potholed dirt road. The RV tossed like a boat on rough seas, but we made it. I gripped the door handle with sweaty palms, but I doubt Boyce's heart rate went up a beat.

A couple of years ago during the spring melt, we spent the weekend at Boyce's condo in the White mountains of New Hampshire. The first day we ran the Sawyer River at 4 ½ feet, an extremely high level. The whitewater was steep and pushy with big ledge holes. Above the crux of a particularly large rapid, I eddied out, scared and breathless. I could see a large hole at the bottom of a slide, then continuous

whitewater careening over the next long set. Another boater eddied out next to me, and then I saw a flash of red. It was Boyce, punching the beast like it was nothing. "I can't believe I just got scooped by a guy 20 years older than me," I thought as I portaged.

The next day we went to the Ellis at 3 ½ feet and followed Boyce through one big hole after the next. It was the best weekend of New England kayaking I have experienced, and I was paddling with the guys who invented creek boating in the northeast 20 years earlier.

The last time I spoke with Boyce, he invited me to Idaho.

"What are you doing next weekend?" He asked.

"Working, what's up?"

"What about the next weekend, can you come to Idaho with me to run the North

Fork of the Payette?"

"Maybe, let me work on my schedule. "

I made a few phone calls and checked with my wife then called him back.

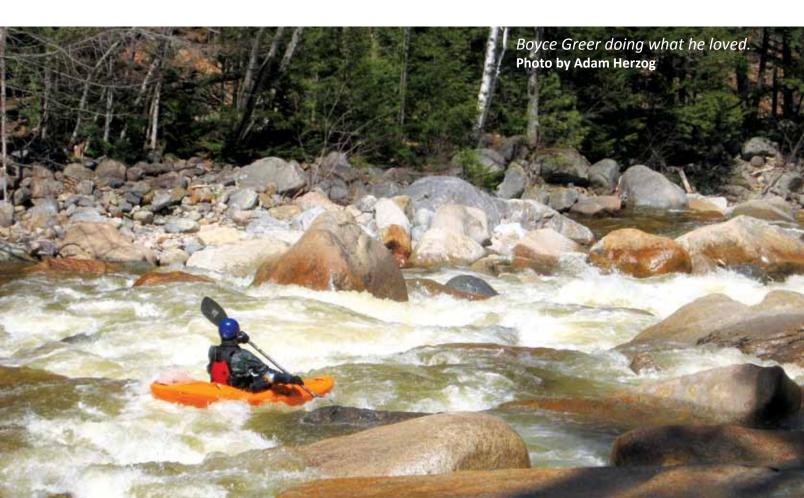
"Okay, I can go. What do I need to do?"

"Nothing, just tell me when you can leave and when you need to be back."

The next day I received email confirmation for my ticket from Boston to Boise.

Boyce died on the North Fork a few days later.

I have lost too many friends over the years, but Boyce's death was especially brutal. He was so damn tough; I did not think he could go down. The New England creeking scene will not be the same without its trip leader.



SAFETY

WHITEWATER ACCIDENT SUMMARY JANUARY 1 - JULY 15, 2011

BY CHARLIE WALBRIDGE

HE FIRST HALF of 2011 was the worst of any year on record for whitewater accidents. There were 57 deaths in 50 incidents in the first six months of the year, more than we usually see in an entire bad year. The number of kayaking (20), canoeing (10), and rafting deaths (27) through August are all much higher than usual. We also have reports of eight fast water mishaps involving "other craft": everything from drift boats to inner tubes. Geographically, 33 of these incidents occurred out West, 20 in the East, and 6 in the Midwest. California led all states with eight deaths followed by Idaho and Pennsylvania with six each.

The most likely cause has been a nationwide high water year caused by record snowpack in the West and heavy rain in the East. Despite the well-publicized losses of several well-known experts in Class V water, most accident victims were not experienced river runners. Unskilled boaters typically don't recognize the danger and lack the skills and gear to handle it. Things they might have gotten away with at lower water became fatal mistakes. This year 21 fatalities occurred because life vests weren't worn. Most would have turned out differently with pfds in use; some would have been survivable at lower water levels. The list also includes 17 flush drownings, seven strainer pins, and nine deaths at low head dams. Because of the sheer number of reports some of them will be grouped together and discussed by type in this article. You can get more detailed information from the accident database. found on AW's Safety Page on the web (www.americanwhitewater.org).

Kayaking Accidents

Accidents claimed the lives of nine experienced whitewater kayakers this year.

The first death occurred on January 1st after heavy rain caused Tennessee's Tellico River to rise rapidly from 200 to 5000 cfs in a few hours. As the river flashed upwards a group of five paddlers from Atlanta were driving upriver, scouting drops on the way to the Upper Tellico put-in. According to eyewitnesses the rising water carried them quickly to the first ledge, at normal flows a straightforward six-foot drop. The first three paddlers got through a powerful hole created by the rising water, but the last two were caught, tumbled, and forced to bail out. One man swam to safety, but the other, 27 year-old Paul Pichanusakorn, recirculated for some time before washing out face down.

Two of the remaining kayakers paddled out and grabbed Mr. Pichanusakorn. They held his head above water as they ferried him over to the river right shore. This was a fine piece of boat handling in very fast current; they barely missed being swept over the next drop! Excellent, aggressive CPR began at once. After 25 minutes Mr. Pichanusakorn's color returned and he started to breathe fitfully on his own. Some of the group switched to rescue breathing as others prepared to get him across the river to the road. Many paddlers who were in the area rallied to help out. A raft was constructed by lashing three kayaks together; Mr. Pichanusakorn was loaded onto the raft and roped across the fast current. The group hoped that he might recover, but he did not.

We had a brief report that Scott Foster, 42, died at President Harding Rapid in the Grand Canyon of the Colorado River. According to the National Park Service Morning Report, his group ran the rapid without incident. When they looked upstream they saw his kayak floating upside down. They quickly pulled him ashore, started CPR, and used a satellite phone to contact the Park Service. A helicopter arrived and took his body to the South Rim, where he was turned over to the county medical examiner. Although no one saw exactly what happened, the river was cycling between 15,000 and

20,000 cfs and this rapid develops a mean hole at these levels. We also received word that John Novak, 33, drowned on Colorado's Eagle River on June 25th. Mr. Novak was with two friends when the accident occurred; the river level was high. We have no further information and would like to hear from anyone who can describe what happened.

Four experienced kayakers died on cutting edge steep creeks. One example occurred on West Virginia's North Fork of the Blackwater, which drops over 400 feet in a mile from the top of Douglas Falls to the bottom of Blackwater canyon. Don, Smith, 45, ran this section often. He had a house in Canaan Valley and often ran it after work. On April 21st he encountered serious trouble during a solo run. The next day he didn't meet friends as planned and his car was found parked at the put-in. Two boaters ran the North Fork and found Mr. Smith just below the Rainbow Room He was trapped underwater on a log hidden in aerated water below the rapid. A branch was pushed through his sprayskirt; his boat was stuck nearby. They sent for help, and a larger group freed Mr. Smith's body and carried him out of the canyon. They later returned and removed the log.

Another steep creeking fatality occurred on Colorado's South Mineral Creek. This small, twisting Class V+ run drops 320 feet in the half mile above South Mineral Campground. The crux of the run is the Cauldron, a narrow 15-foot falls with a tricky lead in and a very narrow exit. Because it sits in a shallow, sheer walled gorge rescues there are iffy at best. On July 3rd Kevin Bair and five other kayakers scouted the Cauldron carefully and set safety. Mr. Bair, 26, ran the 15-foot high main drop cleanly but flipped after landing. His roll pivoted his boat 90 degrees, placing him perpendicular to the Cauldron's narrow exit. He pinned end to end across the drop with his deck facing upstream. He was trapped in his boat.

According to Jens Jensen's report, paddlers quickly lowered a rope down to Mr. Bair,

whose head had been pushed underwater. He grabbed hold, but could not work free. Others tried to reach Mr. Bair from the pool downstream, but the current was just too swift. Finally they lowered a man down a 15-foot cliff to the pinned kayak. He jumped up and down on the boat for several minutes until it came free. Part of the group brought Mr. Bair ashore and attempted CPR. Others ran down the road until they got a cell signal. A Forest Service truck and sheriff's cruiser responded, and an ambulance arrived soon after. Sadly, Mr. Bair was beyond help.

The Waterfalls section of California's Dinkey Creek is a Class V+ mini-expedition in a magnificent granite canyon. On July 12th it drew a party of five world-class Italian kayakers including Daniele Tira, 30. According to an article in the Fresno Bee the run has a number of mandatory and challenging portages. At the jump portage paddlers must throw their gear off a 40foot cliff and jump in after it. According to a post on Boof.com, Mr. Tira was in his kayak below the drop collecting gear when a kayak filled up with water and became unmanageable. It floated into the next drop; Mr. Tira chased it, swam, and washed into a sieve on river right. His body was recovered a month later, after the water dropped.

Upper Cherry Creek is another high-end California run, passing through a granite slab wonderland in the High Sierra. Here steep cataracts drop into huge granite potholes to form "pocket eddies," ugly reversals with immense holding power. A report by Jay Lynn, who was on the trip in question, described how Alan Satcher, 28, was negotiating the drops below Waterfall Alley when he missed his line and was pushed into one of these awful "rooms of doom." He flipped and swam. Friends saw him pop up to the surface briefly, but then he was gone. Several rope throws towards the pothole came up short. After about three minutes Mr. Satcher flushed out unconscious. His friends pulled him onto a mid-stream rock and began a long bout

of fruitless CPR. The group later activated a SPOT transceiver, which eventually summoned a rescue helicopter.

There were also two deaths on the North Fork of the Payette, a difficult big-water river in Southern Idaho. Because it runs along Idaho Highway 55 it gets a lot of use from top-flight paddlers. On June 27th the river was running at 4000 cfs, a high level. That day two expert kayakers launched on the Upper Eight section. One of them, Stephen Forester 19, was considered a top paddler despite his youth. According to Brian Ward's B Real Blog, Mr. Forester fell into the huge "catcher's mitt" hole on the river left side of Know Where to Run. After being violently worked he swam through Chaos and Bouncer, both huge Class V drops. His partner tried to pick him up on the stern of his boat above Chaos, but Mr. Forester was exhausted and the water was just too fast. He was last seen floating face-down into a large pourover above Bouncer. His partner got out, waved down a passing car, and told him to get help. He then carried upstream and ran Lower Bouncer for a second time. Afterwards, he gathered several other paddlers and paddled and searched the rest of the river downstream to Banks. Mr. Forster's boat. paddle, and PFD were found that day, but his body didn't appear for weeks.

American Whitewater is still reeling from the loss of our long-time friend and benefactor Boyce Greer. He was an expert kayaker, a noted investment manager, and part owner of Liquid Logic Kayaks. Mr. Greer, 55, had paddled the North Fork of the Payette many times before his run on August 14th. The trip was uneventful until he flipped at the bottom of Jacob's Ladder. He attempted to roll several times before he washed upside down through Taffy Puller, a very shallow rapid. This is where he could have received a head injury that stunned him even though he was wearing a topquality helmet. His partner, a well-known expert, eventually towed him ashore with a rescue PFD. He tried to revive him, without success. Head injuries like Mr. Greer's have been part of several deaths on the North Fork of the Payette. Those who paddle here should get the best helmet they can find before getting in the water, and even this may not be enough!

Five more kayaking fatalities occurred in the deadly backwash of low-head dams. These structures, often modest in height, account for over 10% of all whitewater fatalities. While some dams can be run safely at ideal water levels, smart paddlers routinely portage them. Kayakers were killed running dams on Alabama's Cypress Creek and New York's Catharine Creek this year. There were also deaths at the Topeka Water Works on the Kansas River and at Dock Street Dam on the Susquehanna River, both the scenes of similar incidents in recent years. A tragic double drowning occurred on California's Yuba River when high water pushed Tyler Minton, 17, over Daguerre Point Dam. His father, 43 year-old Lee Mattice, went into the hydraulic after him. Both perished.

Life vests save lives, and paddlers who don't use them are courting trouble. On April 19th David Prichett, 48, was wearing hip waders, but no PFD. He had his dog aboard when he paddled out onto Indiana's flooded Big Walnut Creek. When the dog returned without him his family got worried and called 911. On May 24th two men launched their touring kayaks at the old Stewarton takeout for Pennsylvania's Lower Youghiogheny River. The river was running 7.9 feet, a very high level. There are a few Class III rapids below here, and the men quickly capsized. Neither, man was wearing a life vest. One made it ashore; but Jason Whipkey, 31, disappeared. On June 7th Michael McDonald drowned in an easy Class I rapid after his kayak capsized on the Lehigh River near Walnutport, PA. If any of these men had been wearing a PFD they might be alive today.

One other incident is worthy of note. On June 8th Sean Arnett got his kayak stuck in a huge log jam On Michigan's Grand River. The 28 year-old man climbed out of his

SAFETY

boat and was trying to walk to safety along the logs when he slipped and was pulled underwater. His partner watched in horror as he disappeared after a brief struggle.

CANOEING ACCIDENTS

Canoeing accidents typically involve inexperienced paddlers who are unable to recognize and cope with fast-moving water. Six of the 12 canoeists who died this year were not wearing life vests. In one particularly sad case a man said to be "experienced" took his PFD off during a high water run on Pennsylvania's Mahoning Creek. He later drowned. Two other fatalities on the Susquehanna and Black Rivers in Pennsylvania were equally avoidable.

The deaths of young children are especially heartbreaking. On June 1st an 18 monthold boy drowned after his parents' canoe capsized on Indiana's Whitewater River. The boy was wearing a PFD, but it came off during his swim. On June 25th, a 14 year-old girl drowned on Minnesota's Kettle River after a canoe she was paddling with her brother flipped. She was not wearing a life vest and was overcome by the high, fast water. In a horrific case of bad judgment two adults and three small children canoed Utah's Green River on July 2nd. The water was high and both adults had been drinking. The canoe struck a bunch of flooded willows and capsized. A four-year-old drowned; two other children aged 18 months and eight years washed downstream and were later found by a rescue helicopter.

Two double fatalities resulted from sloppy boat handling around low-head dams. On May 6th Cory Berger, 23, and James Hellman, 24, were pulled into a dam intake on North Dakota's Apple River. High water undoubtedly contributed to these deaths. On May 21st there was a second damrelated accident on Michigan's Huron River. John Przydatek, 16, paddled his rented canoe too close to the downstream side of a dam and was pulled into the hydraulic. Forty-eight-year-old Douglas Killingbeck, an experienced paddler, saw

what happened. He put on his life vest and attempted a rescue. He, too, perished in the backwash. These events remind us that dams and diversions must be given a wide berth, especially in high water, and that "rescuers" who paddle into dam hydraulics are unlikely to survive.

In other incidents, 29 year-old Tim Godfrey died on April 13th after a canoe carrying him and two friends flipped on a flooded Big South Fork of the Cumberland River near Oneida, KY. The two other paddlers swam to safety. On May 25th Pamela Boyko, 53, set out on the Lehigh River near Walnutport, PA to search for her missing dogs. The dogs returned, but she did not. It's not known whether either of these paddlers was wearing a pfd, but in both instances a second boat would have been helpful after they capsized.

RAFTING ACCIDENTS

We've seen 28 rafting deaths so far this season, 11 of them on guided trips. Most happened out West, where a record snowpack has kept rivers high for an unusually long time. Not surprisingly, 11 of these accidents (including five commercial fatalities) were the result of flush drowning: swims down rapids so long and turbulent that life vests alone won't keep a person alive. High flow commercial deaths occurred on the Lochsa (ID), Yellowstone (MY), Poudre (CO), and Snake (WY) Rivers. Private high water fatalities occurred on the Grand Canyon (AZ) at Hance Rapids, the Middle Fork of the Salmon (ID) at Murphy's Hole, the Upper Colorado (CO), and Blackfoot (MT) Rivers. An inflatable kayaker drowned on Utah's Green River at Needle's Eye Rapid. Although this rapid is an easy Class III, high water resulted in a very long swim.

Lastly, in the rain-soaked aftermath of Hurricane Irene, Dr. Peter Engel, 53, launched a raft with three friends on a badly flooded Croton River in southern New York. Although Mr. Engel was a former guide with excellent gear, he and his crew didn't fully appreciate what they were getting

into. They flipped almost instantly in the violent water. Mr. Engel washed away to his death; another man spent hours clinging to a mid-stream tree before he was spotted by a helicopter. As veteran California boater Mike Croslin observed on the Swift H2O Listserv, "I enjoy moderate to high flows but can do without the spooky funny water insanity of flood stage runs."

There were two commercial rafting deaths at normal release levels on Tennessee's Ocoee River this year. On June 6th Jay McEvoy, 36, was in a raft that flipped in the rapids at the Ocoee Whitewater Center. A second raft moved in quickly and found him floating face down. CPR was unsuccessful. This was the first commercial death on the Ocoee in over 12 years and a pre-existing health problem may be to blame. Ten days later, on June 16th, the Ocoee guide community was rocked by the death of 16 year-old Andrew Silvershein, whose raft flipped in Mikey's Rapid on the upper section. Streambed geology is very convoluted here and the boy was caught in what's been described as a foot or leg entrapment. His guide swam ashore, waded out, and released the boy by prying with his paddle. Mr., Silvershein had a faint heartbeat when he was pulled ashore, but despite aggressive treatment and a fast evacuation he did not survive.

In other commercial fatalities, 65-year-old Robert Desmarais died on May 23rd after his two-person ducky flipped in Upset Rapid on Idaho's Owyhee River. Although the 4,000 cfs flow was not particularly high, the man recirculated in a hydraulic for 15 minutes before washing out. Guests washed into strainers after their rafts capsized on highwater runs of the Arkansas in Colorado and the Wenachee in Washington State. High levels often undermine riverside trees and carry paddlers into streamside vegetation. On July 16th a raft flipped in Upper Railroad Rapid on West Virginia's New River. This was a low-water run. One of the guests, Judy Brown, 64, became pinned against a downstream rock. She was under for 30 minutes before guides could get her free.

Eight private rafters would probably have survived if they had used life vests. On February 19th two boys drowned while attempting a high-water run of Walnut Creek near Concord, CA in a small inflatable. Although this is a dangerous stretch of urban whitewater that's largely fenced off, it's clear that pfds would have improved their chances. Other rafters without pfds drowned on the Kern (CA), Deschutes (OR), Cle Elum (WA), and Upper Delaware (NY) Rivers. That last accident involved a rented raft. California's Kern River was the scene of an unusual double drowning on June 13th. The Kern was running high at 4500 cfs when Quang Nguyen and Scott Neacato, both in their 20s, ran a rope across a relatively flat stretch of the river and tied their raft to that rope. Neither man was wearing a life vest. After the rope broke suddenly the pair washed into a Class IV rapid just downstream. Neither survived. On June 30th Jaymond Brasher, 47, was thrown into the water after his raft flipped at Skull Rapid in Utah's Westwater Canyon. His life vest was pulled off during the ensuing big-water swim. Three friends

Two family outings turned deadly this season. Cami Odum was rafting Idaho's North Fork of the Boise River when her raft got stuck on a downed tree. As they tried to get the boat loose she got caught underwater between the raft and the log. In Arkansas, Carla Jo Davenport was rafting the Spring River when her raft hung up on a small ledge near Rio Vista. She got out and was trying to push the boat free when she slipped, went over the drop, and was pinned between two rocks at the base of the falls. Her husband worked desperately to save her, but couldn't. Several rescue squads responded and eventually used the jaws of life to release her body.

OTHER CRAFT

survived, but he did not.

People take all kinds of "boats" into fastmoving water each year, sometimes with tragic results. We know of five fatalities among inner tubers. None wore pfds; the incidents were all survivable except the one where a man washed over a low-head dam. In a particularly sad tale, Nathaniel Ellison, 13, tried to float a Class I section of Utah's Provo River on an air mattress. Because young Mr. Ellison was a non-swimmer and did not wear a pfd he didn't survive a swim in fast, cold water.

Users of more substantial boats also found trouble. On March 26th Warren Moran, 59, was fishing on the McKenzie River near Springfield, Oregon when his drift boat hit a large downed tree and pinned. His partner escaped, but Mr. Moran was caught underwater. On April 3rd five fishermen capsized a John boat on West Virginia's

BY STUDYING ACCIDENTS WE LEARN HOW TO AVOID TROUBLE AND REACT MORE EFFECTIVELY TO EMERGENCIES.

Upper New River. Despite the medium-high flow (10,000 cfs) and cold water none of them wore life vests. Two of them made it back ashore; the bodies of Paul Malone, Sam Acord, and Dean Halsey turned up one-by one over the next few days. On May 16th Mary Patricia Plochowietz. 68, was floating Montana's Smith River in a drift boat when it hit a log and capsized. Her husband survived, but she did not.

NEAR MISSES

This year five expert kayakers sustained serious back injuries while running big waterfalls. Three of these paddlers were top touring pros. This spring Jesse Coombs collapsed his lung from the impact of running Oregon's 101-foot Aquiba Falls. Ten days later Tyler Brandt broke his back at the same location at a slightly lower level. An article in Paddling Life Magazine describes both of these incidents in some detail. Even falls of modest height are not without risk. On March 29th Junior World Freestyle Champion Jason Craig, 17, was seriously injured running a 25-foot ledge in California's Dry Creek. Several less known boaters were also hurt. On July 12th Nathan Warren broke his back running a 40-foot falls in the remote and difficult Royal Gorge

on the North Fork of the American River in California. This accident required a helicopter evacuation. Then on June 26th four teens attempted Oregon's Bridal Veil Falls, a two-stage drop of 120 feet. When the three boys in the group remarked that the drop was a lot higher than they expected, the young woman paddling with them said, "I'll go first." She and two of the boys had relatively clean runs of the lower falls, but Robert McKenzie, 19, landed hard. It took 14 emergency responders several hours to get him out. If you run big waterfalls, the question is not if you'll break your back, but when. Make sure your health insurance is paid up before

going ahead!

This article summarizes accident reports taken from newspaper articles and found in chat rooms like Boatertalk, Mountainbuzz, and Boof.com. Other

sources include Yahoo's SwiftH2O chat room, The IBWWW page on Facebook, The National Park Service Morning Report, and regular incident reports from the U.S. Coast Guard Office of Boating Safety. Several eyewitnesses to the death of experienced kayakers wrote very comprehensive reports; these provide a helpful record of what happened and quash the malicious rumors and gossip that often follow a river tragedy.

American Whitewater needs your help in collecting these accounts. Since most of us will never encounter a fatal accident it's important to share the facts so we can all learn from them. By studying accidents we learn how to avoid trouble and react more effectively to emergencies. Our techniques, procedures, and river gear may be modified based on what happens in the field. Please help us out! To report a whitewater accident, near miss, or serious injury, go to the Safety page on the American Whitewater website, click "Report an Accident," and enter your information. You can also forward newspaper articles, chat room posts, and first person accounts directly to the safety editor, Charlie Walbridge, at ccwalbridge@cs.com. Thanks!

PARTNERS PARTNERS

\$20,000 - Class V

\$7,500 - Class II







ExactTarget_®













\$5,000 - Boof





\$15,000 - Class IV







\$10,000 - Class III

\$2,500 - Wave





















PARTNER SPOTLIGHT

American Whitewater is supported by members, donors, foundations, and partners in the whitewater and outdoor industries. In each edition of the *Journal*, we highlight one such partner in this space. American Whitewater urges you not to make purchase decisions blindly. We hope you'll consider a company's commitment to river stewardship when making your next purchase.



Jackson Kayak was born in October of 2003 as a family owned business dedicated to making paddling better for everyone. In the time since then, the company has grown from a 730 square foot ex-laundromat to a nearly 100,000-square-foot facility in Sparta, TN.

More than just a manufacturer of whitewater products, Jackson Kayak is also a full service kayak company, opening up their products to flatwater paddlers in 2009 and bursting onto the burgeoning kayak fishing scene with the groundbreaking Coosa in 2010.

What's more, Jackson Kayak backs up its product with a lifetime warranty on workmanship and frequently goes above and beyond the written warranty in case anything goes wrong. Customers of Jackson Kayak always have access to the president of this company, Eric Jackson, by emailing him at eric@jacksonkayak.com. How many companies do you know of that can say that?

Finally, and just as importantly, Jackson Kayak is a long-time supporter of AW. Jackson Kayak is a Class V sponsor, donating multiple boats to American Whitewater to use to encourage memberships, donations and volunteer participation. As an American Whitewater Partner, Jackson Kayak, lends its voice in support of our rivers everywhere.







Join AMERICAN WHITEWATER Today!

American
Whitewater
has been
extraordinarily
fortunate in our
ability to leverage
a strong grassroots
base—members
and other
volunteers—to
assist our limited
staff with many
whitewater river
conservation and
restoration efforts.

Over the years, American Whitewater volunteers have participated in numerous hydropower meetings as well as instream and recreational flow studies; filed comments and assisted with an uncountable number of filings; appeared as expert witnesses; lobbied; worked to fight new dams, remove existing dams, deny licenses, and improve public access to rivers and streams. In nearly every river stewardship issue AW has been involved with, the outcome has been favorable to paddlers. Not only has AW secured favorable decisions for the paddling community, but we are the only national organization representing paddlers as these decisions are being made.

A growing membership base is crucial to our ability to continue with our work. Some studies show that there are currently over 100,000 whitewater paddlers in the US, AW currently has 5,500 active members. When you consider the amount of whitewater river miles that AW has had a direct impact on, this membership number is unimpressive. We need all paddlers to join AW! If you are a member, please be sure that everyone you paddle with understands the work AW does, and how you, as an AW member, value that work.

Membership support is what will determine our ability to continue our river stewardship work in the years to come. Individual annual memberships are only \$35 (\$25 if you are a member of an AW Affiliate Club). This is less than a tank of gas or an inexpensive night out. This is certainly not too much to pay to have a national organization representing your paddling interests all across the country.

It's easy to join or renew an AW membership: Join or renew online today at http://americanwhitewater.org/content/Membership/join-aw/; call 1-866-BOAT4AW (866-262-8429); or complete the membership form provided in this Journal and mail it to:

Membership American Whitewater PO Box 1540 Cullowhee, NC 28723



Join or Renew Form

info@americanwhitewater.org | 1-866-262-8429 P.O. Box 1540 Cullowhee, NC 28723

*Note: AW will never share your information with others

Name				<u> </u>	
Address					
Email					
Phone			Member Number: if you have one and know it		
Membership	Level			——— II you have one and know it	
□\$35 Standard			☐ \$100 Ender Club (SF	nirt Size:)	
□\$25 Member of A	Affiliate Club		☐ \$250 Platinum Paddler		
Club:			☐ \$500 Explorer		
□\$25 Student			☐ \$750 Lifetime		
			□ \$1,000 Legacy —	For current member rewards go to:	
□\$50 Family			☐ \$2,500 Steward	americanwhitewater.org	
☐ \$75 Affiliate Club					
<u>Donation</u>					
\square Donation of \$					
Additional Su	bscription	ons			
	-		S donates \$5 to AW!)		
Journal Optio	ns				
-		al, email it to me <-	Saves AW money, and tr	ees! :)	
			·		
<u> Auto-Renew (</u>	<u>No Rene</u>	<u>wal Notices!</u>			
Auto-renew my m	nembership e	ach year on the cre	dit card below		
_					
<u>Payment</u>					
☐ Credit Card	□Cash	□Check #			
Card Number:				_ Exp. Date:	
Name on card:					
Signature:					

BOARD BIOS

AMERICAN WHITEWATER BOARD OF DIRECTORS ELECTIONS 2011

Each year American Whitewater's membership elects board members to serve three-year terms. The following candidates are volunteering to serve three-year terms on the American Whitewater Board of Directors. Current AW members can cast their votes through mid December. Vote for any or all of the four candidates on the American Whitewater website: www.americanwhitewater.org

Deadline for submitting electronic ballots is December 13, 2011.

Thank you for your participation in this important election process.

Don Kinser



Hello fellow whitewater enthusiast and AW member. My name is Don Kinser and my interest in whitewater boating started in the early 1970s as a teenager growing up in the Washington DC area. However it was not until Nanci, my wife, gave me a whitewater canoe for Christmas in 1991 (surely a green light to spend more time on the river) that my whitewater addiction became serious.

My relationship with AW began in 1995 while on a paddling trip to West Virginia with my good friend Joe Greiner. Joe's enthusiasm and passion for AW's mission struck me and I joined AW at his urging. I want to thank Joe for introducing me to AW. My involvement soon grew from simply a dues paying member to a committed and passionate local volunteer as I started helping with the early Tallulah releases.

The more involved I became, the more I learned about the great work that AW has been part of all over the country.

It was during those early Tallulah releases in 1997 and 1998 that Risa Shimoda recruited me to help lead AW's efforts on another local river, my home river, the Chattooga. The work on the Chattooga got me more deeply involved with AW's staff as I learned a whole new language such as NEPA, DEIS, EA, ROD, "Preferred Alternative", and how agency's such as the USFS work (or don'twork, as the case may be).

The more involved I became with AW as a volunteer the more awestruck I have become with the organization's accomplishments and the people who made up the organization's staff. What makes AW accomplishments even more astounding is how much the organization accomplishes with so little. AW is truly the "little engine that could."

My commitment to AW's mission has grown ever since those early volunteer days at Tallulah Gorge. I believe strongly in AW's mission and in our river stewardship work across the country. I am honored to have helped guide AW toward continued success as a director and officer of the organization since 2002. I served as AW president from May 2008 until May 2011 and I currently serve as AW's treasurer.

I have been nominated for a fourth and final term as AW Director beginning January 1, 2012 and I am excited to have this opportunity to continue my service to AW, make new friends, and more importantly, help continue AW's 54-year legacy as the national voice for whitewater rivers and those of us who enjoy these wild places so passionately.

My goals for AW are to help make sure the organization can continue our tremendous river stewardship work and build on the many great success of the past. An important way to ensure our continued success is to grow our membership and

funding so that we can accomplish even more. Thank you for your support.

Kent Ford



My wife thinks 17 boats is too many to keep around the house. So I have narrowed the fleet down to 15, simply by purging those without annual use and yet keeping the ones she enjoys (psst, don't tell Shawna I am considering buying number 16). The wooden dory and the Stand-up board are currently my favorite craft. From any boat, I feel lucky to enjoy the incredible diversity of rivers around the world (330 in 27 countries at last back-of-the-napkin count). Our sport has an incredible history that I have enjoyed documenting in my recent film, The Call of the River. From that project, I learned to appreciate the timeless work that has been done to preserve opportunities for future paddlers to enjoy the river. In Washington DC, paddlers took then-Secretary of the Interior Steward Udall exploring the Potomac. In Georgia, they took President Carter on the river. Walt Blackadar helped advocate for Salmon Wilderness.

The level of AW members involvement in important access and flow issues around the country is truly outstanding. AW staff is highly regarded as preeminent experts in establishing recreational opportunities, and carefully advocating for those with other environmental and flow constituents. With more support, we can accomplish more to protect and enhance the outstanding rivers we enjoy. I look forward to doing my part.

Leland Davis

As a longtime member of the whitewater community and whitewater industry, I've been obsessed with rivers for many years.



As a member of the AW Board, I bring the broad perspective of someone who has dedicated years to exploring rivers and their issues across the continent in an effort be become a local paddler wherever I go. I hope that in a future term as an AW Board member I will be able to combine my years of experience as a communicator through print, web, writing, and photography to help connect paddlers more closely with the fantastic work that AW does, and help get more people involved in the mission of preserving and protecting rivers and our access to them.

Rich Bowers



I am a past Conservation Director, Executive Director, and Board Member of American Whitewater since 1991, with a consistent focus on working with grassroots groups and paddlers to protect and restore flowing water. I have been exceptionally blessed to continue working on river issues and with river advocates on wild rivers through my work over the past four years with the Hydropower Reform Coalition. This Coalition, co-founded in 1992 by American Whitewater, has today grown to include over 150 recreation and conservation partners working to improve rivers impacted by dams. I bring non-profit and conservation expertise to the Board, as well as organizational history and a passion for rivers. I live with my wife and daughter in Bellingham WA, and am a past President of the Whatcom Land Trust.

It's Easy to Support AW!

American Whitewater is proud of the work we have accomplished in our stewardship program but we need your help to sustain our success. Your support through membership and donations enables our staff to be active and engaged in the process of river stewardship. Donations don't have to be large; each person doing a small part makes a noticeable difference. Many donors fail to take full advantage of federal tax incentives specifically intended to encourage charitable contributions. Such incentives often enable a donor to make a larger gift to AW at little or no additional cost. For more information about maximizing your gift visit the IRS website dedicated to charitable organizations.

American Whitewater is a national non-profit 501(c)(3) organization, EIN# 23-7083760. To learn more about the Giving Options below, contact us at 1-866-262-8429 or visit the "Donate" link under "Support AW" on our website at www.americanwhitewater.org

- Donate online today!
- Monthly Giving: Contribute a minimum of \$10 via credit card or electronic transfer from your bank account.
- Bequests: Include AW in your will or living trust. Bequests to AW are generally exempt from federal or state inheritance taxes, and subject to an unlimited deduction.
- Combined Federal Campaign: Federal employees including federal civilians, military personnel and U.S. Postal Workers can donate to AW through the CFC a once a year charitable fund raising program. Look for AW (Agency #11351) in the official CFC listing of eligible donors.
- Charitable Remainder Trusts: Convert a highly appreciated asset (such as real estate or stocks) into a lifetime income while minimizing income and estate taxes.
- Employer Matching: Many employers will match your donations to non-profit organizations. This includes membership payments, as well as additional contributions. Check to see if your employer has a matching program.
- MissionFish: Sell your items through the MissionFish program on eBay and the proceeds come directly to AW.
- Other Assets: A gift of real estate to AW qualifies you for a tax deduction based on the property's fair market value. If it is not a river access point, AW will sell the property and use the proceeds to protect access and restore rivers. Acceptance of property is subject to certain conditions. You may also be eligible to receive tax benefits for gifts of real property. Art and jewelry are examples of personal property items that may be eligible. Interested donors should check with your financial and tax advisors and AW on the feasibility and tax considerations of such gifts.
- Securities: Donating appreciated stock to AW benefits both the donor and whitewater rivers. The donor receives two tax-related benefits. First, the gain on the stock is not subject to capital gains taxes. Second, the donor can deduct the value of the stock as a charitable contribution.
- United Way: All federal campaigns, and a few of the local campaigns will allow you to donate to AW.
- Vehicle Donations: Turn that extra car, truck, or RV into a tax deductible donation benefiting AW.

AFFILIATE CLUBS

AW'S ORIGINAL PURPOSE

BY CARLA MINER

The Affiliate Club Program lies at the very heart of American Whitewater's existence. American Whitewater's original purpose since 1954 has been to distribute information among its Affiliate Clubs. Our relationships with local clubs have provided the backbone for the river conservation and access work it accomplishes. We have over 100 current AW Club Affiliates and they are all doing great work on your behalf. If you don't belong to a club, consider joining one.

Our Affiliate Club Spotlight this issue is on the Lower Columbia Canoe Club an outstanding Affiliate Club and long time supporter of our mission to conserve and restore America's whitewater resources and to enhance opportunities to enjoy them safely. The Lower Columbia Canoe Club (LCCC) gives Pacific Northwest paddlers the opportunity to share in the excitement and adventure of single - and double - bladed paddling. Based in Portland, Oregon the club features a year-round schedule of both whitewater and flat/moving water trips for canoeists and kayakers. In addition to paddling, many members are involved with regional river conservation and access issues.

The LCCC seeks to promote river safety; help members improve paddling skills; protect and preserve Northwest watersheds, rivers and lakes; and foster a strong paddling community within the Club and in league with other paddling organizations. The Club has the distinct advantage of access to over 100 local river trips within a 100-mile radius of Portland, Oregon and a location that boasts 44 wild and scenic rivers.

The LCCC generally meets on the second Saturday of every month except during December and a couple of summer months. Non-members are encouraged to come to their monthly meetings to meet club members and learn about the club. Club dues are an affordable \$20 a year. Check out their website at http://www.l-ccc.org/about.php for additional information.

Thank you Lower Columbia Canoe Club for your continued support of American Whitewater!

The AW Journal Club Affiliates by state:

Fairbanks Paddlers, Fairbanks Nova Riverrunners Inc., Chickaloon

Birmingham Canoe Club, Birmingham Coosa River Paddling Club, Montgomery Huntsville Canoe Club, Huntsville

Outdoors Unlimited, Flagstaff

Arkansas Canoe Club, Little Rock

California

Chico Paddleheads, Chico Gold Country Paddlers, Lotus RTS Sierra Club San Fran Chapter, Livermore Sequoia Paddlers, Forestville

Colorado

Avid4 Adventure Inc., Boulder Colorado Whitewater Assn, Englewood Dolores River Action Group, Mancos Friends of the Arkansas River, Canon City Friends of the Yampa, Steamboat Springs Grand Canyon Private Boaters Assn., Colorado

Lower Dolores Boating Advocates, Dolores Pikes Peak Whitewater Club, Colorado Springs San Miguel Whitewater Asso, Telluride Stand Up For Rivers, Telluride

Connecticut

AMC - Connecticut Chapter, Waterbury

Delaware

Wilmington Trail Club, Newark

Georgia

Atlanta Whitewater Club, Atlanta Georgia Canoeing Assoc, Atlanta Georgia Tech Outdoor Recreation, Atlanta Paddlers4Christ, Ellijay

Idaho Whitewater Assn., Boise

Chicago Whitewater Assn., Chicago

Ohio Valley Paddlers, Evansville

Iowa Whitewater Coalition, W. Des Moines

Kentucky

Bardstown Boaters, Bardstown Bluegrass Wildwater Asso, Lexington Elkhorn Paddlers, Lexington Viking Canoe Club, Louisville

Louisiana

Sabine Whitewater Club, Lake Charles

Maine

Penobscot Paddle & Chowder Society, Troy

Maryland

Blue Ridge Voyageurs, Silver Spring Greater Baltimore Canoe Club, Cockeysville Mason Dixon Canoe Cruisers, Boonsboro

Minnesota Canoe Assn, Minneapolis SCSU Outdoor Endeavors, Saint Cloud

Missouri

Missouri Whitewater Assn, St. Louis Ozark Mountain Paddlers, Springfield Ozark Wilderness Waterways, Kansas City

Nevada

Sierra Nevada Whitewater Club, Reno

New Hampshire

AMC New Hampshire Paddlers, Raymond Ledyard Canoe Club, Hanover Mt. Washington Valley Paddlers, Intervale Merrimack Valley Paddlers, Nashua

New Jersey

AMC Delaware Valley Chapter, Oaks KCCNY, Flanders

New Mexico

Adobe Whitewater Club of NM, Albuquerque

New York

ADK Schenectady, Schenectady Colgate University, Hamilton FLOW Paddlers' Club, Rochester Hamilton College, Clinton Housatonic Canoe & Kayak Squad, Ossining St Lawrence University, Canton Town Tinker Tube Rentals, Phoenicia Zoar Valley Paddling Club, Buffalo

North Carolina

Base Camp Cullowhee, Cullowhee Carolina Ĉanoe Club, Raleigh Dixie Division, Tuxedo Landmark Learning, Cullowhee Mecklenburg Regional Paddlers, Charlotte Triad River Runners, Winston-Salem Western Carolina Paddlers, Asheville

Columbus Outdoor Pursuits, Columbus Keel Haulers Canoe Club, Westlake Outdoor Adventure Club, Dayton Toledo River Gang, Haskins

Eugene Kayaker, Eugene Lower Columbia Canoe Club, Portland Northwest Rafters Association, Portland Oregon Kayak and Canoe Club, Portland Oregon Whitewater Association, Beaverton Willamette Kayak & Canoe Club, Corvallis

Pennsylvania

AMC Delaware Valley Chapter, Oaks



Benscreek Canoe Club, Johnstown Bradford County Canoe and Kayak Club, Sayre Canoe Club of Greater Harrisburg, Harrisburg Conewago Canoe Club, York Holtwood Hooligans, Paradise Lehigh Valley Canoe Club, Lehigh Valley, Lehigh Valley Whitewater Inc., Lehigh Valley Philadelphia Canoe Club, Philadelphia Three Rivers Paddling Club, Pittsburgh

S. Carolina

Foothills Paddling Club, Greenville Palmetto Paddlers, Columbia

Tennessee

Appalachian Paddling Enthusiasts, Limestone Chota Canoe Club, Knoxville East Tennessee Whitewater Club, Oak Ridge Memphis Whitewater, Memphis Tennessee Eastman Hiking and Canoeing Club, Kingsport Tennessee Valley Canoe Club, Chattanooga

Utah

Utah Whitewater Club, Salt Lake City

Vermont

Vermont Paddlers Club, Essex Junction

Virginia

Coastal Canoeists Inc, Richmond Creek Freak Paddlers of Franklin County, Rocky Mount Float Fishermen of Virginia, Roanoke FORVA, Roanoke Hollins Outdoor Program, Roanoke James River Float Company, Madison Heights Paddlers for Conservation, Vienna

Washington

BEWET, Bellevue EPIC Adventures, Cheney Paddle Trails Canoe Club, Seattle Spokane Canoe & Kayak Club, Spokane University Kayak Club, Seattle Washington Kayak Club, Seattle Washington Recreational River Runners, Renton

West Virginia

Dbl Z! Whitewater Club, Martinsville Redneck Kayak Club, Beckley West VA Wildwater Assn, S. Charleston WVU Whitewater Club, Morgantown

Wisconsin

Sierra Club / John Muir Chapter, Madison

British Columbia

Vancouver Kayak Club, Burnaby

DISCOUNTED AW MEMBERSHIP FOR AFFILIATE CLUB MEMBERS

By Carla Miner, Membership Manager

AW offers a discounted Affiliate Club membership of \$25, a \$10 savings. If you are renewing your AW membership or joining as a new member, select the Affiliate Club Discounted Personal Membership online at http://americanwhitewater. org/content/Membership/join-AW/ Or, if you are renewing or joining by mail or telephone just mention the name of the Affiliate Club you belong to and you can take advantage of the \$25 membership.

A list of AW Affiliate Clubs can be found on our website at www. americanwhitewater.org/content/ Affiliate/view/. If you do not see your Club listed here please encourage them to renew their Club membership or to join AW as a new Affiliate Club. Your Club's membership and your personal membership enable our staff to be active and engaged in the process of river stewardship. When you join or renew your membership your support is helping to meet the many challenges whitewater rivers face.

If you have any questions about the Affiliate Club membership, please contact me. I can be reached at 866_BOAT-4AW or membership@ americanwhitewater.org.

JOIN AMERICAN WHITEWATER AS AN AFFILIATE CLUB!

AFFILIATE CLUB BENEFITS

- Club members can join AW for just \$25 - a \$10 savings!
- Have your club listed in each AW Journal delivered to all AW members
- Post Club information on the AW website to help paddlers find you
- Participate in exclusive AW Affiliate
 Club promotions and grants
- Most importantly, your financial support helps us save rivers!

Sign-up on-line at: www.americanwhitewater.org/ content/Membership/join-aw

Miner at membership@americanwhitewater.org or at 1-866-262-8429

For more information contact Carla

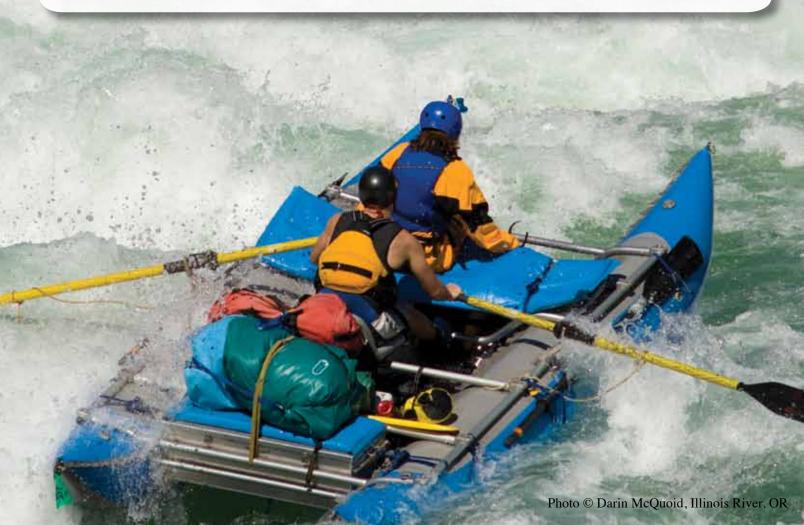
AWIERICAN WHITEWATER

Contribute your text and photos to American Whitewater

American Whitewater is moving from a theme-based magazine to a more diverse model. Starting in 2012 we will be producing issues that are not concentrated on a single topic, but rather offer something for everyone.

We're always accepting submissions and we'll hope you'll consider contributing. For complete submission details, story topics, deadlines, and guidelines, go to:

americanwhitewater.org > Library > AW Journal





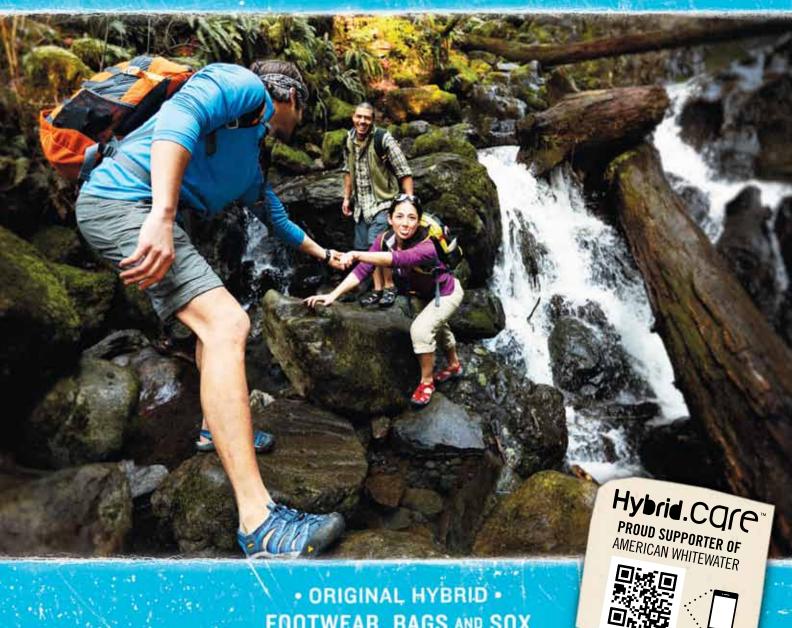
The 2011 Outback. The adventurer's vehicle of choice. Symmetrical All-Wheel Drive grips whatever comes your way. An efficient transmission gives you an enviable 29 mpg.* Best of all, it's built in a zero landfill plant, so you can indulge your urge to explore, responsibly. **Love. It's what makes a Subaru, a Subaru.**



Outback.® Well-equipped at \$23,195†

* EPA-estimated hwy mpg for 2.5i Continuously Variable Transmission models. Actual mileage will vary. †MSRP excludes destination and delivery charges, tax, title and registration fees. Dealer sets actual price. Outback 2.5i Premium pictured has an MSRP of \$24,495. Vehicle shown with available equipment.

RECESSIS BACK



FOOTWEAR, BAGS AND SOX



KEENFOOTWEAR.COM