

# AFS – Computer User’s Section, Volume XX, Number II



# AFSCUS

Winter 2007

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**CUS web address: <http://www.fishdata.org>  
Software library address: <http://www.fishdata.org/library.htm>**



## President's Byte Bill Fisher

As 2007 comes to a close, I am busily tying up loose ends, which is an annual ritual. This has been a productive year for the Computer User's Section, and I am grateful for past-president Fred Janssen's leadership of the Section the past two years. I also appreciate the many contributions of secretary-treasurer Andy Loftus and past-past president Stu Shipman, particularly with closing out the Fisheries Data Summit. As I was sitting in a hotel room filled with several past presidents and some current members after the Fisheries Data Summit, I realized how much they all contributed to and cared about the future of the Section. That was heartening.

The CUS is at a crossroads of sorts. Since 1985 the Section has been serving AFS members by distributing and offering timely reviews of fisheries software, hosting workshops and symposia on the latest computer technology, and more recently communicating this information through the Internet. Much has changed since the mid 1980s, with the explosion of the electronic information age (see my article in the summer 2007 newsletter titled "What's in a name?"). As a Section, we are challenged to keep pace with this change and remain relevant to existing AFS members and attractive to new ones. Part of the transformation will involve redefining the Section, including changing our name. I will begin a blog soon that will allow

all Section members to provide input on our new name. I proposed the "Fisheries Information Technology Section" in my newsletter article, but I want to hear your ideas.

Included in this newsletter is my 2007-2008 Plan of Work for the Section. The Plan is structured around the focus areas of the AFS Strategic Plan: aquatic stewardship, information transfer and outreach, and member services, and has been reviewed by Executive Committee and revised accordingly. Highlights of the Plan include continued support of and involvement in the National Fish Habitat Action Plan, finding a new Software Librarian and Newsletter Editor (see "Help Wanted" article), supporting the Electronic Services Advisory Board, and recruiting new members into the Section. I have identified several collaborators to help with this plan, but I invite all members to become involved. Please contact me if you would like to help with one or more of the work plan tasks.

I hope all of you are able to spend some time during your holiday break relaxing with family and getting energized for 2008. I look forward to working with you this coming year and checking off tasks on the Plan of Work. Happy holidays everyone!



## AFS-CUS WORK PLAN 2007-2008

Bill Fisher, CUS President

### Focus Area I: Aquatic Stewardship

*AFS and its members will be leaders in promoting the sustainability and sound stewardship of fisheries resources and aquatic ecosystems.*

1. Continue support of the National Fish Habitat Action Plan
  - a. Collaborators: Doug Beard, Stu Shipman
  - b. Tasks:
    - i. Maintain communication with the NFHAP Science and Data Committee
    - ii. Form 4 data sharing work groups identified in post-survey of National Fisheries Data Summit: Data Standards, Biology, Information Technology, Policy
    - iii. Link NFHAP Science and Data Committee with Data Sharing Work Groups
2. Support GIS Applications Workshop at 2008 World Fisheries Congress
  - a. Collaborators: Mick Porter, Joanna Whittier
  - b. Task: Communicate with Mick about workshop needs
3. Initiate new continuing education workshop
  - a. Collaborator: Elize Zipkin
  - b. Task: Help organize and support “Programming in R for Fisheries Professionals”
4. Continue collaborative relationship with USGS-NBII, OFWIM and other organizations
  - a. Collaborators: Jeff Waldon, Doug Beard
  - b. Task: Support OFWIM annual meeting through website announcement
  - c. Administer ongoing projects and initiating new partnerships where the opportunity and need arises

### Focus Area II: Information Transfer and Outreach

*AFS and its members will be recognized by decision makers and natural resource professionals as an important source of science-based information about fisheries and aquatic ecosystems and their conservation, management, and sustainable development.*

1. Replace Software Librarian
  - a. Collaborator: Andy Loftus
  - b. Tasks:
    - i. Identify CUS member willing to serve
    - ii. Rename position?
    - iii. Redefine duties of Librarian
    - iv. Investigate electronic purchase of software via the web
    - v. Promote software availability through various means, including announcements on AFS book website
2. Maintain and update CUS website
  - a. Collaborator: Kevin Kayle
  - b. Task: Redesign front page to make it more user friendly (consult with AFS webmaster about design ideas)



## CUS Business News

3. Continue biannual electronic newsletter
  - a. Collaborator: Angela Grier
  - b. Task:
    - i. Contribute President's message to and solicit other items for CUS Newsletter
    - ii. Replace newsletter editor
4. Scope out new IT resources useful for fisheries professionals
  - a. Collaborators: Gary Asher, CUS members
  - b. Tasks: Identify
    - i. Core source code for common applications
    - ii. Information resources for making decisions regarding handheld field data collection devices.

### **Focus Area III: Member Services**

*AFS will provide excellent, cost-efficient services, operations, and support for its members.*

1. Change section name
  - a. Collaborators: Executive Committee, Dirk Miller
  - b. Tasks:
    - i. Initiate blog to gather, discuss and vote on name ideas
    - ii. Change bylaws
2. Recruit new members
  - a. Collaborator: AFS Bethesda
  - b. Tasks:
    - i. Confirm free student and Data Summit members (request list from AFS)
    - ii. Communicate with student members
    - iii. Develop "bubbles" ringtone and place on website (Fred has software)
    - iv. Better engage student members by soliciting their help with CUS business
3. Promote student poster award
  - a. Collaborators: AFS Bethesda, 2008 Annual Meeting Program Committee
  - b. Tasks:
    - i. Clearly describe purpose of award and qualities of research/poster
    - ii. Solicit potential award recipients prior to meeting
    - iii. Promote award after presentation
4. Support Electronic Services Advisory Board
  - a. Collaborator: Joel Carlin
  - b. Task: Serve on Committee and support their work plan, as required
5. Develop budget plan
  - a. Collaborators: Executive Committee
  - b. Tasks: Review current obligations and plan new initiatives

Created: 21 September 2007; Revised: 17 December 2007



### HELP WANTED

The Computer User's Section is seeking interested and qualified members to fill two volunteer positions. The work is rewarding and necessary, the benefits are both tangible and intangible, and the experience is invaluable. The time investment for these positions is periodic and minimal.

#### **Position Title:** Software Librarian

**Responsibilities:** Maintain a current list of the software library, keep copies of all software, and distribute software to members as per software distribution rules, coordinate software reviews with the chairman of the Software Review Committee.

**Note:** If you like fisheries software, are interested in running a small business, and would like to explore ways to redefine the responsibilities of this position, then this job is for you.

#### **Position Title:** Newsletter Editor

**Responsibilities:** In charge of producing the Section newsletter, soliciting and collecting newsletter items, and coordinating timely publication of the newsletter. At least one newsletter is published per year.

**Note:** If you have always dreamed about being an editor, creatively preparing a newsletter, and communicating with a readership of over 200 people, then this job is for you.

If you are interested in either of these positions, please contact Bill Fisher, CUS President at [wfisher@okstate.edu](mailto:wfisher@okstate.edu) or 405-744-9841.

### CALL FOR NOMINATIONS

*Excellence in Fisheries Education Award  
Education Section, American Fisheries Society*

The American Fisheries Society (AFS) Excellence in Fisheries Education Award was established in 1988. The award is administered by the Education Section and is presented to an individual to recognize excellence in organized teaching and advising in some aspect of fisheries education. Nominees may be involved in extension or continuing education, as well as traditional college and university instruction. Nominees must be AFS members, have been actively engaged in fisheries education within the last five years, and have had at least 10 years of professional employment experience in fisheries education. Two or more people may act as nominators, but at least one nominator must be an AFS member. The nominator(s) is responsible for compiling supporting material and submitting the application. The suggested format for applications can be found on the Education Section web site. Application materials should be sent to **Michael Quist** ([mcquist@iastate.edu](mailto:mcquist@iastate.edu)) in digital form.

Nomination deadline is **May 16, 2008**.



### POPULAR SOFTWARE UPGRADES

Two popular software packages sold through the Computer User's Section have recently been upgraded and improved. FishBC, which computes back-calculated lengths and age-length keys from fish bony structures and Fishery Analysis and Simulation Tools (FAST) which provides a suite of fish population modeling tools have been overhauled to make them more useful to fishery managers.

#### *FishBC 3.0*

The new version of the software now offers multiple methods of data entry including manually entering measurement data, measuring bony structures with a digitizing tablet, and capturing images from a digital camera mounted on a microscope. The new version provides several improvements over the previous version, including:

- An improved user interface.
- No need for third party software.
- Fully functional spreadsheets built into the program.
- The ability to capture images and measure bony structures on the screen.
- A new HTML based context sensitive Help system.

FishBC 3.0 is sold for \$59.99

#### *Fishery Analysis and Simulation Tools (FAST)*

Last fall, the Computer User Section began offering S-FAT, an add-on software package designed to extend the utility of FAST. S-FAT adds the following features to FAST:

- Ability to randomly assign ages to a sample of un-aged fish based on a sub-sample of known-age fish.
- Ability to compute back-calculated lengths-at-age from measurements made from fish bony structures (otoliths, spines, etc).
- Addition of an age-length key menu item to allow users to randomly assign ages to un-aged 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.
- Addition of more species and their associated length categories and standard weight equations based on the soon-to-be-released 3rd Edition of *Fisheries Techniques*.

In addition, S-FAT includes a free bonus upgrade to FAST 3.0. *This upgrade cannot be purchased separately, and requires a previous version of FAST to be installed on the computer.* In addition to fixing several minor problems with FAST, version 3.0 includes additional error checking to prevent accidental program crashes.

S-FAT sells for \$50, while the cost of the basic version of FAST remains at \$75. Note that compatibility issues between FAST and Windows Vista have been reported.

To read reviews and order this or other software, visit the Computer User Section website at [www.fishdata.org](http://www.fishdata.org).



## Web Tools and Websites

**You are invited to attend a live, interactive, web-based instructional seminar:**

### **"Fish Aging Using Image Analysis of Scales and Otoliths"**

**Presented by Richard Schneider, Kramer Scientific Corporation**

Details are below. Connection lines are limited, so reserve yours now. There is no charge to participate in this on-line seminar.

**When:**

Three dates: January 14, February 12, and March 12.

1:30 PM (New York time)

Duration: About 45 minutes, plus questions and answers

Pre-register (required) at:

<http://magbiosystems.com/education/>

**Details:**

Measurement of annuli in fish scales and otoliths is a powerful method for aging individual fish and an effective way to collect data for tracking/logging trends among and between fish populations. Attendees will learn about the issues affecting the accurate imaging and analysis of scale and otolith images and pick up some tips on how to effect such studies in an efficient and ergonomic manner using state-of-the art optics, cameras, and software. Bring your questions to this live, interactive web-based seminar.

**Subjects include:**

- Optimizing specimen illumination for maximum structural detail
- Maximizing resolution for specimens which vary widely in size
- Collecting high-quality images
- Methods of enhancing images for accurate measurements
- Measurements of annuli and other morphological structures
- Capturing and logging measurement data
- Archival and databasing of images

Provided at no cost, this webinar is sponsored by MAG, the Microimaging Applications Group. A group of imaging companies who work together to provide an unparalleled range of microimaging solutions to science and industry.

**About the presenter:**

Richard Schneider is a recognized expert in the fields of optics, electronic imaging, and image analysis where he has worked for over 30 years. At Kramer Scientific Corporation, Dick works with clients all over the world to assemble custom equipment to solve the most challenging of imaging applications. He is the creator of the Kramer Scientific Scale Aging Digital Optical System in use in many fisheries facilities. Educated at Purdue University and Northeastern University, his studies included aging of wild populations and protein aging parameters in mice.

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## Web Tools and Websites

### Windows Vista Review

By Angie Grier

A CUS member contacted me to include a review of Windows Vista in this newsletter edition. Since I do not have any first-hand knowledge using Windows Vista, I investigated his questions and have provided some answers below. Unfortunately, I could not find easily accessible information on how well this new operating system works with programming and hydroacoustic software critical to fisheries work. However, the newest versions of some major statistical software packages - SPSS, SAS, Statistix, and Matlab - are all compatible and officially supported with Windows Vista. The GIS compatibility was slightly more complicated. For specific information on how ESRI's programs run with Windows Vista, read <http://support.esri.com/index.cfm?fa=knowledgebase.techArticles.articleShow&d=34020>.

In addition to finding out how the system works with other software programs, I went online to find some user reviews. I have posted some of them here for you to read. If you are interested in reading more reviews than what I have provided, there are several places that you can find reviews using Google. These reviews are limited in applicability to fisheries users, but there are some overall strengths and weaknesses that apply to the basic system that most users had in common which would apply to anyone using this system. Based on what I have read in the reviews, I would suggest it may be too soon to make the switch to Vista because of some of the operating errors and incompatibility issues that are still prevalent; however, these issues are constantly being resolved by all of the software companies so it may not be an issue for too much longer. I would like to reiterate that I am by no means an expert on the subject. If you have specific concerns regarding the compatibility of a necessary software program, contact customer support or the software author for information on how to resolve those issues.

11-25-07

Duration of ownership: 6 Months

Strengths: The interface looks nice and Vista is easy to use.

Weaknesses: Vista has lots of bugs in it which can be VERY annoying and it runs VERY slow compared to other Windows products.

Overall Evaluation: Windows Vista Ultimate is a great Operating system. Almost anyone can use it, because of its ease to use and it looks the best (my opinion) compared to all the other Windows products. If you want to upgrade from Windows XP to vista, I wouldn't recommend that because you don't need to waste your money when your XP has everything it needs to run, and Vista is VERY slow compared to XP.

09-19-07

Duration of ownership: 5 Months

Strengths: Nice graphics + a wonderful interface for your entertainment. Lots of security. Pleasant to look at.

Weaknesses: Eats up the RAM, heavy power user, hard to customize. Takes a lot of time to get accustomed to all the features.

Overall Evaluation: I'm a power user for Games and other apps. Processes that I can't shut down or suspend causes problems; a lot of the security features can be shut down or suspended. Overall I found it fun to tackle



## Web Tools and Websites

and learn to make it compatible to my style of play and work. After using this program, I went back to Windows XP Pro. I had to have an OS that I could control.

30-Nov-07

Duration of ownership: 2 months

Strengths: DX10, Aero, Bitlocker, UAC, Good multimonitor support

Weaknesses: Needs a modern PC to run.

Overall Evaluation: This is Microsoft's latest and greatest and is worth moving up to if you have a modern PC. If you have an ancient one, then you might not want to bother unless you are willing to upgrade it. Most people complain that Vista takes too many resources to run and that is true. But so what? XP used more resources than ME, 2000 or 98. This is how advancing technology works.

23-Nov-07

Duration of ownership: 2 months

Strengths: Nice interface, the transparent look, DX10

Weaknesses: Security reminders, cost, no real special additions for ultimate only

Overall Evaluation: Nice interface, the transparent look, DX10 Security reminders are annoying although you can turn them off, cost is high, no real special additions for ultimate only. It requires a great deal of memory and will slow down your computer, very nice graphics though.

11-Oct-07

Duration of ownership: 2 months

Strengths: User Interface, ability to run unix commands, better remote access, ability to create hi-def movies

Weaknesses: Needs an internet connection to validate itself every 6 months, compatibility with older hardware and software.

Overall Evaluation: As I mentioned the OS is super with 3D effects and very good interface. You could even run unix commands. It is more secure. But the major drawback is related to the licensing - this needs to be revalidated every 6 months. I had a centrino laptop with 1 Gb of RAM, but installation of windows vista ultimate nearly used up all resources and I had to revert back to windows XP. But it has been running fine on my new dual core desktop with 2 Gb RAM.

12-Aug-07

Duration of ownership: 2 months

Strengths: New and improved UI, seems to respond faster and the Aero Graphics are a welcome addition.

Weaknesses: That bothersome UAC is obnoxious at best, but at least you have the option to disable it.

Overall Evaluation: Personally, I feel Vista Ultimate is a worthy upgrade from XP, especially as the disk comes with both 32 and 64 bit install disks. However, Ultimate is not worth \$400. I paid about \$260 for a retail (non upgrade) version, so I'm quite happy with it!

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## Web Tools and Websites

### Fish Sampling GIS Application for PDAs

Glenn Hollowell of the Alaska Department of Fish and Game presented a poster at the most recent Alaska Chapter AFS meeting. The poster was a description of an application (gpsDataLogger) that he developed to use while conducting aerial surveys of salmon streams. It was written using the Superwaba "java-like" toolset so the application will run on Palm, WinCE, Win32 and Linux among others. The source code as well as compiled binaries has been posted on SourceForge <http://sourceforge.net/projects/gps-datalogger/>. The link to a pdf copy of the poster is [http://www.cf.adfg.state.ak.us/geninfo/pubs/posters/aerial\\_data\\_poster.pdf](http://www.cf.adfg.state.ak.us/geninfo/pubs/posters/aerial_data_poster.pdf).

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### Hydroacoustics User's Group

At the Midwest Fish and Wildlife Conference held in December 2007 in Madison, Wisconsin, a group of hydroacoustics users from the Midwest got together to exchange ideas and a User's Group was created. This group is not very large but consists of members from several Midwestern states – OH, IN, MN, KS, WI, IA, IL, and NE. The goal of the group is to provide a forum for past, present, and future users to exchange ideas and feedback on hydroacoustics and its applications. In addition to the agencies involved in this group, there are also two vendors who have signed up to participate. We hope to see this forum grow outside of the Midwest so there is a larger group of people from whom to draw knowledge so that each time an agency, university, or other organization buys hydroacoustics equipment, they don't have to "reinvent the wheel." We encourage anyone to become a member of the forum and participate in discussions or feel free to start their own topics and/or ask questions. The address is <http://hydroacoustics-users.org/login.php>.

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### HTI Short Courses

**1. Using Acoustic Tags to Track Fish - (<http://www.htisonar.com/Training.htm>) - January 10-11, 2008, 9:00 AM to 5:00 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. \$300.00 USD, per person. Seating is limited.

**2. Using Hydroacoustics for Fisheries Assessment - (<http://www.htisonar.com/Training.htm>) - January 17-18, 2008, 9:00 AM to 5:00 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. Seating is limited.

**The notice on these courses is very short, so they are quite possibly full. If you are interested in attending one of these courses in the future, please check the website for updates on training.**