

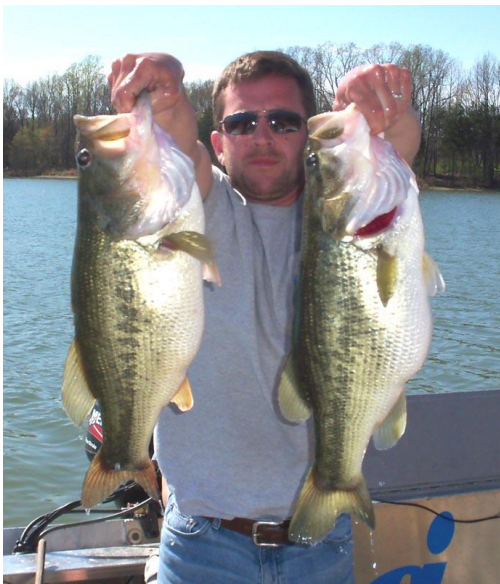


AFA NEWS

Newsletter of the Alabama Fisheries Association

January, 2012

FROM THE PRESIDENT Troy Goldsby



Happy New Year to everyone and I hope that all of you had a very Merry Christmas! I hope that everyone was able to break away from work just enough to enjoy the holiday season. I know that I enjoyed it to the tune of about 10 pounds, and I am finding it more difficult than usual to work off! However, that is part of my New Year's

resolution, as long as more good food doesn't sneak up and surprise me.

I know it is a cliché, but I really can't believe that another year is gone and that the 28th annual AFA conference is only one month away. Hugh Hammer, our president-elect, is putting together a great program at a venue that is beautiful and extremely accessible. This meeting will be at the Alabama 4-H Center in Columbiana, AL on beautiful Lay Lake. I hope that with this meeting being so centralized, all of you will encourage as many students as possible to attend. If you are a follower of the Mayan calendar, it could be their last opportunity. Ha, just kidding! I really think we will be having a 29th annual conference as well. I just think that calendar guy got tired of the job, quit, and nobody else wanted to pick up the slack.

As you all probable know by now, we are now headed into uncharted waters, at least in the state of Alabama, with new regulations and permits that pertain to pesticide discharges to waters of the state of Alabama. This doesn't just affect aquatic herbicide applicators, but anyone that is in fisheries management. Think about a broader picture. This will affect your ability to rotenone. It

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. Yearly membership dues are now included in the annual meeting conference fee so yearly attendance ensures your membership is up to date! Otherwise dues may be sent to P.J. Waters, AFA Treasurer, AUMERC, 4170 Commanders Ave., Mobile, AL 36615 or paid via paypal.

AFA web page – for information about AFA (and past newsletters) point your web browser to: <http://www.alfish.org/>

will also affect your ability to control fish diseases/parasites with products such as Potassium Permanganate. Now, with that being said, I feel like that state of Alabama has put a permit in place that will be very workable, but that does not eliminate the fact that you will now have another obstacle to maneuver and more time between you and your management practices.

I would like to encourage all of you not only to invite students, but also to invite other individuals from academia, our industry, fishermen, and any citizens that you feel are interested in fisheries management. I honestly feel like the AFA is full of individuals and entities that are ready and willing to teach, and promote, the science and sense, of sound management practices and the benefits that result. Personally, I feel that teaching, and exposing people to proper management practices, is our single most significant task in terms of growing our industry and sound public relations. This also helps to ensure that future managers and management practices are sound in their science and conduct.

Well, I don't have just tons to write, but I am extremely excited about the meeting and fisheries management in Alabama and the entire southeast in 2012. It will be great to see all of the faces I haven't seen since last year and catch up on what you all accomplished in 2011 and have planned for 2012. I hope that your travels are safe and your lives are blessed and I look forward to seeing all of you soon.

Thanks,

Troy L. Goldsby
Aqua Services, Inc.
256-572-4464
troyg@aquaservicesinc.com

FROM THE SECRETARY
Dusty Miller



Please take notice of the pre-registration deadline. The **deadline for pre-registration is Friday, January 13th, 2012**. Feel free to email board.afa@gmail.com if you have any questions regarding the registration process. We hope to see you at the meeting in February!

Also, don't forget about our exclusive line of AFA apparel! We offer several options for you to show off that AFA logo. We have hats, polos, button-ups and even Columbia® fishing shirts that look great whether you're in the office, classroom, or in the field. The full brochure can be found at the end of this newsletter or online.

Dusty Miller (ADEM)
jmiller@adem.state.al.us

FROM THE TREASURER
P.J. Waters



Happy New Year!

I hope everyone had a nice holiday. AFA remains in good standing with balances of \$576.16 in the Pay Pal account (a great way to register for the upcoming meeting☺), \$4,254.71 in the Regions Checking account and \$16,589.45 in the Regions CD for a total of \$21,420.32. As always we would like to thank our sustaining and corporate members for their continued support of the organization. An outstanding meeting is ahead of us, and I look forward to seeing everyone in Columbiana February 8th-10th.

P.J. Waters (AUMERC)
waterph@aces.edu

STEERING COMMITTEE

The 2011-2012 AFA Steering Committee consists of: Troy Goldsby (Aqua Services, Inc.), Gina Curvin (ADEM), Dusty Miller (ADEM), Hugh Hammer (Gadsden State), PJ Waters (AUMERC) Dennis DeVries

(Auburn), Mike Holley (ADCNR), David Cline (Auburn), Doug Powell (AL Power), and Rob Angus (UAB). We are grateful to these folks for their willingness to help steer our organization in the right direction.

Call for new steering committee members

The steering committee meets twice a year in a central location to make decisions that guide the organization. If you want your opinions heard or would like to have a say in any decisions that are made, we invite you to join. Currently, we only have about 2 or 3 members in addition to the executive board that meet regularly. We would love to have a larger part of our membership get involved in the day to day operations of AFA. The steering committee is open to any active member of AFA. Just send an email to any of the board members below and let us know you are interested. Your name will be placed on our next steering committee e-mail list. Please consider joining today!

President -Troy Goldsby
troyg@aquaservicesinc.com
President Elect-Hugh Hammer
hhammer@gadsdenstate.edu
Treasurer- PJ Waters
waterph@aces.edu
Secretary-Dusty Miller
jmiller@adem.state.al.us

FROM THE INTERIM EDITOR

Gina Curvin



Thanks to all of you who contributed to this issue. It is your news items that make the newsletter interesting and informative to our members. AFA's primary means of communicating with our members is via email. We can't contact you if we don't have your current address. Please notify me if your email address changes or if you haven't been receiving AFA announcements.

As most of you now know, Rob Angus our distinguished newsletter editor of 16 years has retired. He has done a wonderful job over the years and has finally decided to pass the torch. We sincerely thank him for all of his years of service to AFA. The AFA board is currently seeking a replacement to take over the editor job. I have agreed to fill in as interim editor for the winter newsletter. A new editor will be elected during the next annual meeting. If you are interested in taking on this prestigious position please inform our president, Troy Goldsby.

Gina Curvin (ADEM)
gcurvin@adem.state.al.us

GET CRACKIN WITH THE AFA

**28TH ANNUAL MEETING
ALABAMA 4-H CENTER ON LAY LAKE
Columbiana, Alabama
Feb. 8 - 10, 2012**

The program chairman for this year's meeting is our President-elect, Hugh Hammer (Gadsden State U).



Greetings to the membership...I hope you all had a wonderful holiday season and a great start to the New Year. Things are almost ready to go for this year's AFA meeting February 8-10 (Wednesday – Friday) at the Alabama 4-H Center on Lay Lake and we are excited about another great meeting at a great location. This is going to be an awesome venue for us and the director of the facility Sandra Spencer has been wonderful to work with... The facility boasts a first-class meeting facility, nice accommodations for both members and students at good rates onsite, the ability to have the social and banquet catered onsite with the beer expenses left up to us ☺, and a very nice location on Lay Lake (so bring your poles if the weather is nice). Go ahead and make your arrangements and check out the facility at: www.aces.edu/4hcenter. Both the social and the banquet will be held onsite (so there is no need to drive) and there will be a full breakfast buffet on both Thursday and Friday mornings to get you there on-time ☺....WE STILL HAVE ROOM FOR SOME TALKS SO GET THOSE TITLES TO THE MODERATORS (listed below)

- 51 guestrooms at \$65 per night double or single occupancy (plus \$5 for each additional person) SO CALL EARLY
- 30 dormitory style rooms that sleep 4 for \$45 dollars per night double or single occupancy (plus \$5 for each additional person).
- **For reservations call #205-669-4241 and tell them you are with the AFA.**

- **New !! Crackin Open Aquatic Careers: A Student Social Wed Evening Feb 8th**
- **New!! Crackin Into Undergraduate Scholarships for AFA Thursday Lunch Feb 9th.** A cajun theme fundraiser lunch to support the new AFA undergraduate scholarship.

The session moderators are:

Small impoundments and Reservoirs: Mike Holley, Biologist, Alabama Division of Wildlife and Freshwater Fisheries, PO Box 158, Eastaboga, AL 36260 Phone: 256-831-6860 email: mike.holley@dcnr.alabama.gov

Biodiversity: Lori-Tolley Jordan, PhD, Dept of Biology, Jacksonville State University, 700 Pelham Rd. N, Jacksonville AL 36265, Phone: 256.782.5964 email: ljordan@jsu.edu

Marine and Coastal Ecosystems: Scott Rikard, Auburn University Shellfish Laboratory, 150 Agassiz St., Dauphin Island AL 36528, Phone: 251.861.3018 Email: rikarfs@auburn.edu

Aquaculture: Bill Walton, PhD, Auburn University Shellfish Laboratory, 150 Agassiz St., Dauphin Island AL 36528, Phone: 251.861.3018 Email: billwalton@auburn.edu

Aquatic Weeds and Water Quality: Chris Johnson . Chief, Technical Support Section, Water Quality Branch, Water Division, ADEM Phone: 334-271-7827 cljohnson@adem.state.al.us

Contributed Papers: Hugh Hammer, PhD, Aquaculture Education and Development Center, Gadsden State Community College, 1001 George Wallace Drive or PO Box 227, Gadsden, AL 35902-0227 Phone: 256-549-8345 Email: hhammer@gadsdenstate.edu

The program will follow the standard format:

Wednesday February 8, 2012

Registration opens at 10:00 AM
Presentations 1 to 5 PM
Social and Student Meet and Greet 6 PM

Thursday, February 9, 2012

Full Breakfast Buffet
Presentations 8 AM to 5 PM
Banquet

Friday, February 10, 2012

Full Breakfast Buffet
Presentations 8 AM to 11 AM
Business Meeting

Hugh Hammer (Gadsden State)
hhammer@gadsdenstate.edu

U.S. FISH AND WILDLIFE SERVICE

Strategic Habitat Unit (SHU) Project

The Service continues to work closely with a core group of organizations (GSA, ADCNR, and Alabama Clean Water Partnership) to promote watershed conservation through what we are calling the Alabama SHU Project. In 2012, we will be finalizing a statewide SHU map highlighting priority restoration watersheds, and conducting physical habitat and fish community surveys (IBI's) in select watersheds (Big Canoe and Murder creeks). This is an exciting project and we highly encourage any group or organization to contact us if you are interested in partnering.

Other fishery related activities planned for early 2012 include, continuing to assist the ADCNR in Alabama Sturgeon sampling in the Lower Alabama River; and working closely with the ADCNR, Auburn, Corps, GSA, and TNC in evaluating fish movement and passage studies in the Alabama River.

Endangered Species Listing Update

The final listing rule for the Rush Darter (*Etheostoma phytophilum* - endangered) was published in August. The Tulotoma snail (*Tulotoma magnifica*) was the first ever freshwater mollusk to be downlisted under the Endangered Species Act. In July, it was downlisted from endangered to threatened. A proposed listed package, along with critical habitat, was published in October for eight Gulf Coast mussel species that include, the Alabama pearlshell (*Margaritifera marrianae*), Round ebonyshell (*Fusconaia rotulata*), Southern sandshell (*Hamiota australis*), Southern kidneyshell (*Ptychobranthus jonesi*), and Choctaw bean (*Villosa choctawensis*) as endangered, and the Tapered pigtoe (*Fusconaia burkei*), Narrow pigtoe (*Fusconaia Escambia*), and Fuzzy pigtoe (*Pleurobema strodeanum*) as threatened. The final rule will be published in October 2012.

In 2010, the Center for Biological Diversity (CBD) petitioned the Service to list over 400 Southeastern species. Over 100 of those occurred in Alabama, and approximately half were freshwater aquatic species. Following a settlement with the CBD and Wildearth Guardians, the Service has committed to conducting 12-month findings, over the next 2-3 years, to determine if these species warrant listing. The fish species in Alabama include, the Coal Darter (*Percina breviceauda*), Tuscumbia Darter (*Etheostoma Tuscumbia*), Trispot Darter (*E. trisella*), Holiday Darter (*E. brevirostrum*), Warrior Darter (*E. bellator*), Bankhead Darter (*E. sipsi*), Frecklebelly Madtom (*Noturus munitus*), Halloween Darter (*Percina* sp. cf. *palmeris*), Crystal Darter (*Crystallaria asprella*), Alabama Shad (*Alosa alabamae*), Bluestripe Shiner (*Cyprinella callitaenia*), and Broadstripe Shiner (*Pteronotropis euryzonus*). There are also a host of mussels, snails, and crayfishes included in this settlement.

Retirement

After 43 years of Federal service, Frank Paruka hung up his waders at the end of the year. Frank has probably collected more Gulf Sturgeon than any biologist in the Southeast, and done so much to promote conservation of the species through his genuine passion and love for his work. We'll miss him and wish him the best in retirement.



Escambia River near Quintette, FL, October 2006

AUBURN UNIVERSITY

AWW Biomonitoring Workshop a big hit

On Saturday, December 10th, 2011 a group of enthusiastic citizens braved the chilly but beautiful Saugahatchee Creek to learn how benthic macroinvertebrates or “aquatic bugs” can tell us a great deal about water quality. The type of water monitoring technique taught in this workshop is referred to as stream biomonitoring. Put simply, certain aquatic bugs function as indicators of water pollution. Some types have a high tolerance for pollution; therefore if you only find that type of bug in your stream, your stream is not very healthy. However, there are others that cannot tolerate pollution; therefore if they are present you know that your water quality is good, and has been good for some time. Stream biomonitoring is a good method for

determining current and past impacts to water quality. AWW Director, Bill Deutsch was quoted in the Volunteer Monitor Newsletter saying, "If a pollution slug moves through on Monday and you monitor on Wednesday, the chemistry looks fine, but the bugs know better. They were there. They are mini-meters, 24/7."



Biomonitoring trainees sample Saugahatchee Creek for macroinvertebrates

Before going to the stream participants learned about the different types of aquatic bugs and what factors, particularly human impacts, affect their presence in a stream. They also learned to classify each bug into the appropriate group based on their tolerance for pollution. Once they were at the stream they put their kick-net skills to use to collect around 100 macroinvertebrates. Finally they calculated a biotic index using the bugs collected, which indicated that this particular stretch of the Saugahatchee Creek had "excellent" water quality.

AWW Director, Bill Deutsch and Data Coordinator, Sergio Ruiz-Córdova led the workshop. Also present were several other

AWW staff members, undergrad and graduate level students from Auburn University, Alabama A&M and the University of Alabama in Huntsville, municipal staff from Phenix City and Montgomery, a biology teacher, a representative of the Southern Environmental Law Center, and Riverkeepers from the Coosa and Choctawhatchee. In the words of Choctawhatchee Riverkeeper and veteran AWW trainer, Mike Mullen, "The Stream Bioassessment workshop this past Saturday was one of if not the best training workshops that I have ever participated since creation of the AWW program"!



Aquatic critters found in Saugahatchee Creek

AWW intends to offer more opportunities for certification in biomonitoring in the coming year. If you are interested watch our website for upcoming workshops and contact us to let us know that you would like to be part of the next training event. It's a great opportunity to spend a day at the creek while increasing your knowledge base of aquatic ecology and expanding your water monitoring technique repertoire. For more pictures of sampling and macroinvertebrates found in the Saugahatchee, go to the AWW blog at <http://blog.auburn.edu/aww> .

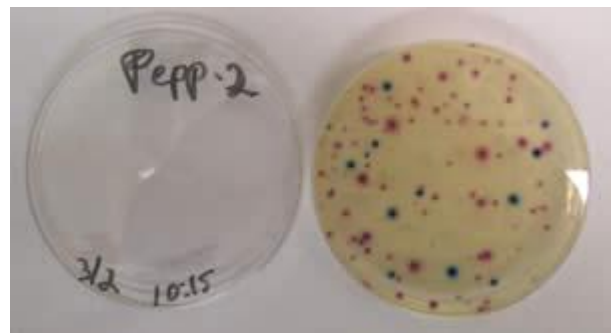
Five years of bacteria ‘blitzing’ makes Auburn-area a cleaner place to live

Area volunteer monitoring groups began collaborative watershed-level water monitoring in the Saugahatchee and Chewacla watersheds in and around Auburn, Alabama back in 2007. Members of Save Our Saugahatchee (SOS) and Friends of Chewacla Creek and the Uphapee Watershed (CHEWUP) had been trained and certified in Bacteriological Monitoring by Alabama Water Watch (AWW), and had monitored a few sites for *E. coli* in the two watersheds. Concerns about sewage contamination in the Auburn-Opelika area were growing, and the watershed “blitz” sampling idea was born. Actually, the idea was adopted from another monitoring group, Lake Wedowee Property Owners Association, that had initiated watershed blitz sampling (lots of key sites throughout the watershed sampled simultaneously to provide a snapshot of watershed health) in the Lake Wedowee Watershed in 2006.



SOS monitor, Cliff Webber, reads plates of bacteria after incubation

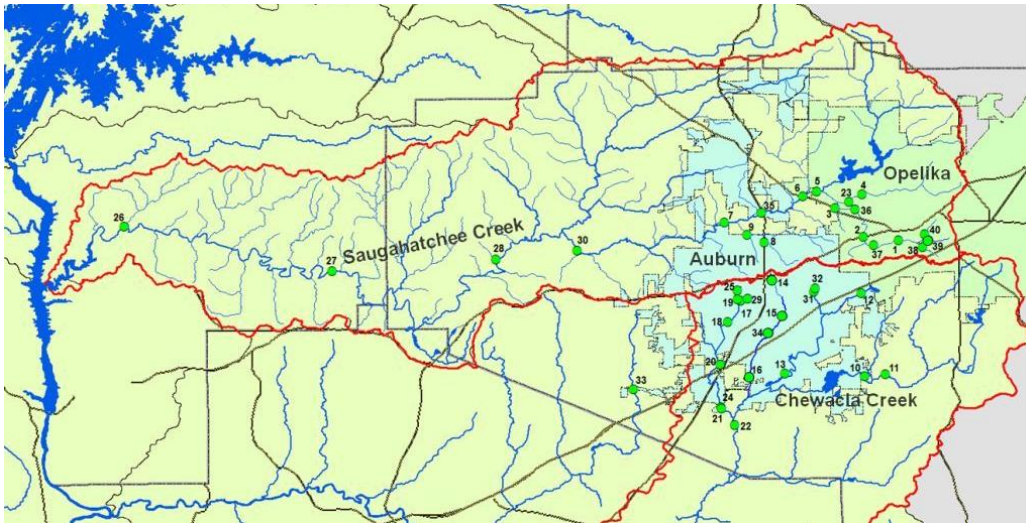
Up until 2009, the Alabama Department of Environmental Management (ADEM) used a slightly different measure, fecal coliforms, to measure bacteria contamination in surface waters. Since the presence of *E. coli*, a subset of fecal coliforms, correlates more closely to the occurrence of human illness from bacteria-laden waters, ADEM switched to an *E. coli*-based water quality standard in December 2009. Since these relatively new water quality standards are in close agreement with the existing AWW bacteria monitoring protocols, AWW is sticking with its 200 and 600 cut-offs for continuity in citizen monitor data reporting and interpretation (below 200 *E. coli*/100 mL of water = safe for frequent human contact, 200-600 *E. coli*/100 mL of water = maximum level for infrequent human contact, and above 600 *E. coli*/100 mL of water = unsafe for human contact; symbolized by the green-yellow-red traffic light used on AWW bacteria graphs).



***E. coli* (blue colonies) measured in Pepperell Branch in March 2010**

SOS and CHEWUP monitors strategized on a sampling plan and conducted their first watershed blitz in January 2007, monitoring 26 sites in the two watersheds. Five years later, blitz sampling has grown to 40 sites on Saugahatchee and Chewacla creeks and their key tributaries.

During SOS’s annual meeting in December 2011, AWW staffer, Eric Reutebuch,



Volunteer monitor sites during 2011 bacteria blitz sampling

presented an overview of the 2011 Bacteria Blitz results. The 2011 sampling plan had expanded by five additional sample sites on the Pepperell Branch in Opelika. This sampling was added as a part of the implementation of an ADEM-funded watershed management plan, the Saugahatchee Watershed Management Plan (SWaMP) that targets reduction of nonpoint source pollution to clean up the creek. Since Pepperell Branch was added to ADEM’s 303(d) list of polluted streams in 2010 because of excess pathogens, more intensive sampling of this tributary was proposed to aid in quantifying and sourcing bacteria contamination as a part of SWaMP implementation. Interestingly, of the 40 sites sampled in 2011, exactly half (20) were in the Saugahatchee Watershed and the other half were in the Chewacla Watershed (which was unplanned, based solely on volunteer monitor concern and effort).

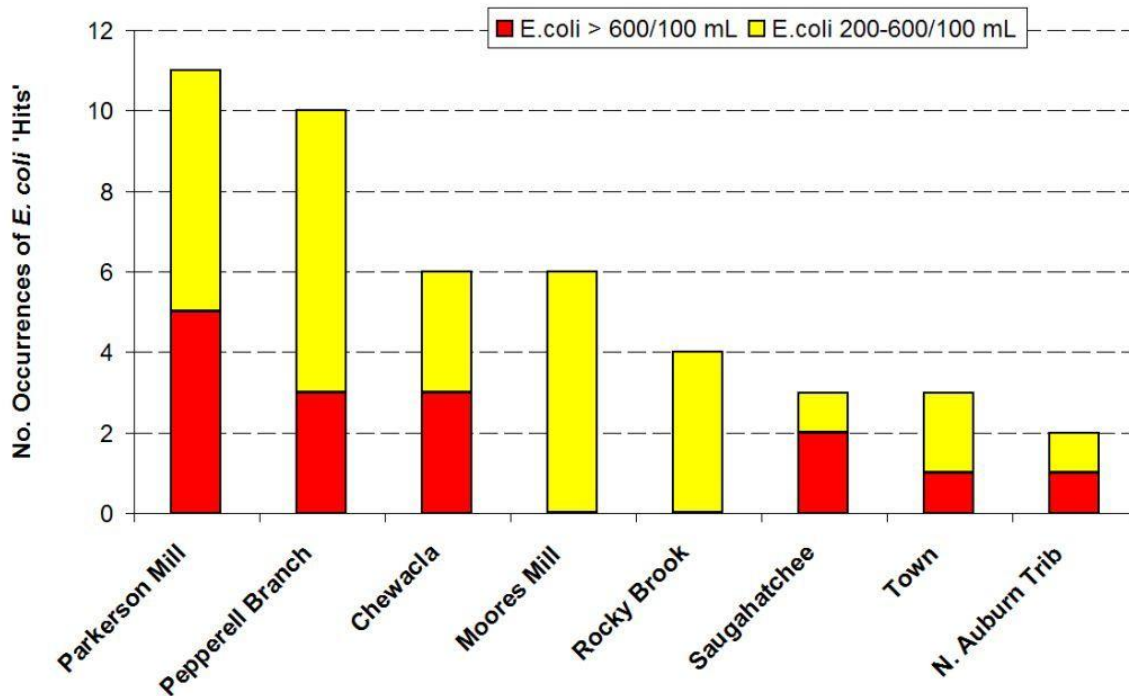
Summaries of results were presented for the four seasonal bacteria blitzes in both tabular and map formats (available in the Powerpoint presentation, accessible in the blog article at <http://blog.auburn.edu/aww>). A total of 45 “hits” (*E. coli* levels of 200 per 100 milliliters of water or higher) were measured out of 138 samples measured during 2011 blitz efforts (15 of the 45 hits were in the “red zone” – greater than 600 *E. coli* per 100 milliliters of water, which is unsafe for human contact; 30

were in the “yellow zone” – 200 to 600 *E. coli* per 100 milliliters of water, which is the maximum allowable level for infrequent human contact).

Total 2011 hits broken out by stream indicated that the two streams 303(d)-listed for pathogens, Parkerson Mill and Pepperell Branch, had the highest levels and occurrences of *E. coli* contamination (11 and 10 hits respectively). The following graph is a priority ranking of sampled streams based on occurrence of *E. coli* hits measured by the SOS and CHEWUP water monitors (red portion of bars indicate hits of *E. coli* greater than 600/100 milliliters of water; yellow portion of bars indicate hits of *E. coli* in the 200-600/100 milliliter of water range):

As seen in the graph on the next page, the two 303(d)-listed streams (based on presence of excessive pathogens) were the highest priority streams (had the greatest number of *E. coli* hits) based on the 2011 citizen bacteria blitz data.

Examples of long-term trends in bacteria concentrations in select streams were presented to show more intensive sampling done by some of the local volunteer monitors, and to emphasize that these data and graphs can be accessed and explored via the AWW



homepage (www.alabamawaterwatch.org, click on WATER DATA).

In conclusion:

1. The mainstem of Saugahatchee Creek was not heavily contaminated with *E. coli*, contamination occurred mostly in a tributary, the Pepperell Branch.
2. Volunteer water quality data in the two watersheds, the Saugahatchee and Chewacla watersheds, grew from zero in 1996 to 5,250 records in December 2011.
3. As a result of volunteer water monitoring, sewage contamination problems in both Auburn and Opelika have been sourced and fixed.
4. Collaborative relationships have developed between citizen monitors and municipal officials, which are crucial for the effective and timely solving of water quality problems.
5. Auburn-area efforts serve as an inspirational success story to motivate others toward watershed stewardship (featured as an AWW SUCCESS STORY – see AWW’s homepage).

Watershed monitoring and pollution resolution was accomplished through the efforts of both SOS and CHEWUP volunteer monitors, through training and backstopping provided to volunteers by AWW, through funding provided by grants from ADEM and the World Wildlife Fund, and through collaboration with municipal officials in the cities of Auburn and Opelika – thanks to all for making this part of Alabama a better place to live!

Huntsville water monitoring workshop – one of largest ever!

A group of dedicated area residents dipped tubes and collection bottles into the Indian Creek Canal in downtown Huntsville to test an array of water chemistry parameters on November 19th 2011. Trainers from Alabama Water Watch (AWW) and the Flint River Conservation Association (FRCA) hosted one of AWW’s largest workshops ever, with 33 attendees. Participants included professional agency folks, teachers, students, a couple of spelunkers, and retired folks.



During the classroom portion of the six-hour Water Chemistry workshop, participants learned about Alabama Water Watch, its mission, vision and goals, and an overview of the water environment, pollution and water quality standards, how to develop a water monitoring plan, and how to conduct the six water chemistry tests included in the AWW water test kit. Tests include temperature, pH, alkalinity, hardness, turbidity and dissolved oxygen. Secchi disk depth, a measure of water

clarity in lakes and ponds, was also demonstrated.

After lunch, the trainees conducted tested the water of Indian Creek Canal. AWW trainers stressed following the protocols in the AWW Water Chemistry Monitoring manual, doing the tests correctly, and conducting consistent monitoring (usually once a month) over the long haul to detect trends and be able to see if water quality is getting better or getting worse.

The diversity in trainees exemplified the many different reasons why folks monitor water and the diversity in the many ways that AWW water data are put into positive action, such as environmental education, outreach, waterbody conservation/ restoration, environmental advocacy/influencing water policy. This group of enthusiastic volunteer monitors will be a big shot in the arm to watershed stewardship in the Huntsville area!



Source: Huntsville Times, available at al.com

http://photos.al.com/huntsville-times/2011/11/water_monitoring_1.html

ELECTROFISHING CLASS AT THE “BASS FISHING CAPITAL OF THE WORLD”

Assistant manager Jan Dean served as an instructor for the FWS Electrofishing Course in Eufaula, Alabama November 14-18. Of the 26 class participants, 19 were from the Division of Wildlife and Freshwater Fisheries of Alabama’s Department of Conservation and Natural Resources. The rest were from the Geological Survey of Alabama and the Fish and Wildlife Service. The class was held at the Lakepointe State Park Resort. The facilities were the finest we’ve seen for this course; the resort underwent a \$12 million renovation in 2009. On the schedule board were a retirement party and a wedding. That is a far cry from some EF classes long ago where the instructors had to stay in a tent. The state park was on a tributary of Lake Eufaula, a 45,181 acre impoundment of the Chattahoochee River; Lake Eufaula has been dubbed the “Bass Fishing Capital of the World.”



Dr. Alan Temple mapping voltage gradients around a backpack electrofisher. The Alabama EF boat fleet is in the background.

Besides the regular class instruction, we were afforded the opportunity to evaluate a couple of new electrofishing equipment items and to assess the Alabama District Fisheries electrofishing fleet. Mid-west Lake Electrofishing Systems sent us their Infinity

pulsator box for electrofishing boats plus the means (isolation transformer, load bank, floor mat switch and color oscilloscope) to demonstrate its capabilities and waveforms to class participants in the classroom using line voltage. Smith-Root, Inc. sent us their new Power Standardization System to measure the output of their GPP boat electrofishers. The PSS is a box which fits between the GPP and the electrodes and connects to a laptop computer for reading output peak voltage and peak current so that GPP units can be used for standardizing electrofishing by peak power output to the water. The PSS thus overcomes a lack of such capability by the standard GPP ammeter.

Most EF classes include electrofishing boats from a myriad of agencies. Rarely, we get to assess a fleet of boats, as we were able to in this class. In comparing data from these boats and from the Louisiana fleet earlier this year, which used boats with typical an-ode arrays plus those with prod poles, we are beginning to look at electrofishing peak power requirement in a novel way. After gathering more fleet data, we may propose a new way of standardizing by power. Being able to see electrofishing boats from around the country allows us this unique opportunity.

WORKING TOGETHER TO IMPROVE THE BUTTAHACHEE RIVER

In the Southeast, November means that college football is in full swing and can pit even the best of friends against each other when rival schools clash on the gridiron. However, this November saw rivalries put to the side as biologists from Louisiana and Mississippi joined forces to start working on the Buttahatchee River. The Buttahatchee River flows westerly out of Alabama into Mississippi where it empties into the Tennessee Tombigbee Waterway. The mussel biologist from Natchitoches National Fish Hatchery (NNFH) spent three days working with biologists from Private John Allen

National Fish Hatchery (PJANFH), the Mississippi Ecological Services Field Office (MESFO) and Wildlife Mississippi, a non-government organization, to assess the condition of the Buttahatchee River and to determine what would be needed to conduct a fish passage study that would cover over 20 miles of river. The Buttahatchee River has few access points for launching boats, and it contains numerous downed trees that stretch from bank to bank, limiting the initial surveying to short stretches of river. In total, the initial surveying covered about seven miles of river broken up into three small segments, as seen on the map. In those seven miles, one area was identified as a potential fish passage issue that will be addressed in full detail when the full survey is finished. In addition to the fish passage survey, Wildlife Mississippi was interested in the current state of the freshwater mussels living in the Buttahatchee River. The last reported survey was conducted in 1990 by Paul Hartfield, currently with MESFO, and Robert Jones with the Museum of Natural Science in Jackson, MS. While the initial focus of this current trip was to address access to the river and fish passage, we did take time to pick up mussel shells that had washed up on gravel bars. We collected 20 of the 37 mussel species reported by Hartfield and Jones, including three species that are listed under the Endangered Species Act. Plans are being made for the NNFH biologist and one additional partner to finish the fish passage survey this summer and then combine all of our resources to conduct a more de-tailed mussel survey with help from the folks at the Alabama Aquatic Biodiversity Center. Information from the fish passage and mussel survey will help managing agencies and NGOs make the best possible management decisions for the Buttahatchee River.

ALABAMA DIVISION OF WILDLIFE AND FRESHWATER FISHERIES

Landowner Incentive Program, Paint Rock River Basin Restoration Initiative

Update: The Alabama Wildlife and Freshwater Fisheries, Landowner Incentive Program, currently has two low water crossing/fish barrier removal projects on the Paint Rock River. Both projects will consist of removing the crossings and installing a bridge for the landowners to have access to their property. The first project is on Hurricane Creek (photo 1724) and the rail car was just recently

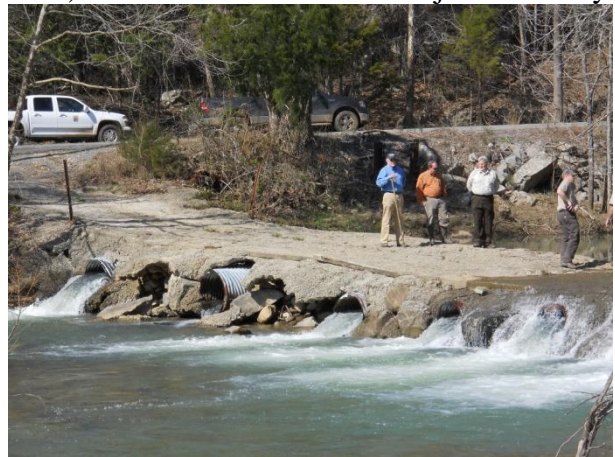


Photo 1724

installed (picture 007). The next step will be to remove the crossing during a low water event. This project will benefit multiple aquatic species, specifically species in greatest conservation need such as the Alabama lampmussel, Tennessee pigtoe and Tennessee heelsplitter. The second project is on the main stem of the Paint Rock River. Construction has not started on this project yet, but a bridge will soon be in place, to follow with the removal of the crossing. These projects would not be possible without the cooperation of the private landowners, The Nature Conservancy and US Fish and Wildlife Service.



Photo 007

GULF STURGEON VOLUNTEERS MAKE FALL POPULATION SURVEY POSSIBLE

Thanks to 37 volunteers and a dozen Fish and Wildlife Service employees, the Yellow River Gulf sturgeon population survey went off without a hitch. This is year two of the fall (September and October) population survey which will provide more information about Gulf sturgeon population demographics in the Yellow River. The many volunteers that donated their energy and time to help out came from as far away as Alaska, and included partners from Florida Fish and Wildlife Conservation Commission, U.S. Environmental Protection Agency, Eglin Air Force Base, Choctawhatchee Riverkeeper, National Marine Fisheries Service, U.S. Army Corps of Engineers, and Florida State Parks. In addition, Service personnel from the regional office and field offices located at Panama City, Vero Beach, and Eglin Air Force Base along with volunteers from the Welaka National Fish Hatchery and St Vincent National Wildlife Refuge provided their time and equipment that helped make the survey a success. Volunteers ranged in age from retirees to local high school and college students.

Largely, volunteers assisted the Panama City FWCO lead with setting nets to capture Gulf sturgeon and collection and tagging efforts. They collected, measured, weighed and tagged 129 Gulf sturgeon from September 26 through October 23. Over 30% of the fish were captured during the last week when the water temperature dropped from 70° F to 60° F. The weather the first few weeks had been exceptionally mild and the Gulf sturgeon were not moving downstream in numbers but waiting for a cue (cooler temperatures) to signal that it was time to migrate to the marine waters to overwinter and feed. The week of October 17, the air temperature plunged to 37° F and we collected 25 Gulf sturgeons in one day! The fish ranged in size from 20 inches to 82 inches total length and weighed from ¾ pound to 121 pounds. Year classes (juveniles, sub adults and adults) were well represented in our sample. We estimated the Gulf sturgeon population in the Yellow River at 1,032 individuals as calculated using the Petersen capture-mark-recapture methodology. The 2011 Gulf sturgeon population estimate (1,032) is lower than the 2010 population estimate of 1,200 fish. New netting protocols this year dictated that all nets had to be out of the water before nightfall which excluded our standard night time check which in studies conducted last year and in previous years had accounted for 20% of the fish collected. The Gulf sturgeon population for 2011 would be very similar to the 2010 estimate with the 20% factor included.

Nineteen fish of the 129 collected during the study had been tagged prior to 2011 with the majority of the recaptures resulting from studies conducted in the Yellow River from 2001 through 2009. Although Gulf sturgeon have a strong homing instinct to return to their natal river, it is not uncommon for fish to venture into other river systems as with this year's collection which included fish from the Blackwater (6), Escambia (1) and Apalachicola (1) rivers. Twenty adult Gulf

sturgeons were surgically implanted with 5 year battery life acoustic transmitters in order to assist researchers in documenting movement and habitat use of the fish during the overwintering period in marine waters. A similar study conducted in the Yellow River last year found that the majority of fish equipped with acoustic transmitters spent three to four months overwintering in the coastal waters of Gulf of Mexico in the vicinity of Perdido Key, Florida, Perdido Pass, and Gulf Shores, Alabama. Our by-catch during the study included a trying two week period when moon jellyfish plagued our nets; however, a high point was the collection of a new state record alligator gar weighing in at 133 pounds! The Florida Fish and Wildlife Commission equipped the gar with an external transmitter to help with their ongoing study to monitor movement and habitat of this rare and now protected fish.

Altogether, the effort was largely successful and would not have been possible without our dedicated volunteers! The Service is thankful for their time and commitment towards the further understanding and conservation of this spectacular fish.

GEOLOGICAL SURVEY OF ALABAMA

Results of monthly sampling of water quality parameters and the Alabama Cave Shrimp population in caves on Redstone Arsenal and an annual evaluation of the Tuscumbia Darter population on the Arsenal were completed for the Department of Defense. The past several years have seen low numbers of Cave Shrimp observed, perhaps due to recent droughts forcing them to deeper groundwater or affecting reproductive processes. However, some gravid shrimp among slightly greater numbers of shrimp (compared to the past few years) suggest that the shrimp is holding its own. The Tuscumbia Darter population in the

Williams Spring complex also appears to be relatively steady. A new three-year project began this fall in cooperation with DOD to fully sample the Indian Creek watershed on and near Redstone Arsenal to delineate the recently discovered Tuscumbia Darter population upstream of Williams Spring. A permanent water-quality monitoring station will be installed in Williams Spring to gather year-round data.

The third year of sampling freshwater mussel populations in the Black Warrior system with Section 6 funding was executed this past summer. Emphasis over the past two summers included some main channel work from the tailwater of Bankhead Lock and Dam downstream past Tuscaloosa to the Coastal Plain and in tributaries from the Fall Line upstream, emphasizing the Locust Fork and tributaries. Effort this year was placed in the remaining Locust Fork stations and in Coastal Plain tributaries. Several populations of listed species and some streams with rather diverse faunas were confirmed on the Coastal Plain. The final year of funding will emphasize the Sipsey and Mulberry Forks and filling in some coverage gaps in other areas of the system.

Sampling the aquatic macrofauna in Cane Creek Canyon Nature Preserve in Colbert County with Section 6 funding was completed. The objective was to document the fish, crayfish, and snail faunas of this valuable, isolated Tennessee Valley headwater stream. The remote setting and relatively deep canyons in this area have permitted a very rich and well-documented floral and terrestrial animal assemblage to persist within the Preserve, but little work has been done on the aquatics. A very diverse fish assemblage was previously documented by TVA and GSA during IBI sampling about five stream miles downstream of the Preserve in Cane Creek in an agricultural setting, and it was theorized

that the same mechanisms permitting that diverse fish fauna and the abundant flora within the Preserve to abound would be reflected in the aquatic fauna within the Preserve. However, all the species encountered were fairly common species typical of headwater streams in the Tennessee Valley.

Stuart is cooperating with an interdisciplinary group from the University of West Alabama and Mississippi State University to shed some light on the assemblages of bivalves and their influences on Native American groups in the Lower Tombigbee River system based on an analysis of the bivalves from archaeological sites in the region. Of interest to the malacological community, preliminary analyses of shells from numerous studies document some degree of downstream range extensions for several species. That research will hopefully be published in 2012 in a special volume of the journal *Southeastern Archaeology*.

GSA recently completed a two-year biological monitoring survey in the Locust Fork system in cooperation with USFWS. The status of Cahaba Shiner (*Notropis cahabae*) populations was comparable to surveys completed in 1997-98 and Cahaba Shiners were observed at all previous sampling stations. One Cahaba Shiner individual was found in Ward Creek approximately one kilometer upstream of its mouth and is a new tributary record of this species in the Locust Fork. Individuals of the coal darter (*Percina brevicauda*) were found regularly in main channel Locust Fork shoals and in the larger tributaries. Calculations of biological condition using IBI indicated poor condition and status of the fish assemblage at many sites in the Locust Fork system.

Continued surveys for the Trispot Darter (*Etheostoma trisella*) in the Little Canoe Creek system (Big Canoe Creek-Coosa River) located additional breeding sites for this species and conservation actions with local

landowners are planned for some of these breeding sites. Trispot Darters were also found in two small, direct tributaries to Big Canoe Creek and again in the Ballplay Creek system during 2011. In an effort to locate additional populations around Ballplay Creek, about 50 sites were surveyed in the Weiss Lake region but none yielded Trispot Darters.

GSA continues working with USFWS, AABC, and the Alabama Clean Water Partnership (ACWP) to create new opportunities for imperiled aquatic species recovery and restoration through a concept called Strategic Habitat Units (SHU). Currently established SHUs encompass designated critical habitat for listed mussel species in the Mobile River basin which also encompasses some critical habitat for listed fish species as well. This initiative is facilitated through (1) geographic delineation of a SHU watershed or river segment, (2) development of integrated SHU-specific watershed information relative to aquatic habitat quality, biological condition, land-use assessment, and water-quality to determine likely threats to species, (3) using the threats determinations and watershed assessment data to identify stream reaches that need protection, management, or restoration, (4) implementation of an action plan to manage threats through a cooperative partnership of local landowners, organizations, and agencies including watershed partnerships, local and county governments, local businesses and farmers, state and federal agencies, and other interested parties, using a variety of conservation and habitat protection strategies, and (5) restoration and recovery of biodiversity working through the AABC.

The Alabama Cooperative IBI project among GSA, ADCNR, and ADEM is completing its final year of work calibrating the IBI to Alabama's unique physiography and biologically diverse fish assemblages. The purpose of this project is to create a statewide fish assemblage biological assessment tool for use in screening streams for use attainment,

evaluating water quality more completely and effectively, assisting watershed conservation and species restoration/recovery activities, and providing a biological tool to assist in managing Alabama's water quantity resources in the future. A standardized fish community sampling protocol has been established, the state has been regionalized into five ichthyoregions, and preliminary IBI metrics and criteria have been established for the five ichthyoregions.

A three-year survey of Alabama for crayfishes was completed in 2011 in cooperation with Guenter Schuster (retired, Eastern Kentucky University) and Chris Taylor (Illinois Natural History Survey). A total of 767 collections of crayfishes were made statewide by several institutions and individuals but were concentrated in areas poorly sampled in the past 30 years and in poorly sampled habitats. A variety of methods were employed, including baited traps, kick nets, seines (sometimes in combination with a backpack shocker), and by hand. Sixty-four of 85 species known from Alabama were encountered, with 12 species showing significant range extensions and 24 rarely encountered within their known ranges. *Orconectes virilis*, not native to Alabama, appears to have been introduced into the Black Warrior, Cahaba, and Coosa River systems and is thriving well in some locations. One genus previously unknown to Alabama was represented by the newly described *Barbicambarus simmonsii* from Shoal Creek near Florence, and about 10 more species await formal description. Suggestions for priority conservation status were offered for each species.

**ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
Environmental Indicators Section (EIS)**

Welcome to our newest employees



We are pleased to announce the arrival of two new staff members joining the Environmental Indicators Section. Both staff members recently joined the department in January 2012 and will have an opportunity to assist with all types of sampling. Preston Roberts graduated from Auburn University with a major in Fisheries and Allied Aquacultures. Rebekah Moore graduated from Troy University with a major in Environmental Science.

Fish Tissue Monitoring Program (FTMP)



Sample collection for ADEM's Fish Tissue Monitoring Program (FTMP) was completed between September and December 2011. Tissue samples were collected from forty eight

locations within 40 different waterbodies; 553 fish were collected. The focus basins for CY2011 were the Escatawpa, Mobile, and Tombigbee Rivers. Thirty four locations within the Escatawpa, Mobile, and Tombigbee River basins were sampled. Samples were also collected from 5 locations within the Perdido-Escambia River basin, 4 locations within the Tallapoosa River basin, 3 locations within the Coosa River basin, and 2 locations within the Tennessee River basin. Four stations below paper mills were sampled for dioxin monitoring. Twenty four locations with current ADPH consumption advisories for mercury, 2 locations with advisories for PCB's, and 1 location with a current advisory for DDT were also sampled. Laboratory analysis is pending.

For further information on the FTMP contact Michael Len at (334) 260-2787 or mten@adem.state.al.us

Rivers and Reservoirs Monitoring Program (RRMP)



This year the focus was in the Escatawpa/Tombigbee/Mobile River Basins (EMT). We also collected compliance samples in the Black Warrior River Basin. In total, the Department sampled 64 river, reservoir, or tributary embayment stations divided between four field offices. All of the sampling is

complete and much of the data is already available.

For further information on the RRMP contact Gina Curvin at (334) 260-2783 or gcurvin@adem.state.al.us

River and Streams Monitoring Program (RSMP)



Approximately 137 wadeable stations were sampled this season to fulfill a number of different objectives. Beginning in 2005, the sampling protocols of several programs were combined to achieve better efficiency within the division. Now one station may complete the sampling objectives for several programs like Ambient Trends Monitoring, Focus Basin Assessment, TMDL programs, and NPS intensive surveys. All scheduled sampling has been completed, and like the reservoir crew leaders, much of the data has already been entered. The RSMP crew leaders are not only responsible for collecting and entering the data, but also to complete a backlog of stream reports. We appreciate all their hard work.

We now have all of the 2005 and 2006 stream reports up on the web organized by county. The links to the 2007, 2008, and 2009 will be active soon. Check out the available reports at:

<http://www.adem.alabama.gov/programs/water/wqsurvey.cnt>.

For further information on the RSMP contact Lisa Huff at (334) 260-2752 or ESH@adem.state.al.us



ALABAMA FISHERIES ASSOCIATION

TWENTY-EIGHTH ANNUAL MEETING

FEBRUARY 8 – FEBRUARY 10, 2012

ALABAMA 4-H CENTER
COLUMBIANA, ALABAMA

PRE-REGISTRATION FORM

Name: _____ Affiliation: _____

Phone #: _____ Fax #: _____

Email Address: _____

Address: _____

City, State Zip +4: _____

Preferred Name on Badge (if different from above): _____

Registration Fee:	*Includes 1-year membership		
_____ Professional \$130.00*	_____ Students/Retirees \$60.00**		\$ _____
*If <u>pre-paying</u> before January 13 th , 2012 — T-Shirt Included w/Professional registration fee		SIZE: M L XL XXL	
**Note: Student registration does not include t-shirt. Apparel is available to order separately.			
Guest Non-Conference Registration Fee:			
_____ Guest VIP \$75.00	_____ Banquet Only \$25.00		\$ _____
**Includes: Social, Banquet, & Buffet Breakfast Only			
Membership (Non-registrants ONLY)	_____ 1 Year \$5.00		\$ _____
Raffle tickets:	(1 - 9 @ \$1 each, 15 for \$10, 30 for \$20) Qty: _____		\$ _____
Door Prize tickets:	(1 - 9 @ \$1 each, 15 for \$10, 30 for \$20) Qty: _____		\$ _____
(Optional) Donation to the AFA scholarship fund (\$5 suggested)			\$ _____
(Optional) Donation to the Contributing Biologist Award In Memory of: Malcolm Pierson (\$10 suggested)			\$ _____
TOTAL:			\$ _____

****T-SHIRT INCLUDED WITH PAID PROFESSIONAL REGISTRATION BY JAN 13TH**

Send to: Dusty Miller, P.O. Box 301463, Montgomery, Alabama 36130-1463 FAX: 205-941-1603.

Questions? Call: 205-941-2736 or E-Mail: board.afa@gmail.com

Make checks payable to: Alabama Fisheries Association or AFA.

****RETURN BY MAIL OR FAX BY JANUARY 13, 2012****



2012 Apparel Order

*Items Available by Pre-Order ONLY

Name: _____

Phone #: _____

E-Mail: _____

Address: _____

City: _____

State: _____ Zip: _____

Send To: Dusty Miller
 P.O. Box 301463, Montgomery, Alabama 36130
 FAX: 205-941-1603.
Questions? Call: 205-941-2736
 or E-Mail: board.afa@gmail.com
Make checks payable to: AFA

TOTAL ENCLOSED: \$ _____

Short Sleeve Logo T-shirt \$12/ea.

QTY: _____ SIZE: _____ (M-XXL)

Long Sleeve Logo T-shirt \$15/ea.

QTY: _____ SIZE: _____ (M-XXL)

AFA Logo Hat \$10/ea.

QTY: _____

Polo Shirts \$18/ea.

Cotton Pique Knit Sport Shirt (w/Embroidered AFA Logo)

- 7-ounce, 100% cotton
- Higher stitch density
- ComfortSoft finish for superior softness
- Welt collar and hemmed sleeves

Men's: Clean finished three-button placket with wood tone buttons.

White QTY: _____ SIZE: _____

Light Steel QTY: _____ SIZE: _____

Light Blue QTY: _____ SIZE: _____

Sizes Available: (M-XXXL)

Women's: 4-button clean-finished placket with dyed to match buttons.

White QTY: _____ SIZE: _____

Light Steel QTY: _____ SIZE: _____

Light Blue QTY: _____ SIZE: _____

Sizes Available: (M-XXXL)



Colors Available:

White 

Light Steel 

Light Blue 

Long Sleeve Button Up \$22/ea.

(w/Embroidered AFA Logo Above Pocket)

- 4.5-ounce, 55/45 cotton/poly
- Button-down collar
- Dyed-to-match buttons
- Box back pleat
- Patch pocket
- Adjustable cuffs
- Wrinkle-Resistant

Men's: Sizes Available: (M-XXXL)

White QTY: _____ SIZE: _____

Light Blue QTY: _____ SIZE: _____

Women's: Sizes Available: (M-XXXL)

White QTY: _____ SIZE: _____

Light Blue QTY: _____ SIZE: _____



Colors Available:

White 

Light Blue 

Columbia® Bonehead Fishing Shirt

(w/Embroidered AFA Logo)

\$42/ea.

Fossil QTY: _____ SIZE: _____

WhiteCap QTY: _____ SIZE: _____

Sizes Available: (M-XXXL)



Colors Available:

Fossil 

WhiteCap 