



SOUTHEAST GAP ANALYSIS PROJECT



Species Modeling Report

Tufted Titmouse

Baeolophus bicolor

Taxa: Avian

Order: Passeriformes

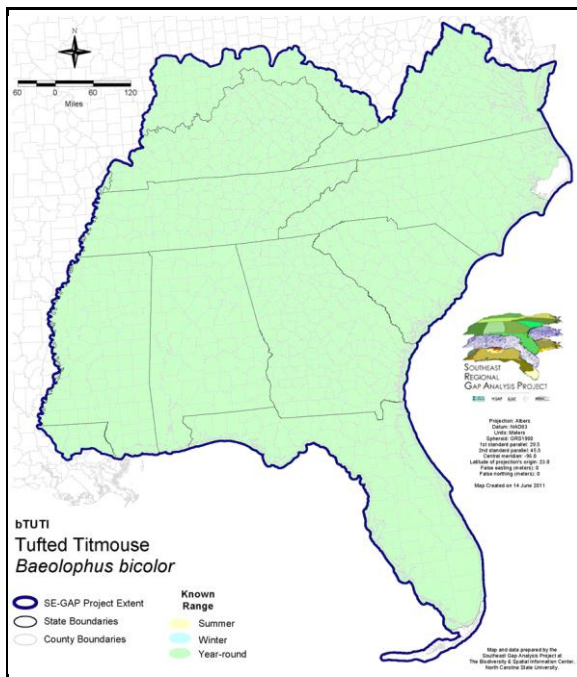
Family: Paridae

SE-GAP Spp Code: **bTUTI**

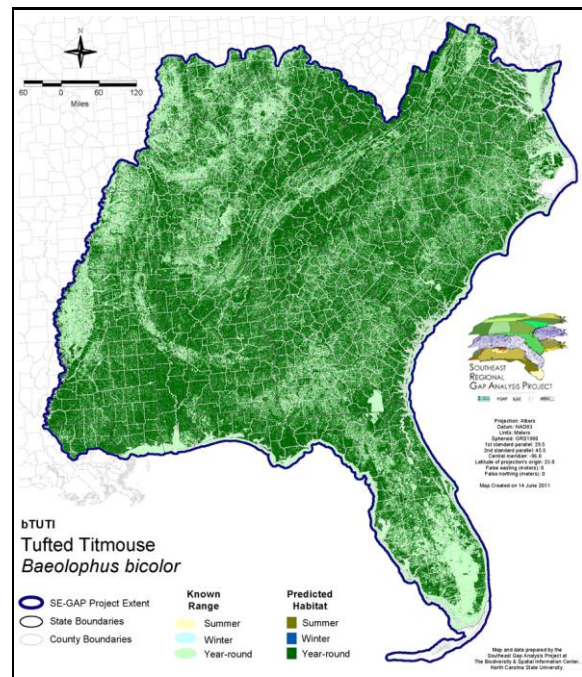
ITIS Species Code: 178738

NatureServe Element Code: ABPAW01110

KNOWN RANGE:



PREDICTED HABITAT:



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

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

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

Data Download: http://www.basic.ncsu.edu/segap/datazip/region/vert/bTUTI_se00.zip

PROTECTION STATUS:

Reported on March 14, 2011

Federal Status: ---

State Status: KY (N), NJ (INC/S), NY (PB), RI (Not Listed), QC (Non suivie)

NS Global Rank: G5

NS State Rank: AL (S5), AR (S5), CT (S5), DC (S5), DE (S5), FL (SNR), GA (S5), IA (S4B), IL (S5), IN (S4), KS (S5), KY (S5), LA (S5), MA (S5), MD (S5), ME (S4), MI (S5), MN (SNR), MO (SNR), MS (S5), NC (S5), NE (S3), NH (S5), NJ (S5B,S5N), NM (SNA), NY (S5), OH (S5), OK (S5), PA (S5), RI (S5B), SC (SNR), SD (SUB), TN (S5), TX (S5B), VA (S5), VT (S3S4B,S3S4N), WI (S3B), WV (S5B,S5N), NB (SNA), ON (S4), QC (S4B)

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	122,586.2	< 1	39,052.0	< 1	0.0	0	0.0	0
Status 2	239,358.6	< 1	429,629.1	< 1	0.0	0	5,551.8	< 1
Status 3	3,989.7	< 1	2,997,773.9	4	65,534.7	< 1	804,792.3	1
Status 4	109.6	< 1	< 0.1	< 1	0.0	0	323.4	< 1
Total	366,044.1	< 1	3,466,455.1	5	65,534.7	< 1	810,667.5	1
	US Dept. of Energy		US Nat. Park Service		NOAA		Other Federal Lands	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	319,518.0	< 1	158.1	< 1	13,775.7	< 1
Status 2	0.0	0	23,804.6	< 1	10,879.4	< 1	90.1	< 1
Status 3	85,756.4	< 1	293,584.9	< 1	0.0	0	5,874.8	< 1
Status 4	0.0	0	1.0	2	0.0	0	0.0	0
Total	85,756.4	< 1	636,909.0	< 1	11,037.5	< 1	19,740.5	< 1
	Native Am. Reserv.		State Park/Hist. Park		State WMA/Gameland		State Forest	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	1,715.9	< 1	72.9	< 1	0.0	0
Status 2	0.0	0	20,644.7	< 1	832,947.8	1	1,448.2	< 1
Status 3	27,032.9	< 1	641,941.1	< 1	263,341.4	< 1	419,907.7	< 1
Status 4	0.0	0	< 0.1	< 1	142,009.8	< 1	49.0	< 1
Total	27,032.9	< 1	664,301.8	< 1	1,238,372.0	2	421,404.8	< 1
	State Coastal Reserve		ST Nat.Area/Preserve		Other State Lands		Private Cons. Easemt.	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	15,822.5	< 1	0.0	0	0.0	0
Status 2	14,348.0	< 1	106,823.5	< 1	5.0	< 1	3,474.6	< 1
Status 3	0.0	0	24,580.4	< 1	31,770.6	< 1	116,340.2	< 1
Status 4	0.0	0	2.1	< 1	3,631.9	< 1	0.0	0
Total	14,348.0	< 1	147,228.5	< 1	35,407.5	< 1	119,814.8	< 1
	Private Land - No Res.		Water		Overall Total			
	ha	%	ha	%	ha	%		
Status 1	0.0	0	0.0	0	512,701.4	< 1		
Status 2	0.0	0	0.0	2	1,689,005.7	2		
Status 3	983.6	< 1	1.1	< 1	5,783,205.7	12		
Status 4	64,887,903.5	85	57,516.4	< 1	65,233,447.5	86		
Total	64,888,887.1	85	57,517.7	< 1	73,218,360.2	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: Tufted titmice occur throughout the southeast, except in the highest elevations, i.e. above 5,000 ft. (Hamel 1992) and according to Fussell (1994) it is practically absent from the barrier islands. Common in deciduous and mixed woodlands (Kaufman 1996, Potter et al 1980). Hamel (1992) suggests they prefer deciduous woods to pines, and are present in upland and bottomlands forests. Inhabits orchards, suburban areas, and city parks if large enough trees are available (Kaufman 1996).

Nests in a natural cavity, old woodpecker hole, or nest box, it does not excavate its own cavity (Kaufman 1996, Potter et al 1980). On average the nest is 35 ft. above the ground, ranging from 3 to 90 ft. (Ehrlich et al 1988, Kaufman 1996).

Quoted from State habitat notes - K. Cook - 4-9-05

Elevation Mask: < 1524m

Selected Map Units:

Functional Group	Map Unit Name
Anthropogenic	Deciduous Plantations
Anthropogenic	Developed Open Space
Anthropogenic	Low Intensity Developed
Anthropogenic	Medium Intensity Developed
Anthropogenic	Successional Shrub/Scrub (Clear Cut)
Anthropogenic	Successional Shrub/Scrub (Other)
Anthropogenic	Successional Shrub/Scrub (Utility Swath)
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
Forest/Woodland	Alabama Ketona Glade and Woodland
Forest/Woodland	Allegheny-Cumberland Dry Oak Forest and Woodland
Forest/Woodland	Allegheny-Cumberland Dry Oak Forest and Woodland - Hardwood Modifier
Forest/Woodland	Appalachian Hemlock-Hardwood Forest
Forest/Woodland	Appalachian Serpentine Woodland
Forest/Woodland	Appalachian Shale Barrens
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 - Offsite Hardwood 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	Central and Southern Appalachian Montane Oak Forest
Forest/Woodland	Central and Southern Appalachian Northern Hardwood Forest
Forest/Woodland	Central Appalachian Alkaline Glade and Woodland
Forest/Woodland	Central Appalachian Oak and Pine Forest
Forest/Woodland	Central Appalachian Pine-Oak Rocky 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 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 Upland Longleaf Pine Woodland - Offsite Hardwood 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 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	Mississippi Delta Maritime Forest
Forest/Woodland	Nashville Basin Limestone Glade
Forest/Woodland	Northeastern Interior Dry Oak Forest - Mixed Modifier
Forest/Woodland	Northeastern Interior Dry Oak Forest-Hardwood Modifier
Forest/Woodland	Northern Atlantic Coastal Plain Dry Hardwood Forest
Forest/Woodland	Ridge and Valley Calcareous Valley Bottom Glade and Woodland
Forest/Woodland	South-Central Interior Mesophytic Forest
Forest/Woodland	Southeast Florida Coastal Strand and Maritime Hammock
Forest/Woodland	Southern and Central Appalachian Cove Forest
Forest/Woodland	Southern and Central Appalachian Mafic Glade and Barrens
Forest/Woodland	Southern and Central Appalachian Oak Forest
Forest/Woodland	Southern and Central Appalachian Oak Forest - Xeric
Forest/Woodland	Southern Coastal Plain Dry Upland Hardwood Forest
Forest/Woodland	Southern Coastal Plain Oak Dome and Hammock
Forest/Woodland	Southern Interior Low Plateau Dry-Mesic Oak Forest
Forest/Woodland	Southern Interior Low Plateau Dry-Mesic Oak Forest - Evergreen Modifier
Forest/Woodland	Southern Piedmont Dry Oak-(Pine) Forest - Hardwood Modifier
Forest/Woodland	Southern Piedmont Dry Oak-(Pine) Forest - Mixed Modifier
Forest/Woodland	Southern Piedmont Dry Oak-Heath Forest - Hardwood Modifier
Forest/Woodland	Southern Piedmont Dry Oak-Heath Forest - Mixed Modifier
Forest/Woodland	Southern Piedmont Dry Oak-Heath Forest - Virginia/Pitch Pine Modifier
Forest/Woodland	Southern Piedmont Glade and Barrens
Forest/Woodland	Southern Piedmont Mafic Hardpan Woodland
Forest/Woodland	Southern Piedmont Mesic Forest
Forest/Woodland	Southern Piedmont Northern Triassic Basin Dry Forest
Forest/Woodland	Southern Ridge and Valley Dry Calcareous Forest
Forest/Woodland	Southern Ridge and Valley Dry Calcareous Forest - Hardwood Modifier
Forest/Woodland	Southwest Florida Coastal Strand and Maritime Hammock
Prairie	Bluegrass Basin Savanna and Woodland
Prairie	East Gulf Coastal Plain Jackson Prairie and Woodland
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 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 Wet Longleaf Pine Savanna and Flatwoods
Wetlands	Atlantic Coastal Plain Peatland Pocosin
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	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 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 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 Seepage Swamp
Wetlands	East Gulf Coastal Plain Small Stream and River Floodplain Forest
Wetlands	East Gulf Coastal Plain Southern Loblolly-Hardwood Flatwoods
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 Interior and Appalachian Rich Swamp
Wetlands	South Florida Bayhead Swamp
Wetlands	South Florida Cypress Dome
Wetlands	South Florida Dwarf Cypress Savanna
Wetlands	South Florida Hardwood Hammock
Wetlands	South Florida Pine Flatwoods
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	South-Central Interior/Upper Coastal Plain Wet Flatwoods
Wetlands	Southern Coastal Plain Blackwater River Floodplain Forest
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 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

Selected Secondary Map Units within 250m of Primary Map Units:

Functional Group	Map Unit Name
Forest/Woodland	Southern Piedmont Dry Oak-Heath Forest - Virginia/Pitch Pine Modifier
Forest/Woodland	Southeastern Interior Longleaf Pine Woodland
Forest/Woodland	Southern Appalachian Montane Pine Forest and Woodland
Forest/Woodland	Southern Appalachian Low Mountain Pine Forest
Forest/Woodland	Southern Piedmont Dry Oak-(Pine) Forest - Loblolly Pine Modifier
Forest/Woodland	Allegheny-Cumberland Dry Oak Forest and Woodland - Pine Modifier
Forest/Woodland	Southern Ridge and Valley Dry Calcareous Forest - Pine Modifier
Forest/Woodland	Central Appalachian Oak and Pine Forest
Forest/Woodland	Northeastern Interior Dry Oak Forest - Virginia/Pitch Pine 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 Fall-Line Sandhills Longleaf Pine Woodland - Loblolly Modifier
Forest/Woodland	Atlantic Coastal Plain Upland Longleaf Pine Woodland
Forest/Woodland	Florida Longleaf Pine Sandhill - Open Understory Modifier

Forest/Woodland	Florida Longleaf Pine Sandhill - Scrub/Shrub Understory Modifier
Forest/Woodland	East Gulf Coastal Plain Northern Loess Plain Oak-Hickory Upland - Juniper 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 Interior Upland Longleaf Pine Woodland - Loblolly Modifier
Forest/Woodland	East Gulf Coastal Plain Interior Shortleaf Pine-Oak Forest - Pine Modifier
Forest/Woodland	South Florida Pine Rockland
Anthropogenic	Evergreen Plantations

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.

Awise, J.C., and R.M. Zink. 1988. Molecular genetic divergence between avian sibling species: king and clapper rails, long-billed and short-billed dowitchers, boat-tailed and great-tailed grackles, and tufted and black-crested titmice. *Auk* 105:516-528.

Bent, A.C. 1946. Life histories of North American jays, crows, and titmice. U.S. Natl. Mus. Bull. 191. Washington, D.C.

Braun, D., G. B. Kitto, and M. J. Braun. 1984. Molecular population genetics of tufted and black-crested forms of *PARUS BICOLOR*. *Auk* 101:170-173.

Dixon, K. L. 1990. Constancy of margins of the hybrid zone in titmice of the *PARUS BICOLOR* complex in coastal Texas. *Auk* 107:184-188.

Ehrlich, P.R., D.S. Dobkin, and D. Wheye. 1988. *The birder's handbook: a field guide to the natural history of North American birds*. Simon and Shuster, Inc., New York. xxx + 785 pp.

Fussell, J.O. III. 1994. *A birder's guide to coastal North Carolina*. Chapel Hill and London: The University of North Carolina Press.

Gill, F. B., and B. Slikas. 1992. Patterns of mitochondrial DNA divergence in North American crested titmice. *Condor* 94:20-28.

Hamel, P. B. 1992. *The land manager's guide to the birds of the south*. The Nature Conservancy, Chapel Hill, North Carolina. 367 pp + several appendices.

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

Harrison, H.H. 1979. *A field guide to western birds' nests*. Houghton Mifflin Company, Boston. 279 pp.

Kaufman K. 1996. *Lives of North American Birds*. Boston, New York: Houghton Mifflin Company.

Mitchell, W.A. 1988. Songbird nest boxes. Section 5.1.8, U.S. Army Corps of Engineers, Wildlife Resources Management Manual. Tech. Rep. EL-88-19. Waterways Experiment Station, Vicksburg, Mississippi. 48 pp.

Potter, E. F., J. F. Parnell, and R. P. Teulings. 1980. *Birds of the Carolinas*. Univ. North Carolina Press, Chapel Hill. 408 pp.

Sheldon, F. H., et al. 1992. DNA-DNA hybridization evidence of phylogenetic relationships among major lineages of *PARUS*. *Auk* 109:173-185.

Sibley, C.G., and B.L. Monroe. 1990. *Distribution and taxonomy of birds of the world*. Yale University Press, New Haven, Connecticut. xxiv + 1111 pp.

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

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