the shell-cracker

FLORIDA CHAPTER OF THE AMERICAN FISHERIES SOCIETY

http://www.sdafs.org/flafs

October, 2004

President's Message:
Could We do a Better Job of Communicating our Science to the Public? I Know I Could!

At the August 2004 national AFS meeting in Madison, I participated in a symposium that addressed tournament-related mortality for largemouth bass fisheries. It was a good session, with a variety of presentations showing how tournament mortality influences the survival of tournament caught fish and could influence some fisheries.

At the end of the session there was a tournament angler in the audience who had sat quietly all day, and he was obviously not happy. He spoke up at the end and successfully made the argument that we had spent all day talking about various tournament mortality rates, without discussing the positive aspects of bass tournaments in general. He felt that the science had missed the big picture of the discussion, which led to a biased view in his opinion.

I saw his point! The session was a group of detailed studies and was not intended to be a "big picture" overview. Nevertheless, he showed a general distrust of the presenters in the room based on the program content. It made me realize that although I have done some research in this area, I have not taken the time to convey these findings to tournament organizations and other anglers in a broader view of the whole management problem.

Is it too idealistic to think that better communication could help with user-group conflicts? Maybe, maybe not.

I noticed a large public outcry in the newspapers over the recent article by Coleman et al. (2004), which used National Marine Fisheries Service databases to assess landings in commercial versus recreational fisheries. They found that recreational fisheries comprised a larger portion of the total landings than previously believed, particularly for top predators such as red snapper. The paper presented some strong analyses and was picked up by most major media outlets. The angler outcry was equally strong in pointing the finger toward commercial fisheries for our overfishing problems. These arguments will continue for the foreseeable future, but I wonder, could more communication help the process? For example, I see FL Chapter AFS members give presentations and acknowledge the caveats and problems with their data. We generally admit the uncertainty of projecting fishery trends and highlight the challenges. Nevertheless, there is a strong element of distrust held by some angler groups toward scientists, and this is an area where we could work to improve.

I know many biologists in Florida and elsewhere that regularly convey their research and monitoring trends to the public. The public is active in their management plans. In many cases, those biologists have developed a trust with the anglers that prevent heated resource management conflicts. If you are doing this, kudos to you! To borrow from the John Kerry campaign, for me and probably many others, we could do a better job.

Mike Allen, FAFS Chapter President

Coleman, F., C., W. F. Figueira, J. S. Ueland, and L. B. Crowder. 2004. The impact of United States recreational fisheries on marine fish populations. www.scienceexpress.org 26 August 2004.

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Upcoming Events

October 25-28, 2004 - Seventh Annual Wetlands Workshop: The Protection of Aquatic Ecosystems Using Watershed-Based Approaches, Atlantic City, NJ.

October 28-29, 2004 - 31st Annual Conference on Ecosystems Restoration and Creation, Tampa, FL.

October 31-November 3, 2004 - Annual Meeting of the Southeastern Association of Fish and Wildlife Agencies, Hilton Head, SC.

November 3-5, 2004 - 24th International Symposium of the North American Lake Management Society, Victoria, British Columbia, Canada.

November 5-7, 2004 - 4th Annual Fisheries Student Colloquium: Migrate South this Winter, Marineland, FL.

November 9-11, 2004 - Fifth Florida State University Fisheries Symposium: The Good, the Bad, and the Ugly: Integrating Marine and Human Ecology in Fisheries Management, Sarasota, FL.

December 6-10, 2004 - First National Conference on Ecosystem Restoration, Orlando, FL.

February 10-13, 2005 - Annual Midyear Meeting of the Southern Division of the American Fisheries Society, Virginia Beach, VA.

March 24-26, 2005 - Second National Fisheries Management Conference: Managing Our Nation's Fisheries II – Focus on the Future, Washington, DC.

July 6-11, 2005 - American Society of Ichthyologists and Herpetologists, Tampa, FL.

September 11-15, 2005 - AFS 135th Annual Meeting, Anchorage, AK.

For a list of other events, please check out our Parent Chapter's website at: www.fisheries.org/html/Calendar.shtml

Feature Article

Mercury: It's What's Not for Dinner

Ted Lange, Biologist IV
Beth Sargent, Biologist II
FWC—Fish and Wildlife Research Institute
Eustis Fisheries Lab

Over the last five decades, the issue of mercury and its effects on human health has slowly grown in importance, and here in Florida, it has been an issue of concern for the past fifteen years. Mercury occurs naturally in the atmosphere and is deposited in aquatic systems by precipitation and dryfall. Once in the aquatic environment, mercury settles into the sediment where sulfate-reducing bacteria convert the elemental mercury into the more toxic methyl mercury form (CH_3Hg^+). The next higher level in the food chain then consumes methyl mercury-laden bacteria. As it passes from one trophic level to the next, methyl mercury bioaccumulates, resulting in higher mercury concentrations per unit of body weight with each successive level. The highest mercury levels occur in top predators like largemouth bass. When piscivorous birds, reptiles, and mammals consume fish high in methyl mercury over long periods, elevated mercury levels can affect reproduction, neurological development, and can lead to death (Wiener and Spry 1996). Mercury has also been linked to cardiovascular health (Guallar et al. 2002) and other health problems.

The most documented cases of mercury toxicity in humans were in Minimata Bay, Japan in 1956 due to industrial releases of methyl mercury, and in Iraq in 1971 from wheat treated with mercury-based fungicides (Sorensen 1991). In both cases, hundreds of people died and thousands fell ill from mercury poisoning. In the 1970s, the mercury issue appeared in the Great Lakes region when several industrial processes were implicated in high mercury emissions, which ended up in fish in area water bodies. High mercury levels prompted zero consumption restrictions and strict point source controls on local industries. As mercury levels dropped so did the concern and mercury was dismissed as a minor threat to public health. In the late 1970s and 1980s, Swedish researchers observed high mercury concentrations in remote lake regions far from industrial sources, suggesting that mercury deposition was a global issue rather than a local problem as originally thought. The concept of widespread pollution prompted other countries and individual states to establish their own mercury monitoring efforts.

Location	Annual Samples	%Change
Loxahatchee National Wildlife Refuge (Water Conservation Area 1)		
Marsh	2/95 - 9/03	-70
Canal	3/95 - 10/03	-44
Water Conservation Area 2A		
Marsh	10/93 - 9/03	-44
Canal	9/93 - 9/03	-47
Water Conservation Area 3A		
Marsh	9/93 - 9/03	-77
Canal	6/90 - 9/03	-69
Everglades National Park		
Shark Slough	4/94 - 5/03	-26
Suwannee River	10/88 - 1/04	44
East Lake Tohopekaliga	1/89 - 12/03	-44
Lake Tohopekaliga	5/89 - 12/04	-48

Table 1. Long-term mercury sampling sites and percent mercury change (% Change) over time. Negative percentages indicate a decrease in mercury concentrations.

In 1982, the Florida Fish and Wildlife Conservation Commission (FWC; formerly the Game and Fresh Water

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Fish Commission) conducted the first state mercury surveys in freshwater when residents on a tributary of the Chipola River (Dry Creek) in the western panhandle suspected mercury contamination from a nearby non-operational battery salvage plant. The Santa Fe River outside of Gainesville was selected as a reference site. Largemouth bass collected from both sites revealed that the reference site actually showed higher fish mercury levels than the contaminated site. The fact that the reference site, which was considered to be contaminant-free, had higher concentrations than the contaminated river suggested that mercury was a statewide problem. Further surveys of state waters throughout the 1980s indicated widespread contamination from as far south as the Florida Everglades to the Perdido River in the far western panhandle of Florida. As a result, FWC established 15 long-term monitoring sites located in the Everglades, central Florida, and the panhandle to collect largemouth bass annually to monitor fish mercury bioaccumulation trends. Table 1 provides a summary of long-term trends from selected sites.

Data from long-term monitoring efforts and other projects are used by FWC in cooperation with the Florida Department of Health (DOH), and the Florida Department of Environmental Protection (DEP), to develop fish consumption advisories for humans. Important marine and freshwater fisheries are also sampled for health advisories. The first health advisories for freshwater were first released in 1989 and targeted largemouth bass in the Everglades and listed "No Consumption" advisories for over 2 million acres of Everglades National Park and the water conservation areas (WCAs). Since then advisories have expanded to include other popular species like black crappie, bluegill and redear sunfish, warmouth, and catfish. The most recent advisory lists individual water bodies and species where limited consumption of fish is recommended. Advisories are not all inclusive nor do they serve to discourage angling in any particular area, rather they are designed to act as a guide for choosing water bodies with lower mercury levels when consuming fish. Advisories also include advice for consuming commercially caught fish from supermarkets and restaurants.

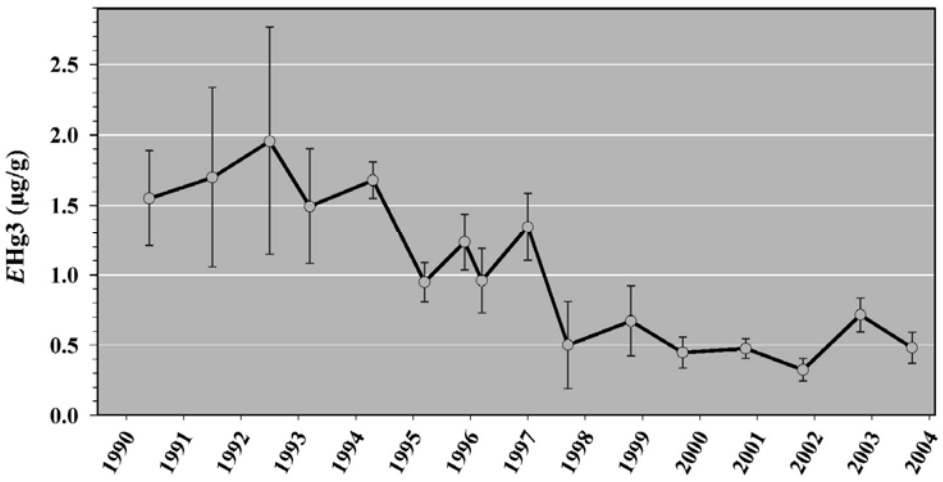

Figure 1. Standardized age-3 fish mercury values (EHg3) for L67A Canal site in Ever glades WCA3 over time. Error bars represent 95% CI.

Since the first health advisories were released in 1989, mercury concentrations in some areas of the state, particularly in the WCAs of the Everglades, have declined. The age-standardized mercury concentration (EHg3) in largemouth bass declined by 56% across all WCAs with maximal declines observed in WCA3 (Table 1, Figure 1). Health advisories reflected the declines in mercury levels in the WCAs by changing recommendations from no consumption of largemouth bass to limited consumption for the first time since 1989. Lakes Tohopekaliga and East Lake Tohopekaliga in central Florida demonstrate more moderate declines of 48% and 44%, respectively. The Suwannee River, at Fowlers Bluff near the mouth of the river, does not seem to show any demonstrable mercury declines based on EHg3, which varied widely from year to year. Between 2003-2004, EHg3 increased by 44%, the highest increase since sam-

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Annual Meeting and Symposium Announcement – 1st Call for Papers
25th Annual Meeting of the Florida Chapter of the American Fisheries Society

February 22-24, 2005
Ocala 4H-Camp, Ocala, FL

The 2005 annual meeting is coming together with special plans for a symposium on "Florida's Diadromous Fishes" and a celebration of our Chapter's silver anniversary. This year's symposium will review several familiar diadromous species ('the usual suspects': sturgeons, anadromous shads, freshwater eels, and the temperate basses) and some unfamiliar examples of diadromy (members of the snook, pipefish, and sleeper families). Platform presentations and posters will address issues of biology, ecology, conservation, and management of diadromous fishes. A special presentation about the Chapter's first 25 years will review Chapter accomplishments and other highlights with a balance of pride and humor. You can help with one or both of these programs (*check out the announcements section to see how!*).

Contributed platform and poster presentations are welcomed as well. All abstracts are due by Friday, January 14, 2005 for full consideration in the symposium or contributed sessions. Send your abstract (<300 words) and associated information in formatted fields (follow format on next page**)** to FAFS2005@myFWC.com; in the subject line of your email, please list the author(s) as they will appear in the program (e.g., HolderLundyHyle.doc). Platform presentations will be 20 minutes (15 minutes for presentation and 5 minutes for questions or discussion). We will have PowerPoint 2003 loaded on a laptop capable of accepting your presentation on a CD or DVD. All posters will be formally presented on Tuesday evening, February 22, and can be left up for the entire meeting. Posters should be no larger than 150 X 100 cm (60" X 40"), but they can be set up either in portrait or landscape format on an easel. If you require other options for projection or poster formats, please contact the annual meeting's Program-chair Rich McBride at FAFS2005@myFWC.com).

The venue is changing from Brooksville to Ocala (see last issue of 'The Shellcracker' for more details). The 2005 meeting will be held at the Ocala 4-H Camp, on beautiful Sellers Lake in the Ocala National Forest. This venue is located east of Ocala, south of SR 40, just off SR19. Maps will be available in the next issue of the Shellcracker and on the web soon. While the venue has changed, the schedule will remain the same. We will begin with lunch on Tuesday, February 22; symposium platform presentations will be organized for Wednesday, February 23; the meeting will end with lunch and awards on Thursday, February 24, 2005. *Please note the late registration fee on this year's form!* Help reduce everyone's registration time, give us a head's up on attendance, save money, and don't miss any talks by filling out the pre-registration form and sending in your deposit to the Chapter's Secretary-Treasurer Eric Nagid by January 14, 2005 (see pre-registration form on next page)**.** In addition, you should plan to bring your own linens or sleeping bag if you are planning to sleep at the camp. Linens will only be available in limited supplies for $6.00.

We are very excited about the plans for our 2005 annual meeting and hope to see you there!

Other Meeting Details:

Florida Chapter of The American Fisheries Society – 4H Camp Ocala, FL
Annual Meeting Registration: February 22 to 24, 2005

NAME:_____
ADDRESS*:_____
_____
DAY-TIME PHONE: _____E MAIL:_____
AFFILIATION: _____
ARRIVAL DATE/TIME:_____
**This address will be used in our mailing list and should be the one where you want to receive newsletters and other materials.*

PRE-Registration Fees prior to January 14, 2005:
One-day Registration: ($20.00) _____
Full Registration: **($30.00)** _____

LATE-Registration Fees after January 14, 2005:
One-day Registration: ($23.00) _____
Full Registration: **($35.00)** _____

Partial Meals and Lodging

Tuesday: 22 February, 2005	Lunch	($6.00)	_____
	Dinner	($12.00)	_____
	Lodging	($23.50)	_____
Wednesday: 23 February, 2005	Breakfast	($3.00)	_____
	Lunch	($6.00)	_____
	Dinner	($12.00)	_____
	Lodging	($23.50)	_____
Thursday: 24 February, 2005	Breakfast	($3.00)	_____
	Lunch	($6.00)	_____

Full Meals and Lodging: **($95.00)** _____

Linens (bring your own or limited supply): ($6.00) _____

FL Chapter dues (calendar year 2005): **($10.00)** _____

Total Amount: _____

Total Enclosed: (Minimum $10.00 Deposit) _____

Balance Due: _____
Dietary Needs: (vegetarian, low fat, etc.) Note: This is a cafeteria-style service and food must be ordered at least a week in advance. Please respond promptly if you need something special; camp staff will try to accommodate: _____
Please Make Checks Payable to Florida Chapter, AFS and mail to:

Eric Nagid
c/o FWC Gainesville Fisheries Lab
7922 NW 71st Street
Gainesville, FL 32653

Phone: (352) 392-9617 x. 240
Fax: (352) 392-3672
Email:eric.nagid@myFWC.com

We can accept **VISA** or **MasterCard**: for either, send details on this form by mail or call Eric Nagid.
CARD NUMBER _____ **EXPIRATION**_____
PRINT NAME AS IT APPEARS ON CARD: _____

New Course Offering

The University of Wisconsin-Madison, Department of Engineering Professional Development, will offer the course, Succeeding with a Dam Removal Project, November 30-December 2, 2004 in Raleigh, NC.

This practical course will evaluate all aspects of dam removal, including:

* the key decision points
* how to remove a dam efficiently and maximize environmental endpoints
* engineering and management issues associated with a range of dam types
* sediment management and water quality issues related to dam removal
* practical approaches to remove both large and small dams

For more information on this course, visit the website at:
epdweb.engr.wisc.edu/brochure/emaG555

or call 800-462-0876
or email custserv@epd.engr.wisc.edu

This course is in cooperation with: American Rivers, North Carolina Department of Environment and Natural Resources, Ecosystem Enhancement Program, North Carolina State University, Center for Transportation and the Environment, and the U.S. Fish and Wildlife Service

ATTENTION:
FAFS Annual Meeting—Abstract Format

Limit abstracts to < 300 words and follow this format (WORD is preferred):

Presenter: McBride, R. S.; Tel. 727-896-8626; Email: richard.mcbride@myfwc.com
Author(s): McBride, R. S.[1] and R. E. Matheson[2]. Florida Fish & Wildlife Conservation Commission, Fish & Wildlife Research Institute. 100 Eighth Avenue, SE, St. Petersburg, FL 33701. Tel. 727-896-8626. [1]richard.mcbride@myfwc.com; [2]eddie.matheson@myfwc.com

Title: Florida's Diadromous Fishes: biology, ecology, management, and conservation

Abstract: This symposium will review the concepts and context of diadromy among Florida's fishes. Diadromy is a complex life history pattern that involves true migrations between freshwater and marine biomes. These migrations occur at predictable times or at characteristic life stages and involve reciprocal migrations between freshwater and saltwater of most or all individuals of the species. Diadromy can be further subdivided into anadromy, catadromy, or amphidromy based on which biome serves as the spawning or nursery grounds. Diadromous species represent only about 1% of all fish species worldwide, and diadromy is similarly rare among Florida fishes. Nonetheless, diadromous species are very important economically and ecologically. Some of Florida's diadromous fishes are economically important fishery species. Other diadromous species are abundant enough to serve as significant and predictable prey resources for other fishes and wildlife. Other diadromous species, such as Gulf sturgeon, have special conservation status. All diadromous fishes are important sentinels of environmental health because their life history encompasses essential fish habitat from the non-tidal, freshwater to coastal, marine biomes. This symposium will review the more popularly known examples – particularly sturgeons, catadromous eels, anadromous shads, and striped bass – and introduce other Florida species whose diadromous nature is less well known or more equivocal.

Student Presentation: no (versus yes, to indicate work reported was completed while a student)

Presentation type: oral (versus poster)

		Pearson Correlation Coefficient	
Parameter	**units**	**Log EHg3**	**Aqueous Total Hg**
PH	pH units	**-0.581**	0.039
Acid Neutralizing Capacity (ANC)	µeq/l	**-0.526**	0.051
Alkalinity	µeq/l	**-0.524**	0.048
Calcium	mg/l	**-0.397**	0.218
Diss. Organic Carbon (DOC)	mg/l	-0.060	**0.800**
Color	PCU	0.048	**0.841**
Tot. Kjeldhal N (TKN)	mg/l N	**-0.469**	**0.400**
Chlorophyll *a* (Chl*a*)	µg/l	**-0.574**	0.077
Secchi Depth	m	**0.361**	**-0.521**
Aqueous Total Mercury	ng/l	0.232	-
Aqueous Methyl Mercury	ng/l	0.272	**0.729**

Table 2. Pearson correlation coefficients for selected water quality parameters and standardized age-3 fish mercury (EHg3). Correlations in bold

pling started in 1988. FWC and U.S. Geological Survey personnel are investigating the effects of physical and chemical parameters on mercury bioaccumulation in the Suwannee River system. Preliminary results indicate that mercury stored in the floodplain becomes available for bioaccumulation shortly after inundation during high water periods.

Given the impracticality of surveying and monitoring mercury bioaccumulation in Florida's 7700 lakes, FWC biologists and other state and federal agency researchers are looking into alternatives to develop more efficient ways to monitor mercury in important fisheries. One current study examines the relationships between physical and chemical lake characteristics and fish mercury levels in 80 diverse lakes. FWC, in cooperation with DEP, wants to develop a management tool to classify fish mercury levels in lakes using easily obtainable physical and chemical lake characteristics as a simple, cost-effective means of characterizing fish mercury levels in Florida lakes. Measures of lake productivity, ionic strength, and wetlands influence were measured over three years in 80 lakes, and 20 largemouth bass were collected and analyzed to calculate the EHg3 for each lake. Preliminary results indicate that aqueous mercury and fish mercury are not well correlated but significant relationships exist between fish mercury and measures of lake productivity (TKN, Chl*a*, and secchi depth) and lake ionic strength (pH, ANC, alkalinity, and calcium)(Table 2). Although wetlands are typically considered a source of methylated mercury to lakes, the two parameters that indicate wetland influence (DOC and color) were not significantly related to fish mercury levels, but they were positively correlated with aqueous mercury concentrations (Table 2). These relationships need to be further evaluated as they relate to lake classifications. A regionalized approach to develop a predictive model of mercury in largemouth bass may also be used to predict mercury concentrations based on regional lake characteristics (Griffith et al. 1997). In general, our basic understanding of mercury bioaccumulation in fish in Florida is similar to relationships observed in other parts of the country, but Florida's unique limnological characteristics must be considered.

References

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Ted Lange and Beth Sargent can be reached by email at ted.lange@myFWC.com and bethany.sargent@myFWC.com, respectively.

Student Section

Student Research Highlight

The Effects of Ambient Noise on the Reproduction of the Lined Seahorse, *Hippocampus erectus*

Paul Anderson
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Wild populations of seahorses have faced marked declines in abundance as a result of unsustainable fishing to meet the demands of the traditional Chinese medicine, curio, and marine ornamental (i.e., aquarium) industries. Aquaculture is being explored as an alternative to wild harvest, but seahorses are particularly susceptible to stress-induced disease. Refining seahorse culture is critical to the success of this approach.

Aquaculturists balance many factors to optimize spawning and growth in fishes. Strategies that improve one parameter may adversely affect another, sometimes in ways that the aquaculturist is unaware. The acoustic sense of fishes is often overlooked. Filtration systems, for instance, can generate substantial noise in aquaria. Seahorses produce sounds while feeding and courting. What effect does this constant noise have on seahorse health and reproduction?

Previous studies suggest that other seahorses are negatively affected by such noise; I seek to further study the mechanism(s) of the effect. I am addressing these questions with a series of experiments using the lined seahorse, *Hippocampus erectus*, as a model species. I am considering three, not mutually exclusive, alternative hypotheses: 1) that ambient noise masks acoustic communication associated with reproduction, 2) that ambient noise acts as a stressor, leading to manifestations of stress at behavioral, physiological, and immunological levels, and 3) that ambient noise may disrupt the acoustic component of a seahorse's feeding strategy.

My first objective is to better characterize the acoustic environment and auditory system of seahorses in culture. I will characterize the range of ambient noise encountered in seahorse culture systems. I will measure seahorse hearing using the auditory brainstem response technique, compare the audiogram against ambient noise data, and measure differences in a seahorse's detection threshold of click sounds produced by conspecifics when masked by ambient noise (hypothesis 1). To determine if ambient noise affects seahorse reproduction, I will compare reproduction in quiet tanks and in tanks experiencing noise typically associated with filtration. To test the importance of acoustic communication in reproduction, I will compare measures of reproduction between surgically muted animals and sham-operated animals. To evaluate hypothesis 2, I will compare the behavior, cortisol levels, interrenal cell nucleus size, and incidence of bacterial infection from animals maintained in noisy vs. quiet tanks. Finally, to evaluate the effect of ambient noise and sound production on foraging success (hypothesis 3), I will compare prey-capture success between surgically muted animals and sham-operated animals in noisy and quiet tank environments.

Understanding the effects of ambient noise on reproductive success may help aquaculturists to effectively consider the acoustic environment of their systems. These results will be useful not only to those, world-wide, who are developing aquacultural alternatives to wild seahorse collection, but also to display aquarists, as well as culturists of other aquatic animals.

If you would like to get in touch with Paul, he can be reached by email at chromis@ufl.edu.

Student By-Laws Update

Students Mark Rogers and Jeff Grim have been spearheading efforts to establish a student subsection of the Florida AFS Chapter. Student Subunit bylaws have been drafted and reviewed by various members of the Florida Chapter bylaw committee. This draft is now available online for members to review at:

www.sdafs.org/flafs/PDF/StudentBylaws.pdf

We will be voting on these bylaws at the annual business meeting in February and if passed, the new subunit will be born (or should we say spawned?)!

Student Colloquium Update

The Students United in the Research of Fisheries (S.U.R.F.) at the University of Florida is hosting this year's Southern Division Student Colloquium at Marineland, FL during November 5-7. The meeting allows students from southeastern universities to interact and develop professional partnerships as well as present their research at any stage of completion to help them get that first presentation under their belt**.** Highlights of this year's meeting include our guest speaker Larry Olmsted**,** who will speak on "How to be successful in the fisheries profession," as well as a panel discussion comprised of fisheries scientists from academia, NGO's, the private sector, and government to discuss "how conducting fisheries science differs among these sectors" and what students should expect when entering the job force. Other highlights include a luau social, 22 oral and 20 poster presentations, and a tour of the St. Augustine Alligator Farm Zoological Park.

Registration and abstract submission are currently open and thus far, abstracts have been submitted from students in West Virginia, Tennessee, Georgia, North and South Carolina, Florida and even one from Nigeria, so we expect a diverse and widespread group of attendees. We have raised enough money to cover all meals for attendees in hopes of making the meeting affordable to students. This should be a great meeting so encourage any students you know to attend and present.

For information, registration, and abstract submission, check us out on the web: **surf.ifas.ufl.edu/colloquium.htm**.

New AFS Book Releases

Aquatic Protected Areas as Fisheries Management Tools by Brooke Shipley, editor.

Common and Scientific Names of Fishes from the United States, Canada, and Mexico, Sixth Edition by Joseph S. Nelson, Edwin J. Crossman, Héctor Espinosa-Pérez, Lloyd T. Findley, Carter R. Gilbert, Robert N. Lea, and James D. Williams.

We NEED You!

For this year's annual FAFS meeting, plans are underway for a symposium entitled "Florida's Diadromous Fishes" and a celebration of our Chapter's silver anniversary. You can help with one or both of these. For the silver anniversary celebration, we are looking for, in particular, a photograph of every past-president of the Chapter; past presidents are encouraged to submit portraits or snapshots of themselves or each other, otherwise we get to pick your photo. We are also seeking program abstracts prior to 1995, old newsletters, or other documents of historical importance; consider cleaning out that section of your bookshelf for such a good cause. If you can contribute to either of these program highlights contact the Chapter's President-elect Rich McBride (symposium; FAFS2005@myFWC.com) or President Mike Allen (silver anniversary presentation; msal@ufl.edu).

Gracias

We would like to extend a great big THANK YOU to Bob Wattendorf for all of his work with our Chapter's website. We appreciate all that you do to keep our Chapter members informed!!

Interested in contributing something to the Shell-Cracker? Email Kimberly Bonvechio at *kim.bonvechio@myFWC.com* with any articles or information that you would like to be included in the next issue. The deadline for the next issue is December 31, 2004, so start fishing...

Student Travel Grants and Scholarship Available!

Travel Grants: The Florida Chapter AFS will be providing the opportunity for Florida students to obtain support to attend this year's annual FAFS meeting. In the past, 8 to 16 travel grants have been awarded each year. To be eligible to receive one of these travel grants, individuals must currently be registered in a Florida school and must apply for the grant. Awardees will be selected and notified prior to the meeting. You do not have to be presenting a talk or poster to be eligible. You must currently be a member of the Florida Chapter AFS. If not, you must become a member when you register at the annual meeting. The travel grant does not cover the cost of membership. **Deadline for applying is Friday, 28 January 2005.**

If you need additional information, please contact Dr. Chuck Cichra at 352/392-9617 ext 249 or via e-mail at fish@ifas.ufl.edu. The travel grant application can be found on the Florida Chapter website at *www.sdafs.org/flafs/PDF/travelap.pdf.*

Rottmann Scholarship: The Florida Chapter is pleased to announce the availability of the 9th Annual (2005) Roger Rottmann Memorial Scholarship, established in memory of Roger Rottmann, one of the first fisheries biologists ever hired by the State of Florida University System. Roger conducted fisheries and aquaculture research for more than 20 years at the University of Florida, producing numerous scientific journal and educational publications and videos.

This scholarship was established to recognize outstanding students enrolled in Florida universities and colleges. Prior recipients have included:

1997--Robert Humston, University of Miami RSMAS (PhD)
1998--Dan Willis, University of Florida (MS)
1999--Joel Carlin, University of Florida (PhD) AND Bonnie Whitlock, University of West Florida (MS)
2000--Jeff Hill, University of Florida (PhD) AND Tom Glancy, University of Florida (MS)
2001--Steve Huskey, Florida Institute of Technology (PhD) AND Kim Tugend, University of Florida (MS)
2002--Bridget Tiffany, University of West Florida (MS) AND Jodie Rummer, University of West Florida (MS)
2003--Tim Bonvechio, University of Florida (MS)
2004--Patrick Cooney, University of Florida (MS)

Any student, working toward a graduate degree related to the freshwater or marine fisheries sciences is encouraged to apply. If qualified candidates apply, two scholarships will be given this year: one at the Masters level and one at the PhD level.

Applications must be received by 31 December 2004. The recipient(s) of the scholarship will be notified prior to the Chapter's Annual Meeting, and the scholarship will be presented at the annual business meeting. For additional information, contact Dr. Chuck Cichra at 352/392-9617 ext. 249 or via e-mail at fish@ifas.ufl.edu. The following link has the criteria, application form, and letter of recommendation form: *www.sdafs.org/flafs/doc/rottmann.html.*

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601 W. Woodward Ave.
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