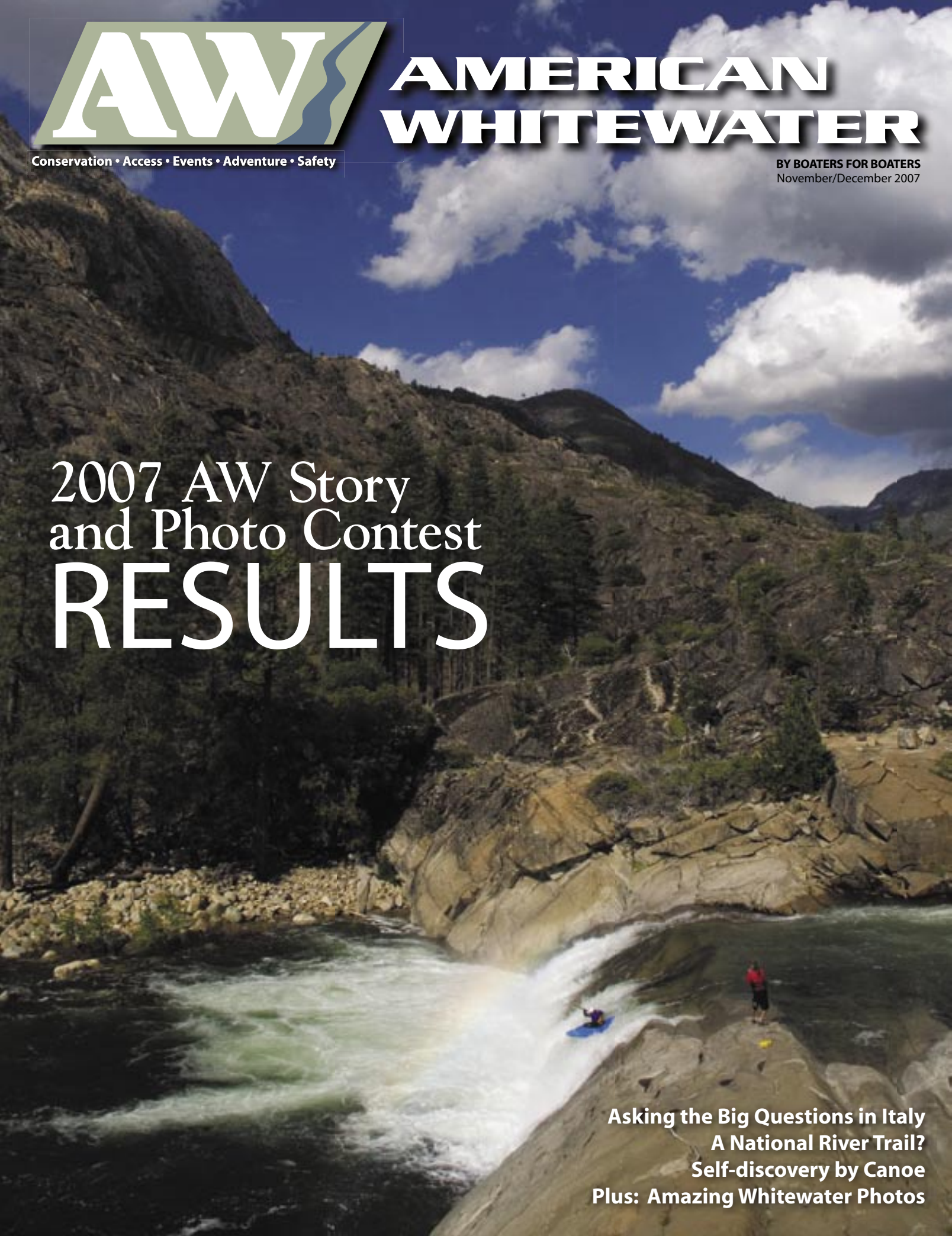
AW
AMERICAN WHITEWATER
Conservation • Access • Events • Adventure • Safety
BY BOATERS FOR BOATERS
November/December 2007



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AMERICAN WHITEWATER

A VOLUNTEER PUBLICATION PROMOTING RIVER CONSERVATION, ACCESS AND SAFETY

American Whitewater Journal

November/December 2007 - Volume #47 - Issue #6

COLUMNS

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FEATURE - Story and Photo Contest Results

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Ruth Gordon practicing for perfection at the Skook
photo by Klaas van Lil

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Purpose American Whitewater

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 bi-monthly 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.

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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.

The Journey Ahead

It's been three years now since I came onboard as your executive director. Over the last three years American Whitewater has been through a remarkable transition. Today we are on solid financial ground, and more importantly, our regional stewardship approach is delivering solid results. American Whitewater staff and volunteers are successfully building relationships within their communities to improve the quality and quantity of whitewater recreation and conservation in their backyards. Local staff and board representation, coupled with empowered grassroots volunteer activists, make American Whitewater more effective at fulfilling our mission, "To conserve and restore America's whitewater resources and to enhance opportunities to enjoy them safely."

Our national representation is greatly enhanced through joining forces with other human-powered outdoor recreation organizations to form the Outdoor Alliance. The Access Fund, American Canoe Association, American Hiking Society, American Whitewater, International Mountain Biking Association, and Winter Wildlands are all founding members of the Outdoor Alliance. This coalition is aimed at representing human-powered recreationists on a national level. Now one year old, the Outdoor Alliance represents the common goals of preserving and restoring our natural resources for responsible recreation. Our coalition approach provides a stronger voice for our interests in Washington, DC and is helping to shape public policy for improved recreational access and conservation on all American public lands.

Support for our efforts comes in large part through membership in American Whitewater and member donations. AW also receives support from the outdoor industry through partnership programs. Foundation support for our river stewardship program is strong, especially in the area of hydropower reform. One area of support that often goes unnoticed is in-kind support. These are professional services that are donated to help us further our mission or engage in important projects. Over the past year, in-kind support from law firms has been notable. Alston and Bird, a major national firm, provided support to AW through pro bono representation in our lawsuit to restore boater access to the Upper Chattooga River. AW Board Member Adam Cramer provided his pro bono legal services in our Upper Yough relicensing negotiations, resulting in a new summer flow regime that includes summer Saturdays. Most recently, the firm Morgan, Lewis & Bockius, an international firm based out of Philadelphia, provided significant pro bono research on navigability and state-by-state reports on navigability laws for river users (look for these in our online stewardship toolkit). And finally Patton Boggs, a leader in public policy and lobbying, has assisted AW with shaping our strategy on the Chattooga for many years.

The team that has developed over the last three years to support the mission of American Whitewater is quite impressive. As you can see, it includes membership, member donors, industry partners, coalitions, foundations, pro bono legal services and volunteer grassroots activists—a winning team! We still face future challenges to achieving nationally consistent river management based on good science and sound public policy. But with plenty of help from our friends, your organization is positioned to address these challenges squarely. AW

Letters to the Editor

Mr. John Cleeves
U.S. Forest Service
4931 Broad River Road
Columbia, SC 29212

Dear Mr. John Cleeves,

I am writing to ask for your permission to use the comments submitted by the South Carolina Council of Trout Unlimited and Friends of the Upper Chattooga for my college composition class this fall. You see, I teach Intro to Composition to college freshmen, and every semester we cover rhetorical forms of argument. In this section, we examine how everyone from advertisers to politicians appeals to our logic, our emotion, and our character to persuade us to do something different or to consider new ideas. While we're covering classical and contemporary arguments, we inevitably cover the section on "Logical Fallacies." This is usually a fun time, when, among other things, we analyze Michael Moore's *Bowling for Columbine* to see how he commits acts of fallacy by using hasty generalizations, faulty causations, and ad hominem attacks.

After reading the comments by the groups opposing access for boaters to the Upper Chattooga, I can imagine myself switching curriculum materials. Instead of using Michael Moore to show how it's easy to construct faulty logic in a well-intentioned argument, I might just show how even established, well meaning organizations, like the USFS, have been swayed by appeals made with ill-formed logic.

A hasty generalization is "committed when a person draws a conclusion about a population based on a sample that is not large enough."

For instance, take the claim that kayakers should not be allowed on the Chattooga River because they could carry trash in their boats and dump litter in the river and around the river corridor. Such a claim is a fallacy because it suggests that ALL kayakers litter. Unless, such a claim can be backed by well-researched evidence, this amounts to a hasty generalization and is therefore an unsubstantiated reason to decide that boaters should not be allowed access to the river.

Faulty Causation or Post Hoc Ergo Propter Hoc. "The Post Hoc fallacy derives its name from the Latin phrase Post hoc, ergo propter hoc. This has been traditionally interpreted as 'After this, therefore because of this.' This fallacy is committed when it is concluded that one event causes another simply because the proposed cause occurred before the proposed effect."

I see this fallacy most readily with the claim that because kayakers are on the river they will then drop into pools of swimmers or tubers and readily injure someone. The action of paddling downstream does not automatically lead to injurious encounters with swimmers and tubers. Such erroneous logic is often the basis of superstitions. (e.g. The black cat crossed my path, something bad happened: anytime a black cat crosses my path bad things will happen.) Again, claiming that a kayaker paddling down a river will inevitably cause injuries to swimmers is ill-founded logic. While such a claim is theoretically possible, the inference that one event always follows the other is not practical or rational, researched nor substantiated.

The comments I've viewed in opposition to allowing kayakers access to the upper section of the Chattooga could supplant my current curriculum with ease. However, the real goal of this letter has nothing to do with asking your permission to use such comments as a learning tool for my students.

Instead, I urge you, as you act on behalf of all wilderness users, look at all comments from all sides with a discerning eye. Recognize faulty logic and choose to see through its unwieldy claims. Make a decision based on facts and evidence and well-formed arguments. Such a decision will be fair and uphold the intentions of the Wild and Scenic River act.

To see more explanations of logical fallacies, see http://www.nizkor.org/features/fallacies/.

Sincerely,

April Lewandowski
996 Rudi Lane
Golden, CO 80403

CPR: What's New, What Works

By Eric Nies, MD

CPR (cardiopulmonary resuscitation) has been in the press often in the last few years, with some new and surprising guidelines coming from the American Heart Association (AHA) and other sources. Recently, one of my paddling buddies asked me if anything has changed for us boaters. The bottom line is twofold: first, there are some new things worth knowing, and, second, if you do good, aggressive CPR you might just save a life.

In this article, we'll review some basic science behind CPR. We'll highlight the new AHA guidelines for CPR technique, and talk about the thinking behind those changes. We'll dip into drowning, hypothemia, and discuss how CPR should be approached in wilderness settings. Lastly, we'll give some guidelines for when CPR should not be started, and when it should be stopped in wilderness settings.

This article also assumes that you already know how to do CPR. It is not a substitute for taking a CPR class. CPR is a physical skill, and is best learned from a qualified instructor in a hands-on setting. So take a class, okay?

The Basics

The basis for CPR is simple. The human brain needs oxygen—lots of it—to stay alive and function well. This oxygen is brought to the brain in the form of oxygen-rich blood. If the heart stops beating (cardiac arrest), this flow of blood stops immediately, leading to unconsciousness in a matter of seconds. If it is breathing that stops first (respiratory arrest), the heart can continue to beat for a few minutes while the body burns through its oxygen stores. In this case, mental status declines over a few minutes, with a quick progression from confusion and weakness to unconsciousness. In either case, unconsciousness is quickly followed by permanent brain damage and then death.

CPR artificially restores breathing and blood flow, to a modest extent, via the twin actions of rescue breathing and chest compressions. Usually it serves only as a bridging measure, buying time until more advanced care can be initiated. Occasionally though, CPR alone can bring a dying patient back to life by providing enough oxygen to restore a patient's own heartbeat and breathing. This is most likely to occur in cases such as drowning, when the body is otherwise healthy. This, in short, is why boaters need to know CPR.

What's New in CPR

The science behind CPR is clear on one point: if a patient doesn't have a heartbeat, rescuers need to start good cardiac compressions as quickly as possible. This seems obvious, but studies have shown that real-world CPR is often pretty weak on this key point—it gets started late, it is constantly interrupted, and the chest compressions are wimpy and slow. Most of the changes in CPR technique address this problem. (For complete info, take a CPR class or check out the 2005 guidelines at www.americanheart.org.)

First, for someone who looks dead, do not check for a pulse. This step turns out to be surprisingly hard to do effectively, and often serves only to waste time. Instead, shake and shout to try to arouse the patient. If this elicits no signs of life, get someone to call 911, then open the patient's airway and spend 5 to10 seconds looking for "normal breathing." If it is absent, you need to start CPR. This means rescue breathing and chest compressions.

Once you begin CPR, do not stop to see if the patient's pulse returns. Just keep going until the patient shows signs of life, someone arrives with a defibrillator or other advanced care measures, or you decide to stop your resuscitation (more on this later).

Next, the new ratio for all adult CPR is 30 compressions to 2 breaths. This goes for both one- and two-rescuer CPR (which used to be 15:2 and 5:1, respectively.) In other words, less breathing and more pumping.

Third, the mantra for compressions is, push hard and push fast. This is emphasized in the new AHA literature. Compressions should be given at a rate of 100 per minute for adults and children. This feels really fast when you do it right. Interruptions to compressions should be minimized. Compressions in the adult should be 1½ to 2 inches deep, and the chest wall should be allowed to recoil fully between compressions.

Doing compressions is hard work, and rescuers tend to fatigue after just a minute or two. Remind your rescuer to push deep and hard, and try to swap jobs every 2 minutes (about five rounds of 30 compressions and 2 breaths). Again, don't pause to check for a pulse when you swap jobs. Just switch and go.

Compressions Alone?

For rescuers who are unwilling to do rescue breathing (a.k.a. "mouth-to-mouth"), it is worthwhile to do compressions by themselves, with no rescue breathing. Dr. Gordon Ewy, MD, who published his study in the *Lancet* this March, examined this very issue in detail. While he still recommends normal CPR for drowning victims, Dr. Ewy has concluded that compressions alone (for the first few minutes) may be better for the classic heart patient who abruptly collapses in front of you. The AHA still recommends normal CPR for all cases, but does recognize that compressions alone are certainly much better than doing nothing, and may be as good as anything in the first few minutes of an arrest, while the blood still contains some oxygen.

First, the Bad News

In surveys, people usually think that CPR brings people back to life about two-thirds of the time. On TV shows like ER, CPR also works about this often. In the real world, the picture is much more bleak. Most experts quote a survival rate of between

1% and 5% for out-of-hospital CPR. For people who are already in the hospital, the numbers are only slightly better: most of the time, CPR just doesn't work.

This makes sense when you look at the kinds of people who typically receive CPR. These people are very sick to start with. Often they have been battling heart or lung disease for years, if not decades. One day their bodies just give out, whether from a heart attack, or pneumonia, or simply from the toll of time. These people have a terminal disease, and CPR usually can't change that.

CPR is fairly effective for the classic heart attack patient who walks down the street, clutches at his chest, and keels over dead. This patient is often in ventricular fibrillation, a state of disorganized heart contraction that pumps no blood. Shocking the heart ("defibrillation") can be very successful in restoring a normal heartbeat. For this reason, every ambulance and hospital floor has a defibrillator. Small automatic units (called AEDs, or automatic external defibrillators) are commonly stashed throughout airports, shopping malls and stadiums. In the setting of a "V-fib arrest," CPR can keep the patient alive for a few minutes until a defibrillator can be employed.

When an ambulance crew comes on a CPR scene, they will apply their defibrillator to analyze the patient's heart rhythm. If the heart is fibrillating, they will give a shock. If the heart is flat-lining, though, it will not respond to the defibrillator. I repeat, it won't respond. The crew will proceed with other treatments in this case, but these probably won't work either. At some point, the ambulance crew may even call off the resuscitation. Be ready for this letdown. In fact, expect it. The ambulance crew will rarely have a miracle save up their sleeve. More often, they will have bad news.

CPR also doesn't work in cases of blunt trauma. When people die after falling off a cliff or crashing an ATV at 50 miles per hour, they tend to stay dead. If these patients hang on for the ambulance ride but then lose their pulse in the Emergency Department or even on the table in the operating room, the chances of a skilled surgeon saving that life is miniscule—on the order of one in a hundred. In the field, someone who dies from blunt trauma is just not revivable.

So, CPR usually doesn't work, and when it does, it's often because a defibrillator is a few minutes away. I don't know about you, but I don't carry a defibrillator in my kayak. Bottom line: if someone drops dead in the woods, they're probably staying that way. By all means, start CPR, but don't be surprised when it doesn't work.

Now, the Good News

In the wilderness, people do die from medical problems or trauma from a fall, etc., and CPR probably won't help in these cases. However, things change for the better when lightning, drowning, or hypothermia are involved.

A lightning strike can cause abrupt respiratory and cardiac arrest in an otherwise healthy person. If your group gets hit by lightning, your fist–aid priority should probably be to ignore for the moment anyone who is moaning or screaming (they're alive, and will probably stay that way for awhile). Instead, find anyone who looks dead, open their airway, confirm that they have no signs of life, and start immediate and aggressive CPR. The odds of restoring breathing in such cases are high—probably better than 50%.

Drowning, like lightning, causes abrupt respiratory and cardiac arrest in otherwise healthy people. If you rescue a drowning victim who looks dead, and they don't start to breathe when you open their airway, your job is to start CPR as soon as possible. If the victim has been out for only a few minutes, the odds of this working are good. Again, probably better than 50%.

Fast, Fast, Fast

In the above scenarios, the emphasis is on "as fast as possible." The data I've

The "New" CPR at -a-Glace

In your initial patient assessment, do not check for a pulse. Instead, tap and shout to try to arouse the patient.

If there are no signs of life, open the patient's airway and spend 5 to10 seconds looking for normal breathing. If it is absent, give 2 breaths and start compressions.

Occasional gasps are not normal breaths. Treat the victim who has occasional gasps as if he or she is not breathing.

The new ratio for all adult CPR is 30 compressions to 2 breaths. This is for both 1-and 2-rescuer CPR

"Push hard and push fast." Compressions should be given at a rate of 100 per minute for adults and children. Interruptions to compressions should be minimized.

For 2-rescuer CPR, swap jobs every 2 minutes (about five rounds of 30 compressions and 2 breaths). Don't pause to check for a pulse when you swap jobs. Just switch and go.

If you are unwilling to do rescue breathing (a.k.a. "mouth-to-mouth"), it is worthwhile to do compressions by themselves.

seen suggest that your chances of a good resuscitation drop by one percent or so for every few seconds you delay CPR. You can't do chest compressions on a floating victim, but you can do rescue breaths. If you can safely put a few quick breaths into someone while you're getting them to shore, do so. Every situation is different, but as a rule I wouldn't spend more than 10 seconds on this. Patients usually need compressions, not just ventilations.

Once on shore, take a few seconds to get situated decently, and to get the victim's life jacket out of the way. Opening the jacket is probably good enough, but the foam under the patient's back will make your CPR a bit more difficult. If you can, quickly remove the jacket.

Do not waste time trying to "empty water out of the lungs." Any water that has made it to the lungs is staying there. It usually isn't the main problem, and anyway, there's nothing you can do about it. Just clear the mouth of any obvious debris or liquid with a simple tilt of the head to the side, or perhaps a finger sweep, then get busy with your CPR.

(Much hash has been made over "wet" versus "dry" drownings, and of salt- versus fresh-water submersion. It turns out that this stuff just doesn't matter. Drowning is drowning. Do your CPR.)

Also, do not let the fear of a spine injury spook you into inaction. Spinal injury is actually quite rare in wilderness drownings. Unless you strongly suspect it from the events (e.g. a dive into three feet of water) or from the looks of the patient (big head wound, cracked helmet, etc.), do not let this theoretical concern slow you down. The chances of a spine injury are very low, and meanwhile this person is dying. They need CPR right now, so do it. If you are truly worried about a spinal injury, do simple hands-on stabilization as best as you can, but do not let this delay you more than a few seconds.

Lastly, in a drowning or lightning scenario, do not delay your initial CPR attempts by running to a phone and calling 911. Your best chance for a save is immediate CPR. Certainly, you should call for an ambulance as soon as you can. Even if your patient wakes up and feels fine, you'll still need that ambulance to take your patient to the ER for observation. But if you are alone and have to choose between running to the pay phone or starting CPR, the right move is to start CPR. In this setting, the AHA recommends doing 2 minutes of CPR before calling 911.

Where's my Facemask?

The need for speed also raises the issue of using barrier masks while rescue breathing. I've done CPR without a mask, and it is not pleasant. So I carry a mask, and I'd want someone to go fetch it out of my drybag while I was starting CPR. But I won't waste 30 seconds fumbling for a mask when my buddy is turning blue in front of me. I would start CPR.

What you do in this situation is your own choice. Rest assured, though, that it is hard to catch HIV or other bad diseases this way, so long as your own oral mucosa is healthy and intact, and there's no blood exposure involved. The Center for Disease Control in Atlanta states: "Contact with saliva, tears, or sweat has never been shown to result in transmission of HIV."

People make out with strangers all the time (or so I've been told), and they don't seem to be dropping dead from it. Your biggest risk for doing unprotected CPR would probably be catching a cold, with oral herpes being a very distant second. (For more info check out, www.annals.org/cgi/content/full/129/10/813, "Infections Acquired during Cardiopulmonary Resuscitation: Estimating the Risk and Defining Strategies for Prevention," by George C. Mejicano, MD, and Dennis G. Maki, MD).

Vomiting

The real benefit of a mask comes about a minute or two into CPR, because that's when your patient usually starts puking. This is expected, and is as unpleasant as it sounds. When they vomit, just turn the head to the side (or roll the patient as a unit if you're worried about the spine) and take a few seconds to clean out the mouth as best you can, then get back to it.

Repeated vomiting might mean that your rescue breathing is too forceful. This is common and understandable, given the adrenalin associated with rescue and resuscitation. Remember, your goal is to give a smooth, easy rescue breath over 1 second, and to deliver just enough volume to cause visible chest rise. Also, recheck your patient's head position and get this as textbook as you can. This will maximize your airway opening, so that more air goes to the lungs and less to the stomach.

One last tip: keep a bottle of water or Gatorade handy for rescue breathers to swish around in their mouths from time to time. As I've already said, rescue breathing is nasty work.

Cold Water and Hypothermia

Normally, rescuers have no more than 4 or 5 minutes to start CPR once an arrest has occurred. After this, permanent damage usually sets in, with death following shortly. However, it is well-documented that people have survived immersion in cold water for an hour or more, and have then been revived without brain damage or other long-term problems. For boaters, this means that it is almost always worthwhile to try CPR in the setting of a whitewater drowning.

Several mechanisms have been proposed for this kind of "miracle" survival. First, our bodies may be hardwired to go immediately into a protective coma-like state when we are dunked in cold water. This is the so-called "mammalian dive reflex" that stops breathing, slows the heart-rate, and shunts blood flow to the brain.

Second, hypothermia can set in during a whitewater drowning, dropping the body's core temperature from the usual 98.6 Fahrenheit into the 80s or lower. A cold brain needs less oxygen than a warm one.

Pulseless and Cold

Without a rectal thermometer, you can't tell a simple drowning victim from a hypothermic drowning victim. They both look the same: cold, pale, and lifeless. Remember that true severe hypothermia (temperature well under 90 degrees F) usually takes at least an hour to kick in. If you pull a drowning victim out of the water after 10 minutes, that person's core temperature will be normal, even if the skin feels ice-cold. Do not worry about hypothermia in this patient. This person is a drowning victim, and needs CPR.

If you think your patient has severe hypothermia (very cold water, submersion well over 30 minutes), then you need to slow down (think of it as matching your actions to the pace of your patient). Then do three things. First, handle your patient very gently. Severely hypothermic hearts (again, we're talking core temps well below 90 degrees F) are irritable, and can toggle from an effective beating rhythm into ventricular fibrillation (ineffective twitching) in response to rough handling.

Next, take 30 to 45 seconds to feel for a pulse, which may be very faint and slow. If you can't find a pulse, start CPR (more on this below).

Lastly, get your evacuation plan together. Severe hypothermia probably buys you several hours to get your apparently lifeless patient to a hospital. The flip side is that these patients will indeed die without hospital treatment. They cannot be re-warmed in the field.

No CPR for Hypothermia?

It has been suggested that drowning victims with severe hypothermia should not get CPR in the field. These patients may have an undetectable but still effective heartbeat. Starting CPR, it is argued, only serves to delay their evacuation to a hospital. Plus, it can kick the patient out of this possible weak-but-good heartbeat mode and into ventricular fibrillation, which pumps no blood at all.

If you are in a roadside situation with an ambulance coming, it makes sense to start CPR in a drowning victim even if hypothermia is present. It's true that you might kick a hypothermic patient into ventricular fibrillation. If so, your treatment for this is CPR and an ambulance, which is what you're doing anyway.

In a true wilderness setting, with zero possibility of help or evacuation, your best choice again is to start aggressive CPR as quickly as possible for a drowning victim. Hypothermia or no, your only hope for a save is to jumpstart this person's heart with CPR.

The tricky situation is when you are an hour from help, with a cold, lifeless patient. Your options are some combination of: (1) starting CPR, (2) gently carrying this

HYPOTHERMIA: HOW MUCH TIME DOES IT TAKE?

How long does hypothermia take to kick in? Dr. Antretter reported on a 6 year-old boy who fell into an "ice-cold mountain stream" in the Alps, and was rescued 4 miles downstream just over an hour later. He had no signs of life. He was helicoptered to the nearest hospital, where he had a core temperature of 62 degrees F. He received advanced care, was successfully resuscitated, and recovered almost completely in a matter of weeks.

This impressive temperature drop is probably as fast as is possible in a human being: tiny person, full immersion, no protective clothing, and cold rushing water. It's reasonable to assume from what we know about hypothermia that this boy initially maintained his core temperature for at least 5 minutes, and probably more like 10 or 15. After this, his temp dropped almost 40 degrees over the next hour, or about 10 degrees every 15 minutes.

In other words, he probably got down to 88 degrees F, the start of severe hypothermia, in 20 to 30 minutes. I take this as the limiting case under extreme conditions. For "average" whitewater conditions (adults, warmer water, decent paddling clothes), things would progress much more slowly. We can take this as a rule of thumb: severe, heart-stopping hypothermia is not a factor in the first 20 minutes of a drowning, and probably not in the first hour.

(From Antretter H, et. al. [Successful resuscitation in severe hypothermia following near-drowning] Dtsch Med Wochenschr. 1994 Jun 10;119(23): 837-40. In German.)

person out, and (3) running out to get some professional help. Unfortunately you just can't do (1) and (2) at the same time. CPR is a near-impossibility during a foot-based evacuation. I've done it twice, and it was very slow going that required massive amounts of people. And, it didn't work either time. Based on the new information that's come to light, I don't think I'll ever try it again.

Remember that true severe hypothermia (core temp well below 90 degrees F) takes a long time to kick in, usually at least an hour of submersion. Once it does kick in, it absolutely needs to be managed in a hospital. Let this guide your decision. If you think that severe hypothermia is the problem (they were under for a long time, they have the weak, slow hypothermia pulse, or you measure their rectal temp and it's well below 90 degrees F) then package the patient in whatever you have to minimize further heat loss, and make gentle evacuation your priority. Otherwise, your best shot is probably starting CPR.

Stopping CPR in the Wilderness

In the old days, once you started CPR you did not stop until the patient woke up, the ambulance came, or you became "too exhausted to continue." In wilderness settings (ambulance more than an hour away), you can add one more reason to the list: stop CPR when it is clearly pointless to continue.

First, if someone has obvious fatal injuries, or has died from severe blunt trauma, do not start CPR. If you're not sure, then by all means start. (The classic situation is the dead person at the bottom of the cliff. Did this person just fall, or did they just have a heart attack? Who knows? Start CPR.)

If a patient spontaneously arrests from a medical cause, like a heart attack, you should start CPR, but you should be realistic as well. It probably won't work. In the wilderness, it's probably reasonable to stop after 30 minutes of CPR in this situation.

For simple drownings, always start CPR. Most saves happen in the first few minutes of CPR, but there are credible cases of good saves that took slightly more than half an hour of CPR. These victims were revived at streamside without advanced care. I know of no reports where a simple drowning victim has recovered after an hour or more of CPR. It just doesn't seem to happen. If you get to the hour mark, it's probably time to stop.

If severe hypothermia is involved and you have started CPR, you can consider going well beyond an hour, so long as you are also moving this patient towards a hospital. Otherwise it doesn't matter how long you do CPR—these patients will not survive without advanced care.

I realize that these recommendations are a little fuzzy. Every situation is different, and no one knows for certain what the right answers are. After reviewing data and opinions on this topic, I think that these recommendations are generous.

It's also appropriate to factor in the big picture: is the scene safe, is the group going hypothermic, is the river rising, is bad weather moving in? In other words, is it becoming dangerous to keep trying CPR, and is it time to deal with other problems before they get out of hand? If so, consider stopping earlier rather than later, especially for a non-drowning or non-lightning arrest.

Take Your Own Pulse

Anytime CPR is in play, things will be tense and filled with emotion. Maybe you're in the aftermath of a tough rescue. Maybe it's your friend who's down. Maybe it's a total stranger, but family or friends are clustered around, watching you do compressions. People will be on edge, and expectations can be high that CPR will work, even in cases when it has no chance at all.

I actually take comfort in the fact that CPR usually doesn't work, and you should too. It takes off a lot of pressure. You can relax, clear your mind, and approach the situation in a matter-of-fact way. Always make the effort to do this. It always helps.

If there are enough people on scene, someone should deliberately step back, calm down, and take a leadership role. This person can supervise the CPR to make sure it looks okay, and can also look at the big picture—what are the resources here, how can we get help, what else needs doing, etc.

If CPR works, great. If it doesn't, don't beat yourself up over it. You took your best shot in a stressful, chaotic, once-in-a-lifetime situation. Thinking back, you will always find something you wish you'd done differently. This is an absolutely inevitable part of stepping up and trying to help. Learn from it, and then let it go.

Make the Decision

In a wilderness setting, with no help coming, you'll need to decide whether to start CPR or not, and you'll need to decide when to stop if the patient doesn't respond. These are not ordinary decisions, and you and everyone else will remember them for a long time. So make a choice you can live with. If you're not sure, err on the side of starting CPR. Go for half an hour if you can, maybe an hour for a cold-water drowning victim.

If an ambulance is coming, let this take the pressure off of you. Just start CPR unless a clearly fatal injury is present, and keep going until the squad arrives.

Fate and Luck

We don't like to think that fate and luck rule our lives, but they often do. I see this at my job in the ER every day. Is that chest pain a heart attack, or just indigestion? Did that bullet hit something important, or just make a nasty scatch? Is CPR going to work, or it is just a ritual we perform at life's end? Ultimately it will come down to fate and luck. Good CPR gives someone one more chance to be lucky. That's a chance we'd all be glad to have. AW

Rescuing an Unconscious Swimmer

How do you get an unconscious swimmer to shore? Rafts make this easy. Otherwise it often takes a rescue swimmer in the water who can grab the victim and get some help—either a tow from other boaters or a rope—from shore. You could also try towing the victim with the tether from your rescue harness (you've got one of these, right?). The obvious place to clip to the victim would be the shoulder strap of the PFD, but I would be nervous about this in turbulent water, as it could strip the PFD over the victim's head. If this happens, any shot you had at a save is probably gone.

If possible, I would try to clip the patient's own rescue harness. Clipping tether-to-tether would probably work great. I would even consider wrapping my tether around a wrist or the ankles and clipping it back on itself to make a lasso. At this point, anything goes.

Can you do good CPR in a raft? Maybe. It should work fine in an oar rig with a table or other platform to work on. In a paddle-boat, you can try it across a thwart. Remember, even if the raft gives, you will still get a good compression if you push hard enough. It just means more work for you, and it will be harder to judge if your compressions are adequate. I would definitely take a shot at this in the first crucial seconds of a rescue. All you need is one person doing CPR with everyone else paddling to shore. (This might be the time for a minute of straight compressions.) If you're evacuating a patient on a raft while doing CPR, have someone take a moment to pump the thwart rock-hard. You could also flip a playboat across the thwarts and use it as a table for your patient. A backboard, scrap lumber, a duckie floor, anything could work. And remember, you are in for a lot of hard work. Keep a big crew handy, and switch your team in and out of CPR every 2 minutes or so.

Use good judgment and keep things safe here. The only thing worse than one drowning is two drownings. If you have any stories or thoughts on this, please feel free to post on the new AW safety forum thread, "Rescuing an unconscious swimmer."

Mind Over Water

Fear in Kayaking: The Mechanical Reactions

By Doug Ammons

Editor's Note: *Doug Ammons is a Ph.D. in psychology, a world class kayaker for 25 years, and author of the book* The Laugh of the Water Nymph. *He contributes this regular column to American Whitewater as a forum to discuss the psychology of whitewater paddlesports.*

Introduction

Over the years I've written about scary situations on the river only a handful of times because so few of my own experiences in kayaking have been fearful. When I paddle, I consciously seek out positive experiences, so dealing with fear has not been a driving force or a common occurrence for me. However, I've been asked questions about fear hundreds of times by all sorts of people, so I'm well aware that it is a frequent and serious part of paddling for some.

For many, fun and fear in kayaking often appear side by side. While many of us remember our river experiences as fun and satisfying, others have had an uphill battle from the beginning, fighting doubts and fear the entire way, but knowing the sport held much more for them. Understanding the interplay of all these feelings requires a lot of knowledge about the physiology, psychology, and experience of kayaking. As a start, consider a classic beginner's story. Probably every reader has heard something like this, or (hopefully not) even experienced it themselves.

A young friend of mine named Steve recently asked me to teach him how to kayak. Steve had wanted to kayak whitewater for as long as he could remember because it looked like the coolest and funnest sport ever. The problem was, several years ago he'd tried kayaking for the first time and had become badly scared. An acquaintance of his who had been paddling for four or five years took him down a Class III river at high water without any preparation or practice. "He said I'd be fine, gave me some gear, and down we went."

Steve was fine … for a quarter mile. "The river was great. The sun was shining and I felt like I was riding a rollercoaster on top of the world." Then they hit the first rapid. "The waves were huge! Well, I know they weren't that big, but they looked like they were way over my head. I lost my balance on the first one and fell over. I didn't know what to do and suddenly I was upside down and out of air. I just lost it. I could feel the boulders going past my head and it freaked me out. I let go of the paddle and started tearing at the spray skirt and it wouldn't come off. For a few seconds I thought I wouldn't be able to get out, and that scared me even more, until I finally ripped the spray skirt off and tore myself out of the boat."

He was coughing, his nose was full of water, and he swam to shore while his friend chased the boat. "I got really cold and was shivering, but I wanted to keep trying." They set off again, and the same scenario repeated itself. "I felt good, but every time I got paddling I'd flip in a rapid. I started dreading the next rapid. I wanted to run them so bad, but I just couldn't. I didn't know what to do. My balance was shot. I lost all of my confidence."

He swam every rapid for the rest of the day and it was an awful experience. "My friend tried to show me how to turn and explained how to roll, but I just couldn't get it. Nothing worked. I felt defeated and bummed out."

Now, three years later, he was ready to try again. "I hate going to the river and feeling scared. I know if I just learn it right I can do it. But when I stand there and think about getting in a kayak, my hands start shaking. I'm really scared, and I hate that."

As Steve's story shows, fear is an easy thing to experience on a river. While some people can bootstrap themselves up with little or no instruction, most can't. I sometimes wonder how many people are out there who would be kayakers if they could only get over (or skip) that initial bad experience. Running whitewater is one of the most exciting, beautiful and fun things you can do, and being able to experience it in a kayak is like having your own private magic carpet. But fear ruins enthusiasm and will ground even the best magic carpet. As we will discuss below, in many ways it is also the twin of excitement, and whether the experience moves toward one or the other depends on a variety of factors, including your basic physiology, your prior learning, your expectations, and what you have practiced. Fear is something that most kayakers have to face at some point, but it also is something that many experienced kayakers don't talk about at all, leaving newcomers to work their way through what can easily become a psychological minefield without guidance.

It may seem like a paradox, but the same things that make whitewater kayaking so incredibly fun also gear it perfectly to evoke many simple and powerful fears. Having the control to engage the river's power is thrilling and deeply satisfying. Being at its mercy is just the opposite. This yin and yang exchange is the underlying dynamic that makes kayaking the greatest sport in the world.

Just think about Steve's story and make a list of the things that are potentially fear-provoking for a first time kayaker on flatwater. There is the fear from lack of control mentioned above—the kayak is hard to balance and seems on the verge of tipping over half the time. Even steering the boat is frustrating because it wants to turn with a mind of its own. Then there is the fear of being trapped inside the kayak, unable to get out, or of being upside down in the water and not being able to breathe. If a beginner goes out in moving water, suddenly everything changes again and all the budding control skills from flat water can be dismantled by panic. Once the person heads downstream, balance is even harder, and there's the fear of being swept away into some unknown disaster by forces he or she can't control. And to top it off, when the person tries to get out of the current to take a break, he has

to move against it. Suddenly the water's power comes alive and prevents him from getting to safety. If you listen carefully to people describing how that feels, you'll even hear the sense of being cornered by a living beast that wouldn't let go.

Beginners who are not careful—or even just unlucky—might experience all of these fears within the first few minutes in Class I and II whitewater. The bottom line for a kayaker is, even in simple situations, having trouble on a river readily evokes a sense of helplessness, vulnerability, and lack of control that are the very heartbeat of fear.

In a big-picture sense, fear is a totally normal and good thing. It's an essential survival mechanism, and without it humans wouldn't be around. As a working definition, we can consider it a general emotional state that we experience when threatened by present or impending danger. Its purpose is to improve our survival by avoiding the danger, running away, or super-charging us to aggressively defend ourselves.

The problem we face as kayakers is that a fear reaction gets in the way of activities we want to try. Our evolved sense of survival crashes head-on into our choice of 21st century recreation. Even if there isn't any disaster looming, that ancient question, "Are you sure you should be doing this?" can echo through our minds and interfere with what we need to learn to have fun in our chosen sport.

People don't have this reaction to a sport like baseball or volleyball. The difference lies in the rules of the game. Most sports are set up for competition with other humans. Humans put the ball in play, control the pace, and there are lots of rules for what kinds of movements you can do and when you can do them. To play at all, you have to learn a rulebook that some committee wrote up. But in adventure sports, of which whitewater kayaking is probably the most demanding, you are playing a game with nature. There are no rules in that game except the laws of physics, and the psychology that governs your ability to learn and react. Despite your gear being space-aged plastic and fiber composites, you are playing with very elemental forces. There's no rule committee and no referee—only God and Nature. You are interacting with the forces that made this planet and you are trying to survive and have fun at the same time. So the bottom line isn't a flyball caught by the second baseman to end the inning, or telling everybody to wait because you sprained your ankle catching a frisbee. It's primal stuff, like being able to roll your kayak upright so you can breathe. Or like touching the powerful chaotic heart of the river and moving with it in perfect synchrony. The river flows powerfully, whether you are ready or not. It never makes allowances for you. It doesn't care if you are struggling or hurt. In it, at every moment, you are dealing with real consequences, which is exactly what makes it so much fun.

Our enjoyment of paddling comes from the balance between the skills we develop and the threat of painful mistakes. The river is totally fair and plays no favorites. This creates a powerful enticement to learn; the joy of control that has potential punishment lurking in the background.

The first time you run a rapid, all of these elemental forces come to a boil. It will be the funnest, wildest ride you ever had, the ragged water rushing you along, the bank so far away, while you ride enmeshed in a world of movement and power in the living water. No amusement park ride can ever be as intense as that experience. The first time you surf a wave brings it all out again. It's been over 25 years since I first did that, and I still get goosebumps when I recall those vivid memories.

While joy is the positive side of the challenge of skill and control that whitewater presents, fear is the negative side. It is the threat of consequences from the river, either from your mistakes in skill or judgment, or simply from forces beyond your control. It may also be from completely illogical and unrealistic worries.

As your skills develop, you seek out places where the difficulty fits or tests your ability. Somewhere in the full range of Class I to Class VI+, from creeks to big water, you'll find an infinite number of challenges. Throughout these, the river will always remind you that this is the real world, and you will find not only the challenges that you see and come upon knowingly, but others that come suddenly and from unexpected directions. When that happens you can readily tip from the most positive feelings into the negative.

Although you should remember that kayaking is actually a very safe sport, in the long term you can bank on having a few unpleasant experiences. It goes with the territory. You may flip and get caught on an eddyline, and suddenly the roll that you practiced successfully 100 times in a row and were so proud of in the pool doesn't work. As you're spun down the no-man's-land between the current and the eddy, running out of air, you feel totally at the mercy of the water. In an instant, out of the huge fun rises a feeling that you cannot put chains on or control. If you are finally able to roll in the runout, you may feel empowered or maybe just thankful you hung in there. If you have to punch out of your boat and go for a swim, choking on water and smacking your shins on the rocks is likely to be painful, frustrating and frightening. The level of control you feel and your attitude toward it make all the difference. Being out of control and unable to breath is guaranteed to evoke fear, and that fear will be learned and affect your decisions and feelings toward rivers and kayaking.

So let's delve into the physiology of fear in more detail. The processes are primitive and powerful—primitive in the sense that they bypass the areas of the brain used in rational thinking and instead follow pathways in the nervous system that go directly to the centers that control emotions. It's like a fuse that goes directly to a bomb. In fact, a fear response can be learned in an instant and last your entire lifetime.

Mind Over Water

Physiology of Fear

Consider the nuts and bolts of what happens inside your body when you get frightened. The first and simplest fear reaction is something you've probably read about in a psychology class, and is termed the "fight or flight" survival response. The odds are high that you have experienced it at some point in your life. It has been extensively studied, mapped out most recently using fMRI imaging techniques to determine which parts of the brain are active when people experience fear. Physiologically, it's a complex set of automatic survival responses that are completely outside of your conscious control, and which get you ready for major physical action, like protecting yourself by fighting an attacking grizzly bear, or running away with super-human speed.

Consider this situation: One sunny summer day I was with my children at a popular swimming spot on the Blackfoot River, when I heard a bunch of yells. A six-year old boy had been wading out at the end of an underwater gravel bar far out into the river when it crumbled beneath him, and he was swept away by the current. He couldn't swim and was frantically thrashing and choking badly. The young father went into full fight or flight mode and, with adrenaline pumping, jumped in after his son and managed to grab ahold. But he couldn't swim either, so they were both choking and sinking as they were sucked under on the eddyline and pulled downstream. An entire beach full of people stood there watching; no one moved. I dove in, swam up the eddyline, judged where to break out and came up behind the flailing pair. I put the father in a headlock and propped him up, talking to him quietly and firmly the whole time, right into his ear: "Everything's fine, just hold your son's head above the water. I'll get you to shore. Don't fight me, relax and let yourself float." I let us float down past the troublesome eddyline, then got them to shore. Moments later, the mother sat there holding her son, sobbing, while he was lying crumbled in her arms. The father was still coughing heavily and was so exhausted he couldn't sit up. Laying there flat on his back with his eyes closed and could only whisper "thanks."

And so let's think about fear. The kid and the parents didn't know enough about rivers to understand what might happen. Ignorance of real consequences created a dangerous situation. A little fear would have been a good thing if it had led to a sense of caution about wading out too far. Once something happened, they didn't have the skills to handle it, and their reactions were driven by that primal survival instinct, which is completely ineffective in a river, because water doesn't act the way a saber-toothed tiger would. Getting all pumped up with adrenaline and jabbing the tiger with a spear or beating him over the head with a rock might be effective, but jumping into a river and flailing only makes you sink.

The feeling of helplessness the mother had is one of the most frightening sensations possible, as I can personally vouch. When my children were small, I had several nightmares in which one of them fell into a swollen, muddy river. I remember the feeling of despair—they've disappeared, the water is murky and I can't see them or even find them to save them. Despite all my skills and understanding of the water, my national level swimming and Class V kayaking, I'm helpless as they drown. Their innocence and vulnerability, coupled with my knowledge of what could happen, was a horrible mix. That was a dream I could have done without.

So what happened to the father? The fuse gets lit when you perceive a threat. That perception can be sudden and very simple. For the father, it was seeing his son disappear into the water. For a beginning kayaker it might be flipping upside down before he or she is able to roll and suddenly groping for air. There is a rush of sensations and threats—the sense of being trapped in the boat, not knowing what to do, water up the nose, half choking, needing to breath and not being able to. The first step leads to the "fight or flight" reaction.

There are two primary fear reactions. Most direct and immediate is a pathway that entirely bypasses your thinking process, literally going from whatever senses lit the fuse, right to a small region of the brain called the amygdala, which is the brain center that controls emotionality. It is sometimes called the "eye-to-amygdala" pathway, or the "low road." The other route has more input and takes a little longer because it goes through your sensory cortex before it reaches the deeper brain centers. However, both routes go to the amygdala and start the fireworks.

The response from the amygdala is a surge of reactions that lead to another part of the brain called the hypothalamus, which controls the fight or flight response. The hypothalamus activates two parallel pathways, which reinforce each other. One is the sympathetic branch of the autonomic nervous system, which acts through nerve pathways and the bloodstream, and the other is the adrenal-cortical system, which acts only through the bloodstream. It's a little like lighting a stick of dynamite from both ends. Both converge to give a double rev-up of your body from every angle provided by blood chemistry and the nervous system. For the fight response, think of transforming into the Hulk; for the flight response, think of a terrified jackrabbit.

When the sympathetic nervous system is activated, the physiological processes that aid in fight or flight speed up, while those that don't are shut down. Nerve impulses go to the adrenal medulla, a brain region that releases stress hormones into the bloodstream, the best known of which is adrenaline. These stress hormones have a set of effects that cascade through your nervous and muscular systems.

Meanwhile the hypothalamus also activates the adrenal-cortical system. It does this by activating the pituitary gland, a central control of hormones, and a major center of the endocrine system. The pituitary in turn stimulates the adrenal cortex, where it in turn activates the release of a literal pharmacopeia of several dozen other hormones.

Almost instantaneously, this torrent of adrenaline and many other hormones cause massive physiological changes. The whole

thing can ramp up in only a second or two, activating your nervous, blood, respiratory, and muscular systems. It yields a drastically increased heart rate and blood pressure (heart pounding), causes dilated pupils, hairs on your skin to stick up, veins constricted to shunt blood to the active muscles, a flood of glucose into the bloodstream from the liver, tensed muscles, dilation of the airways, sweating, while digestion is shut down (butterflies and even nausea). The reinforced response through the two major pathways serves to "double up" the effects throughout the entire body.

This is serious business. It's the biggest explosion of the wildest chemicals your body can produce, and not something you brush away or easily control once it's started. It is a whole-body reaction that bypasses rationality to prime you for heavy-duty action. The emotions you are aware of may be anxiety, fear, alarm, but your conscious thought comes AFTER the chemical fireworks have lit up every switchboard you have.

From our evolutionary history, each of the above changes has a survival value, such as increased oxygen flow from dilation of your airways. The increases in oxygen and glucose in your blood heighten the responsiveness of your muscles, and maximize the force they can generate. Some additional signs of the fear response are changes in facial expression (tense facial and jaw muscles), higher tone of voice, increased talkativeness, stiffer posture. In extreme cases, people can freeze, even start crying, losing control of their bladder and bowels, or collapse into a trembling heap. Normally in our sport, we're dealing with mild degrees of fear where we can still function, but you should keep in mind the continuum of possibilities. I've seen most of them, and if you are around enough different people in enough circumstances, you will too.

However, there are two immediate and extremely important cognitive effects for us kayakers. First, in addition to all the internal fireworks, our attention and ability to think narrow drastically. It's called tunnel vision, and it makes it hard to keep complications or extra details in mind, as you will know if you've ever been really anxious. Remember, it is an unconscious effect due to the massive change in body chemistry and the nervous system's response, and it doesn't happen without reason. People in this heightened state face or anticipate a serious challenge to which they need to respond. But this is also when we get tunnel visioned, befuddled, or frozen, unable to make decisions. Because the emotion comes before rational thought, these powerful feelings hijack your thinking and drive it. In some situations, people can experience extreme clear-headedness, but this is pretty rare.

These responses can do some incredible things. You've probably heard of the stories of grandmothers lifting cars off of somebody in a wreck. Well, my friend Bob McDougall experienced this himself when a close friend of his was slammed underneath a 1200-pound steel plate that slipped off the lift gate of a truck. It missed Bob by inches, crushed the other guy into the ground, but Bob lifted the damned thing right off his friend. The friend suffered many broken bones, but lived and is currently doing some serious rehab. Bob's a strong guy, but he shouldn't be able to lift 1200 pounds. However, that's what he did. Score one for his fight response.

This whole system probably evolved very early in the scheme of animal life, and is shared with virtually all mammals. Other animals, such as reptiles and birds, also show similar responses, although their nervous systems are simpler. So from an evolutionary standpoint, this is an "all hands on deck" response from a time when all emergencies were physical. This brings us to the central problem posed for river travelers.

As 21st century kayakers moving down whitewater rivers, the critical issue is keeping our heads when all this heavy-duty chemistry is pumping through our bodies. This is what sets kayaking apart from many other sports—even other adventure sports—and makes understanding and handling the effects of fear so important. There is no other sport or activity where it is so essential to maintain your ability to think and respond appropriately when all hell is breaking loose and your body wants to make you act like a Neanderthal on speed.

Again, the critical problem is that what leads to effective reactions and survival in a river is very different from what works on land. Most, if not all of the primitive responses that evolved for survival in land scenarios will only get you into deeper trouble on a river. Think of the story above about the guy and his son.

The fight or flight response evolved for a small two-legged primate cruising around on the savannah where there were a lot of big predators. The forms of reaction it is geared to produce—aggressive defense, running away, or freezing—will not work on a river. Instead, your responses have to be controlled to utilize the specialized skills you've learned for moving water, which is what makes kayaking so difficult. These skills mean the difference between quickly and effortlessly getting out of a predicament, or doing something that ruins your day. In the most serious of situations, it may even mean life and death.

All these skills, including judgment, must follow a fundamental concept that is expressed well in the martial arts: move with the force, harmonize, and direct it to your own ends. The bottom line is, when you're having trouble in a kayak, you can't fight the river or run from it. You must always be the river's respectful partner in flow—even when it is pummeling you. The shift away from your built-in responses to an intricate set of learned skills leads us to the psychology of fear in kayaking.

In the next issue ,we will take up the psychology of fear and learning. If you have any questions, comments or responses, please send them to, editor@amwhitewater.org, Subject: Mind Over Water, and I'll do my best to address them.

Stewardship Updates

Housing Plan for Wilson Creek May Lead to Protection (NC)

By Kevin Colburn

Earlier this year, a large housing development was proposed on the banks of Wild and Scenic Wilson Creek, in North Carolina. American Whitewater worked with Mecklenburg Regional Paddlers to voice concerns about the proposed development through letters and phone calls to county commissioners. Shortly before the public hearing on the matter, amidst significant public outcry, the developer withdrew their proposal. While the current threat appears to have dissipated, it has inspired several agencies and organizations to explore public purchase options. AW and MRP will continue to offer assistance in these efforts. It is possible that our work over the past year to secure congressional support for the Land and Water Conservation Fund could help preserve Wilson Creek in the coming year.

The Sullivan Creek Tug of War (WA)

Paddlers are great at finding and falling for the most out of the way and otherwise forgotten nooks and crannies of our country. Sullivan Creek is certainly a premiere example. The Sullivan Creek Watershed, in the far northeast corner of Washington State, is home to threatened bull trout, lynx, grizzly bears, and a generally stunning array of wild creatures. It is also home to two dams, a powerhouse, an old flume, and other debris that have been there for a hundred years. Earlier this year the owners of this hydro project, which has a 500-acre footprint on Forest Service Land, told the Federal Energy Regulatory Commission that the FERC has no jurisdiction to require a license or cleanup of this decrepit project. The FERC disagreed with regards to past jurisdiction, however, in a revolting decision, agreed that next year the power company is free to do what they choose with the project.

The dams no longer generate power on-site, however, they do deliver water to downstream dams that generate significant power with the water. We feel that if the dams are to be used for power generation then FERC should regulate them, and require modern environmental protections at the dams. If the dams are not to be used for power generation, the FERC should require their removal or require transfer of jurisdiction to the USFS. We chose to fight this FERC decision for the sake of Sullivan Creek and the many other rivers across the nation that could be affected by this precedent. With the superb support of the Natural Heritage Institute, and other members of the Hydropower Reform Coalition, we filed a legal request for rehearing from FERC. The Forest Service and the State of Washington also filed excellent requests for rehearing in support of Sullivan Creek's protection.

The dams' current operation is a mixed blessing for paddlers. While good information on releases is not readily available, it appears water is held back in the spring on Sullivan Creek and released in the fall, providing a rare fall creek boating opportunity in the region. With the dam owners' new request for elimination of FERC jurisdiction, and the end of their license coming up, this management will almost certainly be changing. The dam owners could conceivably just walk away from the project. Perhaps the wildcard in this issue is the role of the other agencies involved, which will almost certainly require fish passage (ladders or removal) at the dams regardless of the FERC issue. Amidst all this regulatory jockeying for position, AW has been the only non-government organization directly involved (with help), and is taking a strong river protection stance.

Have You Tried the River Networking Tool?

Earlier this year AW launched our online River Networking Tool, with the help of Patagonia. If you have not checked it out, it's easy! Just log into www.americanwhitewater.org and sign up for your favorite rivers. This online tool is how we find volunteers, how river managers find you, how you find river managers, and how you can share conservation and access concerns or opportunities with other paddlers that care about the same rivers. Think of it as signing up to represent the rivers that you care about. You can get started by logging into our website, going to any state page for our National River Database, and clicking the little stars next to your favorite rivers. That is all there is to it. You can then go to the individual river pages and see your name and others in the Network under the River Network tab. We look forward to growing this project in a big way in the coming months and years, so get involved!

Chattooga River's Muddled Management Continues

Paddlers rallied big-time from all across the country to speak out against the bizarre management of the Chattooga this fall. The USFS scoping document which proposed five alternatives for banning boating and one for allowing it was just the latest management train wreck to come out of the Sumter National Forest. It drew hundreds of public comments throughout September. We would like to thank all those that wrote letters, and encourage everyone to stay involved in this important and bizarre river management issue.

Deerfield River (MA): Protected, or Not?

New England Flow's Tom Christopher has been taking numerous agencies and organizations to task this year for considering a new snow-making pipeline across lands protected through the Deerfield River Settlement, and for the proposed water withdrawal from the Deerfield system. AW has been working with Tom in defending the core values of settlement and land and water protections.

An Upcoming Salmon Plan, Shifting Politics, and New Stakeholder Conversations Offer River and Salmon Advocates a Critical Window of Opportunity to Restore a River and Recover Salmon!

By Thomas O'Keefe

For decades the great whitewater runs of the Snake and Salmon River drainages in Idaho have provided some of our nation's most spectacular opportunities to experience wild rivers. While runs like the Middle Fork Salmon, Main Salmon, Selway, and Clearwater remain spectacular opportunities to enjoy wild rivers, there's something going on below the surface of concern to everyone who cherishes intact river ecosystems—despite the fact that high quality habitat is largely intact, wild salmon and steelhead populations have dwindled since the construction of four dams on the Snake River.

The Columbia and Snake Rivers were once home to the world's greatest runs of wild salmon and steelhead, but a federal system of dams has made life near-impossible for our fish and the communities that have historically relied on and enjoyed them. When the federal government built the four lower Snake River dams in the 1960s and 1970s, they silenced nearly a hundred named rapids over 140-mile stretch of river beneath four reservoirs, and cut off access for salmon and steelhead to more than 5,000 miles of excellent habitat. For years, a broad coalition has been pushing to remove these four costly dams, restore a river and recover salmon and steelhead. While the proposal has been mired in

Snake River Salmon and Steelhead Facts

Snake River stocks have been among the hardest hit in the Columbia Basin.

Four dams buried 140 miles of the lower Snake River and 68 named rapids – like Haunted House, Slaughterhouse, Penawawa, and immediately afterward, the fish populations plummeted.

1980s: Snake River Coho was declared extinct.

2006: just three Snake River sockeye reached their Idaho spawning grounds.

2007: two male and two females have arrived at press time. All remaining Snake River stocks are listed as threatened or endangered under the Endangered Species Act.

controversy over the years, the debate more recently has begun to shift. More people are starting conversations in search of lasting solutions that can restore a river, recover endangered salmon, and keep our communities moving forward together.

Scientific and economic evidence supports such solutions. We can in fact "have it all" – abundant salmon, a free-flowing river, clean affordable energy, and healthy farming and fishing communities without the lower Snake River dams. Old urban-rural divisions in the region are blurring in ways that suggest a new opportunity to resolve this contentious issue.

With the release of a "new" draft Federal Salmon Plan for the Snake and Columbia Rivers ordered by the court from the Administration this fall, conservationists, fishermen, and river, taxpayer and clean energy advocates are gearing up to deliver public support to Congress for leadership and solutions that will recover our salmon.

As a member of the Save Our Wild Salmon Coalition, American Whitewater supports restoring a wild river and recovering wild salmon and steelhead to the Pacific Northwest by removing four costly and out-dated dams on the lower Snake River and replacing their limited services with alternatives. While these rivers are located in the Pacific Northwest, this is a national issue that impacts the future of our sport's iconic rivers, rivers our membership has enjoyed since the early days of whitewater boating in the U.S.

River advocates have a critical window of opportunity this fall. While the recently released plan does not consider river restoration as an alternative, we are seeing a shift in regional attitudes and more support for restoration. With strong public backing from across the country we will see a future proposal that includes river restoration as an alternative.

Take Action Today!

www.giveadamforsalmon.org
Submit your official comments here!

The first drop of the Little Grass Valley stretch of the South Feather

photo by Eric Petlock

The California Report

By Dave Steindorf

Poe Project

In June 2007 AW, in cooperation with Butte County, took a bold step in filing for a trial type hearing under the new Energy Policy Act rules that were issued in 2005. This rule allows interveners to challenge mandatory conditions that are based on disputed material facts. The Poe Project is the last project in PG&E's "Stairway of Power" to be relicensed on the North Fork of the Feather River. The Forest Service released their Final 4e conditions for the Poe Project in June. While these conditions addressed a number of deficiencies in FERC's DEA, they were unclear on how ramping rates (the rate at which flows are allowed to fluctuate) for the project would affect foothill yellow-legged frogs. The ramping rate provisions were also inconsistent in the standard they set for PG&E and for whitewater recreation, allowing PG&E to vary the flows by 6 feet per day while, at the same time, only allowing a 0.2-foot change for recreation releases. Our filing for a trial type hearing will enable AW to improve these conditions through a trial process or direct negotiations with the Forest Service

Oroville/Feather River

As part of the settlement agreement for the Oroville relicensing on the Feather River, American Whitewater staff have been meeting with California Department of Water Resources staff to discuss progress on the Oroville Whitewater Park Feasibility Study. Phase one of this study is slated to be finished before the end of 2007. Phase one of the study will look at the whitewater park opportunities that currently exist around the country. In channel and constructed channel, parks will be evaluated in as part of the study. This information will help inform the different possibilities that exist on the Oroville Project.

We will also be meeting with Lake Oroville marina operators to begin the process of developing a shuttle service to provide access on the North Fork Feather and the Middle Fork Feather runs that terminate in Lake Oroville. This low water year will provide us an opportunity to test out this service on the Big Bend Run of the North Fork Feather.

Rock Creek Cresta Project

2007 has been the first critically dry year since the new license was issued in 2001. It is in these dry water years that the needs of the river are squeezed to their limit in order to meet power demands and the other license conditions. AW negotiated a release schedule that added days on the Rock Creek Reach in August and September. We also agreed to forgo releases on the Cresta reach due to foothill yellow-legged frog concerns. We were successful in getting PG&E to agree to credit these forgone flows to AW for future releases or other WW

recreation measures.

California Stewardship Director, Dave Steindorf, will be working with the agencies and PG&E to find solutions that will balance the needs of whitewater recreation and the other water resources on the Feather River. We continue to be frustrated with some of the agency's ability to focus so much attention on recreation releases while turning a blind eye to the other significant impacts occurring on this river (See figure below). While the hydro dams are clearly the biggest impact on this river, we have spent little effort determining their role in the decline of frogs. In contrast we have spent nearly $10 million evaluating the relatively small flow fluctuations from recreational releases. This inconsistent treatment of whitewater recreation is a theme we continue to battle across the country.

South Fork Feather

Review of studies, results and negotiations have occurred throughout 2006 and 2007. AW has been working closely with agencies and the licensee to develop flow regimes for this project. We are looking for the integration of recreation into the ecological flows on the South Feather. It will also be important to protect releases on the Little Grass Valley Reach that provides a rare fall whitewater recreation opportunity. In addition to providing great whitewater, these flows also help maintain this channel by deterring vegetation encroachment. We expect FERC to issue their notice that the project is ready for Environmental Analysis in the fall of 2007. This will trigger the 60-day timeline for the Forest Service to issue their draft 4e conditions. We will be commenting on these conditions and the FERC documents that are issued in the next six months.

Yuba/Bear Relicensing Moves Forward

By Bob Center

A sprawling network of projects that spans three watersheds—Yuba, Bear and American—is up for Relicensing in 2013. The projects divert most of the snow runoff out of the Middle Yuba and South Yuba River basins, never to return, and has transformed the upper Bear into a series of afterbays connected by bypass reaches at minimum flows. The Relicensing process offers an opportunity for improving ecological values and recreational opportunities in the reaches affected by the projects.

Whitewater within the project includes classics such as Edward's Crossing to Purdon's Crossing and Purdon's Crossing to Bridgeport on the South Yuba, and Fordyce Creek, an alpine creek above Lake Spaulding. Additionally, there are potential runs (likely never explored before) on the Bear.

Since 2005, AW has worked with other organizations and individual members in the Foothills Water Network (FWN) in preparation for the relicensing process. In spring of this year, the formal process started in earnest.

In the past six months the Licensees, PG&E and the Nevada Irrigation District (NID), have completed and presented existing and unimpaired hydrology and a water balance model (HEC-RES), and have conducted outreach meetings in Grass Valley for the general public, providing an overview of their projects and the relicensing process. Meeting and working with resource agencies and other relicensing participants, including AW, the licensees have scheduled meetings of several technical working groups that will collaboratively develop study plans in many areas. AW will participate actively in the aquatics and recreation technical working groups.

Members of the Foothills Water Network, including AW, have submitted four study plans that will be used as a primary source for the collaborative development of study plans by these technical working groups.

As part of the study plan development, AW and the licensee's consultant are working together to inventory and classify the numerous existing and potential boating reaches affected by the projects. AW and the consultant are reviewing helicopter video as a first step in evaluating "unknown" reaches (e.g. the Bear River from below Bear Valley to Drum Afterbay) for whitewater boating potential. AW will participate in follow-up hikes along some of these reaches to make a more refined assessment of the class and quality of the potential whitewater runs at various flows. The plan is that these assessments will lead to test flows where necessary over the next two or three years.

Active participation of AW as a member of the FWN has laid a strong foundation for effective engagement in the relicensing process. Continued active participation in the process will help assure improvement in the ecological values and recreational opportunities, particularly whitewater boating. AW

SF Yuba Hwy 49 to Bridge Port

photo by Eric Petlock

WAVE SPORT®

2007 Photo Contest

Storms over the Grand Canyon

photo by Brad Modesitt

Josh Parker of Charlotte, NC cools off with a stern stall during a mid-summer run of Wilson Creek.

photo by Jennifer Miehle

This photo of Fisher, my golden retriever, was taken at the Gallatin River, outside of Bozeman, Montana, after an evening paddle with friends. He was a clown, hiding rocks inside our boats when he thought nobody was looking, and patiently watching us from shore without ever complaining.

photo by Sacha Carolyn Mosterd

Ben Stookesberry rappelling deep in the jungles of Vera Cruz, Mexico.

photo by Darin McQuoid


AMERICA
WHITEWA
and ENJOYED!

WINNER

Rivers need to be ENJOYED!

photo by Bryan Kelsen

The aftermath of a Grand Canyon rainstorm created a rainbow that stretched across the sky.
The energy of life brought by the rain was carried by several birds as they soared throughout the cool air.

photo by Devon Brecke

Nick Troutman dropping in on the Rio Alseseca.

photo by Darin McQuoid

River stories around the campfire.

photo by Brad Modesitt

Big drop rafting veterans Jimmy and Davey Grantland on Steinacher Creek.

photo by Darin McQuoid

Rok Sribar paddling the Upper South Yuba in California.

photo by Cathy Howard

Fred Coriell and Ed Clark enjoy a bit of quiet water in the midst of Middlebury Gorge, Ripton, Vermont.

photo by Matt Kiedaisch

On the fourth day of our eight-day first descent of Rio Huevachi / Charuyvo / Chinipas in Mexico, we had to cross an 80-foot deep chasm to continue. The only way was on these loose logs that some locals had placed across the gap. Here we are pulling our loaded kayak across. We experienced an even greater adrenaline rush when we had to cross ourselves!

photo by Rocky Contos

Jeff and Will flailing through the teacups just below Cherry Bomb Gorge on California's Upper Cherry Creek.

photo by Deanna Hall


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Rush Sturges, First Decent of the Cauldron of Terror, Five Lakes Creek CA. Photo: Lane Jacobs

Kayak: Nomad 8.5

We All Flip

By Terri Bsullak

I Flip

When I was a kid, my dad let my brother and me paddle his canoe together. We had a blast because we were so good at making the boat go around and around. More than 25 years later, I inherited my dad's boat (a 17-foot Sawyer) and should have known better than to get in the bow and go downriver with my brother. The river was up, it was a gorgeous November Sunday, and I couldn't find any friends to go with. My brother—still as inexperienced in a boat as when we were kids and still as much fun—jumped in the stern still wearing his church clothes, proceeded to take pictures, and eat his lunch. We planned to canoe right past his church on the Maury River near Lexington, Virginia. I had paddled the Rockbridge Baths section several times over the years, but had not yet connected with the boating world. We did make it to the church, but then succeeded in wrapping the boat around a rock. After swimming to shore, climbing the bank, and hiking back to the put-in, I decided it was time to join a canoe club.

Thanks to a friend at work, I found Coastal Canoeists during the winter of 2004. Coastals is a statewide canoeing and kayaking club that organizes trips on flatwater, whitewater, and the ocean. Now I had people to paddle with—except things often are not that easy for me. I was scared. I didn't know the people, and they didn't know my disability.

Even though the club runs trips year round, I waited until the weather warmed up in April. There was a novice trip on the lower Tye River, but I had never been there, and my friend wasn't going. She put me in touch with Ken, the trip coordinator. I e-mailed him about some of my canoeing experience, although I didn't tell him about going around in circles and wrapping the boat around a rock! I did explain that I walk with a severe limp, have trouble with balance, and fall down a lot due to a spinal cord tumor. "Is there someone from the club who will paddle in the bow of my boat?"

I was scared, but I didn't think about how scary I must have sounded to a trip coordinator. Here is this unknown woman with an unfamiliar disability wanting to paddle a river she has never paddled before. Without a hint of hesitation, Ken offered to leave his kayak at home, bring his old Grumman canoe, and let me paddle bow with him. From those first e-mails, I started learning how much I didn't know. At that trip on the Tye, I met club members, and they all helped in so many ways—carrying the boat, getting me from the parking area to the river, and recommending paddles. They showed me canoes, kayaks, and gear that I had never seen. Most people wore PFDs and I brought along something that, at some point in its history, might have been called a life jacket. It came with the inheritance. We did not go in circles, and we didn't wrap the Grumman around any rocks. Ken even let me paddle stern for a little while.

Jazzed up to do more, I went on another club trip in July on the Balcony Falls section of the James River. This time I paid attention to all of the different boats. I met a guy named Dave who was paddling a canoe solo. What a great idea—no more getting dizzy going in circles with my brother. I asked Dave, "What's that thing you're sitting on? How do you get out? Won't I get stuck? I don't think I could paddle that thing." Dave's boat had a "saddle" and "thigh straps." My boat had "tractor seats." I loved the idea of being independent, but those straps looked scary. With my disability I could get stuck easily if I flipped over. Dave convinced me to try his boat. We went to a flat section; I managed to get in his boat with lots of his help, and he flipped me over. I fell right out without any problems and thus entered the world of whitewater canoes.

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Coastals members let me borrow their various whitewater canoes that summer. I kept thinking, "I don't think I can," and club members kept showing me that, in fact, I could. They were teaching me about everything from PFDs to kissing rocks. They were getting me to and from the rivers, and I was scraping up their boats. For a boater with a disability like mine, a quarter-mile hike to the put-in is like an unportageable dam for an able-bodied person. Trip coordinators helped me choose rivers that did not require long walks or portages. People from Coastals let me follow their lines through new rapids because it's too hard for me to get out of my boat to scout. They encouraged me to buy better gear so I could access more rivers (and because a lighter boat would be easier for them to carry). That October I bought my first whitewater canoe (a Mohawk Probe 12 II) from a club member. John, another open-boater from Coastals, took it home with him and patched it all up for me. So often those of us with disabilities are told "You can't." Coastal Canoeists kept convincing me, "I can."

You Flip

That spring John, Dave, and others took me back to the Maury, and I paddled my whitewater boat for the first time. I flipped over so many times, I was thinking I needed to go back to paddling tandem with my brother. But everybody kept saying, "You're doing great." At one point when I was swimming yet again, I happened to notice that someone else was swimming. I thought he flipped to be nice to me, but he and the others assured me that he did not particularly like to swim. "You mean you guys flip over too?" I didn't think that these able-bodied experts ever flipped their boats.

The next trip to Balcony Falls on the James I paid more attention not to the other boats but to the other flippers. At one point, I even started panicking and yelling to get someone to rescue a kayaker when he tipped over, only to see him roll back up with a smile, and looking cooled off.

We All Flip

For someone who can't run and who falls every time she walks, it was a treat to find an activity where everyone crashes sometimes. As I became more involved with the boating community, I also learned that my friend, Alicia, who turned me on to Coastals, was none other than "Queen Alicia" of local open-boating fame. I have to admit to cheering on the one occasion when I saw her swim. Seeing her do what I do (swim) gave me the confidence to know that I can do what she does (paddle like a queen).

I don't hike much anymore. I can't keep up, and it's embarrassing to be the only one lying on the ground with her face in the mud. Paddling for me is like hiking with a group of toddlers: we all fall down.

WINNER
National River Trail

By Kevin T. Miller

Something has been going on these past few strenuous years which, in the din of war and general upheaval, has been somewhat lost from the public mind. It is the slow quiet development of the recreational camp. It is something neither urban nor rural. It escapes the hecticness of the one, and the loneliness of the other. And it escapes also the common curse of both—the high powered tension of the economic scramble. All communities face an "economic" problem, but in different ways. The camp faces it through cooperation and mutual helpfulness, the others through competition and mutual fleecing.

We civilized ones also, whether urban or rural, are potentially helpless as canaries in a cage. The ability to cope with nature directly—unshielded by the weakening wall of civilization—is one of the admitted needs of modern times.

—Benton MacKaye, "*An Appalachian Trail: A Project in Regional Planning*." Journal of the American Institute of Architects 9 (Oct. 1921): 325-330.

Benton MacKaye proposed the creation of the trail network that later became The Appalachian Trail. Accepted—almost taken for granted—today, his proposal was derided as ludicrous by many of his time who questioned why anyone would want to spend their spare time hiking and camping in the Appalachian forests.

While MacKaye's concepts continue to be as relevant today as they were then, it is worthwhile to revisit his approach to specifically address the issues of the 21st Century. MacKaye's ideas can be just as pertinent to the development of a River Trail System today as they were to the Appalachian Trail over 85 years ago. As roads become more congested and cities become more crowded, application of MacKaye's idea to a River Trail System becomes an increasingly attractive solution to addressing the problems MacKaye addressed: providing a growing population with limited spare time opportunities to escape from their daily routines into nature

in a manner that benefits their physical, economic, and social abilities.

An Introduction to the Appalachian Trail
The Appalachian Trail was completed in 1937. It is approximately 2175 miles long, stretching from Mount Katahdin, Maine to Springer Mountain, Georgia. As MacKaye's opening quote implies, it was initially envisioned in 1921. The Appalachian Trail Conservancy states that, along the trail, over 170,000 acres are protected in over 300 tracts. The success of the Appalachian Trail illustrates how quickly a grand vision can be made into reality. It and its supporters continue to serve as one of the finest examples of outdoor recreation and conservation efforts working hand in hand.

United States Rivers and Shorelines

The contiguous United States has approximately 300,000 miles of streams capable of being at least seasonally navigated by canoe or kayak. In addition to these streams, there are no less than 100,000 miles of lake and coastal shoreline bordering these navigable waterways. The vast majority of Americans live less than 10 miles from one of these bodies of water without realizing it. Meanwhile, many paddlers drive long distances to enjoy far-off rivers because those closer to home lack adequate access. A recreational paddler may dream of having uncontested access to all of these waterways, but may also feel such an Utopian concept is unobtainable. Yet, the idea is no less feasible than the Appalachian Trail.

400,000 Miles of Rivers and Shoreline in the Contiguous United States

A River Trail System
Most recreationally navigable rivers in the contiguous United States are seasonally navigable or would only attract local visitors. On average, access points spaced roughly every 10 miles would be sufficient for most rivers. In most locations, less than two acres would provide more than ample access for river visitors. Visitors would include more than just paddlers—families, picnickers, fishermen, and other river visitors would benefit from increased access to the nation's rivers.

Even the math is simple: 400,000 miles of river and shoreline divided by access every 10 miles multiplied by two acres per access site means 80,000 acres would be necessary to provide the requisite access for a National River Trail. With less than one-half of the land utilized to preserve the Appalachian Trail, ample access could be provided for individuals and families to enjoy day trips close to home down every seasonal and year-round recreationally-navigable river in the contiguous United States. This relatively small investment would provide paddling opportunities on waterways equaling nearly 200 times the mileage provided by the Appalachian Trail.

Challenges to Outdoor Recreation

Outdoor recreation sports are among the fastest growing sports in the United States, with kayaking and canoeing leading the way.

Benton MacKay addressed what he termed "the problem of living" by raising the question, "Can we increase the efficiency of our spare time?" While governments and corporations monitor production efficiency as they seek improvements, relatively little is being done to increase the efficiency of our spare time. Some have suggested that the 21st Century may be the first in history in which transportation speeds slow down as we spend more time waiting at traffic lights, sitting in traffic, or adjusting to missed airline connections.

Thanks to the vision of MacKaye and others, most are within a few hundred miles of somewhere they can enjoy his vision on the Appalachian Trail or other trails in parks nationwide. However, energy prices and traffic congestion are increasing cost and stress required to recuperate through outdoor recreation.

A logical solution to the growing demand for outdoor recreation opportunities is to create more such opportunities close to where people live. The right to utilize recreationally navigable rivers is well founded in federal law. Many states set a

more expansive definition of navigability than federal law proclaims. It makes sense to capitalize on rivers to provide recreational opportunities in the most economical fashion.

Challenges and Advantages to a River Trail System

Even though this River Trail System requires less than half the land conserved for the Appalachian Trail, it could require nearly 30,000 separate tracts to complete—100 times the number of tracts protected along the Appalachian Trail. Every one of these tracts would require finding an individual seller, negotiating a price, and finding an agency to buy, own, and maintain the land for recreation and conservation purposes.

However, there are advantages to this scenario. Smaller tracts can be more easily negotiated than larger tracts, there are more potential sellers, and a single access point is not as critical as establishing a viable network of access points. Since legally navigable rivers are the trail, many more miles of trail can be generated per acre of land than with a hiking trail, and two to three people can outfit themselves with a large canoe and gear for a local, novice trip for roughly the same price as a pair of hiking boots.

In many cases, the land provided for access may be in flood plains. These areas may flood no more often than once in 100 years and, while they are inappropriate for development, such sites can be ideal for occasional or seasonal river visitors.

Campsites and Campgrounds

In some locations, there may not be adequate road access or willing sellers of land to provide the requisite access for day trips. Such stretches of river, however, can become the sites of canoe and kayak camping trips, if appropriate campsites can be established. This would be an ideal use of parcels of land on rivers but inaccessible by road. Such sites allow river visitors to enjoy multi-day floats down a section of river that would otherwise be un-reachable.

Dams and other Obstructions

Generally, federal licensing of hydroelectric facilities or other state laws provide for safe portage and possibly access above and below dams or other permanent obstructions on navigable rivers. In many instances, this has not been considered due to lack of demonstrated public interest. While most dams already provide some public benefit either in the area of recreation or power generation, the public must insist on access above and below all dams and other obstructions as well as the availability of safe portage.

Recreational Advantages

The recreational advantages of a River Trail System are obvious. There is a decreasing amount of wilderness and an increase of transportation expense and congestion in our country. At the same time, there is an increasing interest in outdoor recreation and paddlesports. The establishment of a National River Trail System allows the vast majority of Americans to enjoy an outdoor escape from the stress of their daily lives within a few miles of home.

Economic Advantages

The proximity of parks and outdoor recreation opportunities has been shown in increased property values and reduced crime. This approach provides opportunities to benefit communities everywhere, not just those built on the outskirts of parks and trails. Increased local recreational opportunities will generate economic growth opportunities, while increasing the economic value of scenic river corridors.

Many homeowners associations today own "common grounds" along rivers. Often, these areas are flood plains, which can't be developed but are ideal for river access. By allowing conservation and public recreation easements, these communities can avoid associated taxes and tax issues of the property and often get public funding for enhancements to their community.

Environmental Advantages

The economic advantages of preserving a scenic river corridor will have direct benefits to water quality, wildlife, and plants along the river corridor. An increase in river visitors will benefit public awareness and concern for riparian issues. Development of river trails will give local property development projects incentive to enhance property values with access to scenic waterways, rather than by developing as close to the waterway as possible.

Supporting Groups

Without support, this project is nothing more than an essay. The combination of support from the general public, combined with conservation groups, recreation groups, and government agencies is as essential to the success of a River Trail System as such alliances were to the Appalachian Trail. The quickest method to begin implementing this vision likely is for existing national river organizations to utilize and enhance their existing network and to establish a common database for the National River Trails System. This would be more efficient than forming a new national organization with this single dream in mind.

It could be said that lots of groups are working independently to generate and protect river access and conservation efforts. However, a single database is necessary to identify access gaps. With this established, it will be easier for individual organizations to identify where efforts could be best spent. Local organizations can publicize their efforts in a national database, drawing more support to their causes.

A National River Trail

A National River Trail System is the best way to address the combined needs of increasing outdoor recreation and paddling interest in a world with increased travel congestion and struggles to optimize spare time. The establishment of such a system will require the support of countless volunteers and organizations. However, the realization of a National River Trail System is no less valid or valuable than the concept of the Appalachian Trail. Strategically preserving half the land required to protect the Appalachian Trail would ensure access to 400,000 miles of navigable waterways. Today, it is difficult to imagine a world without the Appalachian Trail. Perhaps in the next century, it will be hard to imagine a world without the National River Trail System.


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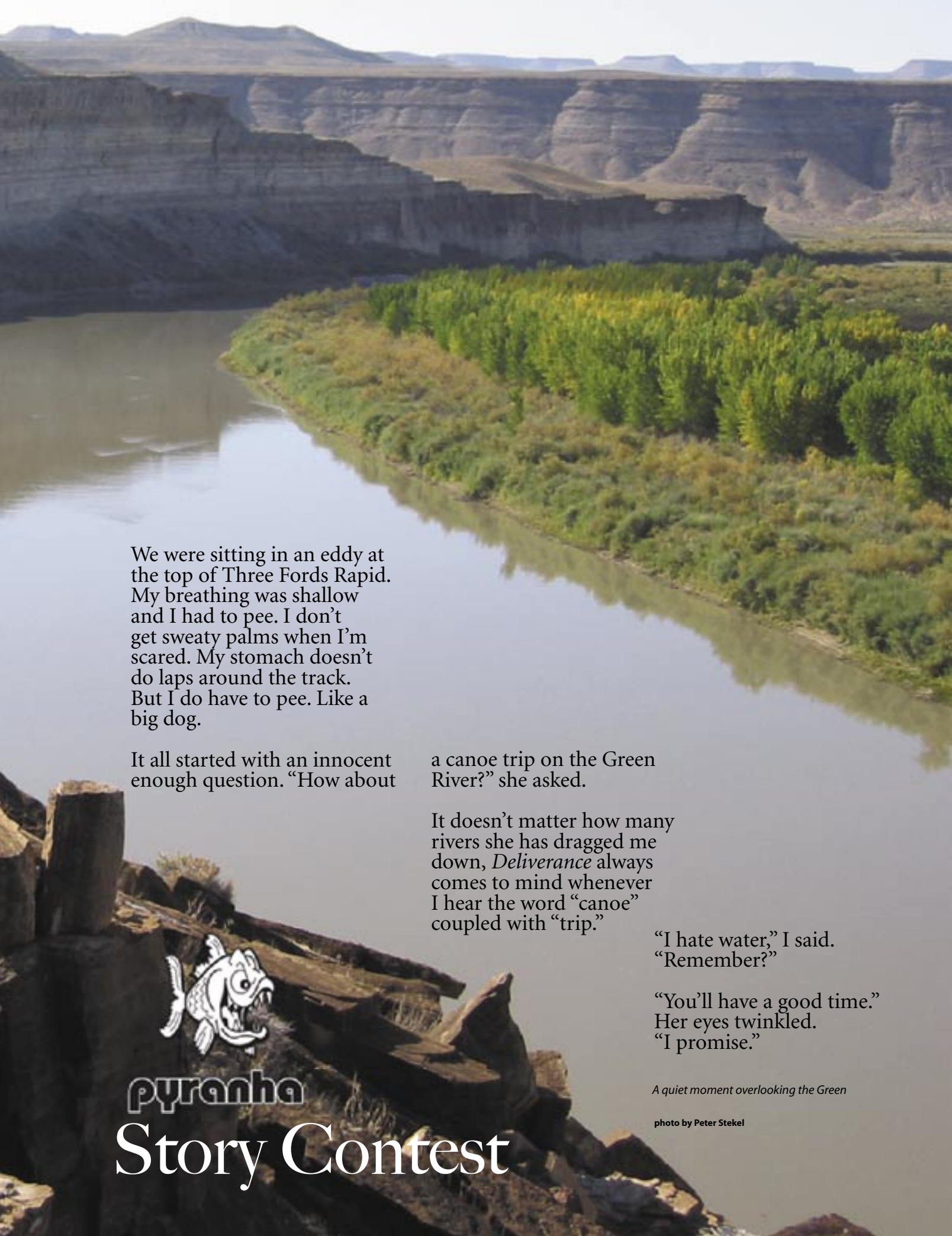
The GREEN

By Peter Stekel



pyranha

Story Contest

We were sitting in an eddy at the top of Three Fords Rapid. My breathing was shallow and I had to pee. I don't get sweaty palms when I'm scared. My stomach doesn't do laps around the track. But I do have to pee. Like a big dog.

It all started with an innocent enough question. "How about a canoe trip on the Green River?" she asked.

It doesn't matter how many rivers she has dragged me down, *Deliverance* always comes to mind whenever I hear the word "canoe" coupled with "trip."

"I hate water," I said. "Remember?"

"You'll have a good time." Her eyes twinkled. "I promise."

A quiet moment overlooking the Green

photo by Peter Stekel

Story Contest

Guys have a habit of not acting in their best interests when persuaded by the woman they love. That's how I got sucked in to doing Desolation and Grey Canyons of the Green River in a Clipper Tripper—not an ideal whitewater craft by any stretch of the imagination. Before that trip I had been scared by water before, but never so continuously as on the Green.

We left home and drove all night. In early morning light we turned off the two-lane blacktop onto a heinous dirt road, herding cattle the whole 60 miles to the put-in at Sand Wash. After unloading the van, our stacked gear resembled a continental glacier ready to move downstream at any time.

"Do we really need all this stuff?"

She smiled. "Come on," she said.

I helped her shovel the glacier into our Kevlar canoe. I suppose Kevlar is pretty tough stuff, given its other life as body armor, but it's also a really thin wall of material between me and a sharp rock. The Clipper is a great boat for puddles and slowly moving water. It maneuvers well in swift water—like trying to turn a semi-truck in an alley.

At the bottom of the glacier was my wetsuit. I held it up, questioningly. "This is a desert river, right? No rapids?"

She smiled. "You never know. We could always flip."

"What?" I croaked.

She laughed. "Don't worry. Don't you think it's time you made use of all those whitewater skill classes you've been taking?" She laughed again, which didn't make me feel any better. She was playing with me. Because she loves me. Because she feels there isn't enough excitement in my life. Because she loves whitewater.

I had taken a series of classes. Several times, in fact. The instructors insisted I wear a helmet when a dunce cap felt more appropriate. Standing beside the glacier, knowing the demands of a harmonious relationship required silence, I kept my mouth shut. Using nylon cord, I tied my wetsuit on top of the other gear piled in

A quiet moment overlooking the Green

photo by Peter Stekel

the center of the canoe. We shoved off into the Green's brown water. Our wake made the only ripples in the river.

The first two days consisted of a lazy float on perfectly flat water. The days were hot and sunny; the nights comfortably cool. On day three the whitewater began. "I thought you said there were no rapids," I shouted as we entered the first drop.

"Piece of cake!" she replied.

We splashed through some waves and narrowly passed a jumble of sharp rocks. They looked awfully big and nasty and I wished they still clung to the cliffs above us. I felt her turning the boat from the stern and in no time we were through.

"I thought you said there were no rapids!" I repeated angrily once we reached the calm water.

"Hey! You're the one who said no rapids," she said.

"You didn't correct me," I accused.

"Watch that rock!" she shouted sharply at me and then we were into the next rapid.

I kept my mouth shut after that and concentrated on my bow paddling, trying to remember the lessons learned in various whitewater classes. It was too late to turn back now. But not too late to convince me our canoe was no match for the Green. All those sharp rocks could punch holes big enough to sink us. Those knowing smiles at the put-in! I knew they meant something.

The Green's rapids consist of big trains of waves with submerged and emergent rocks to be avoided. Each time we punched through a wave our canoe took on water. She kept yelling, "Duck!" every time we hit whitewater so she could see the river ahead. At the bottom of every rapid we bailed

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WINNER Story Contest

Rob Murphy, Colin Wong, and Phil LaMarche scouting a dropin the Alps

photo by Carol LaMarche

The Italian Incident

By Phil LaMarche

It all began with an unpleasant feeling in my gut. I wish I could say it was a steep rapid or a technical set of waterfalls that brought on the feeling, but really I was just standing up to leave the crowd at the campfire. The group of Irish kayakers who had taken us in was a wonderful bunch—they had a guitar and they sang songs and told stories and jokes late into the night. When we left the fire, they smiled and bid my girlfriend and I a good night. The French Alps loomed high in the distance like ghosts, the snow on their peaks glowing in the moonlight. A creek hissed in the distance.

"I'm about to either puke or crap my brains out," I said as we walked through the tall grass to our tent.

"You think?" Carol said.

"Yup." I nodded and rubbed my stomach.

It didn't take long. Within a half-hour I was hunkered down on hands and knees, retching my dinner on the ground. A half hour after that it came from the other end, and every hour or so for the rest of the night I found myself scampering to the tree line to purge myself one way or the other. I got so tired of climbing in and out of the tent that eventually I pulled my sleeping pad and blanket outside with me.

When I wasn't feeling sorry for myself over the shape I was in, I was feeling sorry for myself for missing the day of paddling to come. The Irish gents had been stewing over a run just across the border in Italy. As I wiped my face off on the grass after my most recent bout of dry heaves, my abdominals quivering from the fatigue of the workout, I told myself paddling the following day was out of the question. Then the chills hit me and when I couldn't still my shivering I headed back to the tent.

Carol and I had spent the previous year living on the west coast of France. She landed a position on a pro-volleyball team just north of Bordeaux and I supported myself by teaching online writing courses for a university in the States. For our last month in the country we packed up, tied our kayaks to the roof of our Peugeot, and headed out. A group of Irish paddlers took us in and had been introducing us to many rivers and free campsites in the southern French Alps when my bowels decided to mutiny.

When I woke from my wretched night, I had the nail-in-the-temple feeling and the shaky hands that accompany a good case of dehydration. I poured a packet of hydration salts in a Nalgene and shook it until the powder dissolved. I sat in the front seat of the car with the door open. I reclined the seat, sipped at the concoction, and thought.

I had a lot on my mind at the time. I was fast approaching 30 without a whole lot to show for myself. I was a writer, but had few publications. I was a teacher, but I worked sporadically: an adjunct at universities here and there, a pinch-hitter for the sick, pregnant, or overworked. I owned a truck in the States, half a Peugeot in France, some kayaking gear, and that was about it.

Issues of status didn't bother me much through my 20s—I proudly cursed the whole capitalist endeavor—but as I got older, in moments of weakness, they weighed upon me. In the front seat of that car I thought about success and failure, purpose and all that. I wondered if there was something out there, something bigger, something grander, and if there was, I wondered what the hell it wanted me to do with my life. Heavy subjects, I know, but like I said, I was parched and a bit soft upstairs.

I was nearly finished with the water and salts when people started to stir in the camp around me. The sliding doors of vans began to open and faces squinted and smiled out into the daylight. Once the tea was steeping—those Irish were nuts for their tea—the talk immediately turned to the plans for the day. The gents lobbied for the trip to Italy. The ladies decided to run

the Vallence River. When I was consulted, I told them about the wrestling match I'd had with my gastrointestinal system. I told them I lost. Miserably.

The group around us drank their tea and started pulling down the gear that hung on lines around the campsite. I don't know if it was watching them pack, or the hydration salts, or something else, but as I sat there my spirits started to improve.

"You should go with the girls," I said to Carol. "I think I might go."

"With the girls?"

I shook my head. "Italy," I said.

"I don't think that's very smart."

I shrugged. Very smart wasn't really my thing in the first place, but I felt compelled to go. Suddenly it felt like I didn't have a choice.

Carol gave in, knowing what a mule-headed S.O.B. I am. She walked over towards the ladies and I jogged off to catch up with the gents. Two of the vans had left already, but I managed to wave down Brian in his behemoth Mercedes van.

"Yeh comin' den?" Brian said. I loved that accent. I nodded and ran for my gear.

The mountains towered around us as we drove the winding pass into Italy. The old border posts stood obsolete in the midst of the European Union. I got some fluids down along with an energy bar and by the time we arrived at the river I was feeling fair to moderate. The Dora River, I had been told, was mostly Class IV with a Class V gorge. I figured I could hike around the gorge if I had to.

The others left Brian and I at the put-in while they went to drop a car at the take-out. I had immediately been struck by his smile and warm character. At the put-in we got caught up on each other's lives. I told him what I did. I told him it wasn't much but I made ends meet. My insecurity from the morning must have seeped through.

Phil LaMarche in #3 of Triple Drop

photo by Carol LaMarche

"You know," he said. "I had the stuff. The business, the money: the stuff. But I found myself coming up on 35 and I suddenly wondered what I was doing it for. I took a big step back right then. I sold the business. I bought a little piece of land and told myself I would take the rest of the money and travel and paddle." He stopped and smiled at me. He put a kind hand on my shoulder. "I could be anywhere I want right now and I'm here. And you're with me. Don't worry so much. We're right where we belong."

The gang arrived back from running the shuttle and we suited up and humped our boats down to the river. Our group turned out to be a bit big for the character of the water. It was fairly continuous Class IV through boulder gardens. Nothing too difficult, but if we weren't careful, we started bunching up.

A Frenchman named Nico and I took the lead. The two of us worked well together, hopping down the river and boat scouting the oncoming rapids. Despite my night, I felt surprisingly strong on the water, and we kept a quick pace to keep the group from getting bound up.

We dropped into the gorge section and came to a fast flume with a sizable hole at the end. Nico and I both stayed high on the left and punched the hydraulic without much difficulty. We waited for a few of the folks behind us to clear the drop and then we kept it rolling to make room in the eddies at the bottom.

Almost immediately I came upon an intimidating horizon line and caught a small eddy just above it. I looked back upstream and gave Nico the sign to hold up. Then I shrugged and signaled that I couldn't see.

Nico's boat was a leaker and he took any chance he could get to climb ashore and empty it. After draining the boat he hopped up on a rock and looked down on the drop below us. He walked back and forth and gazed down at it for a good while. Then he turned and simply gave me a thumbs up. Not quite what I was expecting after such a long scout.
"Where?" I shouted. "*Ou*?"

He held up his hand and made an S turn with it. "*Agauche et adroite*!" he shouted over the din of the river. "Left then right!"

I gave him a hesitant thumbs up and he returned the sign. Well, what the heck. I pulled out of the eddy and came into the drop on the right heading left. I rode a tongue into a moderate hole. I let it steal some of my speed so I could have a chance to see what was ahead. First, I saw the river breaking immediately back to my right. Then, I felt a jolt of adrenaline enter my bloodstream as I noted one of the worst strainers I've ever seen, just ahead.

The current pushed hard at the toothy, log-studded mouth of the sieve and it was all I could do to avoid it. My arms burned as I spun blades against the current. I came much closer to it than I would've liked, with a chance to see the beach-ball diameter logs jutting out of it. I had drawn my bow around and I pulled hard to get right, into the flow. The river cut back left again, down into a chute with a decent hole at the end. And just beyond that, another log jutted out from the right, leaving little more than a boat-width opening on the left-hand side of the drop. About this time I was thinking that if Nico had been within an arm's reach, I would've had him by the throat. Thumbs-up? Are you kidding me?

I just made the gap in the last drop and as I pulled into the eddy at the bottom of the rapid I saw the geyser of water shooting out from behind the strainer I had almost paddled into. I knew immediately that if someone ended up in there, they were screwed. I got to shore and pulled my spray-skirt, grabbed a throw rope, and scampered up the loose slope. When I got above the first strainer, I looked down into the white frothing maw—all that water seething down through the broken rocks and the logs that had collected there. I couldn't help imagining the feeling: a few hundred CFS pounding my body into the thatched logs at my feet. Human strength was nothing compared to that kind of power. An elephant would drown here.

I looked up the river and saw Whim, a Belgian in our group, already out of his boat on the shore up above the drop. I waved until I got his attention and ran my hand across my throat then pointed at my feet. I held up both hands and mouthed the words, DON'T GO. He nodded and pointed frantically back upstream.

A moment later I saw a yellow boat coming down the river, upside-down. It broached on a rock above the rapid and stayed there. It was Brian's boat. It took me a second to grasp the consequences: he must be swimming. Then I saw the throw ropes—one, two, three—sprouting from the sides of the river. I started to get the fear.

Then I saw Brian's helmet bobbing in the river below the ropes. He missed them and even before he got to the top of the drop I started pointing my arms to river right.
"Swim right!" I hollered, over and over. But Brian wasn't swimming. Later I learned that he'd taken a beating both in and out of his boat in the hydraulic up above. He was spent.

He hit the hole at the end of the first tongue and disappeared. He came up and I was still screaming for him to swim away from the strainer, throwing my arms in the direction I wanted him to go, but he was heading right for it. As the distance between us narrowed, a small wave-hole sent him underwater again, just upstream of my position.

That's it, I thought. He must've been sucked into the strainer, lodged somewhere in the wood underwater and dying a terrible, thrashing death. I was breathing heavily, but my chest felt stiff, like I could hardly draw in the air that I so desperately needed. My mind was racing. This is the first time I'll have to leave a river without someone. Boating the rivers I did, I knew the potential consequences. But that didn't make it any easier.

I got into a crouch as close to the water as I could. I had my throw-bag hanging at my side. Just when I was sure he'd been down too long, Brian's face came up right

below me. I'll never forget it, because he came to the surface between my feet and I swear he was looking directly into my eyes. I dropped him the bag and he got a hand on the rope. I pulled him up until I could get my hands on his float vest. The lower half of his body was being pulled into the strainer and it was all I could do to keep hold of him.

"Get me out of here." His voice seemed to shimmy and crack at the edges.

I had good footing and by then I had him by an arm and a shoulder strap of his vest. "You got to pull yourself out," I said.

"I can't." He looked me in the eye and it was then that I realized just how exhausted he was. I was horrified of losing what footing I had, and the both of us ending up in the water.

Spurred by fear, I got my hips down low and slowly started pulling, leaning back, away from the water. I used my weight to rock backwards and each time I gave it everything I had, straining with my legs and back, only to see another inch or so of his body rise out of the water. It felt like he was 10 feet long. It felt like one of those terrible slow-motion, underwater dreams where you can't make your body move fast enough. When my legs were almost straight, I fell back and he came to the ground with me. For a moment we stayed there, locked in each other's arms, gasping, our wide, blank eyes slowly blinking.

"It got me fookin' shoe," he finally said.

I looked down at his feet and saw that one of his booties had been sucked off by the current. Finally, we laughed.

"Yeh fookin' saved me life," he said.

"I am so glad to have you here right now." My voice cracked as I said it. We were both choked up and we didn't talk for a while.

A bit later on, when Brian was back in his boat and the gang had regrouped, we floated some easy water together.

"That was … deep," I said.

"Spiritual," he replied. "Downright spiritual."

I nodded.

"Thanks, again," he told me.

"You'd have done the same for me," I said and I knew it was true. I'd been on the opposite end of the rope before. Five years prior I got stuffed under a rock on Lake Creek in Colorado in a rapid called The Toaster. I was under water long enough to really ponder my situation and question the eventual outcome. When I finally flushed out, the throw-rope that came flying felt like the hand of God himself.

With so much on the line, I'm sure many wonder why the heck we do what we do. And I don't have a single answer for that, and certainly not a simple one. Sure it could be said that we're stupid, young and cock-sure, hooked on adrenaline with a masochistic streak a mile wide—an Evel Kneivel complex, if you will. Sure, yes, I plead guilty to some of those charges. But there's more than that; it's not simply the sum of my personal shortcomings.

I do it for the beauty, for the wonderful places and people I continue to stumble upon in my outings. I do it for the grace involved in the mastery of physical movement. I do it for the joy of being at one with a body. I do it because it's one of a small handful of things that I'm any good at. I do it to be there for the others who do it, to help and support them when they require it and to feel the warmth of their sustenance when I am in need. I do it for the same reasons I would do anything else worthwhile. I do it because I feel called to it.

I feel as though I had little to do with being on that strainer at the moment Brian came along. I had the feeling that I was placed there, as if there was something else at work: something pulling me along on that trip despite all the reasons I had to stay in camp, something giving Nico the crazy notion to flash me the thumbs up, something sending me into that rapid kicking and screaming. Call it what you will, but something put me right where I needed to be that day. I was meant to be on that rock and Brian wasn't meant to die.

I can doubt the rest of it. I don't know if I'm working at the right job or living in the right town—or kayaking too much, for that matter—but at that one single moment, I know I was exactly where I was meant to be, and that's one hell of a feeling.

We got off the river and made sandwiches of cheese and ham du pays on fresh baguettes. We had a fierce debate over whether or not it was necessary to refrigerate mayonnaise. I, the lone American, insisted that, yes indeed, mayonnaise does need to be kept cold. My nausea was reinvigorated by the sight of them slathering the warm, off-white goop onto their sandwiches.

Carol and I spent another week paddling and camping with the group and when we finally left for the Tyrol region of Austria, it had that terrible heart-wrenching feeling of leaving family. An empty silence settled in the car as we drove through Italy. But as we entered Switzerland, the sheer awe of the Swiss Alps turned us giddy and talkative again, like kids in a new, fairy-tale world.

Brian Keogh and Phil LaMarche running #1 of Trip Drop

photo by Carol LaMarche

Alaska by Fair Means: Every Man's Footprint

By Victor Myers

The feelings that inspired this trip have always been inside so many of us. The solutions to those feelings have been harder to come by. Last summer was a pivotal experience for me in independence, not only in boating, but from oil and big money. Most importantly, realizing change is possible, it just takes the first step and a progression of footsteps towards the goal. Patience … easier said than done.

We live in an abundant society; we have a lot; we use too much. Moreover, this behavior is encouraged by those who make ridiculous sums of money by perpetuating our "needs." I have always known this—many of us probably do.

For the past few years, I have been trying to find alternate fuel sources. I routinely drive back and forth to Alaska during the summer and have always hated the cost but moreover felt guilty about the wasteful nature of such a monumental road trip. I converted a truck to run on propane but felt that I could do better. I was really curious about using waste vegetable oil as fuel. Everyone has heard of biodiesel and I'm no pioneer in the field by any stretch of the imagination, but I was determined to undertake a trip that I felt just about any dirtbag boater could pull off.

We have all read the stories or seen coverage on TV of cross- country road trips burning vegetable oil. One thing that I noticed was that by and large these trips were in $25,000 to $60,000 rigs, had professional installations, ground support, and corporate sponsors. That is all great for publicity and while those efforts are merited they aren't an option for most of us.

Anyone can drive cross-country in a professionally engineered and installed system in a luxury rig. Simple. How many of us can afford to drop that kind of money into a project we aren't totally sure about?

I could have bought a nicer vehicle. I could have spent months engineering a system. I had neither the time nor the interest in those routes. Instead, waiting until arguably the last minute, I bought a 1985 Volkswagen Golf at a junk yard, got it home and within eight days had it road worthy. My total investment totaled $1,600, including the vegetable oil system.

I loaded up the car with all the gear I would need for three to five months of boating: one creek boat, one play boat, one sea kayak, one surfboard, one rocket box, five paddles, clothes, tools, helmets, and the rest. When the car was fully loaded, it looked like some kind of Pakistani expedition rig.

My girlfriend and I squeezed in and we headed down the road at a reasonable pace. As I mentioned before, I had little time to set this all up so it worked less than perfectly those first few days. The first time we went to collect oil I realized the hard way that I had forgotten to wire in a fuse for my vegetable oil collection pump. The positive wire dropped into the hatchback, grounding itself and starting a small electrical fire. Luckily, I caught it right before it hit the battery. The damage was a melt line through two waterproof bags and a splash jacket, a small burn on my hand, and a hole in the windshield washer reservoir. After replacing some wiring, and adding a fuse we were back on the road.

Our start had been rocky, but within 24 hours we were cruising down the highway on the previous night's Japanese food.

Just the feeling of liberation one gets from driving 1,000 miles without stopping at a gas station is incredible. We were urban mining, dumpster diving, and grease pirating. Mostly, we were driving cross-country without leaving a footprint. That's the whole idea.

I won't say there weren't any complications. However, most were due to the beater car, not the vegetable oil fuel.

Our first stop was FIBArk in Salida, CO. We made it there on less than two gallons of diesel. Of course, when we arrived we had some car issues and had to stay in Salida for eight days ordering parts and working on the car.

The auto shop was conveniently a block from the play hole in town and we had friends to stay and paddle with. It was a great break from the two weeks of frenzy leading up to the trip.

Overall this first leg of the trip taught us a lot: first that the trip was going to be possible but not easy, second that we weren't doing this for money saved but for concern about the environment and a desire to travel without petroleum products. This was definitely a labor of love; at some point it might pay off.

In Colorado my girlfriend left the equation, which is a small novel itself. I picked my way through Wyoming without buying a drop of fuel. I found myself sitting at the Lunch Counter having some lunch and watching oil drip through my bag filter. This became my rhythm for a week. Lots of park and play, lots of driving back and forth over the pass. I spent some time with friends both new and old and pondered the quiet little mission. I had a few days on the Teton and the Snake then continued on towards Portland, still driving on the same diesel I had bought in Kansas.

Portland was the same routine. Boat, think, tinker with the car. I filled the trunk of my little car to the brim with vegetable oil from a burrito stand, knowing that I had a lot of ground to cover through BC with minimal collection opportunities. I topped off one more time in Bellingham, WA and for the first time opted out of the Sea to Sky Highway for the faster route. I was starting to get a little tired of the drive and wanted to reach my destination. I rattled on down the road to Prince George, spent the night and filled

Go big or go home takes on a twist when you're living in a Golf down by the river

photo by Marvin Scott

up my belly and the belly of the beast at a Japanese restaurant, and kept rolling on to Smithers, BC.

From Smithers, I took the relatively short drive to Prince Rupert, where I jumped on the ferry. I had to pay for a larger berth for my car because, even though my car was a mere 14 feet long, my sea kayak was 18. Six hours later I unloaded in the island town of Ketchikan, Alaska or "The Rock" as we so affectionately call it.

I came to do some soul searching in the form of some solo paddling trips in the Misty Fiords. I also came for the play boating, just as remote. Previous summers in Ketchikan I had been so busy with work and life that I had never found the time to do some of the trips I always told myself I would make time for. This was my summer. No work, just boating and exploring.

There is no real presence of roads in southeast Alaska. If you want to access anything it's by air or water, rarely—if ever—overland. The typical park and play session includes a loaded motorboat with kayaks on the roof and a quick 20- to 30-mile boat ride. This is the transportation method but possibly the least important aspect of the experience. The entire session is totally dependent upon timing. The tidal features are at the mercy of the moon. The big tides bring big water and big waves. That's where the fun is.

Everyone has heard of Skookumchuck. What most people don't realize is that these features aren't limited to the world-famous play wave in BC. There are numerous Skooks all along the inside passage in BC and Alaska. I had a date with one in particular.

Often playboating has a very safe atmosphere: roadside features, man-made waves, big pool drop features, like the Ottawa. Approaching a tidal rapid feels remote and solitary. We don't always know how big the features will get and when and for how long they are going to show up. Holes with the right retention characteristics might become terminal in the space of 10 minutes. It really comes down to a lot of guesswork, map and chart reading, and maybe a little Google Earth action. Knowing the timing and understanding the window of opportunity is like having a key. To earn the key one has to devote a lot of time getting intimate with the wave, and that's what I did.

My first mission was a quick paddle out to scope the wave. I took one more trip via motorboat, had some good beginner's luck, and hit the wave during the perfect window. As far as I know, I was the first to ever drop onto the pile. It was perfect: big glassy green sections, perfect pile, strong but relatively non-violent, good eddy service (did I mention salt water = more buoyancy?). I caught it one more time later that week on the beginning of a solo sea kayak tour around Revillagigedo Island.

I paddled the first 25 miles with tons of gear and a surfboard on the back of my sea kayak. Then I met some friends who had

Eddy at the gate

photo by Victor Myers

driven out after work. They brought my playboat and we had a mini surf session. We were about six inches off our mark with the tide, so it was more of a micro wave. I tried feverishly to catch it on my surfboard with little success.

It started getting late and the posse had to go. I sent all my unnecessary items back with the crew and set up my camp. I was determined to monitor the wave for 24 hours before heading out on my mission of paddling every bay and inlet all the way around the island. The camp was high above but within eyeshot of the wave, and the noise was deafening. I watched and checked it all night. The wave was surfable when it was flowing in but I wanted to see how it looked flowing out and peaking. It was a pretty awesome display and an excellent hydrology lesson. The next morning I packed up my camp and headed out in my sea kayak.

I had seven days before I was to fly to Missouri for a surprise visit to see my girlfriends white coat ceremony for medical school. I headed out with a 160- to 250-mile paddle ahead of me, depending on how much exploring I did.

I paddled about 200 miles in 5 days in one of the worst weather windows of the summer. I lost my emergency beacon, my radio failed, and I ended up with diarrhea and vomiting that cost me 10 pounds. I flagged down a boat that by pure heinous coincidence had an ex-girlfriend aboard. After being alone in the wilderness in less-than-ideal conditions for a week, this turn of events provided some much-needed comic relief.

I was feeling OK with the trip. For the first time ever I put aside pride for the sake of safety. I had a good time, and made it back to civilization. Forty hours later I was on a plane to middle America to see the love of my life get formally accepted to medical school. Seeing this beautiful young woman accepting her white coat made me wonder where I had been in my past and what had made me share my time with the people I did, namely the ex I spoke of earlier. I spent one great week with Sri and promised to be back in a few more.

When I flew back to Alaska, I had my big date with the Khata Wave. Since I had been the first person to surf the wave, I decided I ought to name it. I chose Khata.

The Khata is symbolic silk sash offering in the Tibetan culture. My Nepalese/Tibetan girlfriend gave me a Khata that I have always kept with me; I had it with me the first day I surfed the Khata.

Back in Alaska, I packed up my gear, caught a boat ride, deck loaded my playboat on my sea kayak, and hauled it to the gate. The next four days held some of the biggest tides of the summer. I was planning on camping at the entrance and surfing the entire time. I would be alone until day three, when some friends planned on showing up.

I paddled my loaded sea kayak to the rapids and through them, being sure not to flip with the playboat strapped on the back deck.

As the tide was rushing in, I started to set up a quick camp. I had about two hours to get ready for a session. I geared up and watched the wave form. It was enticing at early levels, but I knew how big the tide would be and I waited. It just kept getting bigger and bigger. When I couldn't take any more, I peeled out of the eddy, paddled hard, and lined up. I caught it solid. A big push in the back and I was sitting pretty. I just sat there and savored the moment. It was a perfect moment. The Khata, as big as it was, had unbelievable retention. The shoulders rocket you back too the middle and with no one there, I was riding until I was just too tired to stay in. I started checking my watch before dropping in. Five minutes, nine minutes, 14 minutes. I was a little conservative because I was alone and this thing was big and intimidating: Grand Canyon-sized eddy fences, big whirlpools, boils and at one point a huge old growth red cedar tree rafted through, nearly taking me out.

I had three more days of this. Surf, eat, stretch, watch, listen, take a paddle in the sea kayak. It was perfect. I was literally euphoric. The wave was getting to be my clock. I knew how many more minutes before it was perfect. I wanted to just buy a float house, park it, and stay here as a hermit. Unfortunately, it doesn't surf everyday and it is in the middle of nowhere. Those two features also make it perfect. Surfing the Khata is a special occasion. No skate-park feel, no man-made play wave complacency. I love this spot. Words cannot explain it.

My crew of friends showed up late on the third day and almost missed the window for driving their boat in through the gate. The fuel pump on their boat had gone out and one of the guys was hand pumping the engine. If he pumped fast or too slow the engine would stall and they would be in serious trouble. They jumped the eddy fence and nearly went airborne. Luckily, the boat didn't stall.

After a solid halibut dinner, we crashed out. The next day was one I'll never forget. I knew the Khata and we hit a perfect session that lasted as long as our physical condition allowed. The wave dwindled and we stormed out of there like gangbusters, loaded to the brim. Over some beers on the ride home, I pondered the last three weeks as I watched the sun set as it does only in southeast Alaska.

The summer didn't even come close to ending there. I still had about 5000 miles of veggie driving to do and some rivers to run. I left Ketchikan with just shy of 70 gallons of vegetable oil in the little hatchback. That, plus the rest of the gear, put the little junk box well over maximum capacity.

Forty miles out of Prince Rupert, I got simultaneous sidewall blowouts. Luckily, the tires didn't go flat. I cut off the sidewall flaps and, rather than backtracking, I drove 20 mph all the way to Smithers to get a set of new tires. I had it coming: they were the same tires that were on the car at the junkyard when I bought it.

I made it all the way to Nebraska before 5th gear exploded. Me, being the stubborn soul that I am, drove the last ten hours in 4th gear whining 50 mph down the interstate. I was determined and I made it. The car lives. I've put a new tranny in it along with a bunch of other parts and I've totally redone the SVO system. I don't drive it much anymore. I have converted a few more vehicles since then. My mom has a car that I converted and I'm trying to encourage the creation of a vegetable oil coop in my hometown.

It was a learning experience. I wouldn't have changed much, if anything. Slowly but surely I'm making changes towards independence from oil. The summer of 2006 was lived on fair means. I propelled myself nearly 13,000 miles either by recycling trash into fuel or paddling boats on rivers and oceans. What did it prove? It doesn't take much, just commitment.

Author Victor Myers spends summers guiding in Alaska and winters in Belize For more photos or info visit www.allpointsguiding.com.

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chocolate milk from the boat.

That night I relived the day's terror and didn't sleep. In the morning I rose with the sun, boiled water for tea, and cooked breakfast.

For the remainder of the trip our habit was to make camp in late afternoon. Then, a hike to limber up our legs and explore, read a little and then have dinner. We would sit quietly as the sun disappeared, listening to the Green flow by. After crawling into my sleeping bag for the night, I'd lie awake until morning. Sometimes my whole body shook with fear as I churned over the day's whitewater and extrapolated bigger and bigger waves.

Over those next few days we averaged a rapid every 30 to 45 minutes, and at each one I wanted to close my eyes and just go through blind. But at the last moment my eyelids would pop open enabling me to shout out directions and questions.

"Left! Left!" I'd yell and she would go right.

"Are we on route? This isn't the route!" I'd panic as we headed towards, and barely avoided, boulders.

"Is that a wave or a hole?"

"Faster! Faster! Slow down!"

More than anything else I kept shouting, "Watch out!"

She laughed at me. She ignored me. She shouted over the sound of rushing water, "Paddle! Paddle!" And laughed some more.

At Chandler Creek we got out of the boat above a nasty rapid called, "Big Falls." The name did a good job of scaring me. Big waves in the middle of the river and bigger rocks on both sides of the channel had me wondering where we would go. I felt a tugging on my sleeve. "Let's have lunch before we run Big Falls. I'm starved!"

Unhappily, I dragged out the dry bag with our lunch food and joined her on a fallen log beneath a large, old, beat-up Cottonwood tree along the river. Our lunch spot was perfect. It looked right into the maw of Big Falls rapid. It made me want to pee.

"Do we have to run every rapid?" I blurted out. "What is it with this sport that we can't do something without being scared half to death? I just don't get it."

She glared at me for a moment. "You sure don't," she agreed.

"What's that supposed to mean?"

She caught her breath. "This whole trip you haven't bothered looking at anything further away than the tip of your paddle."

"There happens to be quite a lot going on there," I said, heatedly.

"And it's not as bad as you keep saying," was her abrupt reply. "Do you really think I would take you on a river as dangerous as you're making the Green out to be?"

I grumbled something, not being ready to surrender my point of view. I had nailed myself too high onto my cross of fear and unhappiness. It was too soon to come down.

We were silent after that, staring out at the river. Neither of us ate much.

We ran Big Falls straight down the middle, bouncing along the edge of the wave train. I didn't call out any instructions to her. I paddled. I didn't get a splash of water on me.

We stopped again to scout Three Fords Rapid, rather than blunder through like we had been doing. It was the worst yet. The river dropped over a four-foot ledge, rode down curling, overlapping waves through a pourover between import car-sized boulders, then holes and rocks and more rocks and piles of waves. On shore, I thought, Now! At last. We won't run this section. We'll get out and carry the canoe and gear on the wet, slimly, green, slippery rocks to a safe eddy far below.

No.

Her voice, very business-like, said, "See that breaking wave just after the first drop?" We stood on the right bank along little cliffs overlooking the rapid. "We can easily sneak by on the left, cut through that big wave—we'll swamp for sure—but after that we follow the wave train right down the middle. We'll eddy out on the right, or left—whatever—and bail."

"What about those rocks down there?" I pointed, trying to duplicate her confidence. Midway down, and also at the very bottom, big rocks projected from the river. Surprised at what I could see when I looked, I pointed out more rocks hidden below the surface. Maybe I was learning how to "read water."

"Piece of cake," she said. "Watch that stick," she pointed into the river. "See how the current takes it to the rocks and then around them? The water will carry us the same way."

"Piece of cake," I muttered *sotto voce*. That stick isn't a semi-truck turning in an alley.

"Now, let's get back to the boat and tighten down our load. If we swamp, we could flip and we don't want to lose anything."

Great.

Back in the canoe, before peeling out of the eddy, she called to me from the stern. "You know what to do in case we swim, don't you?" My bladder spoke loudly to me even though I had already responded to all its comments and questions.

"Float downstream in a sitting position with my legs out in front of me."

"Yeah?"

"If possible, hold on to my paddle."

"Good. What else?"

"Stay with the boat?"

"Good idea. But what side of the boat?"

I tried real hard to figure out what she had in mind. If I held on to the boat on the downstream side, it could easily wash over me and I could very well be stuck there—under the boat. No air. Bad scene. I could drown. "The upstream edge," I called out over my shoulder.

"Very good. We'll make a river man out of you yet!" I didn't have time to contemplate her emphasis on the "man" part because we had entered Three Fords.

We crashed through wave after wave. The boat glided across the water, not in it. We didn't go with the flow; we were the flow. She made it all feel so easy, so natural.

"Time stands still" is a cliché to anyone who has never faced danger, imminent death (itself a phrase a bit worn around the edges) or confronted fear head on. I looked at my watch when we entered Three Fords. When we popped out at the bottom with a canoe full of water, on route, just as she predicted, I looked at my watch again. Only 15 seconds had passed.

Time hadn't stood still but, close enough. During those 15 seconds I had seen the origin of the species, the rising and wasting away of mountains, the building of the pyramids; I had cherished the cry of the Dodo.

I've known some crazy people but at the moment we pushed through Three Fords's biggest wave, and she shouted out, "Pull harder!" I thought, for sure, I'd met the craziest. But not stupid. If stupidity existed, it resided in me, not her. She knew exactly what she wanted, how to do it and was doing it. In any relationship between people, there comes a time when somebody realizes a learning opportunity has presented itself. This was my time.

At the bottom of the rapid I turned to face up stream. All I could see was a bunch of little waves, foaming at the mouth in places. Maybe that made me the crazy one for not seeing the fun and adventure the river held out to us.

Maybe.

The canoe would survive the river and the rocks without being torn to pieces.

Maybe.

If we capsized, the world wouldn't end.

Maybe.

"Have fun," I told myself. "The worst that can happen is you get wet and have to take a long hike. You take long hikes all the time. So, what?"

Five miles below Three Fords we camped on a little piece of sand with baby willows and spindly tamarisk trees as the wild Green River placidly flowed by. The only ripples in the water were made by a few jumping fish reaching for their dinners. The fish continued long after dark, jumping, jumping, jumping as the stars came out one by one like tiny town lights in a great big toy model of some celestial city. And then, dreamlike, the moon rose—a great bright white banana.

In the wilderness you can read a book by moonlight.

The stillness of the night overcame me. This was peace. Not the absence of strife or the end of war but peacefulness within myself. I felt at one with something. I didn't know what that something was but I definitely felt it.

We sat on the sand, quietly listening to … to … everything. Sitting there that night I listened to the Cottonwood leaves dry up and fall to the ground. I could imagine the leaves crinkling up like the cellophane cigarette wrappers my mother would throw into the kitchen garbage. I leaned across the small open space between us, found her lips and kissed her. "Thank you," I said.

Her arm wrapped around me and she pulled me in tight. "For what? You knew about this all the time. You just didn't know you knew it. All you needed was a nudge in the right direction."

Still unable to sleep, I took a walk late that night. In the moon's light I found the tracks of a large bird, a goose perhaps, in the mud along the shore. A bat, and then another and then others, darted in and out overhead, squeaking for their dinner.

Further down river the canyon opened more and the moon illuminated the rock walls giving them weird shapes, almost animistic, nearly human in their grotesqueries. And always, always, always, always the Green slid by.

For the remainder of our trip I noticed tracks of bear and deer, flocks of Canada geese. One night we had several dozen toads hopping through our campsite. I listened to mocking laughter of Canyon wrens every day and the chits and chats of little passerine birds, where ever they were. The stars continued so bright the growing moon couldn't blot them all out.

This world along the river soaked through my skin down to the bones and organs. And still, I didn't sleep, so that I began to hallucinate sounds, sights and smells in the dark. I spoke to people I knew did not exist. But if they answered back—and they did—they must be real. Who decides reality or illusion anyway? Who needs artificial realties when the ones I live in are far more intriguing? Far more entertaining? Far more real?

Following Three Fords, the rapids diminished in intensity. Either that or I was finally cured of the danger. Looking back upstream after we ran Coal Canyon Rapid, where we took on so much water in the choppy waves that the boat actually floated below the river's surface, the waves didn't seem so terrible.

On our last night out, at Rattlesnake Creek, we slept in a mixed grove of willow, cottonwood and tamarisk. The following morning we floated the final 10 miles of river to our takeout. The Green calmed down and oozed rather than flowed.

I spaced out in the bow of the canoe, letting the sun's warmth wash over me. Everything felt perfect, as if all the pieces of a puzzle that were my life and experience lay before me and I could see how each interlocking piece fit into all the others. I could assemble the whole puzzle in my mind but the moment I tried to think about it I lost the answer. I contented myself with the knowledge that I knew something that no one else knew, or had figured out.

At the take-out we loaded the canoe then cruised the town of Green River to find lunch and a cheap motel.

A hamburger never tasted so good.

A shower never felt so cleansing.

A bed never looked so inviting.

She stood by the window, looking out. She turned slightly to me. I walked across the room, held her, kissed her. She kissed back.

It felt good.

I like the way a man and a woman fit together.

She lifted her face to be kissed and I kissed her again.

We fell onto the bed.

But the moment my head touched the pillow I was fast asleep. All those sleepless nights, lying awake, twitching in a mixture of fright and excitement, listening to the river roll rocks downstream or lap against the side of our canoe had, at last, caught up to me.

Hours later, moonlight streaming through the hotel room's Venetian blinds woke me.

She sat there, in the sole chair, concentrating on the white light forcing its way into the room. The air conditioner hummed and choked asthmatically.

"I think I get it now," I said.

She didn't move. "I knew you would," she said, talking to the moon. "It's a piece of cake. Only a matter of time. Now, go back to sleep. Maybe we'll talk about it in the morning."

WINNER Humor Contest

The Casa Machinas area of Rio Saripiqui, Costa Rica

photo by David Maurier

A Brief Post Costa Rica Q & A

By David Maurier

Q: What was the best part of your trip to Costa Rica?

A: It's hard to say. Either that:

a. I got to paddle with some awesome people in some ridiculously lush rainforests.

b. The crippling illness I contracted didn't recur, which means it probably wasn't malaria.

c. My kayak vanished, but only for a little while.

or

d. The rice and beans were consistently delicious.

Q: Hold up. What happened to your boat?

A: It escaped.

Q: How did it escape?

A: I was busy. Specifically, I was simultaneously: determining whether my arm was broken, trying to grow gills, maintaining a grip on my paddle, and swimming for an eddy. Basically, I was distracted, and my kayak took advantage of that and effected an escape. The last time I saw it, it was bobbing down a Class IV rapid. I was pretty preoccupied at the time, but from what I could tell, the kayak looked happy to be on the run; it had the satisfied look of a rodeo bull that has just bucked its rider.

Q: Why were you busted up/trying to spontaneously mutate/gripping/swimming?

A: I made a poor judgment call on a Class IV-V run called the Casa Machinas, which sounds like a Spanish horror movie, but is, as it turns out, a committing gorge with some significant rapids. Basically, I watched my friend Erick's line down the left side of a rapid, which looked beautiful, and I watched a few other paddlers' lines down the right side of the same rapid, which looked sketchy, and proceeded to muppet down the left, based on these observations.

Q: What critical piece of data did you fail to take into account?

A: Erick has been paddling consistently for 15 years, and could probably paddle a well-duct-taped piece of cardboard down the Devil's Postpile of the San Joaquin and make it look good. I, on the other hand, have been paddling on and off for about eight years, and could probably paddle a well-duct-taped piece of cardboard, say, across a pool.

Q: And so?

A: There were two five-foot pourovers in quick succession at the bottom of the rapid. Conklin had indicated them to me by way of some fancy hand signals, but I wasn't quite prepared for their magnitude. I ran the first one right-side-up, and then everything went to custard. I got sucked back in and trashed like a piece of junk mail. I subsequently ran the second pourover on my head.

Q: How did that go for you?

A: Not super well. I almost immediately banged the heck out of both my radius and ulna, leading to the aforementioned concerns about the integrity of my bone structure, and causing me to lose the ability to grip with my right hand. I was also head-butting a bunch of rocks; at one point, I was convinced that my helmet had shattered, and that only a thin layer of foam stood between me and a concussion. Needless to say, temporarily becoming an honorary member of the Costa Rican Men's Whitewater Swimming Team seemed like a good option at that point.

Q: What then?

A: With my right arm out of commission and my kayak bravely floating downstream towards rapids unknown, it felt like a good time to leave the Casa Machinas.

Q: How did you get down a gorged-out, continuous Class IV river without the use of your right arm and without a kayak?

A: Mostly, I didn't. Instead, two members of the paddling crew went downstream to recover the derelict kayak while I assembled a crack four-man team to begin hiking back upstream to the put-in, which was theoretically only a mile away. Erick quickly volunteered for the hiking team, as did Conor and Conor, a pair of Irish paddlers. When the riverbed turned into a cliff on one side, we used throw bags to drag me across the water or ferry a boat back to me. When we encountered jungle, we walked through it. When the river cliffed up on both sides, we started hiking up the walls of the cliff and hoping there was a way down the other side. During the process, we took turns carrying the three remaining kayaks, which, at some point had magically changed from useful and fun watercraft into awkward, eight-foot long, pieces of heavy plastic. Of course, while we hiked, we kept wearing our large neoprene skirts and our watertight Gore-Tex jackets to make sure that our precious sweat and body heat had no chance to escape in the insanely humid jungle.

Q: Did you get novel and exciting bug bites, rashes, and cuts, possibly including a small cluster of blisters on your ankle that looked like they could be poison oak but were, in all likelihood, not poison oak and were more likely to be a heretofore undiscovered tropical disease and/or skin condition that develops when you wade through a nearly impenetrable mat of thick organic material for six hours?

A: Yes.

Q: Wait, how long did you spend hiking upstream?

A: Six hours.

Q: And how far did you travel during that time?

A: Approximately one mile.

Q: Making your rate of travel?

A: 0.16 miles an hour. For those interested in comparative biology, snails travel at 0.03 mph, making our rate of intra-jungle travel only five times faster than a garden snail.

Q: That's pretty slow.

A: For real. We got out of the gorge just as the sun was setting.

Q: What was the sketchiest part?

A: Actually, the sketchiest part came at the very end when Erick ascended the wall of the powerhouse at the put-in, free-soloing a nearly vertical 35-foot climb using questionably-rooted tufts of grass as hand-holds. Fortunately, shortly afterwards, our hired shuttle driver and the members of the boat recovery team returned to the put-in, assuming we would be there.

Q: What was the most surreal part?

A: During the van ride back to our hostel, Conor and Conor, who, as members of the jungle hiking team, had spent their whole day carrying extremely heavy boats through some of the most humid, inhospitable, overgrown, slippery, and generally unpleasant terrain that I've ever seen, began singing drinking songs and joking with each other. Which I guess says something about the indomitability of the Irish spirit, or at least says something about how much they like drinking songs.

Q: Did the boat recovery team recover your boat?

A: They found it half a mile downstream of the incident and stashed it in some trees.

Q: So you got it out the next day.

A: Not quite. The other members of the crew had previously booked some transportation to Turrialba for the following morning, which left Erick and me to hatch a scheme. I was unable to paddle, and asking Erick to make a solo mission into a remote jungle canyon seemed unreasonable, so things were looking grim. Fortunately, early in the afternoon, we were able to rally a local paddler named Chamo. The rough plan: Chamo would paddle an inflatable kayak, which they would stash in the stern of my kayak once they found it, and Chamo could then paddle my kayak to the take-out.

Q: Did Erick seem sketched-out at the prospect of entering a committing gorge with an unknown inflatable kayaker late in the afternoon?

A: Yes.

Q: What other elements raised the sketch factor?

A: Neither of them actually knew where my boat was. The previous day's boat recovery team had given them some verbal beta, but "that one place with all the vines and the rocks" doesn't go a long way on a river in Costa Rica.

Q: When did you start to really worry about them?

A: When they still weren't back about two hours after sunset.

Q: What happened?

A: Apparently, they were unable to find my boat, and rather than have the day be a complete waste of time, they decided to hang out with some Costa Rican girls and a six-pack at the hot springs at the take-out.

Q: Can you blame them?

A: Not at all.

Q: So what did you do? You said your kayak vanished but, "only for a little while."

A: Well, with my arm all wrecked up, I needed to take a break from kayaking, and I couldn't ask Erick and Chamo to go back in and keep looking for the boat. Instead, I took a bus to San Jose to get some x-rays taken.

Q: Was your arm broken?

A: Nope. The doctor did mention, however, that I have a congenital defect in my right arm, and the little round knobby guy where the wrist attaches to the forearm is maybe a centimeter out of place. I don't want to jinx anything, but I'm hoping that's the only time in my life that I'm excited to discover that I (only) have a birth defect.

Q: Any other comments on the medical system in Costa Rica?

A: The private clinic in San Jose is amazing. A set of x-rays and a brief consultation with an orthopedist will only run you about $80, and they have free

hard candies.

Q: But you still haven't explained how you eventually recovered your kayak.

A: Right. So about four days later I was in Turrialba, halfway across the country from the incident, hanging out at the Hotel Interamericano, figuring my kayak had somehow gotten back into the river and continued its run towards the ocean, like some kind of plastic salmon spawning in reverse, when Erick came in from the basement and said: "Dude, how'd you get your boat back?" I had no idea what he was talking about, but somehow, my boat was sitting downstairs. It had picked up a pretty heinous nose job, but aside from that, it didn't look any worse for the wear.

Q: So how'd it get there?

A: I spent the next few hours camped out in the lobby of the Hotel Interamericano, trying to figure that out. As people came in and out of the hotel, I basically interrogated them. The conversation usually went: "How's it going? What's your name? Do you know anything about the yellow kayak downstairs?"

Q: I see.

A: So Gustav*, the fourth person to come through the door, broke into a totally guilty grin when I mentioned the yellow kayak.

* (note: I can't remember his real name, but he definitely looked like a Gustav)

Q: How did Gustav get your kayak?

A: He said he found the kayak by the side of the river, figured it was abandoned, and decided to ghost-boat it out. From talking to him, it became evident that Gustav and his crew had beaten Erick and Chamo to the boat by about two hours.

Q: Why didn't they try to find the owner of the kayak at the paddling hostel in Saripiqui instead of absconding with the kayak to the other side of the country?

A: Your guess is as good as mine.

Q: What did you learn from the whole experience?

A: I learned a little Spanish. My friend Mauricio taught me how to say, "Can you move the pig, please?" I think it's "¿Puedo besar el cerdo, por favor?"

Q: I meant more in terms of specific lessons.

A: Oh.

1. I should probably take other paddlers' abilities into account when I evaluate their lines.

2. Jungles can be hot and humid.

3. There's a reason people typically paddle down rivers instead of walking up them.

4. Don't trust men named Gustav (or men who look like they're named Gustav).

AW Corporate Partners

Class V Sponsor

In 2006, Keen's contributions will aid American Whitewater's projects in the Southeast, and the Pacific Northwest. In the Southeast Keen's support will help American Whitewater's work restoring the Catawba watershed. Additional funding from Keen will support AW's projects on the Columbia River Basin and the Cascade range in the Pacific Northwest.

Class IV Sponsors

At Dagger we love what we do because it's all about the water, and American Whitewater is the organization that helps put water in our rivers. That is why Dagger has long supported American Whitewater and is proud to continue our support of their river stewardship program today.

Wave Sport is American Whitewater's longest standing and largest philanthropic supporter. Both Wave Sport and AW are committed to one thing, whitewater.

As part of Jackson Kayak's focus on environmental responsibility, the Jackson's have long supported AW through promotional efforts. In 2006, as part of their commitment to 1% For the Planet, Jackson Kayaks will be supporting AW's river stewardship work.

Class III Sponsor

Kokatat remains one of AW's strongest allies by continuing support of AW's membership and river stewardship programs. By providing American Whitewater with valuable membership and donation incentives, Kokatat will create the support we need to continue our stewardship of North American rivers.

Teva and American Whitewater have worked together for nearly a decade to protect access and conserve whitewater resources for paddlers and rafters nationwide. Teva and AW have partnered on numerous tours and events over the years, including AW's 50th Anniversary Gala in 2004.

Class II Sponsor

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Wave Sponsors

Throughout the history of the natural world, water sources have been the centers of life, providing habitat and sustenance for animals and plants alike. Patagonia is proud to support groups like American Whitewater that work to reverse the destructive effects of damming, development and pollution.

Subaru always has been, and will continue to be, committed to safeguarding the natural environment that so many of its customers avidly enjoy. Subaru is proud to continue this tradition by supporting American Whitewater's largest event of the year the 2007 Gauley River Festival now presented by Subaru.

Editors note: *In each issue of American Whitewater we highlight a company that supports American Whitewater's river stewardship efforts. While some companies in the industry are fortunate enough to have the financial resources to simply write a check, other companies are rich in human resources. Anna Levesque's company, Girls at Play, has been raising money for American Whitewater for years. In the past she has donated a percentage of her movie sales to AW and for the past several years she has run the Ladies on the Lower Gauley program.*

Below is the story of this year's Ladies on the Lower Gauley event. American Whitewater would like to thank Anna Levesque and Brian Jennings for making this year's event such a great success.

Girls at Play: Ladies on the Lower G

by Anna Levesque

The Ladies on the Lower G is an annual gathering of women for a day of paddling, fundraising, and fun on West Virginia's Gauley River. The annual event is organized by Anna Levesque, from Girls at Play, and Brian Jennings, from North American River Runners.

Participating women pay $30 each for a trip down the Lower Gauley that includes shuttle and lunch. A portion of the proceeds is donated to American Whitewater to fund their river stewardship programs. This year Ladies on the Lower G raised over $700!

Sunny skies and warm weather helped to make this year a big success, with more than 30 women paddling in support of American Whitewater. Led by Team Dagger paddlers Anna Levesque and Eleanor Perry, and NARR's very own Kathy Zerkle, the group included women ranging in age from 13 to 50-plus. A few male members of Team D joined the ranks to take photos and set extra safety (really an excuse for paddling with a group of attractive women—who can blame them?). The day ended with a raffle of apparel donated by Carve Designs (www.carvedesigns.com) and Dagger, as well as Girls at Play goodie bags!

Thanks to all of the ladies who participated and made the fun and the fundraising possible. I'm looking forward to next year!

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 U.S. American Whitewater currently has 6,300 active members. When considering 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 American Whitewater. 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. If you are a member of your local paddling club and your club is an Affiliate Club member of AW, join as a Club Affiliate Individual for $25. This is 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.

Join on-line today at *http://www.americanwhitewater.org/membership*, call 1-866-BOAT4AW (866-262-8429), or fill out the form on the back of this page and mail it to:

Membership
P.O. Box 1540
Cullowhee, NC 28723

AMERICAN WHITEWATER

P.O. Box 1540, Cullowhee, NC 28723 • 866-BOAT-4AW

Membership Application

Our Mission is to conserve and restore America's whitewater resources and to enhance opportunities to enjoy them safely.

Name_____

Address_____

City, State, Zip_____

Telephone_____

E-mail_____

Club Affiliation_____

Individual Membership Levels

____$25 Junior (under the age of 18)
____$25 Individual for Affiliate Club Members (SAVE $10 if you are also a member of an AW Affiliate Club)
____$35 Individual One Year
____$50 Family (immediate family members excluding children over the age of 18)
____$65 (2) Year Membership
____$100 Ender Club* (Receive AW's annual Ender Club T-shirt FREE)
____$250 Platinum Paddler* (Receive AW's exclusive IR Polartec shirt FREE)
____$500 Explorer Membership* (Receive a drybag from Watershed FREE)
____$750 Lifetime Membership (Receive AW's Lifetime Membership NRS Paddlers Duffle FREE)
____$1,000 Legacy Membership* (Receive AW's exclusive Kokatat Gore-tex Drytop FREE)
____$2,500 Steward Membership* (Receive AW's exclusive Kokatat Gore-tex Drytop and Pants FREE)

* A portion of your contribution is tax deductible. If you would like information about the tax deductibility of your contribution please speak with an AW Staff Member.

Organizational Membership Types

____$75.00 Affiliate Club (Join our growing network of paddling organizations across North America)

Additional Donation

____$5.00 ____$10.00 ____$25.00 $_____Other

____$24.99 Kayak Session subscription (Add Kayak Session to your membership at a 40% discount)

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Membership subtotal $____
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____Do NOT Mail me the AW Journal. I will read it on-line.
____Do NOT share my name with like-minded groups.

Ender Club and Platinum Paddler indicate shirt size (S, M, L, XL, XXL). We will mail gift certficate for Kokatat gear.

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AW's Original Purpose

by Carla Miner

The Affiliate Club Program lies at the very heart of AW's existence. AW's original purpose since 1957 has been to distribute information among its Affiliate Clubs. AW's relationships with local clubs have provided the backbone for the river conservation and access work it accomplishes. Over 100 clubs are now AW Club Affiliates and they are all doing great work on your behalf. If you don't belong to a club consider joining one.

This is the fifth year that Clif Bar has sponsored the Flowing Rivers grants. Clif Bar and American Whitewater are happy to announce the recipients of the 2007 "Flowing River" grants. The Flowing Rivers campaign, a joint initiative between Clif Bar and American Whitewater, puts money in the hands of people who are protecting the rivers that are running through their backyards.This year's funding will support initiatives from the Foothills Paddling Club (SC) and the Willamette Kayak and Canoe Club (OR). The Foothills Paddling Club will use their funding to enhance an access area and purchase water quality equipment while the Wilamette Club will use their funding to organize a safety education weekend. To read more about the two projects see http: //www.americanwhitewater.org/content/Article/view/articleid/29549/display/full/.

AFFILIATE CLUBS, we want to know what you are doing. Send your events to us at ben@amwhitewater.org and we will include them in the Journal.

The AW Journal Club Affiliates by state:

Alaska
Fairbanks Paddlers, Fairbanks

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

Arkansas
Arkansas Canoe Club, Little Rock

California
Chico Paddleheads, Chico
Gold Country Paddlers, Lotus
River Touring Section, Angleles Chapter
Sequoia Paddling Club, WindsorGold
Sierra Club Loma Prieta Ch., San Jose
Sierra Club SF Chapter, Livermore

Colorado
Avid4Adventure Inc., Boulder
Big Thompson Watershed Forum, Loveland
Front Range Paddle Asso, Lafayette
Grand Canyon Priv. Boat. Assn., Colorado Springs
Pikes Peak Whitewater Club, Colorado Springs
Pueblo Paddlers, Pueblo West
San Miguel Whitewater Asso, Telluride
University of Colorado Kayak Club, Boulder

Florida
North Florida Wihtewater Assoc., Ocala

Georgia
Atlanta Whitewater Club, Atlanta
Georgia Canoeing Association, Atlanta
Paddlers4Christ, Ellijay

Idaho
Idaho Whitewater Assoc., Boise

Illnois
Chicago Whitewater Assoc., Chicago

Indiana
Ohio Valley Whitewater Club, Evansville
Hoosier Canoe Club, Indianapolis

Iowa
Iowa Whitewater Coalition, Des Moines

Kansas
Kansas Whitewater Association, Mission

Kentucky
Bardstown Boaters, Frankfort
Bluegrass Wildwater Association, Lexington
Viking Canoe Club, Louisvillle

Maine
Outward Bound, Newry

Maryland
Blue Ridge Voyageurs, Silver Spring
Greater Baltimore Canoe Club, Kingsville
Mason Dixon Canoe Cruisers, Smithsburg

Massachusetts
Brian White, Boston
Zoar Outdoor, Charlemont
AMC - New Hampshire Paddlers, Honover

Minnesota
Boat Busters Anonymous, Stillwater
SCSU Outdoor Endeavors, Saint Cloud

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

Montana
Beartooth Paddlers Society, Billings

Nevada
Sierra Nevada Whitewater Club, Reno

New Hampshire
Mt. Washington Valley Paddlers, Franconia

New Mexico
Adobe Whitewater Club, Albuquerque

New York
ADK Schenectady, Schenectady
Colgate University, Hamilton
FLOW Paddlers Club, Rochester
Housatonic Canoe & Kayak Squad, Ossining
Town Tinker Tube Rentals, Phoenicia
Zoar Valley Paddling Club, Dunkirk
KCCNY, New York
St Lawrence University, Canton

N. Carolina
Carolina Canoe Club, Raleigh
Davidson Outdoors, Davidson
Triad River Runners, Winston, Salem
Watauga Paddlers, Boone
Dixie Division ACA, Tuxedo
UNCG Outdoor Adventures, Greensboro
Western Carolina Paddlers

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

Oregon
Face Level Industries LLC, Portland
Oregon Kayak and Canoe Club, Portland
Oregon Whitewater Association, Beaverton
Willamette Kayak and Canoe Club, Corvallis
Lower Columbia Canoe Club, Portland
North West Rafters Asso, Portland

Pennsylvania
AMC Delaware Valley Chapter, Sugarloaf
Benscreek Canoe Club, Johnstown

Canoe Club of Greater Harrisburg, Mechanicsburg
Conewago Canoe Club, York
Easton Whitewater Parks Commission, Bethlehem
Holtwood Hooligans, Lititz
Lehigh Valley Canoe Club, Lehigh Valley
Philadelphia Canoe Club, Philadelphia
Three Rivers Paddling Club, Pittsburgh
Lehigh Valley White water Club, Lehigh Valley

S. Carolina
Foothills Paddling Club, Greenville
Palmetto Paddlers, Columbia

Tennessee
Appalachain Paddling Enthusiasts, Gray
Eastman Hiking and Canoeing, Kingsport
E. Tennessee Whitewater Club, Oak Ridge
Memphis Whitewater, Memphis
Tennessee Scenic River Assoc., Nashville
Tennessee Valley Canoe Club, Chattanooga
University of Tennessee Knoxville, Knoxville

Texas
Houston Canoe Club, Houston

Utah
University of Utah, Salt Lake City
USU Kayak Club, Logan
Utah Whitewater Club, Salt Lake City

Vermont
Vermont Paddlers Club, Essex Junction

Virginia
Blue Ridge River Runners, Lynch Station
Canoe Cruisers Association, Arlington
Coastal Canoeists, Richmond
FORVA, Roanoke
Float Fishermen of Virginia, Richmond

Washington
Spokane Canoe & Kayak Club, Spokane
University Kayak Club, Seattle
Venturing Crew 360, Snohomish
The Mountaineers, Seattle
Washington Kayak Club, Seattle
Washington Recreational River Runners, Renton
Whitman College Whiteater Club, Walla Walla

Washington
West VA Wildwater Association, S. Charleston

Wisconsin
Hoofers Outing Club, Madison
NE Wisconsin Paddlers Inc. Appleton

Canada, British Columbia
Vancouver Kayak Club, Vancouver

Discounted AW Memberships for Affiliate Club Members

by Carla Miner
Membership Coordinator

AW offers discounted AW memberships to whitewater enthusiasts who are also members of one of our Affiliate Clubs.

We supply a unique code that will automatically offer the disounted membership specific to your club allowing individuals to receive the discount on the normal AW membership renewal form or online at www.americanwhitewater.org/membership.

Both options work equally well and help make life easier for members of your club.

Discount codes are in place for all AW Affiliate Clubs and many members are enjoying the benefits of joining or renewing their individual AW membership for only $25.

If you are interested in taking advantage of the Affiliate Club discount, please contact me and I will be happy to let you know your Club's unique code. I can be reached at: 866-BOAT-4AW or membership@amwhitewater.org.

Join American Whitewater as a Club Affiliate!

10 Reasons to Join AW as an Affiliate Club

1. Receive the *American Whitewater Journal*, the oldest continually published whitewater magazine.
2. Join the list of Affiliate Clubs noted in each bi-monthly *AW Journal*.
3. List club events in the *AW Journal*.
4. Your Club's members can become AW members for $25. A $10 savings!
5. Have technical expertise for your Club conservation and access committees 'on tap.'
6. Have access to technical and onsite assistance for your Club's event planning.
7. Enjoy VIP benefits for "Joint Members" at AW events.
8. Participate in exclusive AW Affiliate Club promotions.
9. Post Club information on the AW Website to help paddlers find you.
10. Eligible to apply for a spot in the AW 2006 River Stewardship Institute.

For more information,
contact Carla Miner at
membership@amwhitewater.org
or sign-up on-line at:
www.americanwhitewater.org/membership

Guidelines for Contributors

Please read this carefully before sending us your articles and photos! This is a volunteer publication, please cooperate and help us out. Do not send us your material without a release – signed by all authors and photographers (attached).

If possible, articles should be submitted on a 3-1/2-inch computer disk. (Microsoft Word if possible – others accepted.) Please do not alter the margins or spacing parameters; use the standard default settings. Send a printed copy of the article as well.

Those without access to a word processor may submit their articles typed. Please double space.

Photos may be submitted as slides, black or white prints, or color prints or electronic, digital photos, 300 dpi tiffs, Photoshop or high res jpegs minimum 3"x5." Keep your originals and send us duplicates if possible; we cannot guarantee the safe return of your pictures. If you want us to return your pictures, include a self-addressed stamped envelope with your submission. The better the photos the better the reproduction.

AMERICAN WHITEWATER
PO Box 1540 Cullowhee, NC 28723
www.americanwhitewater.org

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I hereby release my work (literary, graphic or photographic) for publication in American Whitewater magazine

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- I understand that I will not be paid for my work.
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Send your material to:
American Whitewater Journal PO Box 1540 Cullowhee, NC 28723 or via email to editor@amwhitewater.org

American Whitewater feature articles should relate to some aspect of whitewater boating. Please do not submit articles pertaining to sea kayaking or flat water.

If you are writing about a commonly paddled river, your story should be told from a unique perspective. Articles about difficult, infrequently paddled, or exotic rivers are given special consideration. But we are also interested in well written, unusual articles pertaining to Class II, III & IV rivers as well. Feature stories do not have to be about a specific river. Articles about paddling techniques, the river environment and river personalities are also accepted. Pieces that incorporate humor are especially welcome. Open boating and rafting stories are welcome.

Profanity should be used only when it is absolutely necessary to effectively tell a story; it is not our intent to offend our more sensitive members and readers.

Please check all facts carefully, particularly those regarding individuals, government agencies, and corporations involved in river access and environmental matters. You are legally responsible for the accuracy of such material. Make sure names are spelled correctly and river gradients and distances are correctly calculated.

Articles will be edited at the discretion of the editors to fit our format, length, and style. Expect to see changes in your article. If you don't want us to edit your article, please don't send it in! Because of our deadlines you will not be able to review the editorial changes made prior to publication.

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Send your material to:
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