



SOUTHEAST GAP ANALYSIS PROJECT



Species Modeling Report

Burrowing Owl

Athene cunicularia

Taxa: Avian

Order: Strigiformes

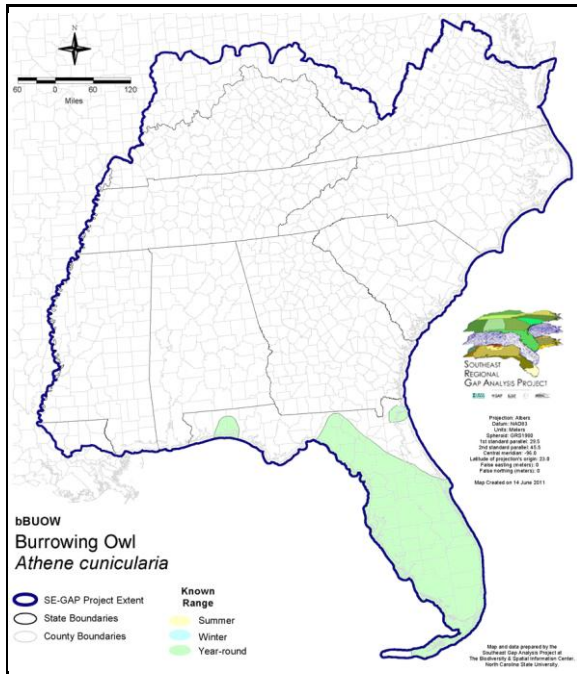
Family: Strigidae

SE-GAP Spp Code: **bBUOW**

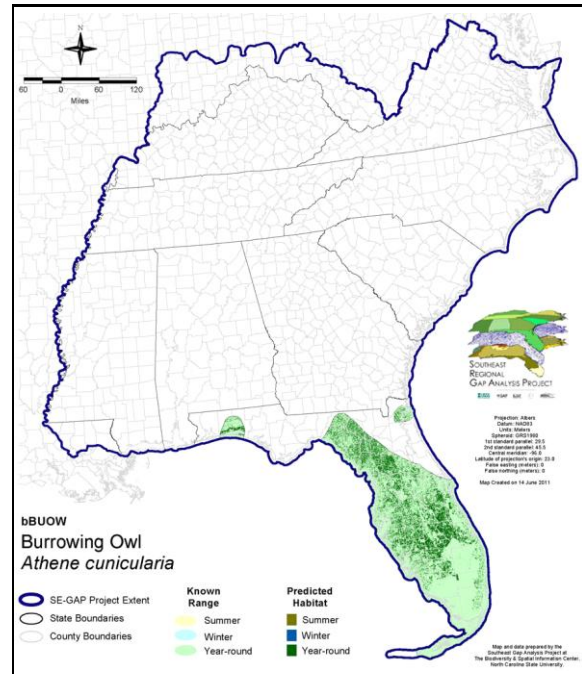
ITIS Species Code: 177946

NatureServe Element Code: ABNSB10010

KNOWN RANGE:



PREDICTED HABITAT:



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

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

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

Data Download: http://www.basic.ncsu.edu/segap/datazip/region/vert/bBUOW_se00.zip

PROTECTION STATUS:

Reported on March 14, 2011

Federal Status: ---

State Status: CA (None), CO (ST), MN (END), ND (Level II), NV (YES), OK (Category II), OR (SC/SV), UT (SPC), WA (C), WA (C), AB (E), BC (1 (2005)), MB (E), MB (E), QC (Non suivie), SK (ENDANGERED)

NS Global Rank: G4

NS State Rank: AL (S2N), AR (S2N), AZ (S3), CA (S2), CO (S4B), FL (SNR), IA (SNA), ID (S3S4), IL (SNA), IN (SNA), KS (S3B), KS (S3B), LA (S1S2N), MD (SNA), MI (SNA), MN (S1B), MO (SNA), MS (S1N), MT (S2B), NC (SNA), ND (SU), NE (S5), NM (S4B,S4N), NV (S3B), OK (S2), OR (S3B), SD (S3S4B), SD (S3S4B), TX (S3B), UT (S3B), VA (SNA), WA (S2B), WA (S2B), WI (SNA), WY (S3), WY (S3), AB (S2), BC (S1B), MB (S1B), MB (S1B), NB (SNA), ON (SNA), QC (SNA), SK (S2B)

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	339.5	< 1	0.0	0	0.0	0	0.0	0
Status 2	2,835.1	< 1	1,590.7	< 1	0.0	0	15.8	< 1
Status 3	0.0	0	17,461.7	< 1	0.0	0	58,968.2	2
Status 4	0.0	0	0.0	0	0.0	0	0.0	0
Total	3,174.6	< 1	19,052.4	< 1	0.0	0	58,983.9	2
	US Dept. of Energy		US Nat. Park Service		NOAA		Other Federal Lands	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	427.1	< 1	0.0	0	3,092.3	< 1
Status 2	0.0	0	487.0	< 1	155.7	< 1	3.5	< 1
Status 3	0.0	0	489.0	< 1	0.0	0	0.0	0
Status 4	0.0	0	0.0	0	0.0	0	0.0	0
Total	0.0	0	1,403.0	< 1	155.7	< 1	3,095.8	< 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	143.7	< 1	36,188.6	1	0.0	0
Status 3	0.0	0	95,991.6	4	0.0	0	22,517.1	< 1
Status 4	0.0	0	0.0	0	0.0	0	0.0	0
Total	0.0	0	96,135.3	4	36,188.6	1	22,517.1	< 1
	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	967.8	< 1	0.0	0	277.6	< 1
Status 3	0.0	0	2,117.6	< 1	1,111.4	< 1	48,234.8	2
Status 4	0.0	0	0.0	0	2.5	< 1	< 0.1	< 1
Total	0.0	0	3,085.4	< 1	1,113.9	< 1	48,512.4	2
	Private Land - No Res.		Water		Overall Total			
	ha	%	ha	%	ha	%		
Status 1	0.0	0	0.0	0	3,858.8 < 1			
Status 2	0.0	0	0.0	0	42,665.3 2			
Status 3	0.0	0	0.0	0	246,891.3 11			
Status 4	2,190,267.1	87	4,849.2	< 1	2,195,118.9 88			
Total	2,190,267.1	87	4,849.2	< 1	2,488,534.4 100			

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: Burrowing owls breed in open grasslands, especially prairie, plains, and savanna. They will use open areas such as vacant lots near human habitation or airports. They forage on the ground or on low perches such as fence posts or dirt mounds.

They nest in abandoned burrow (e.g., prairie dog, ground squirrel, fox, woodchuck, tortoise), including badger excavations (see especially Green and Anthony 1989). In Florida they were reported to dig burrows.

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

Additional information:

Agriculture and construction sites appear to be sink habitat for burrowing owls. In southern California pesticide applications in agricultural areas likely affect the reproductive success of birds that breed in agricultural environments. Eggs in 1997 were 22% thinner than eggs prior to 1937 in this study and pesticides were detected in feather pins and on the feet of owls (Gervais et al. 2000). Tilling of agricultural fields also destroys nests, lowers reproductive success and increases predation (Haug 1985). Open soil or sand areas associated with development are reported to be correlated with significantly lower reproductive success (Millsap and Bear 1988).

Burrowing owls are reported to be forage generalists and consume mostly insects in the summer and vertebrates such as small mammals in the winter over all parts of the range (Haug and Millsap 1993). K. Cook, 17Feb05

Selected Map Units:

Functional Group	Map Unit Name
Anthropogenic	Developed Open Space
Anthropogenic	Pasture/Hay
Anthropogenic	Successional Grassland/Herbaceous
Anthropogenic	Successional Grassland/Herbaceous (Other)
Anthropogenic	Successional Grassland/Herbaceous (Utility Swath)
Forest/Woodland	East Gulf Coastal Plain Black Belt Calcareous Prairie and Woodland - Woodland Modifier
Forest/Woodland	Florida Peninsula Inland Scrub
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	Florida Dry Prairie
Prairie	Panhandle Florida Limestone Glade
Wetlands	East Gulf Coastal Plain Jackson Plain Dry Flatwoods - Open Understory Modifier
Wetlands	East Gulf Coastal Plain Near-Coast Pine Flatwoods - Open Understory Modifier

CITATIONS: 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.

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