



SOUTHEAST GAP ANALYSIS PROJECT



Species Modeling Report

Louisiana Waterthrush

Seiurus motacilla

Taxa: Avian

Order: Passeriformes

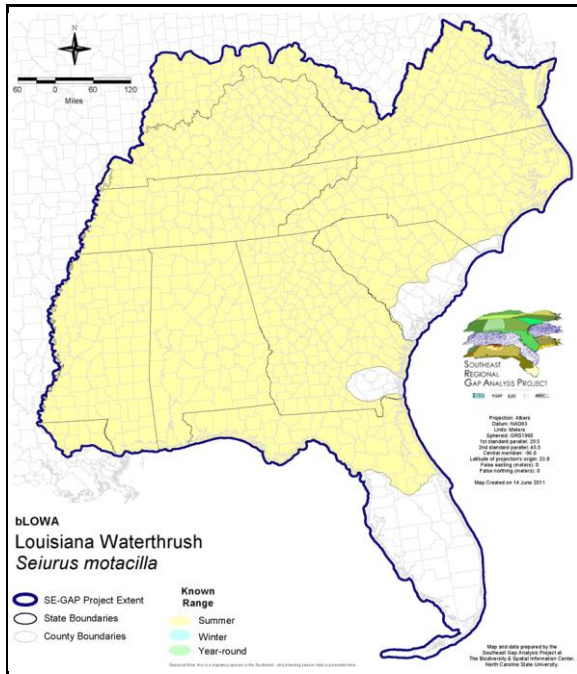
Family: Parulidae

SE-GAP Spp Code: **bLOWA**

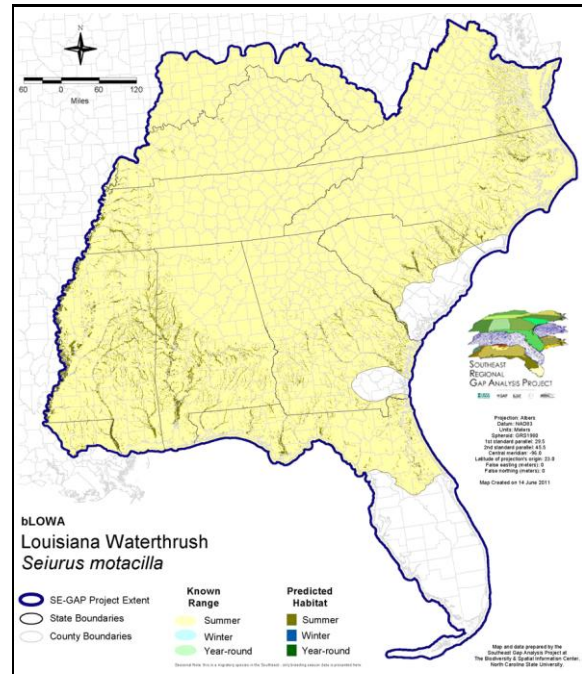
ITIS Species Code: 178935

NatureServe Element Code: ABPBX10030

KNOWN RANGE:



PREDICTED HABITAT:



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

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

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

Data Download: http://www.basic.ncsu.edu/segap/datazip/region/vert/bLOWA_se00.zip

PROTECTION STATUS:

Reported on March 14, 2011

Federal Status: ---

State Status: KY (N), MI (T), MN (SPC), NJ (S/S), NY (PB), RI (Not Listed), WI (SC/M), WI (SC/M), ON (SC), QC (Candidate)

NS Global Rank: G5

NS State Rank: AL (S5B), AR (S4B), AZ (S1N), CO (SNA), CT (S5B), CT (S5B), DC (S2B,S3S4N), DE (S3B), FL (S2), GA (S5), IA (S3B,S4N), IL (S4), IN (S4B), KS (S3B), KY (S5B), LA (S3S4B), MA (S4B), MD (S5B), ME (S2B), MI (S2S3), MN (S3B), MO (SNRB), MS (S3B), MS (S3B), NC (S4B), NC (S4B), NE (S1), NH (S4B), NJ (S4B), NM (SNA), NY (S5), OH (S5), OK (S4B), PA (S5B), RI (S4B), SC (S4), TN (S4), TX (S3B), VA (S5), VT (S4S5B), VT (S4S5B), WI (S3B), WI (S3B), WV (S5B), NS (SNA), ON (S3B), QC (S1B)

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	18,090.2	< 1	321.2	< 1	0.0	0	0.0	0
Status 2	62,111.2	1	11,041.2	< 1	0.0	0	1,408.8	< 1
Status 3	0.0	0	75,381.1	2	1,211.2	< 1	44,462.8	1
Status 4	2.0	< 1	0.0	0	0.0	0	0.0	0
Total	80,203.3	2	86,743.5	2	1,211.2	< 1	45,871.6	1
	US Dept. of Energy		US Nat. Park Service		NOAA		Other Federal Lands	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	11,631.9	< 1	0.0	0	0.0	0
Status 2	0.0	0	311.5	< 1	750.7	< 1	0.0	0
Status 3	11,314.3	< 1	1,449.8	< 1	0.0	0	491.0	< 1
Status 4	0.0	0	0.0	0	0.0	0	0.0	0
Total	11,314.3	< 1	13,393.2	< 1	750.7	< 1	491.0	< 1
	Native Am. Reserv.		State Park/Hist. Park		State WMA/Gameland		State Forest	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	63.2	< 1	0.0	0	0.0	0
Status 2	0.0	0	497.9	< 1	150,220.6	4	12.6	< 1
Status 3	1,722.2	< 1	86,988.9	2	49,680.3	1	14,816.6	< 1
Status 4	0.0	0	0.0	0	5,273.6	< 1	1.6	< 1
Total	1,722.2	< 1	87,549.9	2	205,174.4	5	14,830.8	< 1
	State Coastal Reserve		ST Nat.Area/Preserve		Other State Lands		Private Cons. Easemt.	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	1,404.0	< 1	0.0	0	0.0	0
Status 2	2,279.8	< 1	20,876.6	< 1	0.0	0	96.8	< 1
Status 3	0.0	0	1,655.1	< 1	1,461.2	< 1	18,275.3	< 1
Status 4	0.0	0	0.0	0	570.0	< 1	0.0	0
Total	2,279.8	< 1	23,935.7	< 1	2,031.1	< 1	18,372.2	< 1
	Private Land - No Res.		Water		Overall Total			
	ha	%	ha	%	ha	%		
Status 1	0.0	0	0.0	0	31,510.4 < 1			
Status 2	0.0	0	0.0	0	249,607.6 6			
Status 3	353.2	< 1	0.0	0	309,262.9 9			
Status 4	3,529,014.4	84	7,499.4	< 1	3,547,632.5 84			
Total	3,529,367.6	84	7,499.4	< 1	4,138,013.4 100			

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: Louisiana waterthrushes are dependent upon stream or riparian habitat where their relative abundance has been negatively correlated with distance from streams (Murray and Stauffer 1995). Key environments include humid forests, woodlands, and ravines along streams; mature deciduous and mixed floodplain and swamp forests. It is primarily found in rhododendron thickets and the shrubby understory of mature (Dunn and Garrett 1997), usually deciduously (Simpson 1992) wooded borders of rocky, fast-flowing streams (Potter et al. 1980) with steep banks (Fussell 1994). Within the Coastal plain this species will also breed in cypress swamps and bottomlands along mud-bottomed or stagnant streams and canals, but in lower densities than in uplands (Robinson 1995 (BNA 151), Fussell 1994). Males set up linear territories along streams (Nicholson 1997). The nest is placed in a crevice in the steep bank of a stream, especially in a bend in the stream, and often under roots or ferns (Potter et al. 1980). It may also be found in a fallen log (Griscom and Sprunt 1957) or in the crevice of a rock next to a stream or within a cavity in a stump surrounded by water (Dunn and Garrett 1997). It is built on an obvious platform of muddy leaves (Potter et al. 1980). Forages on the ground, along the water's edge, often wading (Ehrlich et al. 1988). Will forage on floating debris (Potter et al. 1980), emergent rocks and logs, and on damp shady ground (Dunn and Garrett 1997). Later in the season, tends to forage more often on dry ground and on tree limbs (Nicholson 1997). Amy Silvano 16may05

Ecosystem Classifiers: Hardwood, Mixed, Mesic, & Cove Forests, Montane (excluding Pine), Floodplain/Riparian (excluding herbaceous modifiers). Amy Silvano 16may05

Customized Model: Robbins et al (1989) identified that the probability of occurrence is halved at 350 Ha whereas NatureServe (2005) state that essential habitat includes large (probably greater than 100 hectares) tracts of mature, deciduous and deciduous-mixed forest along ravines with running water. Chose 250 for patch size as a median. Hamel (1992) rarely found above 1200m. Management should focus on protecting core wooded riparian habitat, including establishment or maintenance of a buffer strip of undisturbed riparian forest cover at least 100 meters wide (50 meters each side) (NatureServe 2005). Murray & Stauffer (1995) show a significant decrease in relative abundance as distance from stream increases (in their study abundance decreased to zero when distance to stream increased from 4 to 154m). *****Hand modeling for flow accumulation need fast moving streams only outside of Coastal Plain and All types (Fast & Slow) within the CP. Amy Silvano 16May05

Elevation Mask: < 1200m

Hydrography Mask:

Freshwater Only

Utilizes flowing water features with buffer of 60m from selected water features.

Utilizes open water features with buffer of 60m from selected water features.

Contiguous with vegetation features (mesic) buffer of unlimited into selected vegetation features.

Selected Map Units:

Functional Group	Map Unit Name
Forest/Woodland	Allegheny-Cumberland Dry Oak Forest and Woodland
Forest/Woodland	Allegheny-Cumberland Dry Oak Forest and Woodland - Hardwood Modifier
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 Mixed Oak-Heath Forest
Forest/Woodland	Central and Southern Appalachian Montane Oak Forest
Forest/Woodland	Central and Southern Appalachian Northern Hardwood Forest
Forest/Woodland	Central Appalachian Oak and Pine Forest
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 Northern Dry Upland Hardwood Forest
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	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	South-Central Interior Mesophytic Forest
Forest/Woodland	Southern and Central Appalachian Cove Forest
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 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 Mesic Forest
Forest/Woodland	Southern Ridge and Valley Dry Calcareous Forest
Forest/Woodland	Southern Ridge and Valley Dry Calcareous Forest - Hardwood Modifier
Wetlands	Atlantic Coastal Plain Blackwater Stream Floodplain Forest - Forest Modifier
Wetlands	Atlantic Coastal Plain Brownwater Stream Floodplain Forest
Wetlands	Atlantic Coastal Plain Small Blackwater River Floodplain Forest
Wetlands	Atlantic Coastal Plain Small Brownwater River Floodplain Forest
Wetlands	Central Appalachian Floodplain - Forest Modifier
Wetlands	Central Appalachian Riparian - Forest Modifier
Wetlands	East Gulf Coastal Plain Large River Floodplain Forest - Forest Modifier
Wetlands	East Gulf Coastal Plain Small Stream and River Floodplain Forest
Wetlands	Lower Mississippi River Bottomland and Floodplain Forest
Wetlands	Lower Mississippi River Bottomland Depressions - Forest Modifier
Wetlands	Mississippi River Low Floodplain (Bottomland) Forest
Wetlands	Mississippi River Riparian Forest
Wetlands	South-Central Interior Large Floodplain - Forest Modifier
Wetlands	South-Central Interior Small Stream and Riparian
Wetlands	Southern Coastal Plain Blackwater River Floodplain Forest
Wetlands	Southern Piedmont Large Floodplain Forest - Forest Modifier
Wetlands	Southern Piedmont Small Floodplain and Riparian Forest

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