



SOUTHEAST GAP ANALYSIS PROJECT



Species Modeling Report

Puma

Puma concolor

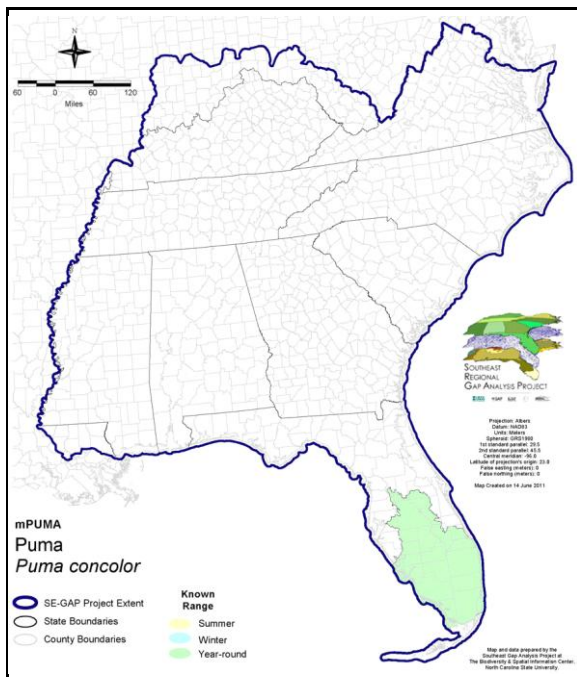
Taxa: Mammalian
 Order: Carnivora
 Family: Felidae

SE-GAP Spp Code: **mPUMA**

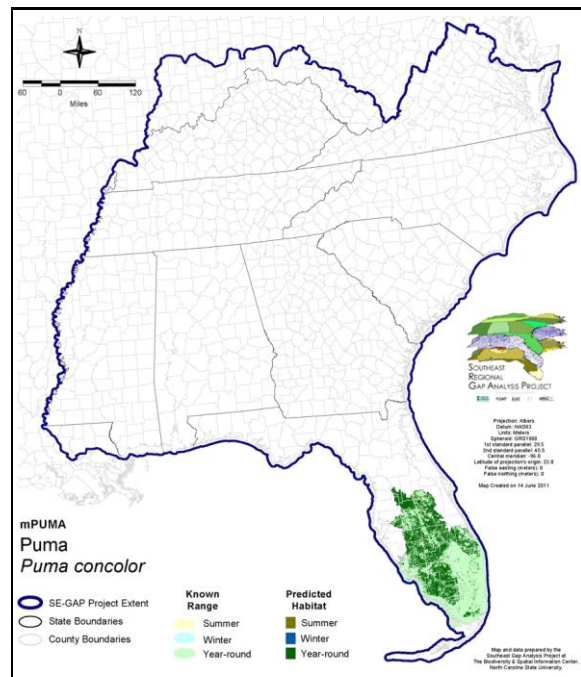
ITIS Species Code: 552479

NatureServe Element Code: AMAJH04010

KNOWN RANGE:



PREDICTED HABITAT:



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

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

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

Data Download: http://www.basic.ncsu.edu/segap/datazip/region/vert/mPUMA_se00.zip

PROTECTION STATUS:

Reported on March 14, 2011

Federal Status: ---

State Status: AL (GANOS), AR (M), ID (G), KY (N), MA (- X), MI (E), MN (SPC), NJ (EX), NV (YES), NY (E), OH (X), UT (None), BC (4 (2005)), ON (END), QC (Susceptible)

NS Global Rank: G5

NS State Rank: AK (SNA), AL (SX), AR (SNA), AZ (S4), CA (S5), CO (S4), CT (SH), DC (SX), DE (SX), FL (S4), GA (SH), IA (SX), ID (S5), IL (SX), IN (SNR), KS (SNA), KY (SX), LA (S1), MA (SX), MD (SH), ME (SH), MI (SH), MN (S3), MO (SX), MS (S1), MT (S4), NC (SH), ND (S2), NE (S1), NH (SH), NJ (SNR), NM (S3?), NV (S5), NY (SX), OH (SX), OK (S1), OR (S4?), PA (SNR), RI (SH), SC (SH), SD (S2), TN (SX), TX (S4), UT (S4), VA (SNR), VT (SH), WA (S4S5), WI (SNA), WV (SH), WY (S4), AB (S4), BC (S4), MB (S2), NB (SNR), NS (SNR), ON (SU), QC (S1), SK (S2S3), YT (SU)

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	10,863.5	< 1	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	38,757.7	2
Status 4	0.0	0	0.0	0	0.0	0	0.0	0
Total	10,863.5	< 1	0.0	0	0.0	0	38,757.7	2
	US Dept. of Energy		US Nat. Park Service		NOAA		Other Federal Lands	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	30,745.2	1	0.0	0	0.0	0
Status 2	0.0	0	0.0	0	657.5	< 1	3.9	< 1
Status 3	0.0	0	174,199.2	8	0.0	0	0.0	0
Status 4	0.0	0	0.0	0	0.0	0	0.0	0
Total	0.0	0	204,944.4	9	657.5	< 1	3.9	< 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	10.1	< 1	104,460.2	5	0.0	0
Status 3	0.0	0	187,034.0	9	0.0	0	66,938.9	3
Status 4	0.0	0	0.0	0	0.0	0	0.0	0
Total	0.0	0	187,044.1	9	104,460.2	5	66,938.9	3
	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	62.3	< 1
Status 3	0.0	0	1.1	< 1	2,233.0	< 1	51,478.6	2
Status 4	0.0	0	0.0	0	0.0	0	< 0.1	< 1
Total	0.0	0	1.1	< 1	2,233.0	< 1	51,540.9	2
	Private Land - No Res.		Water		Overall Total			
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	0.0	0	41,608.7 2			
Status 2	0.0	0	0.0	0	105,194.0 5			
Status 3	< 0.1	< 1	0.0	0	520,642.5 24			
Status 4	1,521,805.1	69	10,837.1	< 1	1,532,642.2 70			
Total	1,521,805.1	69	10,837.1	< 1	2,200,087.4 100			

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: Generally occurs in heavily forested areas in lowlands and swamps, also upland forests in some parts of range; areas with adequate deer or wild hog population. Habitats include tropical hammocks, pine flatwoods, cabbage palm forests, mixed swamp, cypress swamp, live oak hammocks, sawgrass marshes, and Brazilian pepper thickets; depends on large contiguous blocks of wooded habitat, though interspersed fields and early successional habitats may be beneficial through their positive effect on prey populations; day-use sites typically are dense patches of saw palmetto surrounded by swamp, pine flatwoods, or hammock. Maehr & Cox (1995) state hardwood hammock, cypress swamp, hardwood swamp, pinelands, and mixed hardwood-pine are the five most important cover types for Florida panthers. M. Rubino, 18jan05.

Avoidance Mask: Medium - moderately intolerant of human disturbance.

Selected Map Units:

Functional Group	Map Unit Name
Forest/Woodland	Atlantic Coastal Plain Dry and Dry-Mesic Oak Forest
Forest/Woodland	Atlantic Coastal Plain Southern Maritime Forest
Forest/Woodland	Florida Longleaf Pine Sandhill - Open Understory Modifier
Forest/Woodland	Florida Longleaf Pine Sandhill - Scrub/Shrub Understory Modifier
Forest/Woodland	Florida Peninsula Inland Scrub
Forest/Woodland	Northern Atlantic Coastal Plain Dry Hardwood Forest
Forest/Woodland	South Florida Pine Rockland
Forest/Woodland	Southeast Florida Coastal Strand and Maritime Hammock
Forest/Woodland	Southern Coastal Plain Dry Upland Hardwood Forest
Forest/Woodland	Southern Coastal Plain Oak Dome and Hammock
Forest/Woodland	Southwest Florida Coastal Strand and Maritime Hammock
Prairie	Florida Dry Prairie
Wetlands	Atlantic Coastal Plain Brownwater Stream Floodplain Forest
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 Small Blackwater River Floodplain Forest
Wetlands	Atlantic Coastal Plain Small Brownwater River Floodplain Forest
Wetlands	Central Florida Pine Flatwoods
Wetlands	Floridian Highlands Freshwater Marsh
Wetlands	South Florida Bayhead Swamp
Wetlands	South Florida Cypress Dome
Wetlands	South Florida Dwarf Cypress Savanna
Wetlands	South Florida Freshwater Slough and Gator Hole
Wetlands	South Florida Hardwood Hammock
Wetlands	South Florida Pine Flatwoods
Wetlands	South Florida Pond-Apple/Popash Slough
Wetlands	South Florida Wet Marl Prairie
Wetlands	South Florida Willow Head
Wetlands	Southern Coastal Plain Blackwater River Floodplain Forest
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

Selected Secondary Map Units within 250m of Primary Map Units:

Functional Group	Map Unit Name
Anthropogenic	Successional Shrub/Scrub (Clear Cut)
Anthropogenic	Successional Shrub/Scrub (Utility Swath)
Anthropogenic	Successional Shrub/Scrub (Other)
Anthropogenic	Successional Grassland/Herbaceous

Anthropogenic	Successional Grassland/Herbaceous (Other)
Anthropogenic	Successional Grassland/Herbaceous (Utility Swath)
Anthropogenic	Pasture/Hay
Anthropogenic	Row Crop

CITATIONS: Bass, Oron L. Jr. 1994. Ecology and Population Dynamics of the Florida Panther in Everglades National Park. Dennis B. Jordan. Proceedings of The Florida Panther Conference; Ft. Myers, Florida. U.S. Fish and Wildlife Service; pg. 82-97.

Beier, P., M.R. Vaughan, M.J. Conroy, and H. Quigley. 2003, An analysis of scientific literature related to the Florida panther: Submitted as final report for Project NG01-105, Florida Fish and Wildlife Conservation Commission, Tallahassee, FL. 203 pp.

Comiskey, E. Jane, Eller, Andrew C., Perkins, Dustin W. Evaluating impacts to Florida Panther habitat: How porous is the umbrella? Southeastern Naturalist 2004 3: 51-74.

Fleming, Marty. Distribution, Abundance, and Demography of White-tailed Deer in the Everglades. Dennis B. Jordan. 1994. Proceedings of The Florida Panther Conference; Ft. Myers, Florida. U.S. Fish and Wildlife Service; pg. 247-274.

Kautz, Randy. 1994. Historical Trends within the Range of the Florida Panther. Dennis B. Jordan. Proceedings of The Florida Panther Conference; Ft. Myers, Florida. U.S. Fish and Wildlife Service; 1994: pg. 285-296.

Kerckhoff, A.J., B.T. Milne, and D.S. Maehr. 2000, Toward a panther-centered view of the forests of south Florida: Conservation Ecology. 4 (1):1 Available online at www.consecol.org.vol4/iss1/art1.

Labisky, Ronald F. 1994. Population Ecology of White-tailed Deer in the Wet Prairie of Big Cypress National Preserve and Everglades National Park. Dennis B. Jordan. Proceedings of The Florida Panther Conference; Ft. Myers, Florida. U.S. Fish and Wildlife Service.

Land, Darrell. 1994. Florida Panther Population Dynamics in Southwest Florida. Dennis B. Jordan. Proceedings of The Florida Panther Conference; Ft. Myers, Florida. U.S. Fish and Wildlife Service; pg. 71-81.

Land, E. Darrell. Panther use of the Southern Florida Landscape. Dennis B. Jordan. Proceedings of The Florida Panther Conference; Ft. Myers, Florida. U.S. Fish and Wildlife Service; pg. 278-284.

Maehr, D. S. 1992. Florida Panther Distribution and Conservation Strategy. Gainesville, FL: Florida Game and Fresh Water Fish Commission.

Maehr, D. S. 1992. Florida panther. Rare and Endangered Biota of Florida: Mammals. Stephen R. Humphrey ed. Gainesville, Florida: University of Florida; 1 pp. 176-189.

Maehr, D. S. The Florida panther and private lands. Conservation Biology. 1990; 4 (2):167-170.

Maehr, D. S., and J. A. Cox. 1995. Landscape features and panthers in Florida. Conservation Biology 9(5):1008-1019.

Maehr, D. S.; E. D. Land, and J. C. Roof. 1991. Florida panthers. National Geographic Research and Exploration. 7 (4):414-431.

Maehr, D. S.; E. D. Land; J. C. Roof, and J. W. McCowan. Day beds, natal dens, and activity of Florida panthers. Proceedings of the Annual Conference of Southeastern Fish and Wildlife Agencies. 44:310-318.

Maehr, D. S.; E. D. Land; J. C. Roof, and W. McCowan. 1989. Early maternal behavior in the Florida panther. Am. Midl. Nat. 122:34-43.

Maehr, D. S.; J. C. Roof; E. D. Land; J. W. McCowan, and R. T. McBride. 1992. Home range characteristics of a panther in south central Florida. Florida Field Naturalist. 20 (4):97-103.

Maehr, D.S. 2004. Review of "An analysis of scientific publications related to the Florida panther." Memorandum submitted to Florida Panther Scientific Review Team and Florida Panther Recovery Team. [online] URL: <http://www.eswr.com/104/srtmaehrresponse.p>

Maehr, D.S., and J.P. Deason. 2002. Wide-ranging carnivores and development permits: Constructing a multi-scale model to evaluate impacts on the Florida panther. Clean Technologies and Environmental Policy 3:398-406.

Maehr, David S.; Larkin, Jeffery L. 2004. Do prescribed fires in south Florida reduce habitat quality for native carnivores? Natural Areas Journal, 24(3): 188-197.

Meegan, R.P., and D.S. Maehr. 2002, Landscape conservation and regional planning for the Florida Panther: Southeastern Naturalist. 1 (3):217-232.

Ness, Erik. 2004. Panther fray in Florida. Frontiers in Ecology and the Environment, 2(2); p. 64.

Shrader-Frechette, Kristin. 2004. Measurement problems and Florida panther models. Southeastern Naturalist, 3(1): 37-50;

Young, S. P. and E. A. Goldman. 1946. The Puma, mysterious American cat. Part I (by Young). History, life habits, economic status, and control. Part II (by Goldman). Classification of the races of the puma. American Wildlife Institute (also Dover Publ., I