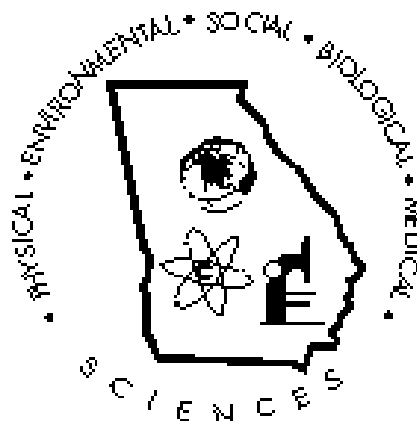


CALL FOR ABSTRACTS



The 72nd Annual Meeting of the
FLORIDA ACADEMY OF SCIENCES
in conjunction with
The 85th Annual Meeting of the
GEORGIA ACADEMY OF SCIENCES
will be held at
JACKSONVILLE UNIVERSITY
Jacksonville, Florida
March 14-15, 2008

*All FAS abstracts must be submitted online
at*

www.barry.edu/fas/

Abstract Topics: Abstracts on any aspect of science are solicited and you are cordially invited to organize additional sessions or symposia in any area of science or science education. For further information and procedures, visit the academy's web page located at www.floridaacademyofsciences.org or contact the FAS Program Chair, Dr. Jeremy Montague (Barry University) at 305-899-3218, fax 305-899-3225, email jmontague@mail.barry.edu

Abstract Deadline: Friday, 14 December, 2007

Section Chairs, 2007-2008, Florida Academy of Sciences

- AGR** Agricultural and Natural Resource Sciences: Dr. Joseph Albano, USDA/ARS, 2001 S. Rock Road, Ft. Pierce, FL 34945-3030, 772-462-5939, fax: 772-462-5986, email: jalbano@USHRL.ARS.USDA.gov
- ANT** Anthropological Sciences: Dr. John Schultz, University of Central Florida, Dept. Sociology & Anthropology, 4000 Central Florida Blvd., Orlando, FL 32816-1360, 407-823-4611, fax: 407-823-3026, email jschultz@mail.ucf.edu
- AOS** Atmospheric and Oceanographic Sciences: Ms. Nancy Sloan, Dept. of Marine & Environmental Systems, Florida Institute of Technology, 150 W. University Blvd., Melbourne, FL 32901, 321-674-8096, fax 321-674-7212, email nsloan@fit.edu
- BIO** Biological Sciences: Co-Chairs Mr. David Karlen, Environmental Resources Management Division, Environmental Protection Commission of Hillsborough County, 3629 Queen Palm Drive, Tampa, FL 33619-1309, 813-627-2600 ext. 1202, fax 813-272-5605, email karlen@epchc.org, and Dr. Steven Harper, Research Director, Pinellas County Environmental Lands Division, 3620 Fletch Haven Drive, Tarpon Springs, FL 34688, 727-453-6933, email: sjharper@pinellascounty.org
- CMS** Computer/Mathematical Sciences: Dr. Jacci White and Dr. Siamack Bondari, Co-Chairs, Dept. of Mathematics, Saint Leo University, Saint Leo, FL 33574, 352-588-8338, fax 352-588-8440, email jacci.white@saintleo.edu
- ENG** Engineering Sciences: Mr. Al Hall, Chair, City of Tallahassee, Power Engineering Division, 2602 Jackson Bluff Road, Tallahassee, FL 32304, 850-891-5038, fax 850-891-5162, email halla@talgov.com
- ENV** Environmental Chemistry and Chemical Sciences: Dr. Mark Wade, Evans Properties, Inc., 660 Beachland Blvd, Suite 301, Vero Beach, FL 32963, 772-234-2410, fax 772-234-8065, email mwade@evansprop.com
- RES** Florida Committee on Rare & Endangered Plants & Animals: Dr. I. Jack Stout, Department of Biology, University of Central Florida, Department of Biology, 4000 Central Florida Blvd., Orlando, FL 32816-2368, 407-823-2919, email jstout@pegasus.cc.ucf.edu
- GHS** Geology/Hydrology: Mr. T.M. Gurr, Gurr Consulting Services, email tmgurr@gte.net
- MED** Medical Sciences: Dr. Sanjay Sesodia, School of Graduate Medical Sciences, Barry University, 11300 NE 2nd Ave, Miami Shores, FL 33161, 305-899-3684, email ssesodia@mail.barry.edu
- PSS** Physics and Space Sciences: Dr. Niescja Turner (Chair, 321-674-7135), and Dr. Eric Perlman (Chair-Elect, 321-674-8098), Physics & Space Sciences Dept., Florida Institute of Technology, 150 W. University Blvd., Melbourne, FL 32901, emails returner@fit.edu and eperlman@fit.edu
- TCH** Science Teaching: Dr. Robin Jordan, Department of Physics, Florida Atlantic University, Boca Raton, FL 33431, 561-297-3419, fax 561-297-2662, email jordanrg@acc.fau.edu
- SOC** Social Science: Dr. P.R. Draves, Department of Psychology, Saint Leo University, Saint Leo, FL 33574, 352-588-8229, email: patrick.draves@saintleo.edu
- URB** Urban & Regional Planning: Mr. Barry Wharton, HDR, Inc., 2202 North Westshore Blvd, Suite 250, Tampa, FL 33670, 813-282-2360, email: bwharton@hdrinc.com
- Local Arrangements:** Dr. Dan McCarthy, Department of Biology and Marine Science, Jacksonville University, 2800 University Blvd North, Jacksonville University, FL 32211, 904-256-7369, email: dmccart1@ju.edu
- Program Chair:** Dr. Jeremy Montague, School of Natural and Health Sciences, Barry University, 11300 NE 2nd Ave, Miami Shores, FL 33161, 305-899-3218, fax 305 899-3225, email jmontague@mail.barry.edu

FLORIDA ACADEMY OF SCIENCES 72nd ANNUAL MEETING

MARCH 14-15, 2008

MEETING INFORMATION

OVERVIEW

The 72nd Annual Meeting of the Florida Academy of Sciences will be held at the Jacksonville University, Jacksonville, Florida from March 14-15, 2008. In a unique and first-time collaboration, our annual meeting will join with the 85th Annual Meeting of the Georgia Academy of Sciences.

Abstracts on all aspects of science are solicited for general sessions in all Sections of the Academy (list of Sections on back of front page). Any person or section interested in organizing a special session should contact the appropriate Section Chair or the Program Chair for further information.

JACKSONVILLE UNIVERSITY

Jacksonville University is a four-year private, comprehensive university situated in an idyllic setting on the banks of the St. Johns River, just minutes from downtown Jacksonville, Florida, and the Atlantic Ocean. The 190-acre campus includes a half-mile of riverfront, oak-lined paths, and a mix of historic and new campus buildings. With a balanced approach to coeducational higher education, JU combines the best attributes of the liberal arts and sciences tradition and professional studies. JU offers seven bachelor's degree programs and more than 70 majors, programs and concentrations, as well as esteemed graduate programs in nursing, business, education and orthodontics. The Adult Degree Program provides classes during evenings and weekends for nontraditional students. JU hosts America's second largest Naval ROTC program and a thriving aviation program.

LOCATION

2800 University Blvd North
Jacksonville, FL 32211

The JU campus lies on the east bank of St. Johns River (across from downtown Jacksonville)

Traveling South on I-95 or from the Airport:

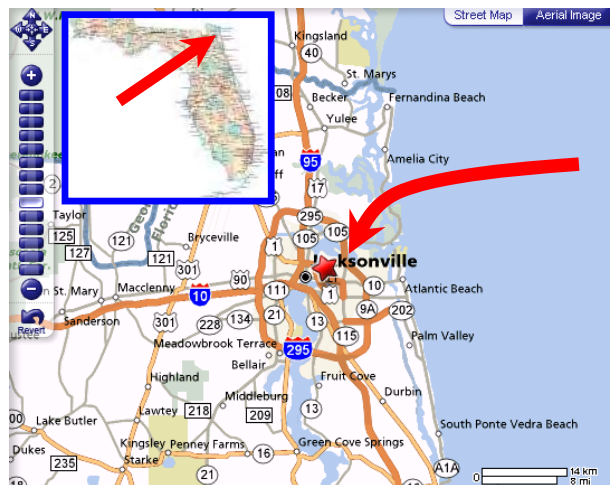
- Exit I-95 at Route 9A South
- After you cross the St. Johns River, exit on Merrill Road and head west (right)
- Merrill Road takes you directly into the main campus entrance

Traveling North on I-95:

- Exit I-95 at Southside Blvd. (Route 115), heading north
- Exit at Merrill Road and head west (left)
- Merrill Road takes you directly into the main campus entrance

Traveling East on I-10:

- Merge with I-95 North
- Exit I-95 at Union Street and head east (right)
- Cross the St. Johns River on the Mathews Bridge (the road becomes Arlington Expressway)
- Exit after the first overpass onto University Blvd. North (right)
- Travel about two miles and pass Merrill Road intersection. JU's main campus entrance is on the left



DAYS, TIMES AND SESSION SCHEDULES

In order to schedule the most efficient and interesting blend of presentations by FAS and GAS attendees in March 2008, there will be a slight departure from our traditional FAS Annual Meeting schedule:

- Friday FAS business meeting (14 March 2008): 5:15 – 5:45 p.m.
- Friday FAS registration beginning 12:00 noon
- Friday concurrent sessions: 1:30 p.m. – 4:15 p.m.
- Friday poster exhibition: 4:15 – 6:00 p.m.
- Friday reception: 7:00 – 9:30 p.m.
- Saturday concurrent sessions (15 March 2008): 9:00 a.m. – 12:30 p.m. (beyond 12:30 p.m. as needed to accommodate all submissions)
- Saturday Florida Junior Academy of Sciences (15 March 2008)

At this time we do not know which sessions will run on Friday and Saturday; we expect to announce the scheduling details in early January 2008. We ask all authors interested in submitting their abstracts to be available for either day, and to remain as flexible reasonably possible in their plans for travel to FAS in March 2008.

We anticipate approximately 200 concurrent oral presentations and approximately 100 posters. Our current FAS session chairs will coordinate with the GAS session chairs on scheduling; final schedules will be arranged in early January 2008.

PARKING

Parking information will be made available in February 2008.

REGISTRATION

ALL PARTICIPANTS MUST REGISTER but you need not be a member in order to present a paper or poster. Participants are urged to register early (before February 1, 2008) using the FAS website:

<http://www.floridaacademyofsciences.org>

Academy members and non-members registering before 1 February 2008 will receive a Program Preview by mail. The Program Issue of the *Florida Scientist* (Supplement 1 to Volume 71) will be available at the Registration Desk on Friday, March 14, 12:00 PM-4:00 PM, and Saturday March 15, beginning at 7:30 AM.

LOCAL ARRANGEMENTS

The local Arrangement Chair for the Annual Meeting is Dr. Dan McCarthy (Jacksonville University, see contacts, p. 2); he should be consulted for any special meeting needs.

LODGING

No reservations can be made through the Academy. The Hampton Inn listed below is roughly five miles east of the campus, and has a rich tradition in lodging JU meeting and conference attendees. Ask if there are any special “*Jacksonville University*” rates available for the Florida Academy of Sciences. Early reservations are a must for March 2008.

- Hampton Inn Jacksonville East Regency Square, Jacksonville 1021 Hospitality Lane, Jacksonville, FL (Tel: 904-722-8881 Fax: 904-722-8851)

- Wyndham Jacksonville Riverwalk (roughly eight miles from JU), 1515 Prudential Drive, Jacksonville, FL 32207 (Phone: 904-396-5100)
- Econolodge Inn & Suites (roughly seven miles from JU), 4300 Salisbury Road N, Jacksonville, FL 32216, (904-281-0198)
- Other hotels...check <http://www.travelpost.com/hotels/Jacksonville/7805397>

MEALS

Information on dining and meals will be made available in February 2008.

RECEPTION

FAS and GAS will co-host the meeting reception; it is scheduled for Friday evening (March 14) promptly at 7 pm. Additional reception information will be made available in February 2008.

MEDALIST AWARD/PRESENTATION

Information on the 2008 FAS Medalist Award/Presentation will be made available in February 2008.

FIELD TRIPS

Special field trips being run in conjunction with the Annual Meeting will be announced in the Program Preview to be mailed in February 2008. For information concerning local attractions, please check the Registration Desk.

FLORIDA JUNIOR ACADEMY OF SCIENCES ANNUAL MEETING

The Junior Academy will meet with Florida Academy of Sciences this year. As the student division of FAS, the Florida Junior Academy of Sciences provides opportunities that encourage middle and high school students in science by allowing them to compete, share, and network with other students and adults having common interests. The focus of this "common bond" among participants is their research activities. The Florida Junior Academy of Sciences is seeking volunteers to assist in judging and to act as section moderators at its meeting, to be held on Saturday, March 15, 2008. The Junior Academy is also seeking individuals in early February of 2008 to evaluate research papers submitted for this meeting. Persons interested in participating in this rewarding experience should contact the FJAS Coordinator: Ms. Patricia Zalo, 2812 26th Avenue Drive W., Bradenton, FL 34205-3707, telephone 941-756-4156, email: pzalo@yahoo.com

NOMINATIONS FOR THE FAS MEDAL RECIPIENT

The Florida Academy of Sciences encourages its members to submit formal nominations for candidates to be considered for the 2008 Medalist Award.

Nomination Procedure: the Medalist Award nomination form is now available on the academy's main website (www.floridaacademyofsciences.org). All nomination(s) will go to the Medalist Award Committee Chair, Dr. John Trefry, Florida Institute of Technology, Department of Oceanography, 150 West University Blvd., Melbourne, FL 32901-6975 (321-674-7305, email jtrefry@fit.edu).

Criteria: The Florida Academy of Sciences Medal is presented each year at the Annual Meeting to a resident of the State of Florida, who has contributed in an outstanding manner to the promotion of scientific research, to the stimulation of interest in the sciences, or to the diffusion of scientific knowledge. The candidate need not be a Ph.D. He or she may be a research scientist, philanthropist, educator, journalist, science-fair coordinator, member of industry, government, or other organization, etc., and who has met the above criteria.

COMMERCIAL AND INSTITUTIONAL EXHIBITS

Space is available on a first come-first served basis. Exhibits by research institutions or organizations offering programs of an informational nature may be given free space. Parties interested in fee or free spaces should contact the Local Arrangements Chair for details. The Academy reserves the right to deny exhibits by individuals or organizations with a focus that is not pertinent or is contrary to its goals.

STUDENT AWARDS

Students presenting papers at the Annual Meeting of the Academy, and who are registered for the Meeting, may be considered for a number of awards. Details are presented below. Students wishing to be considered for one or more of these awards should indicate their interest on the FAS abstract submission website. Dr. Sanjay Sesodia is the FAS Awards Chair, and he can be reached at: School of Graduate Medical Sciences, Barry University, Miami Shores, FL 33161, 305-899-3684, email: ssesodia@mail.barry.edu

1. Outstanding Student Paper Award - This award is presented by any of the Academy Sections to graduate and/or undergraduate students.
2. American Association for the Advancement of Science Award - This award is presented to one male and one female undergraduate student annually and is a one-year membership in AAAS including the journal *Science*.
3. Sigma Xi Awards – Two awards, one presented by the University of Florida chapter of *Sigma Xi*, is for \$50 and a certificate (for UF graduate students only); the other presented by Barry University chapter of *Sigma Xi*, is for \$100 and a certificate for the outstanding presentation by a Barry University undergraduate student.

FLORIDA ACADEMY OF SCIENCES 72nd ANNUAL MEETING
MARCH 14-15, 2008

INSTRUCTIONS FOR ABSTRACT SUBMISSION

ONLINE SUBMISSION

The abstract online submittal form is available at:

<http://www.barry.edu/fas/>

FAS requests complete names, addresses (including street addresses and ZIP codes), organizational departments, phone numbers, *etc.*

PUBLICATION OF FAS ABSTRACTS

All accepted FAS abstracts will be published in the Program Issue of the *Florida Scientist* (Volume 71, Supplement 1). Meeting attendees must stop at the Registration Desk to receive their copies.

DIRECTIONS FOR ABSTRACT PREPARATION

Abstracts must be typed (or text may be cut-and-pasted) into the appropriate submission window on the website (see URL above). **WE ASK ALL AUTHORS TO ADHERE STRICTLY TO THE INSTRUCTIONS SHOWN BELOW IN ORDER TO ACHIEVE UNIFORM PUBLICATION; PLEASE FOLLOW THE DIRECTIONS CAREFULLY.** Sample abstracts follow at the end of this document, and are also posted on the online submission URL shown above.

Abstract Size: No more than 350 words (*including* title, authors, affiliations, *etc.*). *It is crucial for publication in the Program Book that abstracts are kept within this limit.*

Order of parts: Title, author(s), affiliation(s), text (including acknowledgment of financial and technical assistance).

Title: Upper case 1st letter for the 1st word of the title, and for 1st letter of proper nouns; lower case letters for common nouns, pronouns, adjectives, adverbs, and verbs; all lower case letters for articles, conjunctions, prepositions, *etc.*; followed by a period.

Author(s): Immediately following title. All upper case letters, not including the word “and”, if multi-authored, and followed by a period.

Affiliation(s): Immediately following author(s). Upper and lower case letters. Full address with zip code, and state abbreviation (FL or others). Use standard abbreviations (*e.g.*, Dept., Inst., Univ., Geol.) only if necessary to save space for text, and followed with a period.

Text: Immediately following affiliations. According to standard typing of scientific text in respective discipline.

POSTERS

Poster exhibits of scientific studies on any topic are *strongly encouraged*, and will be displayed during the annual meeting. *Poster presentations must include an abstract to be submitted online, as on the previous page.* All poster abstracts will appear in the Program Issue.

POSTER FORMAT

Maximum size will be no more than approximately 3'×5' (this is a size used commonly at many conferences and meetings). We request posters to be printed/displayed in landscape view.

AUDIO VISUAL EQUIPMENT

The standard presentation format will be PowerPoint slides submitted to the session chair prior to the session meeting. We expect presenters will have their PowerPoint presentations available on their personal thumb-drive/memory-stick devices 15 minutes before the beginning of a session.

Overhead projectors will be available in all meeting rooms. 2x2 slide projectors will not be generally available; presenters should *specially request* on the abstract online submittal form if they will require any special AV equipment.

WHEN TO SUBMIT

The deadline for abstract submittal is *Friday, December 14, 2007*.

PLANNING YOUR PRESENTATION

Each speaker will have fifteen minutes for his or her presentation. There will be no exceptions to this rule. It is recommended that your presentation last approximately twelve minutes, so that there will be ample time for questions afterward. Your Section Chair will give you a warning as the end of your twelve minutes approaches. Please plan on being present when the session in which you are going to speak begins. Your Section Chair may have instructions that speakers need to hear. In addition, if you are going to be using special equipment, such as slide projectors, you should be at the meeting room 15 minutes before the start of your session to see that this equipment is working properly.

QUESTIONS?

Contact your Section Chair (page 2), or the Program Chair at: jmontague@mail.barry.edu

Please check the FAS website for further updates:

<http://www.floridaacademyofsciences.org>

(See next page for sample abstracts.)

Abstract sample, single author:

Population distribution of bottlenose dolphins (*Tursiops truncatus*) in Florida's Charlotte Harbor before and after hurricane Charley in August 2004. M. THOMPSON. SNHS-Biology, Barry University 11300 NE 2nd Avenue, Miami Shores, FL 33161. The population distribution of bottlenose dolphins (*Tursiops truncatus*) in Florida's Charlotte Harbor has been well documented by frequent boat based surveys. However, their distribution after a destructive hurricane, such as Charley in August 2004, remains unknown. After a hurricane, dolphins may leave the area temporarily, permanently, or not leave at all. To assess post hurricane impact on dolphin distribution we chose 34 dolphins from the Charlotte Harbor population. Dolphins chosen for this study had to have at least ten total sighting records, either before or after the storm. Sighting records dating back to 1990 and photo-identification data were used to determine the number of sightings a dolphin had before the storm. Boat-based surveys were carried out on the 23rd and 27th of May 2005. During both days dolphins were sighted. Using Geographic Informational Systems (GIS), all data sets were compiled and analyzed. Results show there was no change in Charlotte Harbor dolphin distribution after hurricane Charley. The immediate reaction by bottlenose dolphins to natural disasters has yet to be discovered. This study provides further insight into dolphin behavior and reaction to habitat threat by natural events. (Project supported in part by NOAA-EPP/MSI NA03OAR4810129 awarded to Barry University).

Abstract sample, more than one author from same institution:

Behavioral responses of stone crab larvae to changes in hydrostatic pressure and gravity. P.M. GRAVINESE and R.A. TANKERSLEY. Department of Biology, Florida Institute of Technology, 150 W. Univ. Blvd, Melbourne, FL 32901. Behavioral responses of many crustacean larvae to changes in hydrostatic pressure have been hypothesized to form the basis of a negative feedback system for depth regulation. We compared the responses of zoeae (I, III, V) of the Florida stone crab, *Menippe mercenaria*, to gravity and hydrostatic pressure. All three larval stages were negatively buoyant with mean passive sinking rates ranging from 0.32 cm sec⁻¹ for Stage I zoeae to 1.50 cm sec⁻¹ for Stage V. Responses to gravity varied throughout development, with early stage larvae (I, III) exhibiting a negative geotaxis and late stage zoeae (V) exhibiting a positive geotaxis. Increases in pressure evoked an ascent response in all larval stages. Similarly, larvae descended in response to decreases in pressure. Rates of change in pressure necessary to evoke a corrective response (*i.e.*, threshold) differed among larval stages.

Abstract sample, more than one author from two or more institutions:

An ichthyoplankton survey of the northern Indian River Lagoon system, Florida, with emphasis as to the function of an estuarine fisheries reserve. E.A. REYIER (1) and J.M. SHENKER (2). (1) Dynamac Corporation, Room 3103, O & C Building, Kennedy Space Center, FL 32899, (2) Department of Biology, Florida Institute of Technology, Melbourne, FL 32901. One anticipated benefit of marine reserves is that the protection they afford adult fishes will result in increased ichthyoplankton production, a mechanism difficult to demonstrate in most coastal settings. The estuarine reserve at Kennedy Space Center (KSC), Florida, is hydrologically isolated from public areas, largely preserving initial differences in ichthyoplankton production across its boundary. We examined the density of larval sciaenid sportfishes across the KSC Reserve boundary on 48 surveys from August 2002 to July 2004. Of the 16,000 sportfish larvae collected, 99% were estuarine-spawned *Cynoscion nebulosus*, *Menticirrhus americanus*, and *Sciaenops ocellatus*. Significantly higher densities of these taxa, as well as sciaenid eggs and total larvae, were found outside the reserve, and predicted densities remained so even after habitat conditions known to influence adult spawning behavior or larval survival were accounted for. Results suggest that habitat conditions (some unaccounted for in the sampling protocol), not current adult sportfish harvest rates, largely dictate local ichthyoplankton abundance. Potential explanations for this observed distribution include enhanced larval survival in public areas due to elevated primary production, or decreased survival within protected areas due to bottom-water hypoxia near known spawning sites.