August 2011

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Gill Raker Gazette

The Newsletter of the Idaho Chapter of the American Fisheries Society

President's Message,

Don't Let Your Boat List to Starboard

Achieving balance in our personal and professional lives

By Jason Vogel, ICAFS President

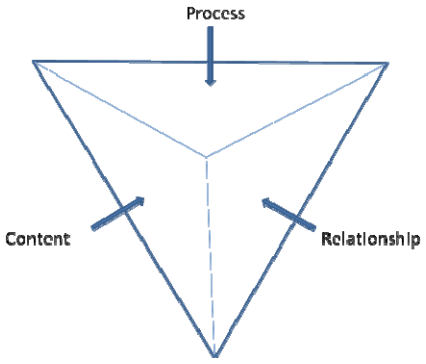
INSIDE THIS ISSUE:

Greetings ICAFS Membership,

People often ask me if I like my job? My answer most days is unequivocally, YES! I have chosen a career that provides me the opportunity to face challenging tasks, utilize my talents, and the cherry on top is that it is rewarding. In my career, I *make a difference.* What if the same question were posed to countless numbers of workers across this state or country? I am afraid many of their answers would differ from mine. The harsh reality about a chosen profession is that we spend more time working and sleeping than all our other activities combined. If work time is miserable and unfulfilling then that can easily manifest itself negatively in other parts of our lives. I am not implying that work should be a big party, my dad once told me that if your job is all fun and games then it is not a job it is a ***sport***!

Life is a journey, some of us are just getting started and some of us are well on our way. This journey involves trying to provide means for a good living (for ourselves, family and friends) and why not enjoy personal and professional fulfillment in our jobs and careers in the process. I would like to add some perspective on how to create a situation that allows each of us to make work time as productive and fulfilling as possible, and hopefully successes in our workplace will manifest into our personal lives.

Several years ago while attending a leadership class (Natural Resources Leadership Project, www.progressassociates.com) they presented the concept of *balance* in the work place, and ultimately in our lives. The three concepts that all of us are required to work with are "Content", "Process", and Relationship" (**CPR®**). These three concepts, once understood, will help keep us balanced and provide the highest degree of performance, productivity, and result in higher job satisfaction. Understanding that we do not have control over all parts of this in our lives also helps us to understand what and where improvement is needed.



Content is: the specific work that we do, our specialty area, or area of expertise; **Process** is: the tools, or methods used to maintain a healthy group relationship, while completing work effectively and efficiently; and **Relationship** is: the

exchange of healthy communications between people which enhances effective and efficient work flow. This idea of CPR® tells us that if we are not balanced in any of the three areas then the triangle begins to lean and thus we are not maximizing our ability to make progress. If extreme imbalance occurs then the triangle falls over and all productivity ceases.

Some key concepts of CPR® are:

Content: leadership competencies, technological skill, deliverables, targets, goals, products, services, doing;

Process: control tools, meeting management techniques, protocols, chain of command, flow of work, succession planning, templates, procedures, tools, decision making process,

Relationship: relationship dynamics, communications, trust, managing conflict, diversity, differences, styles, people skills, personality, psychology, human relationships, emotions, feeling.

The harsh reality about a chosen profession is that we spend more time working and sleeping than all our other activities combined.

The natural resources field requires us to get specific scientific training that gives us the specialized tools to do the science (content) part of our jobs however, we receive very little training on working with agencies, permitting requirements, protocols, budgeting, accounting, timesheets, evaluation forms, etc. (process), and even less training in effective communication, conflict management, working with difficult people, supervision, etc. (relationships). The process and relationship aspects become trial by error processes and unfortunately when we change jobs or agencies, we are thrown into a new set of CPR® rules. One can imagine that if we keep our nose to the grindstone and do the best science possible, but don't effectively communicate our findings through the correct channels (briefings, reports, publications) and/or can't get along with others, that the quality work that we accomplished would be lost or poorly utilized. Conversely, if we are the office party planner, Mr/s. popular, but fail to do the content or process parts of our job then no work actually gets completed.

All of us probably have experienced that after a completed activity we wonder: "What did we just accomplish?, Why were we even there?, Didn't we already hash this out last meeting?, this is counterproductive and a waste of valuable time. These sentiments are a result of deficiencies in CPR®. Understanding balance and having tools to keep CPR® in check will result in higher productivity and enhanced job satisfaction.

Each of you may think that you have very little control over our job, your supervisors, your work tasks, etc. Well my experience is that the concept of CPR® can work equally well for an entire organization or an individual's goals and objectives. If we are in balance, and are able to work towards effective communication, high degree of competency and production in our work, successful application and projection of our work, in other words balance (CPR®), then our ability be highly productive will not go unnoticed. An employee working in any level of job that is highly productive, by utilizing good relationship skills, is effective within their agencies process, and has quality work will certainly result in making a difference, and again will undoubtedly be noticed by their employer.

This process does not come naturally for many of us and so we need to be continuously evaluating CPR® in our jobs and in our lives. It is very easy to fall back into our old habits, which means that we are usually just working in the area of the CPR® triangle that we are good at (in our case, usually the content or science/data part of our jobs) and neglecting the others. So I attempt to make a daily evaluation of where I am with CPR® and attempt to utilize this tool to focus and maximize my efforts to ensure that I succeed in "Making a Difference". Understand that some days are more of a struggle than others but I try to have those days far outnumbered by the good days.

So if the question is posed to you, Do you like your job? How will you answer? If your answer does not satisfy you, then are you willing to do something about it? ——-*Jason Vogel*

ICAFS: ANADROMOUS COMMITTEE

By Mike Petersen

We had 38 attendees at the Anadromous Committee break out session during the 2011 annual meeting in Boise. We examined many topics (ranging from recovery planning updates to educational video's) and we hope to get a lot accomplished in 2011-2012. Over the past few years, we have discussed developing an educational placemat for use in restaurants. This year however, we decided that an educational poster will be the direction that we pursue.

Mission: To advance knowledge and appreciation of the state's anadromous fish resources and the aquatic habitats upon which they depend; and promote the use of sound science towards conservation and recovery of the fishery resource for its use and enjoyment by all.

We are investigating and developing a workshop for the 2012 meeting in Coeur d'Alene that will focus on Idaho's anadromous fishes and what happens to them when they leave our great state. We will invite speakers that work on climate change, hydrosystem, estuary and ocean productivity issues to learn more about what impacts and drive our adult returns. We are currently developing a list of speakers to come and present at the workshop. If you are interested in assisting with the development of this workshop please contact Mike Peterson at mike.peterson@idfg.idaho.gov.

ICAFS: AQUACULTURE COMMITTEE

By: Morgan Fife

We had 26 attendees at the Aquaculture Committee break out session during the 2011 annual meeting in Boise. Many ideas were exchanged and we hope to get a lot accomplished in 2011-2012.

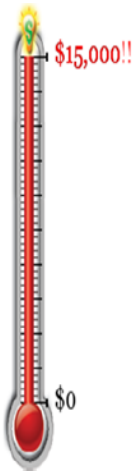
In response to the overwhelming interest in the disinfection portion of the ANS workshop (which was only touched on briefly in 2009), the committee held a biosecurity workshop at the 2011 ICAFS annual meeting. This workshop focused strictly on disinfection products and procedures. We had a handful of knowledgeable speakers to teach this important concept. We had another great turnout with 48 people in attendance and representation from Idaho Fish and Game, U.S. Fish and Wildlife Service, Shoshone Bannock Tribe, and the Nez Perce Tribe.

Mission: To promote the continuing development and enhancement of aquaculture and recognize its significance as an integral tool used in fisheries conservation and management.

The Idaho aquaculture community has been busy since the 2011 annual meeting educating young Idahoans about fish and fish culture. Several Idaho Fish and Game hatcheries have given presentations for the Trout in the Classroom project. IDFG Fisheries Research staff gave a presentation to fish culturists regarding "designing research studies at a fish hatchery." The staff at Grace Hatchery performed fish dissections and gave presentations on fish anatomy to students at Preston Jr. HS this spring. Joe Chapman mentored a senior at Jerome H.S. to complete his senior project. It encompassed work at the hatchery last summer; the student had a paper and presentation to give as well. Joe also received the "Best Professional Paper" Award from the ICAFS for his work with the Trout in the Classroom Program.

And lastly, it is not too early to start thinking about nominees for the "Excellence in Aquaculture" award which is given at the annual meeting. A formal call for nominations will be sent out as we get closer to the 2012 meeting.

ICAFS: FUNDRAISING COMMITTEE



By Pat Kennedy

Last March in Boise, the Idaho Chapter met the goal for funds raised at the annual banquet. We were able to do this largely through the donations and the support of our membership. Aside from continuing to support the banquet, another way our membership can help is by keeping your eyes open for products that might appeal to our membership and vendors that might contribute to the banquet in 2012. Also, when you figure out that perfect fly, tie up an extra dozen for the fish-O'flies. Or if you dial in a fishery that you think others would enjoy, we are always in need of donated trips. We appreciate all the help we get and will gladly accept any suggestions you might have. Feel free to e-mail suggestions or comments to icafs.fundraising@gmail.com .

Mission: To generate funds for the Idaho Chapter.

ICAFS: NATIVE FISH COMMITTEE

ICAFS: Native Fish Committee – 2011 Native Fish Workshop

Bear Lake Fishes

Mission: To promote the conservation of Idaho's native fish through education and outreach activities, public recognition of outstanding work towards native fish conservation; and to serve as an outlet for the discussion and dissemination of information pertinent to Idaho's native fish.

Please join us for the opportunity to see some of the most unique fishes in the State.

Bonneville cisco

Bonneville whitefish

This year we plan to visit beautiful Bear Lake in southeastern Idaho to view and learn how to identify:

Bonneville whitefish
Bonneville cisco
Bear Lake whitefish
Bear Lake sculpin
Bear Lake (Bonneville) cutthroat trout

Contact: Ernest Keeley (keelerne@isu.edu) for information and trip planning. **Dates to be determined**

Student Corner

AFS Palouse Unit: Student Profiles

Samuel Bourret: President

Origin: Bristol, Connecticut

Study: I am a Master of Science candidate in the department of Fish and Wildlife Resources working in the Kennedy and Caudill labs. My research focus is life history diversity of Chinook salmon in the Willamette Basin. I am using a multidimensional approach to resolve life history types and test the ability of otolith microstructure and microchemistry combined with scale morphological characteristics to accurately distinguish life history types of juvenile Chinook salmon.

Involvement: The American Fisheries Society is a great forum to enhance understanding of fisheries and aquatic ecology. One of the main reasons that I am involved with AFS is because I enjoy bringing fisheries students, professionals, managers, and researchers together to ensure a viable future for aquatic ecosystems.

Career goals: My career goals are to work as a research scientist on issues important to the conservation of native salmonids. Particularly in investigating factors that contribute to population resiliency and sustainability.

Knut Marius Myrvold : **Vice President**

Origin: Norway

Study: I am working on my Ph.D. in Water Resources at the University of Idaho. My study concerns the effects of water withdrawals on steelhead recruitment, growth, survival, and movement patterns in the Lapwai watershed of North Central Idaho. This watershed is thought to historically be one of the more important contributors to steelhead production in the lower parts of the Clearwater River. An altered flow regime along with other encroachments have likely changed the productivity in these streams, and with steelhead being listed as threatened under the ESA there is a need to identify and quantify the impacts on the population.

Involvement: I am involved with AFS to learn about current fisheries topics and stay up to date on aquatic ecology. I think it is important to support an organization that focuses on conserving fisheries resources and advancing science. A strong organization has a greater say in strengthening our profession, too.

Career goals: I would like to continue research for another decade or so, and then return to management. My goal is to help bridge the gaps between academia and regulatory entities that we too often can witness. Implementing evidence-based management strategies is imperative, and doing research that has applications in the real world is its basis.

Fish Trivia

1) About how many species of fish are there in our world?

2) What are the smallest and largest fish on our planet?

Refer to the last page for answers.

Student Corner

AFS Palouse Unit: Student Profiles

Amy Long: Graduate Student Advisor

Origin: Ft. Lauderdale, FL

Study: I'm working toward a Ph.D. in Fishery Resources. My work focuses on the use of various diagnostic assays to evaluate vertical transmission of Flavobacterium psychrophilum, the causative agent of Bacterial Coldwater Disease.

Involvement: I chose to get involved with AFS as a means of learning more about fisheries in the Pacific Northwest, staying current on research, and furthering my career.

Benjamin Cross: Graduate Representative

Origin: I am from central Minnesota where I grew up enjoying the many local fishing opportunities.

Study: Currently, I am pursuing a Ph.D. in Environmental and Natural Resource Sciences at Washington State University. My studies focus on a variety of aquatic and fisheries research projects including hydroacoustic sampling techniques, hypolimnetic oxygenation to improve coldwater fisheries and reduce internal nutrient recycling, rainbow and brook trout vertical distribution related to habitat variables, and ecosystem-based fish stocking models.

Involvement: I am involved with AFS because I believe in the organization's mission. Additionally, AFS provides great networking opportunities and allows me to stay up to date with the latest fisheries related science and news.

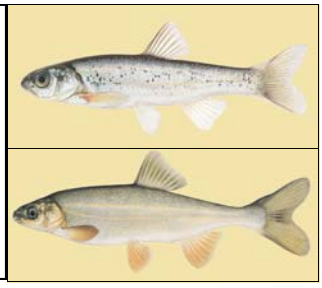
Career Goals: My career goal is to continue conducting fisheries and aquatic research related to management objectives.

Fish Trivia

3) How far does the farthest inland migrating salmon migrate?

4) How many species of Pacific salmon are there?

Refer to the last page for answers.



Student Corner

AFS Palouse Unit: Student Profiles

Josh McCormic: Treasurer

Origin: I am originally from Pennsylvania where I earned a B.S. degree in Wildlife and Fisheries Science from Penn State University.

Studies: I am currently a M.S. student at the University Idaho. My research focuses on answering questions related to anadromous fisheries management and applying appropriate sampling designs to provide relevant information for making informed management decisions.

Involvement: I am involved with AFS to help further the mission of the unit, stay up to date on current science, and network with other members of the organization.

Tasha Britton: Student Affairs Council Representative

Origin: I am from a town just outside of Spokane called Nine Mile Falls.

Study: I am a sophomore at the U of Idaho, and I worked for Dr. Christine Moffitt my first year of college. I am studying Fisheries Biology, with minors in Statistics and Geography. I would like to continue on and get my Masters, and possibly my PHD.

Involvement: I am involved with AFS because Dr. Moffitt introduced me to it when I first started working for her. One of her Masters students, Kelly Stockton, was the president of the PUAFS Chapter, and I ended up helping her with AFS stuff at work, and I grew to really appreciate what AFS can do for undergraduates. It has opened so many doors for me.

Career Goals: At this point in my life, I am not sure exactly where I want to go with fisheries. I am working on getting a job with Idaho Fish and Game next summer, and I would like to work at a hatchery and possibly work with an Indian tribe. I'll see where all that leads me, and in a few years I will hopefully know where I want to go in this field.

Volunteer Opportunities

This note is to bring light to an underutilized section of the Idaho Chapter AFS website that many of you may not be aware of . It is the volunteer section. From this site you can post jobs you may be needing volunteer help with, and those looking for gaining fishing experience can also sign up there as well. **http://www.idahoafs.org/volunteer/**

Volunteer Opportunities

Main | View Volunteers | View Jobs | Register | Forgot Password

Welcome to VO-OP, the volunteer job opportunity program for Idaho AFS. This program connects volunteers or young professionals looking to gain fisheries experience, to professionals who can provide those opportunities by allowing volunteers to work on their project. You can post your availability as a volunteer, post a project for which you need volunteers, or view lists of available volunteers or projects.

To view lists of volunteers or projects, use the links above. To post your own volunteer availability or jobs, you first must sign up. If you've already posted something, you must login before you can edit your entries.

If you have any questions, contact Kevin Meyer at kevin.meyer@idfg.idaho.gov.

Congratulations to Zachary Penney for winning the American Fisheries Society Student Writing Contest. See page 9 for the paper Zachery wrote. You'll see why he won this award.

Zachery is a PHD student at the University of Idaho studying iteroparity of Idaho steelhead

American Fisheries Society

Organized 1870 to Promote the Conservation, Development and Wise Utilization of the Fisheries

Zachary Penney
1700 S Lenter St., Apt 5
Moscow, ID 83843
penn4248@vandals.uidaho.edu

Dear Zachary,

Congratulations! Your paper, " Live to Spawn Another Day: Understanding The Fuel Efficiency Of Snake River Steelhead" was selected as the winning entry in the American Fisheries Society Student Writing Contest.

Your award will be announced during this year's Annual Meeting in Seattle, Washington. AFS President, Wayne Hubert, will present you with a plaque during the Business Meeting, to be held on Tuesday, September 6th, from 3:30 PM to 5:30 PM in the Washington State Convention Center, room 4F. AFS would also like to invite you to the Award Winners' Luncheon earlier that day from noon to 1:30 PM in room 307 in the Convention Center. Your name and photograph will also be displayed in a poster of award winners at the trade show. In addition, we will publish your entry in a future issue of *Fisheries* magazine.

We hope that you will be able to attend the meeting to receive your award in person. At your earliest convenience, please contact me to let me know if you will be able to attend these events. I can be reached by e-mail (ggoldberg@fisheries.org). Please also a digital photograph that AFS can use for publicity purposes.

Sincerely,

Gail Goldberg
Awards Coordinator

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Live to Spawn Another Day: Understanding The Fuel Efficiency Of Snake River Steelhead

By Zachary L. Penney

Imagine starting a car trip with a full tank of gas, but this is the only fuel you have for the entire trip. You must travel uphill carrying a load of children nearly one quarter the weight of your entire vehicle. Your mission is to deposit these children in their rightful place 500 miles away. Here's the catch — as if it was not difficult enough already — at the completion of your mission, your very existence will depend on your ability to return to your starting destination. Although it sounds strange, this scenario is not far off from the challenges faced by Idaho's Snake River steelhead trout (*Oncorhynchus mykiss*).

Unlike Pacific salmon, which are pre-programmed to die after spawning, steelhead have the ability to spawn repeatedly. This ability has captured the attention of fisheries managers who have recognized the conservation values of repeat-spawning, specifically for threatened and endangered steelhead populations. When a steelhead can spawn more than once the contribution of offspring may be more than doubled; additionally, when that steelhead is from a threatened population it also means that invaluable genetics can be perpetuated.

Repeat-spawning rates in steelhead are known to range as high as 90% in coastal streams to less than 1% in rivers extending far inland. Only 2% of Snake River steelhead return to Idaho to spawn a second time, which is presumably due to the distance traveled and total time spent in freshwater. Yet, why do some steelhead miraculously survive spawning, but the

These findings indicate that energy conservation during migration back to the Pacific is critical and that incidental delays, such as navigating dams, being caught by anglers, or harassment by graduate students, can mean life or death.

vast majority perish? The answer to this is likely a matter of energy conservation.

The first law of thermodynamics tells us that energy can neither be created nor destroyed, but it can be transformed from one state to another. Yet how that energy is transformed is another story altogether. Every summer, adult steelhead return to the Columbia River following a one to three year residency in the North Pacific Ocean. Those migrating to the Columbia's largest tributary, Idaho's Snake River, must travel over 500 miles past eight large hydroelectric dams to reach the streams of their birth. Remarkably, Snake River steelhead make this long journey on a finite energy source; their own bodies!

Steelhead stop feeding after returning to freshwater and exclusively rely on fats and protein stored in their tissues for energy. Steelhead remain in freshwater on this limited energy supply for 6 to 11 months before spawning in the spring of the following year. Following spawning, steelhead instinctually begin moving downstream toward the ocean. It is unknown how much energy remains when steelhead embark back to the Pacific. To better understand how energy affects repeat-spawning, I and two other graduate students at the University of Idaho have set out to determine the fuel efficiency of Snake River steelhead.

Determining the fuel efficiency of a steelhead is no easy task, especially for the steelhead. Fats and proteins stored in the muscle tissue provide an estimate of just how much fuel is left in the gas tank. Unfortunately, only through killing the fish and sampling the muscle tissue can we truly measure the total energy content. Our results show that from the starting line to spawning, Snake River steelhead use over 98% of their fat stores and 27% of their muscle protein. This leaves protein as the primary fuel source for their trip back to the ocean, which compared to fat is far less efficient. These findings indicate that energy conservation during migration back to the Pacific is critical and that incidental delays, such as navigating dams, being caught by anglers, or harassment by graduate students, can mean life or death. We hope to provide managers with a better understanding of the energetic capacity of Snake River steelhead so that in the future the information may be used to modify man-made obstacles and increase the ability of these remarkable fish to return to the ocean and live to spawn another day.

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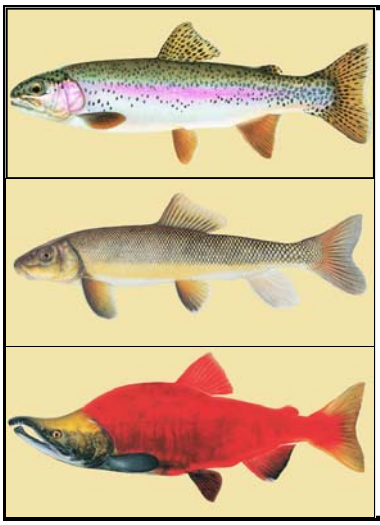
Don't Forget, National AFS is Almost Here

American Fisheries Society 141st Annual Meeting
Seattle, Washington, September 4-8, 2011
http://afs2011.org/

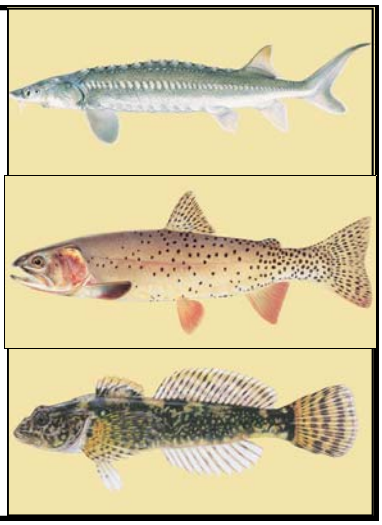
Theme: New Frontiers in Fisheries Management and Ecology: Leading the way in a Changing World

National meetings don't get much closer than this!.
Don't pass up this is opportunity to attend a national meeting.



Check out the Idaho Chapter AFS website. A lot of good work has gone into making this a top notch site.

http://www.idahoafs.org



Answers to the Fish Trivia

1) There are over 20,000 species of fish on our planet.
2) The largest fish is the whale sharks which can exceed 50 ft in length while the smallest is the Philippine goby which rarely exceeds a half inch.
3) Bristle mouth are the most common fish. They are the size of a small minnow typically inhabiting depths > 500 m and occur in oceans all over the world.
4) Some chum salmon in the Yukon River migrate about 2,000 miles inland.
5) There are six species of salmon which are Chinook Coho, chum, pink, sockeye and don't forget the cherry salmon that spawn in Japan and eastern Asia.

For anybody who got all these right, Jason Vogel will buy you a drink.