



SOUTHEAST GAP ANALYSIS PROJECT



Species Modeling Report

Bachman's Sparrow

Aimophila aestivalis

Taxa: Avian

Order: Passeriformes

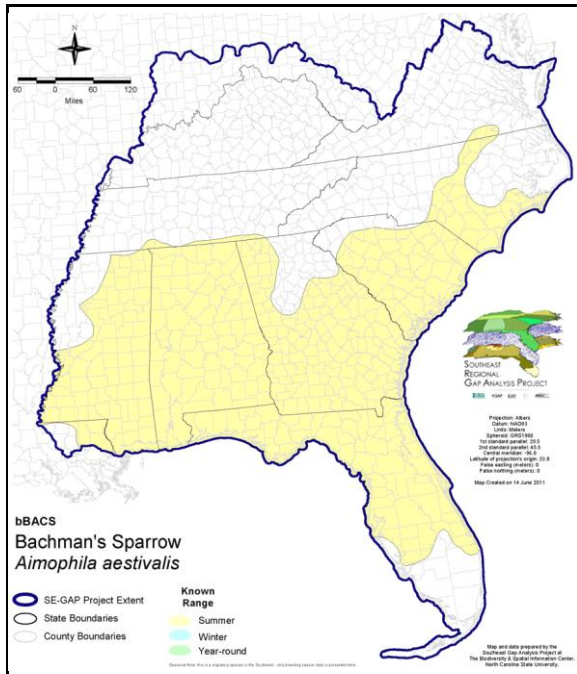
Family: Emberizidae

SE-GAP Spp Code: **bBACS**

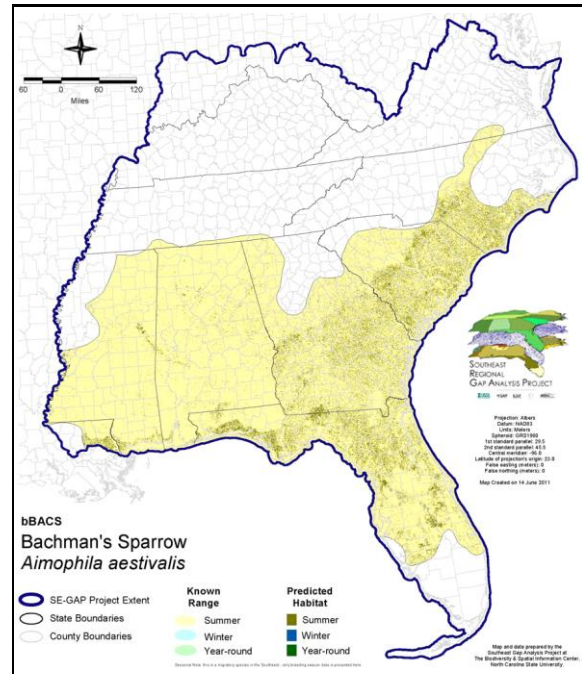
ITIS Species Code: 179386

NatureServe Element Code: ABPBX91050

KNOWN RANGE:



PREDICTED HABITAT:



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

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

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

Data Download: http://www.basic.ncsu.edu/segap/datazip/region/vert/bBACS_se00.zip

PROTECTION STATUS:

Reported on March 14, 2011

Federal Status: ---

State Status: AR (W), GA (R), IL (RE), IL (RE), KY (E), MD (X), MO (E), NC (SC), NY (PB), OH (X), OK (Category II), TN (E), TX (T), VA (LT)

NS Global Rank: G3

NS State Rank: AL (S3), AR (S3B), DC (SXB), FL (S3), GA (S2), IL (SXB,SHN), IL (SXB,SHN), IN (SXB), KS (SNA), KY (S1B), LA (S3), MD (SHB), MI (SNA), MO (S2), MS (S3B,S3S4N), MS (S3B,S3S4N), NC (S3B,S2N), NY (SNA), OH (SX), OK (S2?), PA (SX), SC (S3), TN (S2), TX (S3B), VA (S1B), WV (SHB), NS (SNA), ON (SNA)

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	4,832.3	< 1	426.2	< 1	0.0	0	0.0	0
Status 2	18,121.0	< 1	9,027.0	< 1	0.0	0	14.7	< 1
Status 3	0.0	0	150,853.8	3	60.3	< 1	208,636.2	4
Status 4	0.0	0	0.0	0	0.0	0	0.0	0
Total	22,953.2	< 1	160,307.0	3	60.3	< 1	208,650.9	4
	US Dept. of Energy		US Nat. Park Service		NOAA		Other Federal Lands	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	57.8	< 1	0.0	0	293.9	< 1
Status 2	0.0	0	941.6	< 1	1,355.7	< 1	39.2	< 1
Status 3	17,219.0	< 1	90.3	< 1	0.0	0	2,069.9	< 1
Status 4	0.0	0	0.0	0	0.0	0	0.0	0
Total	17,219.0	< 1	1,089.6	< 1	1,355.7	< 1	2,403.1	< 1
	Native Am. Reserv.		State Park/Hist. Park		State WMA/Gameland		State Forest	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	38.9	< 1	0.0	0	0.0	0
Status 2	0.0	0	171.5	< 1	66,610.0	1	0.0	0
Status 3	49.3	< 1	79,538.9	1	16,104.9	< 1	101,386.6	2
Status 4	0.0	0	0.0	0	5,670.5	< 1	8.9	< 1
Total	49.3	< 1	79,749.3	1	88,385.3	2	101,395.5	2
	State Coastal Reserve		ST Nat.Area/Preserve		Other State Lands		Private Cons. Easemt.	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	1,391.6	< 1	0.0	0	0.0	0
Status 2	498.1	< 1	4,926.1	< 1	0.0	0	963.4	< 1
Status 3	0.0	0	7,282.4	< 1	8,759.2	< 1	32,422.1	< 1
Status 4	0.0	0	0.0	0	519.5	< 1	0.0	0
Total	498.1	< 1	13,600.1	< 1	9,278.6	< 1	33,385.5	< 1
	Private Land - No Res.		Water		Overall Total			
	ha	%	ha	%	ha	%		
Status 1	0.0	0	0.0	0	7,040.7 < 1			
Status 2	0.0	0	0.0	0	102,668.0 2			
Status 3	191.0	< 1	0.0	0	624,663.9 14			
Status 4	4,710,465.9	84	300.2	< 1	4,722,635.4 84			
Total	4,710,656.9	84	300.2	< 1	5,457,008.1 100			

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: Breeds in pine woodland or open habitats with a dense ground layer of grasses and forbs, and an open understory with few dense shrubs. Traditionally associated with mature pine stands where wiregrass or broomsedge dominates ground cover. Sparrow populations often especially high in areas maintained for RCWs. Also found in open grassy habitat patches where understory shrub intrusion is limited by poor soils, fire or disturbance. Such habitat includes limestone glades and dry grassy edges of seasonal ponds. With no mature pine, majority of sparrows found in open habitats such as roadcuts, utility rights-of-way and especially clearcuts. A few studies list breeding territories averaging approximately 2.5 ha (Dunning & Watts 1990, Dunning 1993, Dunning et al. 1995, LeGrand & Schneider 1992). NatureServe (not sure of their source) states minimum clearcut size used is usually 20 ha. M. Rubino, 10jan05.

Contiguous Patch Minimum Size (hectares): 3

Selected Map Units:

Functional Group	Map Unit Name
Anthropogenic	Successional Grassland/Herbaceous
Anthropogenic	Successional Grassland/Herbaceous (Other)
Anthropogenic	Successional Grassland/Herbaceous (Utility Swath)
Forest/Woodland	Alabama Ketona Glade and Woodland
Forest/Woodland	Appalachian Serpentine Woodland
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 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 Upland Longleaf Pine Woodland - Open Understory Modifier
Forest/Woodland	East Gulf Coastal Plain Interior Upland Longleaf Pine Woodland - Scrub/Shrub Modifier
Forest/Woodland	Florida Longleaf Pine Sandhill - Open Understory Modifier
Forest/Woodland	Florida Longleaf Pine Sandhill - Scrub/Shrub Understory Modifier
Forest/Woodland	South Florida Pine Rockland
Forest/Woodland	Southeastern Interior Longleaf Pine Woodland
Forest/Woodland	Southern Piedmont Glade and Barrens
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
Wetlands	Atlantic Coastal Plain Northern Wet Longleaf Pine Savanna and Flatwoods
Wetlands	Atlantic Coastal Plain Southern Wet Pine Savanna and Flatwoods
Wetlands	Central Florida Pine Flatwoods
Wetlands	East Gulf Coastal Plain Near-Coast Pine Flatwoods - Open Understory Modifier
Wetlands	East Gulf Coastal Plain Southern Loblolly-Hardwood Flatwoods
Wetlands	South Florida Pine Flatwoods

CITATIONS: Allaire, P.N., and C.D. Fisher. 1975. Feeding ecology of three resident sympatric sparrows in eastern Texas. *Auk* 92:260-269.

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.

Bendire, C.E. 1888. Notes on the nest and eggs of *Peucaea aestivalis bachmani* Audubon, Bachman's sparrow. *Auk* 5:351-356.

Bent, A. C. 1968. Life histories of North American cardinals, grosbeaks, buntings, towhees, finches, sparrows, and allies. *Bull. U.S. Nat. Mus.* 237.

Blincoe, B. J. 1921. Two Bachman's sparrows' nests near Bardstown, Kentucky. *Wilson Bull.* 33:100-101.

Brooks, M. 1934. Some changes in the breeding birds of Upshur County, West Virginia. *Wilson Bull.* 46:243-247.

- Brooks, M. 1938. Bachman's sparrow in the north-central portion of its range. *Wilson Bull.* 50:86-109.
- Burleigh, T. D. 1958. *Georgia birds*. Univ. Oklahoma Press, Norman. 746 pp.
- Byrd, M.A., and D.W. Johnston. 1991. Birds. Pages 477-537 in K. Terwilliger, coordinator. *Virginia's endangered species: proceedings of a symposium*. McDonald and Woodward Publ. Co., Blacksburg, Virginia.
- Carter, M., G. Fenwick, C. Hunter, D. Pashley, D. Petit, J. Price, and J. Trapp. 1996. Watchlist 1996: For the future. *Field Notes* 50(3):238-240.
- Dunning, J.B. 1993. Bachman's sparrow (*Aimophila aestivalis*). In A. Poole and F. Gill, eds., *The Birds of North America*, No. 38. The Academy of Natural Sciences, Philadelphia and The American Ornithologists' Union, Washington, DC.
- Dunning, J.B. Jr., R. Borgella Jr., K. Clements, and G.K. Meffe. 1995. Patch isolation, corridor effects, and colonization by a resident sparrow in a managed pine woodland. *Conservation Biology*. 9(3): 542-550.
- Dunning, J.B., Jr., and B.D. Watts. 1990. Regional differences in habitat occupancy by Bachman's sparrow. *Auk* 107:463-472.
- Ehrlich, P.R., D.S. Dobkin, and D. Wheye. 1992. *Birds in jeopardy: the imperiled and extinct birds of the United States and Canada, including Hawaii and Puerto Rico*. Stanford University Press, Stanford, California. 259 pp.
- Engstrom, R. T., R. L. Crawford, and W. W. Baker. 1984. Breeding bird populations in relation to changing forest structure following fire exclusion: a 15-year study. *Wilson Bull.* 96:437-450.
- Evans, K. E., and R. A. Kirkman. 1981. *Guide to bird habitats of the Ozark Plateau*. USDA Forest Service, Gen. Tech. Rep. NC-68. 79 pp.
- Fussell, J.O. III. 1994. *A birder's guide to coastal North Carolina*. Chapel Hill and London: The University of North Carolina Press.
- Ganier, A.F. 1921. Nesting of Bachman's sparrow. *Wilson Bull.* 33:2-4.
- Graber, R. R., and J. W. Graber. 1963. A comparative study of bird populations in Illinois, 1906-1909 and 1956-1958. *Illinois Natural History Survey Bull.* 28:383-528.
- Haggerty, T.M. 1986. Reproductive ecology of Bachman's sparrow (*AIMOPHILA AESTIVALIS*) in central Arkansas. Ph.D. dissertation, Univ. Arkansas, Fayetteville.
- Haggerty, T.M. 1988. Aspects of the breeding biology and productivity of Bachman's sparrow in central Arkansas. *Wilson Bull.* 100:247-255.
- 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.
- Hands, H. M., R. D. Drobney, and M. R. Ryan. 1989. Status of the Bachman's sparrow in the northcentral United States. *Missouri Coop. Fish Wildl. Res. Unit Rep.* 11 pp.
- Hardin, K.I. 1977. Status and habitat preferences of Bachman's sparrow on southern Missouri glades. *Maryland Nat. Hist. Soc.*, Baltimore.
- Hardin, K.I. and G.E. Progasco. 1983. The habitat characteristics and life requirements of Bachman's Sparrow. *Birding* 15(4-5):189-197.
- Hardin, K.I., T.S. Baskett, and K.E. Evans. 1982. Habitat of Bachman's sparrows breeding on Missouri glades. *Wilson Bull.* 94:208-212.
- 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.
- Herkert, J. R., editor. 1992. *Endangered and threatened species of Illinois: status and distribution*. Vol. 2: Animals. Illinois Endangered Species Protection Board. iv + 142 pp.
- LeGrand, H.E., Jr., and K.J. Schneider. 1992. Bachman's sparrow, *AIMOPHILA AESTIVALIS*. Pages 299-313 in K. J. Schneider and D. M. Pence, editors. *Migratory nongame birds of management concern in the Northeast*. U.S. Fish and Wildlife Service, Newton Corner
- McKittrick, M. C. Territory size and density of Bachman's sparrow in south central Florida. *Florida Field Naturalist*. 1979; 7 (1):33-34.
- McNair, D.B. 1986. Past breeding distribution of eleven species in Georgia based on nest records from egg data slips. *Oriole* 51:28-31.
- Mengel, R. M. 1965. *The birds of Kentucky*. Ornithol. Monogr. No. 3. 581 pp.
- National Geographic Society (NGS). 1983. *Field guide to the birds of North America*. National Geographic Society, Washington, D.C.
- Nicholson, C.P. 1976. The Bachman's Sparrow in Tennessee. *Migrant* 48:53-62.
- Oberholser, H.C. 1974. *The bird life of Texas*. 2 vols. Univ. of Texas Press, Austin.

- Peterson, R.T. 1980. A field guide to the birds east of the Rockies. Houghton Mifflin Company. 383 pp.
- Platt, W.J., G.W. Evans, and S.L. Rathbun. 1988. The population dynamics of a long-lived conifer (*Pinus Palustris*). *Amer. Nat.* 131:491-525.
- Potter, E. F., J. F. Parnell, and R. P. Teulings. 1980. *Birds of the Carolinas*. Univ. North Carolina Press, Chapel Hill. 408 pp.
- Probasco, G. E. 1978. Bird habitat-woody plant relations on Missouri limestone glades. Pages 107-109 in D. C. Glenn-Lewin and R. Q. Landers, editors. *Proceedings of the fifth Midwest prairie conference*, Iowa State Univ., Ames. 230 pp.
- 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.
- Sprunt, A., and E. B. Chamberlain. 1970. *South Carolina bird life*. Second edition. Univ. South Carolina Press, Columbia. 655 p.
- Terres, J.K. 1980. *The Audubon Society encyclopedia of North American birds*. Alfred A. Knopf, New York.
- U. S. Fish and Wildlife Service, Office of Migratory Bird Management. 1987. *Migratory nongame birds of management concern in the United States:the 1987 list*.

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