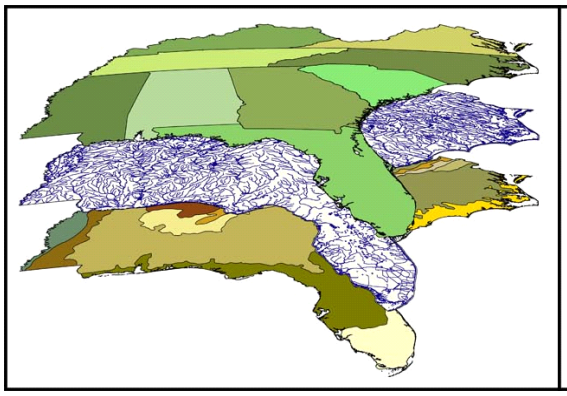


# SOUTHEAST GAP ANALYSIS PROJECT

# Species Modeling Report

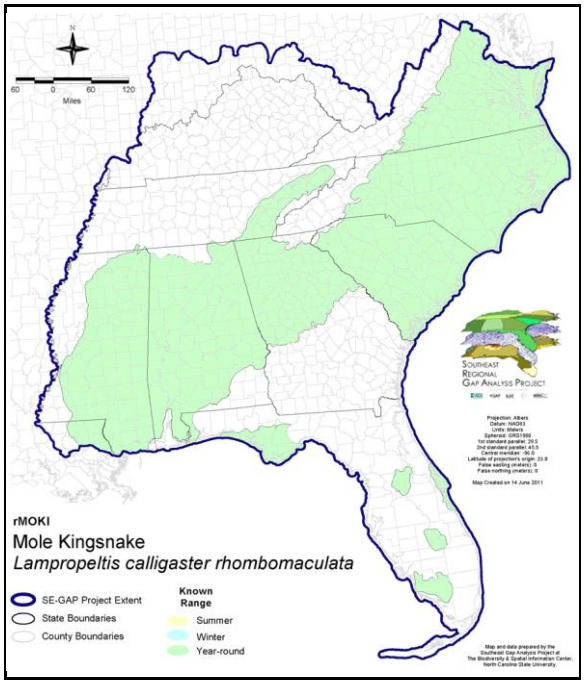
## Mole Kingsnake

*Lampropeltis calligaster rhombomaculata*

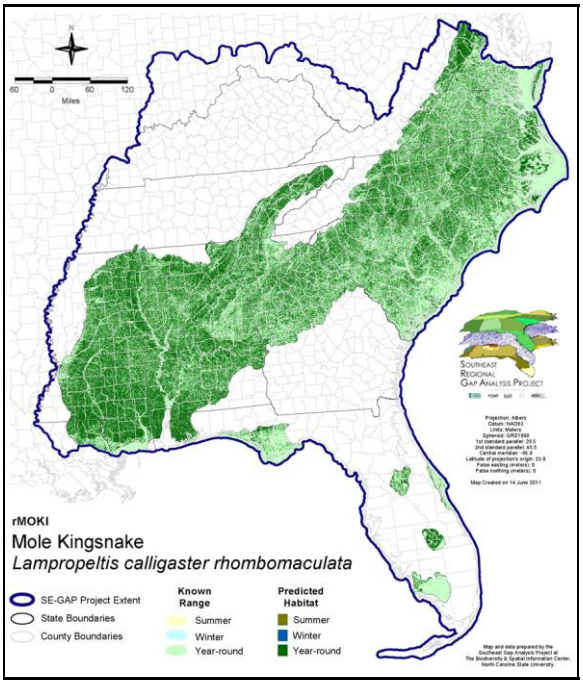
Taxa: Reptilian
Order: Squamata
Family: Colubridae

SE-GAP Spp Code: **rMOKI**
ITIS Species Code: 174186
NatureServe Element Code: ARADB19012

**KNOWN RANGE:**




**PREDICTED HABITAT:**




Range Map Link: http://www.basic.ncsu.edu/segap/datazip/maps/SE_Range_rMOKI.pdf
Predicted Habitat Map Link: http://www.basic.ncsu.edu/segap/datazip/maps/SE_Dist_rMOKI.pdf
GAP Online Tool Link: http://www.gapserve.ncsu.edu/segap/segap/index2.php?species=rMOKI
Data Download: http://www.basic.ncsu.edu/segap/datazip/region/vert/rMOKI_se00.zip

**PROTECTION STATUS:**

Reported on March 14, 2011

Federal Status: ---
State Status: MS (Non-game species in need of management)
NS Global Rank: G5T5
NS State Rank: AL (S3), DC (SH), LA (S1S2), MS (S3?)

## 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 | 16,800.8 | < 1 | 1,490.5 | < 1 | 0.0 | 0 | 0.0 | 0 |
| Status 2 | 31,696.9 | < 1 | 32,136.1 | < 1 | 0.0 | 0 | 1,396.2 | < 1 |
| Status 3 | 277.0 | < 1 | 446,510.1 | 2 | 27,816.1 | < 1 | 99,573.3 | < 1 |
| Status 4 | 9.7 | < 1 | 0.0 | 0 | 0.0 | 0 | 202.5 | < 1 |
| Total | 48,784.4 | < 1 | 480,136.7 | 2 | 27,816.1 | < 1 | 101,172.0 | < 1 |

| | US Dept. of Energy | | US Nat. Park Service | | NOAA | | Other Federal Lands | |
|---|---|---|---|---|---|---|---|---|
| | ha | % | ha | % | ha | % | ha | % |
| Status 1 | 0.0 | 0 | 47.9 | < 1 | 13.3 | < 1 | 4,467.4 | < 1 |
| Status 2 | 0.0 | 0 | 1,616.2 | < 1 | 3,295.6 | < 1 | 7.6 | < 1 |
| Status 3 | 20,860.1 | < 1 | 21,702.5 | < 1 | 0.0 | 0 | 3,751.1 | < 1 |
| Status 4 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 |
| Total | 20,860.1 | < 1 | 23,366.6 | < 1 | 3,308.9 | < 1 | 8,226.1 | < 1 |

| | Native Am. Reserv. | | State Park/Hist. Park | | State WMA/Gameland | | State Forest | |
|---|---|---|---|---|---|---|---|---|
| | ha | % | ha | % | ha | % | ha | % |
| Status 1 | 0.0 | 0 | 523.2 | < 1 | 29.5 | < 1 | 0.0 | 0 |
| Status 2 | 0.0 | 0 | 2,236.0 | < 1 | 60,575.3 | < 1 | 1.6 | < 1 |
| Status 3 | 5,860.6 | < 1 | 43,950.0 | < 1 | 41,446.4 | < 1 | 34,942.2 | < 1 |
| Status 4 | 0.0 | 0 | 0.0 | 0 | 61,212.7 | < 1 | 0.0 | 0 |
| Total | 5,860.6 | < 1 | 46,709.1 | < 1 | 163,263.9 | < 1 | 34,943.9 | < 1 |

| | State Coastal Reserve | | ST Nat.Area/Preserve | | Other State Lands | | Private Cons. Easemt. | |
|---|---|---|---|---|---|---|---|---|
| | ha | % | ha | % | ha | % | ha | % |
| Status 1 | 0.0 | 0 | 2,107.4 | < 1 | 0.0 | 0 | 0.0 | 0 |
| Status 2 | 1,984.4 | < 1 | 8,847.1 | < 1 | 1.6 | < 1 | 716.0 | < 1 |
| Status 3 | 0.0 | 0 | 4,499.3 | < 1 | 2,337.0 | < 1 | 4,763.5 | < 1 |
| Status 4 | 0.0 | 0 | 0.0 | 0 | 2,404.0 | < 1 | 0.0 | 0 |
| Total | 1,984.4 | < 1 | 15,453.7 | < 1 | 4,742.6 | < 1 | 5,479.5 | < 1 |

| | Private Land - No Res. | | Water | | Overall Total | |
|---|---|---|---|---|---|---|
| | ha | % | ha | % | ha | % |
| Status 1 | 0.0 | 0 | 0.0 | 0 | 25,479.9 | < 1 |
| Status 2 | 0.0 | 0 | 0.0 | 0 | 144,510.6 | < 1 |
| Status 3 | 0.0 | 0 | < 0.1 | < 1 | 758,289.3 | 4 |
| Status 4 | 26,162,092.4 | 95 | 5,765.1 | < 1 | 26,292,889.4 | 95 |
| Total | 26,162,092.4 | 95 | 5,765.2 | < 1 | 27,221,169.2 | 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):

### Year-round Model:

Habitat Description: Fossorial, mole kingsnakes generally inhabit relatively dry open habitats including mixed pine woodlands, pine flatwoods, pastures, meadows and old fields (Palmer & Braswell 1995, Mitchell 1995). This species generally avoids hydric areas (Palmer & Braswell 1995) but can occassionally be found in cultivated fields and suburban areas (Mitchell 1995, Conant & Collins 1998). Amy Silvano 22Aug05

Ecosystem Classifiers: Xeric Flat, Xeric Uplands, Evergreen & Mixed forest, Disturbed successional, Ag, Flatwoods (Dry only), Low Urban, prairie.excluded glade woodlands because of fossorial natures. Amy Silvano 22aug05

Selected Map Units:

| Functional Group | Map Unit Name |
|---|---|
| Anthropogenic | Developed Open Space |
| Anthropogenic | Low Intensity Developed |
| Anthropogenic | Pasture/Hay |
| Anthropogenic | Row Crop |
| 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 | Alabama Ketona Glade and Woodland |
| Forest/Woodland | Allegheny-Cumberland Dry Oak Forest and Woodland - Pine Modifier |
| Forest/Woodland | Appalachian Serpentine Woodland |
| Forest/Woodland | Atlantic Coastal Plain Fall-Line Sandhills Longleaf Pine Woodland - Loblolly Modifier |
| Forest/Woodland | Atlantic Coastal Plain Northern Mixed Oak-Heath 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 | Central Interior Highlands Calcareous Glade and Barrens |
| Forest/Woodland | East Gulf Coastal Plain Black Belt Calcareous Prairie and Woodland - Woodland Modifier |
| Forest/Woodland | East Gulf Coastal Plain Interior Shortleaf Pine-Oak Forest - Mixed Modifier |
| Forest/Woodland | East Gulf Coastal Plain Interior Shortleaf Pine-Oak Forest - Pine Modifier |
| Forest/Woodland | East Gulf Coastal Plain Interior Upland Longleaf Pine Woodland - Loblolly Modifier |
| Forest/Woodland | East Gulf Coastal Plain Northern Dry Upland Hardwood Forest - Offsite Pine Modifier |
| Forest/Woodland | East Gulf Coastal Plain Northern Loess Plain Oak-Hickory Upland - Juniper Modifier |
| Forest/Woodland | Florida Peninsula Inland Scrub |
| Forest/Woodland | Northeastern Interior Dry Oak Forest - Mixed Modifier |
| Forest/Woodland | Northeastern Interior Dry Oak Forest - Virginia/Pitch Pine Modifier |
| Forest/Woodland | Ridge and Valley Calcareous Valley Bottom Glade and Woodland |
| Forest/Woodland | Southern Appalachian Low Mountain Pine Forest |
| Forest/Woodland | Southern Piedmont Dry Oak-(Pine) Forest - Loblolly Pine Modifier |
| Forest/Woodland | Southern Piedmont Dry Oak-(Pine) Forest - Mixed 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 Mafic Hardpan Woodland |
| Forest/Woodland | Southern Piedmont Northern Triassic Basin Dry Forest |
| Forest/Woodland | Southern Ridge and Valley Dry Calcareous Forest - Pine Modifier |
| Prairie | Bluegrass Basin Savanna and Woodland |
| Prairie | East Gulf Coastal Plain Black Belt Calcareous Prairie and Woodland |
| Prairie | East Gulf Coastal Plain Black Belt Calcareous Prairie and Woodland - Herbaceous Modifier |
| Prairie | East Gulf Coastal Plain Jackson Plain Prairie and Barrens |
| Prairie | East Gulf Coastal Plain Jackson Prairie and Woodland |

| | |
|---|---|
| Prairie | Eastern Highland Rim Prairie and Barrens |
| Prairie | Eastern Highland Rim Prairie and Barrens - Dry Modifier |
| Prairie | Pennyroyal Karst Plain Prairie and Barrens |
| Prairie | Southern Ridge and Valley Patch Prairie |
| Prairie | Western Highland Rim Prairie and Barrens |
| Wetlands | Atlantic Coastal Plain Northern Wet Longleaf Pine Savanna and Flatwoods |
| Wetlands | East Gulf Coastal Plain Jackson Plain Dry Flatwoods - Open Understory Modifier |
| Wetlands | East Gulf Coastal Plain Jackson Plain Dry Flatwoods - Scrub/Shrub Understory Modifier |
| Wetlands | East Gulf Coastal Plain Southern Loblolly-Hardwood Flatwoods |

## CITATIONS:

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.