



SOUTHEAST GAP ANALYSIS PROJECT



Species Modeling Report

Northern Shoveler

Anas clypeata

Taxa: Avian

Order: Anseriformes

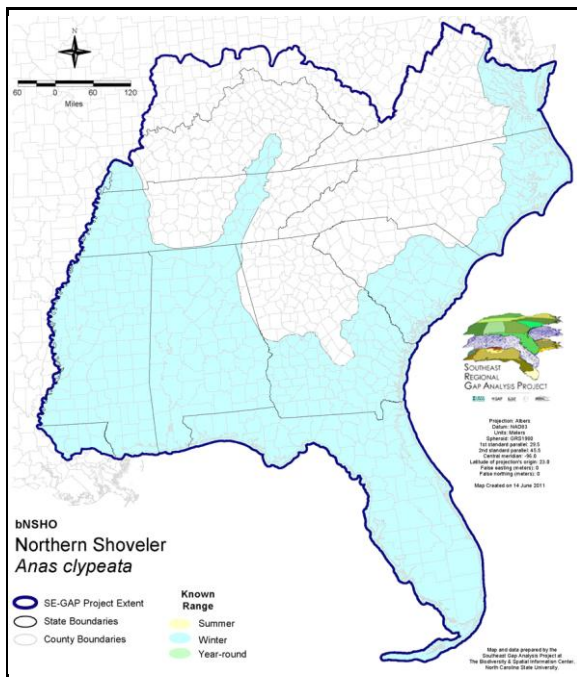
Family: Anatidae

SE-GAP Spp Code: **bNSHO**

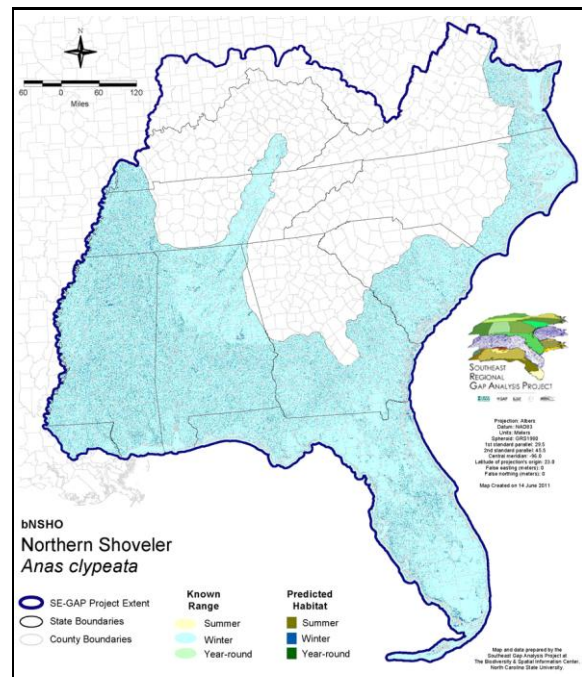
ITIS Species Code: 175096

NatureServe Element Code: ABNJB10150

KNOWN RANGE:



PREDICTED HABITAT:



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

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

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

Data Download: http://www.basic.ncsu.edu/segap/datazip/region/vert/bNSHO_se00.zip

PROTECTION STATUS:

Reported on March 14, 2011

Federal Status: ---

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

NS Global Rank: G5

NS State Rank: AK (S5B), AL (S2B,S5N), AR (S4N), AZ (S1B,S5N), CA (SNRB,SNRN), CO (S4B), CO (S4B), CT (SNA), DC (S1N), DE (SHB,S4N), DE (SHB,S4N), FL (SNRN), GA (S4), HI (SNA), IA (S2B,S5N), ID (S5B,S1N), IL (S1), IN (SHB), IN (SHB), KS (S1B,S4N), KY (S1), LA (S5N), MA (S1B,S4M), MD (S2N), ME (S1B), MI (SNRN), MN (SNRB), MO (SNRN,SNRM), MO (SNRN,SNRM), MS (S4N), MT (S5B), MT (S5B), NC (S3N), ND (SNRB), NE (S4), NH (SNA), NJ (SNRB), NJ (SNRB), NM (S3B,S5N), NV (S3B,S5N), NY (S2), OH (SNA), OK (S4N), OR (S5), PA (S3N), PA (S3N), RI (S2N), SC (SNRN), SD (S5B), SD (S5B), TN (S4N), TX (S3B,S5N), UT (S4S5B,S3S4N), VA (SNRN), VA (SNRN), VT (S3N), WA (S4B,S3N), WI (S3B), WI (S3B), WV (S3N), WY (S4N,S5B), AB (S5), BC (S5B,S5N), LB (S3?B), MB (S5B), MB (S5B), NB (S2B), NF (S1B), NS (S2B), NT (SNRB), ON (S4), ON (S4), PE (S3B), QC (S5B), SK (S5B,S5M), SK (S5B,S5M), 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	21,487.2	< 1	453.6	< 1	0.0	0	0.0	0
Status 2	26,798.2	< 1	7,050.9	< 1	0.0	0	346.4	< 1
Status 3	351.5	< 1	102,658.9	1	3,607.7	< 1	71,704.3	1
Status 4	8.0	< 1	< 0.1	< 1	0.0	0	114.3	< 1
Total	48,645.0	< 1	110,163.4	2	3,607.7	< 1	72,165.0	1
	US Dept. of Energy		US Nat. Park Service		NOAA		Other Federal Lands	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	34,282.4	< 1	444.7	< 1	2,417.3	< 1
Status 2	0.0	0	13,556.4	< 1	11,724.6	< 1	9.2	< 1
Status 3	9,787.9	< 1	6,917.4	< 1	0.0	0	970.4	< 1
Status 4	0.0	0	4.0	6	0.0	0	0.0	0
Total	9,787.9	< 1	54,760.9	< 1	12,169.3	< 1	3,396.9	< 1
	Native Am. Reserv.		State Park/Hist. Park		State WMA/Gameland		State Forest	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	101.2	< 1	3.8	< 1	0.0	0
Status 2	0.0	0	285.7	< 1	72,959.1	1	0.0	0
Status 3	1,408.3	< 1	72,005.2	1	17,853.9	< 1	27,078.1	< 1
Status 4	0.0	0	0.0	0	8,508.9	< 1	7.7	< 1
Total	1,408.3	< 1	72,392.0	1	99,325.7	1	27,085.9	< 1
	State Coastal Reserve		ST Nat.Area/Preserve		Other State Lands		Private Cons. Easemt.	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	785.9	< 1	0.0	0	0.0	0
Status 2	10,305.3	< 1	11,664.5	< 1	0.0	0	408.7	< 1
Status 3	0.0	0	2,456.7	< 1	3,786.5	< 1	12,145.6	< 1
Status 4	0.0	0	0.0	0	507.2	< 1	0.0	0
Total	10,305.3	< 1	14,907.2	< 1	4,293.7	< 1	12,554.3	< 1
	Private Land - No Res.		Water		Overall Total			
	ha	%	ha	%	ha	%		
Status 1	0.0	< 1	0.0	0	59,976.1	< 1		
Status 2	0.6	< 1	0.0	2	155,109.8	2		
Status 3	104.9	< 1	0.7	< 1	332,838.0	6		
Status 4	6,107,792.4	89	73,316.0	1	6,198,760.2	91		
Total	6,107,898.1	89	73,316.9	1	6,746,684.0	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):

Winter Model:

Habitat Description: During the winter months northern shovelers prefer shallow, open lakes containing dense aquatic vegetation (Dubowy 1996). However, they will use a wide variety of wetland habitats including both freshwater and brackish marshes, inland ponds, lakes, lagoons, and estuaries (Stevenson & Anderson 1994, Dubowy 1996). Amy Silvano 05Sept05

Ecosystem classifiers: Did not select any units other than Open water. Since this species is primarily aquatic during the winter months. So select all vegetative mapping units that fall in the hydro buffer. Amy Silvano 05Sept05

Hydrography Mask:

Utilizes flowing water features with buffers of 30m from and 250m into selected water features.

Utilizes open water features with buffers of 30m from and 250m into selected water features.

Selected Map Units:

Functional Group	Map Unit Name
Anthropogenic	Bare Sand
Anthropogenic	Bare Soil
Anthropogenic	Deciduous Plantations
Anthropogenic	Developed Open Space
Anthropogenic	Evergreen Plantations
Anthropogenic	High Intensity Developed
Anthropogenic	Low Intensity Developed
Anthropogenic	Medium Intensity Developed
Anthropogenic	Pasture/Hay
Anthropogenic	Quarry/Strip Mine/Gravel Pit
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)
Beach	Atlantic Coastal Plain Northern Sandy Beach
Beach	Atlantic Coastal Plain Sea Island Beach
Beach	Atlantic Coastal Plain Southern Beach
Beach	Florida Panhandle Beach Vegetation
Beach	South Florida Shell Hash Beach
Beach	Southeast Florida Beach
Beach	Southwest Florida Beach
Beach	Unconsolidated Shore (Beach/Dune)
Brackish Tidal Marsh & Wetland	Atlantic Coastal Plain Central Salt and Brackish Tidal Marsh
Brackish Tidal Marsh & Wetland	Atlantic Coastal Plain Embayed Region Tidal Salt and Brackish Marsh
Brackish Tidal Marsh & Wetland	Atlantic Coastal Plain Indian River Lagoon Tidal Marsh
Brackish Tidal Marsh & Wetland	Atlantic Coastal Plain Northern Sea-Level Fen
Brackish Tidal Marsh & Wetland	Atlantic Coastal Plain Northern Tidal Salt Marsh
Brackish Tidal Marsh & Wetland	Atlantic Coastal Plain Northern Tidal Wooded Swamp
Brackish Tidal Marsh & Wetland	Atlantic Coastal Plain Southern Tidal Wooded Swamp
Brackish Tidal Marsh & Wetland	East Gulf Coastal Plain Tidal Wooded Swamp
Brackish Tidal Marsh & Wetland	Florida Big Bend Salt-Brackish Tidal Marsh
Brackish Tidal Marsh & Wetland	Mississippi Sound Salt and Brackish Tidal Marsh
Brackish Tidal Marsh & Wetland	South Florida Everglades Sawgrass Marsh
Brackish Tidal Marsh & Wetland	South Florida Mangrove Swamp
Brackish Tidal Marsh & Wetland	Southwest Florida Perched Barriers Salt Swamp and Lagoon - Mangrove Modifier

Brackish Tidal Marsh & Wetland	Southwest Florida Perched Barriers Salt Swamp and Lagoon - Marsh Modifier
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	Atlantic Coastal Plain Central Maritime Forest
Forest/Woodland	Atlantic Coastal Plain Dry and Dry-Mesic Oak Forest
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 Fall-line Sandhills Longleaf Pine Woodland - Open Understory Modifier
Forest/Woodland	Atlantic Coastal Plain Fall-line Sandhills Longleaf Pine Woodland - Scrub/Shrub Understory Modifier
Forest/Woodland	Atlantic Coastal Plain Mesic Hardwood and Mixed Forest
Forest/Woodland	Atlantic Coastal Plain Northern Maritime Forest
Forest/Woodland	Atlantic Coastal Plain Northern Mixed Oak-Heath Forest
Forest/Woodland	Atlantic Coastal Plain Southern Maritime Forest
Forest/Woodland	Atlantic Coastal Plain Upland Longleaf Pine Woodland
Forest/Woodland	East Gulf Coastal Plain Black Belt Calcareous Prairie and Woodland - Woodland 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 - Mixed Modifier
Forest/Woodland	East Gulf Coastal Plain Interior Shortleaf Pine-Oak Forest - Pine 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
Forest/Woodland	East Gulf Coastal Plain Interior Upland Longleaf Pine Woodland - Open Understory Modifier
Forest/Woodland	East Gulf Coastal Plain Interior Upland Longleaf Pine Woodland - Scrub/Shrub Modifier
Forest/Woodland	East Gulf Coastal Plain Limestone Forest
Forest/Woodland	East Gulf Coastal Plain Maritime Forest
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
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 Loess Plain Oak-Hickory Upland - Juniper Modifier
Forest/Woodland	East Gulf Coastal Plain Northern Mesic Hardwood Forest
Forest/Woodland	East Gulf Coastal Plain Southern Loess Bluff Forest
Forest/Woodland	East Gulf Coastal Plain Southern Mesic Slope Forest
Forest/Woodland	Florida Longleaf Pine Sandhill - Open Understory Modifier
Forest/Woodland	Florida Longleaf Pine Sandhill - Scrub/Shrub Understory Modifier
Forest/Woodland	Florida Peninsula Inland Scrub
Forest/Woodland	Mississippi Delta Maritime Forest
Forest/Woodland	Northern Atlantic Coastal Plain Dry Hardwood Forest
Forest/Woodland	South Florida Pine Rockland
Forest/Woodland	Southeast Florida Coastal Strand and Maritime Hammock
Forest/Woodland	Southern Coastal Plain Dry Upland Hardwood Forest
Forest/Woodland	Southern Coastal Plain Oak Dome and Hammock
Forest/Woodland	Southwest Florida Coastal Strand and Maritime Hammock
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	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	Florida Dry Prairie
Prairie	Panhandle Florida Limestone Glade
Rock Outcrop	East Gulf Coastal Plain Dry Chalk Bluff

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 Northern Wet Longleaf Pine Savanna and Flatwoods
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 Southern Wet Pine Savanna and Flatwoods
Wetlands	Atlantic Coastal Plain Streamhead Seepage Swamp, Pocosin, and Baygall
Wetlands	Atlantic Coastal Plain Xeric River Dune
Wetlands	Central Florida Herbaceous Pondshore
Wetlands	Central Florida Herbaceous Seep
Wetlands	Central Florida Pine Flatwoods
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 Jackson Plain Dry Flatwoods - Scrub/Shrub Understory Modifier
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 Near-Coast Pine Flatwoods - Offsite Hardwood Modifier
Wetlands	East Gulf Coastal Plain Near-Coast Pine Flatwoods - Open Understory Modifier
Wetlands	East Gulf Coastal Plain Near-Coast Pine Flatwoods - Scrub/Shrub Understory 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	East Gulf Coastal Plain Southern Loblolly-Hardwood Flatwoods
Wetlands	East Gulf Coastal Plain Treeless Savanna and Wet Prairie
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	South Florida Bayhead Swamp
Wetlands	South Florida Cypress Dome
Wetlands	South Florida Dwarf Cypress Savanna
Wetlands	South Florida Freshwater Slough and Gator Hole
Wetlands	South Florida Hardwood Hammock
Wetlands	South Florida Pine Flatwoods
Wetlands	South Florida Pond-Apple/Popash Slough
Wetlands	South Florida Wet Marl Prairie
Wetlands	South Florida Willow Head
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	Unconsolidated Shore (Lake/River/Pond)

CITATIONS: American Ornithologists' Union (AOU), Committee on Classification and Nomenclature. 1983. Check-list of North American Birds. Sixth Edition. American Ornithologists' Union, Allen Press, Inc., Lawrence, Kansas.

Ankney, C. D., and A. D. Afton. 1988. Bioenergetics of breeding northern shovelers: diet, nutrient reserves, clutch size, and incubation. *Condor* 90:459-472.

Barker, W. T., et al. 1990. Effects of specialized grazing systems on waterfowl production in southcentral North Dakota. *Trans. 55th North American Wildl. & Nat. Res. Conf.*, pp. 462-474.

Bellrose, F.C. 1976. Ducks, geese and swans of North America. Stackpole Books, Harrisburg, Pa.

DuBowy, P.J. 1996. Northern Shoveler (*Anas clypeata*). In *The Birds of North America*, No. 215 (A. Poole and F. Gill, eds.). The Academy of Natural Sciences, Philadelphia, PA, and The American Ornithologists' Union, Washington, D.C.

Godfrey, W.E. 1966. *The birds of Canada*. National Museums of Canada. Ottawa. 428 pp.

Harrison, C. 1978. *A field guide to the nests, eggs and nestlings of North American birds*. Collins, Cleveland, Ohio.

Hilty, S.L., and W.L. Brown. 1986. *A guide to the birds of Colombia*. Princeton University Press, Princeton, New Jersey. 836 pp.

Johnson, S.R., and D.R. Herter. 1989. *The birds of the Beaufort Sea*. BP Exploration (Alaska) Inc., Anchorage, Alaska. 372 pp.

Livezey, B. C. 1991. A phylogenetic analysis and classification of recent dabbling ducks (tribe Anatini) based on comparative morphology. *Auk* 108:471-507.

Madge, S., and H. Burn. 1988. *Waterfowl: an identification guide to the ducks, geese and swans of the world*. Houghton Mifflin Co., Boston. 298 pp.

Pratt, H.D., P.L. Bruner, and D.G. Berrett. 1987. *A field guide to the birds of Hawaii and the tropical Pacific*. Princeton University Press, Princeton, New Jersey. 409 pp. + 45 plates.

Root, T. 1988. *Atlas of wintering North American birds: An analysis of Christmas Bird Count data*. University of Chicago Press. 336 pp.

Stiles, F.G., and A.F. Skutch. 1989. *A guide to the birds of Costa Rica*. Comstock Publ. Associates, Cornell University Press, Ithaca, New York. 511 pp.

Terres, J.K. 1980. *The Audubon Society encyclopedia of North American birds*. Alfred A. Knopf, New York.

For more information:: SE-GAP Analysis Project / BaSIC
 127 David Clark Labs
 Dept. of Biology, NCSU
 Raleigh, NC 27695-7617
 (919) 513-2853
www.basic.ncsu.edu/segap

Compiled: 15 September 2011

This data was compiled and/or developed by the Southeast GAP Analysis Project at The Biodiversity and Spatial Information Center, North Carolina State University.