

# SOUTHEAST GAP ANALYSIS PROJECT



## Species Modeling Report

### Star-nosed Mole

*Condylura cristata*

Taxa: Mammalian

Order: Soricomorpha

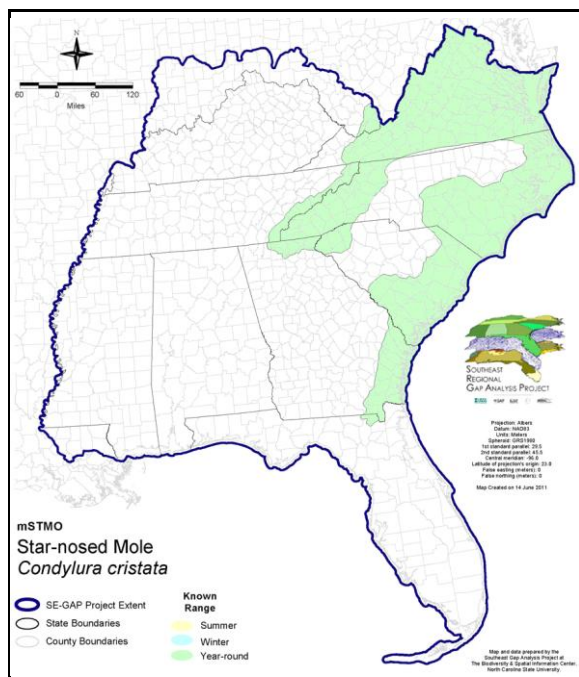
Family: Talpidae

SE-GAP Spp Code: **mSTMO**

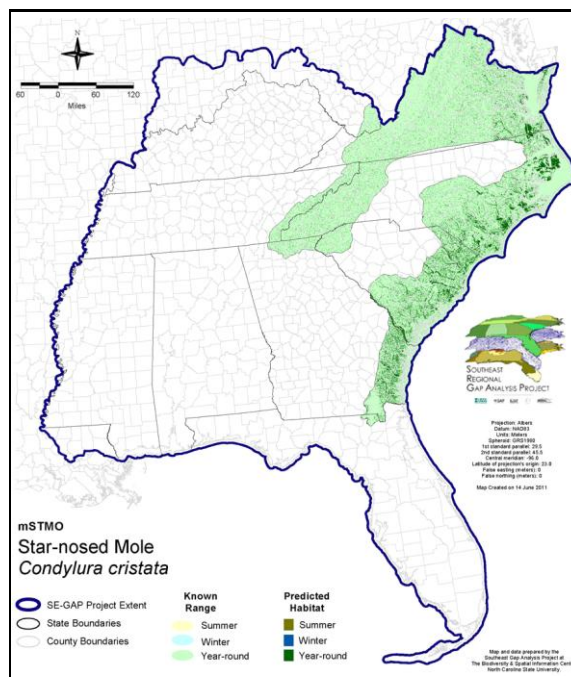
ITIS Species Code: 179964

NatureServe Element Code: AMABB05010

#### KNOWN RANGE:



#### PREDICTED HABITAT:



Range Map Link: [http://www.basinc.ncsu.edu/segap/datazip/maps/SE\\_Range\\_mSTMO.pdf](http://www.basinc.ncsu.edu/segap/datazip/maps/SE_Range_mSTMO.pdf)

Predicted Habitat Map Link: [http://www.basinc.ncsu.edu/segap/datazip/maps/SE\\_Dist\\_mSTMO.pdf](http://www.basinc.ncsu.edu/segap/datazip/maps/SE_Dist_mSTMO.pdf)

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

Data Download: [http://www.basinc.ncsu.edu/segap/datazip/region/vert/mSTMO\\_se00.zip](http://www.basinc.ncsu.edu/segap/datazip/region/vert/mSTMO_se00.zip)

#### PROTECTION STATUS:

Reported on March 14, 2011

Federal Status: ---

State Status: IN (SSC), NJ (U), NY (U), OH (SC), RI (Not Listed), TN (D), QC (Non suivie)

NS Global Rank: G5

NS State Rank: CT (S5), DC (S3), DE (S4), FL (SNR), GA (S2?), IL (SNA), IN (S2?), MA (S5), MD (S4), ME (S5), MI (S5), MN (SNR), NC (S4), ND (SNR), NH (S5), NJ (S4), NY (S5), OH (S3), PA (S5), RI (S4), SC (S3?), TN (S2), VA (S4), VT (S4), WI (S4), WV (S2), LB (S4), MB (S3), NB (S5), NS (S5), ON (S5), QC (S5)

## 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	47,947.0	1	7,225.9	< 1	0.0	0	0.0	0
Status 2	94,690.3	2	11,469.2	< 1	0.0	0	1,243.4	< 1
Status 3	771.5	< 1	147,410.0	4	120.6	< 1	69,925.4	2
Status 4	29.6	< 1	0.0	0	0.0	0	5.2	< 1
Total	143,438.3	4	166,105.2	4	120.6	< 1	71,174.1	2
	US Dept. of Energy		US Nat. Park Service		NOAA		Other Federal Lands	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	21,462.2	< 1	12.5	< 1	0.0	0
Status 2	0.0	0	39.6	< 1	899.6	< 1	0.0	0
Status 3	15,274.4	< 1	5,092.9	< 1	0.0	0	116.0	< 1
Status 4	0.0	0	0.0	0	0.0	0	0.0	0
Total	15,274.4	< 1	26,594.7	< 1	912.1	< 1	116.0	< 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	1,230.3	< 1	84,278.9	2	24.7	< 1
Status 3	1,307.3	< 1	12,410.4	< 1	43,305.6	1	10,335.3	< 1
Status 4	0.0	0	0.0	0	2,600.4	< 1	0.0	0
Total	1,307.3	< 1	13,640.7	< 1	130,184.8	3	10,360.0	< 1
	State Coastal Reserve		ST Nat.Area/Preserve		Other State Lands		Private Cons. Easemt.	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	36.1	< 1	0.0	0	0.0	0
Status 2	9,900.9	< 1	24,850.4	< 1	0.0	0	0.0	0
Status 3	0.0	0	0.0	0	884.5	< 1	1,488.6	< 1
Status 4	0.0	0	0.0	0	99.8	< 1	0.0	0
Total	9,900.9	< 1	24,886.4	< 1	984.3	< 1	1,488.6	< 1
	Private Land - No Res.		Water		Overall Total			
	ha	%	ha	%	ha %			
Status 1	0.0	0	0.0	0	76,683.7 2			
Status 2	0.0	0	0.0	0	228,627.2 6			
Status 3	126.6	< 1	0.0	0	308,569.1 12			
Status 4	3,075,622.5	80	813.2	< 1	3,081,741.4 80			
Total	3,075,749.1	80	813.2	< 1	3,695,621.4 100			

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):

### Year-round Model:

**Habitat Description:** Star-nosed moles inhabit moist fields, meadows, woods, marshy areas and other low, swampy places. They are semi-aquatic and prefer damp, loose soils and are generally absent from heavy clay and stony or gravelly soil. Their tunnels usually border streams, swamps, marshes, and some of the burrows lead directly into the water (Brown 1997). They are more dependent on water in the winter when the ground is frozen. They occasionally occur in leaf mold on the floor of dense forests. Nests are usually placed in a hummock, under a stump or log, in humus among rotten tree roots, or in other areas above high water, often near a stream. Gestation lasts about 45 days. Parturition occurs in spring or early summer. Litter size is 3-7 (average 5-6) with one litter per year. They are sexually mature in 10 months. Stacy Smith, 12June05

### Hydrography Mask:

Freshwater Only

Utilizes flowing water features with buffer of 30m from selected water features.

Utilizes open water features with buffer of 30m from selected water features.

Utilizes wet vegetation features with buffers of 30m from and unlimited into selected vegetation features.

### Selected Map Units:

Functional Group	Map Unit Name
Anthropogenic	Pasture/Hay
Anthropogenic	Successional Grassland/Herbaceous
Anthropogenic	Successional Grassland/Herbaceous (Other)
Anthropogenic	Successional Grassland/Herbaceous (Utility Swath)
Anthropogenic	Successional Shrub/Scrub (Clear Cut)
Anthropogenic	Successional Shrub/Scrub (Other)
Anthropogenic	Successional Shrub/Scrub (Utility Swath)
Forest/Woodland	Appalachian Hemlock-Hardwood Forest
Forest/Woodland	Atlantic Coastal Plain Central Maritime Forest
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 Maritime Forest
Forest/Woodland	Atlantic Coastal Plain Northern Mixed Oak-Heath Forest
Forest/Woodland	Atlantic Coastal Plain Southern Maritime Forest
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 Oak and Pine Forest
Forest/Woodland	Northern Atlantic Coastal Plain Dry Hardwood 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 Appalachian Montane Pine Forest and Woodland
Forest/Woodland	Southern Coastal Plain Dry Upland Hardwood Forest
Forest/Woodland	Southern Piedmont Dry Oak-(Pine) Forest - Hardwood Modifier
Forest/Woodland	Southern Piedmont Dry Oak-Heath Forest - Virginia/Pitch Pine Modifier
Wetlands	Atlantic Coastal Plain Blackwater Stream Floodplain Forest - Forest Modifier
Wetlands	Atlantic Coastal Plain Blackwater Stream Floodplain Forest - Herbaceous Modifier
Wetlands	Atlantic Coastal Plain Brownwater Stream Floodplain Forest
Wetlands	Atlantic Coastal Plain Clay-Based Carolina Bay Forested Wetland
Wetlands	Atlantic Coastal Plain Clay-Based Carolina Bay Herbaceous Wetland
Wetlands	Atlantic Coastal Plain Depression Pondshore
Wetlands	Atlantic Coastal Plain Nonriverine Swamp and Wet Hardwood Forest - Taxodium/Nyssa Modifier
Wetlands	Atlantic Coastal Plain Nonriverine Swamp and Wet Hardwood Forest - Oak Dominated Modifier

Wetlands	Atlantic Coastal Plain Northern Basin Peat Swamp
Wetlands	Atlantic Coastal Plain Northern Basin Swamp and Wet Hardwood Forest
Wetlands	Atlantic Coastal Plain Northern Pondshore
Wetlands	Atlantic Coastal Plain Peatland Pocosin
Wetlands	Atlantic Coastal Plain Sandhill Seep
Wetlands	Atlantic Coastal Plain Small Blackwater River Floodplain Forest
Wetlands	Atlantic Coastal Plain Small Brownwater River Floodplain Forest
Wetlands	Atlantic Coastal Plain Streamhead Seepage Swamp, Pocosin, and Baygall
Wetlands	Central Appalachian Floodplain - Forest Modifier
Wetlands	Central Appalachian Floodplain - Herbaceous Modifier
Wetlands	Central Appalachian Riparian - Forest Modifier
Wetlands	Central Appalachian Riparian - Herbaceous Modifier
Wetlands	North-Central Appalachian Acidic Swamp
Wetlands	North-Central Appalachian Seepage Fen
Wetlands	North-Central Interior and Appalachian Rich Swamp
Wetlands	Southern and Central Appalachian Bog and Fen
Wetlands	Southern Appalachian Seepage Wetland
Wetlands	Southern Coastal Plain Blackwater River Floodplain Forest
Wetlands	Southern Coastal Plain Herbaceous Seepage Bog
Wetlands	Southern Coastal Plain Hydric Hammock
Wetlands	Southern Coastal Plain Nonriverine Basin Swamp
Wetlands	Southern Coastal Plain Nonriverine Cypress Dome
Wetlands	Southern Coastal Plain Seepage Swamp and Baygall
Wetlands	Southern Coastal Plain Spring-run Stream Aquatic Vegetation
Wetlands	Southern Piedmont Large Floodplain Forest - Forest Modifier
Wetlands	Southern Piedmont Seepage Wetland
Wetlands	Southern Piedmont Small Floodplain and Riparian Forest
Wetlands	Southern Piedmont/Ridge and Valley Upland Depression Swamp

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