

**An Inventory of Peregrine Falcons and Other Raptor
Species on Lands Managed by the Bureau of Land
Management Uncompahgre Field Office in Western
Colorado: 2010 Report**



November 2010



ROCKY MOUNTAIN BIRD OBSERVATORY

Mission: To conserve birds and their habitats

Vision: Native bird populations are sustained in healthy ecosystems

Core Values: (Our goals for achieving our mission)

1. **Science** provides the foundation for effective bird conservation.
2. **Education** is critical to the success of bird conservation.
3. **Stewardship** of birds and their habitats is a shared responsibility.

RMBO accomplishes its mission by:

Monitoring long-term bird population trends to provide a scientific foundation for conservation action.

Researching bird ecology and population response to anthropogenic and natural processes to evaluate and adjust management and conservation strategies using the best available science.

Educating people of all ages through active, experiential programs that create an awareness and appreciation for birds.

Fostering good stewardship on private and public lands through voluntary, cooperative partnerships that create win-win situations for wildlife and people.

Partnering with state and federal natural resource agencies, private citizens, schools, universities, and other non-governmental organizations to build synergy and consensus for bird conservation.

Sharing the latest information on bird populations, land management and conservation practices to create informed publics.

Delivering bird conservation at biologically relevant scales by working across political and jurisdictional boundaries in western North America.

Suggested Citation:

Beason, Jason P. 2010. An Inventory of Peregrine Falcons and Other Raptor Species on Lands Managed by the Bureau of Land Management Uncompahgre Field Office in Western Colorado: 2010 Report. Tech Rep. SC-PFALC-BLM-10-1. Rocky Mountain Bird Observatory, Brighton, Colorado. 12 pp.

Cover Photo:

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Contact Information:

Jason Beason

Rocky Mountain Bird Observatory

39405 Lund Road

Paonia, Colorado 81428

Phone: 970.310.5117

E-mail: jason.beason@rmbo.org

Executive Summary

Rocky Mountain Bird Observatory conducted an inventory for Peregrine Falcons (*Falco peregrinus*) and other raptor species in May and June of 2010. We conducted surveys in western Colorado in the Paradox Valley on lands managed by the Uncompahgre Field Office of the Bureau of Land Management. Surveys were conducted specifically to catalogue observations and nesting of Peregrine Falcons, a priority species for the Bureau of Land Management. Additionally, we surveyed for Burrowing Owls and nests of other raptor species in the study area on an opportunistic basis. Other raptor locations from incidental reports from birders and biologists within the boundaries of the Uncompahgre Field Office were compiled.

No Peregrine Falcon nest sites were located within the study area in 2010. However, we learned of one Peregrine Falcon nest site near the study area and just south of lands managed by the Uncompahgre Field Office and of another on lands managed by the Uncompahgre Field Office to the north of the Paradox Valley. We observed Burrowing owls at three locations during the 2010 breeding season within the Uncompahgre Field Office boundaries; two of which were on lands managed by the Bureau of Land Management.

Acknowledgements

I sincerely thank Missy Siders, Charlie Sharp, and David Sinton of the Bureau of Land Management for making this project possible and for support during and after the project. I am extremely grateful to Christine Avena for conducting surveys. Much of the success of this project is due to her hard work. I would also like to thank Maureen Biggs, Coen Dexter, Dennis Garrison, George Steele, and Brenda Wright for sharing information about raptors during the spring and summer of 2010. I am also grateful of Nick Van Lanen for his careful review of this report.

This project was funded by the Bureau of Land Management through an agreement with the Rocky Mountain Bird Observatory. This report fulfills requirements in Rocky Mountain Bird Observatory's contract with the USDI Bureau of Land Management (SC-PFALC-BLM-10-1).

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Introduction

In 1998 the Rocky Mountain Bird Observatory (RMBO) initiated the Monitoring Colorado's Birds (MCB) program with the goal of monitoring the populations of all birds that breed in Colorado. Currently this program is attempting to monitor populations of birds that breed in the state using point count surveys. This technique produces precise estimates for many of the common breeding species of Colorado but for low density species, like raptors, a focused survey effort is required.

The Peregrine Falcon was virtually eliminated from western Colorado as a breeder in the 1950s and 1960s as a result of the widespread use of DDT (Righter et al. 2004). This species received protection under the Endangered Species Act in 1973 and, thanks to effective recovery efforts, was delisted in 1999 (White et al. 2002). The Peregrine Falcon continues to be protected via the Migratory Bird Treaty Act of 1918. Peregrine Falcons are listed as a Species of Greatest Conservation Need in the Colorado Wildlife Action Plan.

The majority of Peregrine Falcons in Colorado breed in the western portion of the state due to the abundance of nest sites and available prey (Righter et al. 2004). Breeding sites have been discovered in past years on lands managed by the Uncompahgre Field Office (UFO) of the BLM; however, because nesting locations vary from year to year surveying for Peregrine Falcon nests must be conducted each spring. Finding and protecting Peregrine Falcon nest sites on a yearly basis will promote the survival of the species in this area and ensure that the BLM complies with existing laws protecting the species.

The Western Burrowing Owl breeds in desert grassland, shrub-steppe, and agricultural areas in western North America. In western Colorado, scattered populations of Burrowing Owls occur, typically in association with white-tailed prairie dog (*Cynomys leucurus*) colonies. Burrowing Owls are undergoing mild to relatively severe local and regional population declines throughout much of western North America and have disappeared from the far eastern and northern portions of their historical range in North America (Haug et al. 1993). In Canada they are listed as endangered, and in Mexico they are considered threatened. In the United States they have special status designation in nearly all states in which they occur, and are listed by the U.S. Fish and Wildlife Service (USFWS) as a migratory species of concern for the Southern Rockies/Colorado Plateau region. The state of Colorado lists Burrowing Owls as threatened. Prior to 2009, existing

data on Burrowing Owls within UFO boundaries were limited to a few incidental observations, with little to no data on breeding status. Understanding use or non-use of local habitats by Burrowing Owls will enhance resource planning efforts, impact National Environmental Policy Act document analyses, and help assure avoidance of important breeding sites that could potentially serve as off-site mitigation.

Several other raptor species occupy and nest on lands managed by the UFO. Raptors are excellent indicators of ecosystem health and information about their population levels can be used to determine the impacts of management decisions. The overall health of raptor populations is not well-monitored and tracking their population levels is important to the BLM and to RMBO.

Methods

Site Selection

Prior to the field season, RMBO acquired maps from the BLM showing the area where surveys were to take place on UFO lands. The BLM requested that we concentrate survey efforts in East Paradox Valley Study Area (EPVSA) because historical Peregrine Falcon breeding sites exist in the area and concerns about potential impacts from human activities in the area (Fig. 1). RMBO also visited locations with historical Burrowing Owl observations throughout the UFO management district on an opportunistic basis to determine if they were occupied in 2010. In the EPVSA, we did not choose Burrowing Owl survey sites, but instead instructed field technicians to opportunistically scan prairie dog towns as they traveled throughout the valley.

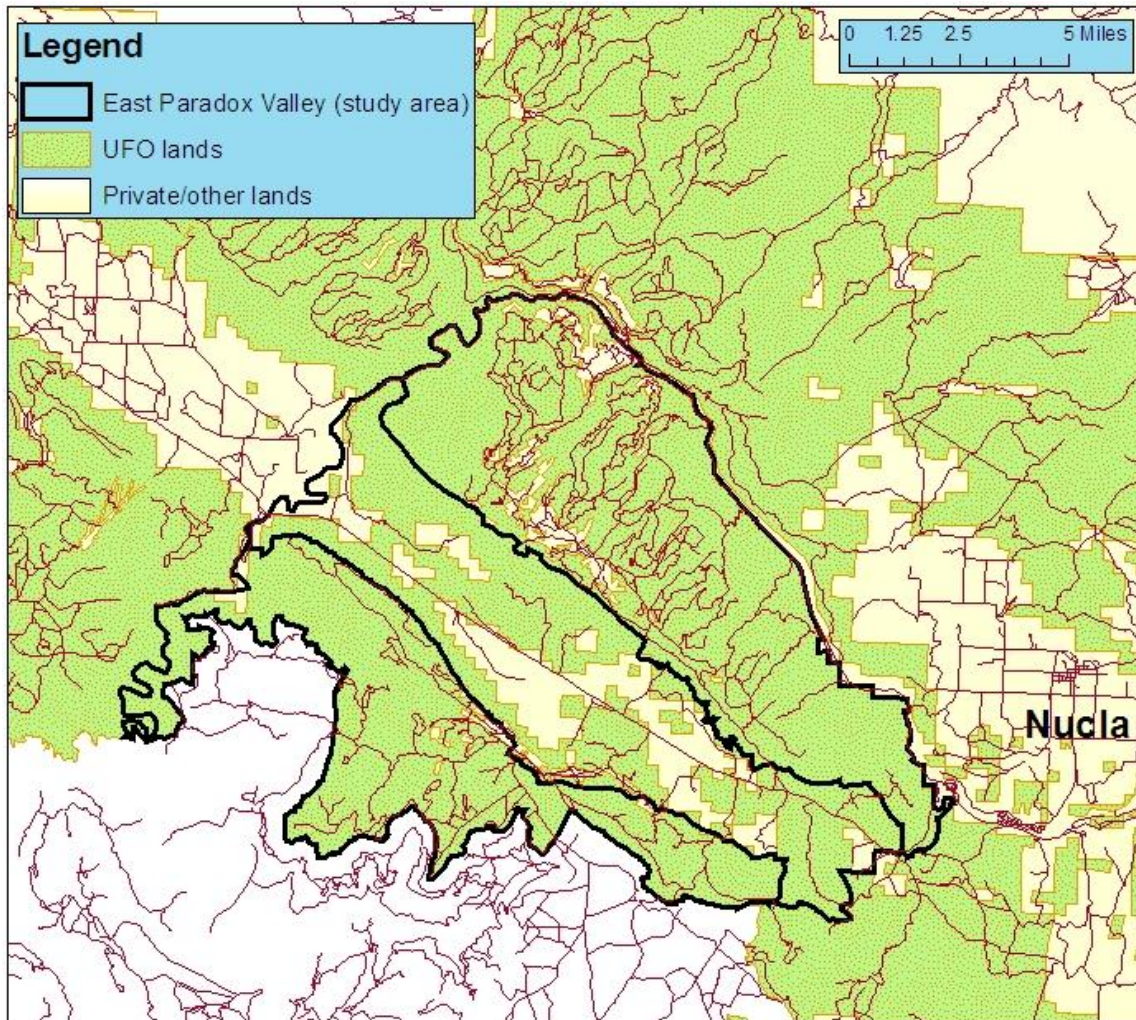


Figure 1. East Paradox Valley Study Area: Peregrine Falcon priority survey boundary.

Protocol

We hired one field technician with prior experience conducting bird surveys to conduct Peregrine Falcon inventory surveys between 12 May and 9 June. Prior to the field season, the technician took part in a one-day training session held near the study area where they practiced survey techniques, discussed protocol and datasheets, and were presented with maps of the study area. A bulletin explaining the most effective ways to search for falcon nest sites was used to assist with explanation of survey techniques (Linthicum, unknown date). The technician conducted surveys by hiking along the base of cliffs with appropriate nesting qualities (i.e., cliffs with niches in which nesting could occur) while watching and listening for Peregrine Falcons. When a Peregrine Falcon was

located, the technician concentrated their efforts on discovering an active nest site in the vicinity of the sighting. This was accomplished by revisiting the area of the sighting and focusing searches on cliffs with prime nest sites. Since funding for this project was limited field work was completed in approximately one month (12 May through 9 June).

For other raptor species, the field technician recorded incidental observations as they traveled throughout the valley. Local Breeding Bird Atlas workers, birders and biologists were also alerted of our interest in any potential raptor nesting areas in the EPVSA, and Peregrine Falcon and Burrowing Owl sightings anywhere within the boundaries of the Uncompahgre Field Office. Additionally, we searched the birding list-serve for western Colorado (the West Slope Bird Network) for reports of raptors in the area.

Results

In 2010, no active Peregrine Falcon nest sites were located as a result of RMBO's search efforts within the EPVSA. Two Peregrine Falcon nest sites were located by Breeding Bird Atlas field workers on or near lands managed by UFO but were located outside of the EPVSA. These two observations are included in this report. One of these nests was located near the EPVSA just outside the boundary of the Uncompahgre Field Office (Fig. 2). The other nest site was on lands managed by the Uncompahgre Field Office along the Gunnison River between Delta and Whitewater, Colorado (Fig. 3). Although no Peregrine Falcon nests were located within the EPVSA, RMBO staff recorded eight Peregrine Falcon observations within the EPVSA (Figure 2).

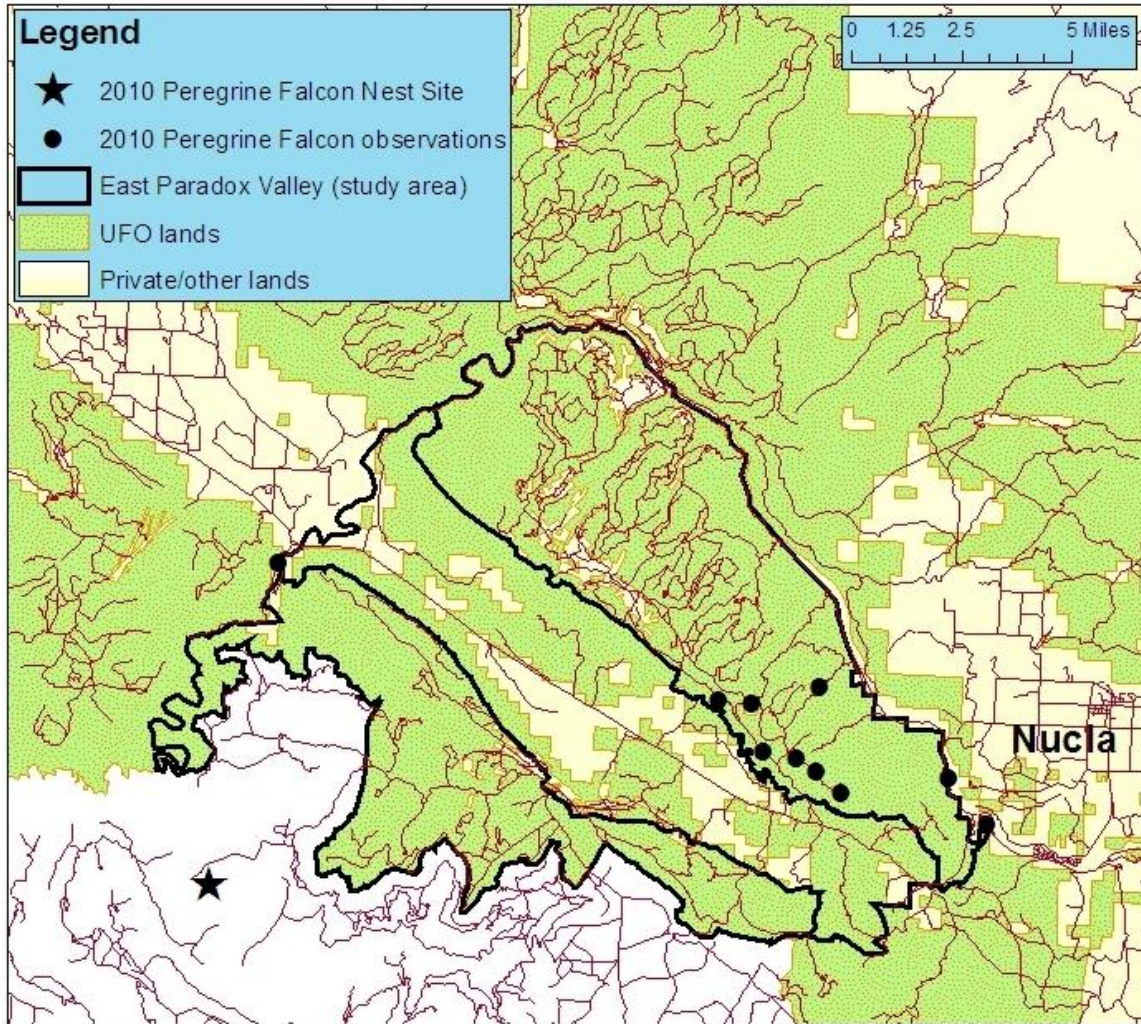


Figure 2. Locations of 2010 Peregrine Falcon breeding site and observations in or near East Paradox Valley Study Area.

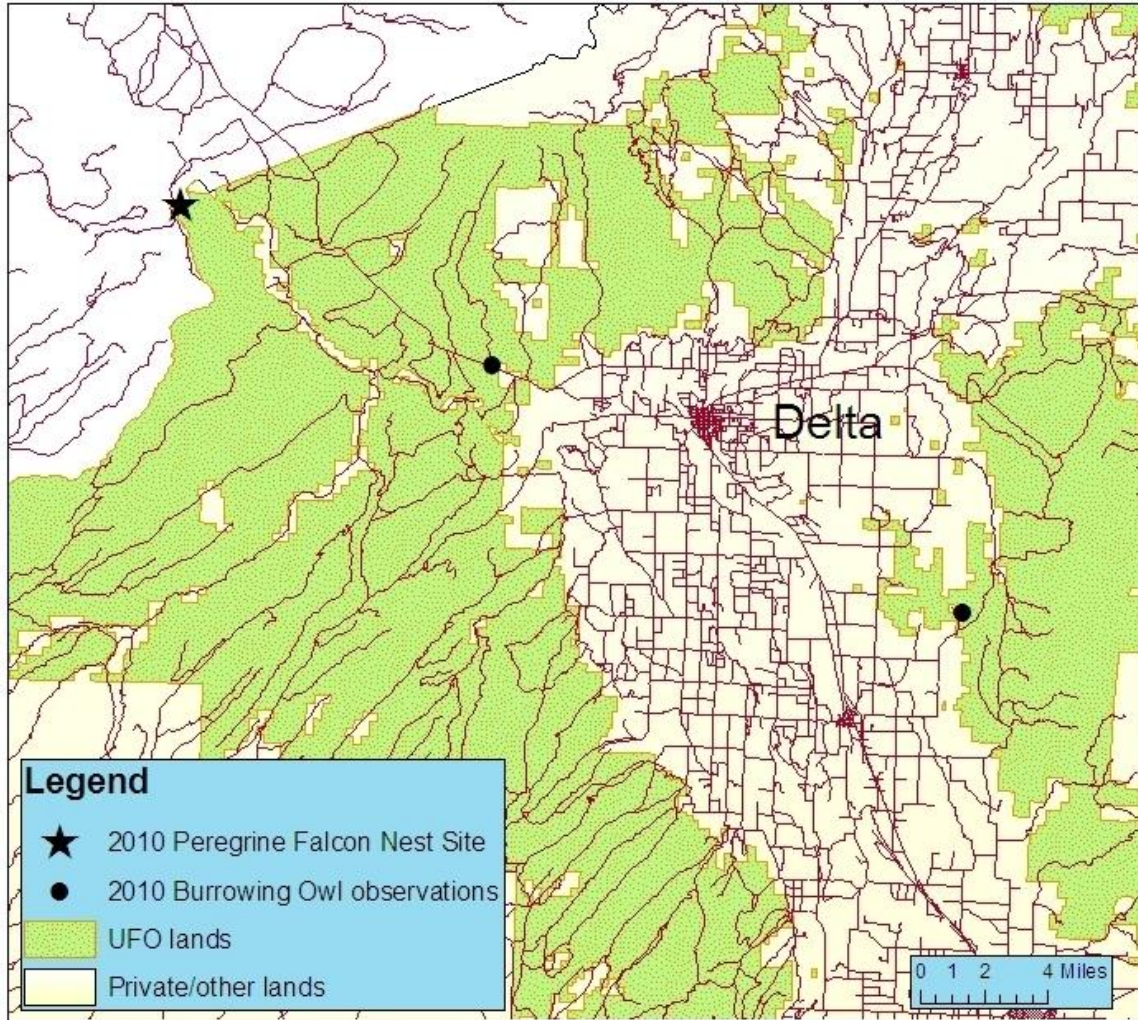


Figure 3. Locations of 2010 Peregrine Falcon nest site and Burrowing Owl observations in the Delta area.

RMBO staff recorded four Prairie Falcon observations and located one active nest within the study area during the 2010 field season (Fig. 4). Universal Transverse Mercator (UTM) coordinates for Peregrine and Prairie Falcon observations and nest sites are not included in this report due to the sensitive nature of this information.

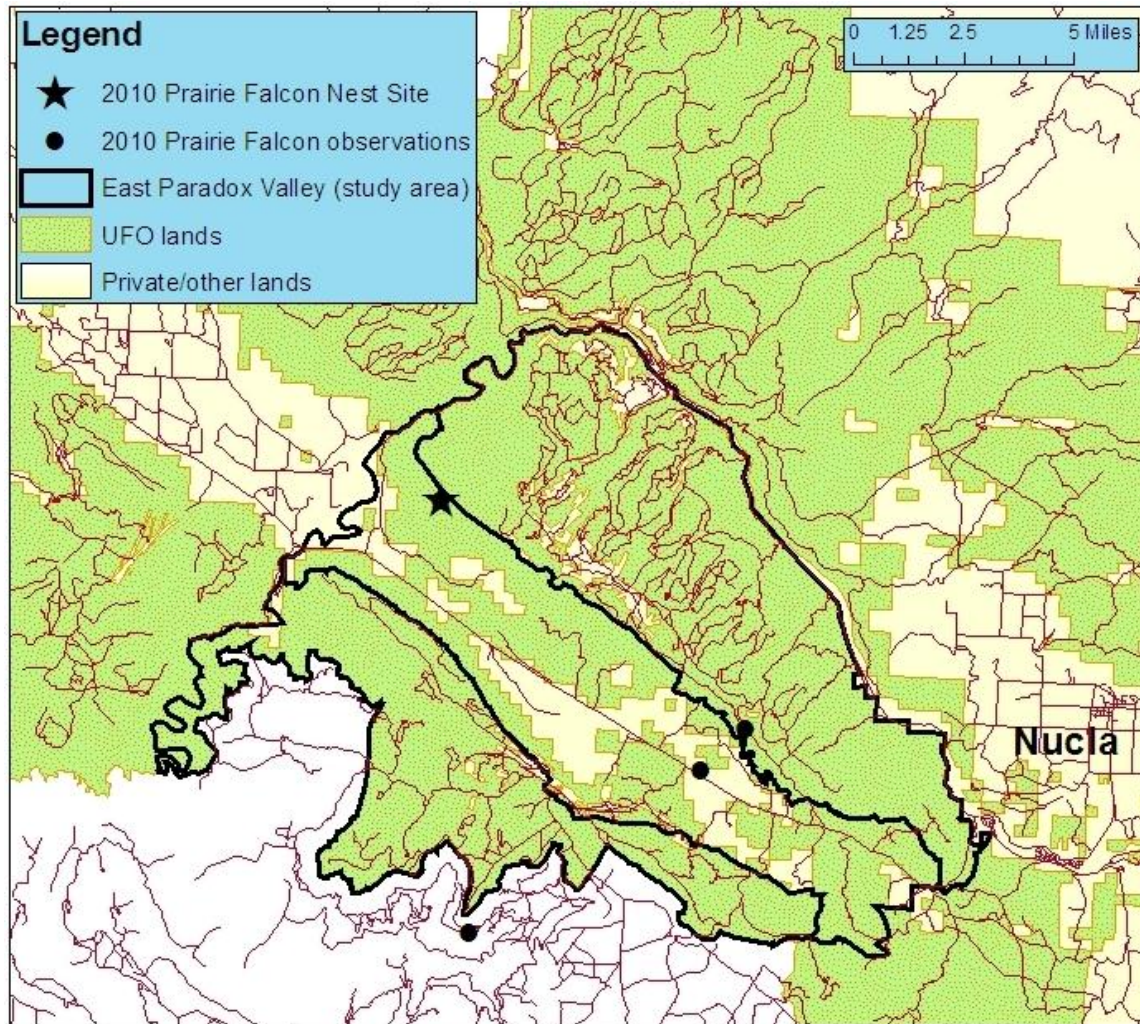


Figure 4. Locations of 2010 Prairie Falcon breeding site and observations in or near East Paradox Valley Study Area.

We found one Burrowing Owl at one location in the EPVSA and at two other locations within the boundary of the UFO (Table 1; Figures 3 and 5). Even though the location in the EPVSA was revisited by the field technician, it was not evident whether or not this was an active breeding site. In this report we map the EPVSA Burrowing Owl and Golden Eagle observations together (Fig. 5). The Burrowing Owl observations outside of the EPVSA are mapped with the Peregrine Falcon nest site in the northern part of the UFO management district (Table 1; Figure 3). In 2008 and 2009, Burrowing Owls were confirmed breeding on private land near Delta within the UFO boundary. RMBO learned from local biologists that the owls were not present at this site in 2010.

Table 1. 2010 Burrowing Owl observation location coordinates within the boundaries of the Uncompahgre Field Office (NAD 83 projection).

Zone	Easting	Northing	Land Ownership	Breeding Status
13	246169	4282740	Private	Confirmed
12	743203	4294136	BLM	Unknown
12	743926	4294028	BLM	Unknown

Golden Eagles were recorded twice in the EPVSA in 2010 (Table 2). The locations of those observations are included on the map with Burrowing Owl observations (Fig. 5).

Table 2. Golden Eagle observation location coordinates in the East Paradox Valley Study Area (NAD 83 projection).

Zone	Easting	Northing	Land Ownership	Breeding Status
12	690253	4248043	BLM	Unknown
12	698782	4235592	BLM	Unknown

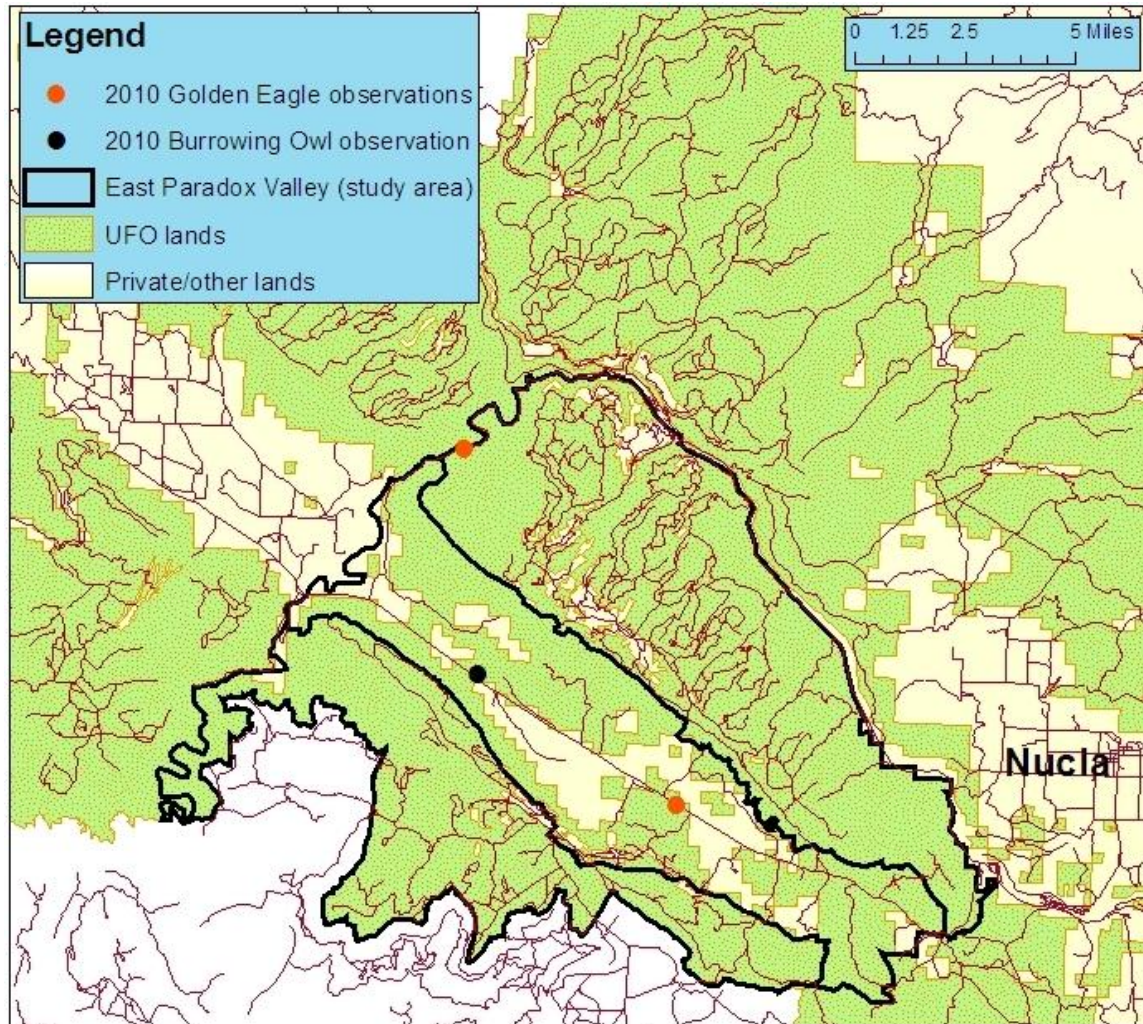


Figure 5. Locations of 2010 Burrowing Owl and Golden Eagle observations in the East Paradox Valley Study Area.

Discussion and Recommendations

Little information exists about diurnal raptor populations in western Colorado and many are listed as a Sensitive Species by the BLM, as a Species of Greatest Conservation Need by the Colorado Division of Wildlife (CDOW), or as a Bird of Conservation Concern by the USFWS. RMBO feels that it is important to inventory for all raptor species that occupy western Colorado, but especially those that are listed as species of concern by the BLM, CDOW, and USFWS. All surveys that focus on raptors in this part of the state should emphasize the importance of recording nesting locations for raptors listed in Appendix A and

offering as much protection as possible for the nesting locations that are discovered.

According to data gathered during the first Colorado Breeding Bird Atlas, Peregrine Falcon courtship can begin as early as late-March (Colorado Breeding Bird Atlas Partnership 1998). Peregrine Falcons do not always return to the same location to breed, but it is possible that they could reuse previous nest sites. A “no recreation” buffer zone should be placed around the historical nest sites in early spring (by mid-March) so that recreationists do not influence whether or not the sites are re-used. We recommend that the BLM monitor all locations where Peregrine Falcons nested in 2009 and 2010 beginning in mid-March and then through April and early May to determine if these areas are occupied again in 2011. If the birds have not returned to these sites to breed by early-May then the BLM should feel secure in opening these areas for recreation throughout the summer.

Burrowing Owls occur at a very low density throughout western Colorado. The UFO should consider management restrictions for all locations where Burrowing Owls have been confirmed breeding. Any management action that could potentially cause Burrowing Owls to abandon a breeding site should be carefully evaluated by the BLM (i.e., road construction, any development for energy extraction purposes, and off-road vehicle activity). We recommend placing a buffer zone of at least 0.5 mile around prairie dog towns being used by Burrowing Owls from 1 April through 1 August. We realize that protecting white-tailed prairie dogs is a very complicated endeavor but as some point the protection of some of the larger towns may be necessary. In many cases, limiting access to some areas by closing roads and restricting motorized travel would result in increased protection for white-tailed prairie dogs.

The UFO should continue surveys for Peregrine Falcons and Burrowing Owls on the lands that they manage. Additional survey effort and access limitations at occupied sites will result in a reduction of nest abandonment and a better understanding of the distribution of these raptor species in the UFO management district.

Literature Cited

Colorado Breeding Bird Atlas Partnership. 1998. Colorado Breeding Bird Atlas. Denver, Co. 636 pp.

Haug, E.A., B.A. Millsap, and M.S. Martell. 1993. Burrowing Owl (*Speotyto cunicularia*). In *The Bird of North America*, No. 61 (A. Poole and F. Gill, Eds.). Philadelphia: The Academy of Natural Sciences; Washington, D.C.: The American Ornithologists' Union.

Linthicum, Janet. Observing Breeding Behavior. Unpublished report by Bird Group.org., 6 p. Retrieved March 14, 2009, from the World Wide Web: <http://www.sharpeyesonline.com/pages/2/Observing/Observing/>

Righter, R., R. Leivad, C. Dexter, and K. Potter. 2004. Birds of Western Colorado Plateau and Mesa Country. Grand Valley Audubon Society. 214 pp.

White, Clayton M., Nancy J. Clum, Tom J. Cade and W. Grainger Hunt. 2002. Peregrine Falcon (*Falco peregrinus*), *The Birds of North America Online* (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved November 11, 2010, from the Birds of North America Online: <http://bna.birds.cornell.edu/bna/species/660>

Appendix A. Diurnal Raptors listed by the Bureau of Land Management, the Colorado Division of Wildlife, and the U.S. Fish and Wildlife Service as species of concern in western Colorado.

Species	Bureau of Land Management	Colorado Division of Wildlife ¹	U.S. Fish and Wildlife Service ²
Bald Eagle	Sensitive Species	Species of Greatest Conservation Need	Bird of Conservation Concern
Burrowing Owl (?)	Sensitive Species	Species of Greatest Conservation Need	Bird of Conservation Concern
Northern Harrier		Species of Greatest Conservation Need	
Northern Goshawk	Sensitive Species	Species of Greatest Conservation Need	
Swainson's Hawk		Species of Greatest Conservation Need	
Ferruginous Hawk	Sensitive Species	Species of Greatest Conservation Need	Bird of Conservation Concern
Golden Eagle		Species of Greatest Conservation Need	Bird of Conservation Concern
Peregrine Falcon	Sensitive Species	Species of Greatest Conservation Need	Bird of Conservation Concern
Prairie Falcon		Species of Greatest Conservation Need	Bird of Conservation Concern

¹Species of Greatest Conservation Need (Colorado's Comprehensive Wildlife Conservation Strategy)

²Bird of Conservation Concern for Region 6 (Mountain-Prairie) and Bird Conservation Region 16