



# SOUTHEAST GAP ANALYSIS PROJECT



## Species Modeling Report

### Long-tailed Duck

*Clangula hyemalis*

Taxa: Avian

Order: Anseriformes

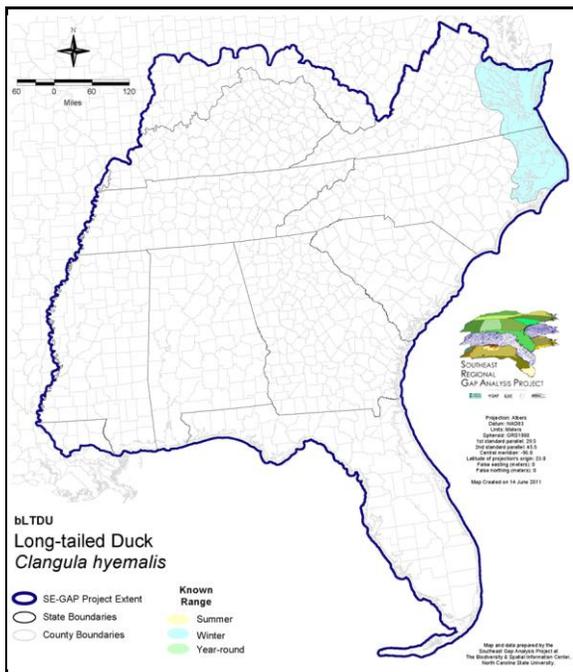
Family: Anatidae

SE-GAP Spp Code: **bLTDU**

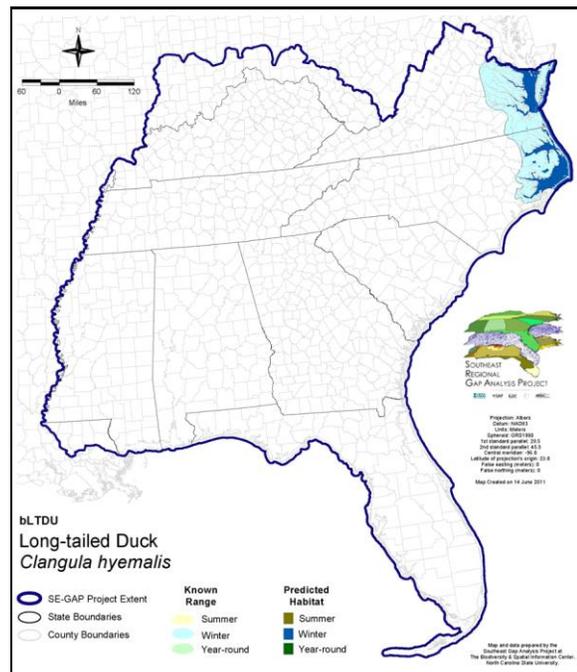
ITIS Species Code: 175147

NatureServe Element Code: ABNJB16010

#### KNOWN RANGE:



#### PREDICTED HABITAT:



Range Map Link: [http://www.basic.ncsu.edu/segap/datazip/maps/SE\\_Range\\_bLTDU.pdf](http://www.basic.ncsu.edu/segap/datazip/maps/SE_Range_bLTDU.pdf)

Predicted Habitat Map Link: [http://www.basic.ncsu.edu/segap/datazip/maps/SE\\_Dist\\_bLTDU.pdf](http://www.basic.ncsu.edu/segap/datazip/maps/SE_Dist_bLTDU.pdf)

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

Data Download: [http://www.basic.ncsu.edu/segap/datazip/region/vert/bLTDU\\_se00.zip](http://www.basic.ncsu.edu/segap/datazip/region/vert/bLTDU_se00.zip)

#### PROTECTION STATUS:

Reported on March 14, 2011

Federal Status: ---

State Status: AL (GB), ID (G), KY (N), NV (YES), NY (PB - GS), RI (Not Listed), UT (None), BC (4 (2005)), QC (Non suivie)

NS Global Rank: G5

NS State Rank: AK (S5B,S4N), AL (S3N), AR (SNA), AZ (S1N), CA (SNA), CO (SNA), CT (SNA), DC (S1N), DE (S3N), FL (SNA), GA (SNRN), IA (SNA), IL (SNA), IN (S1N), KS (SNA), KY (SNA), LA (SNA), MA (S5N), MD (S4N), ME (S5N), MI (SNRN), MN (SNRN), MO (SNA), MS (SNA), MT (SNA), NC (S3N), ND (SNA), NE (SNRN), NH (SNA), NJ (SNA), NM (SNA), NV (SNA), NY (SNRN), OH (SNA), OK (S1N), OR (SNA), PA (SNA), RI (SNA), SC (SNRN), SD (SNA), TN (S3N), TX (SNA), UT (S1N), VA (SNRN), VT (S3N), WA (S3S4N), WI (SNA), WV (S1N), WY (S4N), AB (SNA), BC (S2S3B,S4N), LB (S5N), MB (S5B), MB (S5B), NB (S4N), NF (S5N), NS (S4N), NT (SNRB), NU (SNRB), ON (S3B), ON (S3B), PE (S4M,S3N), PE (S4M,S3N), QC (S4B), SK (S4M), SK (S4M), YT (S4B,S3M)

**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	0
Status 2	4.9	16	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	4.9	16	0.0	0	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	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
	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	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
	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	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
	Private Land - No Res.		Water		Overall Total			
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	0.0	0	0.0 0			
Status 2	0.0	0	0.0	0	4.9 16			
Status 3	0.0	0	0.0	0	0.0 0			
Status 4	14.1	47	11.0	37	25.1 84			
Total	14.1	47	11.0	37	30.0 100			

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):

### Winter Model:

Habitat Description: Long-tailed ducks are winter resident of coastal Virginia and North Carolina. They typically inhabit coastal marine waters and large inland freshwater lakes but can also be found a great distance offshore (>10Km) (Robertson and Savard 2002).

Ecosystem Classifiers: Open Water and accept all MU's within buffer. Restrict freshwater to lakes only. Amy Silvano 05sept05

Customized Model: Open Water and accept all MU's within buffer. Restrict freshwater to larger lakes only. Amy Silvano 05sept05

Flowing water will not show up in NHD as reservoirs. This species is a deep water diving duck. I changed this model to have flowing and standing water buffers as unlimited interior distance (9999). No MUs were selected, so I selected only water MUs. I also added a minimum patch size of 10 ha to account for "large freshwater lakes" as per Common Goldeneye wintering model. Hand model to include only the deepest parts of water features by selecting a minimum interior buffer distance of 500m., i.e. interior buffers should start 500m from shore and go unlimited into water features. MJR 16Aug07 and 12 March 2008.

### Hydrography Mask:

Utilizes flowing water features with buffer of unlimited into selected water features.

Utilizes open water features with buffer of unlimited into selected water features.

Contiguous Patch Minimum Size (hectares): 10

### Selected Map Units:

Functional Group	Map Unit Name
Water	Open Water (Brackish/Salt)
Water	Open Water (Fresh)

### CITATIONS:

- Alison, R.M. 1975. Breeding biology and behavior of the old-squaw (*CLANGULA HYEMALIS*). Amer. Ornith. Union, Monog. No. 18. 52 pp.
- 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.
- Bellrose, F.C. 1976. Ducks, geese and swans of North America. Stackpole Books, Harrisburg, Pa.
- Cogswell, H.L. 1977. Water birds of California. Univ. California Press, Berkeley. 399 pp.
- Harrison, C. 1978. A field guide to the nests, eggs and nestlings of North American birds. Collins, Cleveland, Ohio.
- Johnson, S.R., and D.R. Herter. 1989. The birds of the Beaufort Sea. BP Exploration (Alaska) Inc., Anchorage, Alaska. 372 pp.
- Kehoe, P., compiler and editor. 1994. Status and information needs of sea ducks in the Atlantic Flyway. Prepared by the Ad Hoc Sea Duck Committee. 71+ pp.
- Madge, S., and H. Burn. 1988. Waterfowl: an identification guide to the ducks, geese and swans of the world. Houghton Mifflin Co., Boston. 298 pp.
- Robertson, G.J. and J.-P. L. Savard. 2002. Long-tailed duck (*Clangula hyemalis*). In The Birds of North America, No. 651 (A. Poole and F. Gill, eds.). The Birds of North America, Inc., Philadelphia, PA.
- Root, T. 1988. Atlas of wintering North American birds: An analysis of Christmas Bird Count data. University of Chicago Press. 336 pp.
- Terres, J.K. 1980. The Audubon Society encyclopedia of North American birds. Alfred A. Knopf, New York.