

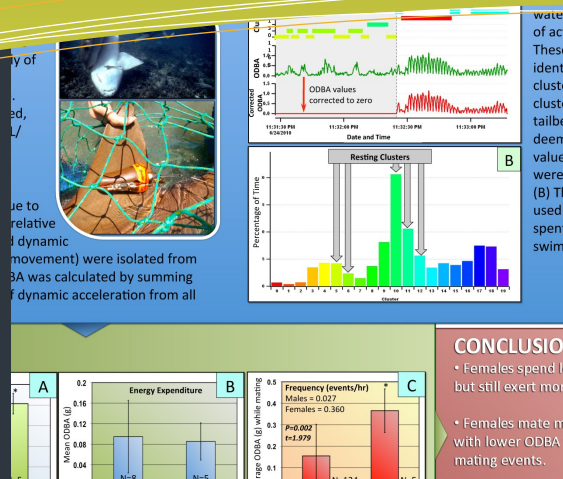
Upcoming Events

Meetings

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President's Byte

Submitted by Jodi Whittier

First, I want to congratulate our Secretary-Treasurer/Software Librarian/Keeper of Institutional Knowledge, Andy Loftus! At the 2012 AFS meeting, Andy Loftus, received the AFS Society's Distinguished Service Award which is a recognition for his outstanding contributions to AFS, and we really appreciate all he has done and continues to do for FITS. As stated in his letter of nomination, "Andrew J. Loftus exemplifies excellence in professionalism and unquestionable dedication to the mission of the American Fisheries Society."

Secondly, I would like to encourage everyone to become actively involved in AFS. This is a great way to meet other biologists with similar interests, learn how AFS operates, and is a very rewarding

experience. Getting involved in AFS is not difficult. Ask Julie Marie Defilippi! At our annual meeting, Julie suggested that we utilize social media resources to reach out to our membership and others.....and she agreed to take on that role herself. Julie is in the process of setting up a facebook site for us. You can learn more about Julie on page 2.

A big welcome and thank you to Julie Marie Defilippi who volunteered to be our new Media/ Outreach Coordinator!

Please consider becoming engaged in FITS and note that we are holding elections for Secretary-Treasurer and President-elect this year!



Call for Nominations

For 2013-2015 FITS Officers

Have you ever thought about becoming involved with FITS and shaping the future of both the Section and the Society? Here's your opportunity! Later this year FITS will be holding elections for President-elect and Secretary-Treasurer.

The **President-elect** advances to President of FITS after 2 years (i.e., 2015). As President, you are not only the leader of a Section that now numbers over 600 fisheries professionals and students, but you serve on the AFS Governing Board, thereby helping to shape policy for the Society as a whole.

The **Secretary-Treasurer** is the primary record keeper for the Section. This position involves keeping the financial books and assembling official summaries of activities for the Section, filing appropriate tax forms and reports to the IRS, and managing federal grants and contracts with which the Section may be involved.

Both positions provide excellent opportunities to network within AFS and to give something back to your profession.

If you are interested in running, please contact Jeff Kopaska (Jeff.Kopaska@dnr.iowa.gov; [515] 432-2823). If you wish to get a personal perspective on any of these positions, feel free to contact any of the current or past FITS officers (for current officers, see page 3; for past officers, see www.fishdata.org).

Meet Julie, our new Media/Outreach Coordinator!

Ms. Julie Defilippi began her work with Atlantic Coastal Cooperative Statistics Program at the Maryland Department of Natural Resources as a fisheries biological data coordinator.



In November 2007, she became the Data Coordinator for the Program's central office. She is responsible for managing data feeds from various partners and aiding partners and the public in gaining access to the data. She does extensive data management work within the database for QA/QC and other purposes.

Ms. Defilippi did her graduate work at the University of Maine and her undergraduate work at Boston University. She has worked at the New England Aquarium as a research assistant on the Green Sea Turtle Hearing Project and as an Environmental Educator. Ms. Defilippi has been an active member of the FITS section since 2009.

FITS Officers 2011-2013

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Using Hydroacoustics for Fisheries Assessment

February 14-15, 2013
9 AM-5 PM
University of Washington, 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 info or to save a seat, email support@HTIsonar.com.

For more information, visit the website: http://www.htisonar.com/ha_short_course.htm.

BETA FITS Website Launched!!

Submitted by Thom Litts, President-Elect

We are excited to announce that the Fisheries Information and Technology Section (FITS) web site redesign is nearly complete. The site is being presented as a beta release to FITS members for a review, comment and suggestion period before it is announced to the Society as a whole. The redesigned site is built upon the Drupal 7 content management system (CMS) and is being hosted with DrupalGardens, a company that offers Drupal as a web service. The service provides us with enhanced capabilities including news, blogs, forums, polling, web forms (surveys), image galleries, mailing lists, commenting, RSS feeds and more... all in one package. More importantly, the adoption of a CMS-based web site enables us to easily create and maintain content in a clean and organized way (NO CODING REQUIRED!).

As such, the goals of this transition are to provide a current and accurate platform with content focused on our mission and to share knowledge and expertise in the field of fisheries information and technology. At present, the

beta site is largely a “dressed-up” port of the existing <http://www.fishdata.org> site, with a little new content, menu-driven navigation, and a new logo. Over time, however, we should look forward to the site becoming a “go to” resource for our members, the Society, and the general public.

That said, please take a few minutes to wade around the site. Note: some of the features enabled on the beta site (e.g. forum, blog, poll, gallery) may not be immediately implemented on the production site. Let us know what you like and what you don't. While you're there, please also take a moment and consider: What's missing? What will bring you back? What will make you recommend the site to others? During this review period, the site can be accessed at <http://fits.drupalgardens.com>. After the review period, the site will reside in its usual redd at <http://www.fishdata.org>.

Please use the site's new [Contact](#) form to provide feedback and ideas; or email us directly at fits-web@gmail.com. Then we'll recruit you to help implement the suggestion(s). Just kidding, but not really.

143rd Annual Meeting of the American Fisheries Society

September 8-12, 2013
Little Rock, AR

The theme is
“Preparing for the
Challenges Ahead.”

[Submit an abstract](#) for contributed oral, poster and speed presentations between February 1, 2013, and March 15, 2013.


Website: <http://afs2013.com/>

Summary of FITS Symposium at AFS Annual Meeting in Minneapolis

Submitted by Jeff Kopaska, Iowa Department of Natural Resources

On Wednesday, August 22, 2012, AFS-FITS sponsored the “Fisheries Data Dissemination – Building Better Networks” symposium at the AFS Annual Meeting in Minneapolis, MN. The purpose of the symposium was to gather professionals who handle fisheries data, convert those data into consumable information, and provide that information to anglers and other constituents. Speakers and attendees all were in agreement that the symposium was a resounding success.

Dr. Rob Neumann, of InFisherman Magazine, started the proceedings with a presentation that identified pieces of information that anglers are most interested in having agencies provide. The highlights I took away from Dr. Neumann’s talk were that anglers want information available to them via smartphone and the content they want includes fish population summaries, baitfish assemblages, stocking data, regulations, trophy fish/awards, water quality and quantity, fish consumption advisories, access points, fishing license

services, and lake maps. I, for one, had never thought about providing data about baitfish populations or assemblages, and I know that is not data we normally collect in Iowa. However, the old angling adage is to “match the hatch”, and to do that in lakes and rivers means to provide baitfish data  !

Dr. Neumann concluded his talk with two more very salient points. He referenced an article from the April 2012 issue of Net Magazine (<http://www.netmagazine.com/opinions/responsive-design-or-native-app>) which illustrated the pros and cons of app development and mobile web pages for content delivery. I have provided the link to the article for you to delve into. His final point was perhaps the most important – Deliver Good Goods – Timely, High Quality, Accurate, Easily Accessible, Clear, Not Overly Simple, and Stick to your Strengths. Those are direct quotes from Dr. Neumann’s presentation, because I could not improve upon them. Thanks Rob!

FITS Symposium

Continued...

Next up, Tom Lang (formerly of the Kansas Department of Wildlife, Parks and Tourism [DWPT]) gave a presentation about converting fisheries data into angler consumable communication. Anglers, like the general public, want more information, they want it faster, and they want it electronically. Kansas DWPT's response has been to create and distribute YouTube videos, promotional materials such as truck wraps and billboards/highway bridge banners, a fishing atlas, and annual fishing forecasts, as well as hosting local fishing information nights (with the presentations also available on the Internet). Kansas also has biologist newsletters, stocking reports, and weekly fishing reports available on their web site and social media outlets. Their recent forays into social media have also increased return communication from customers.

I, Jeff Kopaska, was next with an overview of Iowa's online fisheries data system. Iowa has created web-based data entry pages for lake and stream fish surveys, which are the portal to an SQL Server-based data system. Data are available to the public as soon as staff record them in the system, and data reporting capabilities are integrated into separate web pages. The stream data reporting system, which is still in testing, includes site-by-site species lists and IBI calculations, as well as a statewide species distribution maps. The lake data reporting system (<http://limnoweb.eeob.iastate.edu/fishpub/>; <http://limnoweb.eeob.iastate.edu/minireport/>) includes lake water quality data, survey sampling data, and dynamically-generated length-frequency histograms. I concluded this talk by stressing the importance of standardized sampling so that data are comparable, because once data systems to deal with comparable

data are constructed, those systems are easily scalable to regional and national levels. These systems can also be easily shared with states that don't have them yet. 😊

Al Stevens from the Minnesota DNR was next. If you will allow me to editorialize for a moment, I want you to know that Al, Rick Lorenzen, Bruce Abbott and Steve Lime are my heroes! The groundbreaking work they do in fisheries data management and dissemination inspires me personally and professionally, and I really appreciate the time that they have spent over the years helping me along. We modeled the Iowa data system after Minnesota's system, and they have been invaluable in assisting me along my professional career. THANK YOU!

Al gave an overview of the Minnesota lake data system. Minnesota started aggregating their statewide data via local DbaseIV databases in 1993. Consolidating the data from the various field offices took three months and mostly provided static reports and summaries. Custom reports were tedious and time-consuming to generate. In 2006, the next step was a transition to tablet PC field data collections linked to an Oracle host system. The data management system integrates lake surveys, management plans, fish production (hatcheries), fish stocking records, fish health assessments, and stream surveys (under development). It currently holds records from over 27,000 lake surveys, with over six million measured fish! The dissemination of this data is accomplished through internal-use survey reports, "canned" PDF reports for the public that are stored on servers, the Minnesota LakeFinder system (<http://www.dnr.state.mn.us/lakefind/index.html>), the

FITS Symposium

Continued...

Minnesota GIS Data Deli (<http://deli.dnr.state.mn.us/>), and products for mobile devices. The LakeFinder system is great; if you have not visited that system, please do so! Al indicated that custom requests that used to take months to generate now take mere minutes. Al concluded with some more excellent advice. First, remember your partners – “As data sharing increases among agencies, maximizing efficiency in extracting data is critical to leverage resources among agencies.” Second, as you plan for future projects, design systems with integration in mind (relational databases), and with dissemination in mind (not just storage, but products).

Steve Lime followed up on Al Steven’s presentation with a talk about the next stage in data dissemination for Minnesota – Lake Finder Mobile. Minnesota has created a mobile-friendly web site for the lake data that they also serve on the Lake Finder system. Users can search for lakes by name, from a map, near their location, or from a list of bookmarked favorites. Once a lake is selected, users can access fish survey data, stocking records, species lists, fish consumption advisories, access point maps, bathymetric maps, and water level data. The mapping portion of the site interacts with the GPS in your mobile device to pull up the map for where you are located, but you can also pan and zoom to other areas. The lake survey report includes general lake characteristics, selectable options for the fish species data you are interested in, dynamically-generated length-frequency histograms for that fish species, a written summary of the status of the fishery following the last sampling event, and contact information for the management staff. The site looks and works great on my Android phone.

Dyanne Cortez from the Texas Parks and Wildlife Department continued on the topic of mobile web sites. Texas has followed the same path as Minnesota, using internal resources to create a mobile version of its web presence, rather than using apps to distribute information. The Texas site contains information including weekly fishing reports for selected lakes, waterbody-specific fishing regulations and record fish, a link for submitting a record fish, urban fishing locations and information, fishing license purchase information, and a “contact us” page. Dyanne did a great job explaining why Texas proceeded in this manner (cost effective, internally developed, no app store issues), and why they have included these specific items (mostly highly requested or accessed pages) on their mobile site. Furthermore, Dyanne’s presentation was a great example of expanding our options in regard to technology use. Because Dyanne was not able to travel to the AFS meeting, she pre-recorded her presentation in PowerPoint, and the moderator just pressed “Play” when it was time. The presentation was fine, and Dyanne was available via cell phone from the meeting room to answer questions. An attempt was made to have her available via Skype, but the technology didn’t let us go that far (yet).

The last talk prior to the morning break was me (Jeff Kopaska) again, talking about using content management systems (CMS) for agency web sites. Iowa recently transitioned from a static web site to a DotNetNuke-based CMS. This transition allowed Iowa to eliminate hundreds of static web pages that displayed information about lakes, trout streams, and individual fish species. Now, data stored in Iowa’s

FITS Symposium

Continued...

fisheries management system is accessed by the CMS, and web pages are dynamically created when users select a water body or fish species. Field staff update the pertinent information in the data system, such as general characteristics, amenities, weekly fishing reports, species lists, fishing forecast, and lake survey data. All updates are automatically integrated into the dynamically created web pages, so most updates occur without engaging the agency's webmaster.

Gary Whelan started the post-break session with a presentation about Michigan's use of technology to capture data about their customers. Michigan's goal was to use technology to reach more and better targeted customers, with the expected results of selling more licenses and learning more about their anglers. To accomplish this, Michigan started with Facebook and Google advertising campaigns targeted toward new and/or younger constituents, which resulted in an increase in online fishing license sales and knowledge about how targeted advertising works. They have also enhanced their marketing efforts by use of QR codes, social media, email lists, and their mobile-friendly fishing license sales page. This last web page allows the purchase of a 24-hour, all species license, via a mobile device which eliminates the need to visit a license vendor. Michigan has also participated in the development of an app for mobile devices that allows users to search for and access information about camping, state parks, state forests, and boat ramps. This free app has around 40,000 downloads, and an average rating of 4.3 out of 5 on the Google Play app store. Michigan's future plans include enhancing their mobile site to sell all fishing license types.

Andy Loftus (another of my heroes, by the way) of Loftus Consulting spoke next about an iPhone app on which he is collaborating. Utilizing visual recognition technology developed to recognize and identify tree species from photos of leaves, Andy and his colleagues from the International Game Fish Association and from Columbia University have embarked on visual recognition and data collection for recreational fisheries. Submitted photos of fish are electronically compared to standard photos stored on the server via computer algorithms, and the user is presented with a suite of options about what fish is in hand. Users can also enter a different fish species name, if the ones presented are incorrect, as well as entering data about the method of capture, release, and length of the fish. The database also captures the date, time, and location of where the photo was captured, which can later be linked to weather data, water temperature, tides, and solunar data. A fish clicker function allows a tally to be kept, and clicking the start trip and end trip buttons allows effort to be recorded. An online database allows users to view summarized data and annotated photos, and the system is linked to social media outlets. While still in development, a pilot version of this system is expected to roll out in mid-2013.

Scott Baker from North Carolina Sea Grant followed with a presentation about mobile device use in the US, and among recreational anglers. Scott cited some March 2012 publications that indicated 88% of US adults had a mobile phone and 46% had a smartphone; however I'm confident those numbers have increased in the last nine months. Almost 100% of anglers possessed a mobile device, over 80% had it on

Using Acoustic Tags to Track Fish

February 7-8, 2013
9 AM—5 PM
University of Washington, 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 info or to save a seat, email support@HTIsonar.com.

Special Tuition Offer for Students, Non-Profits and Tribal Organizations at [http://www.htisonar.com/Training/Special Offer.htm](http://www.htisonar.com/Training/Special%20Offer.htm).

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

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Continued...

their boat while they were fishing, and nearly all had mobile service at least at their launching spot. Because of this, Scott and colleagues developed a text message-based data collection system that aggregates data reported by anglers. During a trial held during a fishing tournament, angler fish measurement coincided very well with measurements collected by agency personnel, indicating that angler self-reporting is a viable option for data collection. While professionals may be hesitant of a wholesale transition to self-reported data, using data from the public may increase public trust in our data and processes. Utilizing mobile devices to collect data also indicates that disseminating data on mobile devices is something agencies should prepare for. Scott's analysis indicated more than 90% of federal and east coast state web sites are not mobile-friendly. Scott's presentation was a great reminder of where society is already, and where we as fisheries professionals need to be to interact with it well.

Julie DeFilippi presented next about the Atlantic Coastal Cooperative Statistics Program (ACCSP), which is a cooperative state-federal program responsible

for compiling catch data from Atlantic coastal recreational and commercial anglers. Data are aggregated into a single dataset via an online system for catch reporting and information dissemination, the Standard Atlantic Fisheries Information System (SAFIS). SAFIS uses common data standards for data collection and reporting, in order to provide comprehensive coastal catch-effort data. SAFIS contains modules handling dealer reporting, commercial fishermen reporting, recreational trips, and system management. The data set currently contains over 60 years of commercial landings data and recreational MRFSS/MRIP data back to 1981. Registered users have access to all data, which are used for stock assessments and fisheries management by various state and federal staff. In addition to standard data queries, dozens of custom requests are handled annually for program partners, regulators, anglers and researchers. Julie stressed that good decisions are more easily made when good data collection, management and analysis are used to generate the information on which decisions are based.

Congratulations, Matt DeAngelo!

Winner of the 2012 FITS Best Student Poster Award

Congratulations to Matt DeAngelo for receiving the 2012 award for FITS Best Student Poster!! Matt is an undergraduate at St. Louis University, MO, who participated in the Research Experience for Undergraduates at the Mote Marine Laboratory in Florida. Shark behavior ecologist Dr. Nick Whitney guided Matt's study of energy expenditure by sharks during mating. Matt's poster was assessed based on content, innovation, and clarity of message.

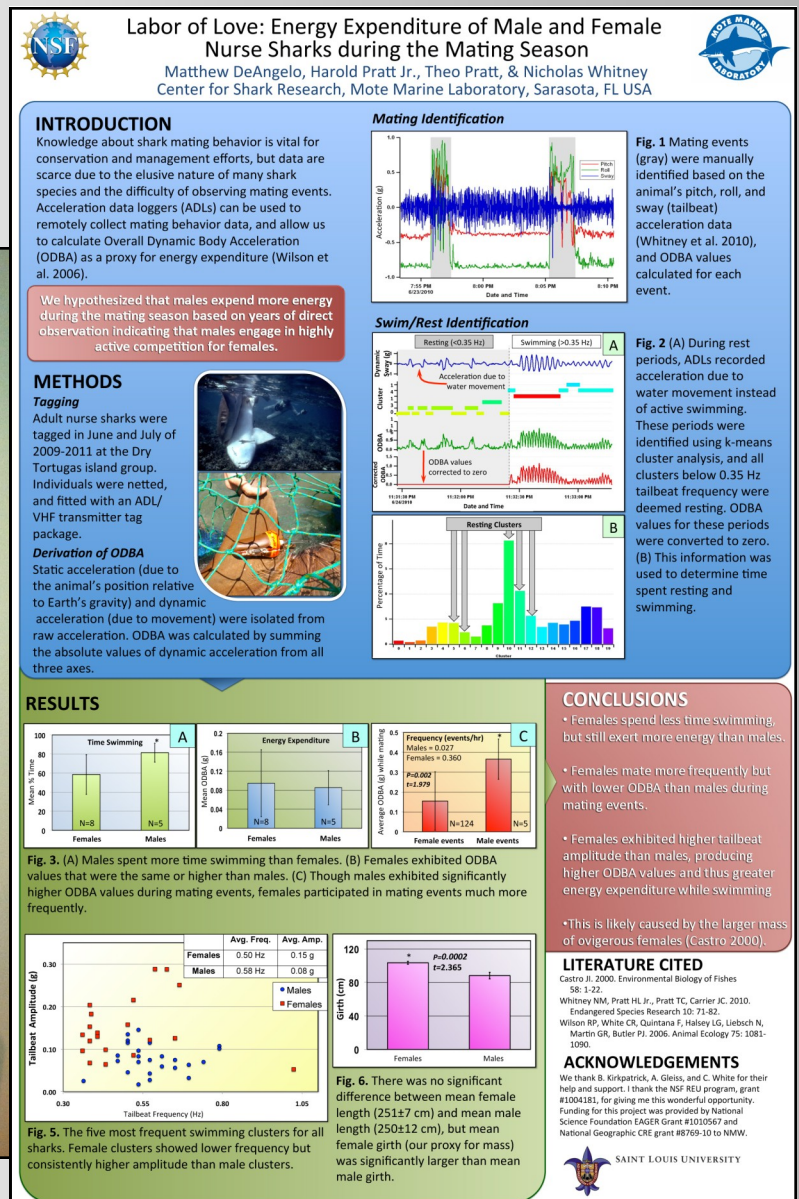
You can see a full version of Matt's poster here: https://dl.dropbox.com/s/2dumpb4qmb6ddpa/POSTER_FITS_2012_Small.pdf

The intent of this award is to encourage the



dissemination of knowledge gained from using cutting-edge technology in fisheries management and science. In addition to providing recognition from AFS fisheries professionals, the award is accompanied by a certificate and a cash prize.

When you submit your poster abstract for the 2013 AFS meeting in Little Rock, AR consider also submitting your abstract to Thom Litts (Thom.Litts@dnr.state.ga.us) for an opportunity to receive this award!



New Version of FAMS Released!

Submitted by Jeff Slipke, FAMS Developer

It is HERE!! The Fisheries Analysis and Modeling Simulator 1.64!!

Fisheries Analysis and Modeling Simulator (FAMS) has been modified to be compatible with 64-bit computers. The software will be available for purchase in January 2013 through the AFS bookstore website. The price will be \$186 for non-AFS members and \$130 for AFS members.

This software is designed to simulate the dynamics of exploited fish populations. It allows for the evaluation of minimum, slot, and inverted length limits and bag limits on exploited fisheries. Input parameters require age-structure data and use the Jones modification of the Beverton-Holt equilibrium yield equation to compute both a yield-per-recruit and a dynamic pool model.

For the dynamic pool model, the entire population is simulated over time. In addition, the software helps to analyze several predicted population parameters including the number of fish harvested and dying naturally, mean weight and length of harvested fish, number in the population above and below some lengths of interest, total number of fish and biomass in the population, stock density indices, number of age-1 fish, and the Spawning Potential Ratio (SPR). It also provides the following:

- Ability to compute back-calculated lengths-at-age from measurements of fish bony structures (otoliths, spines, etc.);
- Addition of an age-length key menu item to allow users to randomly assign ages to unaged fish based on a sub-sample of known-age fish;

- Enhanced slot limit option of the Yield-Per-Recruit model to allow users to select a length of interest. This will allow computation of the number of fish in the population reaching a particular length in addition to the number of fish reaching the lower and upper slot limits;
- Enhanced user interface;
- Enhanced compatibility with Microsoft Excel®; and
- Enhanced ability to edit and manipulate output graphics.

The FAMS-Add portion of the software package is a Microsoft Excel® Add-In that is also now compatible with 64-bit operating systems. FAMS-Add contains a number of handy data analysis tools: age-length key, frequency distributions, weight-length regression, catch-curve regression, back-calculation and more. These functions are accessed via a menu item placed on the Excel toolbar. Collectively, these functions are useful for summarizing fish sampling data, identifying outliers, and simple statistics.

This version of FAMS is compatible with Windows 7 (64-bit) operating systems. Each copy is licensed for only one machine.

**AFS Fisheries Information & Technology Section
Statement of Income and Expenses
As of December 31, 2012**

	1/1/2011- 12/31/2011	1/1/2012- 12/31/2012	Difference (rounded to the nearest dollar)	2012 Amount At- tributable to Federal Grants
BALANCE FORWARD	\$39,935	\$40,937		
<u>INCOME</u>				
Contract & Grant Income	\$58,280	\$50,336	(\$7,943)	\$50,336
Dues Payment	\$600	\$1,055	\$455	
Donations		\$400	\$400	
Interest Income	\$41	\$51	\$11	
Software Sales	\$2,675	\$4,693	\$2,019	
TOTAL INFLOWS	\$61,595	\$56,536	(\$5,059)	\$50,336
<u>EXPENSES</u>				
Award	\$300	\$300	\$0	
Conference/Meeting expense	\$1,319	\$336	\$983	
Contract & Grant Expense				
Other	\$2,190	\$3,010	(\$821)	\$3,010
Services	\$47,250	\$42,750	\$4,500	\$42,750
Total Contract & Grant Expense	\$49,440	\$45,760	\$3,679	
Postage	\$85	\$4	\$80	
Software Commission	\$1,946	\$3,407	(\$1,461)	
Subscriptions	\$168		\$168	
Supplies	\$30	\$35	(\$5)	
Travel	\$6,957	\$350	\$6,607	
Web services	\$350	\$351	(\$1)	
TOTAL EXPENSES	\$60,594	\$50,544	\$10,050	\$45,760
NET TOTAL	\$1,001	\$5,991	\$4,990	\$4,576
Ending Balance	\$40,937	\$46,928		
<u>M&T Bank Account Balance 12/31/12</u>				
Checking	\$12,299			
Savings	<u>\$34,629</u>			
Total	\$46,928			

Message from the Editors

Nick Sievert

Nick is a Master's student working with Dr. Craig Paukert at the University of Missouri-Columbia. His work experience and current project utilizes large datasets compiled from research organizations including government agencies, universities, and non-profit groups. His current research focuses on identifying vulnerable species and using this information to evaluate Missouri's conservation networks. He has been a member of AFS since 2011.

Rebecca Krogman

Rebecca is the Warmwater Specialist for the Lake and Reservoir Management & Research Program at California Department of Fish and Wildlife. She has been a member of AFS since 2007, and became involved in FITS in 2010.

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 summer 2013.

Newsletters will be published each spring/summer in preparation for summer events and meetings, and each fall/winter after the annual meeting of the Parent Society.

Submit your articles for the next newsletter by sending your article to afsfits@gmail.com. We welcome course announcements, meeting announcements, press releases, full articles (typically 1-3 pages), photos or digital images, and anything else that might catch our readers' interest.

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

Learn more about FITS!

Visit our website to find section updates, past newsletters, software, and other useful technological resources! Also, check out our past winners of the FITS Student Travel Award!

Website: <http://www.fishdata.org>

