



# AFA NEWS

Newsletter of the Alabama Fisheries Association

January, 2006

## FROM THE PRESIDENT

Jeff Slipke



I hope you all have recovered from the Christmas and New Year's break, otherwise known as the season of overindulgence. I'm sure I wasn't the only one to use the break as an opportunity to eat, drink, and be merry. But now it's time to get back to the business of stewarding our aquatic resources. And what better way to start the new year than with a meeting of the minds on the beautiful Alabama Gulf Coast.

I'm really looking forward to returning to the gulf for the first time since the destruction wrought by Ivan et al. (2004). And although I'm not making any predictions for the next hurricane season, I'm glad we'll be heading to the coast for this year's meeting before the next big storm hits and shuts down Alabama's gulf coast yet again. Please note that hotel reservations must be made by **Monday, January 23, 2006** to ensure availability and to obtain our meeting rate of \$82.00/night.

Our annual meeting follows closely on the heels of the SD-AFS and WAS annual meetings, but hopefully most of you will be able to attend. Our president-elect Stan Cook, along with his session moderators, has put together what promises to be a fabulous agenda. It seems that the technical sessions get stronger each year and I have no doubt that this year's meeting will continue that trend.

I was really pleased with the level of student involvement at last year's meeting and although there is a bit more travel involved this year, I am hopeful we will see even more students in attendance. The great technical sessions and the chance to interact with professionals should be more than enough incentive to attract a large contingency of students. However, some students might consider the chance to spend a night or two out at the Flora-

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## ABOUT THE AFA

The Alabama Fisheries Association (AFA) is an organization of professionals dedicated to the development, conservation, management, and wise utilization of commercial and recreational fisheries in Alabama. The AFA promotes all branches of fishery science and related technology, with emphasis on the exchange and dissemination of knowledge about fish and other aquatic life. Annual membership fees are \$5.00; three-year memberships are \$15.00. Members are encouraged to purchase three-year memberships. This helps our financial stability and you will avoid any increases in dues that may occur during that time. Dues may be sent to Dave Cline, AFA Treasurer, Alabama Cooperative Extension System, 203 Swingle Hall, Auburn, AL 36849-5628.

**AFA web page** – for information about AFA (and recent newsletters) point your web browser to:  
**[www.alabamafisheriesassociation.org](http://www.alabamafisheriesassociation.org)**

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Bama equally as attractive; especially those that don't have morning talks.

Speaking of student talks, judging will be conducted in the same manner as last year. Attendees who are not advisors of, or co-authors with, student presenters will be asked at the registration desk to judge three student talks during the course of the meeting. These evaluations will be used to determine the winner of the best student paper award, and your constructive criticism will help our student presenters hone their skills for future talks. Please help out by agreeing to act as a judge if you are asked.

Please plan to attend the business meeting on Friday morning following the conclusion of the technical sessions. We will be voting to fill officer vacancies for president-elect, secretary, and treasurer, as well as announcing the winner of the best student paper award. In contrast to years past, the scholarship award winner will be announced at the beginning of the meeting to more appropriately recognize the recipient.

Finally, I wish to thank our sponsors who through their financial support help us defray the cost of gathering each year to exchange information, renew friendships and grow professionally. We couldn't do it without you. See you all next month.

### **AFA SECRETARY Rob Andress**



**Send him your pre-registration by February 10.**  
The form is the last page of this newsletter.

### **FROM THE TREASURER (AND WEBMASTER)**

**Dave Cline**



Greetings all, I trust everyone had a wonderful holiday/Christmas. Our organization is in good financial standing with a total of \$24,827.84 in the bank divided between three accounts.

Amsouth Money Market	\$3,699.20
Amsouth Checking	\$6,669.26
Amsouth CD	\$14,459.38

We would like to thank the Alabama Catfish Producers and American Sportfish for their continuing support of AFA through their sustaining memberships and hope that our other sustaining members and corporate members will be able continue their support as well. We would also like to welcome two "off-season" new members, Heath Howell and Matthew Long.

This will likely be my last treasurer's report (other than at the meeting) and I wanted to thank all of the other officers that I have worked with over the past several years. Because each of you did such a good job, it made my job a relative pleasure. Cheers!



**AFA PRESIDENT-ELECT AND PROGRAM  
CHAIRMAN  
Stan Cook**



**2006 AFA ANNUAL MEETING  
Make Your Reservations NOW**

The 2006 AFA meeting will be held at the **Perdido Beach Resort** in Orange Beach on **February 22-24, 2006** (Note: we're back to Wed. – Fri.). Room Rates are \$82.00 per night and you can contact the resort at 1-800-634-8001 for reservations.

**STEERING COMMITTEE**

The 2005-2006 AFA Steering Committee consists of: Jeff Slipke, President (SE Pond Mgmt.), Stan Cook, President Elect (ADWFF), Claude Reeves, Past President (Alabama Cooperative Extension Service), Rob Andress, Secretary (Auburn), Dave Cline, Treasurer (Auburn), Rob Angus, Newsletter Editor (UAB), Kevin Chalk (AL Power), Bernie Kuhajda (U. of AL), Norman Latona (SE Pond Mgt.), Stuart McGregor (Geo. Survey of AL), Doug Powell (AL Power), Wendy Seesock (Auburn), Barry Smith (American Sport Fish), Steve Rider (ADCNR), Daniel Drennan (USFWS), Matthew Lang (USACOE) and Jim Howard (AL BASS Fed.). We are grateful to these folks for their willingness to help steer our organization in the right direction.

**FROM THE EDITOR  
“Carp Slayer” Rob Angus**



Thanks to all of you who contributed to this newsletter. Without your help, the newsletter would be very slim.

**Got e-mail?** If you received this newsletter by U.S. mail, it means we don't have a current e-mail address for you. To provide us with your e-mail address, please send me ([raangus@uab.edu](mailto:raangus@uab.edu)) a brief message via e-mail. You will then be placed on our e-mail mailing list and will receive calls for articles, other occasional announcements etc. When the next newsletter comes out, you will be sent an e-mail message with a URL so you can read it on-line. Members with internet access are not sent hard copies of the newsletter. This saves AFA the cost of copying and postage and has reduced our newsletter production and mailing costs substantially.

**ALABAMA ACADEMY OF SCIENCE  
MEETING**

The annual meeting of the Alabama Academy of Science will be held at Troy University on March 15-18, 2006. Information is available at:

<http://www.alabamaacademyofscience.org/>

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### REQUEST FROM DENNIS DEVRIES AFA Archivist

I have been going through the AFA archives that are currently housed in the Auburn University library, to identify the status and completeness of our collections. And yes, even though you may not have been aware of it, we do actually have an archive that is maintained for the AFA. Currently, we have the following materials in the archives:

- AFA newsletters
- Annual Meeting Programs
- Treasurer's reports
- bylaws and incorporation documents
- documents concerning proposed affiliation with the American Fisheries Society
- original poster for the 10<sup>th</sup> anniversary of the AFA

In trying to make sure that these archives are complete and up-to-date, I learned that we were missing several newsletters, annual meeting programs, and treasurer's reports. We are missing the following items from our current archive collections:

- AFA newsletters – we still need newsletters from August 1994 and January 1995.
- Annual Meeting Programs – we still need programs from the 1997, 2000, and 2002 annual meetings.
- Treasurer's reports – we still need the 1992, 1993, 1994, and 1995 reports.

So, what I need from the membership is this: search your files, etc. to see if you might have a copy of any of these items that we need for the archive. If you do, please let me know and if possible, send it to me to add to the archives. Send it even if it is marked up, as it is better to have a copy there versus no copy at all.

### GEOLOGICAL SURVEY OF ALABAMA

Marlon Cook, chief of the Hydrogeology Unit of the Water Investigations Program at GSA, departed December 9, 2005 to become Chief of the Office of

Water Resources within the Alabama Department of Economic and Community Affairs, the position vacated when Trey Glenn left to take over as director of ADEM. Marlon's extensive background with oil and gas exploration and expertise in hydrogeology make him a natural fit for the job. We hated to see him go and lament the loss of his expertise on numerous projects within the agency, but at the same time welcome the contribution he will make to water issues in such an important office. We are sure the AFA membership will find Marlon to understand the importance of Alabama's complex water issues and will find a sympathetic ear in a very important position.

Winter time once again brings "downtime" to GSA, meaning we're not in the field every week. Our time, however, is filled with report writing, etc. yet there is still a smattering of field work to do. Ongoing field efforts in the Biological Systems Section of GSA include refining rates of sedimentation loading in the Bear Creek watershed in northwest Alabama and northeast Mississippi and in the Buttahatchee River system, also in northwest Alabama; monitoring of cave shrimp and water quality in caves on Redstone Arsenal near Huntsville; and, soon, netting fishes in the Mobile Bay area.

Recent publications include:

Blalock-Herod, *et al.*, A historical and current perspective of the freshwater mussel fauna (*Bivalvia: Unionidae*) of the Choctawhatchee River drainage in Alabama and Florida, Alabama Museum of Natural History Bulletin 24, p. 1-26.

This is a comprehensive review of the historical and recent distribution of unionid species within the Choctawhatchee River drainage of Alabama and Florida gleaned from museum records, field notes, published literature, and recent surveys. It includes species accounts and distribution maps for species known from the drainage including historical and current information.

Submitted by Stuart McGregor (205)247-3629  
smcgregor@gsa.state.al.us

**AUBURN UNIVERSITY  
Department of Fisheries**

On Lake Wilson, Alabama, a popular catfish fishery exists and we initiated a study to assess population metrics and estimate exploitation. Currently, bag or length limits are not used to manage this fishery. Blue catfish *Ictalurus furcatus*, channel catfish *Ictalurus punctatus*, and flathead catfish *Pylodictis olivaris* were collected using low-pulse DC electrofishing, a sub sample of fish were aged with otoliths to describe longevity, growth and survival. Fish greater than 30 cm were tagged with Carlin dangling tags and exploitation estimates were made based on angler returns that provided a reward. A total of 929 blue catfish (range 148 - 1,285 mm TL), 324 channel catfish (86 - 646 mm TL), and 429 flathead catfish (90 - 1,113 mm TL) were collected. The largest blue catfish and flathead catfish were 31.3 and 20.1 kg, respectively. Male blue catfish and channel catfish grew faster than males, and all blue catfish greater than 750 mm total length were males. The time to reach harvestable size (30 cm) was 2.3, 3.0, and 3.6 years for channel catfish, blue catfish, and flathead catfish, respectively. Maximum ages for channel catfish, blue catfish, and flathead catfish were 10, 17, and 34 years and average annual survival rates were 66, 68 and 85%, respectively. Most of the fishery effort was directed at blue catfish and we observed length-dependent differences in mortality as total annual mortality was 52% for fish less than 685 mm TL and only 9% for fish greater than this length. However, exploitation estimates from tag returns ranged from 2% to 7% for blue catfish when adjusted for non-reporting. Simulation modeling predicted blue catfish exploitation likely ranged from about 20 to 30% based on calibration of observed and predicted length distributions. At exploitation rates greater than 20%, growth over fishing for blue catfish has likely occurred.

For more information, contact Mike Holley (334) 844-4058; hollemp@auburn.edu or Mike Maceina (334) 844-93198; maceimj@auburn.edu.

**The Effects Of Tournament Fishing On Dispersal,  
Population Characteristics, And Mortality Of  
Black Bass In Lake Martin, Alabama**

A great deal of black bass *Micropterus spp.* tournament activity occurs at Wind Creek State Park (WCSP), located at the north end of Lake Martin, Alabama. Because of the popularity of this location as a tournament processing site, displacement, dispersal, effects on body condition, and mortality of black bass due to tournament activities were examined.

Tournament-caught black bass (N = 9,750) were coded wire tagged (CWT) and released at WCSP from fall 2003 to spring 2005. Electrofishing was used in fall 2004, spring 2005, and five times over a 42-day period in February - March 2005, to estimate dispersion, relative abundances, and relative weights of marked and unmarked fish over 300 mm total length. Initial mortalities were quantified by counting all dead fish at the release site. Radio telemetry was used to estimate delayed mortality, by lack of movement and mortality sensors, of largemouth bass *M. salmoides* and spotted bass *M. punctulatus* caught in tournaments from February to May 2005 and in September 2005.

A high proportion (> 50%) of released tournament-caught largemouth bass remained within 3 km from the release site up to 3 months after release, and relative abundance of these fish tended to be higher near WCSP. However, after 3 months, the proportion of released tournament-caught largemouth bass declined near WCSP, which suggested that these fish dispersed from the release area. Tournament-caught spotted bass, tagged fall 2003 through spring 2004 and fall 2004, dispersed at a faster rate than largemouth bass, as proportions of tagged tournament-caught spotted bass within 6 km of the release site were low (3 - 5%) in 2004 and decreased to 0% in 2005. In addition, after forty-two days after release, very few tournament-caught spotted bass were collected within 4 km from the release site (< 10%).

In Lake Martin, 7% of tagged largemouth bass and 3% of tagged spotted bass were recaptured by tournament anglers. Tournament recapture rates by

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anglers remained consistent over time for fish at large from 4 to 16 months. Previously caught fish at large for less than 4 months, expressed higher angler catch rates in spring 2005.

Relative weights of tournament caught largemouth bass and spotted bass were either similar or lower than those for wild fish inhabiting Lake Martin. Thus, tournament activities at times likely affect the physiology of black bass even months after capture and release.

Water temperature was positively related to initial mortality of largemouth bass and both initial and delayed mortality of spotted bass. Furthermore, tournament-caught spotted bass were more likely (62%) to experience delayed mortality within 10 days of release than largemouth bass (33%). I estimated that at water temperatures greater than 26°C, more than 50% of the tournament-caught black bass would die.

In summary, over time black bass tended to disperse from tournament release sites in Lake Martin, although short-term accumulations did occur. At higher water temperatures, initial and delayed mortality rates were high particularly for spotted bass, and during these conditions, the use of the live-release boat should be discontinued. At times, angler capture and release of black bass were related to lower body condition which could adversely affected growth and reproductive output.

For more information contact Ben Ricks (334) 663-4928; ricksbr@auburn.edu or Mike Maceina (334) 844-93198; maceimj@auburn.edu.

### **ALABAMA DIVISION OF WILDLIFE AND FRESHWATER FISHERIES**

#### **State Wildlife Grants and the Alabama Comprehensive Wildlife Conservation Strategy**

The Alabama Comprehensive Wildlife Conservation Strategy was submitted to the U. S. Fish and Wildlife Service in September and approved, without revision, in November. During the two-year effort to complete this document, the Division of Wildlife and Freshwater Fisheries compiled, coordinated and integrated the best available scientific information on

the status of Alabama's wildlife and the concerns, recommendations and existing conservation priorities of a diverse array of public and private stakeholders. This effort built upon the framework of the 2002 Nongame Symposium which assembled scientific experts and stakeholders to compile the best data on the full array of Alabama's wildlife and from that identify those species of "greatest conservation need" as required by the Fish and Wildlife Service. The Comprehensive Strategy can be viewed in the Research and Management section of the Conservation Department web page ([www.outdooralabama.com](http://www.outdooralabama.com))

Completion of the Comprehensive Strategy was a requirement for the Division to receive federal funding from the relatively new State Wildlife Grants program. During the four years 2002-2005 the Division received about \$4 million of State Wildlife Grants funds. These funds were used to develop the Comprehensive Strategy and are being allocated to a wide variety of wildlife conservation and restoration projects. Information on State Wildlife Grants, including a list of currently active projects is also available in the Research and Management section of the Conservation Department web page.

Jim McHugh ([Jim.McHugh@dnr.alabama.gov](mailto:Jim.McHugh@dnr.alabama.gov)) will provide an update on State Wildlife Grants and the Comprehensive Strategy at the upcoming Annual Meeting. The agenda also includes several presentations of projects receiving State Wildlife Grants funding, including an update from Paul Johnson ([leptoxis@hotmail.com](mailto:leptoxis@hotmail.com)) on the status of the Alabama Aquatic Biodiversity Center.

#### **A Funding Opportunity for Alabama's Fish & Wildlife Resources**

Partners for Fish and Wildlife, a funding source made available through the U.S. Fish and Wildlife Service, provides technical and financial assistance to private landowners to restore fish and wildlife habitats on their land. Presently, the USFWS has made Partners funding available through the Soil and Water Conservation Committee and Wildlife and Freshwater Fisheries. The program focuses on restoring, protecting or enhancing private property for Federal trust resources (e.g. migratory birds,

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endangered and threatened species, wetlands, floodplains, streams and riparian areas). Examples of projects include, but are not limited to, the restoration of degraded wetlands, native grasslands, streams, riparian areas, longleaf pine ecosystems and other habitats to their natural condition.

Project requirements include that restoration or enhancement activities take place on private property, the landowner must sign an agreement to retain the management activity in place for at least 10 years, the total project cost share should be limited to \$25,000 and provide either in-kind or non-Service funds (usually 50% of total project cost). A minimal amount of acreage is not required.

The application process includes a site visit to develop a project proposal. The proposal is then reviewed by U.S. Fish and Wildlife, Soil and Water Conservation Committee and Wildlife and Freshwater Fisheries personnel. Upon approval, an agreement is signed by all parties and sent to the Service for final approval and processing. Project construction can then begin and reimbursement is based on the cost share identified in the agreement.

Interested parties can contact Traci George, Landowner Incentive Program Coordinator, at 334-353-0503 or [Traci.George@dcnr.alabama.gov](mailto:Traci.George@dcnr.alabama.gov). More information on Partners for Fish and Wildlife and funded projects can be found at [www.outdooralabama.com](http://www.outdooralabama.com) (Research and Management Section) and [www.fws.gov/partners/](http://www.fws.gov/partners/).

### U. S. FISH AND WILDLIFE SERVICE

Dan Drennen is conducting the five-year review for the watercress darter (*Etheostoma nuchale*) and the pygmy sculpin (*Cottus paulus*). These species are listed as endangered and threatened, respectively, under the Endangered Species Act. Under the Act, a review of listed species is required once every five years. The purpose of this review is to ensure that these species' status accurately reflects the best available information for the species.

To gather new information concerning the status of and threats to the watercress darter and pygmy sculpin, the Service is contacting local, state and federal agencies and individuals who may have data

to share. The Service will consider all information received before June 1, 2006. If significant new information indicates a change in status is warranted, the Service may propose a rule to modify the slackwater darter's classification. If anyone has a comment or new information regarding the species, please contact Dan at 601-321-1127 or [daniel\\_drennen@fws.gov](mailto:daniel_drennen@fws.gov).

Dan is also cataloging all springs within Jefferson County, Alabama, particularly between Red Mountain and Sand Mountain/Flint Ridges. These are the springs within the Birmingham -Canoe Valley and extends more or less from the town of McCalla, northeast toward and just past Pinson. Of particular interest are the springs that are unmapped but known by residents. He has termed them "backyard springs", being 0.1 acre in size or smaller. Currently, he has 81 spring localities, of various sizes, mostly derived from old maps, journals, interviews, field visits and scientific and gray literature. Ultimately, after a master list is composed, spring attributes, especially fish, mollusks and water quality, will be sampled resulting in opportunities to work with landowners and stakeholders through Partners for Fish and Wildlife Projects to conserve and manage this resource. Anyone knowing of springs within this area please contact Dan at 601-321-1127 or [daniel\\_drennen@fws.gov](mailto:daniel_drennen@fws.gov).

### ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

#### Environmental Indicators Section (EIS)

##### *EPA Approves ADEM's New Monitoring Strategy*

Recent changes in EPA program specifications required modifications to the water quality monitoring strategy for the state of Alabama. In 2003, EPA published *Elements of a State Water Monitoring and Assessment Program* as a basic framework that states must use to monitor and assess their aquatic resources. The purpose of this document was to outline basic recommended components for monitoring programs performed by States receiving Clean Water Act (CWA) §106 funds. The elements include the development of a strategy that outlines quality assurance plans, data management, data analysis, reporting, program

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review, and overall resource needs. Each state's monitoring strategy document is required to describe how each State is currently incorporating the Ten Elements recommendations in their monitoring programs, identify elements not sufficiently addressed, and outline a ten-year timeline for full implementation of these missing elements. The desired effect was the development and implementation of more comprehensive monitoring strategies by each state and enhanced comparability of data and assessments on a national scale.

In 2003, the EPA linked CWA §319 funding to the §303(d)/TMDL process. Previously, the ADEM had conducted monitoring for the §319 and §303(d)/TMDL programs separately. However, combining these programs was needed to begin to implement nonpoint source control activities more effectively.

In 2004, the EPA released the Integrated Water Quality Monitoring and Assessment Report Guidance which requires that all waters in the state be placed into one of five categories. These categories indicate whether or not a waterbody is meeting all of its designated uses. In 2005, the ADEM revised its Water Quality Assessment and Listing Methodology to establish minimum data quantity and quality requirements necessary to categorize all waterbodies as meeting or not meeting their designated uses.

In recent years, the EPA has also placed an increased emphasis on assessments of overall water quality. Recent analysis of data reported in ADEM's 2002 305(b) Report to Congress indicated a bias toward impaired sites, suggesting that ADEM's probabilistic monitoring program (ALAMAP) did not provide an adequate assessment of overall water quality in Alabama.

To address these issues, the State of Alabama Water Quality Monitoring Strategy was developed in July 2005. The Strategy documented the need for comprehensive monitoring data provided only by fully assessed waters, and developed methods to meet these data needs through ADEM monitoring programs. Together, ADEM water quality monitoring programs will be used to more effectively:

1. determine attainment of existing water quality standards;
2. develop and adopt new, or revise existing, water quality standards;
3. develop TMDLs for impaired waterbodies;
4. monitor trends in water quality after the implementation of TMDLs and Watershed Management Plans;
5. categorize waters of the State for integrated reporting purposes (i.e., Category 1-5); and,
6. develop tiered aquatic life uses and biological condition gradients

EPA approval notification of the State of Alabama Water Quality Monitoring Strategy was received by letter September 8, 2005.

### *Rivers and Reservoirs Monitoring Program (RRMP)*

#### Objectives:

- develop and maintain a water quality database for all rivers and publicly-accessible lakes in the state sufficient to conduct comprehensive assessments of water quality, categorize waters for the Integrated Assessment Report, develop criteria, and determine criteria compliance;
- establish trends in river and lake trophic status that are only established through long-term, consistent monitoring efforts; and,
- conduct biennial assessments of water quality for all publicly-accessible lakes as required by Section 314 of the Clean Water Act.

**RRMP 2005:** Monthly water quality sampling, April-October was completed for the Surface Water Quality Screening Assessment of the reservoirs and tributary embayments of the ACT Basins. In addition to the 89 intensive survey stations, four ambient trends and two 303(d) stations were also sampled according to the RRMP protocol.

Water quality sampling was completed for the critical period monitoring (August) of Smith, Bankhead, Tuscaloosa, Oliver, Holt, Warrior, and

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Big Creek reservoirs in accordance with the two-year monitoring rotation of all lakes in the state.

**RRMP 2006:** Work has begun on planning the FY06 RRMP station list. Currently, there are approximately 35 stations tentatively scheduled for sampling, including the reservoirs, tributaries and river sections of the Tombigbee and Escatawpa River Basins, along with 20 stations monitored for nutrient criteria monitoring programs and 12 stations sampled during critical period monitoring .

**Reporting:** The report *Surface Water Quality Screening Assessment of the Tennessee River Basin-2003 Vol. II: Reservoir Tributary Embayments* was completed. Publication of this report will be available on the website soon. Work continues on the draft report of the *Water Quality Assessment of the Southeast Rivers and Reservoirs 2004*.

For further information on the RWQM Program contact Gina LoGiudice at (334) 260-2783 or [glogiudice@adem.state.al.us](mailto:glogiudice@adem.state.al.us)

### *Fish Tissue Monitoring Program*

#### FTMP Objectives:

- sampling locations throughout the focus basin (Tier I basin screening);
- repetitive sampling of sites where the ADPH has determined that FDA limits have been exceeded (Tier II known impact);
- sampling of sites in south Alabama that have not been sampled in several years (Tier I screening); and,
- sampling remaining areas in south Alabama where fish have not been collected for the FTMP (Tier I screening).

**FTMP FY2006:** Fish tissue sampling was completed with 567 fish collected from 51 locations from October-December 2005. Twenty four stations were FTMP stations and three stations were requested by the ADPH. Dioxin monitoring was conducted at three stations downstream of paper mills and two stations were sampled as part of mercury monitoring in Bilbo Creek. Two stations were sampled by TVA

and analyzed by the ADEM as part of a cooperative agreement between the agencies and a project was initiated in which seventeen stations were sampled to monitor any effects caused by Hurricane Katrina.

For further information on the Fish Tissue Monitoring Program contact Michael Len at (334) 260-2787 or [mrlen@adem.state.al.us](mailto:mrlen@adem.state.al.us)

### *River and Streams Monitoring Program (RSMP)*

#### RSMP Objectives:

- To estimate overall water quality;
- To categorize waters in Alabama's Integrated Assessment Report; and,
- To develop nutrient criteria, sediment criteria, biological condition gradients, and assessment criteria that can be used to assess Wadeable rivers and streams statewide.

#### *Periphyton Bioassessment Program:*

ADEM's Periphyton Bioassessment Program was initiated following a 2002 104(b)3 grant from USEPA Region IV Atlanta. The purpose of the project was to test the ability of three bioassessment methods to document impairment from nutrient enrichment. As part of the project, protocols and sampling equipment were developed or made, staff were trained to conduct assessments using these protocols, and data were analyzed. All data collected during 2002 have been analyzed and reported to USEPA Region IV. A final report was sent to USEPA Region IV. Based on analysis of periphyton data collected during 2002 and 2004 and comments and feedback from Dr. Jan Stevenson, a periphyton bioassessment specialist, ADEM revised its periphyton bioassessment protocols. ADEM received an extension on the grant in 2005 to use remaining funds towards revising its periphyton bioassessment protocols and training personnel to use these protocols during the 2005 ACT Basin Assessment and at CWA §303(d) streams and rivers and requested by the Water Quality Unit of ADEM's Water Division.

Intensive periphyton sampling was conducted during October at thirteen stations in conjunction with

## Really Good “Field Trip”!

ADEM’s Cahaba River Intensive Survey Project. With funding from USEPA Region 4, all diatom samples associated with the project have been sent to Dr. Jan Stevenson at Michigan State University for identification to assist with development of effects-based nutrient criteria for the Cahaba River TMDL. Flow and periphyton bioassessment data were analyzed to help determine the sampling frequency necessary to obtain representative samples of nuisance algal growths in the flashy, highly urbanized Cahaba River basin.

### *2005 Rivers and Streams Monitoring:*

In response to several EPA initiatives and monitoring requirements ADEM revised its 1997 monitoring strategy. The revised strategy was approved by the USEPA in September of 2005. The revision is designed to meet emerging data needs and address weaknesses identified during the last 5-year monitoring cycle. In cooperation with the Water Quality Branch of the Water Division, staff developed new methods to assess overall water quality. These methods are being evaluated during a pilot study to be conducted in the Alabama, Coosa, and Tallapoosa (ACT) River basins during 2005.

Macroinvertebrate sampling was completed at 116 stations, located primarily within the ACT and Cahaba River basins.

Forty fish community surveys were completed during FY 05. New methodology was implemented to be more quantitative in nature. All fish were identified. Data is currently being entered into the database including taxa, field parameters, and new taxa biological characteristics and habitat preferences.

For further information on this project contact Lisa Huff at (334) 260-2752 or [ESH@adem.state.al.us](mailto:ESH@adem.state.al.us)



Keith Gilliland, ADEM-Field Operations, was the lucky winner of a free trip to Dream Lake at last year’s meeting. He and Ranse Williams, also an AFA member, caught several just under 10 lbs and Keith finally got the big one (10 lbs – shown above) on the last cast before it was too dark to see. Keith hopes his experience will stimulate other AFA members to buy more raffle tickets this year, He says he is buying extra! If you’d like more information on his field trip, you can contact Keith at (334)260-2746; [wkg@adem.state.al](mailto:wkg@adem.state.al).

## **A NEW BOOK YOU’LL WANT TO READ**

### **Fishing for Gold: The Story of Alabama's Catfish Industry**

by Karni R. Perez  
The University of Alabama Press

With a wonderful ear for dialogue and in flowing narrative style, Karni Perez weaves together oral histories collected from early hatchery owners, catfish farmers, processors, and researchers to recount the important contributions made by Alabamians to the channel catfish industry. Perez describes the struggles and glories of fish culture

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from its early days as an experimental venture to the thriving present-day commercial enterprise that supplies warmwater fish for the American food industry.

As Perez states, “The catfish industry started out in Alabama as a do-it-yourself and figure-it-out-yourself kind of enterprise.” We hear how men who were mostly cattle farmers learned to nudge male and female fish into spawning in crudely constructed aquaria, how growers discovered the dissolved oxygen needs of their “herd” when big die-offs occurred, how Lenson Montz and Otis Breland designed the first paddle aerator to remedy the problem, how farmers eventually trained a bottomfeeding species to rise to the water surface to eat so their numbers could be better estimated. In one dramatic story, we learn how a man experimenting with the first skinning machine lost a piece of his hand in front of a crowd of horrified locals. (After it was retrieved from the skin basket, it was reattached by a town doctor and healed perfectly.) Ironically, the man was a representative of the engineering firm tasked with designing the machine; he had never before seen a catfish in his life. The machine was modified and became an essential component of modern fish processing.

In addition to telling the remarkable stories of individual contributions by farmers and researchers, Perez explains the positive effects played by improved public infrastructure, continued biological research, state legislation, and federal recognition of aquaculture as agriculture.

Karni Perez is an independent researcher who resides in Auburn, Alabama. This book will be available in March at Books-a-Million and Barnes & Noble chain stores in Alabama. It will also be available on Amazon.com, B&N.com, BAM.com, and at [www.uapress.ua.edu](http://www.uapress.ua.edu).

See you at Orange Beach!



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## **Alabama Fisheries Association 23<sup>rd</sup> Annual Meeting February 22 – 24, 2006 Perdido Beach Resort, Orange Beach, Alabama**

**Wednesday, February 22, 2006**

10:00 AM – 1:00 PM Registration

1:00 Welcome and opening remarks by Jeff Slipke, AFA President and Stan Cook, Program Chair and President-elect

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**SESSION 1  
STATE WIDLIFE GRANTS**

**Moderator: Jim McHugh, Alabama Wildlife and Freshwater Fisheries Div.**

- 1:20 State Wildlife Grants and the Alabama Comprehensive Wildlife Conservation Strategy - Jim McHugh, Alabama Wildlife and Freshwater Fisheries
- 1:40 Identifying Alabama's Mystery Mollusks with DNA - David Campbell, University of Alabama
- 2:00 Ecological Dynamics of Food Web Components of the Sipsey River Floodplain Ecosystem - Thomas B. Kennedy, Jacob Culp, B.J. Weibell, Lusha M. Tronstad, Sarah A. Pugh, and Arthur C. Benke, University of Alabama
- 2:20 Southeast Aquatic GAP: Empirical Modeling of Species Distributions in the ACT -Elise Irwin, Gareth Turner and Katie Mickett, Auburn University
- 2:40 Facility and Program Development of the new Alabama Aquatic Biodiversity Center - Paul Johnson, Alabama Wildlife and Freshwater Fisheries
- 3:00 Break

**SESSION 2  
FRESHWATER RESOURCES**

**Moderator: Mike Maccina, Auburn University**

- 3:20 Distribution and Habitat of Shoal Bass in Selected Tributaries of the Chattahoochee River – Adam Kennon and Carol Johnston, Department of Fisheries, Auburn University
- 3:40 Life History Plascity across Distribution Gradients in Alabama Streams – Lem Casten and Carol Johnston, Department of Fisheries, Auburn University
- 4:00 Evaluating the status of *Tulotoma magnifica* in the Coosa River and Its Tributaries – Dennis DeVries, Department of Fisheries, Auburn University
- 4:20 The Influence of Hydrology on Fish Population Characteristics in the Unregulated Sipsey River, Alabama – Andrew Rypel, Department of Biological Sciences, University of Alabama
- 4:40 Preliminary Observations on Spawning Behavior and Egg Deposition Substrate of the Vermilion Darter – Robert Stiles and Paul Blanchard, Samford University
- 6:00 AFA Social

**Thursday, February 23, 2006**

**SESSION 3  
MARINE RESOURCES**

**Moderator: Kevin Anson, Marine Resources Div.**

- 8:20 Interactions between red snapper *Lutjanus campechanus*, and gray triggerfish *Balistes capriscus*, a laboratory and field study in the northeast Gulf of Mexico – Carrie A. MacKichan, and Steve T. Szedlmayer, Auburn University
- 8:40 Adaptability of Marine Fish to Low-Salinity Waters of the Black Belt Region of Alabama - Nelson Sansing and Ron Phelps, Auburn University

## AFA News

- 9:00 Estimating the effect of angler gear on recovery of tagged red snapper on artificial reefs within Alabama coastal waters - Monica J. Powers and Robert L. Shipp, University of South Alabama
- 9:20 Individual and community level responses of fish and crustaceans to restoration of marine biogenic habitat – Nate Gerald and Sean P. Powers, University of South Alabama
- 9:40 Demographic characteristics of red snapper, *Lutjanus campechanus*, off Alabama – John Mareska, Alabama Marine Resources
- 10:00 Break

## SESSION 4

### AQUATIC INVERTEBRATES OF ALABAMA

**Moderator: Daniel Drennen, U. S. Fish and Wildlife Service**

- 10:20 Macroinvertebrates of the Upper Cahaba River: A three-year study - Larry Davenport, L. J. Davenport, W. Mike Howell, Kevin J. Morse, Konard Yancie, and J. Lynn Wood, Samford University
- 10:40 Discovery of a new population of the endangered Alabama Cave Shrimp, *Palaemonias alabamae*, in Madison County, Alabama - Bernard Kuhajda, University of Alabama
- 11:00 Interesting Things Come in Small Packages – the Pebble Snails of Alabama, Stephanie A. Clark, Department of Biodiversity and Systematics, University of Alabama
- 11:20 Stream Crayfish in Mississippi- Susie Adams, USDA Forest Service, Southern Research Station, Oxford, MS
- 11:40 -1:20 Lunch

## SESSION 5

### HYDROPOWER DAM RELICENSING

**Moderator: Jeff Powell, U. S. Fish and Wildlife Service**

- 1:20 Federal Energy Regulatory Commission (FERC) Relicensing of the Gantt and Point A Hydroelectric Dams on the Conecuh River – Bo Sawyer, Alabama Electric Cooperative
- 1:40 Background on the Federal Energy Regulatory Commission (FERC) Relicensing of the Coosa and Warrior Projects – Jim Crew, Alabama Power Company
- 2:00 Flow Modeling and Operation of the Coosa and Warrior Projects – Andy Shepard, Alabama Power Company
- 2:20 Tennessee Valley Authority (TVA) Experience with Enhancing Aquatic Habitat Downstream of Tributary Reservoirs - Chuck Bach and Bill Proctor, TVA
- 2:40 Break

## SESSION 6

### CLEAN WATER ACT-RULE 316(b)

**Moderator: Jeff Powell, U. S. Fish and Wildlife Service**

- 3:00 Overview and Experience with the EPA Clean Water Act, 316(b) Rule – Bill Garrett, Alabama Power Company
- 3:20 Use of an Acoustic Doppler Current Profiler (ADCP) to Determine Hydraulic Zone of Influence (HZI) near Power Plant Intake Structures – Jon Ponstein, Alabama Power Company

**AFA News**

- 3:40 Entrainment Collection Methods for Compliance with EPA Clean Water Act, 316(b) Rule – John Sieweke, Alabama Power Company
- 4:00 Health Conditions of Impinged and Control Fish – Jeff Baker, Department of Fisheries, Auburn University
- 4:20 Impingement: Caught in the Current – Jason Yarbrough, TVA
- 6:00 Banquet

**Friday, February 24, 2006**

**SESSION 7**

**ALABAMA'S WATER RESOURCES**

**Moderator: Emile Elias, Alabama Dept. of Environmental Management**

- 8:00 Water Resources in Alabama: The Role of the Office of Water Resources – Tom Littlepage – ADECA Office of Water Resources
- 8:20 The State of Alabama Water Quality Monitoring Strategy - Fred Leslie - Alabama Department of Environmental Management Field Operations Division
- 8:40 Protecting Alabama's Water Resources "It's A Data Driven Process"- Chris Johnson – Alabama Department of Environmental Management Water Quality Branch, Water Division
- 9:00 The Role of Ground Water in the Methylation of Mercury Weeks Bay Watershed, Baldwin County, Alabama – James L. Robinson – U.S. Geological Survey
- 9:20 Restoring Big Escambia Creek Using Natural Channel Design Techniques– Chris Metcalf – US Fish and Wildlife Service
- 9:40 Break

**SESSION 8**

**AQUATIC NUISANCE SPECIES**

**Moderator: Joe Jernigan, Alabama Wildlife and Freshwater Fisheries Div.**

- 10:00 State of Alabama Aquatic Nuisance Species Plan – Smoot Majors, University of South Alabama
- 10:20 Rapid Response Program for ANS - David Yeager, Mobile Bay National Estuary Program
- 10:40 Overview of the Alabama Invasive Plant Council – Howard Peavey, Alabama Department of Transportation
- 11:00 Annual Business Meeting
- 11:30 Adjourn

# ALABAMA FISHERIES ASSOCIATION

TWENTY-THIRD ANNUAL MEETING

FEBRUARY 22 – FEBRUARY 24, 2006

PERDIDO BEACH RESORT

ORANGE BEACH, ALABAMA

## PRE-REGISTRATION FORM

Name: \_\_\_\_\_ Work phone: \_\_\_\_\_

FAX : \_\_\_\_\_ E-mail address: \_\_\_\_\_

Affiliation: \_\_\_\_\_

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City, State Zip +4: \_\_\_\_\_

Pre-Registration Fee: Regular \$75.00 (Will be \$85 at the door.)

Students/Retirees \$25.00 ..... \$ \_\_\_\_\_

Membership: 1 year \$5.00

3 years \$15.00 ..... \$ \_\_\_\_\_

Additional Banquet Tickets \$25.00 each ..... \$ \_\_\_\_\_

Raffle tickets (1 - 9 @ \$1 each, 15 for \$10, 30 for \$20) .. ..... \$ \_\_\_\_\_

Optional donation to the AFA scholarship fund (\$5 suggested) ..... \$ \_\_\_\_\_

### T-SHIRTS: GIVE NUMBER AND SIZE BELOW \*

Tee-shirts: @ \$10.00 each x \_\_\_\_\_ .. ..... \$ \_\_\_\_\_

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FAX: (256) 831-2686. Questions? Call 256-831-6860 ext. 27 or

EMAIL: [rob.andress@dcnr.alabama.gov](mailto:rob.andress@dcnr.alabama.gov)

Make checks payable to: Alabama Fisheries Association or AFA. Additional raffle and banquet tickets will be available at the door. **Pre-registration does not require pre-payment.**