



SOUTHEAST GAP ANALYSIS PROJECT



Species Modeling Report

Great Horned Owl

Bubo virginianus

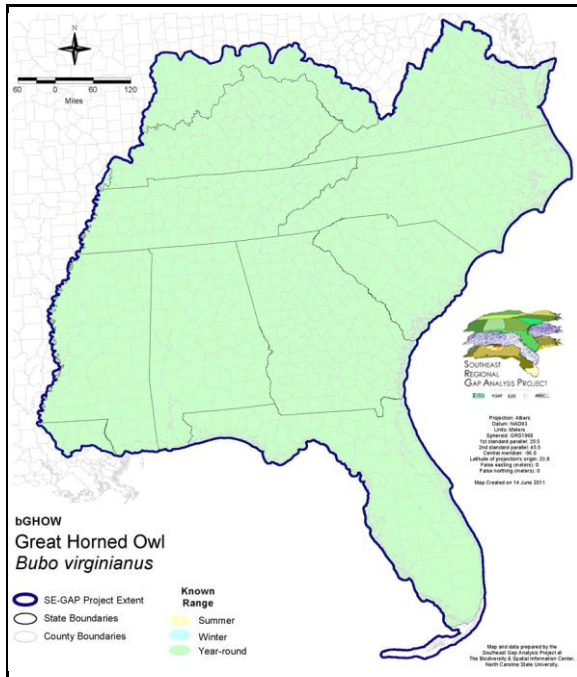
Taxa: Avian
Order: Strigiformes
Family: Strigidae

SE-GAP Spp Code: **bGHOW**

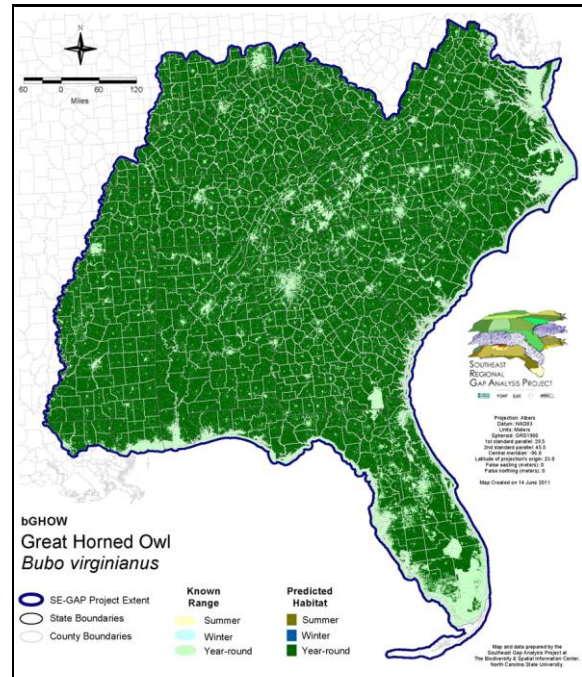
ITIS Species Code: 177884

NatureServe Element Code: ABNSB05010

KNOWN RANGE:



PREDICTED HABITAT:



Range Map Link: http://www.basic.ncsu.edu/segap/datazip/maps/SE_Range_bGHOW.pdf

Predicted Habitat Map Link: http://www.basic.ncsu.edu/segap/datazip/maps/SE_Dist_bGHOW.pdf

GAP Online Tool Link: <http://www.gapservice.ncsu.edu/segap/segap/index2.php?species=bGHOW>

Data Download: http://www.basic.ncsu.edu/segap/datazip/region/vert/bGHOW_se00.zip

PROTECTION STATUS:

Reported on March 14, 2011

Federal Status: ---

State Status: ID (P), KY (N), NJ (INC/S), NV (YES), NY (PB), RI (Not Listed), UT (None), BC (4 (2005)), QC (Non suivie)

NS Global Rank: G5

NS State Rank: AK (S5), AL (S5), AR (S5), AZ (S5), CA (SNR), CO (S5), CT (S5), DC (S2), DE (S5), FL (SNR), GA (S5), IA (S5B), ID (S5), IL (S5), IN (S4), KS (S5), KY (S4S5), LA (S4), MA (S5), MD (S5), ME (S5), MI (S5), MN (SNR), MO (S5), MS (S5), MT (S5), NC (S5), ND (SNR), NE (S5), NH (S5), NJ (S5B), NM (S5B,S5N), NV (S5), NY (S5), OH (S5), OK (S5), OR (S5), PA (S5), RI (S4B,S4N), SC (S5), SD (S5), TN (S5), TX (S5B), UT (S4), VA (S5), VT (S5B,S5N), WA (S5), WI (S5B), WV (S4B,S5N), WY (S5B,S5N), AB (S5), BC (S5), LB (S4), MB (S5), NB (S4S5), NF (S4), NS (S5), NT (SNR), NU (SNR), ON (S4), PE (S5), QC (S5B), SK (S5B,S5N), YT (S5B)

SUMMARY OF PREDICTED HABITAT BY MANAGMENT AND GAP PROTECTION STATUS:

	US FWS		US Forest Service		Tenn. Valley Author.		US DOD/ACOE	
	ha	%	ha	%	ha	%	ha	%
Status 1	108,822.4	< 1	32,706.6	< 1	0.0	0	0.0	0
Status 2	271,202.0	< 1	391,004.7	< 1	0.0	0	5,996.3	< 1
Status 3	4,087.6	< 1	2,850,985.3	3	76,086.7	< 1	798,170.4	< 1
Status 4	113.8	< 1	< 0.1	< 1	0.0	0	66.1	< 1
Total	384,225.8	< 1	3,274,696.7	3	76,086.7	< 1	804,232.8	< 1
	US Dept. of Energy		US Nat. Park Service		NOAA		Other Federal Lands	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	217,340.3	< 1	215.2	< 1	18,388.5	< 1
Status 2	0.0	0	30,929.9	< 1	14,138.8	< 1	60.1	< 1
Status 3	85,325.5	< 1	243,762.8	< 1	0.0	0	6,958.6	< 1
Status 4	0.0	0	1.0	< 1	0.0	0	0.0	0
Total	85,325.5	< 1	492,034.6	< 1	14,354.0	< 1	25,407.3	< 1
	Native Am. Reserv.		State Park/Hist. Park		State WMA/Gameland		State Forest	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	1,727.5	< 1	82.5	< 1	0.0	0
Status 2	0.0	0	20,356.6	< 1	950,490.6	< 1	1,442.3	< 1
Status 3	21,788.9	< 1	836,090.2	< 1	268,513.8	< 1	457,374.4	< 1
Status 4	0.0	0	< 0.1	< 1	150,721.7	< 1	48.2	< 1
Total	21,788.9	< 1	858,174.3	< 1	1,369,808.7	1	458,864.9	< 1
	State Coastal Reserve		ST Nat.Area/Preserve		Other State Lands		Private Cons. Easemt.	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	16,275.2	< 1	0.0	0	0.0	0
Status 2	15,306.8	< 1	105,862.1	< 1	6.9	< 1	4,645.7	< 1
Status 3	0.0	0	32,187.5	< 1	36,619.1	< 1	181,206.0	< 1
Status 4	0.0	0	2.1	< 1	5,589.5	< 1	< 0.1	< 1
Total	15,306.8	< 1	154,326.9	< 1	42,215.6	< 1	185,851.8	< 1
	Private Land - No Res.		Water		Overall Total			
	ha	%	ha	%	ha	%		
Status 1	0.0	0	0.0	0	395,558.3	< 1		
Status 2	0.2	< 1	0.0	< 1	1,811,443.1	2		
Status 3	1,162.3	< 1	1.1	< 1	5,900,320.3	9		
Status 4	84,834,965.3	88	69,901.7	< 1	85,212,018.3	89		
Total	84,836,127.7	88	69,903.0	< 1	93,319,340.0	100		

GAP Status 1: An area having permanent protection from conversion of natural land cover and a mandated management plan in operation to maintain a natural state within which disturbance events (of natural type, frequency, and intensity) are allowed to proceed without interference or are mimicked through management.

GAP Status 2: An area having permanent protection from conversion of natural land cover and a mandated management plan in operation to maintain a primarily natural state, but which may receive use or management practices that degrade the quality of existing natural communities.

GAP Status 3: An area having permanent protection from conversion of natural land cover for the majority of the area, but subject to extractive uses of either a broad, low-intensity type or localized intense type. It also confers protection to federally listed endangered and threatened species throughout the area.

GAP Status 4: Lack of irrevocable easement or mandate to prevent conversion of natural habitat types to anthropogenic habitat types. Allows for intensive use throughout the tract. Also includes those tracts for which the existence of such restrictions or sufficient information to establish a higher status is unknown.

PREDICTED HABITAT MODEL(S):

Year-round Model:

Habitat Description: Great horned owls accept a wide variety of habitats including orchards, swamps, marshes, riparian, and partially wooded slopes (Karalus and Eckert 1987). Woodlots are used in suburbs, parks, and cemeteries (Wolfe and de la Torre 1990). They forage inside forests or in adjacent open country, especially weedy fields and marsh. (Hamel 1992). Common elements include a relatively open hunting area with some tall perches present, and sites for nesting and roosting (Johnsgard 1988). In western and middle North Carolina, has been found primarily in dry (Potter et al. 1980) mature forests and edges (Simpson 1992). In the coastal plain, thought to be most common in edge areas between pine or mixed woods and marshes, fields, or clearings (Fussell 1994). They often choose fragmented landscapes, including pasture, croplands and fields as well as forest. They may be absent from heavily urban areas. This owl begins breeding in mid-winter, so summer surveys are often too late to confirm nesting (GA). In Florida, pine flatwoods may be preferred. Though they also use mixed hardwood swamps and "other open wooded or forest edge areas". They may require treeless brushlands in proximity of roost areas (Layne et al. 1977), especially those near lakes, rivers and marshes, in hammocks, and in heavily wooded residential areas. In Jacksonville, mainly are found along salt and brackish streams and they forage in woods, adjoining agricultural lands, pastures, prairies, shorelines, parks, etc. (Stevenson and Anderson 1994). They do not inhabit the Florida Keys (Robertson and Kushlan 1984).

Generally, these owls nest in pine woods or mixed woods in uplands (Hamel 1992). They nest in a tree but also in a cliff, ledge or crevice (Wolfe and de la Torre 1990), and occasionally in the bare crotch of a tree, on the ground, in a nest box (Karalus and Eckert 1987), in a tree cavity stump, or cave (Ehrlich et al. 1988). Nest sites in different areas include: in trees in old or usurped nests of other birds (e.g., hawk, crow) or squirrel; tree cavities; stumps; rocky ledges; caves; in barns; and on artificial platforms (NATURE SERVE). There is one report of a pair nesting in the side of an active Bald Eagle nest (Potter et al. 1980). Hunts from perches in fairly open country (Johnsgard 1988, Kaufman 1996).

Quoted directly from existing state habitat notes - K. Cook, 17Feb05

Additional information:

A low estimate of home range size from the study with the largest reported samples size (n= 16 owls) during the breeding season in the Yukon (Rohner 1997) was 230 ha. In Oregon home ranges contained less than 70% old growth forest (Johnson 1993). K. Cook, 17Feb05

Elevation Mask: < 1066m

Avoidance Mask: Medium - moderately intolerant of human disturbance.

Selected Map Units:

Functional Group	Map Unit Name
Anthropogenic	Low Intensity Developed
Anthropogenic	Pasture/Hay
Anthropogenic	Row Crop
Anthropogenic	Successional Grassland/Herbaceous
Anthropogenic	Successional Grassland/Herbaceous (Other)
Anthropogenic	Successional Grassland/Herbaceous (Utility Swath)
Anthropogenic	Successional Shrub/Scrub (Clear Cut)
Anthropogenic	Successional Shrub/Scrub (Other)
Anthropogenic	Successional Shrub/Scrub (Utility Swath)
Coastal Dune & Freshwater Wetland	Atlantic and Gulf Coastal Plain Interdunal Wetland
Coastal Dune & Freshwater Wetland	Atlantic Coastal Plain Northern Dune and Maritime Grassland
Coastal Dune & Freshwater Wetland	Atlantic Coastal Plain Southern Dune and Maritime Grassland
Coastal Dune & Freshwater Wetland	East Gulf Coastal Plain Dune and Coastal Grassland
Coastal Dune & Freshwater Wetland	Southwest Florida Dune and Coastal Grassland
Forest/Woodland	Alabama Ketona Glade and Woodland
Forest/Woodland	Appalachian Shale Barrens
Forest/Woodland	Atlantic Coastal Plain Fall-line Sandhills Longleaf Pine Woodland - Open Understory Modifier

Forest/Woodland	Atlantic Coastal Plain Upland Longleaf Pine Woodland
Forest/Woodland	Central Appalachian Alkaline Glade and Woodland
Forest/Woodland	Central Interior Highlands Calcareous Glade and Barrens
Forest/Woodland	Central Interior Highlands Dry Acidic Glade and Barrens
Forest/Woodland	Cumberland Sandstone Glade and Barrens
Forest/Woodland	East Gulf Coastal Plain Black Belt Calcareous Prairie and Woodland - Woodland Modifier
Forest/Woodland	East Gulf Coastal Plain Interior Upland Longleaf Pine Woodland - Open Understory Modifier
Forest/Woodland	East Gulf Coastal Plain Northern Loess Plain Oak-Hickory Upland - Juniper Modifier
Forest/Woodland	Nashville Basin Limestone Glade
Forest/Woodland	Ridge and Valley Calcareous Valley Bottom Glade and Woodland
Forest/Woodland	South Florida Pine Rockland
Forest/Woodland	Southeastern Interior Longleaf Pine Woodland
Forest/Woodland	Southern and Central Appalachian Mafic Glade and Barrens
Forest/Woodland	Southern Piedmont Glade and Barrens
Freshwater Tidal Marsh & Wetland	Atlantic Coastal Plain Central Fresh-Oligohaline Tidal Marsh
Freshwater Tidal Marsh & Wetland	Atlantic Coastal Plain Embayed Region Tidal Freshwater Marsh
Freshwater Tidal Marsh & Wetland	Atlantic Coastal Plain Northern Fresh and Oligohaline Tidal Marsh
Freshwater Tidal Marsh & Wetland	Florida Big Bend Fresh-Oligohaline Tidal Marsh
Prairie	Bluegrass Basin Savanna and Woodland
Prairie	East Gulf Coastal Plain Black Belt Calcareous Prairie and Woodland
Prairie	East Gulf Coastal Plain Black Belt Calcareous Prairie and Woodland - Herbaceous Modifier
Prairie	East Gulf Coastal Plain Jackson Plain Prairie and Barrens
Prairie	East Gulf Coastal Plain Jackson Prairie and Woodland
Prairie	Eastern Highland Rim Prairie and Barrens
Prairie	Eastern Highland Rim Prairie and Barrens - Dry Modifier
Prairie	Florida Dry Prairie
Prairie	Panhandle Florida Limestone Glade
Prairie	Pennyroyal Karst Plain Prairie and Barrens
Prairie	Southern Ridge and Valley Patch Prairie
Prairie	Western Highland Rim Prairie and Barrens
Rock Outcrop	Central Interior Acidic Cliff and Talus
Rock Outcrop	Central Interior Calcareous Cliff and Talus
Rock Outcrop	East Gulf Coastal Plain Dry Chalk Bluff
Rock Outcrop	North-Central Appalachian Acidic Cliff and Talus
Rock Outcrop	North-Central Appalachian Circumneutral Cliff and Talus
Rock Outcrop	Southern Appalachian Granitic Dome
Rock Outcrop	Southern Appalachian Montane Cliff
Rock Outcrop	Southern Interior Acid Cliff
Rock Outcrop	Southern Interior Calcareous Cliff
Rock Outcrop	Southern Piedmont Cliff
Rock Outcrop	Southern Piedmont Granite Flatrock
Wetlands	Atlantic Coastal Plain Clay-Based Carolina Bay Herbaceous Wetland
Wetlands	Atlantic Coastal Plain Depression Pondshore
Wetlands	Atlantic Coastal Plain Large Natural Lakeshore
Wetlands	Atlantic Coastal Plain Northern Pondshore
Wetlands	Atlantic Coastal Plain Northern Wet Longleaf Pine Savanna and Flatwoods
Wetlands	Atlantic Coastal Plain Sandhill Seep
Wetlands	Atlantic Coastal Plain Xeric River Dune
Wetlands	Central Florida Herbaceous Pondshore
Wetlands	Central Florida Herbaceous Seep
Wetlands	Central Florida Pine Flatwoods
Wetlands	Central Interior Highlands and Appalachian Sinkhole and Depression Pond
Wetlands	Cumberland Riverscour
Wetlands	East Gulf Coastal Plain Interior Shrub Bog
Wetlands	East Gulf Coastal Plain Jackson Plain Dry Flatwoods - Open Understory Modifier
Wetlands	East Gulf Coastal Plain Near-Coast Pine Flatwoods - Open Understory Modifier

Wetlands	East Gulf Coastal Plain Northern Depression Pondshore
Wetlands	East Gulf Coastal Plain Southern Depression Pondshore
Wetlands	East Gulf Coastal Plain Treeless Savanna and Wet Prairie
Wetlands	Floridian Highlands Freshwater Marsh
Wetlands	North-Central Appalachian Seepage Fen
Wetlands	Southern and Central Appalachian Bog and Fen
Wetlands	Southern Appalachian Seepage Wetland
Wetlands	Southern Coastal Plain Herbaceous Seepage Bog

Selected Secondary Map Units within 1500m of Primary Map Units:

Functional Group	Map Unit Name
Forest/Woodland	Southern Piedmont Dry Oak-Heath Forest - Hardwood Modifier
Forest/Woodland	Southern Piedmont Dry Oak-Heath Forest - Virginia/Pitch Pine Modifier
Forest/Woodland	Southern Piedmont Dry Oak-Heath Forest - Mixed Modifier
Forest/Woodland	Central and Southern Appalachian Spruce-Fir Forest
Forest/Woodland	Central and Southern Appalachian Northern Hardwood Forest
Forest/Woodland	Southern Piedmont Mafic Hardpan Woodland
Wetlands	Southern Piedmont Seepage Wetland
Wetlands	Southern Piedmont Small Floodplain and Riparian Forest
Wetlands	Southern Piedmont Large Floodplain Forest - Forest Modifier
Forest/Woodland	Southern Appalachian Montane Pine Forest and Woodland
Forest/Woodland	Southern Appalachian Low Mountain Pine Forest
Wetlands	Southern Piedmont/Ridge and Valley Upland Depression Swamp
Forest/Woodland	Southern Piedmont Dry Oak-(Pine) Forest - Hardwood Modifier
Forest/Woodland	Southern Piedmont Dry Oak-(Pine) Forest - Loblolly Pine Modifier
Forest/Woodland	Southern Piedmont Dry Oak-(Pine) Forest - Mixed Modifier
Forest/Woodland	Southern Piedmont Mesic Forest
Wetlands	Western Highland Rim Seepage Fen
Forest/Woodland	Appalachian Serpentine Woodland
Forest/Woodland	Allegheny-Cumberland Dry Oak Forest and Woodland
Forest/Woodland	Allegheny-Cumberland Dry Oak Forest and Woodland - Pine Modifier
Forest/Woodland	Allegheny-Cumberland Dry Oak Forest and Woodland - Hardwood Modifier
Forest/Woodland	Southern and Central Appalachian Cove Forest
Forest/Woodland	Southern Ridge and Valley Dry Calcareous Forest
Forest/Woodland	Southern Ridge and Valley Dry Calcareous Forest - Pine Modifier
Forest/Woodland	Southern Ridge and Valley Dry Calcareous Forest - Hardwood Modifier
Forest/Woodland	Southern Piedmont Northern Triassic Basin Dry Forest
Forest/Woodland	Central Appalachian Oak and Pine Forest
Forest/Woodland	Northeastern Interior Dry Oak Forest-Hardwood Modifier
Forest/Woodland	Northeastern Interior Dry Oak Forest - Virginia/Pitch Pine Modifier
Forest/Woodland	Northeastern Interior Dry Oak Forest - Mixed Modifier
Forest/Woodland	Appalachian Hemlock-Hardwood Forest
Forest/Woodland	Central and Southern Appalachian Montane Oak Forest
Forest/Woodland	Central Appalachian Pine-Oak Rocky Woodland
Wetlands	North-Central Appalachian Acidic Swamp
Wetlands	North-Central Interior and Appalachian Rich Swamp
Wetlands	Central Appalachian Floodplain - Forest Modifier
Wetlands	Central Appalachian Riparian - Forest Modifier
Wetlands	South-Central Interior Large Floodplain - Forest Modifier
Wetlands	South-Central Interior Small Stream and Riparian
Forest/Woodland	Southern and Central Appalachian Oak Forest
Forest/Woodland	Southern and Central Appalachian Oak Forest - Xeric
Forest/Woodland	South-Central Interior Mesophytic Forest
Forest/Woodland	Southern Interior Low Plateau Dry-Mesic Oak Forest
Forest/Woodland	Southern Interior Low Plateau Dry-Mesic Oak Forest - Evergreen Modifier
Forest/Woodland	Florida Peninsula Inland Scrub
Forest/Woodland	Atlantic Coastal Plain Northern Mixed Oak-Heath Forest

Wetlands	Mississippi River Riparian Forest
Wetlands	Mississippi River Low Floodplain (Bottomland) Forest
Forest/Woodland	Atlantic Coastal Plain Dry and Dry-Mesic Oak Forest
Forest/Woodland	Atlantic Coastal Plain Mesic Hardwood and Mixed Forest
Wetlands	Atlantic Coastal Plain Clay-Based Carolina Bay Forested Wetland
Wetlands	Atlantic Coastal Plain Blackwater Stream Floodplain Forest - Forest Modifier
Wetlands	Atlantic Coastal Plain Brownwater Stream Floodplain Forest
Wetlands	Atlantic Coastal Plain Small Blackwater River Floodplain Forest
Wetlands	Atlantic Coastal Plain Small Brownwater River Floodplain Forest
Wetlands	Southern Coastal Plain Nonriverine Cypress Dome
Wetlands	Atlantic Coastal Plain Streamhead Seepage Swamp, Pocosin, and Baygall
Forest/Woodland	Atlantic Coastal Plain Fall-line Sandhills Longleaf Pine Woodland - Scrub/Shrub Understory Modifier
Forest/Woodland	Atlantic Coastal Plain Fall-Line Sandhills Longleaf Pine Woodland - Loblolly Modifier
Forest/Woodland	Atlantic Coastal Plain Fall-line Sandhills Longleaf Pine Woodland - Offsite Hardwood Modifier
Forest/Woodland	Atlantic Coastal Plain Central Maritime Forest
Wetlands	Atlantic Coastal Plain Peatland Pocosin
Forest/Woodland	Florida Longleaf Pine Sandhill - Open Understory Modifier
Forest/Woodland	Florida Longleaf Pine Sandhill - Scrub/Shrub Understory Modifier
Forest/Woodland	Atlantic Coastal Plain Northern Maritime Forest
Wetlands	Atlantic Coastal Plain Nonriverine Swamp and Wet Hardwood Forest - Oak Dominated Modifier
Wetlands	Atlantic Coastal Plain Nonriverine Swamp and Wet Hardwood Forest - Taxodium/Nyssa Modifier
Wetlands	East Gulf Coastal Plain Near-Coast Pine Flatwoods - Scrub/Shrub Understory Modifier
Wetlands	East Gulf Coastal Plain Near-Coast Pine Flatwoods - Offsite Hardwood Modifier
Wetlands	Southern Coastal Plain Nonriverine Basin Swamp
Forest/Woodland	Northern Atlantic Coastal Plain Dry Hardwood Forest
Forest/Woodland	East Gulf Coastal Plain Southern Mesic Slope Forest
Forest/Woodland	East Gulf Coastal Plain Northern Mesic Hardwood Forest
Wetlands	East Gulf Coastal Plain Jackson Plain Dry Flatwoods - Scrub/Shrub Understory Modifier
Wetlands	South-Central Interior/Upper Coastal Plain Wet Flatwoods
Forest/Woodland	East Gulf Coastal Plain Northern Loess Bluff Forest
Forest/Woodland	East Gulf Coastal Plain Northern Loess Plain Oak-Hickory Upland - Hardwood Modifier
Forest/Woodland	East Gulf Coastal Plain Northern Dry Upland Hardwood Forest
Forest/Woodland	East Gulf Coastal Plain Northern Dry Upland Hardwood Forest - Offsite Pine Modifier
Wetlands	East Gulf Coastal Plain Large River Floodplain Forest - Forest Modifier
Wetlands	Lower Mississippi River Bottomland Depressions - Forest Modifier
Wetlands	Southern Coastal Plain Blackwater River Floodplain Forest
Forest/Woodland	Southern Coastal Plain Oak Dome and Hammock
Forest/Woodland	East Gulf Coastal Plain Interior Upland Longleaf Pine Woodland - Scrub/Shrub Modifier
Forest/Woodland	East Gulf Coastal Plain Interior Upland Longleaf Pine Woodland - Loblolly Modifier
Forest/Woodland	East Gulf Coastal Plain Interior Upland Longleaf Pine Woodland - Offsite Hardwood Modifier
Wetlands	Southern Coastal Plain Hydric Hammock
Forest/Woodland	East Gulf Coastal Plain Limestone Forest
Forest/Woodland	East Gulf Coastal Plain Maritime Forest
Wetlands	Southern Coastal Plain Seepage Swamp and Baygall
Forest/Woodland	East Gulf Coastal Plain Interior Shortleaf Pine-Oak Forest - Mixed Modifier
Forest/Woodland	East Gulf Coastal Plain Interior Shortleaf Pine-Oak Forest - Hardwood Modifier
Forest/Woodland	East Gulf Coastal Plain Interior Shortleaf Pine-Oak Forest - Pine Modifier
Wetlands	Lower Mississippi River Bottomland and Floodplain Forest
Forest/Woodland	Mississippi Delta Maritime Forest
Wetlands	Atlantic Coastal Plain Northern Basin Swamp and Wet Hardwood Forest
Wetlands	Atlantic Coastal Plain Northern Basin Peat Swamp
Wetlands	Atlantic Coastal Plain Southern Wet Pine Savanna and Flatwoods
Forest/Woodland	Atlantic Coastal Plain Southern Maritime Forest
Wetlands	East Gulf Coastal Plain Northern Seepage Swamp
Forest/Woodland	East Gulf Coastal Plain Southern Loess Bluff Forest
Wetlands	East Gulf Coastal Plain Southern Loblolly-Hardwood Flatwoods

Wetlands	East Gulf Coastal Plain Small Stream and River Floodplain Forest
Forest/Woodland	Southern Coastal Plain Dry Upland Hardwood Forest
Wetlands	South Florida Hardwood Hammock
Wetlands	South Florida Cypress Dome
Wetlands	South Florida Bayhead Swamp
Forest/Woodland	Southwest Florida Coastal Strand and Maritime Hammock
Forest/Woodland	Southeast Florida Coastal Strand and Maritime Hammock
Wetlands	South Florida Pine Flatwoods
Wetlands	South Florida Willow Head
Wetlands	South Florida Pond-Apple/Popash Slough
Anthropogenic	Deciduous Plantations
Anthropogenic	Evergreen Plantations

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