

# Palmetto





**Taking part in the Land Management Review of the Apalachicola River  
Wildlife and Environmental Area and the appealing surrounding areas.**

*Catherine Bowman and Ron Blair*

# Discoveries in the Vast Apalachicola River Wildlife Environmental Area

As longtime members of the Florida Native Plant Society's Tarflower Chapter, we have taken numerous trips through the Apalachicola National Forest to observe the insectivorous plants in the wet prairies along Highway 65 and explore the steep heads, ravines, and high

passes the final leg of not only the Apalachicola River, but the St. Marks River, the Little St. Marks River and East River, plus numerous freshwater and tidal creeks and bayous, as they merge into the Apalachicola Bay and the Gulf of Mexico.

The approximately 86,000-acre ARWEA, located in Franklin and Gulf Counties, is bordered on the west by the Ed Ball Wildlife Management Area, on the north by the Apalachicola National Forest and the Apalachicola River Water Management Area, on the east by Tate's Hell State Forest, and the south by the Apalachicola River National Estuarine Research Reserve and Apalachicola Bay Aquatic Preserve.

In researching the area and reading the management plans in preparation for participating on the LMR team, we learned that state acquisition began in 1974 with lands along the Apalachicola River as a means to protect the water quality and natural communities that support the local seafood industry. Early impacts to this portion of the River included extensive dredging to allow for barge traffic and the harvest of hardwood trees. The acquisition of lands supporting salt marshes were added followed by timberlands and other private holdings.

The most noticeable features within the current ARWEA are the vast acres of flood plain forest, supporting stands of cypress, swamp tupelo and other wetland hardwood trees, with more southerly fringes of an undulating mosaic of lush salt marsh vegetation. To the west and east of the central wetlands, the lands are managed to balance the protection of the plant and animal communities with the needs of the area's long-time human residents and visitors. Prior to the state's acquisition, the lands beyond the swamps and marshes had long been used for



**Above:** Location map showing ARWEA and surrounding features. Based on map art prepared by Bill Hood, Lotspeich and Associates, Inc.

Apalachicola River bluffs north of Bristol. However, we had limited knowledge of the ecosystems near the mouth of the River, surrounding the charming town of Apalachicola. In September 2011, we had an opportunity to participate in the Land Management Review (LMR) of the Apalachicola River Wildlife and Environmental Area (ARWEA) which encom-

**Left:** A remaining slash pine with artificial Red-cockaded Woodpecker nesting cavity. The surrounding area is underplanted with longleaf pine. Photo by Ron Blair.

Continued on page 14

## Apalachicola River Wildlife Environmental Area

the growth of primarily slash pine plantations. Past land managers and the current management team have developed management techniques that focus on the restoration of diverse native plant communities, including dry prairie, longleaf pine flatwoods, and wet prairies, while allowing the continuation of hunting and providing for other recreational activities such as off-road bicycling and hiking. We were surprised to learn that this area has long been one of the favorite squirrel hunting sites in this part of the state and the management practices continue to provide for this activity.

Within some drier areas on the west side of the ARWEA, where previous human impacts included pine plantations and farm fields, dry prairies that were direct-seeded with material from donor sites now support a diversity of native herbaceous species that benefit a variety of wildlife. Approximately 160 acres of fields in this already disturbed area are managed with the planting of annual grain crops for seasonal public dove hunting. Former timberlands on the east side of the ARWEA are managed primarily to restore habitat for the Endangered Red-cockaded Woodpecker (RCW, *Picoides borealis*). Because of the extensive acreage of planted slash pine and the range of wet and dry soil conditions on which they occur, it was not practicable or desirable to remove all slash pine and replant with longleaf pine.

The majority of the slash pine plantations had developed dense high shrub layers that needed to be reduced in order to conduct prescribed burns. The management team tested burning alone, herbicide treatment followed by burning, and roller chopping followed by burning, in order to derive a management plan that would result in the desired reduction of shrubs while being cost effective.

In order to support viable Red-cockaded Woodpecker colonies, pine communities need to have trees of sufficient girth and reduced heart wood density to allow the birds to excavate nest cavities. At the ARWEA, slash pines are generally not of sufficient age, and there are virtually no remaining longleaf pine. In this instance, land managers have been generating revenue by allowing the harvest of some slash pine over time, and under-planting the resultant sparse canopy with longleaf pines. During this interim period of canopy replacement, artificial nest cavities have been inserted into some of the larger slash pine trees, and are successfully in use by RCWs. It is intended that the ARWEA will form a link between RCW colonies within Tate's Hell to the east and managed forests to the north.

The varied plant communities also support numerous other listed plant and animal species, and land management practices address goals that pertain to restoring habitat for these species as well. The frosted flatwoods salamander (*Ambystoma cingulatum*) is one such species whose critical

habitat—ephemeral wetland—is being addressed at the ARWEA. Land managers have developed a unique process for improving these seasonally ponded wetlands, by removing adjacent overgrown shrubs and re-establishing a diverse wet prairie fringe. The nearest documented occurrence of this listed salamander is a few miles to the north, within similar habitat. Future monitoring will hopefully document this species in the cautiously restored habitats at the ARWEA. According to the FWC 25 November 2009 ARWEA Species Management Strategy, other focal wildlife species on the site are:

<i>Pituophis melanoleucus mugitus</i> ....	Florida pine snake
<i>Gopherus polyphemus</i> .....	Gopher tortoise
<i>Elanoides forficatus</i> .....	Swallow-tailed kite
<i>Aimophila aestivalis</i> .....	Bachman's sparrow
<i>Sitta pusilla</i> .....	Brown-headed nuthatch
<i>Accipiter cooperii</i> .....	Cooper's hawk
<i>Colinus virginianus</i> .....	Northern bobwhite
<i>Haliaeetus leucocephalus</i> .....	Southern bald eagle
<i>Ursus americanus floridanus</i> .....	Florida black bear
<i>Sciurus niger shermani</i> .....	Sherman's fox squirrel
<i>Myotis austroriparius</i> .....	Southeastern bat
A variety of listed and non-listed wading birds.	

Florida Natural Areas Inventory (FNAI) listed plant species occurrences within or adjacent to the ARWEA, as presented in Table 5 of the FWC 2002 – 2007 *Conceptual Management Plan for Apalachicola River Wildlife and Environmental Area* (this is currently being revised based on the September 2011 LMR) are:

<i>Asclepias viridula</i> .....	Southern milkweed
<i>Baptisia simplicifolia</i> .....	Scare-weed
<i>Cuphea aspera</i> .....	Tropical waxweed
<i>Calycanthus floridus</i> .....	Eastern sweet shrub
<i>Eurybia spinulosus</i> .....	Pinewoods aster
<i>Gentiana pennelliana</i> .....	Wiregrass gentian
<i>Hymenocallis henryae</i> .....	Henry's spiderlily
<i>Justicia crassifolia</i> .....	Thickleaf waterwillow
<i>Leitneria floridana</i> .....	Corkwood
<i>Lilium catesbaei</i> .....	Catesby's lily
<i>Linum westii</i> .....	West's flax
<i>Macbridea alba</i> .....	White birds-in-a-nest
<i>Nolina atopocarpa</i> .....	Florida beargrass
<i>Oxypolis filiformis</i> subsp. <i>greenmanii</i>	Giant water-dropwort
<i>Parnassia caroliniana</i> .....	Carolina grass-of-Parnassus
<i>Rhexia parviflora</i> .....	Apalachicola meadowbeauty
<i>Sideroxylon thornei</i> .....	Thorne's buckthorn
<i>Scutellaria floridana</i> .....	Florida skullcap
<i>Verbesina chapmani</i> .....	Chapman's crownbeard



**Above:** Restored ephemeral wetland with diverse herbaceous fringe. *Photo by Ron Blair.*

We became informed about one of the important water oriented recreational opportunities, which is offered at the ARWEA. Through the expansive swamp and salt marsh ecosystem winds some 130 miles of marked kayak/canoe trails, for which the Florida Fish and Wildlife Conservation Commission (FWC) has produced a very nice, field-hardy (waterproof) paddling guide. Spring, winter and late fall would be particularly comfortable times to enjoy some serious solitude and opportunities to view, feel and smell the seasonal changes in the salt marshes and the swamps that knit together all those creeks, bayous and rivers. We did not experience paddling during the review, as the swamps and salt marshes are not the focus of active land management practices; but we look forward to future trips. The FWC reports in their paddling guide that one might see, for example, brilliant yellow prothonotary warblers and the courting displays of swallow-tailed kites in the spring, beautiful foliage in the fall, and nesting bald eagles in the winter.

The ARWEA recreational facilities also include hiking trails, boat ramps, potential camping sites, handicapped access areas, boardwalks, and secure bike racks for those who would like to use off-road bike shuttling as part of multi-day paddling trips. This was an excellent area to combine some wilderness experience with learning about Apalachicola's interesting history. Appendix 5 of the FWC *Nature-Based Recreation Master Plan* for the ARWEA lists Bloody Bluff, Creels Town, Creels Side Camp, a turpentine plant, an African American cemetery, and numerous Native American camps and burial sites as some of the 27 cultural sites in the area. Great restaurants and charming lodgings provided welcome endings to our long days of gaining knowledge and sharing thoughts about some fascinating natural communities and meeting the dedicated people who manage them.



**Above:** Members of the review team gather at Whiskey George Creek Landing. Observation tower at Sand Beach pier on the north shore of East Bay, where maritime hammock can be seen bordering the salt marsh. *Photos by Ron Blair.*



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**The purpose of the Florida Native Plant Society** is to conserve, preserve, and restore the native plants and native plant communities of Florida.

#### **Official definition of native plant:**

For most purposes, the phrase Florida native plant refers to those species occurring within the state boundaries prior to European contact, according to the best available scientific and historical documentation. More specifically, it includes those species understood as indigenous, occurring in natural associations in habitats that existed prior to significant human impacts and alterations of the landscape.

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