



Montana Fish, Wildlife & Parks

Wildlife Bureau
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Helena, MT 59620
January 8, 2010

Peter Plage
Colorado Field Office, U.S. Fish and Wildlife Service
P.O. Box 25486, DFC (MS 65412)
Denver, CO 80225-0486

Dear Mr. Plage,

I am writing in response to your November 25, 2009 request for new information on the Mountain Plover for inclusion in the upcoming Federal Register notice that will reopen the 2002 proposal for listing the Mountain Plover as threatened under the Endangered Species Act (FR 67:72396-72407). I understand that this is an information gathering exercise and you are not soliciting official position statements on the status of the Mountain Plover from the states at this time.

Enclosed is a habitat suitability map for Mountain Plovers in Montana generated using current data and Maxent modeling techniques. Receiver Operating Curve statistics indicate the accuracy of the model to predict potential habitat is quite good (AUC = 0.94). The map clearly indicates that Phillips, Blaine, Valley, and Fergus counties provide the greatest acreage of high suitability plover habitat in the state. It also indicates there is potential Mountain Plover habitat patchily distributed throughout Montana, especially in central and southeastern portions of the state. The model was restricted to the known distribution of Mountain Plovers in Montana.

The 2002 proposed rule states that Mountain Plovers no longer occupy Carbon, Teton, and Toole counties. Recent documentation from reputable birders indicates Mountain Plovers are occupying (2006 observation) and breeding (2009 observation) in Carbon county. We have no new information to suggest occupancy in Teton or Toole counties.

Biological Information

Recent research indicates breeding population estimates for a 7,162 km² area in south Phillips and Valley counties, Montana were 1,028 (95% CI = 903–1,153) individuals in 2004 (Childers and Dinsmore 2008). Most of these (74%) were on active prairie dog colonies. An additional 193 Mountain Plovers were counted in 2004 at 4 additional areas in Montana (Fauna West 2004). Other areas of suitable Mountain Plover habitat were not sampled in 2004. Therefore, work in 2004 indicates there are more than 1096 – 1346 Mountain Plovers in Montana.

Trend estimates for Mountain Plovers at three sites in Montana from 1992 – 2004 were variable (Fauna West 2004). This work documented a decline in Mountain Plover breeding populations in southwestern Montana with surveys locations in Broadwater, Jefferson, and Madison counties. No plovers were documented in 2004 in these areas. There was some suggestion of a negative trend for plovers in the northeastern study area (south Valley county), although this was not as clear. In the central study area, population counts were variable among years.

In addition to population estimates, nest, juvenile, and adult survival rates have been calculated for Mountain Plovers in southern Phillips county, Montana (Dinsmore et al. 2002, Dinsmore et al. 2003, Dinsmore 2008). Estimated annual apparent survival rates were 0.46–0.49 for juveniles and 0.68 for adult plovers. These relatively low annual survival rates suggest Mountain Plover populations are sustained by annual productivity. Information on site fidelity from this same study area is well documented in Skrade (2008). New research on nestling survival in Montana and Colorado is expected to commence in 2010 by Dr. Stephen Dinsmore (cootjr@iastate.edu).

Threats:

New information on threats to Mountain Plover habitat pertain to continued loss of native prairie, loss of Conservation Reserve Program (CRP) lands, changing grazing patterns, energy development, predation pressure, and prairie dog distribution, abundance, and disease. From 2005-2009, 46,871 acres of grassland were converted to agriculture in Montana (Ducks Unlimited, pers. comm.). Additionally, contracts have expired on approximately 465,000 acres of lands enrolled in CRP in the prairie pothole region of Montana between 2007 and 2009. Another 3.4 million acres under CRP contracts are expected to expire in the prairie pothole region of the Dakotas and Montana by 2012 (Ducks Unlimited news release, Nov 10, 2009). Grazing incentives may help with the persistence of Mountain Plover habitat, as there is some suggestion that changing distributions of cattle and sheep grazing have impacted plover distributions (Fauna West 2004). In addition, recent research at the Judith Gap Wind Farm found no evidence of Mountain Plover displacement or fatalities (Poulton and Erickson 2009, Western EcoSystems Technology, Inc. and TRC Corporation 2009).

Trend estimates indicate raptor populations, and corresponding potential predation pressure, have fluctuated in Montana from 1977-2004 (Atkinson 2005). Red-tailed Hawks have shown an increase in populations statewide, but Swainson's Hawks appear to be declining particularly in eastern Montana. Ferruginous Hawks show some evidence of increasing populations, however this was variable among regions. Golden Eagle number also may be increasing, attributed primarily to the western portion of the state. Prairie falcon populations may be declining, although this was variable among regions.

Mountain Plovers in Montana are thought to be more strongly associated with prairie dog colonies than in other portions of their range (Childers and Dinsmore 2008). Montana Fish, Wildlife and Parks estimated 78,455 ($\pm 6,277$ SE) hectares of active prairie dog colonies in 2008. Rosebud, Powder River, Bighorn, and Garfield counties had the

highest proportion of prairie dog colonies in the state, respectively. County estimates can be provided upon request.

Plague in black-tailed prairie dog colonies has been reported in Phillips, Garfield and Custer Counties with suspected plague incidences in other counties. We are also aware that poisoning of prairie dog colonies does occur. However, MFWP does not believe that plague and poisoning pose a significant threat to the viability of black-tailed prairie dog populations in the state at this time as they only affect a small percentage of the total black-tailed prairie dog habitat. We estimate that less than 15% of the total area of black-tailed prairie dog colonies in the state is inactive at this time (13,104 hectares \pm 4,075 SE). Mountain plovers appear to vacate colonies quickly after plague outbreak, and recolonization rates appear to be slower (~4 years; Dinsmore and Smith *In Press*). Colony size was an important factor in influencing extinction rates of Mountain Plovers. This suggests that if the incidence of plague were to increase in Montana, it has the potential for negatively impacting suitable Mountain Plover breeding habitat. Additional information on the effects of sylvatic plague on Mountain Plovers can be found in Augustine et al. (2008)

Conservation actions:

Montana Fish, Wildlife and Parks is planning to implement a statewide Mountain Plover occupancy and abundance survey in 2011-2012, pending funding availability. As a preliminary effort, the study areas identified by Fauna West (2004) will be resurveyed in 2010. Results will be provided to you as soon as possible for incorporation in the listing recommendation. In addition to this focused work, Montana is cooperating in a land bird monitoring program for Bird Conservation Region 17, beginning in 2009. There are plans to implement this same program statewide in 2010. While not designed specifically for plovers, information from this program may capture broad-scale changes in Mountain Plover distribution or occupancy.

Montana Fish, Wildlife and Parks, with collaborators, has prepared draft recommendations for wildlife for incorporation in the 2010 revised model subdivision regulations. These recommendations include a section specific to grasslands that is designed to reduce the loss of native prairie and maintain larger, intact sections of grassland habitat. Although the recommendations have yet to be adopted, they have the potential for reducing some treats to Mountain Plover habitat from encroaching housing and subdivision development.

There is also research pending, based on funding, to investigate the effects of conservation grazing strategies on Mountain Plover populations and other grassland species of concern. If implemented, this work would provide recommendations on grazing practices that allow for ranching profitability and simultaneously provide habitat for grassland birds including the Mountain Plover. Data collection is currently scheduled for 2010 – 2012. Preliminary results can be provided to you prior to your listing decision scheduled for July of 2012.

The Matador Ranch Preserve, operated by The Nature Conservancy, is located in south Phillips county with some of the highest densities of Mountain Plovers in the state. The Matador is one of the most successful grassbanks in the country. Participating ranchers receive below market grazing access to the Matador lands. In exchange, ranchers adhere to certain conservation practices on their own lands, including forgoing any conversion of native grassland on home ranches, retaining prairie dog colonies that support burrowing owl and mountain plover, and maintaining sagebrush habitat around active sage grouse leks. Clearly this is a program that provides significant conservation benefits for Mountain Plover. I encourage you to contact Brian Martin of The Nature Conservancy, Montana (406-443-3677) for additional information on this important program.

In addition, Montana Fish, Wildlife and Parks is developing a Crucial Areas and Corridor's Assessment, as directed by the Western Governor's Association Wildlife Council, to identify high priority areas for conservation. Species of Concern in Montana, including Mountain Plover and black-tailed prairie dogs, are incorporated as one of the factors influencing conservation prioritization. Mountain Plovers and black-tailed prairie dogs are considered Species in Greatest Need of Conservation in Montana's Comprehensive Fish and Wildlife Conservation Strategy.

The World Wildlife Fund recently recommended the designation of four new Mountain Plover Areas of Critical Environmental Concern (ACEC) in south Phillips county for inclusion in the BLM Resource Management Plan. We do not know at this time if the ACEC will be adopted in the BLM plan.

Montana Fish, Wildlife and Parks will continue its efforts to conserve Mountain Plovers in the state as directed by state statute and our Comprehensive Fish and Wildlife Conservation Strategy. Thank you for your consideration of this information.

Sincerely,

A handwritten signature in cursive script that reads "Ken McDonald".

Ken McDonald
Wildlife Bureau Administrator

References:

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