



ROCKY MOUNTAIN BIRD OBSERVATORY

25 Years of Bird & Habitat Conservation • 1988-2013

Lois Webster Fund Final Report Oct 15, 2013

The Lois Webster Fund donated two spotting scopes to our grassland bird conservation project. These scopes were a permanent donation to Mike Wunder's lab at the University of Colorado in Denver. Our graduate student, Colin Woolley will be conducting his research thesis, on Mountain Plover habitat use, under Mike's guidance.

Prior to the start of the nesting season, Colin tested several spotting scopes we own; most are several years old and scratched. He rated the Nikon 82mm as his top choice for clarity and overall depth of field. The Bushnell Elite 80mm was also a favorite and used by our technicians. Mountain Plovers are highly cryptic but with good optics they can be located and uniquely banded individuals can be identified and recorded, this was successful in 2013.

The 2013 Mountain Plover season was an overall success, in addition to high hatching success; Colin tracked 16 adult plovers using radio-telemetry and relocated these banded adults daily using our donated scopes, particularly the Nikon 82mm. His data will help us understand habitat use for Mountain Plovers and whether adults are able to locate adequate and ample food during the nesting period. In addition we banded 43 adult plovers (without radio tags) with unique color-leg bands (Table 1). We also hope that some of these of banded birds will be resighted on their winter grounds by our partners and birders, we know of a few key areas where Mountain Plovers winter but we don't have a good understanding of the entire range of their wintering grounds. Our partners in California generally send notice to local birding groups to look for plovers with bands. In addition annual survival estimates (birds returning to breeding grounds) are mostly unknown or underestimated, however during the 2014 breeding season Colin will be able to identify any banded birds that do return and learn of their survival into subsequent years.

Survival studies are difficult to measure as it requires identifying individual birds; however with the aid of our donated spotting scopes in 2013 we were able to identify 11 individually banded birds during this breeding season, so we have in-season survival estimates ranging from 14-39 relocations, and three birds were recaptured in 2013 that were banded in previous years (two from 2010 and one from 2012).

In addition Colin collected blood and feathers from adults to examine isotopes which will supplement his analysis of determining important foraging habitat and food types during nesting; we will also determine sex of the birds captured to identify sex ratio which might answer more questions about survival. Dinsmore and Knopf (2005) found that chick survival was higher by female tended nests. Finally, this project will utilize a second graduate student, also in Mike Wunder's Lab, beginning in the fall of 2013 and initiating fieldwork in the spring of

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2014 to examine habitat use by McCown's Longspur and Burrowing Owls on the Central Plains Experimental Range (CPER) in northern Colorado. These spotting scopes will be beneficial in locating larger birds such as Burrowing Owls to document movements and behaviors.

Table 1. Nests and fate of nests during the 2013 season

Nests	Hatched (%)	Failed to unknown or natural causes (%)	Banded (%)	Banded and radio-tagged (%)	Landowner tilled nests (%)
65	48 (74)	13 (20)	43 (66)	16 (24)	4 (6)

Literature Cited

Dinsmore, S. J. and F. L. Knopf. 2005. Differential parental care by adult Mountain Plovers (*Charadrius montanus*). Canadian Field Naturalist 119(4): 532-536.

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