





# **Species Modeling Report**

# **American Bittern**

Botaurus lentiginosus

Taxa: Avian

Order: Ciconiiformes

Family: Ardeidae

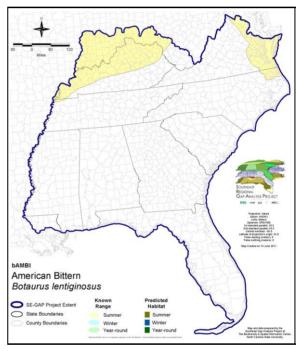
# SE-GAP Spp Code: **bAMBI** ITIS Species Code: 174856

NatureServe Element Code: ABNGA01020

### **KNOWN RANGE:**

# American Bittern Botaurus lentiginosus

# PREDICTED HABITAT:



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

Predicted Habitat Map Link: http://www.basic.ncsu.edu/segap/datazip/maps/SE\_Dist\_bAMBI.pdf GAP Online Tool Link: http://www.gapserve.ncsu.edu/segap/segap/index2.php?species=bAMBI

Data Download: http://www.basic.ncsu.edu/segap/datazip/region/vert/bAMBI\_se00.zip

# **PROTECTION STATUS:**

Reported on March 14, 2011

Federal Status: ---

State Status: AR (W\*), AZ (WSC), CA (None), CT (E), CT (E), ID (P), ID (P), IL (LE), IN (SE), KY (H), MA (E), MD (I), MI (SC), MN (NON), MO (E), NC (SR), ND (Level I), NJ (E/SC), NV (YES), NY (SC), OH (E), PA (PE), RI (State Endangered), UT (None), WI (SC/M), WI (SC/M), BC (3 (2005)), QC (Non suivie)

NS Global Rank: G4

NS State Rank: AK (S3B), AL (S3N), AL (S3N), AR (S2N), AZ (S1S2), CA (S3), CO (S3S4B), CO (S3S4B), CT (S1B), CT (S1B), DC (S1S2B,S2N), DE (S1B), DE (S1B), FL (SNRN), GA (S3?), IA (S2B), ID (S4B), ID (S4B), IL (S1S2), IN (S2B), KS (S1B), KY (SHB), LA (S4N), MA (S2B), MD (S1S2B), ME (S4B), MI (S3S4), MN (S4B), MO (S1), MS (S3N), MT (S4B), MT (S4B), NC (S1B,S3N), ND (SNRB), NE (S4), NH (S3B), NJ (S1B,S3N), NM (S3B,S3N), NV (S3B), NY (S4), OH (S2), OK (S1S3), OR (S4), PA (S1B), RI (S1B,S1N), SC (SNRN), SD (S4B), SD (S4B), TN (S1), TX (S3), UT (S3S4B,S3N), VA (S1B,S2N), VT (S3B,S3N), WA (S4B,S3N), WI (S3B), WI (S3B), WV (S1B,S1N), WY (S3B), WY (S3B), AB (S3S4), BC (S3B), LB (S2S3B), MB (S4B), MB (S4B), NB (S4B), NF (S4B), NS (S4B), NT (SNRB), NU (SNRB), ON (S4B), PE (S4B), QC (S5B), SK (S4B)

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### SUMMARY OF PREDICTED HABITAT BY MANAGMENT AND GAP PROTECTION STATUS:

ha 71.0 64.1 6.9 1.9 143.9 S Dept. of E ha 0.0 0.0 0.0 0.0	% 0 0 0 0	ha 0.0 0.0 0.0 0.0 0.0 0.0 US Nat. Park 5 ha 0.0 0.0 133.5	% 0 0 0 0 0 Service % 0 0 0	ha 0.0 0.0 0.0 0.0 0.0 ha	% 0 0 0 0 0 0 0 NOAA %	ha 0.0 22.0 347.7 1.1 370.7 Other Federa ha	% 0 <1 5 <1 5
64.1 6.9 1.9 143.9 S Dept. of E ha 0.0 0.0 0.0 0.0	<1 <1 <1 <2 Energy % 0 0 0 0 0 0	0.0 0.0 0.0 0.0 US Nat. Park 9 ha 0.0	0 0 0 0 0 Service %	0.0 0.0 0.0 0.0	0 0 0 0 NOAA %	22.0 347.7 1.1 370.7 Other Federa	<1 5 <1 5
6.9 1.9 143.9 S Dept. of E ha 0.0 0.0 0.0 0.0	<1 <1 2 Energy % 0 0 0 0 0 0	0.0 0.0 0.0 US Nat. Park 5 ha 0.0 0.0	0 0 0 0 Service %	0.0 0.0 0.0	0 0 0 NOAA %	347.7 1.1 370.7 Other Federa	5 < 1 5
1.9 143.9 S Dept. of E ha 0.0 0.0 0.0 0.0	< 1 2 Energy % 0 0 0 0 0 0	0.0 0.0 US Nat. Park 9 ha 0.0 0.0	0 0 Service % 0	0.0 0.0 ha	0 0 NOAA %	1.1 370.7 Other Federa	< 1 5
143.9 S Dept. of E ha 0.0 0.0 0.0 0.0 0.0	2 Energy % 0 0 0 0 0 0	0.0 US Nat. Park 9 ha 0.0 0.0	0 Service % 0	0.0 ha	0 NOAA %	370.7 Other Federa	5 Il Lands
S Dept. of E ha 0.0 0.0 0.0 0.0 0.0	Energy	US Nat. Park 9 ha 0.0 0.0	Service %	ha	NOAA %	Other Federa	ll Lands
ha 0.0 0.0 0.0 0.0 0.0 0.0	% 0 0 0 0	ha 0.0 0.0	%		%		
0.0 0.0 0.0 0.0 0.0	0 0 0 0	0.0 0.0	0			ha	%
0.0 0.0 0.0 0.0	0 0 0	0.0	-	0.0			, .
0.0 0.0 0.0	0		0	0.0	0	0.0	0
0.0	0	133.5	U	0.6	< 1	0.0	0
0.0		100.0	2	0.0	0	0.0	0
		0.0	0	0.0	0	0.0	0
	0	133.5	2	0.6	< 1	0.0	0
ative Am. R	leserv.	State Park/His	st. Park	State WMA/Gar	neland	State	Forest
ha	%	ha	%	ha	%	ha	%
0.0	0	0.0	0	0.0	0	0.0	0
0.0	0	0.9	< 1	53.6	< 1	0.0	0
0.0	0	56.5	< 1	23.8	< 1	0.0	0
0.0	0	0.0	0	0.0	0	0.0	0
0.0	0	57.4	< 1	77.3	1	0.0	0
e Coastal Re	eserve	ST Nat.Area/Pr	eserve	Other State	Lands	Private Cons. E	asemt.
ha	%	ha	%	ha	%	ha	%
0.0	0	0.0	0	0.0	0	0.0	0
0.0	0	51.0	< 1	0.0	0	0.0	0
0.0	0	0.0	0	0.0	0	0.0	0
0.0	0	0.0	0	0.0	0	0.0	0
0.0	0	51.0	< 1	0.0	0	0.0	0
te Land - N	o Res.		Water			Overa	ıll Total
ha	%	ha	%			ha	%
0.0	0	0.0	0			71.0	< 1
0.0	0	0.0	0			192.2	3
0.0	0	0.0	0			568.4	8
5,427.5	87	150.5	2			6,579.1	89
	87	150.5	2			7 410 6	100
1	0.0 e Coastal Reha 0.0 0.0 0.0 0.0 0.0 te Land - N ha 0.0 0.0	0.0 0  Coastal Reserve ha % 0.0 0 0.	0.0 0 57.4  Coastal Reserve ha % ha 0.0 0 0.0 0.0 0.0 0.0 0 51.0 0.0 0 0.0 0.0 0 0.0 0.0 0 51.0  te Land - No Res. ha 0.0 0 0.0 0.0 0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Coastal Reserve ha         ST Nat.Area/Preserve ha           0.0         0	O.0     O.0       Coastal Reserve ha     ST Nat.Area/Preserve ha     Other State ha       0.0     0.0     0.0     0.0       0.0     0.0     0.0	Coastal Reserve ha         ST Nat.Area/Preserve ha         Other State Lands ha         Na         Na	Coastal Reserve         ST Nat.Area/Preserve         Other State Lands         Private Cons. E           ha         %         ha         %         ha           0.0         0         0.0         0         0.0           0.0         0         0.0         0         0.0           0.0         0         0.0         0         0.0           0.0         0         0.0         0         0.0           0.0         0         0.0         0         0.0           0.0         0         0.0         0         0.0           0.0         0         0.0         0         0.0           0.0         0         0.0         0         0.0           0.0         0         0.0         0         0.0           0.0         0         0.0         0         0.0           0.0         0         0.0         0         0.0           0.0         0         0.0         0         0.0           0.0         0         0.0         0         0.0           0.0         0         0.0         0         0.0           0.0         0         0.0         0

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.

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## PREDICTED HABITAT MODEL(S):

#### **Summer Model:**

Habitat Description: Breeds chiefly in freshwater wetlands with tall emergent vegetation, rarely or less often in brackish marshes. Primarily uses lake and pond edges where cattails, sedges, or bulrushes are plentiful and marshes where there are patches of open water and aquatic-bed vegetation. Occurs also in other areas with dense herbaceous cover, such as shrubby marshes, bogs, wet meadows. Readily uses wetlands created by impoundments (Gibbs et al. 1992, Hamel 1992). M. Rubino, 10nov04.

#### Hydrography Mask:

Freshwater Only

Utilizes flowing water features with buffers of 500m from and 30m into selected water features.

Utilizes open water features with buffers of 500m from and 30m into selected water features.

Utilizes wet vegetation features with buffers of 500m from and 120m into selected vegetation features.

Functional Group	Map Unit Name				
Brackish Tidal Marsh & Wetland	Atlantic Coastal Plain Northern Tidal Wooded Swamp				
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				
Water	Open Water (Fresh)				
Wetlands	Atlantic Coastal Plain Depression Pondshore				
Wetlands	Atlantic Coastal Plain Large Natural Lakeshore				
Wetlands	Atlantic Coastal Plain Northern Pondshore				
Wetlands	Central Appalachian Floodplain - Herbaceous Modifier				
Wetlands	Central Interior Highlands and Appalachian Sinkhole and Depression Pond				
Wetlands	North-Central Appalachian Seepage Fen				
Wetlands	South-Central Interior Large Floodplain - Herbaceous Modifier				
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.

Brewer, R., G.A. McPeek, and R.J. Adams, Jr. 1991. The Atlas of Breeding Birds of Michigan. Michigan State University Press, East Lansing, Michigan, xvii + 594 pp.

Brown, M., and J.J. Dinsmore. 1986. Implications of marsh size and isolation for marsh bird management. Journal of Wildlife Management

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-

Cogswell, H.L. 1977. Water birds of California. Univ. California Press, Berkeley. 399

Desgranges, J. L., and B. Houde. 1989. Effects of acidity and other environmental parameters on the distribution of lacustrine birds in Quebec. In J. L. DesGranges (editor) Studies of the Effects of Acidification on Aquatic Wildlife in Canada:Lacustrine B

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.

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.

Fredrickson, L.H., and F.A. Reid. 1986. Wetlands and riparian habitats:a nongame management overview. Pages 59-96 in J.B. Hale, L.B. Best, and R. L. Clawson, (eds.) Management of nongame wildlife in the Midwest:a developing art. Proc. Symp. 47th Midwest F

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

Gibbs, J.P., and S.M. Melvin. 1992. American bittern, BOTAURUS LENTIGINOSUS. Pages 51-69 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, Massachusett

Hancock, J., and H. Elliot. 1978. The herons of the world. Harper and Row, New

Hancock, J., and J. Kushlan. 1984. The Herons Handbook. Croom Helm, Ltd., Kent, England. 288

Hands, H.M., R.D. Drobney, and M.R. Ryan. 1989. Status of the American bittern in the northcentral United States. Missouri Coop. Fish Wildl. Res. Unit Rep. 13 pp.

bAMBI Page 4 of 5 Hanowski, J.M., and G.J. Niemi, 1990. An approach for quantifying habitat characteristics for rare wetland birds, Pages 51-56 in Mitchell et al., editors. Ecosystem management:rare species and significant habitats. New York State Museum Bulletin 471.

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

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.

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

National Geographic Society (NGS). 1983. Field guide to the birds of North America. National Geographic Society, Washington,

Palmer, R. S. (editor). 1962. Handbook of North American birds. Vol. 1. Loons through flamingos. Yale University Press, New Haven. 567

Payne, R. B., and C. J. Risley. 1976. Systematics and evolutionary relationships among the herons (Ardeidae). Univ. Michigan Mus. Zool., Misc. Publ. No. 150. 115 pp.

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

Reid, F. A. 1989. Differential habitat use by waterbirds in a managed wetland complex. University of Missouri, Columbia, Missouri. Ph.D. dissertation, 243 pp.

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

Stewart, R.E., and C.S. Robbins. 1958. Birds of Maryland and the District of Columbia. North American Fauna No. 62. U.S. Government Printing Office, Washington, D.C. 401 pp.

Stupka A 1963. Notes on the birds of the Great Smoky Mountains National Park. Knoxville: The University of Tennessee Press.

Swift, B. L. 1987. An analysis of avian breeding habitats in Hudson river tidal marshes. New York State Department of Environmental Conservation, Division of Fish and Wildlife, Delmar, New York. Unpublished report. 62 pp.

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

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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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

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