

# Public Lands Profile: Doerun Pitcherplant Bog

## Where Carnivorous Plants Thrive...And Longleaf Pines Endure

Much has been written of the longleaf pinelands of South Georgia and the fact that most have disappeared through conversion to pine plantations, development, cropland and other overall changes in land use. Yet an even scarcer habitat than a longleaf pine forest is a seepage bog with acres and acres of pitcherplants. Doerun Pitcherplant Bog Natural Area has both—intact longleaf-wiregrass uplands and acres and acres of pitcherplants!

Located on the Gulf Coastal Plain of southwest Georgia in Colquitt County between Doerun and Moultrie, Doerun Pitcherplant Bog Natural Area contains 651 acres along the Ochlockonee River. Principle natural habitats are blackwater river bottomlands, intermittent stream drainages, seepage slopes, and woodlands dominated by wiregrass, longleaf pine and slash pine. Approximately 100 acres are prime pitcherplant bog habitat, but a rigorous prescribed fire management program is essential to restore all the bogs to their former glory. Past land-use involved cattle grazing, Bermuda-hay fields, improved pastures using Bahiagrass and fescue, tenant farming, peanut cropland, and timber harvesting. These practices disrupted the longleaf-wiregrass landscape and have provided many challenges in efforts to restore the Doerun property to its former natural vegetation.

The area became public property in 1994 under the Preservation 2000 land acquisition program. Gov. Zell Miller proclaimed the Colquitt County site a Heritage Preserve in 1996. The designation requires that the property is restored to its natural state and used primarily for research, education and minimal-impact recreation. Prior to public ownership, the Barber family from Moultrie maintained the land for quail hunting and insisted on periodic prescribed fire as a management tool.

Tommy and Ann Barber hosted numerous botanical forays to the area in the 1960s thru the early 1990s. Their natural history interests, and especially their appreciation of the longleaf pine ecosystem and the role of fire to enhance the many bog plants and wiregrass wildflowers, made this site a treasured hotspot of natural beauty.

Besides having suitable hydrological conditions (seepage slopes) for pitcherplant bogs, Doerun Natural Area is part of the “rolling wiregrass country” described by early visitors as containing an open forest of longleaf pines, dense wiregrass ground cover, and small hills and swales with sandy to sandy loam soils with abundant quartz pebbles washed down from the Piedmont Plateau. The quartz pebbles, also known as grit, are well-known indicators of the region now better known as the Tifton Uplands. The characteristic grit is derived from the Altamaha Formation—sandstone-like consolidated clay with embedded, water-worn quartz fragments. Sometimes an impervious layer of rock near the surface allows for the seepage slope habitats in which the pitcherplants thrive.

If seepage slopes are maintained in a savanna or grassy, open condition through the use of prescribed fire, invasion of the habitat by woody plants is curtailed. Common invaders of seepages include gallberry, sweetbay magnolia, red maple, sweetgum, swamp redbay and bayberry. Without fire, these seepy habitats revert to shrub thickets and become forests of evergreen hardwoods, dense pine flatwoods or any combination in between. Among the plants that benefit from fire in these wetlands are carnivorous plants, such as pitcherplants, butterworts and sundews.

The Doerun Pitcherplant Bog is a mosaic of upland and wetland habitats. Longleaf pine and wiregrass dominate the uplands, while swamp tupelo, Ogeechee-lime, slash pine and red maple occur along the drains. In between are seepy transition areas inhabited by carnivorous plants.

Three types of pitcherplant—hooded (*pictured immediately above*), parrot (*right*) and yellow flytrap trumpets (*in landscape photo at top*)—are found in the bogs. These plants have leaves modified to catch

insects; the leaves are shaped like pitchers and contain digestive enzymes, slick inner walls and various trapping features. Blue- and yellow-flowered butterworts also occur in the bogs. The butterworts have sticky leaves that trap small insects, especially fruit flies, midges and fungus gnats. Another type of carnivorous plant is the sundew. Both the threadleaf and pink sundews occur with pitcherplants at Doerun Natural Area, while the dwarf, white-flowered sundew occurs over exposures of Altamaha grit. Sundews have stalked, glandular, sticky hairs on their leaves that entrap insect prey. These fascinating carnivorous plants intrigue naturalists, young and old.

Gopher tortoises and diamondback rattlesnakes can occasionally be seen at Doerun; fox squirrels regularly chew up the pinecones. Quail nest in dense wiregrass cover and deer trails abound through the property.

Depending upon adequate rainfall and the timing of prescribed fire, terrestrial orchids and other rare plants may be found. The newest discovery at Doerun is the appearance of chaffseed, a plant federally listed as threatened. Chaffseed is a hemiparasite, a plant with green leaves but lacking a food resource in its tiny seed; therefore, requiring a modified root connection to a host plant, such as grassleaf golden aster or gallberry. After development of a modified root structure known as an haustorium and connecting with its host plant, the chaffseed eventually lives on its own, developing numerous flowering shoots. Flowering occurs only after prescribed fire or mowing. Understanding the relationship of fire to seed germination, flowering and persistence of rare plants at Doerun Natural Area is a continuing research problem.

Best flowering times at Doerun occur in early spring (late March through April) and again in early fall (late September through October). In spring, all the pitcherplants bloom, while in fall native grasses form drifts intermixed with many asters, goldenrods, blazing stars, ironweeds, thoroughworts and other sunflowers.

A half-mile nature trail begins at the kiosk with self-guided side trails to a platform overview of a pitcherplant bog, and loop trails to other bogs and uplands.