



SOUTHEAST GAP ANALYSIS PROJECT



Species Modeling Report

Northern Saw-whet Owl

Aegolius acadicus

Taxa: Avian

Order: Strigiformes

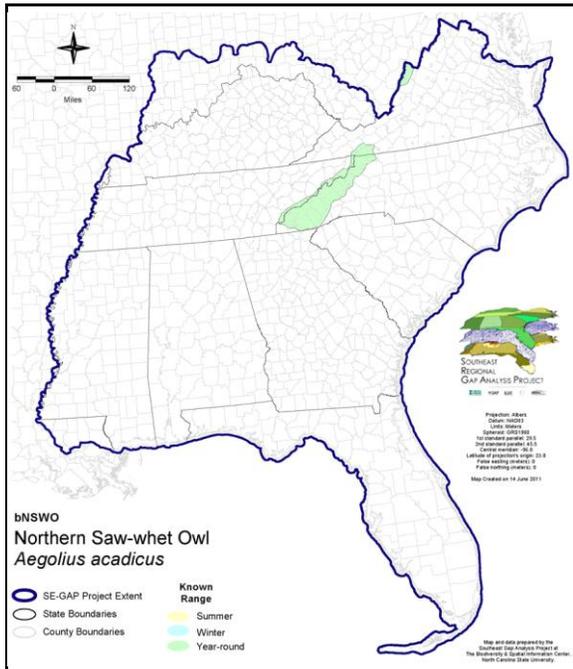
Family: Strigidae

SE-GAP Spp Code: **bNSWO**

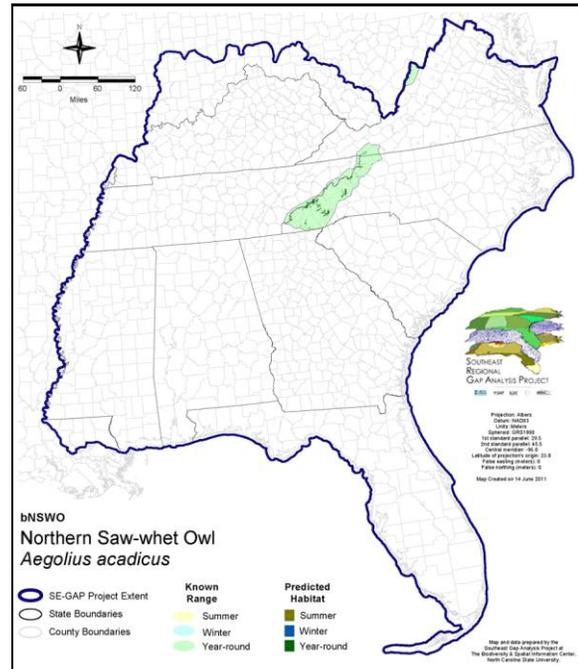
ITIS Species Code: 177942

NatureServe Element Code: ABNSB15020

KNOWN RANGE:



PREDICTED HABITAT:



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

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

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

Data Download: http://www.basic.ncsu.edu/segap/datazip/region/vert/bNSWO_se00.zip

PROTECTION STATUS:

Reported on March 14, 2011

Federal Status: ---

State Status: CT (SC), CT (SC), ID (P), KY (N), NJ (S/S), NV (YES), NY (PB), OH (SI), RI (Concern), TN (T), UT (None), VA (SC), BC (4 (2005)), QC (Non suivie)

NS Global Rank: G5

NS State Rank: AK (S3), AL (SNA), AR (SNA), AZ (S4), CA (SNR), CO (S5), CT (S2S3B), CT (S2S3B), DC (S1N), DE (SNA), FL (SNA), GA (S3), IA (SNA), ID (S4), IL (S1?), IN (SHB), IN (SHB), KS (SNA), KY (SNA), LA (SNA), MA (S3B,S5N), MD (S1B), ME (S4S5N,S5B), MI (S3S4), MN (SNRB,SNRN), MO (SNA), MS (SNA), MT (S4), NC (S2B,S2N), ND (SNA), ND (SNA), NE (SNRN), NH (S4), NJ (SU,S4N), NM (S4B,S4N), NV (S4), NY (S3), OH (SNA), OR (S4?), PA (S4), RI (S1B,S1N), SC (S2N), SD (S3B,S3N), TN (S1), TX (SNA), UT (S3), VA (S1B,S2N), VT (S5B,S5N), WA (S4B,S4N), WI (S2N,S4B), WV (S2B,S1N), WY (S4), AB (S5), BC (S5B,S5N), MB (S4S5B), MB (S4S5B), NB (S4B,S4N), NF (S1?), NS (S4B), ON (S4), ON (S4), PE (S5B,S2N), QC (S5B), SK (S5B,S4N), YT (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	1,175.1	< 1	0.0	0	0.0	0
Status 2	0.0	0	4,641.6	4	0.0	0	0.0	0
Status 3	0.0	0	30,660.2	23	0.0	0	0.0	0
Status 4	0.0	0	0.0	0	0.0	0	0.0	0
Total	0.0	0	36,476.9	28	0.0	0	0.0	0
	US Dept. of Energy		US Nat. Park Service		NOAA		Other Federal Lands	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	34,603.1	26	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	2,849.0	2	0.0	0	0.0	0
Status 4	0.0	0	0.0	0	0.0	0	0.0	0
Total	0.0	0	37,452.1	28	0.0	0	0.0	0
	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	0.0	0	0.0	0
Status 3	451.5	< 1	990.8	< 1	369.5	< 1	0.0	0
Status 4	0.0	0	0.0	0	0.0	0	0.0	0
Total	451.5	< 1	990.8	< 1	369.5	< 1	0.0	0
	State Coastal Reserve		ST Nat.Area/Preserve		Other State Lands		Private Cons. Easemt.	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	0.0	0	0.0	0	0.0	0
Status 2	0.0	0	398.3	< 1	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	398.3	< 1	0.0	0	0.0	0
	Private Land - No Res.		Water		Overall Total			
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	0.0	0	35,778.2 27			
Status 2	0.0	0	0.0	0	5,039.9 4			
Status 3	0.0	0	0.0	0	35,321.0 50			
Status 4	24,669.5	19	0.0	0	24,669.5 19			
Total	24,669.5	19	0.0	0	100,808.6 100			

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: The range of the northern saw whet owl is restricted to contiguous forests of spruce-fir and northern hardwood (Simpson 1992) in or near the Canadian zone of the Appalachian mountains (Crutchfield 1990). They nest in mature spruce-fir or northern hardwood forests containing large trees with cavities for nesting (Johnsgard 1988, Cannings 1993); utilizes forest openings and edges for foraging (Cannings 1993). They breed in dense coniferous or mixed forest, cedar groves, alder thickets, swamps, and tamarack bogs (NATURE SERVE). Occurs in isolated pockets of boreal forest over 4500 ft. elevation. Although it primarily inhabits Spruce-fir forests, it also occurs in hardwood transition zones. Breeding sites appear to be confined to mature forest with trees generally 9-11 inches or larger in diameter with well-developed understories (NATURE SERVE). Preference is for boreal Spruce-fir forests in South East, which are currently dying out. The degree to which it prospers in Northern Hardwood and High Elevation Red Oak forests may determine persistence (NATURE SERVE).

Nests in cavities in dead trees and snags. Such cavities are generally located 14-60 ft. above ground. It is also known to use bird boxes, and rock cavities (NC). Nests in cavities made by woodpeckers (usually Northern Flicker, *Colaptes auratus*, and Pileated Woodpecker, *Dryocopus pileatus*) that average about 7.5 cm in diameter, These cavities may be in living or dead conifer or hardwood trees (Johnsgard 1988).

Quoted directly from existing state habitat notes - K. Cook, 17Feb05

Elevation Mask: > 1370m and < 2500m

Selected Map Units:

Functional Group	Map Unit Name
Anthropogenic	Deciduous Plantations
Anthropogenic	Evergreen Plantations
Forest/Woodland	Allegheny-Cumberland Dry Oak Forest and Woodland
Forest/Woodland	Allegheny-Cumberland Dry Oak Forest and Woodland - Hardwood Modifier
Forest/Woodland	Allegheny-Cumberland Dry Oak Forest and Woodland - Pine Modifier
Forest/Woodland	Appalachian Hemlock-Hardwood Forest
Forest/Woodland	Appalachian Serpentine Woodland
Forest/Woodland	Appalachian Shale Barrens
Forest/Woodland	Central and Southern Appalachian Montane Oak Forest
Forest/Woodland	Central and Southern Appalachian Northern Hardwood Forest
Forest/Woodland	Central and Southern Appalachian Spruce-Fir 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	East Gulf Coastal Plain Northern Dry Upland Hardwood Forest - Offsite Pine Modifier
Forest/Woodland	Northeastern Interior Dry Oak Forest - Mixed Modifier
Forest/Woodland	Northeastern Interior Dry Oak Forest - Virginia/Pitch Pine Modifier
Forest/Woodland	Northeastern Interior Dry Oak Forest-Hardwood Modifier
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 Appalachian Low Mountain Pine Forest
Forest/Woodland	Southern Appalachian Montane Pine Forest and Woodland
Forest/Woodland	Southern Piedmont Dry Oak-Heath Forest - Virginia/Pitch Pine Modifier
Forest/Woodland	Southern Ridge and Valley Dry Calcareous Forest - Pine Modifier
Wetlands	Central Appalachian Floodplain - Forest Modifier
Wetlands	Central Appalachian Riparian - Forest Modifier
Wetlands	North-Central Appalachian Acidic Swamp
Wetlands	North-Central Interior and Appalachian Rich Swamp
Wetlands	South-Central Interior Large Floodplain - Forest Modifier
Wetlands	South-Central Interior Small Stream and Riparian

- CITATIONS:** Cannings, R.J. 1993. Northern Saw-whet Owl (*Aegolius acadicus*). In: Poole A, Gill F, eds. The birds of North America, no 42. Philadelphia: Academy of Natural Sciences. Washington: The American Ornithologists' Union. 1-20.
- Crutchfield, P.J. 1990. Northern Saw-whet Owl. In: Lee DS, Parnell JF, eds. Endangered, threatened, and rare fauna of North Carolina. Part III. A re-evaluation of the birds. Occasional Papers of the North Carolina Biological Survey 1990-91. 34-36.
- Johnsgard, P. 1988. North American owls: biology and natural history. Smithsonian Inst. Press. 336 pp.
- National Geographic Society (NGS). 1983. Field guide to the birds of North America. National Geographic Society, Washington, D.C.
- Simpson MB Jr. 1992. Birds of the Blue Ridge Mountains. Chapel Hill and London: University of North Carolina Press.

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Compiled: 15 September 2011

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