



# The Pelican Post

Weeks Bay Reserve Foundation Newsletter  
Summer 2003

## Weeks Bay Appreciation Day

Many friends and supporters of Weeks Bay turned out on Saturday, April 5, for our annual Weeks Bay Appreciation Day, held this year at Lulu's Sunset Grill. The festive event, sponsored by the Weeks Bay Reserve Foundation, treated guests to crawfish, fried mullet and other delicacies cooked up by the chefs at Lulu's, as well as the live bluegrass tunes of The Wayfarers and pontoon boat rides on the Estuarine Queen. Foundation members, supporters, volunteers and Reserve staff were recognized for their tremendous efforts over the years, working to protect Weeks Bay, its watershed and area wildlife, as well as other supporting organizations and agencies, such as The Nature Conservancy and the Alabama Department of Conservation and Natural Resources, State Lands Division. Special recognition went to the **Honorable Jack Edwards**, chair of the Weeks Bay Reserve Foundation Board, and volunteers **Ottillie Halstead** and **Hattie Smith** for their extraordinary efforts on behalf of the Reserve.



## Breaking News! Foundation Welcomes Walter Ernest as New Executive Director

To meet and exceed our ever-increasing demands, the Weeks Bay Reserve Foundation announces that Walter Ernest IV will come on board as our new Executive Director, effective June 1. Many may already be familiar with Walter or his successful efforts on behalf of Alabama conservation. He has been active in the Coastal Conservation Association and the "Roads to Reefs" program, the Alabama Coastal Foundation, and the Mobile County Wildlife and Conservation Association, serving as its president in 1999 when the group was awarded the Governor's Conservation Organization of the Year. The Foundation looks forward to Walter's strong leadership and to introducing him to members and supporters, both in person, and in future issues of *The Pelican Post*.



## NEWS OF NOTE



### Bog Burn Reveals Beautiful, Educational Results

Vivid bouquets of pastels found near and around the boardwalk of the Kurt G. Wintermeyer Nature Trail on County Road 17 are, upon closer inspection, flourishing pitcher plants, ferns and wildflowers resulting from a controlled burn this spring of the Weeks Bay Pitcher Plant Bog. The efforts of Reserve and State Lands employees, along with Weeks Bay volunteers, to manage the bog's fire-dependent habitat have rendered both beautiful and educational results. Though the three-to-four acre burn site near the central area of the bog boardwalk is spotty due to the weather and high humidity during the burn, it highlights the varied effects that occurred between successfully burned patches and those that were damped out. Prominent patches of white-topped pitcher plants can be seen in areas that carried a fire. A visit to the boardwalk from early summer to early fall, prior to the next scheduled burn, would provide optimal viewing and educational opportunities.

### More Exhibits Installed at Interpretive Center

Renovation of the Interpretive Center lobby continued during the month of April with the installation of additional, new exhibits and displays designed and constructed by Auburn University staff and students from the Department of Industrial Design. "This is an exciting project," said Reserve Staff Member **Bob McCormack**. "The new look is attractive to the eye, and the important information about our coastal environment is better understood through this type of exhibition and technology." The Interpretive Center will remain open to visitors during the renovations, expected to be complete at the end of August.

### Receptionist Betty Schulte Retires After Decade of Service

Well known for her pleasant voice on the phone and genial personality greeting visitors to the Reserve, Receptionist **Betty Schulte** has retired from the state position she has held since 1992. Reserve Manager **L.G. Adams** recently presented Betty with a commemorative plaque recognizing her many years of service, as well as good wishes on behalf of all Reserve Staff for her retirement.



### Weeks Bay Volunteers Visit Biloxi Marine Education Center

Seeking insight from other environmental education centers, a group of Weeks Bay Volunteers accompanied Reserve Education Coordinator **Margaret Sedlecky** on a March 7 excursion to the J.L. Scott Marine Education Center in Biloxi, Mississippi. The Center's Volunteer Coordinator hosted the group on a tour of the facilities and shared ideas about how the Center utilizes its volunteer docents in K-12 school programs.



(Seated L to R) Maureen Nation, Bill Gonzales, Margaret Sedlecky and Jenni Zimlich. Standing beside the Osprey Nest (L to R) are Barbara Gonzales, Joan and Randy Bentz.

### Volunteer Restores Hull of Estuarine Queen



For the third time in eight years, Weeks Bay Volunteer and Commercial Fisherman **Donald Annan** has lent his extensive knowledge and experience of boats and our coastal environment to benefit the work of the Reserve. The Reserve's 32-foot pontoon boat, the *Estuarine Queen*, is enjoying a newly restored hull, thanks to the efforts of Mr. Annan, who dry-docked the boat, scraped its bottom of barnacles and algae, and painted it with antifouling paint. The *Estuarine Queen* is now back in the water and ready for use in the Reserve's education and research programs. Many thanks go to Mr. Annan for this painstaking contribution to the work of the Reserve.

### Graduate Research Fellow Updates Advisory Committee

**Adrienne Dunsmuir** enlightened the Weeks Bay Advisory Committee during its quarterly meeting on March 13, 2003, with an update on her research, the "Effects of anthropogenic eutrophication on the fate and magnitude of microphytobenthic production in estuaries." Also known as "Man's impact on the health of Weeks Bay," Ms. Dunsmuir's research is part of the Graduate Research Fellowships funded annually by the Reserve System. For more information, call the Reserve at 251-928-9792.



## In Remembrance of Carrie Lynn Yoder



The staff of the Weeks Bay Reserve joins the family, friends and colleagues of **Carrie Lynn Yoder** in mourning her untimely and tragic death in March and in celebrating her life and contributions to our coastal biological sciences.

Carrie was a 26-year-old Graduate Research Fellow here at the Weeks Bay Reserve and a Ph.D. candidate at the Louisiana State University, Department of Biological Sciences in Baton Rouge. Her three-year Fellowship was funded through a competitive grants program of NOAA's National Estuarine Research Reserve System and focused on the effects of hurricane, fire, and flooding on coastal wetland plant life. Her hypothesis was that human-made flooding – the result of rising sea levels based on global warming – left more damage than natural calamities, such as hurricanes or fire, according to her professor and mentor at LSU, **Dr. William Platt**.

A Florida native, Carrie received a B.S. in Botany with honors at the University of Florida, and her M.S. in Biological Science at the University of Central Florida. She attended Chamberlain High School in Tampa where her marine biology teacher recalled her as a quiet, popular, young woman, "someone who was serious about what she wanted to do."

Carrie's mother, **Lynda Yoder**, of Tampa, remembered joyously her daughter's love of biology and of traveling, which she began in the eighth grade, visiting such places as Alaska, Russia and Europe. Carrie had a particular passion for frogs and once visited Panama intent on finding as many different colors of frogs as she could.

The family has announced the creation of the "Carrie Lynn Yoder Memorial Scholarship" fund to provide stipends for students doing ecological research. Donations can be made through the LSU Foundation at 3838 W. Lakeshore Drive, Baton Rouge, LA 70808.

### "STORM OVER THE AMAZON," from **ANTAEUS** by Edward O. Wilson © 1986

Then one August night in the dry season, with the moon down and starlight etching the tops of the trees, everything changed with wrenching suddenness. A great storm came up from the west and moved quickly toward where I sat. It began as a flickering of light on the horizon and a faint roll of thunder. In the course of an hour the lightning grew like a menacing organism into flashes that spread across the sky and illuminated the thunderhead section by section. The sound expanded into focused claps to my left, front, and right. Now the rain came walking through the forest with a hiss made oddly soothing by its evenness of pitch. At this moment the clouds rose straight up and even seemed to tilt a little toward me, like a gigantic cliff about to topple over. The brilliance of the flashes was intimidating. Here, I knew, was the greatest havoc that inanimate nature can inflict in a short span of time: 10,000 volts dropping down an ionizing path at 500 miles an hour and a countersurge in excess of 30,000 amperes back up the path at ten times that speed, then additional back-and-forth surges faster than the eye can follow, all perceived as a single flash and crack of sound. . . .

Large splashing drops turned into sheets of water driven by gusts of wind. I retreated into the camp and waited with my *mateiros* friends under the dripping canvas roof. In a short time leptodactylid frogs began to honk their territorial calls in the forest nearby. To me they seemed to be saying rejoice! rejoice! The powers of nature are within our compass.

For that is the way it is in the nonhuman world. The greatest powers of the physical environment slam into the resilient forces of life and nothing much happens.

### From **A COUNTRY YEAR** © 1986 by Sue Hubbell

One spring evening a couple years ago, I was sitting in the brown leather chair in the living room reading the newspaper and minding my own business when I became aware that I was no longer alone.

Looking up, I discovered that the three big windows that run from floor to ceiling were covered with frogs.

There were hundreds of them, inch-long frogs with delicate webbed feet whose fingerlike toes ended in round pads that enabled them to cling to the smooth surface of the glass. From their toe structure, size and light-colored bellies, I supposed them to be spring peepers, *Pseudacris crucifer*, and went outside for a closer look. I had to be careful where I

put my feet, for the grass in front of the windows was thick with frogs, waiting in patient ranks to move up to the lighted surface of the glass. Sure enough, each pinkish-brownish frog had a back crisscrossed with the dark markings that give the species its scientific name. I had not known before that they were attracted to light.

I let my newspaper go and spent the evening watching them. They did not move much beyond the top of the windows, but clung to the grass or the moldings, seemingly unable to decide what to do next. The following morning they were gone, and I have never seen them at the windows since. It struck me as curious behavior.



Spring peeper

*Pseudacris crucifer*

## Derelict Crap Traps Removed

The Reserve participated in the Derelict Crab Trap Removal Day on Saturday March 15<sup>th</sup>, coordinating the cleanup efforts within Weeks Bay. The event, sponsored by the Alabama Marine Resources Division and the Mobile Bay National Estuary Program, was the second of its kind in the Mobile Bay area.

The Weeks Bay zone attracted 12 volunteers, who picked up about 45 traps found in shallow waters, along the shore, and in the marsh. **Bob McCormack**, the Reserve's Stewardship Coordinator, noted all the traps collected

came from the shoreline or in the marsh grass. The recent rains and south winds made the Bay very turbid with high water, so most of the derelict traps couldn't even be seen.

Abandoned (or "derelict") traps endanger boaters as well as wildlife. Bob noted, "Derelict traps in shallow depths like Weeks Bay are a dangerous threat to boaters. Boat engines and propellers can be seriously damaged when a trap is hit. Derelict traps also continue to catch crabs and fish, that eventually die in these unattended traps."

The Alabama coastwide effort yielded over 100 volunteers and an estimated 1,000 traps that were plucked out of the shallow waters and shoreline areas. The Reserve wishes to generously thank the Weeks Bay Zone Volunteers who participated during the cleanup—**Scott Phipps** (Robertsdale); **Fred and Maureen Nation**, and **Eric Brunden** (Daphne); **Sarah and Elissa Johnston** (Magnolia Springs); **Lee Ann and Paul Strickland**, **Damon Henderson**, **Bob McCormack**, **Martha Payne**, and **Gene Boothe** (Fairhope).



*Gene Boothe and Martha Payne haul a load of abandoned traps*



*From left to right: Maureen Nation, Bob McCormack, Eric Brunden, and Scott Phipps survey their efforts*

## Lichen Researchers Visit Reserve's Nature Trail Restoration Project

"What is that bright red stuff on the trees along the boardwalk?" is a frequent question from visitors to the Reserve. The "red stuff," as well as some of its grey-green and white colored cousins are lichens, the subject of much interest in March when a team of investigative researchers from Eastern Illinois University came to collect and identify what turned out to be more than 40 different species found on tree bark alone at the Reserve.

Lichens, dual organisms consisting of both an alga and a fungus growing together in a symbiotic relationship, are of interest to ecologists for several reasons. They are very sensitive to pollution and disturbance, and are very long-lived and slow growing — enlarging by only a few millimeters each year — which makes them good indicators of a forest's long-term health. Contrary to the way they may appear, lichens do not harm trees or even affect them in any way.

Visiting researchers **Dr. Andrew Methven** and **Dr. Charles Pederson**, along with their graduate students **Matt Barmeister** and **Brent Wachholder**, investigated lichen communities along transects within the forest surrounding the Interpretive Center, part of the larger Nature Trail Restoration Project outlined in the previous issue of *The Pelican Post*. Each of the diverse number of species was collected and identified — including the "red stuff", *Cryptothecia rubrocincta*, commonly known as the "Christmas lichen."



*From the left: Dr. Charles Pederson, Matt Barmeister and Brent Wachholder collecting lichen samples*

## Volunteer Spotlight - Paul Dowsey

When asked to describe his favorite volunteer activities at Weeks Bay, **Paul Dowsey** says, "I like the physical stuff. I used to come down here, years ago, on my own, to clear brush and fallen limbs from the nature trails. The restoration project that is underway here at Weeks Bay is my kind of thing. We are opening trails, clearing brush, closing old drainage ditches, and cutting out invasive exotics. I really enjoy the work. It keeps me in shape! But the reason I like volunteering at the Reserve is that there is a certain amount of trust you just don't find every place." That trust is certainly in good hands with Paul, who has been one of our hardest working and most reliable volunteers over the past five years.

Paul, who hails originally from the Upper Peninsula of Michigan, came to the Gulf Coast with the military when he was stationed at Keesler Air Force Base in 1958. He met and married an Alabama girl, settled in Alabama, and graduated from Spring Hill College with a degree in Industrial Management. Paul began his own plumbing business, Dowsey Inc., which he operated for about 40 years before turning it over to his sons. Paul and **Bette Dowsey** have six children, ten grandchildren, and two great grandchildren with a third on the way!

Paul has lived on Fish River for



the past 20 years and has taken a keen interest in water quality. He has been trained as a water quality monitor and has tested his site on the river every two weeks for the last two years. Paul is hopeful about Fish River, and says he has noticed an improvement in water clarity at his collection site.

Though he is retired, Paul is a busy man, active in such civic organizations as RSVP, Community Action, the Daphne Public Library, and the Judicial Conference Committee, an alternative for juveniles who commit misdemeanor of-

fenses. Word has it that Paul is also a beloved figure with neighborhood children and dogs, especially when he carries extra dog biscuits in his pockets.

Paul Dowsey, volunteer extraordinaire, was perfectly described by **Albert Schweitzer**, when he said, "One thing I know: The only ones among you who will be really happy are those who will have sought and found how to serve." We are very fortunate to have Paul as one of our treasured volunteers at Weeks Bay Reserve.

### January - February 2003

## THE WEEKS BAY RESERVE FOUNDATION THANKS OUR NEW AND RENEWING MEMBERS AND DONORS

Robert & Lisa Adams  
Stephen & Joann Broadus  
Margaret & Milton Brown  
Gerry Cabiniss  
James & Beth Cole  
George & Jerre Dyson  
Helen & Jack Hargleroad  
Larry Hipsh

Bill & Allison Hixon  
Phar Hume  
Catherine Jording  
Andrew McDonald  
Edward & Stephanie Morris  
Dean Mosher  
Louis S. Smith, Jr.  
Virgil Spivey

Mary Frances & James Stewart  
Robert & Ann Tate  
David & Suzanne Trice  
Weeks Bay Volunteers  
Peter V. Wiese  
Thomas & Jeanne Yancey  
Linda Young

*The Weeks Bay Reserve Foundation is a non-profit 501(c)(3) organization. Donations to the Foundation are tax deductible. In addition to membership dues and cash donations, other gifts range from stocks and bonds to land, equipment and professional services.*

*The Weeks Bay Reserve Foundation sends condolences to the family, friends, and colleagues of Jim Stewart, who passed away earlier this year.*

## CALENDAR

The Weeks Bay Reserve Interpretive Center is open to the public Monday – Saturday 9am-5pm, and Sunday 1pm-5pm. The Interpretive Center is located at 11300 US 98 just west of the Fish River Bridge. For more information call the Reserve at 251-928-9792, or facsimile 251-928-1792.

### JUNE

Young crevalle jacks (*Caranx hippos*) are actively feeding on smaller forage fishes throughout the estuary.

- 2 Holiday. The Interpretive Center will be **closed**. All trails and boardwalks will remain open for your walking and sightseeing pleasure.
- 3 Citizens Advisory Committee meeting, 6pm at the Reserve. Public is welcome.
- 12 Weeks Bay Advisory Committee quarterly meeting, 2pm at the Reserve.
- 13 Field trip to Gaillard Island in Mobile Bay to observe nesting Brown Pelicans, as well as gulls and terns, 9am – 1pm. Beachcomber Dry Dock and Marine Supply at Dog River in Mobile County. Going south on Dauphin Island Parkway, take the first left at Dog River Bridge. There will be a \$15 per person fee. Limit 20 people. For reservations call **John Borom** at 990-0423.
- 15 Father's Day
- 19 Alabama's Forever Wild Land Trust Board meeting in Birmingham, 11 am. For more information, call ADCNR State Lands Division Office 334-242-3484.
- 21 Summer begins
- 24- Tenth Annual Nonpoint Source Pollution and Watersheds
- 26 Workshop at the Reserve.

### JULY

Large yellow eggs and tiny young are incubating in the oral chambers of mouth brooding sea catfish (*Arius felis*).

- 1 Citizens Advisory Committee of the Weeks Bay Watershed Project meeting, 6 pm at the Reserve.
- 4 Holiday. The Interpretive Center will be closed. All trails and boardwalks will remain open for your walking and sightseeing pleasure.
- 12 Alabama Waterwatch Volunteer Monitor Training Workshop, 8 am at the Reserve. For more information, call **Mike Shelton** at 928-9792.
- 21 Deadline for receipt of entries in the Weeks Bay Nature Photography Contest. See entry form in this issue.

### AUGUST

Rainwater killifish (*Lucania parva*) are abundant in estuarine submerged aquatic vegetation.

- 5 Citizens Advisory Committee of the Weeks Bay Watershed Project meeting, 6 pm at the Reserve.



## 2003 Summer Film Series

### Special 13-Part Series on NATURAL HISTORY

Each session will be held on Wednesday at 10am, and will last 50 minutes. There is no charge and refreshments will be provided.

Faulkner State Community College  
Centennial Hall - Giddens Auditorium  
440 Fairhope Avenue, Fairhope AL 36532  
Phone: 251-990-0420



<http://www.faulknerstate.edu/meer>

### JUNE

- 4 - Ocean Drifters - National Geographic
- 11 - Creatures of the Shallow Seas - National Geographic
- 18 - Jewels of the Caribbean Sea - National Geographic
- 25 - Adrift on the Gulf Stream - NOVA

### JULY

- 2 - America's Endangered Species - National Geographic
- 9 - In the Company of Whales - Discovery
- 16 - Private Lives of Dolphins - NOVA
- 23 - Kingdom of the Seahorse - NOVA
- 30 - Lost World of the Medusa - Nature

### AUGUST

- 6 - Conserving America - The Wetlands - PBS
- 13 - Conserving America - Challenge of the Coast - PBS
- 20 - Conserving America - The Rivers - PBS
- 27 - Conserving America - Champions of Wildlife - PBS

Don't forget to visit our website  
@ [www.weeksbay.org](http://www.weeksbay.org)



## Earth Day 2003



The festivities of Bay Area Earth Day on April 13 were a fitting venue to present and celebrate the people and programs of the Weeks Bay Reserve and the Reserve Foundation. Among the Reserve's research, educational and volunteer opportunities for both young and old that were highlighted:

**Estuaries – Where the River Meets the Sea**—This activity book, featuring fun facts and "hands-on" activities that reveal the functions and values of a healthy estuary, were distributed to younger students.

**Weeks Bay Watershed Project** – displayed a summary of its activities, including mercury monitoring in Large-mouth Bass, restoration efforts on an impaired waterway near Foley, and adult outreach workshops.

**Reserve and Foundation Stewardship** – in conjunction with our state and federal partners was another centerpiece of the display.

**Water Quality Monitoring** – was featured in partnership with the Alabama Water Watch Association. Recognized were such volunteer groups as the Weeks Bay Water Watch, whose members test water quality at over 40 sites in the Weeks Bay watershed alone.

Other organizations, such as the Dog River Clearwater Revival, the University of South Alabama, the Cities of Orange Beach and Fairhope and the Wolf Bay Watershed Watch showcased their programs at the park adjacent to the Fairhope Pier and demonstrated the impact that motivated citizens can have on their local environment.



## Nonpoint Source Pollution and Watersheds Workshop Celebrates 10<sup>th</sup> Anniversary

On June 24-26, 2003, the Weeks Bay Reserve will be celebrating a decade of providing local teachers, municipal staffers, state agency employees, engineers and concerned citizens from across Alabama with an understanding of watershed degradation through nonpoint source pollution. A central theme of the decade-long effort has been getting participants to recognize the necessity of working together based on watershed boundaries instead of political boundaries.

Though classroom teachers were the initial focus for the two and one-half day workshop, the program has evolved, with more and more stormwater professionals and state agency representatives in attendance. New regulations dealing with how Alabama's municipalities manage their stormwater runoff has prompted the workshop to include topics that assist communities in writing sediment and erosion control ordinances and best management practices plans. Participants are given tools they can tailor to their local outreach programs or toward compliance with a stormwater permit. GIS, for instance, is a powerful tool to use in identifying features of a watershed or to document changes in a watershed due to development of other forces.

*A **Watershed** is an area of land that drains to a common point and **nonpoint source pollution** is total contamination, including bacteria, chemicals and sediment that run off the land around a watershed's streams and rivers when it rains. The movement of water downhill crosses political boundaries, complicating the implementation of plans to address pollution concerns.*

### The 2003 Nonpoint Source Pollution and Watersheds Workshop

#### Agenda

- Day One:**
- Presentations on watersheds, wetlands, and lakes
  - Conventional and web-based watershed mapping techniques (e.g., GIS)
  - Introduction to categories and sources of nonpoint source pollution
- Days Two-Three:**
- Examination of complex environmental issues and solutions (with resources tailored to local needs)
  - Model community programs that can be replicated
  - Watershed tours by water and land

## Kid's Fishing Fun Day Held

Some caught their limit and some did not, but all had fun at Kid's Fishing Fun Day at the Weeks Bay Reserve Foundation's Safe Harbor R.V. Park on Saturday, May 3. About 180 children ages 15 and under, and about twice that many parents, turned out for the annual event held from 8:00 a.m.-2:00 p.m.

Many thanks go out to our sponsors, including **Danny's Fried Chicken**, who supplied 40 pounds of chicken livers for bait, and **ADCNR's State Lands**, as well as **Wildlife and Freshwater Fisheries** Divisions, who supplied the catfish and stocked the pond, respectively. Other donations that made the day possible came from the **Baldwin County Commission**, **Compass Bank**, the **Eastern Shore Children's Clinic**, the **Eastern Shore Optimist Club**, the **Mobile Bay NEP**, and the **Weeks Bay Reserve Foundation**.

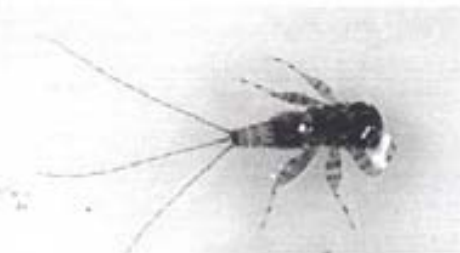


## Aquatic Creatures Reveal Waters' Health: Robertsdale High School joins with Weeks Bay Reserve in Scientific Assessment

In addition to the more traditional physical and chemical data methods regularly used to test water quality by agencies and organizations, such as the Weeks Bay Reserve, a new, powerful tool to judge the health of a waterway — known as bioassessment — was tested in a partnership of the Weeks Bay Watershed Project, Reserve Staff and **Alan Blackwell's** Environmental Science class from Robertsdale High School.

While traditional methods depend on taking numerous samples over a long period of time that provide a series of still "snapshots" of the water's health, bioassessment examines the diversity and abundance of creatures that live in a stream to provide a kind of "motion picture" of water quality.

Many animals, such as some fish, larval and adult insects, arthropods (such as crawfish) and other invertebrates, like clams and snails, spend either a portion or all of their life cycle in the water and in a confined home range. If the water quality becomes impaired by pollution, these creatures lack the ability to relocate. Some organisms are known for their ability to survive in waters where the quality is very poor, while others can only survive in the best quality water.



*The mayfly larva, measuring about 1/2 inch from head to triple tail appendages, requires good water quality for survival.*

Biological assessment prescribes various methods of collection and requires the counting of the different species of aquatic animals, as well as the numbers of each. Many insects divide their lifecycle between a juvenile stage, when they live in the water, and an adult stage in the air and on the ground. These creatures are collected using very fine

nets with the collectors wading knee-deep into the water. The resulting diversity and abundance of creatures are plugged into a standard formula developed over years of testing to produce a health index for the water body.

Two streams in the Weeks Bay watershed were recently tested using the bioassessment method. The first creek examined was Corn Branch, just south of County Road (CR) 64, west of Loxley. This area is characterized as farmland, with clusters of homes adjacent to the stream. The health of the stream using traditional methods is generally considered impaired, with dissolved oxygen levels low (at less than 5 mg/L) and the turbidity (level of suspended solids) high. A team from the Reserve, including **Margaret Sedlecky**, **Eric Brunden** and **Sarah Johnston**, joined Weeks Bay Watershed Project Coordinator **Mike Shelton** for the Corn Branch collection, which involved overcoming a "welcome" from two cottonmouth snakes. The grab netted over 160 individual organisms, many of which are indicators of poor water quality, including aquatic worms, biting midges, and left spiraling pouch snails.

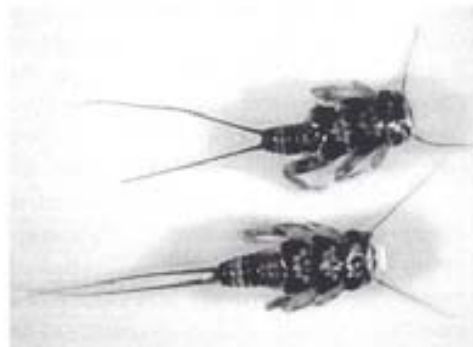


*An indicator of poor water quality, these pouch snails (1/4 inch length) were collected in Corn Branch at CR 64 near Loxley.*

Only three mayfly larvae — a creature that requires good water quality to survive — were collected. The bioassessment of Corn Branch indicates that the segment is in fair-to-poor health.

A strikingly different assessment resulted for the bioassessment of the second waterway, the upper reaches of the Magnolia River, north of CR 24, just west of Foley. Traditional methods show that this segment has high levels of dissolved oxygen and water clarity.

Robertsdale High School students performed the netting and identification in this collection, with the aid of Margaret Sedlecky, Mike Shelton and Weeks Bay Reserve Volunteer **Barbara Gonzales**. The Magnolia River test results were predominated (84%) by macroinvertebrate types that can survive only in the best water quality, including mayflies, stoneflies and juvenile dragonflies.



*Collected in Magnolia River near CR 24, stonefly larvae (1 inch length) were found in abundance due to the excellent water quality at the site.*

None of the pouch snails present in the Corn Branch test were present, and the health of the Magnolia River was deemed excellent.

In addition to supporting the results of traditional water quality test methods taken throughout the year, the bioassessment method provided a hands-on approach for students to learn about water quality and to view the resulting indicators without the aid of magnification. Biological assessment holds great promise, as the techniques are easy to use, and with some training and experience, volunteers can readily learn to separate and count the organisms that provide the bottom line on water quality.



*Dragonfly larvae (1 inch length) exist in fair to excellent water quality.*

**Weeks Bay Reserve Foundation and Weeks Bay National  
Estuarine Research Reserve  
Fourth Annual Alabama Gulf Coast Estuaries and Watersheds  
Nature Photography Contest  
Entry Form**

*Please complete a separate form for each photo entered. See contest rules on reverse. Please print legibly.*

Name of entrant \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Daytime Telephone ( \_\_\_\_\_ ) \_\_\_\_\_

Evening Telephone ( \_\_\_\_\_ ) \_\_\_\_\_

Photo entered in category: *(Check one)*

\_\_\_\_\_ Flora \_\_\_\_\_ Fauna \_\_\_\_\_ Habitats

Division: *(Check one)*

\_\_\_\_\_ Open \_\_\_\_\_ Junior

Location of photograph: *(Check one)* \_\_\_\_\_ Weeks Bay \_\_\_\_\_ Weeks Bay Watershed

\_\_\_\_\_ Estuary \_\_\_\_\_ Estuary Watershed

Please describe the approximate location: (examples – county, nearest highway, name of bay, creek or property owner, etc.)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



**Certification:** I hereby certify that I am the photographer of the enclosed photograph. I have read and I agree to the contest rules. I certify that the enclosed photograph entry is in accordance with all contest rules.

Signature \_\_\_\_\_ Date \_\_\_\_\_

If entry is in the "Junior Division" please complete the following:

My age at the time of entry is \_\_\_\_\_

Name of parent or other responsible adult (please print) \_\_\_\_\_

Signature of parent or other responsible adult \_\_\_\_\_

**ENTRY DEADLINE: MONDAY, JULY 21, 2003**  
Weeks Bay National Estuarine Research Reserve  
11300 U.S. 98 • Fairhope, AL 36532 • (251)928-9792  
Weeks Bay Reserve Foundation and Weeks Bay National Estuarine Research Reserve

# Fourth Annual Alabama Gulf Coast Estuaries and Watersheds Nature Photography Contest Contest Rules

- Photographic prints or slides may be entered in the following categories:
  1. Flora photographed in the Estuary or Watershed (plants, trees, shrubs, flowers etc.)
  2. Fauna photographed in the Estuary or Watershed (animals, insects, fish, amphibians, reptiles, birds, mammals, etc.)
  3. Habitats (outdoor scenes) in the Estuary or Watershed.
- There are two divisions for each of the three categories: "Junior" (under age 16) and "Open", which may be any age, including under age 16.
- Types of photographs accepted for entry:
  - Color prints
  - Black and white prints
  - Color slides
  - Prints of unaltered digital photos
- Entries are limited. Submit no more than two entries per category.
- An entry form (also available at the Weeks Bay Reserve Interpretive Center) must be completed for each photograph.
- Each photograph entered must be mailed or delivered to the Weeks Bay National Estuarine Research Reserve. Each photograph must be in a separate envelope with a completed entry form.
- Entries must be received by close of business on Monday, July 21, 2003.
- Photographs entered must be a minimum of 4 x 6 inches and a maximum of 8 x 12 inches. Photos must not be matted or framed.
- By entering the photography contest, contest participants agree to and certify the following:
  - Photographs were taken in an Alabama Gulf Coast estuary or watershed.
  - Photographs were taken between July 15, 2002 and July 21, 2003.
  - Weeks Bay Reserve Foundation shall have unlimited use of all photographs entered in the contest. Entries become the property of the Foundation and will not be returned to the entrant.
- Judging Criteria:
  - Originality (Interesting, unique)
  - Outstanding representation of flora, fauna or habitat
  - Technical excellence
  - Composition
- Prizes will be awarded in each of the three categories, as follows:
  - Open Division
    - First Prize: \$100
    - Second Prize: \$50
    - Honorable Mention: Weeks Bay T-Shirt
  - Junior Division
    - First Prize: \$30
    - Second Prize: \$20
    - Honorable Mention: Weeks Bay T-Shirt
- Entries will be "blind-judged" by a committee designated by the Weeks Bay Reserve staff and Foundation board. Judges reserve the right not to award all prizes in all categories based on merit of entries. Judges decisions are final.
- Winning Photographs will be published in a future issue of *The Pelican Post* newsletter and highlighted on the Foundation Website at <http://www.weeksbay.org>. All entries may be used for publicity and promotional activities of the Foundation and/or Reserve.

## Nature's Calendar by John Borom

The Beautiful Great Egret (*Ardea alba*) is often seen in the Coastal Plain during the spring and summer, its favored breeding season here. Quite noticeable from their appearance, the extremely slender, long-necked, long-legged, wading birds are entirely white, with the exception of their long black legs and feet and long, yellow bill. Breeding birds exhibit striking green flesh around their eyes and long flowing plumes to attract their mates, engaging in a ritual of courtship that involves stretching and bowing movements about the nest. These foraging birds weigh-in at about 1.9 pounds, are 39 inches tall, with a 55-inch wingspan. They are methodical, stalking hunters that seek mostly aquatic invertebrates, small fish and lesser quantities of small amphibians, reptiles and mammals.

These beautiful birds were reduced almost to extinction by plume hunters in the late 19<sup>th</sup> and early 20<sup>th</sup> centuries, until 1918 when legislation was passed to forbid this practice. Many adults were killed on the nest, with the young left to die. Their slaughter is widely believed to have spawned the conservation movement in the United States, including the establishment of the National Audubon Society. New threats to this stately bird include the continued drainage of swamps, water pollution, and insecticides or methylmercury that tend to accumulate in the food web and concentrate in the bird's tissues.

During nesting, males will select and defend a nesting territory, which gradually reduces in size as more birds arrive. Males and females work in tandem to build nests, with the males collecting materials and the females constructing the nest. The pair generally produces three-to-five light blue eggs that are laid in the shallow nest from April until June. The couple also shares incubation duties from 23-26 days, often performing an elaborate and noisy greeting as they change shifts.

Chicks are born nearly naked with tightly closed eyes and emit food-begging calls, contributing to the constant noise typical of a rookery. Parents feed their young by regurgitating food, either whole or partially digested, directly into the mouths of the chicks or onto the nesting platform. When the young grow feathers and are able to maintain a constant body temperature without brooding, the adults may forage and sometimes leave chicks alone. At two weeks of age, most chicks can leave the nest and perch on nearby branches. Chicks are generally dependent from late April to early August, with fledging occurring anywhere from 42-49 days.



*This photograph of a Great Egret rookery was taken on April 12, 2003, at Pine Island, just west of the Tchefuncte River near Madisonville, during the Great Louisiana BirdFest.*

## Workshop on Decentralized Sewer Systems Planned for Baldwin Elected Officials

The pros and cons of septic systems and sewer lines, and their impacts on our environment, were debated at a January 2003 community meeting organized by the Weeks Bay Watershed Project. Both municipal and private sewer entities, as well as representatives from the Baldwin County Commission, Baldwin County Highway Department, Department of Public Health, and a local engineering firm were on hand to discuss questions and issues raised by over 60 residents of the Fish River/Marlow area. Also at the session, participants were introduced to an emerging alternative to the two traditional forms of wastewater handling: **Theresa Simmons** of Southern Earth Sciences debriefed the group about the decentralized sewer system, a unique and effective alternative to handle wastewater in sensitive environments.

Decentralized sewer systems may have several advantages over conventional wastewater treatment methods, which include:

- No reliance on soils with good drainage characteristics;
- No need to build extensive infrastructure, such as lift stations, pipes and grinder pumps;
- Reduction in the potential for leaks or spills from infrastructure required to move sewerage the distance to a conventional centralized system; and
- No need to move waste solids via larger bore pipes and grinder pumps.

In a decentralized system, solid waste is trapped in an intercept tank, similar to a septic tank, and only the liquid waste is pumped to the treatment plant. The movement of water only reduces the cost and power required for pumping. Like a septic tank, however, the intercept tank requires periodic pumping, limits hazardous chemical input and prohibits the use of garbage disposals. The treatment facility of a decentralized system typically consists of a re-circulating sand or other filtering system, with discharges onto or into land.

In an effort to increase awareness of this alternative, the Citizens Advisory Committee of the Weeks Bay Watershed Project has organized a workshop for local elected officials by invitation only. **Dr. Kevin White** of the University of South Alabama, a leader in the field of decentralized systems, will serve as principal speaker, and will discuss his work with the Mobile Area Water and Sewer System and four such systems in operation in the Escatawpa River drainage basin in Mobile County. The workshop will be held in the Weeks Bay Reserve auditorium on July 24, 2003 at 5:30 p.m.

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Suggestions and comments from readers on future topics of interest are welcome. If you know of others who would be interested in receiving this newsletter, call the Foundation at 990-5004. *The Pelican Post* is produced quarterly by The Bellwether Group, Mary Mullins, Partner. Funds for the publication are provided by members of the Weeks Bay Reserve Foundation.



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**Weeks Bay Reserve Foundation**

Weeks Bay Reserve Foundation is a non-profit organization whose members provide assistance and support to the Weeks Bay National Estuarine Research Reserve's goals and programs.

As a member, you will be joining a group of people with similar interests and concerns for natural resources. You can become directly involved with the Reserve's research and educational programs by volunteering to help with field trips, seminars, cultural events, newsletters, and special projects.

You will be regularly informed of Reserve activities through newsletters, special mailings, and meetings. The opportunities for involvement are unlimited. Whatever your talents or interests, the Reserve can use your support. You, the environment, and your community will benefit as a result of your membership. If you are not a member and would like to join, please mail this form along with your tax-deductible donation.

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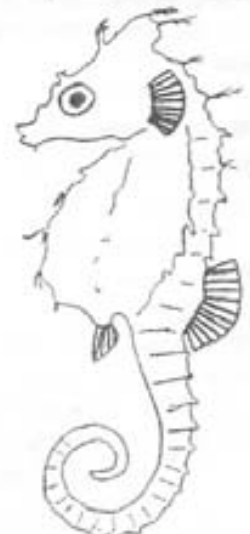
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