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# Ernest F. Hollings ACE Basin

*National Wildlife Refuge*



*The ACE Basin represents one of the largest undeveloped wetland ecosystems remaining on the Atlantic Coast. The refuge is part of an overall ACE Basin habitat protection and enhancement plan implemented by a coalition consisting of the U.S. Fish and Wildlife Service, South Carolina Department of Natural Resources, Ducks Unlimited, The Nature Conservancy, Low Country Open Land Trust, Mead Westvaco Corporation, and private landowners of the ACE Basin.*



*This blue goose, designed by Ding Darling, has become a symbol of the National Wildlife Refuge System, a network of over 537 refuges protected and managed for wildlife, habitat and people.*

## History of the ACE Basin

From the early 1700s to mid 1800s, much of the ACE Basin was home to large plantations owned by a small number of individuals who managed their wetlands primarily to grow rice. After the rice culture declined in the late 1800s, wealthy sportsmen purchased many of these plantations as hunting retreats. The new owners successfully managed the former rice fields and adjacent upland estates for a wide range of wildlife.

The enormous natural values found on the refuge today are still here because past private landowners tended the area so wisely. Undeveloped and unpolluted, the habitat remains diverse and extremely productive.



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There are two separate units to the refuge, one along the Edisto River and the other along the Combahee River. Presently at 11,815 acres, the refuge may encompass 19,500 acres upon completion of additional purchases.

Part of the historical values of the ACE Basin were also protected. The refuge office, a former rice plantation house built in 1828, is one of only three antebellum mansions that survived the civil war in the ACE Basin area. Former owners ensured it would be preserved by placing it on the National Register of Historical Places.

## Wildlife

The Ernest F. Hollings ACE Basin has long been known for its tremendous diversity of wildlife. The intricate network of marshes, tidal creeks, uplands and wetlands has supported a myriad of plants and animals. ACE Basin has long been home to a vast array of waterfowl, songbirds, fish, shellfish, and upland animals.



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## *Migratory Birds*



Cherie Pittillo ©

Ernest F. Hollings ACE Basin National Wildlife Refuge lies along the Atlantic Flyway—the “highway in the sky.” Vast numbers of waterfowl, shorebirds, neotropical songbirds, and birds of prey migrate from their nesting grounds to wintering areas throughout eastern North America. Beginning in late fall and through early spring, the refuge is a haven for wood ducks, pintails, shovelers, mallards and widgeon, to name a few of the approximately 20 species that winter here.

During the spring, summer, and early fall, neotropical songbirds call the refuge their home. These small, colorful birds venture thousands of miles from their wintering areas in Central and South America. Prothonotary warblers, painted buntings, and ruby-throated hummingbirds are just a few that use the refuge to replenish their energy reserves.

*Endangered  
and Threatened  
Wildlife*

ACE Basin is crucial to the survival of many threatened or endangered species. Endangered wood storks are slowly leaving their historic south Florida home due to loss of habitat. They are moving north to places such as ACE Basin to nest. The threatened bald eagle can be seen using the refuge as a feeding ground throughout the year. Not all

endangered or threatened species at ACE Basin are birds. Endangered shortnose sturgeon breed and feed in the clean waters of the estuarine wetlands of the south Edisto and Combahee Rivers. American Alligators, a threatened species, are also found on the refuge.

A vast assortment of other wildlife call the refuge home. Wading birds such as egrets, herons, and ibis



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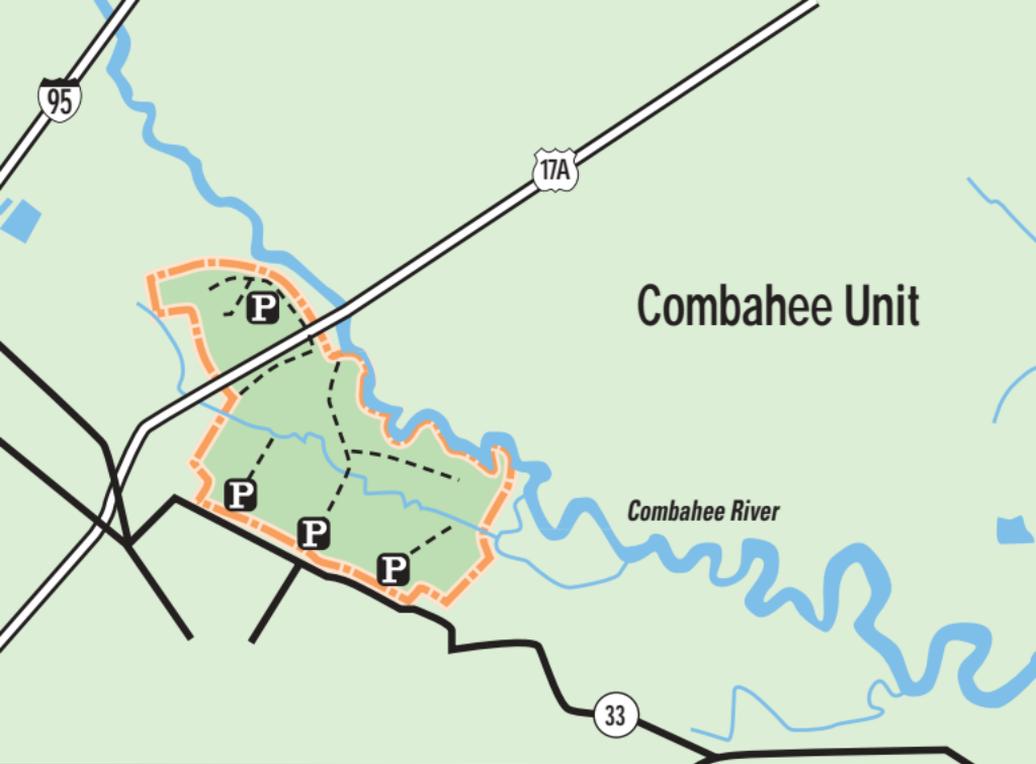
Cherie Pittillo ©

*Other Wildlife*

live in large, active rookeries and forage the impoundments for food. Wetlands provide nesting and feeding sites for sandpipers, plovers, yellowlegs, and black-necked stilts. The uplands are a home to white-tailed deer, raccoons bobcats, river otters, gray fox, rabbits, and squirrels, all of which can be seen year-round.

**Managing for Wildlife**

The U.S. Fish and Wildlife Service manages the Ernest F. Hollings ACE Basin National Wildlife Refuge to







### *Impoundment Management*

provide a complex of habitats for a diverse wildlife population. The natural marsh is protected under Federal and South Carolina law. Impoundments, converted from rice fields, are managed for specific foods favored by various wildlife species. Forest management includes selective thinning of trees, cleaning to create edge zones, hardwood and shrub planting, and burning of some forest understories. Abandoned fields will undergo disking and burning to control overgrowth and encourage habitat diversity.

Water levels in refuge impoundments (managed wetland units) are controlled to stimulate growth of natural plant species and an abundance of insects, crustaceans, and small fish. “Moist soil management,” as this technique is called, has proven to be a highly successful method of producing nutritious food that is beneficial to waterfowl and other wildlife.

No other tool is more important in this type management than the rice field trunks which control water flow between the tidal creeks or rivers and the impoundments. First used in the 1700s on rice plantations, trunks remain the most efficient, economical water control structure in tidal situations. Trunks operate on tidal surge and consist of wooden culverts with flap gates.

To flood an impoundment, the gate on the river or tidal creek side is raised while the inner gate remains down; as the tide rises, water flows through the culvert beneath the dike pushing open the inner gate.

To drain an impoundment, the inner gate is raised while the outer gate remains down; as the tide falls, water from the impoundment flows toward the river or tidal creek, pushing open the outer gate.

To maintain a constant water level in an impoundment, both gates are lowered. The stop-log riser, or hole,

on the inner side of the structure is used to “fine tune” water levels and provide for circulation of water within the impoundment.

Approximately 20 species of waterfowl such as pintail, mallard, wood duck, etc., as well as bald eagles, wood storks, alligators, herons, egrets, ibis, and numerous other

wildlife species utilize the refuge impoundments.

Visitors to the refuge will see remnants of fire in both the upland and impoundment areas. These areas have been purposely burned to improve wildlife habitat. Undesirable plants, ground litter (leaves, branches, pine needles), thick shrubs and vines are removed through the use of fire. In the impoundments, fire removes dead vegetation and releases seeds eaten by many wildlife species. After a burn in the forested area, quick growing herbs and grasses sprout to provide food for deer, turkey, and other birds.



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*Prescribed  
Burning*

Each year several fallow fields are cleared by prescribed burning. Soon after a field is burned, wildflowers and grasses begin to grow. They

produce seed crops which are sought by quail, turkey, mourning doves, and numerous species of songbirds including the painted bunting.

### *Tidal Marsh*

Over 40% of the Ernest F. Hollings ACE Basin National Wildlife Refuge is comprised of tidal marsh and small islands called hummocks. These natural wetlands were created when water-tolerant plants colonized muddy flats of silt that were deposited by nearby rivers. The tidal marsh is flooded twice daily by tides of up to seven feet. Tidal marshes, if unpolluted, are one of the most productive types of natural wildlife



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habitat. During the time of high tide, a myriad of fish, crabs, crustaceans, birds, and other animals can be found.

During the ebb (receding) tide is the time to watch for raccoons, otters, mink and water birds. At low tide shallow creeks and mudflats expose an abundance of invertebrate food for herons, egrets, ibises, and sandpipers.



## Enjoy the Refuge

Visiting hours at the Grove Plantation (refuge headquarters) are from 7:30 am to 4:00 pm Monday-Friday. Refuge lands are open seven days a week during daylight hours. During the weekend the refuge is unstaffed, but you can visit the refuge on your own during daylight hours. State Road 346 leads to the Edisto Unit, where the refuge office is located and where grass trails wind through the refuge. State Road 33 leads to the Combahee Unit.

### *Hunting and Fishing*

Hunting of white-tailed deer and waterfowl is allowed in designated areas and at certain times. Hunt regulations are available from the refuge office or online at [Acebasin.fws.gov](http://Acebasin.fws.gov), showing open areas and regulations. Sport fishing is permitted in the tidal creeks and fresh water streams, and designated impoundments on the Combahee Unit. Access to tidal waters by boat is permitted throughout the year.

### *Refuge Regulations*

On occasion, for safety or management reasons, portions of the refuge will be closed. Some of the impoundment dikes and sensitive nesting areas will be closed seasonally to protect endangered species and other wildlife. For safety reasons, the upland areas (Edisto Unit) will be closed on hunt days to those not hunting.

Dogs are permitted on leash only.

Picking or cutting vegetation, and antique and artifact collecting are not allowed.

Shop and maintenance areas are closed to the public.