



# STRONG RUNS

THE NEWSLETTER OF THE NATIVE FISH SOCIETY SUMMER 2006  
*FIGHTING FOR THE FUTURE OF NATIVE FISH*

## OFF TO COURT WE GO TO PROTECT OREGON COASTAL COHO—AGAIN

On June 26, the Native Fish Society and other groups went to federal court to protect Oregon coastal coho salmon. We are represented by Earth Justice in Seattle.

We are asking the court to require the National Marine Fisheries Service to make a decision to list coho using the best available science.

When NMFS decided to not list the coho under the Endangered Species Act in January, they did not use the best science. The decision was based on novel reasoning including ODFW's brand-new untested theory, "low abundance paradigm," which claims that because coho salmon did not go extinct in the 1990s when survival was low, they

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*When NMFS decided to not list the coho under the Endangered Species Act in January, they did not use the best science.*

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cannot go extinct. Even though NMFS scientists registered serious doubts about the Oregon theory due to its departure from a large body of scientific literature, the policy folks at NMFS ignored their own scientists. In addition, they ignored similar critical reviews from independent scientific groups. But we are assured by NMFS managers that listing decisions are always made on the best available science.

In coming to their decision, NMFS noted

the poor condition of coho habitat. NMFS has long been aware of the studies pointing out the reduced habitat capacity to grow salmon and the unlikely prospect of improvement in streams affected by logging, agriculture and urban development.

Scientists of the NMFS's Northwest Fisheries Science Center presented managers with their analysis of ocean conditions and the prospect that there is a shift to a less productive ocean. This expected trend would mean lower coho survival in the fall of 2005 and in years to come. The scientists said the negative biological conditions may be dramatic.

By ignoring the best available scientific information provided by NMFS's scientists and others, NMFS management was able to conclude the Oregon coastal coho were not warranted for listing under the ESA. In fact, the NMFS had to ignore the documented 120 year decline of coho salmon in order to reach its decision.

The Native Fish Society and other conservation and fishing groups are now forced to correct the error of NMFS's ways by once again by going to court to make them do their job under federal law.

**Bill Bakke**



## NFS EVENTS

### BUY GREAT FLY FISHING STUFF!

Jack Cook, NFS supporter, guide and owner of The Irish Angler fly shop, has generously offered to give 20 percent of sales from orders made by NFS members and friends to The Native Fish Society in the month of August. This is an extraordinary opportunity to outfit yourself for the upcoming steelhead season and help NFS, at the same time! Jack has some very unique and innovative items on his website—check it out. Treat yourself to a Partridge Spey line, rare tying supplies, Clan Spey rods from Scotland and much, much more. Whatever you purchase, 20 percent of the sales go straight to NFS and our efforts to restore the native salmon runs of the Pacific Northwest. Go to [www.irishangler.com](http://www.irishangler.com), and please enter the code NFS06 in the "message to us" box. Don't miss out on this unique opportunity!



## Why I Love Living in a World of Extremes: Fishing for and Studying Interior Columbia Basin Summer Steelhead

By Ian Tattam

Columbia Basin summer steelhead caught me long before I started catching many of them. The Deschutes River, a holdover point for adult steelhead destined for all parts of the Columbia Basin, was (and is) my favorite place to be in the summer, the fall and the



winter. Even before I started catching fish with any semblance of regularity, I was hooked on the magic of fishing for a large, ocean-going fish in the middle of the high-desert. I suppose normal people may consider the holidays and subsequently New Year's eve to be a sort of "high point" on the calendar and subsequently the beginning of another year. However, for me, the first week of August has always been both the high point and the beginning of the year, since this is when steelhead typically arrive in the Deschutes.

The diversity found in the weather of the interior Columbia Basin, the stream habitats, and the fish themselves, keeps me attached to the fish, and the region. The rivers of the east side, such as the Deschutes and John Day, are characterized by stark contrasts, both between and within seasons. The greens of the riparian zone, the browns of the upland areas, and the dark reds of the canyon basalts provide aesthetic diversity unparalleled by the more monochromatic westside rivers. And of course, the rivers look dramatically different when ringed by fall and winter snows.

The one semi-constant in this diverse landscape is the fish. The diversity and

adaptability of steelhead first became apparent to me from the fisherman's perspective. Observing the different groups of fish that appear and disappear in the lower Deschutes, suggested that the species was doing many different things at the same time. Different individuals of the same *population* are also simultaneously doing many different things.

During my observations of steelhead, the most surprising thing is the extreme adaptability of the fish. One of the best examples I have seen of this was by a group of fry in Jackknife Creek, a tributary to the lower John Day River. In early June, the lower end of this creek was mostly dry, except for one small pool which was being fed by spring seepage. Thirty or more fry were clustered in the pool of cool water. Upon additional inspection, I found a steelhead redd in an area of dry streambed upstream of the fry. The ability of steelhead to disperse and persist in extreme landscapes, suggests to me that *Oncorhynchus mykiss* may be the most likely of the interior Columbia Basin native salmonids to survive forthcoming environmental changes.

Observations and experiences such as this created my love of fishing for and studying the steelhead of eastern Oregon. This has in turn shaped my educational and career goals. I want to contribute to the perpetuation of *O. mykiss* populations in the changing world. Observations and experiences often form the basis of my thinking about the obstacles to maintenance and recovery of salmonid populations. It seems to me that the biggest upcoming obstacle is climate change. The adaptability that I have seen *O. mykiss* exhibit, coupled with their demonstrated ability to exist in extreme environments, suggest that they may be able to adjust to changing hydrologic and habitat conditions.

If climate change does develop into a "500-pound gorilla," what can I do about it? I aim to go back to the basics of research, in order to start understanding how larger scale processes could affect fish populations. The plasticity of steelhead life strategy is roughly matched by our lack of knowledge about the specifics of these strategies or their influence on ultimate population abundance. For

example, something as seemingly simple as estimating seasonal migrant populations becomes fraught with difficulties given the variability in individual movement patterns. Better understanding of movement patterns and life-history strategy can contribute to better population estimation, and hence improved predictive ability.

Before we can manage for a changing environment, we must understand the existing variation in life-histories. The plasticity of steelhead life history is already displayed in the extreme environments of eastern Oregon streams. I want to understand the diversity currently expressed in order to infer how populations may adapt to changing climate and hydrology. We need to characterize the costs and benefits of extant life history strategies in order to utilize them in a management framework. Understanding life history strategies is one of my goals, as I believe this will be a prerequisite to capitalizing on the plasticity of *O. mykiss* for conservation management.

Effectively communicating what I am able to learn about these fish is another of my goals. When I worked for the Oregon Department of Fish and Wildlife in John Day, I became somewhat jaded to the concept of public outreach. Most interactions usually consisted of being on the receiving end of a complaint. I expected that public interactions would be a smaller, less important part of being a graduate student than a state agency employee.

My perception of the importance of this facet of fisheries management to the overall goal of species maintenance and recovery has changed dramatically now that I have become partially responsible for being the “face” of Oregon State University steelhead research in the South Fork of the John Day. Interactions with landowners and others can be as extremely varied as the environment of the eastside. I have come to accept interaction as an important part of the responsibility that comes with conducting research on public

resources such as steelhead. My job description may be research-oriented, but I believe that in order to guide populations of both people and fish through a changing future, I have an obligation to make all possible attempts at education and outreach. I now view communicating in a non-technical setting, as a key aspect



of species conservation. Although I did not expect to take on this role during graduate school, I now try to approach public outreach with the aim of sharing with others some of the excitement and amazement that my experiences with steelhead have created.

As I progress through graduate school, I am largely working on small scale, descriptive studies of fish life-history. Ultimately, I think these will be important, and I would like them to form a base of knowledge from which to predict potential responses of *O. mykiss* populations to environmental change. However, I now realize that knowledge alone will not be enough without active cooperation from all parties. In order to contribute to the perpetuation of steelhead populations, I am trying to opportunistically use both research and outreach avenues. Thus, my aim for the remainder of graduate school is two-fold. The first is to devote more attention to communicating research findings with the aim of developing good relationships and cooperation. Secondly, I want to keep track of a broad view of management and recovery and avoid getting lost among the details of research and monitoring. This will allow me to effectively communicate the small steps that are necessary, in both research and management, to maintain *O. mykiss* populations. Ultimately, I hope that my work will help keep steelhead swimming past rattlesnakes throughout eastern Oregon.

## NFS EVENTS

### NATIVE FISH SOCIETY BENEFIT A BIG SUCCESS

The first Native Fish Society Benefit Dinner was a big success, with a great turnout and a great time had by all. A huge thanks to Greg Higgins and his crew from Higgins Restaurant, and Lange Winery for their very generous support of the Native Fish Society. Don and Wendy Lange donated their excellent wines and Winery location in Dundee for

an exceptional wine-makers dinner benefit on July 1, with Greg Higgins and crew cooking an exquisite meal for 30. Thanks to all who attended for a great event!



## FIRST ANNUAL NFS FISH-A-THON

Imagine a fishing tournament where you choose how much it costs, where to fish and what to fish for, all for the benefit of native fish! Welcome to Fishathon 2006. Between September 1 and October 1, with friends or on your own, you compete within a 48-hour window to catch and release either the greatest number or the greatest diversity of native fish species, all on flies. Celebrate the native fish of the Northwest with friendly competition to support the conservation work of the Native Fish Society.

Before you fish, ask your friends, family, co-workers, or neighbors for pledges to the Native Fish Society, either on a fixed or per-species basis or by the total number of fish caught and released. It works somewhat like a walk-a-thon, but it's even better because you get to spend time on your favorite lake or stream. You can tell your spouse that you're out fundraising for NFS while in fact you'll be fishing! Prizes will be awarded to those raising the most money, those with the most sponsors, the best photograph, the most diverse catch, or the greatest number landed.

You can tailor the tournament to match your fishing passion. If you measure success in numbers, head for the coast in search of the ubiquitous coastal cutthroat or stake out a stretch of shoreline on the Deschutes to sample the healthy redband population. Alternatively,

you may want to honor native fish diversity and set your sights on the lofty goal of five, six, or even more different species caught and released during a 48-hour window. Perhaps the North Santiam might offer a coastal cutthroat and a northern pikeminnow, and the Metolius might yield a bull trout, a redband, and a mountain whitefish. Then it's off to Mann Lake or Whitehorse Creek in search of a Lahontan Cutthroat. If you're completely nuts (and still standing), head back to the Deschutes for steelhead to top it all off!

The beauty of the pledge system is that you can encourage donations that match your dream trip: \$1 per fish landed, \$10 per species landed, or simply a flat donation so that you can take a long nap on the riverbank! The Fishathon Banquet will be held in mid-October to celebrate the contributions of the tournament participants, hear a few fish stories, and award the prizes. How could anyone refuse this opportunity to help native fish?

To register for Fishathon 2006 or if you have any questions, please contact Anne Tattam at (503) 977-3133 or Tom Derry (503) 829-6207. Upon registration, a packet will be provided that includes tournament guidelines, pledge sheets, a catch record card, and a list of native Northwest fish species.

**Jon Bowers**

## "EACH ONE GET ONE" MEMBERSHIP DRIVE

Get ready to help the Native Fish Society attain a very ambitious goal: to reach and surpass 1000 members by 2007. With membership now standing in the 500s, that is indeed an ambitious goal.

To accomplish the task, NFS will launch its first-ever major membership drive in August called "Each One Get One." The idea is to encourage each current member of NFS to recruit one new member during the 45-day membership campaign.

The campaign will run from August 15 through September 30. Each current NFS member will receive a letter in early August outlining the campaign and how it will work. Included will be recruitment materials, including enrollment cards plus a list of premiums that will be awarded to new recruits who join at specified financial levels.

This is the first time that NFS has made an appeal to its members to recruit another member to the organization. The hope is that this will lead to a dramatic increase in membership

as well as providing added financial support.

"A viable and growing membership is critical to accomplishing our mission," said Bill Bakke, NFS executive director. "More members means greater leverage for us and the positions we take with the agencies and organizations that make decisions that impact the fish. If every member gets one new member, it would make a huge difference for native fish."

NFS Board member and volunteer Paul Franklin will coordinate the "Each One Get One" Membership Drive. "This is a relatively painless way for all of us to contribute to the growth and strength of NFS and our work to save native fish species," Franklin said. "We hope all members will participate and, of course, we hope some members will go further and recruit more than one new member."

Full details will be sent to all NFS members in early August. In the interim, think about that prospective member you know that you will recruit!

**Paul Franklin**

## **MOLALLA RIVER REPORT, SPRING 2006**

**Mark Schmidt and Tom Derry**

*"It is my belief that the Molalla River has declined almost wholly in direct proportion to the amount of influence exerted on the River by man. The decline is natural, it has happened to thousands of other streams in the same way."*

**Robert C. Holloway**

**Dept. of Scientific Investigations in Fisheries**

**August 3-4, 1939**

These observations occurred 67 years ago, in an era prior to the beginning of the commercial timber harvest—Molalla's North Fork canyon was standing full of ancient timber. A road had been carved into the confluence of the Table Rock and Copper Creek Forks, where a small farm, The Molalla Bee Ranch, was perched on a 30-acre bench at the river's edge. The remainder of the drainage was covered in virgin timber. Not yet a road, or a chainsaw, merely the footprints of men like you and I, yet in 1939 our local fisheries biologist saw the Molalla River fisheries in decline.

It may be safe to deduce that the initial decline of our fisheries was due largely to conditions present in the lower drainage. Commercial fish harvest, agriculture, industry, and population growth throughout the valley were having a profound effect upon Upper Willamette Salmon and Steelhead populations. The great timber harvest began in 1945. Upper drainage habitat and fish populations continued to suffer decline for an additional 30 years. Then, in the late seventies, the forests fell silent. The chainsaws and yarders left the high country. The hillsides were replanted, and the drainage entered an era of recovery.

As the watershed began to heal, the opportunity for wild fish recovery was delayed by our attempts to mitigate the negative impacts of the past. Hatchery programs resulted in a disruption of the natural repopulation of the rivers. In 1992, the hatchery program was ended on the Molalla River.

Winter steelhead and spring chinook have returned to the Molalla River for 40 million years. DNA studies indicate the late run Molalla River wild winter steelhead to be the least homogenized winter steelhead population in the upper Willamette basin. Given the opportunity, these fish will repopulate their

native habitat. The Molalla River is a perfect candidate with which to create the template for anadromous fish recovery in the West. It has no barriers, never a dam. It still flows free from snowfields to salt water. It has miles of remote, inaccessible sanctuary water. It has a population currently in recovery.

In an effort to document the recovery of wild winter steelhead, Native Fish Stewards Tom Derry and Mark Schmidt have begun a volunteer program in co-operation with the ODFW regional biologist, Todd Alsbury. Using historic redd surveys as a basis, 12 one-mile reaches were selected for observation. Redd counts will be conducted each spring, from March through May.

This year we observed spawning areas, which are easily accessible during early spring water flow levels. In May, we began redd counts in the 12 remote reaches. We found that river flow levels fluctuated significantly, making it difficult to conduct redd



surveys during parts of May. The higher flows also resulted in mild siltation obscuring evidence of redds. Our work this year provided us with an opportunity to become familiar with the historic survey reaches. Furthermore, the experience has caused us to consider a dual approach to our spawning surveys: we will use casual observation of known spawning areas during early spawn-

*continued on page 6*

ing, then formalized redd counts in the weeks immediately following the spawning season.

In addition to conducting steelhead spawning surveys, our fishing logs contain observations of all fish populations encountered. This spring we noted an increased presence of "spring trout." These fish are believed to be residents of the Willamette River, which migrate to the upper drainage to spawn. As we examine our fishing logs of past years, we find that we have noted the release of one or two trout between 12 and 14 inches in the months of March, April and May. This spring there were evenings when we released as many as seven cutthroats and rainbows, measuring 12 to 15 inches in length. Evidently native trout are in recovery, too.

Despite encouraging signs of recovery, the Molalla River is currently facing a repeat of the waste and injury of the past. The City of Molalla has elected to utilize the Molalla River as the receiver stream for the effluent from the Molalla Sewage Treatment Plant. The Molalla City Council and the City Administrators have submitted a cheap fix. There are no plans to fix a leaky sewer collection system, which could reduce sewage volume to one-third of current loads. No improvements to treatment technology are being considered. Instead of updating the sewage treatment facilities for cleaner, safer and cost effective treatment, the City plans to dump poorly treated sewage into the Molalla River, a recreational treasure, and habitat for spring chinook and winter steelhead populations.

*"Discharging treated effluent will affect UWR spring-run chinook and UWR steelhead juvenile and adults present during the late fall and winter months. The chemical and temperature constituents at expected low levels and concentrations would not be lethal, but are likely to affect behavior and physiology, particularly for juvenile salmonoids more sensitive to chronic effects of chemicals."*

**Biological Opinion, NMFS,  
Molalla wastewater outfall, May 23, 2005**

Tom Derry, and Mark Schmidt, in conjunction with a dedicated group of local activists, have been involved in every level of the planning process, encouraging the City to protect the river, and to operate in an open manner with citizen input. Unfortunately, the City has ignored and rejected citizen input and continued to pollute our waterways.

As noted in the lawsuit filed against the

City of Molalla by Friends of the Molalla River, Native Fish Society, Willamette Riverkeeper, Molalla Irrigation District, and Max and Mitzi Wheeler, the City has hundreds of clean water violations. These violations of effluent limits to Bear Creek date from 1999 to the present. Irrigation reused water effluent violations were noted as early as September 2001 and are still occurring. There have been additional violations of monitoring and reporting standards. Despite this pattern of ongoing violations, the City of Molalla has not been fined by the DEQ.

*"The problems are real. More than 13,000 miles of Oregon's rivers violate state water quality pollution standards intended to protect fish, wildlife, and humans. If Oregonians are serious about wanting to restore our rivers and streams, then we need to insist that Oregon's Dept. of Environmental Quality and our elected leaders make clean water a priority. While restoring our rivers is a long-term effort, it would be a major step in the right direction if the DEQ started to think of the people who swim in, fish and drink from Oregon rivers as their customers and begin to treat them accordingly."*

**Brent Foster  
Executive Director, Columbia River Keeper  
The Oregonian, Spring, 2006**

Members of Native Fish Society and Friends Of the Molalla River launched an initiative campaign in April, and have been successful in placing a measure on the September 19th Special Elections Ballot. This measure would amend the Molalla City Charter. The section says, "... a person in the City would be prohibited from discharging any treated or untreated sewage into the Molalla River." This measure will allow the citizens to vote, and perhaps stop the potential effluent discharge. To date, the City of Molalla has spent \$94,000 in public funds fighting public input and this ballot measure.

*"To succeed you have to believe in something with such a passion that it becomes a reality."*

**Anita Roddick**

If you would like to become involved in the preservation and enhancement of the Molalla River with the Native Fish Society, please contact Tom Derry, NFS Native Fish Steward for the Molalla River, (503) 829-6207.

*"...I still want to believe we can make it work, that fine rivers that flow to the sea, will be seen right by enough people to make saving them possible."*

**Michael Baughman, A River Seen Right**

## **THERMAL REFUGIA NEEDED TO PROTECT COLUMBIA RIVER SALMON AND STEELHEAD**

**S**tudies of fall chinook and summer steelhead migration patterns and the value of thermal refuges have been published in the *Transactions of the American Fisheries Society* in 2006. The authors of these studies recommend that harvest management should be changed to protect fish using these thermal refugia and that the streams that bring cool water to the Columbia must be protected so that these critical refugia are not lost.

Beginning in 1999, NFS asked ODFW to provide more protection from harvest for fish attracted to these thermal refugia, but the department staff is comfortable, and no changes have been made. These two studies, however, point out the value of these refugia for salmon and steelhead migrating upstream to spawn throughout the Columbia River basin.

"Behavioral Thermoregulation and Slowed Migration by Adult Fall Chinook Salmon in Response to High Columbia River Water Temperatures." *Trans. Amer. Fish. Soc.* 2006:

"This historical data showed significant shifts in fall chinook salmon run timing distributions concomitant with Columbia River warming and consistent with increasing use of thermal refugia. Coolwater tributaries appear to represent critical habitat areas in warm years and we recommend that both main-stem thermal characteristics and areas of refuge be considered when establishing regulations to protect summer and fall migrants.

"Over the last several decades, the main stem has steadily warmed earlier in the spring and cooled later in the fall. Warming due to impoundment and water diversion has been exacerbated by regional climate change...Optimum temperatures for migrating adult chinook salmon are thought to be between 10.5 and 19.5 degrees C. The incipient lethal limit for jack fall chinook salmon is 21-22 degrees C and the critical thermal maximum for the species is 25 degrees C.

"Columbia River water temperatures were greater than 20C and as high as 23 C through most of August in all years then steadily cooled through September and October. Mean daily tributary temperatures were approximately 2 degrees to 7 degrees C cooler than the main-stem Columbia River during both August and September."

The study notes that important thermal refugia identified are: Eagle Creek, Herman Creek, Wind, Little White Salmon, White Salmon, Deschutes, and Klickitat rivers. These refugia are found in Bonneville and the Dalles

pools and in the states of Oregon and Washington. However, the authors of this study said that not all potential refuge areas were identified or sampled.

"The predicted rise in global temperature from 2C to 5C over the next century, combined with warming due to impoundment and water diversion, suggests Columbia River temperatures will continue to rise. It is possible this trend may be tempered through managing the system to more closely mimic natural flow patterns. However, the ability of fall chinook salmon and other migratory stocks to adjust to increasing temperatures may determine their ability to persist in the Columbia River and elsewhere."

"Temporary Staging of Columbia River Summer Steelhead in Coolwater Areas and Its Effect on Migration Rates." *Trans. Amer. Fish. Soc.* 2006:

"In all years, the majority of migrating steelhead—from 57% to 66% of the radio tagged fish that migrated upstream of the Dalles Dam—temporarily staged in at least one downstream tributary.

"...wise management of Columbia River sport and commercial fisheries in and near coolwater tributaries may prove increasingly necessary to sustain and recover wild populations of summer steelhead in the Columbia River basin."

### **Conclusion**

Since 1999, NFS has requested that the Commission and ODFW staff evaluate the effect of fisheries in thermal refugia. In light of these two studies, we have again requested an evaluation of thermal refugia and that both Oregon and Washington do a better job protecting fish using them. It is our expectation that these thermal refugia would become established sanctuary areas for migrating adult salmonids and that the states establish a tributary watershed and water flow priority to secure these coolwater thermal refugia in the Columbia River. Growing concern about increasing temperatures in the Columbia River and the prediction of rising temperatures due to global warming, should make this a management priority.

**Bill Bakke**

*Editor's Note: To see the two articles in their entirety, go to [nativefishsociety.org](http://nativefishsociety.org), and click on conservation, wild populations, and habitat use; they're the fourth and fifth articles listed.*

**NATIVE FISH  
SOCIETY**

*Fighting for the  
Future of  
Native Fish*

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**UPCOMING NFS EVENTS—  
MARK YOUR CALENDAR**

**August 15 through September 30—Each One Get One—NFS  
Membership Drive**

NFS will launch its first ever membership campaign, with the goal of doubling membership. Each member is encouraged to recruit one new member during the campaign. See the article on page 4 of this newsletter issue for more details!

**September 1 through October 1—Four Weekends in September—  
The First Annual NFS Fish-A-Thon**

With pledges in hand, participants catch and release as many native fish species as possible within a consecutive 48 hour period. The culmination of the event is the Fish-A-Thon banquet. There will be prizes awarded for those raising the most money, those with the most sponsors, the best photographs, or the most diverse catch. See page four of this issue of the NFS newsletter for more information.

**Saturday September 16—Maupin RiverFest**

NFS will be represented at this all day event, which will have activities for kids and adults alike. Please see: [www.deschutesriveroasis.com/event](http://www.deschutesriveroasis.com/event) for more information!

**February 24, 2007—NFS Auction and Banquet**

It's never too early to clear your calendar for the annual NFS Auction and Banquet, set for **February 24th, 2007** at the **Ambridge Event Center!**

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