

Upcoming Events

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May 2011

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President's Byte

Good morning. I've been putting off writing this article for far too long, and now I'm getting ready to take off for a fishing trip. I've decided I can't leave to go fishing until after I've completed this task. Well, I'm done - shortest President's Byte on record. See ya later!

O.K., enough with the joking around. I am getting ready to head to the beautiful north country, however. My daughter and I will be leaving in the morning for a long weekend at a friend's cabin in northern Minnesota. I can't wait. Alexa says we HAVE TO catch some crappies. I imagine they will be happy to oblige. I can almost taste the fillets already!

As some of you know, FITS and ESAB are working together to complete a comprehensive review of the AFS web site and the Electronic Services that AFS provides. Progress that has been made so far includes conducting a survey (stratified-random design) regarding the web site and electronic

services, which was distributed to a subset of the membership. After the conclusion of the survey, ESAB held a conference call to discuss the appropriate next steps. Andy Loftus and I are working with the ESAB to develop a request for proposals (RFP) to be sent out yet in June, and the RFP will request a detailed web site and electronic services review, membership survey, and a suite of timelines and budgets to move from where we are now to a new electronic presence for AFS. This will be an exciting project to get rolling. If you have interest in assisting, web developer or other IT contacts, or if you would like to report issues you have with the web site or electronic services, please send them to me at Jeff.Kopaska@dnr.iowa.gov.

I'm looking forward to the AFS Annual Meeting in Seattle. FITS and ESAB will be holding back-to-back meetings on Monday afternoon, September 5. FITS is also co-sponsoring a symposium called "Advances in data management

Fisheries Information and Technology Section Meeting at the 2011 Annual Meeting

September 5, 2011
12 NOON
Seattle, WA

Please note that the time for the time reported in the June Fisheries Magazine is incorrect. The FITS meeting is scheduled to be held at noon Monday, September 5, with the ESAB meeting immediately following.

Also, be sure to check out the technology related continuing education courses at the Annual Meeting:

<http://afs2011.org/continuing-education/>

Topics include GIS, R, SIM-STREAM 8.0, side-scanning SONAR, hydroacoustics, acoustic telemetry, and more.

President's Byte

Continued

and dissemination: The view from the edge of a new frontier." I originally submitted a separate symposium topic, but with an overwhelming number of entries, the program committee combined three separate proposals into this symposium. I plan to re-submit my concept for next year's AFS in Minneapolis, and I hope to solicit presentations regarding new advances in data collection and dissemination, looking more specifically at how to best get survey data to the angling public. Let me know if you are interested in participating!

The next items to report are various snippets from the AFS mid-year governing board meeting in Bethesda. While traveling to DC is not one of my favorite destinations, I think it is wonderful that AFS regularly schedules these meeting near headquarters. It is a pleasure to get to meet the staff and see where they work. Prior to the governing board meeting, I was asked if I would speak in favor of a motion regarding providing a distance education opportunity for at least one of the continuing education courses being offered at the Seattle meeting, which I did. I was also asked to speak for a motion from the education committee about student membership in the student sub-section. I feel the main problem is a communication issue resulting from the AFS membership database, so I also spoke in favor of this motion. I also spoke in favor of a resolution brought forward by the North Central Division re-

garding the ecological separation of the Great Lakes from the Mississippi River Drainage. All of these motions passed, but I would certainly not attribute that to my eloquence. The last item of note that I will share from the Governing Board meeting is that the board approved a proposal to offer Executive Director Gus Rassam a two-year contract from September 2011 through September 2013. Gus has indicated that he intends to retire at that time, and the Governing Board has been working on a succession plan for the last few years.

To end this "byte", which is my last President's Byte, I want to say thank you for the opportunity to have served you as FITS President. It was an extremely rewarding position, and I thoroughly enjoyed holding this position. While we have many challenges ahead, I think we are well positioned to address them. Thank you, and see you in Seattle!

— Jeff Kopaska



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5th Int'l Symposium on GIS/Spatial Analyses in Fishery & Aquatic Sciences

GIS and other spatial analysis tools are becoming increasingly important in quantitative fishery analysis, especially as the technologies become available to a wider audience. The International Fishery GIS Group, a group composed of fisheries and aquatic scientists from around the world, focuses specifically on the application of these tools to problems in marine, freshwater, and aquaculture environments.

The 5th International Symposium for GIS/Spatial Analyses in Fishery and Aquatic Sciences will be held in Wellington, New Zealand, August 22—26, 2011. Early registration and abstract submissions are due May 30, 2011. More information can be found at the group's website:

<http://www.esl.co.jp/Sympo/5th/Final%20announcement.pdf>



Request for help on a joint project between AFS-FITS and AFS-Fish Culture Section

Members of the Fish Culture Section have made contact with the FITS section to request a collaborative effort to create an App for Androids/iPhones. The concept is to provide users with the ability quickly and easily complete some common aquaculture calculations on mobile computing devices. Some of the things to include might be a system volume calculator, a pond area/volume calculator, and ammonia and gas saturation calculations. More details are available to anyone who has the interest or expertise to do this type of programming. Contact: Jeff Kopaska (President, FITS – Jeff.Kopaska@dnr.iowa.gov), Jessie Trushenski (President, FCS – saluski@siu.edu) or Alan Johnson (Alan.Johnson@dnr.iowa.gov) for more information.



Memory Jogger! (From Jeff Kopaska)

I received the following email earlier this year. Can anyone help with this request from Mike Brown at South Dakota State University? Please contact Mike directly at:

Michael.Brown@sdstate.edu

"One of my former students jogged my memory in regards to some software we submitted back in about 2004. The program is Creel Analysis Software (CAS) and was developed as a Federal Aid project. Several state agencies use this program and to my knowledge are satisfied with the capabilities. Anyway, we were simply curious about what happened with the review that was supposed to occur."

FishExchange.org?

Take a moment to check out <http://ornithologyexchange.org/>. FITS President-elect Jodi Whittier found this site, and wonders if it might be useful to create, or push AFS to create, something similar in the fisheries realm. Here is a description of what the site intends to accomplish:

ORNITHOLOGYEXCHANGE.ORG: THE PLACE TO BE! – This new website serves as a central exchange of information for ornithologists and a resource hub for the ornithological community. The site hosts discussion forums on a wide range of topics including permits, research methods and ethics, teaching, Q&A on writing papers, presenting talks, preparing posters, research funding, and all aspects of the science of ornithology. In addition, Ornithology Exchange features articles highlighting trends in ornithology, current research programs, and much more. Stay up to date with all the current news and announcements from your ornithological societies, get involved by participating in journal club or poetry slams, and find a ride-share to an upcoming meeting.

The site also features user-generated blogs, photo galleries, calendars, and much more. The site will be open to all members of any of the ornithological societies listed here: American Ornithologists' Union, Association of

Field Ornithologists, CIPAMEX, Cooper Ornithological Society, Neotropical Ornithological Society, North American Crane Working Group, Pacific Seabird Group, Raptor Research Foundation, Society of Canadian Ornithologists, Society for the Conservation and Study of Caribbean Birds, Waterbird Society, Wilson Ornithological Society. Registering for Ornithology Exchange as a member of one of these societies has its perks, such as access to forums, articles, and other content. Even without registration or membership in a society, you will always have access to basic content such as society news and announcements and job listings. Best of all, members will be able to create content and initiate discussions. OrnithologyExchange.org will also link to the websites of the sponsoring ornithological societies and other ornithological organizations. Upon request, we can provide access and forums to other ornithological groups.

To register, visit the site at (URL: <http://OrnithologyExchange.org>). Note: OrnithologyExchange.org will not replace society websites, but will consolidate the information your societies send out and will replace ornith-L and OCNET. For further information about OrnithologyExchange.org, please contact Chris Merkord (chris@merkord.com) or Ellen Paul (ellen.paul@verizon.net).

GIS Applications in Aquatic Ecology and Evolutionary Biology

An NSF supported three day aquatic GIS training workshop will be offered at Saint Louis University on June 22—24, 2011 and August 17—19, 2011. A general goal of this workshop is to train and establish an interactive group of researchers and educators applying GIS techniques in aquatic systems. Applicants with all levels of GIS experience are welcome; however, the workshop will be presented for aquatic biologists with little to no background in GIS techniques.

The tentative schedule of topics includes:

1. basic acquisition and manipulation of GIS data,
2. GIS data sources for aquatic research,
3. quantification of species' habitat use at multiple spatial scales,
4. species distribution modeling, and
5. development and application of hydrologic data to studies of aquatic systems.

More details on the specific schedule will be provided in the near future. The majority of the training will be conducted using ArcGIS 10.0; however, other software options will be

presented. Computer space will be provided for each attendee.

The workshop is open to Faculty, Research Scientists, Postdoctoral Researchers, and Graduate Students conducting research in aquatic systems. There is no cost for the workshop; however, participants will be responsible for meals, travel, and lodging. Details and updates will be available at http://pages.slu.edu/faculty/jknouft/index_files/Page304.htm.

To apply, please email a statement of application including a description of your research interests (maximum 1 page) and a CV to Dr. Jason Knouft at aquaticgis@slu.edu. Review of applications will begin on April 30, 2011. GIS experience is not a prerequisite for the workshop. A total of 20 spots are available for each workshop. Please indicate the dates you would like to attend (June 22—24 or August 17—19). If you are available for both dates (one or the other), please indicate this in your application.

Students!!!

- Does your research use technology in a unique or novel way?
 - Want to go to the national meeting?
 - Want to see what FITS is all about?

Enter the AFS FITS Best Student Poster Contest!

Send your title and abstract to Jeff.Kopaska@dnr.iowa.gov

Entry is that easy!

Standard Gear Coding System Elusive

Submitted by Andrew Loftus

In January, a message was posted to the FITS list serve asking about the availability of a “generally accepted list of gear codes used in fisheries databases.” This is a summary of the responses received as well as further investigation conducted, but is by no means an exhaustive review of the subject.

While a number of gear coding systems exist, most have been developed for specific projects or by certain states. No “universal” system came to light as a result of the inquiry. Perhaps this is not too surprising since agencies tend to develop components of their information management systems that meet their specific primary needs. Most progress for developing systems that reach across agency boundaries seems to have been made in coastal regions where cooperative interstate data management programs have been developed.

The Pacific States Marine Fisheries Commission (PSMFC) has several standard gear coding systems, including those for PacFin, Streamnet, and the Regional Mark Information System (RMIS) for coded wire tagging.

The PacFin code categorizes all gear into standard gear groups (e.g., trawl, net, dredge, etc.). These groups are based on a 2-level hierarchical system (http://pacfin.psmfc.org/pacfin_pub/data_rpts_pub/code_lists/gr_tree.txt).

With the first level specifying broad categories (e.g., “net gear”) and the second level more specific (e.g. “gill net”). Beyond this, specific gear codes are those used by each partner agency (http://pacfin.psmfc.org/pacfin_pub/codes.php). Thus, the same gear may be represented by multiple codes. While it may be

tempting to suggest that all agencies adopt a consistent code, like many things it is more complicated than it looks. For one, the same gear may be fished differently in different jurisdictions, and information could be lost by attempting to force a “least common denominator” approach to gear coding. According to Stan Allen, Senior Program Manager at the PSMFC, incorporating existing coding schema used by agencies “allowed all data into the system” rather than excluding some simply because it didn’t meet rigidly defined boundaries of standardized coding.

The RMIS, used to track returns for coded wire tagging in the Pacific Northwest, begins to address specific fisheries by maintaining both gear coding and fishery coding standards. As with the PacFin, RMIS gear codes are organized by broad group (troll, gill net, seine, etc.) and agency specific numeric gear code (with a single gear again potentially represented by multiple codes). A separate coding mechanism allows the identification of the source fishery from where the return came (e.g., “Ocean Trawl Bycatch”). For a comprehensive review of the RMIS coding standards, consult the Specifications and Definitions for the Exchange of Coded Wire Tag Data for the North American Pacific Coast at: (http://www.rmpec.org/files/PSC_V41_Specification.pdf); gear codes can be found on page 60.

On the Atlantic Coast, the Atlantic Coastal Cooperative Statistics Program (ACCSP) has also adopted standard gear coding for the 23 state and federal coastal resource management agencies participating in that program. This system is also somewhat hierarchical, with a

Standard Gear Coding System Elusive

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“type” (e.g., trawls=4), “category” (e.g., otter trawls=90), and “gear name” (e.g., otter trawls, bottom, crab=091). As with other systems, the content of the ACCSP system was originally based upon the gear utilized in fisheries (and fisheries sampling) within their members’ jurisdictions. The liberal inclusion of gears used in different fisheries also provides some flexibility in discerning how the gears are fished (e.g., “Otter Trawls Bottom, Crab” and “Otter Trawls Bottom, Fish”).

Another wide scale marine information system gear coding convention is found within the NOAA Fisheries Observer program. For example, the Northeast Fisheries Observer Program Manual outlines a numeric-based coding system for commercial fishing gear in that region, but with no apparent hierarchy: (http://www.st.nmfs.noaa.gov/st4/nop/trainingmanuals/NE-FOPM_010110_BOOKMARKS_LONG1.pdf).

Inland fisheries management agencies seem to have adopted conventions specific to their agency, using abbreviated coding (e.g., SN), full standardized gear names (e.g., seine) or numeric representation of gears. For the most part, any similarities between agencies seem to be coincidental (caution: since this review is only based on relatively few responses, there may be coordinated attempts not brought to our attention).

So, is there a need for adoption of a gear coding convention that can be adopted by all fisheries managers and scientists, as we have adopted the Linnaean system for taxonomy? Seemingly, states and fisheries management

organizations are coping with the use of unique disparate systems for gear coding. Entities such as the PSMFC that share data between agencies have created systems that accommodate the diversity of existing systems across their program partners. Still, as the capability expands for sharing vast quantities of fisheries information across jurisdictions (regional, national, and global), the need to develop standard gear coding conventions may become more obvious. The integrated Taxonomic Information System (www.itis.gov) was created with the “goal to create an easily accessible database with reliable information on species names and their hierarchical classification” that will ultimately facilitate data exchange capabilities on a global basis. A common gear coding convention may be similarly useful in the long run.

Thanks to Stan Allen, Julie Defilippi, Kim McKown, Sean Maxwell, Gary Whelan, Anne Kretschmann, and others for their contributions.

NEW FRONTIERS IN FISHERIES MANAGEMENT AND ECOLOGY:

LEADING THE WAY IN A CHANGING
WORLD

**141ST ANNUAL MEETING,
SEATTLE, WASHINGTON
SEPTEMBER 4–8, 2011**



Using Hydroacoustics for Fisheries Assessment

February 9—10, 2012
9 AM—5 PM
Seattle, WA

The hydroacoustic short course covers mobile and fixed-location survey techniques, and subjects include basic hydroacoustic theory, deployment logistics, data collection and processing, as well as typical results. Split-beam, single-beam, and multi-beam frequency techniques are discussed in detail.

Lunch is provided. For more information or to save a seat, email support@HTIsonar.com

Website: http://www.htisonar.com/ha_short_course.htm

Press Release from HTI

National Geographic Channel's Jakub Vagner Tracks Texas Titans Using High-Tech Acoustic Tag Telemetry

Adventure angler, conservationist, and National Geographic Channel host Jakub Vagner and his team set out in the wilds of the Trinity River to track an elusive Texas Titan, the alligator gar. In an effort to better understand and advance vital species research, the team put the latest high-tech fisheries research equipment to work to detect and monitor the gar's behavior and movement in the wild.

The beautiful, prehistoric gar are one of the biggest freshwater fish in the United States. Its muscular body looks like a long torpedo-shaped fish and its head has an elongated snout similar to that of an alligator. With a dual row of large, sharp, pointed teeth, it can quickly immobilize prey making it a highly effective predator weighing up to 300 lbs. As one of the world's last remaining dinosaurs, their anatomy hasn't changed much since prehistoric times. Their ancestors used to roam many parts of the world, but today they can only be found in North America, e.g. Texas.

The Trinity River offers a perfect habitat for the gar to hide and hunt with its deep murky waters that wind over 700 miles from northern Texas into the Gulf of Mexico. The Trinity has also become a popular place for sports fishermen. Local wildlife officials are concerned about the fish's ability to survive and grow. They are now protected by state law, limiting catches to one gar per day. However, it is still uncertain if this limit will protect the largest fish.



Sam Johnston (right) and Jakub Vagner (left) work up an alligator gar.

Using Acoustic Tags to Track Fish

February 2—3, 2012
9 AM—5 PM
Seattle, WA

This short course addresses all aspects of tracking fish movement with acoustic tags, including three-dimensional tracking with sub-meter resolution. The course includes hands-on-operation and a variety of applications are covered. Lunch is provided.

For more information or to save a seat, email support@HTIsonar.com.

Website: http://www.htisonar.com/at_short_course.htm

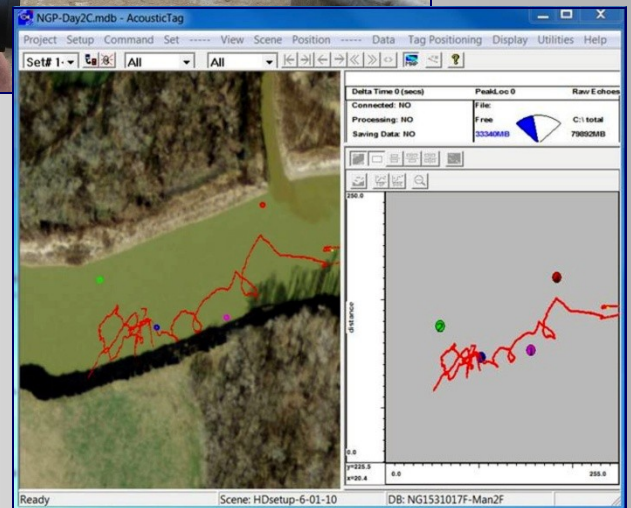
Press Release from HTI

Continued



To help understand more about the secret lives of the gar, Jakub and his team investigated their behavior using the latest in high-tech acoustic tag telemetry. After Jakub hooked and lassoed the large fish into the boat “Texas-style,” Senior Fisheries Scientist Sam Johnston from HTI used a long tube to place a small, *Model 795G Acoustic Tag* into the gar’s stomach. “This is the first time we’ve ever done alligator gar in the wild...the fish can be anywhere in this area and we’ll be able to track it...we’re hoping that this sort of technology will help us understand the gar better so that they can survive,” Sam explained.

In a matter of minutes, the gar



was put back into the river and tracked with the use of acoustic telemetry. The team then watched its behavior in real-time as the gar made its way around the cloudy freshwater river. Employing software developed by HTI, they were able to watch the gar travel along a geo-referenced map on their laptop screen.

“I think that tagging research is really important especially for future

Press Release from HTI

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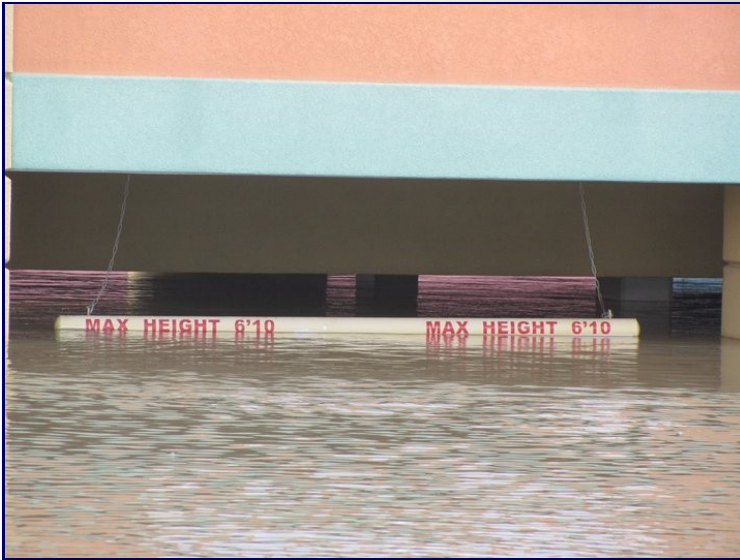
generation of alligator gar and as well for fishermen, because we can learn a lot of things from biologists about fishing,” explained Jakub. To watch the episode of alligator gar being tracked in the Trinity, check your local listings for National Geographic Channel’s Fish Warrior: Texas Titans. To find out more about the latest acoustic tag technology used in this episode, visit HTIsonar.com.

For more information, contact Caroline Mercado at: (206) 633-3383 or cmercado@HTIsonar.com.

Hydroacoustic Technology, Inc.
715 NE Northlake Way
Seattle, Washington, 98125



Flooding in the Lower Miss¹



Message from the Editors

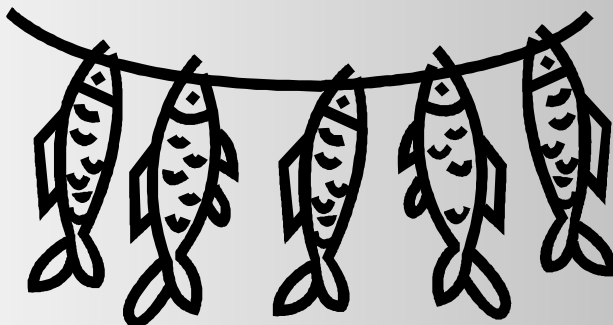
Please allow us to introduce ourselves:

Travis Neebling

Travis is a fisheries biologist with the Wyoming Game and Fish Department. He conducts research and annual monitoring, primarily on large reservoirs, throughout the state. He has been an active member of AFS since 2004.

Rebecca Krogman

Rebecca is a Master's student working with Dr. Steve Miranda at Mississippi State University. Her project focuses on developing a classification system for large U.S. reservoirs based on fish habitat impairment. She has been a member of AFS since 2007, and became involved in FITS in 2010. She is also serving AFS through participation in the Continuing Education initiative to create a database of AFS-approved courses.



Call for Articles

If you did not get a chance to submit something to this newsletter, please send us your submission for the next publication. We are preparing the next newsletter for October 2011, an earlier date than previous newsletters. We have changed the publication time to provide you with more timely and useful information, such as course announcements, meeting minutes, award opportunities, and much more.

Newsletters will be published each May/June in preparation for summer events and meetings, and each October/November immediately after the national meeting of the Parent Society.

Submit your articles for the next newsletter by sending us an email at afsfits@gmail.com.

Thank you! Your participation in the Section is greatly appreciated by your fellow members (and editors)!