

FIELD SUMMARY REPORT
AUGUSTA - SAVANNAH, SOUTH CAROLINA

I. STUDY AREA

A. 1:100,000 Maps Involved:

Augusta NW, Augusta NE, Augusta SW, Augusta SE
Savannah NW, Savannah SW

B. Quads Involved: (* Indicates checksites)

Augusta NW

Odoms	Aiken NW*	Wagener
Edgefield	Batesburg	Salley
Ropers Crossroads	Monetta	Lexington
North Augusta	Foxtown*	Pelion East*
Saluda South	Oakwood	Pond Branch
Johnston	Gilbert	Harleys Millpond
Trenton	Steedman*	Southwest Columbia
Graniteville	Seivern*	Gaston
Emory	Kitchings Mill	Swansea
Ridge Spring	Barr Lake	North
Aiken	Pelion West	

Augusta SW

Hollow Creek*	Williston*	Barnwell
New Ellenton	Long Branch*	Allendale
New Ellenton SE	Snelling*	Norway West
New Ellenton SW	Martin	Norway East
Windsor*	Springfield	Denmark
Girard NE	Blackville	Bamburg

Augusta NE

Sumter East	Woleton	Cameron
Brogdon*	Orangeburg N	Elloree
Tearcoat Branch	St. Matthews	Lonestar
Mayesville	Gadsen	Poinsett State Park
Manning*	Congaree	Wedgefield
Fort Jackson South	Eastover	Sumter West
Saylors Lake	Wateree	Privateer
Stanley Crossings	Fort Motte	Pinewood
Saint Paul	Summerton*	Paxville*
Jordon*	Butlers Bay*	Foreston
Sardina	Turbeville*	

Augusta SE

Eutaville*	Grover	Branchville North
Sandridge	Williams	Branchville South
Vance	Bowman*	Cordova
Hollyhill*	Reevesville*	Midway
Felderville	St. George SW	Tonyhill Bay
Wadboo Swamp	Orangeburg S	Indian Camp Branch
St. George*	Lodge	

Savannah NW

Barton*	Gifford*	Hampton
Solomons Crossing*	Furman*	Grays*
Fairfax	Crocketville	Calphen Bay*

Savannah SW

Tillman*

C. Personnel:

Charlie Storrs	U.S.F.W.S.
Dennis Fowler	Geonex Martel, Inc.
Jaymee Fojtik	Geonex Martel, Inc.

D. Date of Field Trip:

February 20, 1989 - February 24, 1989

E. Available Photography:

NHAP 80, NHAP 83, 1:58K
Photos taken February 1981, March 1981, January 1983,
March 1983, February 1984, March 1984

F. Collateral Data:

U.S.G.S. Quadrangles
Soil Surveys - Barnwell, Aiken, Edgefield, Florence,
Jasper, Orangeburg, Berkley, Bamberg, Saluda, Lee, and
Calhoun Counties.

II. OVERVIEW

The book by Robert G. Bailey, "Descriptions of the Ecoregions of the United States", describes the region that includes the study area as a Southeastern Mixed Forest Province. Gulf Coastal Plains and the piedmont make up the Southeastern Mixed Forest Province. There are numerous streams most of which are sluggish. Lakes, swamps, and marshes are also numerous. Most of the slopes within the study area are gentle. The climate is humid subtropical, ~~mild~~ mild winters and hot humid summers are common. Average annual temperature is 60°F - 70°F. Precipitation is evenly distributed throughout the year peaking slightly during thunderstorms in early spring or midsummer. Average annual precipitation is 40 - 60 inches per year. Growing season varies from 200 - 300 day per year. Frost occurs each winter. Snow rarely falls and no accumulation occurs.

III. BIOLOGICAL CHARACTERISTICS OF WETLAND HABITATS

- A. Marine - None represented
- B. Estuarine - None represented
- C. Riverine - The major rivers within the study area are: The Savannah, the Salkahatchie, the North and South Fork of the Edisto and the Edisto River itself. These and other perennial linears are classified as lower perennial R2UBH, and R2UBHx except where vegetation is prevelant and no stream bed can be seen. The excavated modifier is used rarely and only when the streams have been channelized.

Intermittent streams are classified as R4SBC or R4SBCx except where vegetated, generally using the U.S.G.S. Quadrangle for guidance.

Riverine bars are classified as R2USC.

- D. Lacustrine - Manmade lakes are found in this study area. These lakes are classified as L1UBHh (impounded) except where vegetation is present. When Duckweed (Lemna minor) or watermeal (Wolffia sp.) is present the lake is classified as L1AB4Hh. When parrot feather (Myrophyllum brasiliense), watermilfoil (Myrophyllum spicatum), and Hydrella sp. are prevelant in shallow portions of lakes they are classified as L2AB3Hh.

- E. Palustrine - The majority of wetlands in the study area are palustrine. They are located in streambeds, river floodplains and Carolina Bays. Many of these palustrine areas have been disturbed by man, drained, or cleared out in order to use the areas for timbering or agriculture.

The temporarily flooded (A) water regime includes many tree types. The dominant species in descending order of occurrence are: sweet gum (Liquidambar styraciflua), yellow poplar (Liriodendron tulipifera), loblolly pine (Pinus taeda), water oak (Quercus nigra), laurel oak (Quercus laurifolia), river birch (Betula nigra), box elder (Acer negundo), and winged elm (Ulmus alata). There is a dense understory present among the tree species listed above. The understory consists of American holly (Ilex opaca) and titi (Cliftonia monophylla) respectively.

Areas mapped as seasonally flooded (C) consisted of these species in descending order: sweet gum (Liquidambar styraciflua), yellow poplar (Liriodendron tulipifera), water tupelo (Nyssa aquatica), red maple (Acer taeta), pond pine (Pinus serotina), alder (Alnus glutinosa), river birch (Betula nigra), swamp chestnut oak (Quercus michauxii), water oak (Quercus nigra), and baldcypress (Taxodium distichum). The understory species found in the seasonally flooded areas are red bay (Persea borbonia), loblolly bay (Gordonia lasianthus), sweetbay (Magnolia virginiana), American holly (Ilex opaca), Sabal palmetto, and titi (Cliftonia monophylla). The understory in this regime is less dense than the temporarily flooded areas.

Many saturated (B) areas are found on slopes as well as along stream banks in floodplains. The dominant species are: black gum (Nyssa sylvatica), pond pine (Pinus serotina), sweet gum (Liquidambar styraciflua), bald cypress (Taxodium distichum), and Atlantic white cedar (Chamaecyparis thyoides). When Atlantic white cedar is found in pure stands the g modifier is used to denote organic soil is present. The understory is sparse and will find wax myrtle (Myrica cerifera), red bay (Persea borbonia), and sweetbay (Magnolia virginiana). The Carolina bays (Pocosins) are predominantly saturated areas.

The dominant species in the semipermanent (F) water regime are: baldcypress (Taxodium distichum), water tupelo (Nyssa aquatica), and black gum (Nyssa sylvatica). Buttonbush is the only understory species present and tended to grow dense in some areas that had been disturbed. The classification PFO2Hh was used where pure stands of baldcypress are standing in water along the edge of Lake Marion.

Open water is the next most prevalent class. Some naturally occurring ponds and oxbows occur and are classified PUBH. Ponds that are excavated are PUBHx. Few ponds are beaver impounded along stream routes and are classified PUBHb. All other ponds are impounded and usually found in streambeds or in upland areas, these are classified PUBHh. If duckweed (Lemna minor) or watermeals (Wolffia sp.) are present the classification is PAB4Hh. the classification PAB3Hh is used when parrotfeather (Myriophyllum brasiliense) or watermilfoil (Myriophyllum sp.) are present.

Another prevalent class is the emergence. Emergence are classified semipermanent if cattail (Typha sp.) and spikerush are present. The majority of emergence is seasonally flooded and the dominant species are cattail (Typha sp.), mash smartweed (Polygonum coccineum), spikerush, and umbrella sedge (Cyperus erythrorhizos). The classification of emergence in the temporarily flooded regime includes those species listed above and reed canary grass (Phalaris arundinacea). The modifiers h, x, and d are used as needed.

The scrub-shrub class is rarely used. The dominant species in this class are the same as listed in the Forested palustrine and are less than six meters in height.

IV. IMAGERY

The resolution of the imagery is good throughout, with few exceptions stated below. There was no spectral reflectance. There were a few encounters with dark blue emulsion. This had to be kept in mind when delineating because areas tend to look wetter. Great discipline is used and soil surveys and topographic maps were consulted frequently. Some photos emulsion was darker toward the edges. All in all the photography was good.

The date of photography was early in the year. Deciduous trees had not leaved out and evergreens were easily detectable.

The only discrepancy was found between the degree of wetness of the photography and the field checking was the small ponds (wet weather ponds called locally). These ponds were drier today than in the photography. Checksites were delineated carefully and field notes and soil surveys helped in the classification. All else was uniform throughout.

V. SUMMARY

The mild climate and sufficient precipitation year round in the Augusta NW, Augusta SW, Augusta NE, Savannah NW and Savannah NE, South Carolina, makes for a very diverse group of vegetation. There was not a deficiency of wetlands anywhere in the study area. Some parts being wetter than others usually depends on topography and some human destruction.

The Savannah River Plant was located within the Augusta SW map. In this area there were no soil surveys and the topographic maps were not detailed or up to date. Most of the land (approximately 200 miles) was supporting planted pines. There was one drainage way going through the restricted property, this was delineated using the topographic maps and past knowledge of signatures.

Overall, the imagery is of good quality allowing detail in delineations. Attention to U.S.G.S. topographic maps, soil surveys, and field check sites helped complete this project.