

Georgia Chapter— American Fisheries Society



❖ The Bycatch — 2009

Editor: Brittany Trushel, UGA Fisheries

We are on the web:

<http://www.uga.edu/uqafish/ga-afs/home.htm>

Fun Factoids:

- GAs largemouth bass world record was tied this year by Manabu Kurita in Aichi, Japan. The fish weighted in at 22 lbs. 4 oz.
- The largest known fish in the sea is the Whale Shark. It weighs up to 20 tons and grows to a length of 40 feet.
- The state fish of Georgia is the largemouth bass (*Micropterus salmoides*).

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New Georgia Go Fish Center Expected to Open in Fall 2010

For years fishing has been one of America's favorite pastimes. In the past few decades, fishing has transformed from a release from the hassles associated with everyday life to a competitive sport capable of generating million dollar top prizes. Whether through the sale of equipment, tackle, fuel, or lodging, anglers spend billions annually "chasing a chub". Of the species anglers pursue, the most economically stimulating species may be the largemouth bass (*Micropterus salmoides*), a species many Georgians hold near and dear to their hearts.

For nearly 78 years, Georgia has held the largemouth bass world record, with an astonishing specimen weighing in at 22 lbs and 4 oz. This massive fish was caught in 1932 by George Washington Perry in the natural oxbow Montgomery Lake, located in Telfair County.



Newly constructed Go Fish Center, located in Perry, Georgia. The center is expected to bring 120,000 visitors to the area annually. The facility contains an educational center, a warmwater fish hatchery, a public casting pond, and indoor and outdoor exhibits.

Though one would believe that the state responsible for producing this world record fish would be a dream destination for bass anglers

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Drought: Out of Site, Out of Mind

With this past fall's rains and severe flooding throughout much of the state, it is easy to forget that these events provided much needed relief to most of the Southeast. From 2006-2009, we witnessed one of the worst droughts of the century in the southeastern U.S. Many streams were running extremely low while others were dry for almost six months and water supply reservoirs were at their lowest

usable levels with little recharge from the upstream watershed. Although most of the media attention centered on the city of Atlanta and the Apalachicola River, other areas throughout North and South Carolina experienced similar if not worse conditions. They also had their own water wars similar to what Georgia, Alabama and Florida have been fighting for over 20 years.

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Georgia Go Fish Center

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today, the exact opposite trend has occurred. When comparing Georgia to neighboring states, it is the least attractive tournament destination of bass anglers. Because of this, Georgia is missing out on the economic benefits of bass fishing tournaments. The money available to communities is staggering; a single major bass tournament could generate upwards of 5 million dollars and a championship could generate as much as 27 million dollars. To help attract tournament anglers and bring more revenue to the state, Governor Sonny Perdue has been an ardent and continuous supporter of the Go Fish Georgia initiative.

The Go Fish Georgia initiative is comprised of three goals; improve access to Georgia waters, increase fishing participation by promoting Georgia resources, and improve the quality of fishing in Georgia waters. This project plans to construct or renovate 18 boat ramps throughout Georgia. The initiative allocated 5 million dollars to put towards work on these boat ramps, which have been set up as a matching funds program with local municipalities. Because the funding from Go Fish Georgia has a cap of \$400,000, this means there is the potential to spend up to \$800,000 per boat ramp, which will vastly improve angler access throughout the state. In addition to the ongoing ramp improvement/construction program, family friendly fishing and recreation access points are also being developed. Additionally, one of the Go Fish Georgia major objectives is education, which will be addressed with the construction of the Go Fish Georgia Center.

The Go Fish Georgia Center is an educational facility located on 120 acres on the south side of the Georgia National Fairgrounds and Agricenter, in Perry. The Houston County Development Authority, Perry Area Chamber of Commerce, and the city of Perry have also contributed 2.5 million dollars to the construction cost because of the anticipated annual 120,000 plus people that will travel to Perry to visit the new facility. The Go Fish Georgia Center is composed of a fully functional warm water hatchery, casting pond, production pond, educational building, and additional outside exhibits. The educational building will be filled with art work and live fish exhibits illustrating the variation in fish and aquatic habitats that occur as one travels through Georgia's northern mountain region, progressing southward to the central piedmont region, and finally ending in the coastal plains of southern Georgia. Once visitors have learned the history behind Georgia's fisheries as well as fish identification techniques, they can try their luck and improve their skills by fishing in one of the on-site ponds, which will provide visitors with a visual and interactive learning experience.

The Go Fish Georgia Center will be built in two phases, one of which is already complete. Phase one involved construction of the educational building, warm water hatchery, production pond, and casting pond. Construction of phase two began on January 1st 2010, and includes indoor and outdoor exhibits consisting of aquariums, wall decorations, art work, and descriptive panels illustrating Georgia's fisheries and their histories. Construction is expected to be completed in six to eight months.

While ramp improvement will increase access to Georgia's waters, the warm water hatchery will be used to directly increase the quality of Georgia's

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"The Go Fish Georgia Center is a natural complement for the Georgia National Fairground & Agricenter as both will attract visitors to our community and enhance the economic impact of tourism in Georgia."

*-Jim Worrall
Mayor of Perry, GA*

"This program will allow for the development of a new ramp enabling Augusta to pursue economic development opportunities in the form of fishing tournaments, while at the same time providing increased outdoor recreational opportunities to local citizens for generations to come."

*-Deke Copenhaver
Mayor of Augusta, GA*

Georgia Go Fish Center

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fishing. This state-of-the-art warm water hatchery will be used to produce forage fish to enhance sport fisheries. Fish produced within this facility will be distributed throughout Georgia's water bodies to increase prey species abundance with the ultimate goal of producing larger sport fish. Though the effects of these stocking efforts may not be immediate, the increase in tournament anglers in response to ramp improvement will be instantly apparent. One requirement of obtaining money from the Go Fish Georgia initiative is that at least four fishing tournaments must be held annually at a recently enhanced or constructed ramp. Though this project is directed at bass fishing tournaments within Georgia, any fishing tournament will meet this requirement. In fact, Buckeye Park Landing in East Dublin, received money from Go Fish Georgia and has already made plans to hold a catfish tournament in the near future.



The Go Fish Center hatchery, which will rear forage fish and other species for stocking in Georgia waterbodies. The addition of forage fishes in a system will increase predation success of larger sport or food fish, resulting in increased growth and sizes.

Probably the most significant event in response to the Go Fish Georgia initiative efforts will be the Forrest L. Wood (FLW) championship tournament, which will be held at Lake Lanier on August 5-8, 2010. FLW outdoors is the largest fishing tournament organization in the world, and an event of this magnitude may add as much as 27 million dollars to the local economy. This four day event will end FLW's 2010 tournament series and will award \$500,000 to the champion. Gainesville's Laurel Park Boat Ramp will be the launch destination of the competitors and the Gwinnet Convention Center will host the daily weigh in as well as the Family Fun Zone and Outdoor Show. With an estimated 60,000 plus FLW angler fans and families coming to Georgia, the Family Fun Zone and Outdoor Show will provide fun and excitement for all in attendance. FLW is also hosting a free concert in Atlanta at Georgia's own Georgia Dome for fans and supporters of the tournament series. These events show that though the Go Fish Georgia initiative has not been fully completed, big things are in store for the future of Georgia anglers.

I would like to thank Matt Thomas, Assistant Chief of the Fisheries Management Section of the Georgia Department of Natural Resources Wildlife Resources Division, for supplying an update on the latest progress of Go Fish Georgia, and for any farther information on the topic one can visit www.gadnr.org or www.flwoutdoors.com.

-Justin Dycus
UGA AFS President

Fun Factoids:

- Zebra mussels, introduced into the Great Lakes twenty years ago, have not yet reached Georgia. Let's do our part to keep it that way! Spread the word about fighting the spread of exotic species!
- The Cumberland Island National Seashore contains many wild and intact sand dunes, a population of wild horses, and the ruins of an Carnegie estate, Dungeness.
- The town of Saint Marys, Georgia is the second oldest city in the nation, behind St. Augustine, Florida, which was founded in 1565.
- The Chicken Capital of the world is Gainesville, Georgia, and it is illegal to eat chicken with a fork.
- The campus at Berry College in Rome, Georgia is the world's largest. Rome also has the Marshall Forest, which is the only old-growth natural forest within a city limit in the United States.
- Two Georgia cities, Madison and Savannah, were spared by General Sherman during his devastating march for their beautiful scenery and homes.
- Georgia was named for King George II of England.

Drought: Out of Site, Out of Mind

Continued from page 1.

On the home front, however, this water war brought out the best and the worst in many people. Much of the controversy centered on people versus mussels, taking focus away from the downstream water users that could be negatively affected by the lifestyles and desires of upstream users. In some places, water conservation went from being a catch phrase to a daily practice that provided the only viable hope. Athens-Clarke County mandated strict water conservation measure that helped the city and surrounding areas through the tough times. In northwest Georgia, the Coosa River Basin Initiative and concerned citizens were very concerned about the health of the rivers and started a "mussel head" campaign. On the other hand, however, the media continually reported that Lake Lanier only had enough water to last 83 days. After three months of little, if any rainfall and continuously falling lake levels, Lake Lanier still had 80-plus days of water available for use by the city of Atlanta. One reporter even went as far as telling a US Fish and Wildlife Service biologist during an interview that "babies were dying in Atlanta" due to water shortages. However, despite having only 83 days of water left in Lake Lanier and the minor inconveniences of not being able to water our grass everyday, no babies died and we all ended up just fine.

Well, almost. Most are familiar with the large-scale die offs of the federally endangered Fat threeridge in the Apalachicola River, but little was said about the commercial shrimp and oyster op-

erations in the Apalachicola Bay that were hit hard economically by rising salinity levels in the bay due to insufficient water flow from the Apalachicola River, which in turn caused declines in shrimp and oyster harvests. On a localized scale, people were aware that more than 4 kilometers of Spring Creek and several other streams in southwest Georgia were dry for nearly six months, but little was mentioned of this on the statewide level.

All of this begs the question: Do we consider the drought out of sight and therefore put it out of mind? The frequency of severe drought appears to be increasing and some believe that the past decade was mostly drought with a few wetter years scattered throughout. Legislators and regional planners have begun the process of locating new reservoir sites or expanding existing reservoir capacities. However, this will be a rather lengthy process and it is likely that we will experience another severe drought before these new reservoirs can be on line at full capacity. Therefore, it remains imperative that we prepare today for the drought of tomorrow by continuing to educate citizens and leaders about water conservation and make the necessary upgrades to use water more efficiently across all scales. By gradually making these adjustments when times are good, we will help to lessen the urgency and inconvenience of making these adjustments the next time our backs are up against the wall.

*-Jason Wisniewski
GA DNR Malacologist*

Speakers Enrich UGA Student Subunit Meetings

During the past year, the University of Georgia student subunit of the American Fisheries Society has been fortunate to host a suite of talented and knowledgeable presenters. They greatly enhance the experience of our students by shining light on new and innovative techniques and topics. Our speakers from the past year were as follows:

- Dr. Chris Skelton, Georgia College and State University - Crayfishes of Georgia
- Mr. Greg Grimes, Aquatic Environmental Services, Inc. - Private Sector Bass Pond Management
- Dr. Tom Kwak, North Carolina State University - Stream Fishes of Puerto Rico
- Dr. George Sedberry, Gray's Reef National Marine Sanctuary - Marine Protected Areas
- Dr. Jim Stoeckel, Auburn University - Developing a New Mussel and Crayfish Research Facility
- Dr. Paul Angermeier, Virginia Tech - Making Conservation Biology Relevant

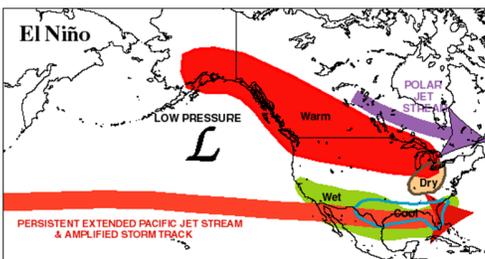
Many thanks to our presenters for taking the opportunity to share their time and knowledge with us!

*-Andrea Crownhart
UGA AFS Vice President*

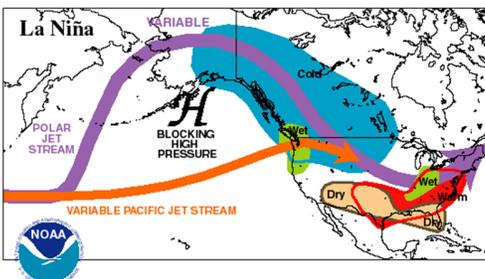
A Wet Summer, A Cold Winter, What's Next?

The southeastern United States recently emerged from a multiple-year drought in a period of only a few months. Whether these months seemed long or short, one thing was clear from the record setting rainfall, 2009 was a very wet year. As of January 2009, approximately 35% of the southeastern United States was encountering drought conditions. This figure was much better than the late 2007 and early 2008 drought projection of nearly 100% for the southeast region, with 80% experiencing extreme to exceptional drought conditions. According to the U.S. Drought Monitor, Georgia is now officially out of the drought, but what processes get the credit? Furthermore, this winter certainly feels colder than average, what phenomena are responsible? And what can we expect this upcoming spring and summer?

The National Oceanic and Atmospheric Administration (NOAA) officially announced the arrival of an El Niño event in early July 2009. An El Niño is designated when a periodic warming of Pacific ocean-surface temperatures exists for three months or longer (conversely, a La Niña is a periodic cooling of these waters). These warmer oceanic temperatures are accompanied by a strong jet stream, which passes directly through the southern United States, instead of taking the regular, more northern route (Figure 1). These easterly winds bring rainstorms and create expanded areas of vertical wind shear. This increased wind shear impedes the production of hurricanes in the Atlantic, resulting in less eventful



hurricane seasons during El Niño years. During La Niña years, a westerly wind moves across the southern U.S., decreasing the vertical wind shear and leading to an increase in hurricane activity and intensity in the Atlantic (i.e. Hurricane Katrina struck during a La Niña year). Furthermore, an El Niño year typically brings an increase in precipitation, along with colder than average winter temperatures, to the southeastern U.S.



Climate Prediction Center/NCEP/NWS
Figure 1. The figures above show the jet stream movement, along with the projected temperature and precipitation profiles for El Niño and La Niña events.

Another global phenomenon that shapes our microclimate is the North Atlantic Oscillation (NAO). Unlike El Niño and La Niña, which are climate driven, the NAO is atmospheric and involves sea-level atmospheric pressure. The NAO has both a negative and positive state. Positive NAO events occur when atmospheric pressure differences are large, resulting in a greater frequency and intensity of winter storms. These storms travel easterly at more northern latitudes, preventing the arctic air from reaching southward into the United States (Figure 2). Positive NAO events can lengthen growing seasons and increase precipitation in some areas, particularly in North America. During negative NAO events, which we are now experiencing, the differences in atmospheric pressure are generally small, resulting in fewer and weaker storms. However, these storm systems, and the associated arctic air masses, are pushed into more southern latitudes. A famous example of the effects of a negative

NAO occurred during Adolf Hitler's ill-fated attempt to invade Russia in the 1940s, exposing German troops to blizzard-like conditions with brutal below-zero temperatures.

These climate-driving phenomena influence biological processes as well. El Niño is attributed to a decrease in oceanic nutrient upwelling due to the suppression of the weather events responsible for such processes. In addition, El Niño and La Niña are attributed to range expansions and massive migrations of oceanic fishes, as well as decreased growth and adult size in salmon. Likewise, the influences of NAO on climate patterns are far-reaching, and have been shown to impact Atlantic cod recruitment and survival, European red deer populations, and Icelandic Arctic fox abundance and size.

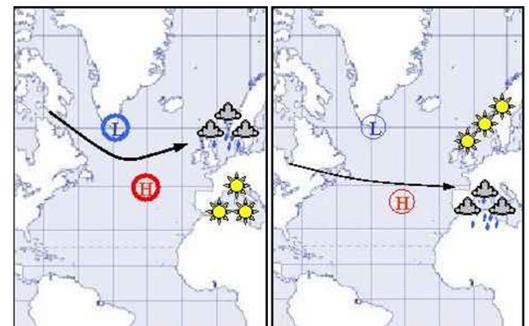


Figure 2. These figures show the projected path of winter storms during a positive (left) and negative (right) North Atlantic Oscillation event. Figures courtesy of Espere Association, Environmental Science Published for Everybody Round the Earth, Educational Network on Climate.

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A Wet Summer, A Cold Winter, What's Next?

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As for future weather predictions: NOAA announced in December of 2009, that our current El Niño had strengthened and was expected to continue throughout the winter and into the summer. Therefore, we can continue to expect colder than average temperatures throughout the winter, with increased chances of precipitation. Since El Niño years are associated with higher annual temperatures and the last three El Niño events (1998, 2005, and 2007) set global temperatures records, the return of a hot and humid summer with frequent storm events is expected.

For more information on El Niño, La Niña, and the North Atlantic Oscillation, visit NOAA's website: <http://www.elnino.noaa.gov/>.

-Brittany Trushel
UGA AFS Treasurer



Snowfall in Atlanta, GA from the January 8, 2010 snow event. Snowfall across the state ranged from 3 inches in northeastern, GA to a 1/2 inch as far south as Peachtree City, GA.

UGA Student Studies Blue Catfish Growth



UGA graduate Michael Homer Jr. with a blue catfish on Lake Oconee.

Blue catfish (*Ictalurus furcatus*) are known as being the fourth largest species of freshwater fish in North America. The species is native to the Mississippi, Missouri, and Ohio River basins, and they also occupy Gulf Coast rivers and streams in the southeastern U.S. In Georgia, blue catfish are native to the Coosa River, but multiple introduced populations have been found throughout the state. In 1996, blue catfish were found in Lake Sinclair, Georgia during a gillnetting survey conducted by the Georgia Department of Natural Resources-Wildlife Resources Division. The following year, blue catfish were also found present within Lake Oconee. Since, the catch of blue catfish has increase steadily.

In 2008, a study was initiated by Dr. Cecil Jennings and his graduate student, Michael Homer Jr., to gather demographic information from the introduced population of blue catfish in Lake Oconee. The study is focused on obtaining age and growth information for individuals in the population as well as to compare age determination methods that can be used on blue catfish.

The information provided from this study will be the first demographic information collected for this population. Furthermore, the information gathered from this study will aid GADNR to devise sound management strategies for this population.

-Michael Homer Jr.
UGA Graduate Student



The growth and age structure of many introduced populations of fishes are unknown. Research to better understand the life history of introduced fishes like the blue catfish is greatly needed.

GA AFS President's Message

This year's Georgia AFS meeting begins a brand new decade with many of the past challenges facing the Georgia fisheries community as well as new opportunities for the future. The annual meeting always provides a great opportunity to get inspired about Georgia fisheries. In addition to the presentations, one of the most important aspects for me about the GA AFS meeting is reconnecting and socializing with the vast members of the Georgia fisheries community. I always come away from the meeting feeling excited about the new year's possibilities.

Again, the meeting's format has been reduced because of the travel restrictions. The meeting will be held in Perry, as a central location, to help ensure attendance for those members that are unable to travel overnight. Even with the abbreviated format, the response for presentations has been overwhelming! We have compiled a great list of presentations, which will provide insight into a broad range of current research and management issues. The location of this year's social is the newly constructed Go Fish Georgia Center so those attending this event will have a chance to see the new facility. Therefore, I believe this year's meeting will be an excellent one. So, make sure you plan to attend the 2010 Georgia AFS meeting in Perry.

I look forward to seeing everyone at the meeting.

-Brent Hess

GA Chapter AFS President

UGA AFS 2009 Fish Fry A Great Success!

On October 16, 2009, nearly 200 guests supported the University of Georgia AFS sub-unit by attending the annual catfish fry. All attendees were treated to their fill of fried catfish fillets, wonderful side items, and delicious desserts. In addition to admission ticket sales, a raffle was organized to help support the UGA sub-unit. Raffle prizes were donated by generous individuals and area businesses. The event was a great success, with over \$2000 raised to help the UGA sub-unit support club activities such as hosting guest speakers, participating in community outreach activities, and providing refreshments at chapter meetings. Once again, UGA-AFS would like to express their greatest appreciation for all of those who chose to support the chapter by attending the fish fry and donating to the raffle.



UGA students draining a catfish pond located in Whitehall Forest in preparation of the UGA AFS annual Fish Fry.

Supporters of UGA AFS 2009 Fish Fry included: Barbara Trotter, Forestry Suppliers, Wal-Mart, Tennessee Aquarium, Mike Bednarski, the Oconee River Chapter of Trout Unlimited, Patagonia, Barberitos, Kinnucans, Curbside Services, Bob Izlar, Drew Gregory, Orvis, Unicoi Outfitters, Duncan Elkins, Doug Peterson, Hick's Deer Processing, Bass Pro Shops, Georgia Outdoor Sports, Blue Heron Glass Art, Xtreme Gloves, Zoom Bait Company, Coca-Cola, AFTCO-Bluewater, Masada Leather, Half-moon Outfitters, and Ben Carswell. Your support was greatly appreciated!

-Mark Fritts

UGA AFS Secretary

GA AFS Student Presentations

The following Georgia students are acknowledged for the presentation of scientific research at professional meetings, or for receiving competitive awards this past year. Keep up the good work!

2009 GA AFS Meeting:

Daniel Farrae (UGA) - 2nd place
M. Clint Lloyd (SPSU)- 1st place undergraduate

2009 National AFS Meeting:

- Presenters: Paul Wilkes (UGA), Bob Bahn (UGA), Mike Bednarski (UGA), Jen Johnson (UGA)
- Presenters in Best-Student Paper Competition: Duncan Elkins (UGA, Honorable Mention), Daniel Farrae (UGA), Pete Hazelton (UGA)
- Presenters in Best-Student Poster Competition: M. Clint Lloyd (SPSU, Honorable Mention)
- John E. Skinner Memorial Fund: Daniel Farrae (UGA, Honorable Mention)



UGA's Daniel Farrae, far left, received Honorable Mention for The John E. Skinner Memorial Fund. The Skinner Fund provides monetary travel awards to outstanding graduate and undergraduate students to attend national AFS Annual meetings. The fund was established in memory of John Skinner who was a former Western Division AFS president. The Skinner Fund is awarded annually.

2009 SEAFWA Meeting:

- Presenters: Bob Bahn (UGA) and Daniel Farrae (UGA)

2009 SFC Meeting:

- Poster Presenters: Bob Bahn (UGA, 2nd place overall) and Daniel Farrae (UGA, 1st place overall)

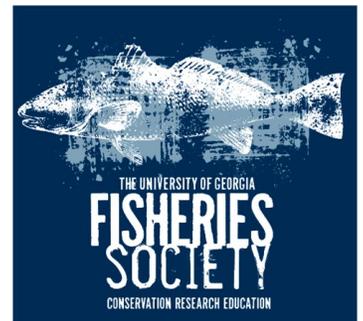
2009 SETAC Meeting:

- Presenters: Pete Hazelton (UGA) and Suzy Baird (UGA)

UGA AFS Student Message

On behalf of the Georgia UGA student subunit of the American Fisheries Society, we would like to thank all who contributed articles, pictures, and time to the 2009 newsletter. As all subunit officers changed in 2009, we look forward to establishing lasting connections to the fishery professionals throughout the state. We also are looking forward to a successful year, and to an informative and valuable annual state meeting, which will be held in Perry, GA this January 26th-27th 2010. We are expecting a larger turnout than previous years, and registration is still open. We hope to see you there!

-The UGA AFS Student Subunit





GEORGIA CHAPTER OF THE AMERICAN FISHERIES SOCIETY

2010 Annual Meeting Georgia National Fairgrounds Roquemore Conference Center Perry, Georgia January 26-27, 2010

Pre-Registration Instructions:

- 1) Saves \$5.00 over registering at the door.
- 2) Please fill out one pre-registration form per meeting attendee
- 3) Pre-Registration Deadline: **January 8, 2010**
- 4) Mail completed form(s) and payment (check, **NO** cash) to:
Patti Langford
GA DNR
2065 US Hwy 278 SE
Social Circle, GA 30025

Name: _____

Affiliation: _____

E-Mail Address: _____

Payment Schedule:

Regular Registration (\$40) _____; includes social, meeting, breaks, and lunches

Student Registration (\$25) _____; includes social, meeting, breaks, and lunches

Retired Members (\$30) _____; includes social, meeting, breaks, and lunches

GA-AFS Dues (\$5) _____; included in your National Dues if you are a member

Extra Banquet Lunch **Only** (\$15) _____; banquet only (for spouse, friends, family, etc.)

Total Due _____; **Make Check Payable to: GA-AFS**

Day(s) You Will Attend Meeting _____; Tuesday, Jan 26th, _____ Wednesday, Jan 27th

Will you be attending the Student Professional mixer on January 26th? _____

Please Fill Out One Form Per Attendee

Remember to make your own motel reservations! Microtel Inn and Suites 478-987-4004 (GA AFS group) by January