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PLANT AND ANIMAL LIST FOR FORT RALEIGH NATIONAL HISTORIC SITE
MANTEO, NORTH CAROLINA

Compiled by Clay L. Gifford, Resources Management Specialist

(This list is NOT exhaustive)

Fungi

Amanita eliae

Inocybe linatodisa

Lactarius deceptivus

Amanita roanokensis (Ft. Raleigh is type locality)

Laccaria trulligata

Suillus grevillei

Gymnopilus spectabilis

Lactarius hygrophoroides

Russula brevipes

Strobilomyces sp.

Amanita praelongispora

Amanita mutabilis

Armillariella mellea

Lactarius paradoxus

Amanita fulva

Amanita citrina

Plus dozens of other species, unidentified.

Lichens

Wedding Ring Lichen - Lopadium leucoxanthum

Sod Lichen (Reindeer Moss) - Cladonia species

Plus many other species, unidentified.

Algae

Several species, unidentified.

Mosses

Several species, unidentified.

Liverworts

No certain data - probably one or more species.

Ferns and Fern Allies

Less than a dozen species occur - no species rare statewide is known to occur. No accurate current list exists. Present at some time have been:

Scouring Rush - Equisetum hyemale

Southern Bog Clubmoss - Lycopodium adpressum

Foxtail Clubmoss - Lycopodium alopecuroides
Royal Fern - Osmunda regalis var. spectabilis
Cinnamon Fern - Osmunda cinnamomea
Bracken - Pteridium aquilinum (abundant)
Marsh Fern - Thelypteris palustris
Netted Chain Fern - Woodwardia areolata
Ebony Spleenwort - Asplenium platyneuron
Resurrection Fern - Polypodium polypodioides

Other ferns may occur or have occurred in recent past.

Trees Native at Fort Raleigh - (?) after a species indicates that it has been reported here, but Clay Gifford can find no specimen.

Longleaf Pine - Pinus palustris
Loblolly Pine - Pinus taeda (this and longleaf pine are the only pines I can find today, or find voucher specimens for. In the past, shortleaf pine, Pinus echinata, and Spruce Pine, Pinus glabra, have been reported. If they ever occurred at Fort Raleigh, they were probably planted.)
Red Cedar - Juniperus virginiana
Swamp Willow - Salix caroliniana
Pignut Hickory - Carya glabra
White-heart Hickory - Carya tomentosa (?)
American Hornbeam - Carpinus Caroliniana
Hop Hornbeam - Ostrya virginiana
Chinquapin - Castanea pumila
Live Oak - Quercus virginiana
Black Oak - Quercus velutina (?)
Southern Red Oak - Quercus falcata
Black Jack Oak - Quercus marilandica
Water Oak - Quercus nigra (?)
Blue-Jack Oak - Quercus incana
Willow Oak - Quercus phellos
Laurel Oak - Quercus laurifolia
Red Mulberry - Morus rubra
Tulipp Tree - Liriodendron tulipifera
Sweet Bay - Magnolia virginiana
Bull Bay - Magnolia grandiflora
Red Bay - Persea borbonia
Sassafras - Sassafras albidum
Sweet Gum - Liquidambar styraciflua
Witch Hazel - Hamamelis virginiana
Serviceberry - Amelanchier canadensis (?)
Shadbush - Amelanchier arborea (?)
Shadbush - Amelanchier obovalis
Black Cherry - Prunus serotina
Winged Sumac - Rhus copallina
American Holly - Ilex opaca
Yaupon - Ilex vomitoria
Red Maple - Acer rubrum
Hercules Club - Aralia spinosa
Black Gum - Nyssa sylvatica
Flowering Dogwood - Cornus florida
Sparkleberry - Vaccinium arboreum (?)

Persimmon - Diospyros virginia
Sweet Leaf - Symplocos tinctoria
Fringe Tree - Chionanthus virginicus
Wild Olive - Osmanthus americana

Trees Not Native at Fort Raleigh

Chinese Elm - Ulmus parvifolia
Common Apple - Malus pumila
Portugese Cherry Laurel - Laurocerasus lusitanica
Mimosa - Albizzia julibrissin
Redbud - Cercis canadensis
Chinaberry - Melia azedarach
Golden Rain Tree - Koelreuteria paniculata
Crape Myrtle - Lagerstroemia indica

Shrubs Native at Fort Raleigh

Spoonleaf Yucca - Yucca filamentosa
Wax Myrtle - Myrica cerifera
Bayberry - Myrica pensylvanica
Mistletoe - Phoradendron serotinum
Blackberry - Rubus argutus
Dewberry - Rubus trivialis
Swamp Rose - Rosa palustris
Red Chokeberry - Sorbus arbutifolia
Inkberry - Ilex glabra
St. Andrew's Cross - Hypericum lypericoides
Fragile Prickly Pear - Opuntia drummondii
Squaw Huckleberry - Vaccinium stamincum
Highbush Blueberry - Vaccinium corymbosum
Black Highbush Blueberry - Vaccinium atrococcum
Beauty-berry - Callicarpa americana
Groundsel-tree - Baccharis halimifolia

Shrubs Not Native at Fort Raleigh

Spanish Dagger - Yucca gloriosa (?)
Sweetshrub - Calycanthus floridus
Rockspray Cotoneaster - Cotoneaster horizontalis (?)
Dwarf Burning Bush - Euonymusalatus compactus (?)
Sasanqua - Camellia sasanqua
Kurume Azalea - Rhododendron kurume (?)
Drooping Leucothoe - Leucothoe catesbaei (?)
Cape Jasmine - Gardenia florida (?)

Woody Vines Native at Fort Raleigh

Greenbrier - Smilax rotundifolia
Greenbrier - Smilax bona-nox
Greenbrier - Smilax glauca
Greenbrier - Smilax auriculata
Greenbrier - Smilax laumpolia
Poison Ivy - Rhus radicans

Virginia Creeper - Parthenocissus quinquefolia
Muscadine Grape - Vitis rotundifolia
Summer Grape - Vitis aestivalis
Yellow Jessamine - Gelsemium sempervirens
Cross Vine - Anistochus capreolata
Trumpet Creeper - Campsis radicans
Coral Honeysuckle - Lonicera sempervirens

Woody Vines Not Native at Fort Raleigh

Scuppernong Grape - Vitis rotundifolia variety
Japanese Honeysuckle - Lonicera japonica

Grasses at Fort Raleigh

No accurate list of grasses here can be prepared without extensive collecting confined within the boundaries of Fort Raleigh. Four species are known to have been planted here in recent years. They are:

Bermuda Grass - Cynodon dactylon (hybrid)
Smooth Cordgrass - Spartina alterniflora
Saltmeadow Cordgrass - Spartina patens
Winter Ryegrass - Lolium perenne

The cordgrasses were planted along the sound shores by researchers; the other grasses were planted on lawns, road shoulders, etc. by Park Maintenance.

Dunes of Dare Garden Club's "Wildflowers of The Outer Banks" (for sale at NPS Visitor Centers on the Banks) lists 45 more grass species as represented in the park herbarium. The list does not show which species were collected at Fort Raleigh. The following hypothetical list (all are species known from Roanoke Island) is drawn from several sources, principally McCaffrey's unpublished looseleaf 5 volume Plant List (1974), available for consultation at the Park library, Fort Raleigh:

Elliot Beardgrass - Andropogon elliotii
Bluestem - Andropogon gerardii
Beardgrass - Andropogon ternarius
Little Bluestem - Andropogon scoparius
Broomsedge - Andropogon virginicus
Bushy Beardgrass - Andropogon glomeratus
Three-awn - Aristida sp.
Switch Cane - Arundinaria gigantea
Barnyard Grass - Echinochloa crusgalli
Purple Muhly - Muhlenbergia capillaris
Dallis Grass - Paspalum dilitatum
Vasey Grass - Paspalum urvillei
Running Beachgrass - Panicum amarum
American Cupscale - Sacciolepis striata
Spike Uniola - Uniola laxa
Sea Oats - Uniola paniculata

Sedges at Fort Raleigh - Family Cyperaceae

With regard to an accurate list for sedges, the situation is similar to that for grasses. A hypothetical list based on McCaffrey (1974) cited above, follows:

Sand Rush - Fimbristylis spadicea
Chair-maker's Rush - Scirpus americanus

True Rushes at Fort Raleigh - Family Juncaceae

McCaffrey (1974), cited above, lists no rushes as recorded for Roanoke Island. Therefore even a hypothetical list for Fort Raleigh is presently impracticable.

Other Herbaceous Plants (Forbs) at Fort Raleigh

Spanish Moss - Tillandsia usneoides
Day Flower - Commelina sp.
Lily Turf - Liriope spicata (planted)
Blue-eyed Grass - Sisyrinchium sp.
Pink Lady's Slipper - Cypripedium acaule
Green Adder's Mouth - Malaxis unifolia
Grass-leaved Ladies Tresses - Spiranthes praecox
Crane-fly Orchid - Tipularia discolor
Sheep-sorrel - Rumex acetosella
Mouse-ear Chickweed - Cerastium glomeratum
Common Chickweed - Stellaria media
Common Buttercup - Ranunculus acris
Mouse-ear Cress - Arabis thaliana
Bitter Cress - Cardamine hirsuta
Swine Wartcress - Coronopus didymus
Poor-man's Pepper - Lepidium virginicum
Wild Radish - Raphanus raphanistrum
Rock Cress - Sibara virginica
Common Cinquefoil - Potentilla canadensis
Rough Fruited Cinquefoil - Potentilla recta
Wild Sensitive Plant - Cassia mitchiana
Beggar's Lice - Desmodium sp. (several)
Rabbitfoot Clover - Trifolium arvense
Red Clover - Trifolium pratense
White Clover - Trifolium repens
Low Hop Clover - Trifolium campestre
Low Hop Clover - Trifolium dubium
Vetch - Vicia angustifolia
Bracted Zornia - Zornia bracteata
Violet Wood Sorrel - Oxalis violacea
Wild Geranium - Geranium carolinianum
Dovesfoot Geranium - Geranium molle
Spurge Nettle - Cnidoscolus stimulosus
Leaf-flower - Phyllanthus urinaria
Carolina Ipecac - Euphorbia ipecacuanha

Beach Spurge - Euphorbia polygonifolia
 Pinweed - Hypericum gentianoides
 Pinweed - Lechea villosa
 Confederate Violet - Viola papilionacea
 Wild Pansy - Viola rafinesquii
 Seaside Evening Primrose - Oenothera humifusa
 Striped Wintergreen - Chimaphila maculata
 Indian Pipe - Monotropa uniflora
 Polypremum - Polypremum procumbens
 Variegated Milkweed - Asclepias variegata
 Trailing Morning Glory - Bonamia humistrata
 Dodder - Cuscuta gronovii
 Common Morning Glory - Ipomoea purpurea
 Fog-fruit - Lippia sp.
 Maritime Ground Cherry - Physalis viscosa ssp. maritima
 Horse-nettle - Solanum carolinense
 Lyre-leaved Sage - Salvia lyrata
 Blue Toadflax - Linaria canadensis
 Squaw Root - Conopholis americana
 English Plantain - Plantago lanceolata
 Common Plantain - Plantago major
 Rough Buttonweed - Diodia teres
 Virginia Buttonweed - Diodia virginiana
 Mexicanclover - Richardia brasiliensis
 Bedstraw - Galium sp. (several)
 Partridge Berry - Mitchella repens
 Venus Looking Glass - Specularia perfoliata
 Common Yarrow - Achillea millefolium
 Common Ragweed - Ambrosia artemisiifolia
 Aster - Aster sp. (several)
 Spanish Needles - Bidens bipinnata
 Smooth Carphephorus - Carphephorus bellidifolius
 Woolly Carphephorus - Carphephorus tomentosus
 Elephant's Foot - Elephantopus tomentosus
 Fleabane - Erigeron spp. (several)
 Dog Fennel - Eupatorium capillifolium
 Rabbit Tobacco - Gnaphalium obtusifolium
 Bitter Weed - Helenium amarum
 Golden Aster - Heterotheca spp. (several)
 King Devil - Hieracium florentinum
 Hawkweed - Hieracium gronovii
 Cat's Ear - Hypochaeris glabra
 Dwarf Dandelion - Krigia virginica
 Common Dandelion - Taraxacum officinale

Animals at Fort Raleigh

Invertebrates

Probably all ten invertebrate phyla occur at Fort Raleigh, either living within Park boundaries or washing up on sound shores. The six

Animals - FR

Invertebrates

Probably all 10 phyla occur at FR, either within boundaries or washing up on shore. The phyla certain to live within Park boundaries are:

Protozoans - Phylum protozoa
Flatworms - Phylum platyhelminthes
Roundworms - Phylum nemathelminthes
Segmented Worms - Phylum annelida
Arthropods - Phylum arthropoda
Mollusks - Phylum mollusca

The other four invertebrate phyla occur in nearby sound waters and could wash up on Fort Raleigh shores at any time, living or dead. They are:

Sponges - Phylum porifera
Coelenterates - Phylum coelenterata
Ribbon Worms - Phylum nemertinea
Starfish, Sea Urchins, etc. - Phylum echinodermata

No records from Fort Raleigh for the above four marine phyla nor for species thereunder are known to us.

As to the six invertebrate phyla known to live within Fort Raleigh boundaries, the status is this:

Phylum Protozoa - No species records are known to us. However, Protozoans, both parasitic and free-living, occur almost everywhere, and can safely be expected to live at Fort Raleigh.

Phylum Platyhelminthes - The only flatworm record known to us from Fort Raleigh is for a single specimen of Bipalium Kewense, a large terrestrial planarian collected in April, 1976 by Ted Mew. This species is native to the American tropics and is often disseminated with plants from greenhouses. Aquatic planarians in Alder Branch are not impossible; we know of no records. Parasitic flatworms probably occur in animals living at Fort Raleigh. Again, we know of no records.

Phylum Nemathelminthes - Like Protozoans, parasitic and free-living roundworms live almost everywhere; it is safe to assume that numerous species live at Fort Raleigh. No records are known to us.

Phylum Annelida - Marine segmented worms occur in nearby sound waters and could readily wash ashore at Fort Raleigh; we know of no records. Earthworms, probably several species, are common at Fort Raleigh in lawns, leaf mold and rotten logs. We know of no species records. Leeches are possible in Alder Branch; again, we know of no records.

Phylum Arthropoda - Five of the six classes of arthropods are abundant at Fort Raleigh. No Peripatus (class Onychophora) occurs. Of the class Crustacea, several species of crabs, shrimps, etc. occur in nearby sound waters and could readily wash ashore at

Ft. Raleigh; we know of no records. The only crustaceans known by us to live within Fort Raleigh boundaries are Sowbugs, Oniscus spp. and Pillbugs, Armadillo spp.

Of the class Insecta, thousands of species occur at Fort Raleigh. Of 26 orders listed by H.E. Jaques, 1947, in How To Know The Insects, only 3 orders, essentially tropical, are believed absent from Fort Raleigh. These absent orders are: Proturans (Order Protura), Webspinners (Order Embioptera), and Zorapterans (Order Zoraptera).

The 23 insect orders known to occur at Fort Raleigh follow:

Bristletails - Order Thysanura
Springtails - Order Collembola
Stoneflies - Order Plecoptera
Mayflies - Order Ephemeroptera
Dragonflies, Damsel Flies - Order Odonata
Grasshoppers, etc. - Order Orthoptera
Termites - Order Isoptera
Earwigs - Order Dermaptera
Beetles - Order Coleoptera
Twisted-wing Insects - Order Strepsiptera
Thrips - Order Thysanura
Bark Lice, Book Lice - Order Corrodentia
Biting Lice - Order Mallophaga
True Lice - Order Anoplura
True Bugs - Order Hemiptera
Cicadas, etc. - Order Homoptera
Nerve-winged Insects - Order Neuroptera
Caddis Flies - Order Trichoptera
Moths and Butterflies - Order Lepidoptera
Scorpionflies - Order Mecoptera
Flies, Mosquitoes, Gnats - Order Diptera
Fleas - Order Siphonaptera
Bees, Wasps, Ants, etc. - Order Hymenoptera

Status of the insect orders follows:

Bristletails - Order Thysanura
Silverfish - Lepisma saccharina
Firebrat - Thermobia domestica

Both of the above species have been seen in park buildings in recent years.

Springtails - Order Collembola

Specimens have been seen in moss at Fort Raleigh but were not identified to family or species.

Stoneflies - Order Plecoptera

In summer, 1980, and again in summer, 1981, Samuel M. Gifford collected single specimens of Neoperla

clymene just outside Fort Raleigh boundaries. They were identified by an authority on stoneflies, with the Smithsonian Institution. They constitute a new record for North Carolina.

Mayflies - Order Ephemeroptera

Specimens of one or more species have been observed at lights at Fort Raleigh. No specimen from Fort Raleigh has been identified to family or species, so far as we know.

Dragonflies and Damselflies - Order Odonata

Several species of both dragonflies (suborder Anisoptera) and damselflies (suborder Zygoptera) have been observed at Fort Raleigh. Members of this order are common here. None have been identified to family or species, so far as we know.

Grasshoppers, Roaches, etc. - Order Orthoptera

Representatives of this order are abundant at Fort Raleigh. Families known to occur here include pigmy mole crickets (Tridactilidae), pigmy grasshoppers (Tetridgidae), short-horned grasshoppers (Acrididae), long-horned grasshoppers (Tettigoniidae), camel crickets, etc. (Gryllacrididae), crickets (Gryllidae), including these subfamilies: mole crickets (Gryllotalpinae), tree crickets (Oecanthinae), ground crickets (Nemobiinae), and field and house crickets (Gryllinae). The non-jumping orthoptera are represented here by these families: mantids (Mantidae), walkingsticks (Phasmatidae), and cockroaches (Blattidae). We have only one species identification for an Orthopteran from Fort Raleigh vicinity - On August 8, 1980, Samuel M. Gifford collected a Carolina leafroller, Camptosorus carolinensis just outside Fort Raleigh boundaries. This species cuts and rolls a living leaf, binding it with silk. It hides in the leaf in the daytime; emerges at night to eat aphids. This is a new record for Dare County, possibly new for the North Carolina coastal plain.

Termites - Order Isoptera

Of the four families of termites known from the U.S., only the subterranean termites (Family Rhinotermitidae) are known from Fort Raleigh. Reticulitermes sp. prob-Reticulitermes flavipes, has been identified here.

Earwigs - Order Dermaptera

Earwigs of at least one species have been observed at Fort Raleigh, but we know of no collections or identifications made of earwigs here.

Beetles - Order Coleoptera

No doubt hundreds of species of beetles occur at Fort Raleigh; an accurate list is impossible at this time. Representatives of the following beetle families have been observed here by us:

Tiger Beetles - Family Cincindellidae
Ground Beetles - Family Carabidae
Predaceous Diving Beetles - Family Dytiscidae
Whirligig Beetles - Family Gyrinidae
Carrion Beetles - Family Silphidae
Rove Beetles - Family Staphylinidae
Soldier Beetles - Family Cantharidae
Fireflies - Family Lampyridae
Net-winged Beetles - Family Lycidae
Dermestid Beetles - Family Dermestidae
Checkered Beetles - Family Cleridae
Click Beetles - Family Elateridae
Metallic Wood-boring Beetles - Family Buprestidae
Pleasing Fungus Beetles - Family Erotylidae
Flat Bark Beetles - Family Cucujidae
Ladybird Beetles - Family Coccinellidae
False Blister Beetles - Family Oedemeridae
Blister Beetles - Family Meloidae
Tumbling Flower Beetles - Family Mordellidae
Darkling Beetles - Family Tenebrionidae
Stag Beetles - Family Lucanidae
Bessbugs - Family Passalidae
Scarab Beetles - Family Scarabaeidae
Long-horned Beetles - Family Cerambycidae
Leaf Beetles - Family Chrysomelidae
Snout Beetles - Family Curculionidae
Bark Beetles, etc. - Family Scolytidae
Predaceous Diving Beetles - Family Dytiscidae

The following species of oak-boring beetles have been recorded from Roanoke Island; all probably occur from time to time at Fort Raleigh:

No Common Name - Enapholodes atomarius
Beech Borer - Goes pulverulentus
Flatheaded Appletree Borer - Chrysobothris femorata
No Common Name - Elaphidion mucronatum

Identifications are by R. W. Surdick, Bethel Park, Pa., an authority on beetles.

About 1960, The Southern Pine Beetle, Dendroctonus frontalis was recorded from Fort Raleigh. If it still occurs, it appears to be too scarce to require control measures.

Twisted-winged Parasites - Order Strepsiptera

Wasps parasitized by Strepsipterans have been observed in the general vicinity of Fort Raleigh, but we know of no records as to family or species.

Thrips - Order Thysanoptera

Thrips are common on flowers at Fort Raleigh, but we know of no identifications to family or species.

Booklice and Barklice - Order Corrodentia (Psocoptera)

Booklice, probably Liposcelis divinatorius are occasionally found in buildings at Fort Raleigh, usually associated with books. Bark lice of the family Myopsocidae have been found on trees at Fort Raleigh as recently as summer, 1982. The specimens observed were probably Licnomima sp.

Biting Lice - Order Mallophaga

We know of no records of biting lice at Fort Raleigh. However, since wild birds almost everywhere are hosts to biting lice, and since many wild and domestic mammals are also hosts, it is inconceivable that no Mallophaga occur at Fort Raleigh.

Sucking Lice - Order Anoplura

We know of no records of sucking lice at Fort Raleigh. However, since many wild and some domestic mammals and man are hosts, it is inconceivable that no Anoplura occur at Fort Raleigh.

True Bugs - Order Hemiptera

We know of no records made at or near Fort Raleigh of bugs identified to species. We have observed representatives of the following bug families:

Water Boatmen - Family Corixidae
Backswimmers - Family Notonectidae
Giant Waterbugs - Family Belostomatidae
Leaf or Plant Bugs - Family Miridae
Ambush Bugs - Family Phymatidae
Assassin Bugs - Family Reduviidae
Lace Bugs - Family Tingidae
Leaf-footed Bugs - Family Coreidae
Flat Bugs - Family Aradidae
Negro Bugs - Family Cydnidae
Stink Bugs - Family Pentatomidae

The following bug families are probably also repre-

sented at Fort Raleigh:

Toad Bugs - Family Gelastocoridae
Water Striders - Family Gerridae
Damsel Bugs - Family Nabidae
Stilt Bugs - Family Berytidae
Seed Bugs - Family Lygaeidae
Red Bugs or Stainers - Family Pyrrhocoridae
Shore Bugs - Family Saldidae
Water Treaders - Family Mesoveliidae
Water Measurers - Family Hydrometridae
Shield-backed Bugs - Family Scutellaridae
Water Creepers - Family Naucoridae
Chinch Bugs - Family Lygaeidae
Squash Bugs - Family Coreidae
Flower Bugs - Family Anthocoridae

Cicadas, Hoppers, Whiteflies, Aphids and Scale Insects
Order Homoptera

We know of no records of Homopterans from Fort Raleigh identified to species. The nine families of homopterans listed in Jaques (1947) all have been observed here. These families are as follows:

Cicadas - Family Cicadidae
Each year some adults of at least two species of common cicadas of the genus Tibicen emerge at Fort Raleigh. They are overlapping broods of species with a two-to-five year life cycle. Periodical cicadas (Magicicada sp.) have also been observed here. We can find no records of the years of emergence but memories of park personnel indicate that adults emerged in 1962 and again in 1975. This would appear to indicate the 13 year species of Magicicada.

Lantern Flies - Family Fulgoridae - common
Tree Hoppers - Family Membracidae - common
Leaf Hoppers - Family Cicadellidae - common
Spittle Insects - Family Cercopidae - have been seen
Jumping Plant Lice - Family Chermidae - have been seen
Scale Insects, Mealy Bugs, Etc. - Family Coccidae - common
White Flies - Family Aleyrodidae - have been seen
Aphids - Family Aphididae - common

Nerve-winged Insects - Order Neuroptera

We can find no record of Neuropterans at Fort Raleigh identified to species. All six families listed by Jaques (1947) have been observed here; some observations were made at a light just outside Fort Raleigh boundaries.

These families are as follows:

Mantidflies - Family Mantispidae
More than one species occurs, possibly including Mantispa brunnea.

Dobsonflies and Fishflies - Family Sialidae
A single species of fishfly has been observed; no identification was made. No dobson flies occur.

Brown Lacewings - Family Hemerobiidae
At least one species comes to lights; no species identification has been made. Less common here than green lacewings.

Green Lacewings - Family Chrysopidae
Common at lights and on vegetation at Fort Raleigh. No species identification has been made.

Ascalaphids - Family Ascalaphidae
At least one species comes to lights; it may be Ululodes hyalina.

Ant Lions - Family Myrmelionidae
More than one species is common at Fort Raleigh; the genus Myrmeleon is probably represented.

Caddis Flies- Order Trichoptera

At least one species has been observed at a light just outside Fort Raleigh. No species identifications have been recorded.

Butterflies and Moths - Order Lepidoptera Butterflies

Pearly Eye - Lethe portlandia
Eyed Brown - Lethe appalachia
Little Wood Satyr - Megisto cymela
Carolina Satyr - Hermeuptychia hermes sosybia
Gemmaed Satyr - Cyllopsis gemma
Wood Nymph - Cercyonis pegala
Monarch - Danaus plexippus
Variegated Fritillary - Euptoieta claudia
Pearl Crescent - Phyciodes tharos
Question Mark - Polygonia interrogationis
Mourning Cloak - Nymphalis antiopa
American Painted Lady - Cynthia virginianensis
Buckeye - Junonia coenia
Viceroy - Limenitis archippus
Red Spotted Purple - Limenitis astyanax
Great Purple Hairstreak - Atlides halesus

White M Hairstreak - Parrhassius m-album
 Red Banded Hairstreak - Calycopis cecrops
 Northern Hairstreak - Fixenia ontario
 Florida Hairstreak - Satyrium calanus
 Striped Hairstreak - Satyrium liparops
 King's Hairstreak - Satyrium kingi
 Gray Hairstreak - Strymon melinus
 Pine Elfin - Callophrys (Incisalia) nippon
 Henry's Elfin - Callophrys (Incisalia) henrici
 Eastern Tailed Blue - Everes comyntas
 Spring Azure - Celastrina ladon
 Spicebush Swallowtail - Papilio troilus
 Tiger Swallowtail - Papilio glaucus
 Palamedes Swallowtail - Papilio palamedes
 Alfalfa Butterfly - Colias eurytheme
 Common Sulfur - Colias philodice
 Cloudless Sulfur - Phoebis sennae
 Sleepy Orange - Eurema nicippe
 Little Sulfur - Eurema lisa
 European Cabbage Butterfly - Pieris rapae
 Checkered White - Pontia protodice
 Silver Spotted Skipper - Epargyreus clarus
 Hoary Edge - Achalarus lyciades
 Southern Cloudy Wing - Thorybes bathyllus
 Northern Cloudy Wing - Thorybes pyllades
 Confused Cloudy Wing - Thorybes confusus
 Common Spotty Wing - Pholisora catullus
 Horace's Dusky Wing - Erynnis horatius
 Zarucco Dusky Wing - Erynnis zarucca
 Least Skipper - Ancyloxipha numitor
 Fiery Skipper - Hylephila phyleus
 Sachem - Atalopedes campestris
 Tawny Edged Skipper - Polites themistocles
 Whirlabout - Polites vibex
 Broken Dash - Wallengrenia otho
 Northern Broken Dash - Wallengrenia egeremet
 Zabulon Skipper - Poanes zabulon
 Palatka Skipper - Euphyes palatka
 Clouded Skipper - Lerema accius
 Carolina Roadside Skipper - Amblyscirtes carolina
 Eufala Skipper - Lerodea eufala
 Salt Marsh Skipper - Panoquina panoquin
 Ocola Skipper - Panoquina ocola

Moths - starting in summer - 1976, moths collected at a
 light just outside Fort Raleigh were sent to Dr. Bolling
 Sullivan, III at the Duke University Marine Laboratory,
 Beaufort, N. C. About 1980, a fire occurred at this
 laboratory destroying some of Dr. Sullivan's specimens
 and records. An accurate list of species identified by
 Dr. Sullivan is therefore presently impossible. The
 following list of moth families observed here is based on
 memory:

Sphinx Moths - Family Sphingidae
 Giant Silkworm Moths - Family Saturniidae
 Royal Moths - Family Citheroniidae
 Geometer Moths - Family Geometridae
 Prominents - Family Notodontidae
 Tent Caterpillars - Family Lasiocampidae
 Ctenuchid Moths - Family Ctenuchidae
 Tiger Moths - Family Arctiidae
 Noctuid Moths - Family Noctuidae
 Forester Moths - Family Agaristidae
 Tussock Moths and others - Family Liparidae
 Plume Moths - Family Pterophoridae
 Gelechiid Moths - Family Gelechiidae
 Clear-winged Moths - Family Sesiidae
 Carpenter Moths - Family Cossidae
 Slug Caterpillars - Family Limacodidae
 Flannel Moths - Family Megalopygidae
 Smoky Moths - Family Pyromorphidae
 Pyralid Moths - Family Pyralidae
 Bagworm Moths - Family Psychidae
 Tort-icid Moths - Family Tortricidae
 Clothes Moths and others - Family Tineidae
 Yucca Moths and others - Family Incurvariidae
 Casebearers - Family Coleophoridae

Other moth families may also occur, but we have seen no records and remember no observations. Of special interest is the Gypsy Moth, Porthetria dispar (Family Liparidae). This exotic pest is a serious threat to forest trees of eastern U. S. Each summer in recent years, employees of A.P.H.I.S., U.S. Dept. of Agriculture have trapped a few male gypsy moths at and near Fort Raleigh. Probably they hitchhike in on recreation vehicles. No evidence of breeding populations in or near Dare County has been found.

Scorpionflies - Order Mecoptera

We know of no records of scorpionflies collected near Fort Raleigh and identified to family or species. We remember observations near Fort Raleigh of scorpionflies as follows:

Common Scorpionflies - Family Panorpidae
 Hanging flies - Family Bittacidae

Flies, Mosquitoes, Gnats - Order Diptera

We have species records from Fort Raleigh for only a few families of Diptera. From memory, we have observed at or near Fort Raleigh representatives of families as follows:

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Aedes sollicitans
Aedes taeniorhynchus
Culex salinarius
Culiseta melanura
Psorophora ferox
Anopheles crucians bradleyi

Anopheles crucians bradleyi

<u>illicitans</u>	<u>Culex</u>	<u>Uranotaenia</u>
<u>eniorhyncus</u>	<u>salinarius</u>	<u>sapphirina</u>
<u>xans</u>	<u>restuans</u>	
<u>anticus</u>	<u>pipiens</u>	<u>Mansonia</u>
<u>firmatus</u>	<u>territans</u>	<u>perturbans</u>
<u>madensis</u>	<u>Culiseta</u>	
<u>livittatus</u>	<u>melanura</u>	
<u>tchellae</u>	<u>inornata</u>	
<u>oreii</u>	<u>Orthopodomyia</u>	
<u>seriatus</u>	<u>signifera</u>	
<u>ncticus</u>		

<u>Anopheles</u>	<u>Psorophora</u>
<u>bradleyi</u>	<u>confinnia</u>
<u>atropos</u>	<u>cyanescens</u>
<u>quadrimaculatus</u>	<u>ferox</u>
<u>punctipennis</u>	<u>varipes</u>
	<u>howardii</u>

McDiarmid, J. M., 1964 reported that in that year, of 11,913 individual mosquitoes trapped, 99 percent were of one of the following species: Cules salinarius, Anopheles bradleyi, Redes sollicitans, or Aedes taeniorhyncus.

Other biting dipterans that we have observed at Fort Raleigh are:

Family Tabanidae - Greenhead fly - Tabanus nigroivttatus
 Deer fly - Chrysops excitans
 Cowfly - Tabanus sp.
 Family Muscidae - Stable fly - Stomoxys calcitrans
 Family Psychodidae - Moth flies - Psychoda spp.

Fleas - Order Siphonaptera

We have often observed fleas at Fort Raleigh, but we have no records of any flea specimens identified to family, genus or species. Borrer, P. J. and White, R. E., 1970, lists 7 families of fleas for America north of Mexico. Of these, only 3 are likely to occur at Fort Raleigh, as follows:

Common Fleas - Family Pulicidae
 Rodent Fleas - Family Dolichopsyllidae
 Rat and Mouse Fleas - Family Hystrichopsyllidae

Sawflies, Ichneumons, Chalcids, Ants, Wasps and Bees -
Order Hymenoptera

We have observed a great variety of hymenopterans at Fort Raleigh, but have identified few even to family. Borrer, D. J. and White, R. E., 1970, lists 71 families of hymenopterans for North America north of Mexico. Of these, 22 families appear unlikely at Fort Raleigh because of range or rarity; 36 families would appear not unlikely; and we have observed representatives of 13 families (if we have identified them correctly): Families that we have observed follow:

Common Sawflies - Family Tenthredinidae
 Conifer Sawflies - Family Diprionidae
 Cynipids - Family Cynipidae
 Ensign Wasps - Family Evanidae
 Cuckoo Wasps - Family Chrysididae

Velvet Ants - Family Mutillidae
Ants - Family Formicidae
Spider Wasps - Family Pompilidae
Vespid Wasps - Family Vespidae
Sphecid Wasps - Family Sphecidae
Halictid Bees - Family Halictidae
Leafcutting Bees - Family Megachilidae
Digger Bees, Carpenter Bees, Bumble Bees,
Honey Bees, and Others - Family Apidae

Other Classes of Phylum Arthropoda are

Millipeds - Class Diplopoda

Several species of millipeds have been observed by us at Fort Raleigh. We have identified only one species, the common large milliped Narceius americanus.

Centipedes - Class Chilopoda

Several species of centipedes have been observed by us at Fort Raleigh. We have identified none to family or species.

Pauropods - Class Pauropoda

We have observed no pauropods at Fort Raleigh. These tiny relatives of centipeds are inconspicuous. They could occur here, but we know of no records.

Symphylids - Class Symphylida

The situation for these is the same as for pauropods, above.

Sea Spiders - Class Pycnogonida

Sea spiders probably occur in ocean or sound waters near Fort Raleigh. They could be cast ashore here. We have no observations and know of no records for sea spiders here.

Horseshoe Crabs - Class Xiphosura

Horseshoe Crabs are common in ocean and sound waters not far from Fort Raleigh. They could be cast ashore here. We have no observations and know of no records for Horseshoe Crabs at Fort Raleigh.

Water Bears - Class Tardigrada

Water bears could occur in ocean or sound waters near Fort Raleigh. If so, they could conceivably be cast or blown ashore here. They are too tiny to notice unless one seeks them with powerful magnification. We have no observations and know of no records here.

Tongueworms - Class Linguatulida

These arthropods (?) live as parasites in the mouths or respiratory tracts of vertebrates. Their occurrence at Fort Raleigh seems possible, but we have no observations and know of no records here.

Arachnids - Class Arachnida

Scorpions - Order Scorpionida

No scorpions occur at Fort Raleigh.

Whip-scorpions - Orders Microthelyphonida, Pedipalpida, Schizopeltida, and Amblypygi

We have never observed a whip-scorpion of any kind at or near Fort Raleigh, and we know of no records here. It seems improbable that they occur here unobserved.

Wind-scorpions - Order Soplugida

No wind-scorpions occur at Fort Raleigh, or anywhere near it.

Pseudoscorpions - Order Chelonethida

We have observed pseudoscorpions at Fort Raleigh. We have identified no species, and know of no records of identified species here.

Daddy-long-legs - Order Phalangida

At least one species of daddy-long-legs is common at Fort Raleigh. We have identified no species, and know of no records of identified species here.

Mites and Ticks - Order Acarina

Free-living mites - common here in soil and duff. No species identifications made by or known to us.

Chiggers - Family Trombiculidae

A species that bites man is abundant here in weedy places. Probably other species parasitic on mammals, reptiles, or other vertebrates occur also - we have no observations and know of no records or species identifications.

Scab and Mange Mites - Probably occur on some dogs brought by visitors or on some stray dogs that occasionally enter Fort Raleigh. We have no observations and know of no records of species identifications.

Ticks - Families Ixodidae and Argasidae

Ticks are abundant at Fort Raleigh, especially in spring. Several species have been observed. We have identified the American dog tick (Dermacentor variabilis) and the lone star tick (Amblyomma americanum). Both species are vectors of tularemia (one recent case recorded, not certainly originating in Dare County) and Rocky Mountain Spotted Fever, two cases recorded in 1981 near Buxton, and one case in 1982 at Mann's Harbor. No cases of either disease from Roanoke Island are known to us.

Spider Mites - Probably spider mites occur at Fort Raleigh. We have no observations and know of no records.

Water Mites - Probably water mites occur at Fort Raleigh. We have no observations and know of no records.

Spiders - Order Araneida

Possibly more than 100 species of spiders occur at Fort Raleigh, but we have identified only five families and two species. We know of no other records of species from Fort Raleigh identified. Kaston, B.J. and E. Kaston, 1952, How to Know the Spiders, lists 40 spider families for North America north of Mexico. Many of these families probably occur at Fort Raleigh, but we know nothing about them. Spider families we have identified at Fort Raleigh follow:

Crab Spiders - Family Thomisidae
Jumping Spiders - Family Salticidae
Wolf Spiders - Family Lycosidae
Black Widow, etc. - Family Theridiidae
Orb Weavers - Family Araneidae

Spider species we have identified at Fort Raleigh follow:

Black Widow - Latrodectus mactans
Black and Yellow Garden Spider - Argiope aurantia

Mollusks - Phylum Mollusca

Many species of marine mollusks occur in sound waters near Fort Raleigh. Almost any of these could be washed ashore here in storms. We have made no observations of marine mollusks stranded here, and know of no records.

Snails - Class Gastropoda

Lung Snails - Subclass Pulmonata
Land Snails - Order Stylommatophora

We have observed several species of land snails and slugs at Fort Raleigh. We have identified no species here and know of no records of Fort Raleigh snails identified.

Fresh Water and Brackish Water Lung Snails - Order Basommatophora

Fresh water snails may occur in Alder Branch or in ponds at Fort Raleigh, we have made no observations and seen no records. A brackish water lung snail, the saltmarsh snail (Melampus bidentatus) may occur on marsh grasses at the edge of Roanoke Sound; we have no observations and know of no records.

Chordates - Phylum Chordata

Vertebrates - Sub-phylum Vertebrata

Fishes - Class Pisces

Many species of marine fishes occur in sound waters near Fort Raleigh. Any of these could be cast ashore dead here. We have no observations of such strandings, and we know of no records of marine fishes found within Fort Raleigh boundaries. Fresh water fishes would appear possible at Fort Raleigh only in Alder Branch. We have never observed any there within the Park, and know of no records.

Amphibians - Class Amphibia

Lungless Salamanders - Family Plethodontidae

Southern Dusky Salamander - Desmognathus auriculatus
Occurs in Alder Branch.

Slimy Salamander - Plethodon glutinosus
Occurs in woods near Alder Branch.

Spadefoot Toads - Family Pelobatidae

Eastern Spadefoot Toad - Scaphiopus holbrooki holbrooki
Observed at Headquarters building, Fort Raleigh

Toads - Family Bufonidae

Fowler's Toad - Bufo woodhousei fowleri
Observed throughout.

True Frogs - Family Ranidae

Bullfrog - Rana catesbeiana
Observed in Alder Branch. Scarce.

Southern Leopard Frog - Rana sphenoccephala
Observed several places; most numerous near Alder Branch.

Tree Frogs - Family Hylidae

Squirrel Tree Frog - Hyla squirella

Green Tree Frog - Hyla cinerea - observed throughout. Common.

Brimley's Chorus Frog - Pseudacris brimleyi
Observed near water. Scarce.

Reptiles - Class Reptilia

Turtles - Order Testudines

Box and Water Turtles - Family Emydidae

Eastern Box Turtle - Terrapene carolina carolina

Lizards - Order Squamata, Suborder Lacertilia

Iguanids - Family Iguanidae

Green Anole - Anolis carolinensis

Six-lined Racerunner - Cnemidophorus sexlineatus sexlineatus

Skinks - Family Scincidae

Ground Skink - Leiolopisma laterale

Southeastern Five-lined Skink - Eumeces inexpectatus

Glass Lizards, etc. - Family Anguidae

Eastern Glass Lizard - Ophisaurus ventralis

Snakes - Order Squamata, Suborder Serpentes

Colubrida - Family Colubridae

Northern Water Snake - Natrix sipedon sipedon

Eastern Hognose Snake - Heterodon platyrhines

Eastern Worm Snake - Carphophis amoenus amoenus

Northern Black Racer - Coluber constrictor constrictor

Corn Snake - Elaphe guttata guttata

Black Rat Snake - Elaphe obsoleta obsoleta

Vipers - Family Viperidae

Pit Vipers - Subfamily Crotalinae

Eastern Cottonmouth - Agkistrodon piscivorus piscivorus

Canebrake Rattlesnake - Crotalus horridus atricaudatus

Numerous other amphibians and reptiles are known to occur near Fort Raleigh, but we have not yet observed them within Fort Raleigh boundaries.

Birds - Class Aves

This list of 78 species is obviously incomplete. It is based on a very few records, plus Gifford's memory of his own observations. To date no research study has been made on the birds of Fort Raleigh and no Christmas bird count has been conducted here.

Hérons and Bitterns - Family Ardeidae

Cattle Egret - Bubulcis ibis

Visits annually in warm months - does not nest here.

Vultures - Family Cathartidae

Turkey Vulture - Cathartes aura

Rarely seen flying over area.

Accipters - Family Acciptridae

Sharp-shinned Hawk - Accipter striatus velox

Visits in migration - nests elsewhere.

Cooper's Hawk - Accipter cooperi

Visits - not known to nest in park.

Buteos - Family Buteoninae

Red-shouldered Hawk - Buteo jamaicensis

*Year-round resident - nests in area or nearby.

Ospreys - Family Pandionidae

Osprey - Pandion halioetus carolinensis

Often seen flying over area - nests nearby.

Falcons - Family Falconinae

American Kestrel - Falco sparverius

Resident from October to April. Does not nest here.

Quails, Partridges, and Pheasants - Family Phasianidae

Ring-necked Pheasant - Phasianus colchicus torquatus

Exotic introduced on adjacent lands - may have disappeared.

Bobwhite Quail - Colinus virginianus

Year-round resident. Nests here.

Woodcock, Snipe, Sandpipers, etc. - Family Scolopacidae

Spotted Sandpiper - Actitus macularia

Observed along sound shores in migration - not known to nest here.

Gulls - Family Larinae

Herring Gull - Larus argentatus

Occasionally observed flying over area.

Laughing Gull - Larus atricilla

Occasionally observed flying over area.

Terns - Family Sterninae

Royal Tern - Thalasseus maximus maximus

Occasionally observed flying over area.

Pigeons and Doves - Family Columbidae

Rock Dove or Domestic Pigeon - Columba livia

Exotic, rarely visits. Does not nest here.

Mourning Dove - Zenaidura macroura

Common year-round resident. Nests here.

Ringed Turtle Dove - Streptopelia risoria

Exotic accidental - one record

Parrots - Family Psittacidae

White Cockatoo - Cacatua sp.

Exotic pet escaped from adjacent land - one observation.

Cuckoos, etc. - Family Cuculidae

Yellow-billed Cuckoo - Coccyzus americanus americanus

Common summer resident. Nests here.

Owls - Family Tytonidae and Family Strigidae

Barn Owl - Tyto alba pratincola

Rare winter visitor. Not known to nest here.

Screech Owl - Otus asio

Year-round resident. Nests nearby.

Barred Owl - Strix varia

Rare winter visitor. Not known to nest here.

Goatsuckers - Family Caprimulgidae

Chuck-Will's-Widow - Caprimulgus carolinensis

Common summer resident. Nests here annually.

Nighthawk - Chordeiles minor

Seen flying over area in migration - September.

Swifts - Family Apodidae

Chimney Swift - Choetura pelagica

Common summer resident - nests nearby.

Hummingbirds - Family Trochilidae

Ruby-throated Hummingbird - Archilocus colubris

Summer resident. Nests here.

Kingfishers - Family Alcedinidae

(Eastern) Belted Kingfisher - Megaceryle alcyon alcyon

Observed near sound, fall to spring. Not known to nest here.

Woodpeckers - Family Picidae

Common Flicker - Colaptes auratus

Year-round resident. Nests in area.

Pileated Woodpecker - Hylatomus pileatus

Year-round resident. Nests nearby.

Red-bellied Woodpecker - Centurus carolinus

Year-round resident. Nests in area.

Red-headed Woodpecker - Melanerpes erythrocephalus

Year-round resident. Nests in area.

Yellow-bellied Sapsucker - Sphyrapicus varius varius

Fall and winter visitor - in migration.

Downy Woodpecker - Dendrocopus pubescens
Year-round resident. May nest in area.

Flycatchers - Family Tyrannidae

Eastern Kingbird - Tyrannus tyrannus
Summer resident. Nests in area.

Great-crested Flycatcher - Myiarchus crinitus
Summer resident. Nests in area.

Swallows - Family Hirudinidae

Tree Swallow - Iridoprocne bicolor
Fall and winter visitor only.

Rough-winged Swallow - Stelgidopteryx ruficollis serripennis
Summer resident. Nests in area.

Purple Martin - Progne subis subis
Summer resident. Nests nearby.

Crows and Jays - Family Corvidae

Blue Jay - Cyanocitta cristata
Year-round resident. Nests in area.

Crow - Corvus brachyrhynchos
Year-round resident. Nests in area or nearby.

Carolina Chickadee - Parus carolinensis
Year-round resident. Nests in area or nearby.

Nuthatches - Family Sittidae

Red-breasted Nuthatch - Sitta canadensis
Winter resident.

Creepers - Family Certhiidae

Brown Creeper - Certhia familiaris
Winter resident

Wrens - Family Troglodytidae

Winter Wren - Troglodytes troglodytes
Winter resident.

Carolina Wren - Thryothorus ludovicianus
Year-round resident. Nests in area.

Mockingbirds and Thrashers - Family Mimidae

(Eastern) Mockingbird - Mimus polyglottos polyglottos
Year-round resident. Nests in area.

Gray Catbird - Dumatella carolinensis
Year-round resident. Nests in area.

(Eastern) Brown Thrasher - Toxostoma rufum rufum
Year-round resident. Nests in area.

Thrushes, etc. - Family Turdidae

American Robin - Turdus Migratorius
Year-round resident. Nests in or near the area.

(Eastern) Hermit Thrush - Hylocichla guttata faxoni
Winter resident. Nests elsewhere.

Gnatcatchers and Kinglets - Family Sylviidae

(Eastern) Golden-crowned Kinglet - Regulus satrapa satrapa
Winter resident. Nests elsewhere.

Waxwings - Family Bombycillidae

Cedar Waxwing - Bombycilla cedrorum
Visits, fall to spring, when berries are abundant.

Starlings - Family Sturnidae

Starling - Sturnus vulgaris
Year-round resident. Nests in or near the area.

Vireos - Family Vireonidae

White-eyed Vireo - Vireo griseus
Summer resident. Nests in the area.

Wood Warblers - Family Parulidae

Black-and-white Warbler - Mniotilta varia
Visits in late summer migration.

Prothonotary Warbler - Protonotaria citrea
Summer resident. Nests in area.

Yellow-rumped Warbler - Dendroica coronata coronata
Winter visitor.

Pine Warbler - Dendroica pinus
Summer visitor. May nest nearby.

Prairie Warbler - Dendroica discolor
Summer visitor, may nest nearby.

Lawrence's Warbler - Vermiuora lawrencei
One record, summer.

Palm Warbler - Dendroica palmarum
Visits in late summer migration.

Yellowthroat - Geothlypis trichas

Summer resident, nests in or near the area.

American Redstart - Setophaga ruticilla

Visits during spring and fall migration.

Weaver Finches - Family Ploceidae

House Sparrow - Passer domesticus domesticus

Year-round resident, nests in area or nearby.

Meadowlarks, Blackbirds, and Orioles - Family Icteridae

Eastern Meadowlark - Sturnella magna

Visits year-round. Nests nearby.

Red-winged Blackbird - Agelaius phoeniceus

Visits year-round, nests nearby.

Orchard Oriole - Icterus spurius

Summer resident, nests in or near area.

Rusty Blackbird - Euphagus carolinus

Winter visitor.

Boat-tailed Grackle - Cassidix mexicanus

Year-round visitor.

Common Grackle - Quiscalus quisqual

Year-round resident, nest in or near area.

Brown-headed Cowbird - Molothrus ater ater

Year-round resident.

Tanagers - Family Thraupidea

Summer Tanager - Piranga rubra rubra

Summer resident, nests in or near area.

Grossbeaks, Finches, Sparrows, etc. - Family Fringillidae

Cardinal - Richmondia cardinalis

Year-round resident, nests in area.

Rufous-sided Towhee - Pipilo erythrophthalmus

Year-round resident, nests in area.

Mammals - Class Mammalia

This list is almost certainly incomplete. It is based on Gifford's memory of his own observations. No survey of the mammals of Fort Raleigh by collecting or by systematic recording of observations is known to us.

Marsupials - Order Marsupiala

Opossums - Family Didelphiidae

Virginia Opossum - Didelphis virginiana
Common year-round resident.

Moles and Shrews - Order Insectivora

Shrews - Family Soricidae

Southern Short-tailed Shrew - Blarina brevicauda carolinensis
Common year-round resident.

Least Shrew - Cryptotis parva parva
Common year-round resident.

Moles - Family Talpidae

Howell's Mole - Scalopus aquaticus howelli
Common year-round resident.

Bats - Order Chiroptera

Vespertilionid Bats - Family Vespertilionidae

Evening Bat - Nycticeius humeralis humeralis
Summer breeding colony somewhere nearby, not in park; enters park in summer to feed.

Red Bat - Lasiurus borealis borealis
Status unclear - one summer observation - probably migrates southward through park in September.

Pikas, Hares and Rabbits - Order Lagomorpha

Hares and Rabbits - Family Leporidae

Eastern Cottontail - Sylvilagus floridanus mallurus
Common year-round resident, nests in park.

Carolina Marsh Rabbit - Sylvilagus palustris palustris
A few enter higher ground by way of Alder Branch - observed only near Branch - not known to nest in park.

Rodents - Order Rodentia

Squirrels, etc. - Family Sciuridae

Southern Gray Squirrel - Sciurus carolinensis carolinensis
Abundant year-round resident throughout.

Native Rat and Mice - Family Cricetidae

Cotton Mouse - Peromyscus gossypinus gossypinus
Common year-round resident throughout, occasionally enters buildings.

Old World Rats and Mice - Family Muridae

Norway Rat - Rattus norvegicus
Rare transient, known from road kills, not known to be resident in the park.

House Mouse - Mus musculus ssp.

Common year-round resident, probably throughout the park. Sometimes enters buildings here.

Carnivores - Order Carnivora

Wolves, Foxes, etc. - Family Canidae

Eastern Gray Fox - Urocyon cinereoargenteus cinereoargenteus

Scarce - probably transient in park because of human disturbance. No observations of denning in park - probably dens nearby.

Bears - Family Ursidae

American Black Bear - Euarctos americanus americanus

Accidental transient, one observation.

Raccoons, etc. - Family Procyonidae

Eastern Raccoon - Procyon lotor lotor

Common yearround resident throughout the park.