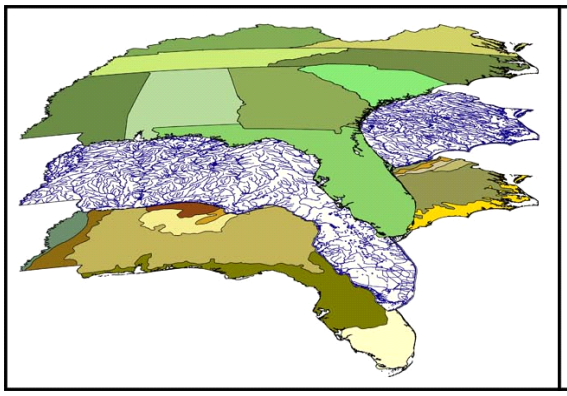


SOUTHEAST GAP ANALYSIS PROJECT

Species Modeling Report

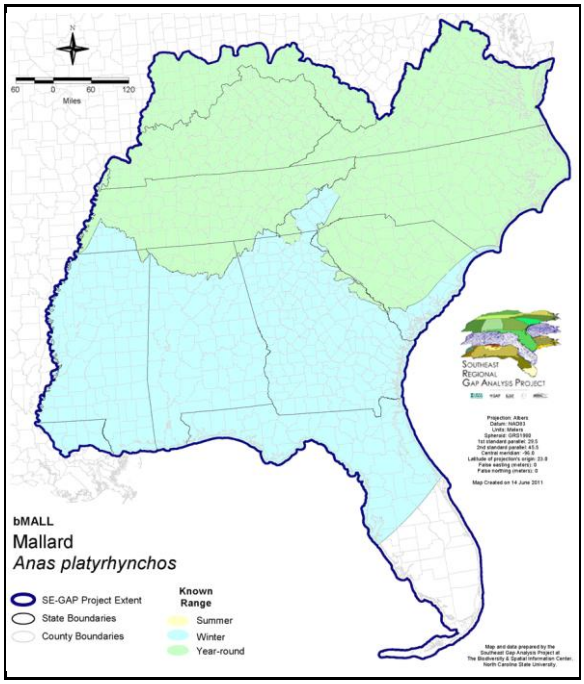
Mallard

Anas platyrhynchos

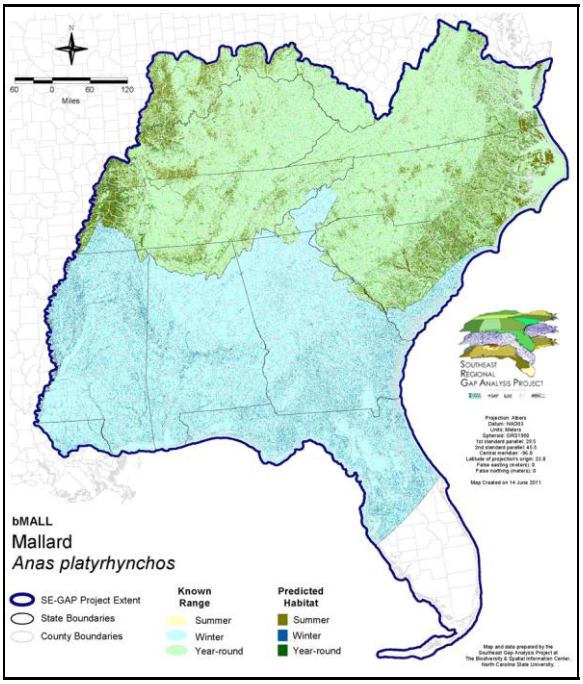
Taxa: Avian
Order: Anseriformes
Family: Anatidae

SE-GAP Spp Code: **bMALL**
ITIS Species Code: 175063
NatureServe Element Code: ABNJB10060

KNOWN RANGE:



PREDICTED HABITAT:



Range Map Link: http://www.basic.ncsu.edu/segap/datazip/maps/SE_Range_bMALL.pdf
Predicted Habitat Map Link: http://www.basic.ncsu.edu/segap/datazip/maps/SE_Dist_bMALL.pdf
GAP Online Tool Link: http://www.gapserve.ncsu.edu/segap/segap/index2.php?species=bMALL
Data Download: http://www.basic.ncsu.edu/segap/datazip/region/vert/bMALL_se00.zip

PROTECTION STATUS:

Reported on March 14, 2011

Federal Status: ---

State Status: AL (GB), ID (G), KY (N), NV (YES), NY (PB - GS), RI (Not Listed), UT (None), BC (4 (2005)), QC (Non suivie)

NS Global Rank: G5

NS State Rank: AK (S5), AL (S3B,S5N), AR (S5N,SNRB), AZ (S5), CA (S5B,S5N), CO (S5), CT (SNA), DC (S4N,S5B), DE (S5B,S5N), FL (SNR), GA (S5), HI (SNA), IA (S4B,S5N), ID (S5B,S5N), IL (S5), IN (S4), KS (S3B,S5N), KY (S3S4B,S4S5N), LA (S5N), MA (S5), MD (SNA), ME (S5B,S5N), MI (S5), MN (SNRB,SNRN), MO (SNRB,SNRN,SNRM), MS (S5N), MS (S5N), MT (S5), NC (S4B,S5N), ND (SNRB), NE (S5), NH (S5), NJ (S5), NM (S5B,S5N), NV (S5), NY (S5), OH (S5), OK (SU), OR (S5), PA (S5B,S5N), RI (S5B,S5N), SC (SNRB,SNRN), SD (S5B,S5N), TN (S5B), TX (S3B,S5N), UT (S4S5B,S4N), VA (S4), VT (S5B,S5N), WA (S5B,S5N), WI (S5B), WI (S5B), WV (S5B,S5N), WY (S4N,S5B), AB (S5), BC (S5B,S5N), LB (S3B), MB (S5B), MB (S5B), NB (S5B,S4N), NF (S3B), NS (S5B), NT (SNRB), NU (SNRB), ON (S5), PE (S4B,S5N), 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	63,410.5	< 1	955.2	< 1	0.0	0	0.0	0
Status 2	129,230.6	< 1	14,206.7	< 1	0.0	0	1,475.7	< 1
Status 3	1,367.5	< 1	200,036.1	1	15,674.4	< 1	121,191.0	< 1
Status 4	29.7	< 1	0.0	0	0.0	0	132.0	< 1
Total	194,038.2	1	215,197.9	1	15,674.4	< 1	122,798.8	< 1

	US Dept. of Energy		US Nat. Park Service		NOAA		Other Federal Lands	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	15,084.9	< 1	59.9	< 1	858.7	< 1
Status 2	0.0	0	3,671.0	< 1	2,065.2	< 1	0.6	< 1
Status 3	18,910.7	< 1	13,939.7	< 1	0.0	0	1,298.8	< 1
Status 4	0.0	0	0.0	0	0.0	0	0.0	0
Total	18,910.7	< 1	32,695.6	< 1	2,125.1	< 1	2,158.1	< 1

	Native Am. Reserv.		State Park/Hist. Park		State WMA/Gameland		State Forest	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	92.7	< 1	5.5	< 1	0.0	0
Status 2	0.0	0	986.4	< 1	163,169.9	1	48.7	< 1
Status 3	1,559.3	< 1	66,735.6	< 1	75,630.3	< 1	60,402.2	< 1
Status 4	0.0	0	0.0	0	7,888.4	< 1	5.1	< 1
Total	1,559.3	< 1	67,814.7	< 1	246,694.1	2	60,456.1	< 1

	State Coastal Reserve		ST Nat.Area/Preserve		Other State Lands		Private Cons. Easemt.	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	686.9	< 1	0.0	0	0.0	0
Status 2	10,990.1	< 1	34,850.6	< 1	2.8	< 1	522.5	< 1
Status 3	0.0	0	1,804.9	< 1	5,055.2	< 1	20,993.0	< 1
Status 4	0.0	0	0.0	0	1,491.2	< 1	0.0	0
Total	10,990.1	< 1	37,342.4	< 1	6,549.2	< 1	21,515.4	< 1

	Private Land - No Res.		Water		Overall Total	
	ha	%	ha	%	ha	%
Status 1	0.0	0	0.0	0	81,154.2	< 1
Status 2	0.0	0	0.0	0	361,220.8	2
Status 3	90.7	< 1	0.0	0	604,689.4	5
Status 4	13,471,977.6	91	33,183.8	< 1	13,522,566.6	92
Total	13,472,068.3	91	33,183.8	< 1	14,569,630.9	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):

Summer Model:

Habitat Description: Mallards can be found in a variety of freshwater habitats including marshes, lakes, bogs, floodplain bottomlands, sloughs, and rivers (Drilling et al. 2002, Anderson 1981, Hamel 1992). Amy Silvano 01Sept05

Typical breeding habitat consists of a shallow pond surrounded by grasslands (Nicholson 1997), but can be found in all types of freshwater aquatic habitats such as marshes, swamps, ponds, rivers, lakes, bays (Kaufman 1996), estuaries, impoundments (Fussell 1994), millponds, sluggish streams (Pearson 1959), and reservoirs (Nicholson 1997). Also found in agricultural fields, city parks (Kaufman 1996), and flooded fields (Ehrlich et al. 1988). The primary habitat requirement is dense vegetation about 24 inches in height (Bellrose 1976).
Nest is placed on the ground, usually near water, in tall grass or dead reeds, in a depression, and elevated with vegetation. It may also be constructed in a cultivated field or occasionally in a tree (Harrison 1975), under clusters of trees, among fallen logs and limbs, and in hollow tree trunks (Coulter and Miller 1968). Will also nest in unusual sites such as a rain gutter on the top of a building, vines atop a stone wall, in a window well below ground level, and on the brick floor on the side of a building (Harrison 1975). Will accept artificial baskets erected on pipes (Bishop and Barratt 1970)

-Breeding info quoted directly from NC State Hab notes. Amy Silvano 01Sept05

*****Matt R. see ranges notes also regarding range commnets. Amy Silvano 01Sept05

Ecosystem Classifiers: Low urban, Developed open space, Ag, Coastal Wetland, Freshwater marsh, Open Water, Swamps, Shrub.scrub, Depressional, lakes/ponds, Floodplain/Riparian. Amy Silvano 01Sept05

Hydrography Mask:

Freshwater Only

Utilizes flowing water features with buffers of 250m from and 250m into selected water features.

Utilizes open water features with buffers of 250m from and 250m into selected water features.

Utilizes wet vegetation features with buffers of 250m from and unlimited into selected vegetation features.

Selected Map Units:

Functional Group	Map Unit Name
Anthropogenic	Developed Open Space
Anthropogenic	Low Intensity Developed
Anthropogenic	Row Crop
Coastal Dune & Freshwater Wetland	Atlantic and Gulf Coastal Plain Interdunal Wetland
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
Water	Open Water (Fresh)
Wetlands	Atlantic Coastal Plain Blackwater Stream Floodplain Forest - Forest Modifier
Wetlands	Atlantic Coastal Plain Blackwater Stream Floodplain Forest - Herbaceous Modifier
Wetlands	Atlantic Coastal Plain Brownwater Stream Floodplain Forest
Wetlands	Atlantic Coastal Plain Clay-Based Carolina Bay Forested Wetland
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 Nonriverine Swamp and Wet Hardwood Forest - Taxodium/Nyssa Modifier
Wetlands	Atlantic Coastal Plain Nonriverine Swamp and Wet Hardwood Forest - Oak Dominated Modifier
Wetlands	Atlantic Coastal Plain Northern Basin Peat Swamp
Wetlands	Atlantic Coastal Plain Northern Basin Swamp and Wet Hardwood Forest
Wetlands	Atlantic Coastal Plain Northern Pondshore
Wetlands	Atlantic Coastal Plain Peatland Pocosin
Wetlands	Atlantic Coastal Plain Sandhill Seep
Wetlands	Atlantic Coastal Plain Small Blackwater River Floodplain Forest

Wetlands	Atlantic Coastal Plain Small Brownwater River Floodplain Forest
Wetlands	Atlantic Coastal Plain Streamhead Seepage Swamp, Pocosin, and Baygall
Wetlands	Atlantic Coastal Plain Xeric River Dune
Wetlands	Central Appalachian Floodplain - Forest Modifier
Wetlands	Central Appalachian Floodplain - Herbaceous Modifier
Wetlands	Central Appalachian Riparian - Forest Modifier
Wetlands	Central Appalachian Riparian - Herbaceous Modifier
Wetlands	Central Florida Herbaceous Pondshore
Wetlands	Central Florida Herbaceous Seep
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 Large River Floodplain Forest - Forest Modifier
Wetlands	East Gulf Coastal Plain Large River Floodplain Forest - Herbaceous Modifier
Wetlands	East Gulf Coastal Plain Northern Depression Pondshore
Wetlands	East Gulf Coastal Plain Northern Seepage Swamp
Wetlands	East Gulf Coastal Plain Small Stream and River Floodplain Forest
Wetlands	East Gulf Coastal Plain Southern Depression Pondshore
Wetlands	Floridian Highlands Freshwater Marsh
Wetlands	Lower Mississippi River Bottomland and Floodplain Forest
Wetlands	Lower Mississippi River Bottomland Depressions - Forest Modifier
Wetlands	Lower Mississippi River Bottomland Depressions - Herbaceous Modifier
Wetlands	Mississippi River Low Floodplain (Bottomland) Forest
Wetlands	Mississippi River Riparian Forest
Wetlands	North-Central Appalachian Acidic Swamp
Wetlands	North-Central Appalachian Seepage Fen
Wetlands	North-Central Interior and Appalachian Rich Swamp
Wetlands	South Florida Bayhead Swamp
Wetlands	South Florida Freshwater Slough and Gator Hole
Wetlands	South Florida Pond-Apple/Popash Slough
Wetlands	South Florida Willow Head
Wetlands	South-Central Interior Large Floodplain - Forest Modifier
Wetlands	South-Central Interior Large Floodplain - Herbaceous Modifier
Wetlands	South-Central Interior Small Stream and Riparian
Wetlands	Southern and Central Appalachian Bog and Fen
Wetlands	Southern Appalachian Seepage Wetland
Wetlands	Southern Coastal Plain Blackwater River Floodplain Forest
Wetlands	Southern Coastal Plain Herbaceous Seepage Bog
Wetlands	Southern Coastal Plain Nonriverine Basin Swamp
Wetlands	Southern Coastal Plain Seepage Swamp and Baygall
Wetlands	Southern Coastal Plain Spring-run Stream Aquatic Vegetation
Wetlands	Southern Piedmont Large Floodplain Forest - Forest Modifier
Wetlands	Southern Piedmont Large Floodplain Forest - Herbaceous Modifier
Wetlands	Southern Piedmont Seepage Wetland
Wetlands	Southern Piedmont Small Floodplain and Riparian Forest
Wetlands	Southern Piedmont/Ridge and Valley Upland Depression Swamp
Wetlands	Unconsolidated Shore (Lake/River/Pond)
Wetlands	Western Highland Rim Seepage Fen

Winter Model:

Habitat Description: Mallards can be found in a variety of freshwater habitats including marshes, lakes, bogs, floodplain bottomlands, sloughs, and rivers (Drilling et al. 2002, Anderson 1981, Hamel 1992). During the winter months this species will also utilize brackish waters, although to a lesser extent, and agricultural fields for feeding (Stevenson & Anderson 1994, Drilling et al. 2002). Amy Silvano 01Sept05

Ecosystem Classifiers: Coastal Wetland, Freshwater marsh, Open Water, Swamps, Shrub.scrub,

Depressional, lakes/ponds, Floodplain/Riparian as PMUs. Ag, Row Crop, low urban and AG as AMU. Amy Silvano 01Sept05

Modeling Notes:Generally, tied to water in the winter months, but will feed in adjacent ag fields, as well as urban bird feeders and city parks (Drilling et al. 20002).

Hydrography Mask:

Utilizes flowing water features with buffers of 60m from and 60m into selected water features.

Utilizes open water features with buffers of 60m from and 60m into selected water features.

Utilizes wet vegetation features with buffers of 60m from and 60m into selected vegetation features.

Selected Map Units:

Functional Group	Map Unit Name
Coastal Dune & Freshwater Wetland	Atlantic and Gulf Coastal Plain Interdunal Wetland
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
Water	Open Water (Brackish/Salt)
Water	Open Water (Fresh)
Wetlands	Atlantic Coastal Plain Blackwater Stream Floodplain Forest - Forest Modifier
Wetlands	Atlantic Coastal Plain Blackwater Stream Floodplain Forest - Herbaceous Modifier
Wetlands	Atlantic Coastal Plain Brownwater Stream Floodplain Forest
Wetlands	Atlantic Coastal Plain Clay-Based Carolina Bay Forested Wetland
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 Nonriverine Swamp and Wet Hardwood Forest - Taxodium/Nyssa Modifier
Wetlands	Atlantic Coastal Plain Nonriverine Swamp and Wet Hardwood Forest - Oak Dominated Modifier
Wetlands	Atlantic Coastal Plain Northern Basin Peat Swamp
Wetlands	Atlantic Coastal Plain Northern Basin Swamp and Wet Hardwood Forest
Wetlands	Atlantic Coastal Plain Northern Pondshore
Wetlands	Atlantic Coastal Plain Peatland Pocosin
Wetlands	Atlantic Coastal Plain Sandhill Seep
Wetlands	Atlantic Coastal Plain Small Blackwater River Floodplain Forest
Wetlands	Atlantic Coastal Plain Small Brownwater River Floodplain Forest
Wetlands	Atlantic Coastal Plain Streamhead Seepage Swamp, Pocosin, and Baygall
Wetlands	Atlantic Coastal Plain Xeric River Dune
Wetlands	Central Appalachian Floodplain - Forest Modifier
Wetlands	Central Appalachian Floodplain - Herbaceous Modifier
Wetlands	Central Appalachian Riparian - Forest Modifier
Wetlands	Central Appalachian Riparian - Herbaceous Modifier
Wetlands	Central Florida Herbaceous Pondshore
Wetlands	Central Florida Herbaceous Seep
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 Large River Floodplain Forest - Forest Modifier
Wetlands	East Gulf Coastal Plain Large River Floodplain Forest - Herbaceous Modifier
Wetlands	East Gulf Coastal Plain Northern Depression Pondshore
Wetlands	East Gulf Coastal Plain Northern Seepage Swamp
Wetlands	East Gulf Coastal Plain Small Stream and River Floodplain Forest
Wetlands	East Gulf Coastal Plain Southern Depression Pondshore
Wetlands	Floridian Highlands Freshwater Marsh
Wetlands	Lower Mississippi River Bottomland and Floodplain Forest
Wetlands	Lower Mississippi River Bottomland Depressions - Forest Modifier
Wetlands	Lower Mississippi River Bottomland Depressions - Herbaceous Modifier

Wetlands	Mississippi River Low Floodplain (Bottomland) Forest
Wetlands	Mississippi River Riparian Forest
Wetlands	North-Central Appalachian Acidic Swamp
Wetlands	North-Central Appalachian Seepage Fen
Wetlands	North-Central Interior and Appalachian Rich Swamp
Wetlands	South Florida Bayhead Swamp
Wetlands	South Florida Cypress Dome
Wetlands	South Florida Freshwater Slough and Gator Hole
Wetlands	South Florida Hardwood Hammock
Wetlands	South Florida Pond-Apple/Popash Slough
Wetlands	South Florida Willow Head
Wetlands	South-Central Interior Large Floodplain - Forest Modifier
Wetlands	South-Central Interior Large Floodplain - Herbaceous Modifier
Wetlands	South-Central Interior Small Stream and Riparian
Wetlands	Southern and Central Appalachian Bog and Fen
Wetlands	Southern Appalachian Seepage Wetland
Wetlands	Southern Coastal Plain Blackwater River Floodplain Forest
Wetlands	Southern Coastal Plain Herbaceous Seepage Bog
Wetlands	Southern Coastal Plain Hydric Hammock
Wetlands	Southern Coastal Plain Nonriverine Basin Swamp
Wetlands	Southern Coastal Plain Nonriverine Cypress Dome
Wetlands	Southern Coastal Plain Seepage Swamp and Baygall
Wetlands	Southern Coastal Plain Spring-run Stream Aquatic Vegetation
Wetlands	Southern Piedmont Large Floodplain Forest - Forest Modifier
Wetlands	Southern Piedmont Large Floodplain Forest - Herbaceous Modifier
Wetlands	Southern Piedmont Seepage Wetland
Wetlands	Southern Piedmont Small Floodplain and Riparian Forest
Wetlands	Southern Piedmont/Ridge and Valley Upland Depression Swamp
Wetlands	Unconsolidated Shore (Lake/River/Pond)
Wetlands	Western Highland Rim Seepage Fen

Selected Secondary Map Units within 500m of Primary Map Units:

Functional Group	Map Unit Name
Anthropogenic	Developed Open Space
Anthropogenic	Low Intensity Developed
Anthropogenic	Row Crop

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For more information:: SE-GAP Analysis Project / BaSIC
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