

# A Contribution towards a Vascular Flora of the Great Dismal Swamp

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## A CONTRIBUTION TOWARDS A VASCULAR FLORA OF THE GREAT DISMAL SWAMP

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AND GERALD F. LEVY

This flora is an enumeration of the vascular plants growing without cultivation in the Great Dismal Swamp. It is hoped that this work will be of value to the rapidly increasing number of persons visiting the swamp, particularly since the establishment of the Dismal Swamp National Wildlife Refuge in 1973. Great pains have been taken to ensure completeness of the inventory presented here. Yet, the Dismal Swamp is difficult to botanize, and additional species will undoubtedly be added to the present list. Previous botanical work in the swamp is listed in Kirk *et al.* (in press).

### LOCATION AND EXTENT OF AREA

The Great Dismal Swamp, which occupies about 104,000 ha. of North Carolina and Virginia (Figure 1), is one of the largest remaining swamp forests on the Coastal Plain. Although the swamp is considered to be centered around Lake Drummond in the Virginia cities of Suffolk and Chesapeake, it extends into the North Carolina counties of Currituck, Camden, Perquimans, Gates, and Pasquotank. Except for the western edge, which is delimited by the Suffolk Escarpment (Henry, 1970), the boundaries of the swamp are not sharply defined.

### TOPOGRAPHY AND DRAINAGE

The Dismal Swamp is situated on a low, poorly drained flat marine terrace which ranges from 4.5 to 7 m. above sea level (Wingo, 1949). Drainage in the swamp is largely controlled by an extensive system of ditches constructed over the last two hundred years. Four major ditches were constructed in the eighteenth and nineteenth centuries. The oldest (Washington Ditch) flows into Lake Drummond from the west. Feeder Ditch flows out of

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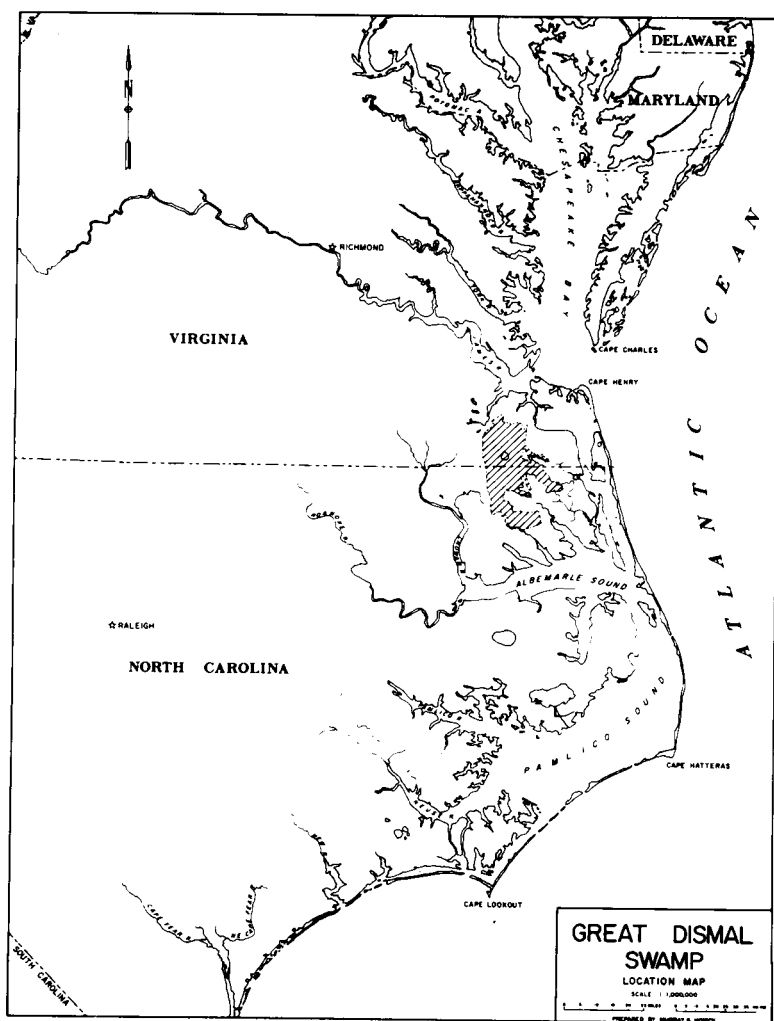


Figure 1. General location of the Great Dismal Swamp in Virginia-North Carolina.

Lake Drummond into Dismal Swamp Canal and thence into Albemarle Sound via the Pasquotank River. Riddick Ditch flows into the lake from the south, and Jericho Ditch enters the lake from the northwest (Reid, 1952). With the exception of Portsmouth Ditch (dug in the early 1800's) most other ditches were constructed during the twentieth century. Drainage is partially regulated by a system of control gates. The Northwest River (draining to the southeast) and the Pasquotank River probably were the major outflows of the original drainage.

#### SOILS

Most of the soils of the swamp are highly organic and very acidic. Inorganic soils include sand, silt, and clay deposited as low terraces and fluvial silts, and clays extending from the Suffolk Escarpment (Henry, 1970).

The most extensive soil type is mucky peat which ranges in depth from 1 to 4.5 m. and occupies about 75% of the total swamp area. This soil is intermediate between peat in which vegetable materials are recognizable and muck in which they are not. The deepest deposits lie to the north of Lake Drummond. In many areas peat depth has been reduced by fire (Henry, 1970). Shallow mucky peat over loam and over sand are other soil types. Mucky peat gradually intergrades with poorly drained inorganic soils at some places.

The history of the development of the peat and other underlying substrates has been discussed in detail by Whitehead (1972) who postulated that the underlying sediment was dissected by meandering, slow-flowing streams. Peat deposition seems to have begun in these streams and eventually to have overtopped the interfluvial areas perhaps in the manner of a blanket bog.

#### CLIMATE

The region is characterized by mild winters and long humid summers. Mean temperatures, based on an 85 year record for Norfolk County, are: winter, 6.5°C.; spring, 17.3°C.; summer, 25.3°C.; and fall, 17.3°C. The average growing season is 237 days, and the average annual precipitation for Wallaceon on the swamp's eastern edge is 131.25 cm. Rainfall is most abundant during the growing season.

## VEGETATIONAL HISTORY

The vegetational history of the Dismal Swamp as revealed by palynological studies (Cocke, 1928; Whitehead, 1972) can be summarized as follows: 1) 14,000–10,000 B.P. — exposure of Dismal Swamp terrace, cutting by meandering streams, and colonization by marsh communities with boreal forest on the interfluvials; 2) 10,000–8,000 B.P. — peat accumulation continues, interfluvial vegetation a northern hardwoods-mixed forest association; 3) 8,000–4,000 B.P. — oak hickory forest association and lowland forest species; and 4) 4,000–300 B.P. — gum-cypress forest. Though greatly simplified, these major trends correspond to the gradual climatic warming which has occurred during the last 14,000 years.

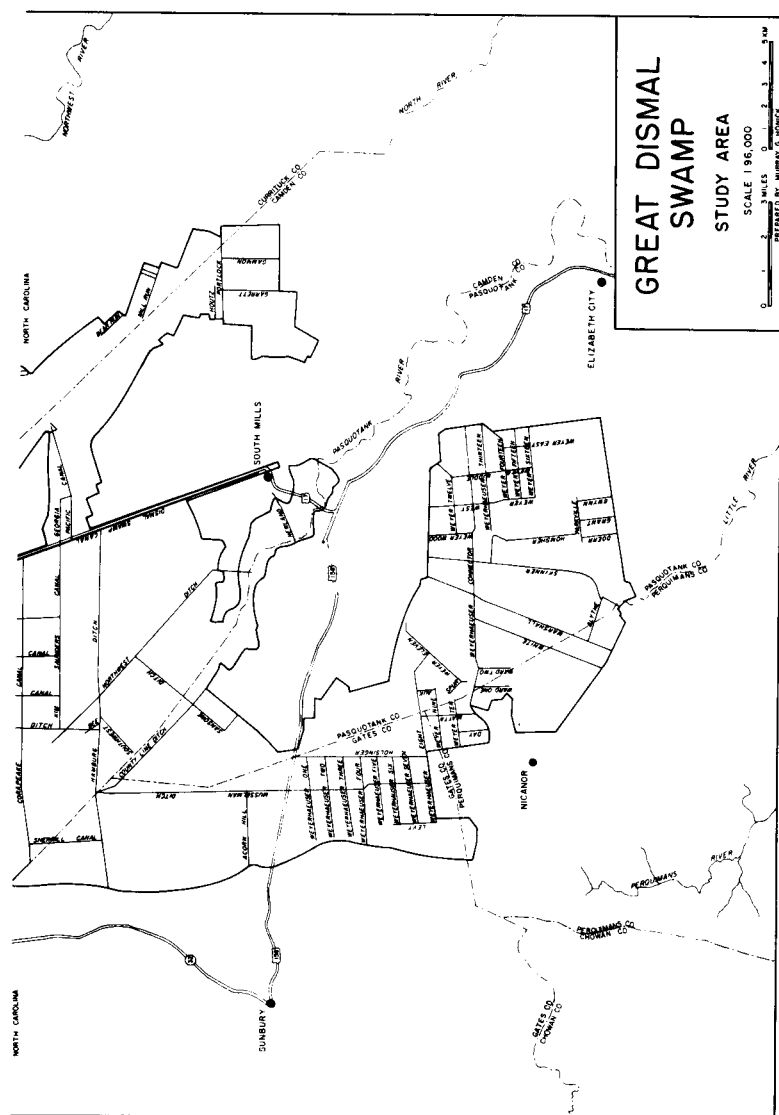
Kearney (1901) appears to be the first to execute an extensive study of the Dismal Swamp. Col. William Byrd's descriptions (in Kearney, 1901) suggest that extensive stands of cypress (*Taxodium distichum*) interspersed by blow-downs and various stages of secondary succession occurred in the 1700's. The first timber to be removed seems to have been cypress which often became replaced by single-aged stands of Atlantic white cedar (*Chamaecyparis thyoides*) also known as "juniper" (Kearney, 1901). Subsequently cedar was extensively cut (Brown, 1970).

Kearney (1901) described two hygic forest communities. "Dark Swamp" included *Nyssa sylvatica*, *Taxodium distichum*, and *Acer rubrum*. Also mentioned were *Pinus taeda*, which was especially important on higher ground near the border of the swamp, and *Fraxinus caroliniana* and *Quercus phellos*. Important smaller trees listed by Kearney were *Magnolia virginiana*, *Persea borbonia*, *Carpinus caroliniana*, *Salix nigra*, *Alnus rugosa*, and *Populus heterophylla*. *Liriodendron tulipifera* and *Liquidambar styraciflua* were associated with *Pinus taeda* at the edge of the swamp.

"Light Swamp" was divided into the following four associations: 1) "juniper," i.e. *Chamaecyparis* forest; 2) Ericaceae; 3) *Arundinaria gigantea*; and 4) *Woodwardia* (*Anchistea*) — *Sphagnum*.

"Juniper" forest association occurred most often at the periphery of the swamp (Kearney, 1901) with *Chamaecyparis thyoides* dominant. By 1899 much of the extensive "juniper" forest had been commercially cut, and although some dense "juniper" forest stands remained, most were scattered through a matrix of other species. Where "juniper" was cut, populations of *Pinus taeda*, *Magnolia virginiana*, *Persea borbonia*, *Ilex opaca*, *Acer rubrum*, and *Nyssa*





**Figure 2. Great Dismal Swamp study area.**

*sylvatica* expanded. On better drained soils *Quercus nigra*, *Q. michauxii*, and *Fagus grandifolia* replaced "juniper" forest.

The shrub association occurred in clear-cut areas and in areas with scattered regeneration. The most important species cited by Kearney (1901) were: *Clethra alnifolia*, *Itea virginica*, *Lyonia ligustrina*, *L. lucida*, *Leucothoë racemosa*, *Ilex glabra*, *Azalea viscosa*, and *Vaccinium corymbosum*. This association was described by Kearney (1901) as "... rapidly increasing in the interior of the Dismal Swamp, where it is said to have been once almost unknown." Today extensive areas of a holly-pond pine community occur in extreme southern portions of Virginia and northern North Carolina. The dominants appear to differ from those described by Kearney since *Ilex glabra* rather than *Clethra alnifolia* contributes most to this association's physiognomy.

The *Arundinaria* association was described as covering extensive areas in nearly pure stands. This association is at present of isolated occurrence.

Kearney's *Woodwardia* — *Sphagnum* association is not obvious at the present time.

#### PRESENT VEGETATION

Until 1937 approximately 8,000 ha. of virgin timber remained in the southwest portion of the swamp in Virginia; now practically none exists. Recent studies on the vegetation of the Great Dismal Swamp (Levy & Walker, in press) have shown that its composition has been greatly altered in the past 75 years. Comparison of the current composition of the understory and overstory with historical descriptions documents a strong successional trend to more mesic, less swamp-like conditions.

The present vegetation of the Dismal Swamp is composed of several community types. Almost pure stands of *Acer rubrum* and *Nyssa sylvatica* occur on peat throughout the swamp. A few individuals of *Chamaecyparis thyoides* are found in this association, which suggests that certain areas were once selectively cut for "juniper." Those sites with less peat and some mineral soil support a mixed deciduous forest, which shows less evidence of recent disturbance. *Acer rubrum* and *Nyssa sylvatica* are common species but are particularly abundant on thicker peat deposits. Species of *Fraxinus* are often co-dominant in wetter areas and *Liquidambar styraciflua* and *Pinus taeda* are co-dominants in relatively drier areas.



Future trends in the vegetation, as indicated by sapling composition, suggest a continuum with *Fraxinus* species becoming more important in wetter areas. *Ilex opaca*, *Nyssa sylvatica*, and *Persea borbonia* are increasing in areas having fluctuation between wet and dry extremes. *Acer rubrum* appears to be increasing in importance through the swamp in both wetter and drier situations. Stands currently dominated by *Chamaecyparis thyoides* may eventually be eliminated from the swamp due to the lack of fire.

Included among the collection sites are a number of disturbed areas with weeds. These areas include a borrow pit, an abandoned home site, ditch banks, cut over forest stands and burns.

"Mesic islands" represent areas of relatively high ground surrounded by swamp. In general these areas tend to be near the western edge of the swamp. Among the canopy species are *Fagus grandifolia*, *Quercus nigra*, *Q. phellos*, *Q. laurifolia*, *Q. velutina* and *Q. michauxii*. Often present are *Ostrya virginiana*, *Carpinus caroliniana*, *Ulmus americana*, *Liriodendron tulipifera* and *Fraxinus americana*. The ubiquitous *Acer rubrum* is also important. The North Carolina islands are especially noticeable on high level infrared aerial photographs. Among the unusual species found in these mesic areas are *Stewartia malacodendron* and *Trillium pusillum*.

Ditches and ponds are characterized by tannin-stained, dark, low pH (2-5.8) "juniper" water. Characteristic plants are species of *Utricularia*, *Callitriche heterophylla*, *Ludwigia palustris*, *Proserpinaca palustris*, and *Juncus repens*.

#### METHODS AND MATERIALS

Our data is based on field work conducted from July, 1973, to August, 1976. Collection data on some species was obtained from herbarium specimens at the U. S. National Herbarium (US). Collections are deposited in the herbarium of Old Dominion University (ODU) with duplicates of most specimens at NCU and VPI. The arrangements of families and nomenclature generally follow Radford *et al.* (1968). No attempt has been made to distinguish species which may have been introduced.

In order to provide accurate locality data, we have listed representative collection sites. The collection site of each species may be determined by the letter-number code which follows the species name.

## KEY TO COLLECTION SITES

1. City of Suffolk (Nansemond), Virginia
  - A. Five year old sweet gum-red maple stand just south of Seaboard Coast-line Railroad, 0.5 mi. W. of Chesapeake city limits.
  - B. Borrow pit, Jericho Ditch Lane at escarpment.
  - C. Beech-maple stand and surrounding low areas on Jericho Ditch, 0.5 mi. S. of Williamson Ditch.
  - D. Abandoned cabin site at junction of Jericho Ditch and Jericho Ditch Lane.
  - E. Gum forest, northeast of the junction of Lynn and Washington Ditches.
  - F. Banks and waters of Washington Ditch.
  - G. Lake Drummond at Washington Ditch.
  - H. Banks and waters of West Ditch.
  - I. Mature gum-poplar forest along west edge of Lake Drummond just south of West Ditch.
  - J. Roadsides and shallow water near road 604, 6.4 mi. N. of state line.
  - K. Beech-pine forest east of road 604, 2.4 mi. N. of state line.
  - L. Cutover forest, 2 mi. W. of Old Norfolk Road, southeast of Driver.
  - M. Power line right-of-way west of Jericho Ditch.
2. City of Chesapeake, Virginia
  - A. Banks and waters of Dismal Swamp Canal, 1 mi. N. of state line.
  - B. Open, burned area 1 mi. W. of U.S. 17, 1 mi. S. of Feeder Ditch.
  - C. Mature gum-poplar forest on east edge of Lake Drummond south of Portsmouth Ditch.
  - D. Waters of eastern portion of Lake Drummond between East Ditch and Lake Ditch.
  - E. Cypress-tupelo forest along Portsmouth Ditch just south of Big Entry Ditch.
3. Gates County, North Carolina
  - A. Marsh north of Hamburg Ditch, 1 mi. E. of road 1332.
  - B. "Mesic island" north of Hamburg Ditch, 1.5 mi. E. of road 1332.
  - C. Cypress-tupelo forest, south of Hamburg Ditch, just E. of escarpment.
  - D. "Mesic island," 1.5 mi. N. of highway 158, just E. of Pasquotank County line.
  - E. Cypress-tupelo forest just S. of U.S. 158, 1 mi. E. of road 1002.
  - F. Ditch and surrounding burned area north of U.S. 158, just E. of county line.
4. Camden County, North Carolina
  - A. Cutover Atlantic white cedar stand, west of Western Boundary Ditch, just south of state line.
  - B. Cypress-tupelo swamp at end of road 1219, four miles northwest of South Mills.
  - C. Shallow water and margins of small stream at U.S. 17 bridge, 1.7 mi. S. of South Mills.
  - D. Undeveloped state park just south of state line and west of U.S. 17.
5. Pasquotank County, North Carolina
  - A. Shallow water and margins of Pasquotank River at the end of road 1361.
  - B. Pine-maple forest at end of road 1360.

## CATALOG OF SPECIES

## LYCOPODIACEAE

*Lycopodium obscurum* L. Rare. Small population. 1A.

*L. complanatum* Fern. Rare. Small population. 1A.

## SELAGINELLACEAE

*Selaginella apoda* (L.) Spring. Damp roadside. 1K.

## OPHIOGLOSSACEAE

*Botrychium dissectum* Spreng. Infrequent. Drier sites. North of Washington Ditch at west edge of refuge. Also 3D.

## OSMUNDACEAE

*Osmunda cinnamomea* L. Common in moist soil. 1A, 1C, 1E, 1I, 1K, 2B, 3C, and 4B.

*O. regalis* var. *spectabilis* (Willd.) Gray. Common in moist soil. 1A, 1E, 1G, 1H, 1I, 1J, 2A, 2D, 3A, 3C, 4B, 4C, and 5A.

## PTERIDACEAE

*Pteridium aquilinum* (L.) Kuhn. Infrequent along roadsides of Jericho, Interior, and Middle Ditches.

## ASPIDIACEAE

*Athyrium asplenoides* (Michx.) Eat. Infrequent. Roadside Jericho Ditch. 3B.

*Dennstaedtia punctilobula* (Michx.) Moore. Rare. Roadside of Middle Ditch.

*Dryopteris celsa* (Palmer) Small. Infrequent. Cypress-gum forests. 2C, 3C, 3D, and 4B.

*D. cristata* (L.) Gray. Rare. 3C and 4B.

*D. intermedia* (Willd.) Gray. Infrequent. Gum forest. 2C, 3C, and 3D.

*D. marginalis* (L.) Gray. "Nansemond County." Palmer 256 (US).

*D. spinulosa* (Muell.) Watt. Frequent. 1E, 1I, 2C, 3C, and 4B.

*Polystichum acrostichoides* (Michx.) Schott. Rare. Beech forest. 3B.

*Thelypteris noveboracensis* (L.) Nieuw. Rare. Roadside of Jericho Ditch.

*T. palustris* Schott. Rare. Marsh. 3A.

## BLECHNACEAE

*Anchistea virginica* (L.) Presl. Common and abundant. Along roads. Also 1E, 1F, 1H, 1I, 1J, 2A, 2E, 3A, 3C, 4B, 4C, and 5A.

*Lorinseria areolata* (L.) Presl. Common and abundant. 1E, 1F, 1H, 1I, 1J, 2C, 3A, 3C, and 5A.

## ASPLENIACEAE

*Asplenium platyneuron* (L.) Oakes. Frequent in a variety of habitats. 1A, 1E, 1I, 1K, 1C, 3B, and 4B.

## POLYPODIACEAE

*Polypodium polypodioides* (L.) Watt. Infrequent on tree trunks. Hamburg Ditch. 1C and 5A.

## AZOLLACEAE

*Azolla caroliniana* Willd. Rare. Margins of stream. 4C.

## GYMNOSPERMS

## PINACEAE

*Pinus serotina* Michx. Frequent but scattered. Roadsides. 2B and 4A.

*P. taeda* L. Common on drier sites. Roadsides. Jericho, Lynn, and Washington Ditches. Also 1A, 1K, 3B, 3D, 3E, and 5B.

## TAXODIACEAE

*Taxodium distichum* (L.) Rich. Common. 1C, 1E, 1F, 1G, 1H, 1I, 1J, 2D, 2E, 3C, 3E, 4B, 4C, 5A, and throughout the swamp.

## CUPRESSACEAE

*Chamaecyparis thyoides* (L.) BSP. Common but scattered. Southeast of fire tower, 4A. Several sizable stands south of Lake Drummond.

## ANGIOSPERMS

## MONOCOTS

## TYPHACEAE

*Typha latifolia* L. Rare. 1B and 3A.

## SPARGANIACEAE

*Sparganium americanum* Nutt. In flowing water of most ditches.

## POTAMOGETONACEAE

*Potamogeton diversifolius* Raf. Rare. Shallow, flowing water of Hamburg Ditch.

*P. pulcher* Tuckerm. Rare. Standing water. 1J and 3A.

## POACEAE

*Arundinaria gigantea* (Walt.) Muhl. Common and abundant especially in burned areas. 1A, 1C, 1E, 1F, 1G, 1H, 1I, 1K, 1L, 2A, 2B, 2E, 3A, 3C, 4B, and 5B.

*Agrostis stolonifera* L. Rare. Weedy area. 1D.

*Alopecurus carolinianus* Walt. Rare. Roadside. 1D.

*Andropogon virginicus* L. Infrequent. Open weedy areas. 1L, 1M, 2B, and 4A.

*Briza minor* L. Rare. Roadside. 1D.

*Bromus catharticus* Vahl. Infrequent. Norfolk and Western Railroad right-of-way. 1D.

*B. commutatus* Schrader. Rare. 1M.

*B. japonicus* Thunb. Infrequent. Norfolk and Western Railroad right-of-way. 1D.

*B. secalinus* L. Rare. 3F.

*Calamagrostis cinnoides* (Muhl.) Bart. Rare. Roadside, 1J. Marsh, 3A.

*Dactylis glomerata* L. Rare. Open, disturbed area. 1D.

*Echinochloa crusgalli* (L.) Beauv. Rare. 1M.

*E. walteri* (Pursh) Heller. Rare. 1M.

*Elymus virginicus* L. Rare. 1M.

*Eragrostis hirsuta* (Michx.) Nees. Rare. Open, disturbed area. 1D.

*Erianthus giganteus* (Walt.) Muhl. Infrequent. Scattered along roads throughout the swamp. Also Norfolk and Western Railroad right-of-way. 1M.

*Festuca myuros* L. Rare. Weedy field. 1D.

*F. octoflora* Walt. Rare. Weedy field. 1D.

*Glyceria striata* (Lam.) Hitch. Rare. Swamp forest. 1E.

*Holcus lanatus* L. Rare. 1E.

*Hordeum pusillum* Nutt. Rare. Weed in field. 1D.

*Leersia oryzoides* (L.) Swartz. Infrequent. Roadside. 1J and 3F.

*L. virginica* Willd. Infrequent. Roadside. 1J, swamp forest, 1E.

*Lolium multiflorum* Lam. Infrequent. Jericho Ditch at Williamson Ditch. Roadsides of Interior Ditch and Hamburg Ditch.

- Microstegium vimineum* (Trin.) Cam. Rare. Field near fire tower.  
*Panicum anceps* Michx. Infrequent. Cutover and burned areas.  
1M and 3F.  
*P. clandestinum* L. Rare. 3F.  
*P. dichotomum* L. Beech forest. 3D.  
*P. dichotomiflorum* Michx. Infrequent. Norfolk and Western  
Railroad right-of-way. Also 1M.  
*P. hians* Ell. Rare. Old road. 1L.  
*P. scoparium* Lam. Common. Essentially all roadsides.  
*P. verrucosum* Muhl. Abundant in burned area along U.S. 158  
but not collected elsewhere.  
*P. virgatum* L. Rare. Burned area. 3F.  
*Paspalum dilatatum* Poir. Rare. Grassy field near fire tower.  
*P. dissectum* L. Rare. Roadside. 1J.  
*P. laeve* Michx. Rare. Power line cut. 1M.  
*Phragmites communis* Trin. Rare. One small stand along Cora-  
peake Ditch.  
*Poa autumnalis* Muhl. ex Ell. Rare. Woods. 1C.  
*Setaria glauca* (L.) Beauv. Rare. 1M.  
*S. magna* Grisebach. Rare. 3F.  
*Sphenopholis obtusata* (Michx.) Scrib. Rare. Marsh. 3A.  
*Sporobolus poiretii* (R. & S) Hitch. Rare. Roadside. 1D.  
*Uniola laxa* (L.) BSP. Rare. Sandy soil. 1C and 3B.

## CYPERACEAE

- Carex abscondita* Mackenzie. Rare. 3C.  
*C. alata* T & G. Frequent. Roadsides. Ditch banks. 1F, 1H, 1J,  
1M, 2B, 3F, and 4A.  
*C. blanda* Dew. Rare. Beech forests. 1C and 3B.  
*C. debilis* Michx. Rare. Gum-cypress forest. 3E.  
*C. emmonsii* Dew. Rare. Roadside. 1J.  
*C. folliculata* L. Rare. Ditch bank at junction of Lynn and Bad-  
ger Ditches.  
*C. gigantea* Rudge. Frequent. Gum-cypress forests. 1E, 1J, 2E,  
3C, 3E, and 4B.  
*C. joori* Bailey. Rare. Roadside. 1J.  
*C. lurida* Wahlenb. Common. Borders of intermittent pools and  
other wet areas. 1C, 1E, 1J, 1M, 3C, 3E, and 3F.  
*C. swanii* (Fern.) Mackenz. Rare. Roadside. Middle Ditch north  
of Lynn Ditch.

- Cyperus erythrorhizos* Muhl. Rare. 1M.  
*C. rivularis* Kunth. Rare. Margin of stream. 4C.  
*C. strigosus* L. Rare. 1M.  
*Dulichium arundinaceum* (L.) Britt. Infrequent. Low roadside.  
Jericho Ditch at Lynn Ditch. Shallow water of Lynn Ditch.  
3A and 1 M.  
*Eleocharis baldwinii* (Torr.) Chapm. Rare. Margins of flowing  
water. 3F.  
*E. microcarpa* Torr. Rare. Margin of ditch. 3F.  
*E. obtusa* (Willd.) Schultes. Rare. 1M.  
*E. tenuis* (Willd.) Schultes. Rare. Shallow water of Hamburg  
Ditch near 3A.  
*E. tuberculosa* (Michx.) R & S. Margins of small pools. 1M and  
3F.  
*Eriophorum virginicum* L. Abundant in sphagnum bog. 4 mi.  
w. of East Ditch on North Ditch.  
*Fuirena squarrosa* Michx. Rare. Margins of ditch. 4C and 3F.  
*Rhynchospora corniculata* (L.) Gray. Infrequent. Wet roadside.  
1J and 1F.  
*Scirpus cyperinus* (L.) Kunth. Common and abundant in open  
ditches and along roadsides. 1B, 1F, 1H, 1J, 1M, 2B, 3A, 3F,  
4C, and 5A.

## ARACEAE

- Arisaema triphyllum* (L.) Schott. Infrequent. 1E. and 3C.  
*Orontium aquaticum* L. Rare. Swamp forest and margin of marsh.  
3A.  
*Peltandra virginica* (L.) Schott & Endl. Rare. Margin of marsh.  
3A.

## LEMNACEAE

- Lemna valdiviana* Phil. Infrequent. Quiet water. 1F and 4C.  
Borrow pit on Jericho Ditch Lane.  
*Spirodela oligorrhiza* (L.) Schleid. Infrequent. Floating on quiet  
water 1F and 4C. Portions of Jericho and Hamburg Ditches.  
*Wolffia columbiana* Karst. Infrequent. Quiet water, 4C. Also  
borrow pit on Jericho Ditch Lane.  
*Wolffiella floridana* (J. D. Sm.) C. H. Thompson. Infrequent.  
Floating just beneath surface of quiet water, 4C. Borrow pit on  
Jericho Ditch Lane.

## XYRIDACEAE

*Xyris ambigua* Beyrich. Rare. Open, sunny roadside. Corapeake Ditch.

## BROMELIACEAE

*Tillandsia usneoides* L. Infrequent. On trees in Lake Drummond, 2D; 5A.

## COMMELINACEAE

*Commelina virginica* L. Infrequent. Roadsides and ditches. Banks in full sun. 1F, 1H, 1J, and 2A.

## PONTEDERIACEAE

*Pontederia cordata* L. Rare. Shallow ditch at margin of marsh. 3A.

## JUNCACEAE

*Juncus bufonis* L. Rare. Margin of small stream. 4C.

*J. effusus* L. Common. Essentially any open wet area. 1B, 1F, 1G, 1H, 1J, 3A, 3C, 3F, 4B, and 5A.

*J. repens* Michx. Infrequent. Shallow water and shores, 1J and 4C. Shores of Lake Drummond where it is the only submergent vascular plant.

*J. tenuis* Willd. Infrequent. Roadsides. 1J and 1M.

*Luzula multiflora* (Retz.) Lejeune. Infrequent. Beech forests. 1C, 1K, and 3D.

## LILIACEAE

*Smilax rotundifolia* L. Ubiquitous; in essentially any open area.

*S. glauca* Walt. Ubiquitous; in essentially any open area.

*S. laurifolia* L. Ubiquitous; in essentially any open area.

*S. walteri* Pursh. Rare. Open roadsides. 4C.

*Trillium pusillum* Michx. Rare. Beech forest. 1C.

*Hemerocallis fulva* L. Rare. Roadside. Washington Ditch.

*Medeola virginiana* L. Infrequent. Beech forests. 1C, 1K, and 3B.

## IRIDACEAE

*Sisyrinchium angustifolium* Miller. Infrequent. Roadsides. Jericho Ditch and Interior Ditch.

*Iris virginica* L. Rare. Marsh. 3A.

## ORCHIDACEAE

*Cypripedium acaule* Ait. Rare. Beech forest. 1K.

*Listera australis* Lindl. Infrequent. Swamp forest, 2E. Beech forest, 1K.



*Goodyera pubescens* (Willd.) R. Brown. Infrequent. Beech forests. 1C, 1K, and 3B.

*Tipularia discolor* (Pursh) Nutt. Infrequent. Beech forest. 1C and 3B.

*Habenaria clavellata* (Michx.) Spr. "Great Dismal Swamp," Kearney 1648 (US).

#### DICOTS

##### SAURURACEAE

*Saururus cernuus* L. Common. In standing water. 1F, 1G, 1H, 1J, 2A, 2D, 3F, 4C, 4B, and 5A.

##### SALICACEAE

*Salix nigra* Marsh. Infrequent. Stream and ditch margins. 1F, 2A, and 3F.

*Populus deltoides* Marsh. Single tree along Laurel Ditch at state line.

*P. heterophylla* L. Common. Swamp forests. 1E, 1I, 1J, 1L, 2E, 3C, 3E, 4C, and 5A.

##### MYRICACEAE

*Myrica cerifera* L. Common. Roadsides along Corapeake Ditch.

##### BETULACEAE

*Alnus serrulata* (Ait.) Willd. Frequent. Ditch banks and margins of small streams. 1G, 1H, 2D, 3F, 1J, and 4C.

*Betula nigra* L. Rare. Low woods. 2E.

*Carpinus caroliniana* Walt. Infrequent. Beech stands. 1C, 1K, 3B, and 3D.

*Ostrya virginiana* (Mill) K. Koch. Infrequent. Beech stands. 1C, 1K, 3B, and 3D.

##### FAGACEAE

*Castanea pumila* (L.) Miller. Rare. One tree along Jericho Ditch near Williamson Ditch and one on north side of Hwy 460.

*Fagus grandifolia* Ehrh. Infrequent. Usually associated with sandy soils. 1C, 1K, 3B, and 3D.

*Quercus falcata* Michx. var. *pagodaefolia* Ell. Infrequent. 1C, 1K, 1E, 1F, 4D, and 5B.

*Q. laurifolia* Michx. Frequent. 1I, 2C, 3C, 4B, and 4D.

*Q. lyrata* Walter. Infrequent. 1J and 1K.

*Q. marilandica* Muenchh. Single tree along Weyerhaeuser Ditch 4.

*Q. michauxii* Nutt. Common throughout the swamp. 1A, 1C, 1E, 1I, 2C, 2E, 3C, 3E, 4B, and 5A.

*Q. nigra* L. Common. Drier areas. 1C, 1E, 1I, 1K, 2A, 2E, 3C, 3E, 4B, and 5A.

*Q. velutina* Lam. Rare. Roadside. Jericho Ditch.

#### ULMACEAE

*Ulmus americana* L. Rare. Roadside. Jericho Ditch.

#### MORACEAE

*Morus rubra* L. Rare. Edge of Jericho Ditch Lane.

*M. alba* L. Rare. Edge of Jericho Ditch Lane.

#### URTICACEAE

*Boehmeria cylindrica* (L.) Swartz. Common in open, wet areas. 1E, 1F, 1G, 1H, 1J, 2A, 3A, 3F, 4B, 4C, 4D, and 5A.

#### LORANTHACEAE

*Phoradendron serotinum* (Raf.) M. C. Johnston. Common and abundant on a variety of trees (but favoring red maple) throughout the swamp.

#### POLYGONACEAE

*Rumex crispus* L. Infrequent. Roadside weed. Railroad Ditch, Interior Ditch, West Ditch, and probably elsewhere.

*R. conglomeratus* Murray. Abundant along most roads throughout the swamp.

*Tovara virginiana* (L.) Raf. Common. Low woods. 1E, 2A, 2E, 3C, 3E, 3F, 4B, and 5A.

*Polygonum hydropiperoides* Michx. Common in wet situations. 1F, 1G, 1H, 1J, 2D, 3F, 4C and 5A.

*P. pensylvanicum* L. Common in wet situations. 1F, 1G, 1H, 2D, 3F, 4C, and 5A.

*P. punctatum* L. Rare. Margin of ditch. 3F.

*P. sagittatum* L. Infrequent. Open damp roadside, 1J; burned area, 3F.

#### CHENOPODIACEAE

*Chenopodium album* L. Rare. Right-of-way. 1M.

#### PHYTOLACCACEAE

*Phytolacca americana* L. Common but scattered. Essentially any open disturbed area.

## CARYOPHYLLACEAE

*Stellaria media* (L.) Cyrillo. Abundant along damp roadsides throughout the swamp.

## CERATOPHYLLACEAE

*Ceratophyllum echinatum* Gray. Rare. Submergent in shallow water at 4C.

## NYMPHAEACEAE

*Nuphar luteum* (L.) Sibthorp & Smith. Infrequent in shallow ditches along U.S. 158 and at 4D.

## RANUNCULACEAE

*Clematis viorna* L. Rare. Roadside. 1G.

*Ranunculus abortivus* L. Infrequent. Low woods. 1E, 1J, 1K, and 3F.

## BERBERIDACEAE

*Podophyllum peltatum* L. Rare. Beech stand at 3B.

## MAGNOLIACEAE

*Liriodendron tulipifera* L. Common at drier sites. 1A, 1C, 1E, 1I, 1K, 2C, 3B, 3E, 4B, and 5B.

*Magnolia grandiflora* L. Rare. Two small trees. Sherrill Ditch and East Ditch.

*M. virginiana* L. Abundant, especially along roads. 1A, 1C, 1E, 1F, 1H, 1I, 1J, 1K, 1L, 1M, 2B, 2C, 2E, 3C, 3E, 3F, 4A, 4D, and 5B.

## ANNONACEAE

*Asimina triloba* (L.) Dunal. Especially common on peaty soils but found throughout the swamp. 1C, 1E, 1H, 1I, 2C, 3C, 3E, 4B, and 5B.

## LAURACEAE

*Persea borbonia* (L.) Spreng. (incl. *P. palustris*). One of the most abundant shrubs, especially along roads. 1A, 1E, 1I, 1L, 2B, 2C, 3C, 3E, 4A, 4B, and 5B.

*Sassafras albidum* (Nutt.) Nees. Infrequent. Drier sites. 1A, 1D, 1K, 2B, 3B, and 5B.

## BRASSICACEAE

*Lepidium virginicum* L. Rare. Weedy field. 1D.

*Brassica napus* L. Rare. Weedy roadside of Jericho Ditch Lane.

*Cardamine hirsuta* L. Common and abundant along roads throughout the swamp. 1D, 1H, 1J, 1M, 1F, and 4C. Also along Headley Ditch near state line.

#### SAXIFRAGACEAE

*Decumaria barbara* L. Common throughout the swamp but seldom flowering except in full sun. 1E, 1I, 2C, 2E, 3C, 3E, 4B, 4D, and 5B.

*Itea virginica* L. Common in cypress-gum stands. 1C, 1E, 2A, 2D, 2E, 3C, 3E, 4B, 4C, and 5A.

#### HAMAMELIDACEAE

*Hamamelis virginiana* L. Rare. Beech stand. 3D.

*Liquidambar styraciflua* L. Infrequent. Drier sites. 1A, 1C, 1K, 1M, and 5B.

#### PLATANACEAE

*Platanus occidentalis* L. Infrequent. Margins of cypress-gum swamps. 1C, 1E, 1I, 2A, 3C, and 5A.

#### ROSACEAE

*Amelanchier canadensis* (L.) Med. Common. Roadsides and other habitats. 1C, 1K, 1M, 2B, and 5B.

*Aronia arbutifolia* (L.) Ell. (*Sorbus arbutifolia* (L.) Heyn.). Rare. 2B.

*Crataegus marshallii* Eggl. Single tree at junction of Sycamore and Myrtle Ditches.

*C. phaenopyrum* (L.f.) Med. Infrequent. Drier sites throughout the swamp including 1C, 1K, and 2C.

*Duchesnea indica* (Andrz.) Focke. Common along roadsides throughout the swamp including 1D, 1F, 1H, 1J, and 4C.

*Fragaria virginiana* Duchesne. Infrequent. Open sunny areas along Jericho Ditch Lane and field at fire tower.

*Potentilla canadensis* L. Rare. Roadside, Jericho Ditch Lane.

*Prunus angustifolia* Marsh. Small population along Jericho Ditch Lane.

*P. persica* (L.) Batsch. Single small tree. Jericho Ditch Lane.

*P. serotina* Ehrh. Rare. Roadside. Jericho Ditch Lane.

*Rosa palustris* Marshall. Common. Open areas, especially banks of ditches.

*Rubus argutus* Link. Common in disturbed and open areas. 1A, 1L, 2B, 3F, and 4A.

*R. cuneifolius* Pursh. Common in disturbed and open areas including 1A, 1L, 2B, 3F, 4A, and 5B.

*R. hispidus* L. Infrequent. Edge of Washington Ditch near west boundary of refuge. 1C, 3B, and 3D.

*Spiraea tomentosa* L. Rare. Burned area north of Sycamore Ditch just west of Dismal Swamp Canal.

#### FABACEAE

*Cassia fasciculata* Michx. Abundant along roads in dry, open situations.

*Lespedeza cuneata* (Dumont) G. Don. Infrequent along roads. Badger Ditch near Middle Ditch. Railroad Ditch near Western boundary of refuge.

*Trifolium pratense* L. Rare. Open field near fire tower.

*T. repens* L. Rare. Camping area near locks of Feeder Ditch.

#### LINACEAE

*Linum virginianum* L. Rare. Roadside. Lynn Ditch near Washington Ditch.

#### OXALIDACEAE

*Oxalis dilleni* Jacq. Common along all roads in sunny, open habitats.

#### GERANIACEAE

*Geranium carolinianum* L. Rare. Open weedy area. 1D.

#### EUPHORBIACEAE

*Acalypha rhomboidea* Raf. Infrequent in drier soil in open, sunny areas. 1D, 1L, 2B, and 4A.

*Euphorbia maculata* L. Infrequent. Roadsides in open areas. Very abundant in areas which have been logged as 4A.

#### CALLITRICHACEAE

*Callitriche heterophylla* Pursh. Infrequent submergent of shallow water. 1J and 1F.

#### ANACARDIACEAE

*Rhus copallina* L. Common along roads and at 1A, 1D, 1L, 1F, 1H, 2A, and 5B.

*R. radicans* L. Ubiquitous vine throughout the swamp.

*R. vernix* L. Infrequent. Roadsides. Corapeake Ditch near recent railhead. West Ditch just south of Interior Ditch. Scott Ditch near North Ditch.

## CYRILLACEAE

*Cyrilla racemiflora* L. Rare. Small population at 2A.

## AQUIFOLIACEAE

*Ilex coriacea* (Pursh) Chapm. Rare. Apparently the northern limit of this species. 1C.

*I. decidua* Walt. Infrequent. Recent railhead on Corapeake Ditch. Border of field at fire tower. Also 4A.

*I. glabra* (L.) Gray. Common roadside shrub. Also abundant in recent burns as 2B.

*I. opaca* Aiton. Common, but best developed in mature forests. 1C, 1I, 2C, 3B, and 3D.

*I. verticillata* (L.) Gray. Rare. Swamp forest SE of Railroad Ditch.

## CELASTRACEAE

*Euonymus americanus* L. Infrequent. Roadside West Ditch just north of Interior Ditch. Washington Ditch at Lynn Ditch. Also 1C.

## ACERACEAE

*Acer rubrum* L. Ubiquitous. The most abundant tree in the swamp.

## BALSAMINACEAE

*Impatiens capensis* Meerb. Infrequent. Margins of intermittent pools. 1C, 1H, 1J, and 3E.

*I. pallida* Nutt. Rare. Highway 17 at Wallaceton.

## RHAMNACEAE

*Berchemia scandens* (Hill) K. Koch. Common. 1C, 1E, 1I, 1L, 2C, 2E, 3C, 3E, 4B, and 4D.

## VITACEAE

*Parthenocissus quinquefolia* (L.) Planch. Infrequent in drier areas. 1C, 1K, 1M, and 5B.

*Vitis labrusca* L. Often with the above species. Abundant throughout the swamp.

*V. rotundifolia* Michx. Abundant throughout the swamp.

## THEACEAE

*Stewartia malacodendron* L. Infrequent on drier, usually sandy sites. 1C and 3D. Also north of U.S. 460, City of Portsmouth, Virginia.

## HYPERICACEAE

<sup>4 petals</sup>  
*Hypericum hypericoides* (L.) Crantz. Common on roadbanks throughout the swamp.

*H. mutilum* L. Common along roads. 1A, 1B, 1D, 1F, 1H, 1J, 1L, 2B, 3F, 4A, and 4C. <sup>5 petals yellow</sup>

*H. walteri* Gmelin. Rare. Decaying stump in Lake Drummond south of Interior Ditch. <sup>Pink/purple</sup>

*H. virginicum* L. Infrequent. Usually found in decaying stumps in water. 1F, 1G, 1J, 2D, and 5A. <sup>Pink/Purple about 1/2 inch</sup>

## VIOLACEAE

*Viola papilionacea* Pursh. Rare. Roadside. Hamburg Ditch near Sherrill Ditch.

*V. primulifolia* L. Infrequent. Roadsides. 1J, 1F, and 1K.

## PASSIFLORACEAE

*Passiflora incarnata* L. Infrequent. Roadside along Feeder Ditch 2.0 miles east of Lake Drummond. Banks of Dismal Swamp Canal along U.S. 17 at Feeder Ditch.

## LYTHRACEAE

*Decodon verticillatus* (L.) Ell. Infrequent. Shallow waters of Lake Drummond, 1G and 2D. South of Interior Ditch. Margin of ditch west of canal, 4D.

## MELASTOMATACEAE

*Rhexia virginica* L. Rare. Bank of Dismal Swamp Canal, just south of state line, Camden Co., North Carolina.

*R. mariana* L. Common. Roadsides, ditch banks, and power lines. 1D, 1F, 1H, 1J, 1M, 2B, 3F, and 4A.

## ONAGRACEAE

*Ludwigia alternifolia* L. Common. Roadsides. 1D, 1J, 2A, 3F, 1L, and 4A.

*L. decurrens* Walt. Rare. Margin of Lake Drummond south of Feeder Ditch. City of Chesapeake.

*L. glandulosa* Walt. Rare. 1M.

*L. linearis* Walt. Rare. Margin of Lake Drummond south of Feeder Ditch. City of Chesapeake.

*L. palustris* (L.) Ell. Common. Shallow water of all ditches, usually in full sun. 1F, 1H, 1J, 2A, 3A, 3F, 4B, 4C, and 5A.

## HALORAGACEAE

*Proserpinaca palustris* L. Common. Shallow water and margins of ditches and pools. 1B, 1F, 1H, 1J, 1M, 2B, 3A, 3F, 4B, 4C, and 5A.

*Myriophyllum heterophyllum* Michx. Not seen by authors but several specimens at US.

## ARALIACEAE

*Aralia spinosa* L. Common and abundant. Along all roads.

## APIACEAE

*Chaerophyllum tainturieri* Hook. Infrequent. Roadsides, 1D and 1J. Jericho Ditch near fire tower.

*Daucus carota* L. Common. Open, sunny area. 1J and 1L. Roadsides throughout the swamp.

*Eryngium prostratum* Nutt. Rare. Moist ditchbank. 1K.

*Foeniculum vulgare* Miller. Rare. Road along Feeder Ditch near Highway 17.

*Hydrocotyle umbellata* L. Infrequent. Low wet areas. 1H, 1J, 1F, and 1C.

*Sanicula canadensis* L. Rare. 1C.

## NYSSACEAE

*Nyssa aquatica* L. Common. Swamp forests with cypress. 2E, 3C, 3E, 4B, 4C, 4D, and 5A.

*N. sylvatica* var. *biflora* (Walt.) Sarg. Common throughout the swamp, including Lake Drummond. 2E, 2C, 2F, 2I, 3C, 3F, 4B, 4D, and 5A.

## CORNACEAE

*Cornus alternifolia* L. f. Rare. 3D.

*C. florida* L. Infrequent. Drier sites. 1A, 1K, 2D, 3B, and 5B.

## CLETHRACEAE

*Clethra alnifolia* L. Common and abundant. This is perhaps the most abundant shrub throughout the swamp.

## ERICACEAE

*Chimaphila maculata* (L.) Pursh. Infrequent. Mesic areas. 1C, 1K, 3B, and 3D.

*Gaultheria procumbens* L. Rare. Cedar stand, 1.1 mi. s. of Corapeake Ditch.

*Kalmia angustifolia* L. Rare. Few plants at 2B.



*K. latifolia* L. Rare. Junction of Scott and North Ditches. Possibly planted at this site but native in region.

*Lyonia ligustrina* (L.) DC. Infrequent. Ditch margins. 1E and 1F.

*L. lucida* (Lam.) K. Koch. Infrequent. 1C and 1F. Also spectacular stands along Jericho and Lynn Ditches.

*Leucothoë axillaris* (Lam.) D. Don. Frequent. Drier sites. 1C, 1K, 3B, 3D, and 5B.

*L. racemosa* (L.) Gray. Infrequent. Margins of intermittent pools in cypress-tupelo stands. 2E, 3C, and 4B.

*Monotropa uniflora* L. Infrequent. North of junction of Lynn and Jericho Ditches. 3D and 5B.

*Oxydendrum arboreum* (L.) DC. Infrequent. Drier sites. 1C, 1K, 1B, and 5B.

*Rhododendron atlanticum* (Ashe) Rehder. Infrequent. Roadsides. 1C, 2A, and 3F.

*R. nudiflorum* (L.) Torrey. Infrequent. Widely scattered throughout the swamp. 1C and 1H. Also Lynn Ditch at Jericho Ditch.

*Vaccinium stamineum* L. Rare. Small population at 1C.

*V. corymbosum* L. Infrequent. Roadsides. 1J and 1K. Also Jericho Ditch Lane.

*V. tenellum* Ait. Rare. 1M.

#### EBENACEAE

*Diospyros virginiana* L. Infrequent. Drier sites. 1K, 1M, 3B, and 3D.

#### SYMPLOCACEAE

*Symplocos tinctoria* (L.) L'Her. Infrequent. Drier sites. 3B and 3D. Scott at North Ditch.

#### OLEACEAE

*Fraxinus caroliniana* Mill. Infrequent. Margins of streams. 1J, 1F, and 5A.

*F. tomentosa* Michx. f. Rare. 1J.

*F. pennsylvanica* Marsh. Infrequent. Drier sites. 1C, 1I, 2C, and 3D.

*Ligustrum sinense* Lour. Frequent. Widely scattered along roadsides throughout the swamp.

#### LOGANIACEAE

*Gelsemium sempervirens* (L.) Ait. f. This woody vine is ubiquitous throughout the swamp.

*Polypremum procumbens* L. Rare. Weedy field. 1D.

## GENTIANACEAE

*Bartonia virginica* (L.) BSP. Rare. Old field. 1A.

*Gentiana saponaria* L. Rare. Edge of Railroad Ditch at refuge boundary.

## APOCYNACEAE

*Apocynum cannabinum* L. Frequent. Roadsides, 1J. Jericho Ditch, Williamson Ditch, and Washington Ditch.

*Vinca minor* L. Rare. Weedy field. 1D.

## VERBENACEAE

*Callicarpa americana* L. Rare. Roadside. Corapeake Ditch.

*Verbena urticifolia* L. Rare. Roadsides. Interior Ditch.

## LAMIACEAE

*Glechoma hederacea* L. Infrequent. 1C and roadside, Hamburg Ditch.

*Prunella vulgaris* L. Common along roadsides.

*Salvia lyrata* L. Infrequent. Roadsides. 1D and 1J.

*Scutellaria integrifolia* var. *integrifolia* L. Rare. Roadsides. Railroad Ditch.

*Stachys hyssopifolia* Michx. Rare. Roadsides. Hamburg Ditch.

*Teucrium canadense* L. Rare. Roadside. Hamburg Ditch.

## SOLANACEAE

*Solanum carolinense* L. Rare. Dry roadsides. West Ditch.

## SCROPHULARIACEAE

*Agalinis purpurea* (L.) Pennell. Infrequent. Open, sunny areas. 1M and 1J.

*Chelone glabra* L. Rare. Roadbank. Washington Ditch.

*Gratiola neglecta* Torr. Rare. Small pool in old logging road 1.0 mile north of U.S. 158, 0.5 mile east of Gates County line.

*Paulownia tomentosa* (Thunb.) Steud. Infrequent. Small trees. Washington Ditch and Corapeake Ditch.

*Verbascum thapsus* L. Infrequent. Roadsides. 1C, 1M, and 1J.

*Veronica arvensis* L. Infrequent. Roadsides, 1C. Also Jericho Ditch Lane.

## BIGNONIACEAE

*Anisostichus capreolata* (L.) Bureau. Ubiquitous throughout the swamp.

*Campsis radicans* (L.) Seem. Common. Usually in drier areas. 1A, 1C, 1J, 1K, 1L, 1M, 3D, 4D, and 5B.

## OROBANCHACEAE

- Conopholis virginiana* (L.) Wallr. Rare. Beech stand. 3D.  
*Epifagus virginiana* (L.) Bart. Frequent. Always with beech. 1C, 1K, 3B, and 3D. Also beech stands north of U.S. 460 east of Old Norfolk Road.

## LENTIBULARIACEAE

- Utricularia biflora* Lam. Rare. Ditch north of U.S. 158.  
*U. gibba* L. Rare. Shallow waters of Myrtle Ditch.  
*U. inflata* Walt. Rare. Ditch north of U.S. 158.  
*U. purpurea* Walt. Infrequent. Waters of Lynn, Portsmouth, Washington and Interior Ditches.

## PLANTAGINACEAE

- Plantago aristata* Michx. Rare. Hamburg Ditch Road.  
*P. lanceolata* L. Rare. Weedy field. 1D.  
*P. virginica* L. Rare. Weedy area. 1D.

## RUBIACEAE

- Cephalanthus occidentalis* L. Infrequent. Usually in standing water. 1F, 1G, and 1D.  
*Diodea teres* Walt. Rare. Roadsides. Jericho Ditch Lane.  
*D. virginiana* L. Frequent. Usually in roads in full sun. Jericho Ditch Lane, Lynn Ditch, Hudnall Ditch, and North Ditch.  
*Houstonia caerulea* L. Infrequent. Edges of road 604 near 1K and Jericho Ditch north of Hudnall Ditch.  
*Mitchella repens* L. Infrequent. Drier sites. 1C, 3B, and 3D.

## CAPRIFOLIACEAE

- Lonicera japonica* Thunb. Common everywhere except in the very wettest situations.  
*L. sempervirens* L. Rare. Jericho Ditch Lane near 1D.  
*Sambucus canadensis* L. Common. Open, sunny moist areas. 1F, 1H, 1J, 2A, 2B, 3A, 3F, and 4C.  
*Viburnum nudum* L. Rare. Margin of Laurel Ditch south of Sycamore Ditch. Swamp forest 4B.

## VALERIANACEAE

- Valerianella radiata* (L.) Dufr. Infrequent. Weedy roadside, 1J, along U.S. 158.

## CAMPANULACEAE

- Lobelia cardinalis* L. Infrequent. 1J and 3A.  
*L. nuttallii* R. & S. Rare. Wet roadside. 1J.  
*Specularia perfoliata* (L.) A. DC. Rare. Weedy area. 1D.

## ASTERACEAE

- Achillea millefolium* L. Rare. Roadside. Jericho Ditch Lane. 1D.  
*Ambrosia artemisiifolia* L. Rare. Power line cut. 1M.  
*Aster pilosus* Willd. Rare. Power line. 1M.  
*Baccharis halimifolia* L. Infrequent. Roadside, Corapeake Ditch.  
Power line. 1M.  
*Bidens frondosa* L. Rare. Power line. 1M.  
*Carduus spinosissimus* Walt. Rare. Roadside. Laurel Road south  
of Persimmon Road.  
*Crepis japonica* (L.) Benth. Infrequent. Roadsides at junction  
of Jericho and Hudnall Ditches. Also 3F.  
*Elephantopus tomentosus*. Rare. Roadside. Jericho Ditch Lane.  
*Erechtites hieracifolia* (L.) Raf. Parking lot, fire tower.  
*Erigeron annuus* (L.) Pers. Frequent. Roadsides throughout the  
swamp.  
*Eupatorium capillifolium* (Lam.) Small. Common. This species  
forms an almost continuous border along drier parts of most  
roads.  
*E. coelestinum* L. Common. Open roadsides. 1M. Jericho, Cora-  
peake, and Lynn Ditches.  
*E. hyssopifolium* L. Rare. Power line. 1M.  
*E. maculatum* L. Power line. 1M  
*E. rotundifolium* L. Rare. Power line. 1M.  
*Gnaphalium obtusifolium* L. Infrequent. Edge of Williamson  
Ditch. Also 1D.  
*Helenium amarum* (Raf.) H. Rock. Rare. Power line. 1M.  
*Hypochoeris radicata* L. Rare. Roadside. Jericho Ditch Lane  
near junction with Jericho Ditch.  
*Mikania scandens* (L.) Willd. Rare. Open roadside. 1J.  
*Pluchea camphorata* (L.) DC. Rare. Open roadside. 1J.  
*Pyrrhopappus carolinianus* (Walt.) DC. Rare. Weedy areas. 1D.  
*Senecio tomentosus* Michx. Infrequent. Roadside. Railroad Ditch  
near Interior Ditch, open area, 1D.  
*Solidago erecta* Pursh. Rare. Power line. 1M.  
*Taraxacum officinale* Weber. Frequent. Weedy areas, 1D. Field  
near fire tower, 1M. Also Interior Ditch.

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"A later trip would doubtless reveal many more species, but with the drawback of possible chills and certain yellow flies and mosquitoes."

J. W. Chickering, Jr., 1874

"The flora of the swamp, it must be confessed, is rather tame and monotonous; but if it were possible to penetrate into the remoter fastnesses, many new names would doubtless be added to systematic botany."

B. McCarthy, 1884

"It is very certain that a well-equipped botanical expedition would find much of interest in the unexplored parts of this particular region."

C. L. Pollard, 1896

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