

FEATURE ARTICLES

THE HIGH-ELEVATION POPULATION OF MOUNTAIN PLOVERS IN COLORADO
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Manuscript received 3 March 2003; accepted 1 July 2003.

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Abstract. We surveyed a discrete population of Mountain Plovers (*Charadrius montanus*) in South Park, Park County, Colorado, to determine the size and relative contribution of this geographically isolated area to the global population of plovers. First, we mapped potential plover habitat within South Park based on landform and vegetation descriptors. Second, we identified occupied habitat using observations from a systematic inventory of potential habitat from 1995–1999 and from a study of breeding biology from 2000–2002. Third, we estimated breeding densities within a framework designed specifically for distance sampling. We mapped 82 750 ha of potential habitat. We recorded 2516 plover locations from which we estimated 29 176 ha of occupied habitat. We estimated densities for 14 960 ha of potential habitat. Average plover density from 2000–2002 was 7.9 ± 0.9 (SE) breeding adults km^{-2} , a high value compared with other sites. We calculated a population of 1187 ± 140 (SE) plovers in the distance sampling area. Assuming density in our sampling area was similar for all documented occupied habitat, we estimated the population of plovers in South Park at 2310 adults. We conclude that South Park represents a contemporarily large concentration of breeding Mountain Plovers.

Key words: *Charadrius montanus*, Colorado, distance sampling, Mountain Plover, population estimation, South Park.