



Southwest Regional Gap Analysis Project

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Range, Report and Model pdfs

Common Name

Common name used in SWReGAP Project

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Scientific Name

Scientific name used in SWReGAP Project

Taxon Group

(Amphibian, Reptile, Mammal, Bird)

Range Coding

Background and Purpose

All document provided on this page are considered final. Documents are in Adobe Acrobat PDF format. You will need **Adobe Acrobat Reader™** to view these pages. [Download Here.](#)

Land Cover

Model Datasets

Glossary

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Model Documents

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ITIS	Sub	Common Name	Scientific Name	Taxon Group	Range	Report	Model
-3		ARIZONA MYOTIS	Myotis occultus	M	http://fws-nmcfwru.nmsu.edu/swregap/habitatreview/Range/-3.pdf	http://fws-nmcfwru.nmsu.edu/swregap/habitatreview/TextModels/-3.pdf	http://fws-nmcfwru.nmsu.edu/swregap/habitatreview/Models/-3.pdf
-2		GUNNISON SAGE-GROUSE	Centrocercus minimus	B	http://fws-nmcfwru.nmsu.edu/swregap/habitatreview/Range/-2.pdf	http://fws-nmcfwru.nmsu.edu/swregap/habitatreview/TextModels/-2.pdf	http://fws-nmcfwru.nmsu.edu/swregap/habitatreview/Models/-2.pdf
-1		TRIPOID CHECKERED WHIPTAIL	Cnemidophorus neotesselatus	R	http://fws-nmcfwru.nmsu.edu/swregap/habitatreview/Range/-1.pdf	http://fws-nmcfwru.nmsu.edu/swregap/habitatreview/TextModels/-1.pdf	http://fws-nmcfwru.nmsu.edu/swregap/habitatreview/Models/-1.pdf
173429		COUCH'S SPADEFOOT	Scaphiopus couchii	A	http://fws-nmcfwru.nmsu.edu/swregap/habitatreview/Range/173429.pdf	http://fws-nmcfwru.nmsu.edu/swregap/habitatreview/TextModels/173429.pdf	http://fws-nmcfwru.nmsu.edu/swregap/habitatreview/Models/173429.pdf
173438		GREEN FROG	Rana clamitans	A	http://fws-nmcfwru.nmsu.edu/swregap/habitatreview/Range/173438.pdf	http://fws-nmcfwru.nmsu.edu/swregap/habitatreview/TextModels/173438.pdf	http://fws-nmcfwru.nmsu.edu/swregap/habitatreview/Models/173438.pdf
173440		WOOD FROG	Rana sylvatica	A	http://fws-nmcfwru.nmsu.edu/swregap/habitatreview/Range/173440.pdf	http://fws-nmcfwru.nmsu.edu/swregap/habitatreview/TextModels/173440.pdf	http://fws-nmcfwru.nmsu.edu/swregap/habitatreview/Models/173440.pdf
173441		BULLFROG	Rana catesbeiana	A	http://fws-nmcfwru.nmsu.edu/swregap/habitatreview/Range/173441.pdf	http://fws-nmcfwru.nmsu.edu/swregap/habitatreview/TextModels/173441.pdf	http://fws-nmcfwru.nmsu.edu/swregap/habitatreview/Models/173441.pdf
173443		NORTHERN LEOPARD FROG	Rana pipiens	A	http://fws-nmcfwru.nmsu.edu/swregap/habitatreview/Range/173443.pdf	http://fws-nmcfwru.nmsu.edu/swregap/habitatreview/TextModels/173443.pdf	http://fws-nmcfwru.nmsu.edu/swregap/habitatreview/Models/173443.pdf
173446		RED-LEGGED FROG	Rana aurora	A	http://fws-nmcfwru.nmsu.edu/swregap/habitatreview/Range/173446.pdf	http://fws-nmcfwru.nmsu.edu/swregap/habitatreview/TextModels/173446.pdf	http://fws-nmcfwru.nmsu.edu/swregap/habitatreview/Models/173446.pdf
173447		RIO GRANDE LEOPARD FROG	Rana berlandieri	A	http://fws-nmcfwru.nmsu.edu/swregap/habitatreview/Range/173447.pdf	http://fws-nmcfwru.nmsu.edu/swregap/habitatreview/TextModels/173447.pdf	http://fws-nmcfwru.nmsu.edu/swregap/habitatreview/Models/173447.pdf
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Taxon Group
ITIS
Sub
Common Name
Scientific Name
Updated
Status
Range
Report
Model

Taxon groupings of species by A=amphibians, B=birds, M=mammals, and R=reptiles
ITIS code for the species
Distinguishes submodels such as breeding or migratory if used.
Common name used in SWReGAP project
Scientific name used in SWReGAP project
Date of last document update
Indicates where model is in review process
Range of species based on 8-digit hucs
Textual model and supporting document for each model
Spatial representation of model

For additional comments or questions contact
Ken Boykin
575.646.6303



Southwest Regional Gap Analysis Wildlife Habitat Relationship

ID	2092	Model Name	SWReGAP 180557
Taxa code (ITIS)	180557		
Scientific Name	Mustela nigripes		
Common Name	black-footed ferret		
Created By	lobrien	Last Modified By	cmettenbrink
Date	1/1/2004	Date	5/5/2005 11:25:11 AM

Sensitive Data

☐

Model Descriptio Black-footed Ferret
Mustela nigripes
Entire range

Background

Formerly found throughout the Great Plains, mountain basins, and semiarid grasslands of North America; the geographic range of the black-footed ferret nearly coincides with the range of prairie dogs (Hillman and Clark 1980). Formerly widespread in central North America, virtually or actually exterminated from the wild by 1987, primarily as a result of prairie dog and predator control actions (NatureServe). Captive breeding has been successful to date, however, and reintroductions are in progress (NatureServe). Listed by USFWS as Endangered throughout range except in certain areas of Wyoming, Montana, South Dakota, Arizona, Colorado, and Utah, where listed as XN (nonessential experimental populations) (Federal Register, 20 March 1996, 29 April 1997, 1 October 1998, 13 October 2000) or PXN (proposed nonessential experimental population on the Rosebud Sioux Tribal lands in South Dakota, Federal Register, 11 September 2002) (NatureServe). The black-footed ferret is limited to open habitat, the same habitat used by prairie dogs: grasslands, steppe, and shrub steppe (NatureServe). The black-footed ferret has co-evolved with the prairie dog; their ranges and habitat closely overlap (Fitzgerald et al. 1994). Black-footed ferrets inhabit prairie dog towns; in New Mexico, only one report of this species is outside of a prairie dog town, most records are from within the range of *C. gunnisoni* (Findley et al. 1975). No reports from Chihuahua or southeastern Arizona, or southern New Mexico; and no reports of this species at all in New Mexico in recent years (Findley et al. 1975). Durrant (1952) reports *M. nigripes* was only known from San Juan County in Utah (one specimen), where there was abundance of prairie dogs. In Arizona, inhabited arid prairies-the same habitat used by prairie dogs (AGFD 2001). Estimated that about 40-60 ha of prairie dog colony is needed to support one ferret (AGFD 2001, NatureServe). Prairie dogs are an important food source; one study (N=82) found prairie dog remains in 91% of analyzed ferret scats (NatureServe). Alternate prey probably eaten when necessary, (e.g., ground squirrels, cottontail rabbits, deer mice) (NatureServe). Reintroduced in Aubrey Valley, Coconino

County,AZ (AGFD 2001). Habitat is characterized as plains, great basin grassland community where annual precipitation is an average of 25-30 cm (AGFD 2001). Also reintroduced in Coyote Basin near the Utah/Colorado border, west of Rangley, CO, and in the BLM's Wolf Creek Area, southeast of Dinosaur National Monument (Moffat and Rio Blanco Counties, Colorado) (CDOW 2004). Elevation is 1600-1900m for this reintroduced population (AGFD 2001). Elevation minimum from Findly et al. (1975) and maximum from CWSD.

Description Changes Import of CO-GAP data; need clarification on Aubrey Valley, AZ reintroduction site location; ArcGIS model does not show X34 vs. K34; UT Division of Wildlife Resources GIS map shows more critical habitat in UT (eastern, southeastern, and northeast),did not include as actual suitable habitat in range- don't think populations exist in these locations

Relationships

Elevation	866 - 3200;
Slope Min	0 - 20;
Precipitation	n/a
Temperature	n/a
Soil Depth	n/a
Aspect	n/a
Landform	n/a
Distance to Water	n/a
Soil associations	n/a
Mountain Ranges	n/a
Ecological System	S045 Inter-Mountain Basins Mat Saltbush Shrubland S048 Western Great Plains Sandhill Shrubland S056 Colorado Plateau Mixed Low Sagebrush Shrubland S065 Inter-Mountain Basins Mixed Salt Desert Scrub S077 Apacherian-Chihuahuan Piedmont Semi-Desert Grassland and Steppe S078 Inter-Mountain Basins Big Sagebrush Steppe S079 Inter-Mountain Basins Semi-Desert Shrub Steppe S080 Chihuahuan Gypsophilous Grassland and Steppe S087 Central Mixedgrass Prairie S088 Western Great Plains Shortgrass Prairie S089 Western Great Plains Sandhill Prairie S090 Inter-Mountain Basins Semi-Desert Grassland S096 Inter-Mountain Basins Greasewood Flat

S109 Chihuahuan-Sonoran Desert Bottomland and Swale Grassland
S113 Chihuahuan Sandy Plains Semi-Desert Grassland
S114 Sonora-Mojave-Baja Semi-Desert Chaparral
D06 Invasive Perennial Grassland
D08 Invasive Annual Grassland

Citations

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Fitzgerald, J.P., C. A. Meaney, and D. M. Armstrong 1994 Mammals of Colorado Denver Museum of Natural History and University Press of Colorado, Niwot, Colorado. 467 pages

Schrupp, D.L., and A. Cade 1989 Colorado Wildlife Species Database - User's Guide. Colorado Division of Wildlife. DOW-HR-01-89. Denver, CO

Findley, J. S., A. H. Harris, D. E. Wilson, and C. Jones 1975 Mammals of New Mexico University of New Mexico, Albuquerque, New Mexico. 360 pages

Durrant, S.D. 1952 Mammals of Utah: taxonomy and distribution. University of Kansas, Museum of Natural History 6: 1-549.

Arizona Game and Fish Department 2001 *Mustela nigripes*. Unpublished abstract compiled and edited by the Heritage Data Management System, Arizona Game and Fish Department, Phoenix, AZ. 6pp.

Hillman, C.N. and T.W. Clark 1980 *Mustela nigripes*. Mammalian species No. 126

Colorado Division of Wildlife 2004 Species Conservation: black-footed ferret.
http://wildlife.state.co.us/species_cons/ferret.asp



Southwest Regional Gap Analysis Wildlife Habitat Relationship

ID	1981	Model Name	SWReGAP 175838
Taxa code (ITIS)	175838		
Scientific Name	Tympanuchus pallidicinctus		
Common Name	lesser prairie-chicken		
Created By	lobrien	Last Modified By	cmettenbrink
Date	1/1/2004	Date	7/27/2005 3:41:50 PM
Sensitive Data	<input type="checkbox"/>		

Model Description Lesser Prairie-Chicken
Tympanuchus pallidicinctus
Entire Range
SWREGAP Final Model

Background

Within the Southwest GAP region the lesser prairie-chicken occurs primarily in southeastern Colorado and eastern New Mexico. The lesser prairie-chicken is a threatened species due to habitat loss (NatureServe). The loss of habitat has been the result of fragmentation of landscapes due to the conversion of grasslands to croplands and the degradation of habitats by overgrazing and brush control (NatureServe). In New Mexico, range is reduced by half or more compared to range formerly occupied (Ligon 1961).

Lesser prairie-chickens are endemic to the xeric grasslands of the southwestern Great Plains (Robb and Schroeder 2005). Habitats include mixed grass-dwarf shrub communities that occur on sandy soils such as sand-sage (*Artemisia* spp.) and sand-sage-bluestem (*Andropogon* spp.) grasslands (Andrews and Righter 1992, Kingery 1988, NatureServe). Lesser prairie-chickens are found in sand sagebrush-bluestem and shinnery oak-bluestem vegetation types; most common in dwarf shrub-mixed grass vegetation associated with sandy soils, interspersed with short-grass or mixed-grass habitats on loamy or clayey soils (Giesen 1998). Also found in shinnery oak and bunch sumac/ squaw bush (*Rhus*) (Ligon 1961). *Artemisia filifolia* is important to this bird and found throughout most of the lesser prairie-chickens' range (Ligon 1961).

In Colorado and Kansas, restricted to sand sagebrush communities dominated by sand dropseed, side oats grama, three-awn, and blue grama (Giesen 1998). In southeastern Colorado and southwestern Kansas, habitat is characterized by rolling plains and tablelands, shortgrass prairie, and Mollisol soils with a high level of precipitated calcium carbonate and low humus content (Robb and Schroeder 2005). In New Mexico, Texas and Oklahoma, found on shinnery oak-bluestem habitats dominated with sand bluestem, little bluestem, sand dropseed, three-awn, blue grama, and sand sagebrush communities (Giesen 1998).

During the breeding season lesser prairie-chickens will nest in mid to tall grass prairie habitats and during the winter they inhabit grasslands mixed with forb and shrub components for foraging and concealment (Kingery 1988). Leks use

sparsely vegetated areas typically located on knolls or ridges for display grounds; nesting and brood-rearing sites are usually within 3km of display grounds (Giesen 1998). In summer, shade is sought under taller trees and shrubs, including shinnery oak, sand sagebrush, fragrant sumac and sand chinkapin plum (Giesen 1998). Winter range is similar but more use of small-grain agricultural fields where available (Giesen 1998). This species can also be found foraging near agricultural fields during the winter (Andrew and Righter 1992).

Formerly found on sandhill, bluestem sage grass plains of eastern New Mexico, from Texas on the south to near the Colorado border to the north (Ligon 1961). Ancestral range extended west to the Pecos River; at Fort Sumner, distribution included the sandhill, tall grass country across the Pecos (Ligon 1961). Still found in former range, greatest number are semi-resident in northern Lea and southern Roosevelt Counties, New Mexico (Ligon 1961).

The data for the range in elevation was taken from Andrews and Righter (1992).

Description Changes Import of CO-GAP data; NM State Review added S080, New Mexico Expert Review added N80, added S132 according to the experts review the model at the Comprehensive Wildlife Species Conservation Strategies workshop;

Relationships

Elevation	914 - 1219;
Slope Min	n/a
Precipitation	n/a
Temperature	n/a
Soil Depth	n/a
Aspect	n/a
Landform	n/a
Distance to Water	n/a
Soil associations	n/a
Mountain Ranges	n/a
Ecological System	S048 Western Great Plains Sandhill Shrubland S079 Inter-Mountain Basins Semi-Desert Shrub Steppe S080 Chihuahuan Gypsophilous Grassland and Steppe S086 Western Great Plains Foothill and Piedmont Grassland S087 Central Mixedgrass Prairie S088 Western Great Plains Shortgrass Prairie S089 Western Great Plains Sandhill Prairie S090 Inter-Mountain Basins Semi-Desert Grassland

S132 Western Great Plains Tallgrass Prairie
N80 Agriculture

Citations

Andrews, R. and R. Righter 1992 Colorado Birds: A Reference to Their Distribution and Habitat

Schrupp, D.L., and A. Cade 1989 Colorado Wildlife Species Database - User's Guide. Colorado Division of Wildlife. DOW-HR-01-89. Denver, CO

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Williams, Sartor 2004 New Mexico State Review, personal communication

Ligon, J.S 1961 New Mexico birds and where to find them University of New Mexico Press, Albuquerque, New Mexico

Giesen, K.M. 1998 Lesser prairie-chicken (*Tympanuchus pallidicinctus*). In The Birds of North America, No.364 (A. Poole, P. Stettenheim, and F. Gill, Eds.). Philadelphia: The Academy of Natural Sciences; Washington, DC: The American Ornithologists' Union.

Robb, L.A. and M.A. Schroeder 2005 (March 31). Lesser prairie-chicken (*Tympanuchus pallidicinctus*): a technical conservation assessment [online]. USDA Forest Service, Rocky Mountain Region. Available:
<http://www.fs.fed.us/r2/projects/scp/assessments/lesserprairiechicken.pdf> [May 19, 2005]



Southwest Regional Gap Analysis Wildlife Habitat Relationship

ID	1988	Model Name	SWReGAP 176522
Taxa code (ITIS)	176522		
Scientific Name	Charadrius montanus		
Common Name	mountain plover		
Created By	lobrien	Last Modified By	cmettenbrink
Date	1/1/2004	Date	7/27/2005 9:50:08 AM

Sensitive Data

☐

Model Description Mountain Plover
Charadrius montanus
Entire Range
SWREGAP Final Model

Background

The Mountain Plover is a common species that occurs throughout the Southwest Regional GAP at various times of the year. The Mountain Plover breeding range includes most of eastern Colorado (including Fremont and Park counties; Andrews and Righter 1992, Knopf 1996), north central and northeastern New Mexico, and a small breeding population in the Unita Basin in Utah (Knopf 1996, UDWR). During the winter months, the Mountain Plover will migrate south and winter in southern portions of Arizona, New Mexico, California, and Mexico (Knopf 1996).

The Mountain Plover is an endemic species of the Great Plains (Mengel 1970) who prefers open flat table lands in short-grass prairies, disturbed lands, and heavily grazed grasslands (Knopf and Miller 1994). The Mountain Plover will avoid areas of tall vegetation and hills (Andrews and Righter 1992). This species is commonly found in association with prairie dogs, heavily grazed pastures, or bare grounds such as recently plowed agricultural fields (Andrews and Righter 1992, Knopf 1996).

The breeding season begins with the arrival of this species in late March and Early April (Knopf 1996). Areas used for nesting include four broad habitat associations: 1) native short and mixed grass prairie; 2) semi-desert sites; 3) prairie dog colonies; and 4) agricultural lands (Dinsmore 2003). Nesting sites are characterized as being in areas with short vegetation with 30% or more exposed bare ground (Knopf and Miller 1994) on flat or gentle slopes with 5% or less of a slope (Graul 1975). These nesting sites often occur on intensively grazed lands by cattle or on rangelands containing prairie dog (Cynomys spp.). In fragmented prairie landscapes, this species will utilize fallow crop fields, recently plowed fields, and freshly planted or sprouting fields (Shackford 1991), which may be considered sink habitat for Mountain Plovers. Nests are shallow depressions in the ground that are formed by the male scraping the ground with

its breast (Knopf 1996). Many nest scrapes are formed before a female chooses suitable one. Nests are typically close in proximity to objects such as cow manure, rocks, or other similar objects (Graul 1975). Once egg laying is complete, the adult lines the nest with cow manure, grasses, or leaves (Graul 1975, Knopf and Miller 1994).

In Colorado, the Mountain Plover breeding sites strongly associated with short-grass prairies, which is dominated by blue grama (*Buchloe gracilis*) and buffalo grass (*Buchloe dactyloides*) (Graul 1975). In other areas of the GAP region, such as in Utah this bird nests in semi-desert habitats in the Unita Basin. These areas are sparsely vegetated and are dominated by *Artimisa* spp. such as black sagebrush (*A. nova*) mixed with grasses (UDWR). The Mountain Plovers in Utah are often closely associated with white-tailed prairie dogs (*Cynomys leucurus*) (UDWR) for providing suitable nesting habitats. Mountain Plovers can also be found in areas of oil and gas development which contribute to surface disturbance to the landscape (UDWR). Breeding areas in New Mexico are composed of short-grass and semi-desert shrub habitats (BISON-M). In New Mexico, Tolle (1976) observed nests in sparse, short, overgrazed shrubs interspersed with bare areas.

Mountain Plovers begin leaving the breeding grounds around mid August and will begin gathering at staging areas before migrating south. These areas are often found on tilled fields, alkaline flats, mud soils, and commercial sod farms (Knopf 1996). In Colorado, one important staging that has been identified occurs near Walsh, Eads, and Lamar, CO (Knopf 1996). These areas are important for staging before the migration south. Wintering usually occurs in southern New Mexico, southern Arizona, in the Central and Imperial valleys of California, and Mexico (Knopf and Rupert 1995). On the wintering grounds, the Mountain Plovers inhabit areas of burned Bermuda fields, short-grass plains, cultivated fields, grazed alfalfa fields, and sandy deserts (Knopf and Rupert 1995, Wunder and Knopf 2003).

The data for the range in elevation is taken from the Colorado Wildlife Species Database and the Arizona Department of Game and Fish (2001).

Description Changes Import of CO-GAP data; New Mexico State Review added 15, 86, 108; added HUCs per Utah Natural Heritage Program range review, March 2005; removed slope of 0-2.9; should land form be removed? Added ecological systems S087,S045,S065,S128 according to experts at the Colorado Comprehensive Wildlife Conservation Strategy workshop;

Relationships

Elevation	640 - 3048;
Slope Min	0 - 5;
Precipitation	n/a

Temperature	n/a
Soil Depth	n/a
Aspect	n/a
Landform	n/a
Distance to Water	n/a
Soil associations	n/a
Mountain Ranges	n/a
Ecological System	S015 Inter-Mountain Basins Playa S045 Inter-Mountain Basins Mat Saltbush Shrubland S065 Inter-Mountain Basins Mixed Salt Desert Scrub S079 Inter-Mountain Basins Semi-Desert Shrub Steppe S085 Southern Rocky Mountain Montane-Subalpine Grassland S086 Western Great Plains Foothill and Piedmont Grassland S087 Central Mixedgrass Prairie S088 Western Great Plains Shortgrass Prairie S089 Western Great Plains Sandhill Prairie S090 Inter-Mountain Basins Semi-Desert Grassland S108 Western Great Plains Saline Depression Wetland S128 Wyoming Basins Low Sagebrush Shrubland N80 Agriculture

Citations

Andrews, R. and R. Righter 1992 Colorado Birds: A Reference to Their Distribution and Habitat

NatureServe 2003 NatureServe Explorer: An online encyclopedia of life (web application). Version 1.8

Kingery, Hugh E. (ed) 1998 Colorado Breeding Bird Atlas Colorado Bird Atlas Project (CBAP) and Colorado Division of Wildlife, Publishers

Arizona Game and Fish Department 2001 Charadrius montanus. Unpublished abstract compiled and edited by the Heritage Data Management System, Arizona Game and Fish Department, Phoenix, AZ. 6pp.

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Mountain Plover (Charadrius montanus) Utah Division of Wildlife Resources website. (UDWR) habitat@utah.gov. <http://dwrcdc.nr.utah.gov/rsgis2/Search/Display.asp?FINm=charmout>

Knopf, F. L 1996 Mountain Plovers (Charadrius montanus) Birds of North America, no. 211. (A. Poole and F. Gill, eds.). The Birds of North America, Inc., Philadelphia, PA.

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UDWR, Utah Division of Wildlife Resources Utah Conservation Data Center [web resource] Available: <http://dwrcdc.nr.utah.gov/ucdc/default.asp>

Mengel, R. M. 1970 The North American central plains as an isolating agent in bird specialization. Pp. 280-340 in Pleistocene and recent environments of the central Great Plains (W. Dort and J. K. Jones, eds). Univ. of Kansas Press, Lawrence.

Knopf, F.L., and B.J. Miller 1994 *Charadrius montanus*-montaine, grassland, or bare-ground plover? *Auk* 111:504-506.

Graul, W. D 1975 Breeding biology of the Mountain Plover. *Wilson Bull.* 87:6-31

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Wunder, M. B., and F. L. Knopf 2003 The Imperial Valley of California is critical to wintering Mountain Plovers *J. Field Ornithol.* 74(1): 74-80

Biota Information System of New Mexico (BISON-M) 2004 Mountain Plovers (*Charadrius montanus*) New Mexico Department of Game and Fish. Santa Fe, NM.
http://fwie.fw.vt.edu/states/nmex_main/species/041500.htm

Utah Natural Heritage Program 2005 SWReGAP Range Review March 2005

Dinsmore, S.J. 2003 (December 8) Mountain Plover (*Charadrius montanus*): A Technical Conservation Assessment [online]. USDA Forest Service, Rocky Mountain Region. Available: <http://www.fs.fed.us/r2/projects/scp/assessments/mountainplover.pdf> [may 19, 2005]



Southwest Regional Gap Analysis Wildlife Habitat Relationship

ID	2012	Model Name	SWReGAP 177946
Taxa code (ITIS)	177946		
Scientific Name	Athene cunicularia		
Common Name	burrowing owl		
Created By	lobrien	Last Modified By	cmettenbrink
Date	1/1/2004	Date	7/28/2005 1:44:33 PM
Sensitive Data	<input type="checkbox"/>		

Model Description Western Burrowing Owl
Athene cunicularia
Entire Range
SWREGAP Final Model

Background The Burrowing Owl is a common grassland bird found throughout the Southwest Regional GAP area. The distribution of this prairie owl is found broadly across western North America from the prairie provinces of Canada south to southern Mexico and some isolated areas of Florida and the Bahamas (Haug et al. 1993). Breeding occurs throughout most of the Burrowing Owls range; is a year round resident in s. Arizona, s. New Mexico, s. California, Florida, and the Bahamas; and winters in southern Mexico (Haug et al. 1993).

The terrestrial habitats that the Burrowing Owl inhabits include well-drained grasslands, prairies, steppes, deserts, and agricultural lands (AGFD 2001). Site characteristics for these areas inhabited by the Burrowing Owl tend to be level, open, and have dry vegetation typical in heavily grazed or low stature grasslands or desert vegetation (Johnsgard 1988). These habitats are often in close association with burrowing mammals (e.g. prairie dogs (*Cynomys* spp.), ground squirrels (*Spermophilus* spp.), fox (*Vulpes* spp.), and badger (*Taxidea taxus*) excavations) in whose abandoned den the Burrowing Owls make their nest (Haug et al. 1993, NatureServe 2004). Nest microhabitats include open, dry, treeless area typically occupied by burrowing mammals that provide nest burrows, and rangelands grazed by burrowing mammals and domestic livestock, which maintain short vegetation (McDonald et al. 2004). Consistent features found in burrowing owl nest site studies include high densities of available burrows for nesting; active or very recently abandoned prairie dog colonies; close proximity to other nesting burrowing owls; close proximity to occupied prairie dog burrows; short vegetation around nest burrow; low shrub density, and high forb density; and presence of dried manure for lining of nest burrow (McDonald et al. 2004). The Burrowing Owl may also inhabit vacant lots near human habitation such as golf courses and airports (AGFD 2001). Presence of burrows in these areas seems to be a critical habitat requirement for the Burrowing Owl (Haug et. al. 1993).

In the Great Basin, the Burrowing Owl can be found occupying shrub steppe habitats with open to dense stands of shrubs and low trees (Ryser 1985, BISON-M). The plant communities in this ecological system include big sagebrush (*Artemisia tridentata*), saltbrush (*Atriplex confertifolia*), greasewood (*Sarcobatus vermiculatus*), or creosote bush (*Larrea divaricata*) (BISON-M). In southern New Mexico, the Burrowing Owl occupies areas of Chihuahuan desert scrub and grasslands (BISON-M). The plant communities in these ecological systems include creosote, mesquite (*Prosopis* spp.), succulents, and black grama (*Bouteloua eriopoda*), and alkali sacaton (*Sporobolus airoides*) (BISON-M).

The Burrowing Owl occurs at varying elevations throughout the southwest. In Arizona, this owl can be found occupying habitats between 198-1873m; New Mexico's population is found at habitats between 854-2135m; and Colorado's populations are found between 914-2743m (Schrupp and Cade 1989, AGFD 2001, BISON-M).

Description Changes Import of CO-GAP data; added land covers 62, N21, 11,12,15, 56,108: New Mexico State Review, personal communication S. Williams; added 62, 63, 69, 70, 129, 116, 68, 54, 55, 52, 48, 45, 53, 56, 59, 60, 65, 136, 58, 61; according to Derek Hall NV expert Nevada Test Site locations are 866-1905 meters- the AZ model best fits for NV; removed S021 according to NV species expert and landform 1,2,4;

Relationships

Elevation	198 - 2743;
Slope Min	n/a
Precipitation	n/a
Temperature	n/a
Soil Depth	n/a
Aspect	n/a
Landform	n/a
Distance to Water	n/a
Soil associations	n/a
Mountain Ranges	n/a
Ecological System	S011 Inter-Mountain Basins Shale Badland S012 Inter-Mountain Basins Active and Stabilized Dunes S015 Inter-Mountain Basins Playa S018 North American Warm Desert Active and Stabilized Dune S022 North American Warm Desert Playa

S045 Inter-Mountain Basins Mat Saltbush Shrubland
 S048 Western Great Plains Sandhill Shrubland
 S052 Colorado Plateau Pinyon-Juniper Shrubland
 S053 Great Basin Semi-Desert Chaparral
 S054 Inter-Mountain Basins Big Sagebrush Shrubland
 S055 Great Basin Xeric Mixed Sagebrush Shrubland
 S056 Colorado Plateau Mixed Low Sagebrush Shrubland
 S058 Apacherian-Chihuahuan Mesquite Upland Scrub
 S059 Colorado Plateau Blackbrush-Mormon Tea Shrubland
 S060 Mojave Mid-Elevation Mixed Desert Scrub
 S061 Chihuahuan Succulent Desert Scrub
 S062 Chihuahuan Creosotebush, Mixed Desert and Thorn Scrub
 S063 Sonoran Paloverde-Mixed Cacti Desert Scrub
 S065 Inter-Mountain Basins Mixed Salt Desert Scrub
 S068 Chihuahuan Stabilized Coppice Dune and Sand Flat Scrub
 S069 Sonora-Mojave Creosotebush-White Bursage Desert Scrub
 S070 Sonora-Mojave Desert Mixed Salt Desert Scrub
 S077 Apacherian-Chihuahuan Piedmont Semi-Desert Grassland and Steppe
 S078 Inter-Mountain Basins Big Sagebrush Steppe
 S079 Inter-Mountain Basins Semi-Desert Shrub Steppe
 S080 Chihuahuan Gypsophilous Grassland and Steppe
 S086 Western Great Plains Foothill and Piedmont Grassland
 S087 Central Mixedgrass Prairie
 S088 Western Great Plains Shortgrass Prairie
 S089 Western Great Plains Sandhill Prairie
 S090 Inter-Mountain Basins Semi-Desert Grassland
 S108 Western Great Plains Saline Depression Wetland
 S109 Chihuahuan-Sonoran Desert Bottomland and Swale Grassland
 S113 Chihuahuan Sandy Plains Semi-Desert Grassland
 S116 Chihuahuan Mixed Salt Desert Scrub
 S129 Sonoran Mid-Elevation Desert Scrub
 S132 Western Great Plains Tallgrass Prairie
 S136 Southern Colorado Plateau Sand Shrubland
 N21 Developed, Low Intensity
 N80 Agriculture

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