

# The Pelican Post

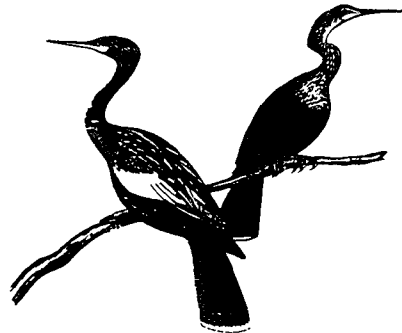
WEEKS BAY  
NATIONAL ESTUARINE RESERVE NEWSLETTER  
FEBRUARY, 1987

*Welcome to the second issue of the official newsletter of the Weeks Bay National Estuarine Reserve. Articles of interest to bay watchers, wetland watchers, and to others interested in the coast and in nature will be featured.*

## Reserve Expansion Initiated

An application for funding the second phase of Reserve acquisition has been initiated, and involves a 359 acre tract on the northwest side of the Bay. Currently owned by The Nature Conservancy, the area consists of brackish marsh, bay/tupelo/cypress swamp, and moist pine forest habitats. This acquisition will increase the size of the Reserve to 3,027 acres.

## Advisory Committee Update



The Reserve Advisory Committee met for the second time September 23, 1986. Three committees were formed and charged with the following assignments.

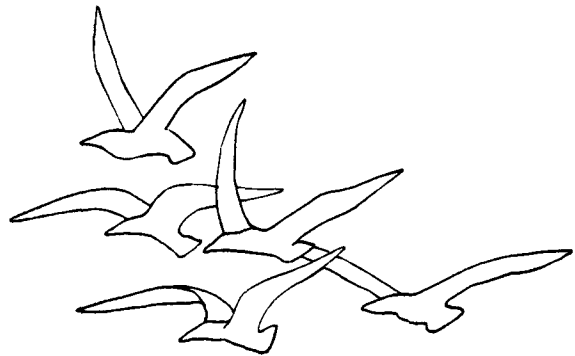
**\*Ways and Means Committee** — This committee is to identify sources of funding for the estuarine education/research center and its overall management. Members are Dr. Gary Branch, Mr. Larry Newton, Representative Walter Penry, and Senator Perry Hand.

**\*Site Selection Committee** — This committee is to identify potential sites for the estuarine education/research center. Members are Dr. John Borom, Dr. Judy Stout, and Mrs. Hattie Smith.

**\*Boundary Delineation Committee** — This committee is to investigate various methods of marking Reserve boundaries. Members are Mrs. Myrt L. Jones, Mr. Barry Little, Mr. Walter Tatum, Mr. Bill Tucker, and Mrs. Hope Gillespie.

## A Brief History Update

It is evident from the abundant shell middens in the vicinity, that Indians lived at Weeks Bay possibly for thousands of years prior to the colonial period. However, it was not until the French



arrived in the early 1700's that its recorded history began in detail.

From the records it is clear that Weeks Bay (then called Grand Bay) and Fish River played a prominent role in the early history of the area. Apparently it did not take the French long to find out that the Weeks Bay area was an attractive place to live, probably because of an abundance of wild game, fish and other natural resources. Otherwise, why would they have named the river Fish River, and why would colonists have been sent almost immediately?

As early as 1710, Bienville, the governor, sent 26 Frenchmen to Fish River to live with the Indians, a gesture which was apparently an effort to promote friendly relations with the local tribes, as well as to assure that at least part of the colony had an ample sustenance.

A few years later, Cadillac, the governor who followed Bienville, granted Joseph de la Pointe a tract in the vicinity of Fish River for the purpose of cultivating the land, harvesting timber and raising cattle. It is interesting to note that this transaction may have represented the first public conservation effort — if not in all of colonial America — then certainly along the Gulf Coast, since the deed was careful to exclude a particular grove of cedar trees near Fish River.

The name Weeks first appears in the early 1800's after the area became a territory of the United States. About 1808 there

(Continued on Page 2, Col. 1)

## More History Update . . .

(Continued from Page 1)

was a land transaction between H. Baudin and Nicholas Weeks, involving land near the east fork of Fish River (known today as Magnolia River). The bay takes its name from this individual, and his descendants live here to this day.

By the mid-1800's the Weeks Bay area had experienced some growth. There were a couple of saw mills and a brick yard on Fish River and a few more families, but overall there had been little change since colonial times. Weeks Bay did, however, play a prominent role during the Civil War. When Union forces attacked Spanish Fort and Blakeley in Baldwin County in 1865, Weeks Bay and Fish River were used by Federal transports to land troops in the interior. An eye witness described an event which suggests that, at that time, the area was still wild and primitive. As the transports moved up Fish River heading for Danelys Mill, he said; "A bald eagle, from the crest of a lofty pine, screamed out a welcome to the youthful veterans who thickly crowded the decks; and they remembering from their school books how the ancient heroes received such an omen . . . shouted out their usual cheers."

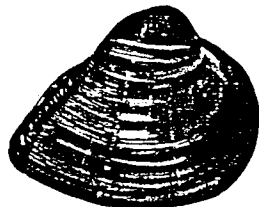
John H. Friend, Jr. Weeks Bay Dedication Address, February 25, 1986

## Clams For Roads And Food

With the possible exception of the oyster, the common rangia, (*Rangia cuneata*) is the most common bivalve in Weeks Bay. A truly estuarine species, it is found well into the mouths of Fish and Magnolia Rivers. It grows to a maximum size of about two inches in brackish water.

The species occurs from Chesapeake Bay to Texas. It reproduces in the spring in the northern part of its range and in the spring and autumn in the Gulf of Mexico.

The outer surface of the shell is covered with a grey or brown periostracum. The interior of the shell is smooth and off-white. Old shells bleached by the sun are completely white.



Rangia shells are thick and heavy and have been used as a road surfacing material in coastal Alabama where they are particularly abundant.

Although edible, the rangia clam is not normally used as food for humans today. However, Indians probably used them for food for thousands of years. The abundant shell middens in the vicinity are mostly oyster and rangia shells.

## Two New Brochures

A general information brochure and a checklist of birds of Weeks Bay National Estuarine Reserve and the Gulf Coast of Alabama have been completed and are available to the public.



## RESEARCH UPDATE

Dr. Ken Marion and John Dindo are evaluating the condition of the marsh by assessing the population status of several vertebrate species which are key indicators of relatively undisturbed marsh ecosystems. The Mississippi diamondback terrapin and the Gulf salt marsh water snake are characteristic of relatively undisturbed marshes with a strong to moderate saltwater influence. Trapping and observation data to date have indicated a small population of terrapins. Also, no pure Gulf salt marsh water snakes have been sighted or captured. Those sighted or captured have been banded water snakes (a freshwater species), or they have had minimal Gulf salt marsh water snake influence. Biologically, it thus appears that Weeks Bay has marginal salinities for significant populations of either species.

The Alabama red-bellied turtle and banded water snakes are indicative of coastal marsh habitat with a strong freshwater influence. The presence, abundance, and diversity of these and other indicator species adaptable to brackish environments will further characterize the habitat regimes of Weeks Bay.

Finally during the course of this study, a complete non-fish vertebrate survey is being carried out. To date, 58 species of birds, 6 amphibians, 14 reptiles, and 12 mammal species have been recorded. This information will not only indicate what vertebrates are present and their abundance in Weeks Bay, but together with the results of the indicator species surveyed, will also provide an indication of the current environmental condition of Weeks Bay. This in turn will serve as a baseline to monitor future potential changes.

## Gulf Salt Water Marsh Snake

The Gulf salt marsh water snake (*Nerodia fasciata clarki*) is the only striped snake normally found in salt or brackish water habitats. It is easily identified by the four longitudinal, deep brown stripes running the length of the body. These stripes have irregular edges and are separated from each other by narrower areas of yellowish brown. Adults are between 15 and 36 inches long. The total range of this non-poisonous water snake extends from Cedar Key, Florida to Corpus Christi, Texas. In Alabama, it is limited to the few remaining salt marshes in lower Baldwin and Mobile counties.

It is nocturnal, seldom seen during the day, and is most active during periods of low tide. Fish constitute the major portion of the diet, but



small invertebrates such as crabs are often taken. In the coastal marshes of Alabama, these snakes are often associated with muskrat and nutria lodges, which they apparently use as shelters. Abandoned fiddler crab burrows may also be used, as well as trash piles left at the high tide mark.

Available habitat in Alabama has rapidly diminished in recent

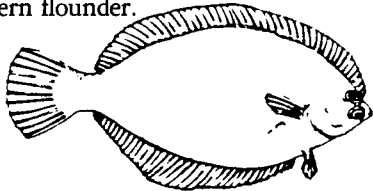
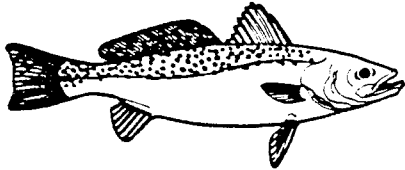
(Continued on Page 3, Col. 1)

**More About Snakes . . .** (Continued from Page 2)

years as a result of dredge-and-fill operations and shoreline real estate development. The snakes apparently decreased in numbers in Alabama after much of the favorable habitat was disrupted by Hurricane Camille in 1969, and Hurricane Frederic in 1981. It is presently listed by the State of Alabama as a form in need of special attention.

**Resource Monitoring**

The Alabama Marine Resources Division of the Department of Conservation and Natural Resources is involved with assessing and monitoring the marine resources of Weeks Bay. Samples are taken twice monthly to determine size and numbers of the various species of fish, shrimp, and crabs found in Weeks Bay. These data will be compared year to year to determine the relative populations in the system. In addition, brown shrimp and white shrimp have been tagged and released. The Reserve is a good nursery area for spotted sea trout and southern flounder.

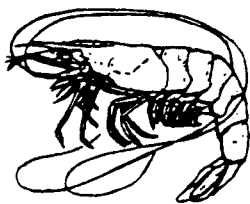


**Vanishing Wetlands**

Wetlands are lost when they permanently become open water or dry land. More than half of the U.S. wetlands — an estimated 116 million acres or an area the size of California have been lost since colonial times. Aerial surveys in the 1970's showed only 99 million acres of wetlands remaining, a 9 million-acre loss since the 1950's. Most coastal loss in the last two decades has been along the Gulf Coast.

In the Mobile Bay and Mississippi Sound region of Alabama, 16,303 acres (36%) of marshes have been lost from the 1950's through the 1970's, mostly to open water and human development.

**Value Of Tidal Marshes**



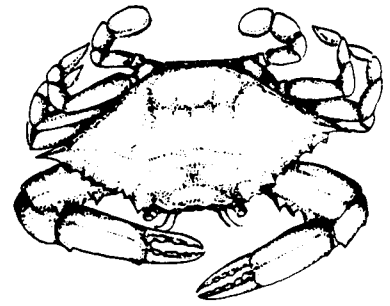
Tidal marshes are economically valuable for fisheries far beyond the number of fishes that are caught directly in adjacent tidal streams. Most of the important coastal fishery species of the United States must have access to estuaries and tidal marshes during some phase of their life history.

Recent research has revealed how important this aspect of the tidal marsh is. Shrimp catches in fisheries around the world are directly related to the area of tidal marsh in the shrimp nursery grounds, not to the area of estuarine or offshore coastal waters where they are caught.

Approximately 20.1 million pounds of shrimp were landed in Alabama in 1985 with an estimated dockside value of \$35.8 million.

Shrimp abundance will fluctuate from year to year depending on the weather. However, the long term health of the shrimp population is dependent on preserving the tidal marshes of coastal Alabama which provide food and protection for the postlarval shrimp.

**THE BLUE CRAB**



Perhaps the best known crab along the Alabama Coast is the edible blue crab. The blue crab, scientifically known as *Callinectes sapidus* is a member of the Portunidae family of decapod crustaceans.

These are the swimming crabs, designed as such by the last pair of legs which are modified to form swimming paddles. The species is prized as seafood all along the Atlantic and Gulf Coast. It is the most important crab found on the Alabama coast and supports a fairly large commercial fishery each year. Considerable study has been devoted to the crab, its habits, and biology.

The blue crab can adapt itself to many different environments and is found on all parts of our coast. They are most frequently seen in estuaries such as Weeks Bay. However these crabs are sometimes abundant in the Gulf as well as in brackish flats, around the mouths of rivers, and areas of almost fresh water. Their abundance may vary from year to year. Blue crabs seem to favor soft bottoms such as mud or sand, where they often bury themselves, leaving only their stalked eyes and antennae sticking out. Crabs taken in trawls sometimes have a thin layer of mud clinging to their backs as a result of their having been buried in the mud.

Blue crabs are scavengers and their diet is quite diverse. They will eat certain types of vegetation as well as flesh. Generally, they prefer the flesh of animals such as fish or other invertebrates. Chicken necks are frequently and successfully used as bait for crab traps and nets along the eastern shore of Mobile Bay.

A hard shell combined with powerful claws is probably responsible for the fact that blue crabs have fewer natural enemies than many other forms of marine life. Small blue crabs form a good part of the diet of certain fish such as sheepshead, red snapper, red drum, sea trout, and black bass. Other creatures such as octopi, sharks, rays, tarpon, cobia, and turtles feed on blue crabs. Man, of course, is a persistent adversary.

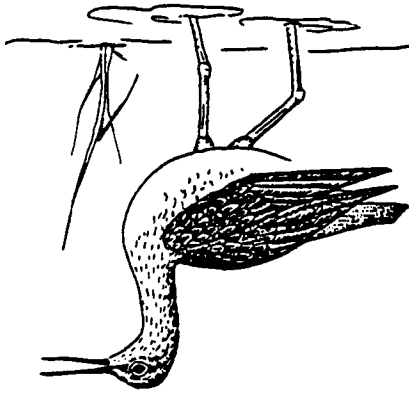
**Weeks Bay Facts**



Did you know that:

\* At least one-third of the Nation's threatened species live in wetland areas. The state of Alabama has listed 18 vertebrate species as threatened or endangered that utilize Weeks Bay and environs.

- |   |                                     |
|---|-------------------------------------|
| Alabama shovelnose sturgeon . . . . . E | Bald eagle . . . . . T              |
| Atlantic sturgeon . . . . . T           | Osprey . . . . . T                  |
| Dusky gopher frog . . . . . T           | Peregrine falcon . . . . . T        |
| Eastern indigo snake . . . . . E        | Snowy plover . . . . . T            |
| Florida pine snake . . . . . E          | Red cockaded woodpecker . . . . . E |
| Alabama red bellied turtle . T          | Reddish egret . . . . . T           |
| Gopher tortoise . . . . . T             | Mottled duck . . . . . T            |
| American alligator . . . . . T          | Little blue heron . . . . . T       |
| Brown pelican . . . . . T               | Florida black bear . . . . . E      |



Bulk Rate  
Non-Profit  
U. S. Postage  
PAID  
Permit No. 66  
Bay Minette, AL  
36507

Weeks Bay National Estuarine Reserve  
Alabama Department of Conservation  
and Natural Resources  
P. O. Drawer 458  
Gulf Shores, Alabama 36542

Funds for the publication of this newsletter provided by the Alabama Department of Conservation and Natural Resources, Guy Hunt, Governor, and James D. Martin, Commissioner Department of Conservation.

Published by the Alabama Sea Grant Extension Program in cooperation with Faulkner State Junior College.

#### Editors

John Borom and Bill Hosking

Suggestions and comments from readers on future topics of interest are welcomed by the editors. If you know of others who would be interested in receiving this newsletter, please have them send requests to be included on the mailing list to the return address shown on the panel below.

87-016-1  
MASGP-86-025-2

This work is a result of research sponsored by NOAA Office of Sea Grant, Department of Commerce, under Grant No. NA85AA-D-SG005. Issued in furtherance of Cooperative Extension work in agriculture and home economics, Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture. The Alabama Cooperative Extension Service, Auburn University, Ann E. Thompson, Director, offers educational programs and materials to all people without regard to race, color, national origin, sex, age, or handicap and is an equal opportunity employer.