

# SOUTHEAST GAP ANALYSIS PROJECT

## Species Modeling Report

PREDICTED HABITAT:

### **Bell's Vireo**

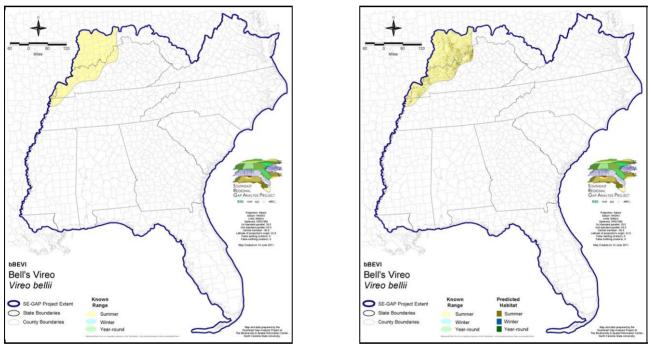
Vireo bellii

Taxa: Avian Order: Passeriformes

Family: Vireonidae

SE-GAP Spp Code: **bBEVI** ITIS Species Code: 179003 NatureServe Element Code: ABPBW01110

#### **KNOWN RANGE:**



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

 Predicted Habitat Map Link:
 http://www.basic.ncsu.edu/segap/datazip/maps/SE\_Dist\_bBEVI.pdf

 GAP Online Tool Link:
 http://www.gapserve.ncsu.edu/segap/segap/index2.php?species=bBEVI

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

#### **PROTECTION STATUS:**

Reported on March 14, 2011

Federal Status: ---

State Status: AR (W), KY (S), MN (NON), NM (T), NV (YES), NY (PB), OH (SI), OK (Category II), UT (None), WI (THR), WI (THR)

NS Global Rank: G5

NS State Rank: AL (SNA), AR (S3B), AZ (S4), CA (S3), CO (S1B), FL (SNA), IA (S3B,S4N), IL (S4), IN (S3B), KS (S4B), KY (S2S3B), LA (S1B), LA (S1B), MI (SNRN), MN (SNRB), MO (S3), MS (SNA), NC (SNA), ND (S3), NE (S5), NM (S2B,S3N), NV (S2B), NY (SNA), OH (SNA), OK (S3B), OR (SNA), SD (S4B), SD (S4B), TN (SHB), TX (S3B), UT (SHB), VA (SNA), WI (S2B), WI (S2B), WV (SNA), WY (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	0.0	0	0.0	0	0.0	0	0.0	C
Status 2	90.5	< 1	10.0	< 1	0.0	0	0.0	0
Status 3	0.0	0	52.0	< 1	10.4	< 1	475.3	< 1
Status 4	0.0	0	0.0	0	0.0	0	0.0	0
Total	90.5	< 1	62.0	< 1	10.4	< 1	475.3	< 1
1	US Dept. of Energy		US Nat. Park Service		NOAA		Other Federal Lands	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	0.0	0	0.0	0	0.0	0
Status 2	0.0	0	0.0	0	0.0	0	0.0	0
Status 3	0.0	0	0.0	0	0.0	0	0.0	0
Status 4	0.0	0	0.0	0	0.0	0	0.0	0
Total	0.0	0	0.0	0	0.0	0	0.0	0
1	Native Am. Reserv.		State Park/Hist. Park		State WMA/Gameland		State Forest	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	0.0	0	0.0	0	0.0	0
Status 2	0.0	0	0.0	0	2,354.2	< 1	0.0	0
Status 3	0.0	0	281.5	< 1	543.2	< 1	9.6	< 1
Status 4	0.0	0	0.0	0	0.0	0	0.0	0
Total	0.0	0	281.5	< 1	2,897.4	< 1	9.6	< 1
I	State Coastal Reserve		ST Nat.Area/Preserve		Other State Lands		Private Cons. Easemt.	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	33.1	< 1	0.0	0	0.0	0
Status 2	0.0	0	20.7	< 1	0.0	0	0.0	0
Status 3	0.0	0	0.0	0	84.3	< 1	0.0	0
Status 4	0.0	0	0.0	0	0.0	0	0.0	0
Total	0.0	0	53.8	< 1	84.3	< 1	0.0	C
1	Private Land - I	No Res.		Water			Overa	all Total
	ha	%	ha	%			ha	%
Status 1	0.0	0	0.0	0			33.1	< 1
Status 2	0.0	0	0.0	0			2,475.5	< 1
Status 3	0.0	0	0.0	0			1,456.4	< 1
Status 4	396,541.5	99	843.8	< 1			397,385.3	99
Total	396,541.5	99	843.8	< 1			401,350.2	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):

Anthropogenic

Wetlands

Wetlands

Wetlands

Summer Model:					
Habitat Description:	Bell's vireo is a species of early successional habitat dominated by deciduous shrubs, shrubby woodlands, riparian thickets, and brushy fields (Brown 1993, Palmer-Ball 1996). Although similar in habitat to it's eastern counterpart the white-eyed vireo (Turcotte & Watts 1999), Bell's vireo prefer more open situations and are largely absent from intensively cultivated areas, grasslands, forests, and mature woodland egdes (Brown 1993, Palmer-Ball 1996). Amy Silvano 31may05				
	Ecosystem Classifiers: Disturbed, Shrub/Scrub, Riparian (put in Lower MS system because I believe this system has be changed and now composes 2 other systems CES203.196 & CES203.195). Amy Silvano 31may05				
Customized Model:	Absent from elevations >1300m (Brown 1993). ****Although not truly an edge species, restict ONLY riparian MU's to ecotone buffer to get at riparian thickets or woodlands. Amy Silvano 31may05				
Elevation Mask: < 13	300m				
Mask of Forest/Open	Ecotone: Include within 60m of ecotone edge.				
Mask of Woodlands	and Shrublands: Include all woodland and shrubland interiors and 60m buffer from them.				
Selected Map Units:					
Functional Group	Map Unit Name				
Anthropogenic	Pasture/Hay				
Anthropogenic	Successional Shrub/Scrub (Clear Cut)				
Anthropogenic	Successional Shrub/Scrub (Other)				

South-Central Interior Large Floodplain - Forest Modifier

Successional Shrub/Scrub (Utility Swath)

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.

South-Central Interior Small Stream and Riparian

Barlow, J. 1962. Natural history of the bell vireo. Lawrence. 296 pp.

Barlow, J. C. 1980. Patterns of ecological interactions among migrant and resident vireos on the wintering grounds. Pages 79-107 in B80KEA02NA.

Central Interior Highlands and Appalachian Sinkhole and Depression Pond

Barlow, J.C. 1962. The natural history of the bell vireo. VIREO BELLII (Audubon). Univ. Kansas Publ. Museum Natural History 12:241-96.

Bent, A.C. 1950. Life histories of North American wagtails, shrikes, vireos, and their allies. U.S. Natl. Mus. Bull. 197. Washington, D.C.

Brown, Bryan T. 1993. Bell's Vireo (Vireo bellii). The Birds of North America, No. 35 (A. Poole and F. Gill, eds.). The Academy of Natural Sciences, Philadelphia, PA, and The American Ornithologists' Union, Washington, D. C.

California Department of Fish and Game. 1990. 1989 annual report on the status of California's state listed threatened and endangered plants and animals. 188 pp.

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.

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.

Franzreb, K. E. 1989. Ecology and conservation of the endangered least Bell's vireo. U.S. Fish and Wildlife Service, Biol. Rep. 89(1). 17 pp.

Hagan, J.M., III, and D.W. Johnston, editors. 1992. Ecology and conservation of neotropical migrant landbirds. Smithsonian Institution Press, Washington, D.C. xiii + 609 pp.

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

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.

Johnson, N. K., R. M. Zink, and J. A. Marten. 1988. Genetic evidence for relationships in the avian family Vireonidae. Condor 90:428-445.

Keast, A., and E. S. Morton. 1980. Migrant birds in the Neotropics; ecology, distribution, and conservation. Smithsonian Inst. Press, Washington, D.C.

Murray, B. W., et al. 1994. The use of cytochrome B sequence variation in estimation of phylogeny in the Vireonidae. Condor 96:1037-1054.

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

Palmer-Ball, B.L., Jr. 1996. The Kentucky Breeding Bird Atlas. The University Press of Kentucky, Lexington.

Sauer, J.R., and S. Droege. 1992. Geographical patterns in population trends of neotropical migrants in North America. Pages 26-42 in J.M. Hagan III and D.W. Johnston, editors. Ecology and conservation of neotropical migrant landbirds. Smithsonian Institu

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

Turcotte, W. H., D. L. Watts. 1999. Birds of Mississippi. Univ. Press of Mississippi, Jackson.

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.

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.