

Miller 1994, Knowles and Knowles 2001, Dinsmore 2001), small numbers of mountain plovers also breed on BLM lands in Valley County (Little Beaver Creek), and on private land in Wheatland and Golden Valley Counties near the Little Belt and Big Snowy Mountains (Knowles and Knowles 1998). Surveys through 2003 also report mountain plovers in Big Horn, Broadwater, Carbon, Fergus, Jefferson, Hill, Madison, Musselshell, Petroleum, Rosebud, and Treasure Counties (L. Hanebury, Service, pers. comm. 2003; Knowles and Knowles 1996, 1998; J. Grensten, BLM, pers. comm. 1998).

The most recent information documents that the mountain plover population in southern Phillips County increased from about 100 individuals in 1995, to 175 individuals in 2001 (Dinsmore 2001). In 2003, over 150 nests were found on the study site (Dinsmore, pers. comm. 2003). This increase is likely due to the recovery of black-tailed prairie dogs from a recent sylvatic plague epizootic. Mountain plovers at the Fort Belknap Indian Reservation increased from 0 to 20 from 1993 to 1998 following an increase in black-tailed prairie dogs and the introduction of bison grazing, and there may presently be as many as 100 individuals, although the change may be due to more rigorous inventory (Knowles and Knowles 2001; S. Dinsmore, pers. comm. 2003). Mountain plover densities on black-tailed prairie dog colonies at the Charles M. Russell National Wildlife Refuge declined by more than half from 1980 to 1996. Prairie dog numbers at Charles M. Russell National Wildlife Refuge have increased since 1996, and plover numbers have gone up slightly. Knowles and Knowles (2001) report that between 1992 and 2000 mountain plovers declined at their Central and Southwestern study areas, but increased slightly at their Northeastern study area.

Dinsmore (2001) concluded that mountain plovers in southern Phillips County are entirely dependent on an active black-tailed prairie dog population, and that the mountain plover abundance at his study site will likely parallel the population trends of black-tailed prairie dogs.

Knowles and Knowles (1996) estimated less than 2,000 mountain plovers in Phillips and Blaine Counties, and less than 800 additional individuals at the other occupied locations in the State. Based on his 6 years of research, Dinsmore (pers. comm. 2002) provided a rough estimate of 700 mountain plovers throughout all of Phillips and Blaine Counties, and noted that Knowles and Knowles (1996) estimate

of 800 mountain plovers at other areas is reasonable. Therefore, we believe the best information currently available indicates the total population in Montana is approximately 1,500 mountain plovers (Knowles and Knowles 1996, Knowles and Knowles 1998, Dinsmore 2001, Dinsmore, pers. comm. 2002).

*Wyoming*—The mountain plover is classified as common in Wyoming, with breeding known or suspected in 20 of 28 latitude/longitude blocks (latilong blocks) occurring across the entire State (Wyoming Game and Fish Department 1997). The latilong records reviewed included sightings from 1969 to 1996, with the highest number of individual records occurring in the Saratoga, Wapiti, Powell, Casper, Bill, and Laramie blocks. Because the search effort among the blocks is not equal, the number of records reported for each block is not a good indicator of mountain plover abundance within each block. Further, while latilong records may note evidence of breeding, they do not provide information regarding nesting success. Based on these latilong records, the Wyoming Game and Fish Department reports the mountain plover as common in the State, but acknowledges that information is lacking to make any estimate of total population or determine whether it is increasing, stable, or declining (Oakleaf *et al.* 1996).

Additional inventories have been conducted in Wyoming that confirm the presence of mountain plovers at many of the previously reported locations. For example, surveys conducted in the Powder River Basin (Campbell, Converse, Sheridan, Crook, and Weston Counties) in 2001, in preparation for the Powder River Basin Oil and Gas Project, found 15 mountain plovers (Good *et al.* 2002, Keinath and Ehle 2002). Most of the Powder River Basin is private land, and the surveys were conducted from public roads only. Consequently, these surveys may not be a good representation of mountain plover abundance in the Powder River Basin. From 1992 to 2002, nesting was confirmed on the Thunder Basin National Grassland (Thunder Basin) (within the Powder River Basin) in northeast Wyoming in most years (Bartoskiak 1992; M. Edwards, Forest Service, in litt. 1994; T. Byer, in litt. 1997; T. Thompson, Forest Service, in litt. 2003).

Knopf (in litt. 2001b) reported that mountain plovers may be more common in Wyoming than previously believed, particularly in Carbon County. In 1999 and 2000, a total of 159 and 105 mountain plover adults were reported

from Sweetwater and Carbon Counties, respectively, with many fewer individuals reported from Albany, Bighorn, Fremont, Lincoln, Natrona, Park, Sublette, and Washakie Counties (P. Deibert, in litt. 2002). Surveys near Lysite in Fremont County found 39 mountain plovers on about 530 ha (1,300 ac) of suitable habitat (L. Hayden-Wing, Hayden-Wing Associates, in litt. 2003). Surveys for mountain plovers in south-central Wyoming in 2002 found a total of 50 adults and 11 nests (Hayden-Wing Consultants 2002). As many as 51 mountain plovers likely occurred on Foote Creek Rim in Carbon County in 1994, but the number declined to 26 in 2002 (Young and Erickson 2003). Most plovers have vacated habitat near the wind turbines and congregated on a prairie dog colony on the northern end of the Rim (Young and Erickson 2003). Nine nests were located on Foote Creek Rim in 2000 (Young and Good 2000).

The total number of mountain plovers observed on Thunder Basin National Grasslands declined from 53 to 37 from 1993 to 2002, while the area surveyed during this time quadrupled (T. Thompson, in litt. 2003). Black-tailed prairie dog colonies in the area were affected by a significant plague event in 2001 and 2002. Mountain plovers on Thunder Basin nest almost entirely on black-tailed prairie dog colonies (Keinath and Ehlen 2002).

From 1979 to 2002, nesting was confirmed on and near the Antelope Coal Mine in the southern Powder River Basin, and breeding densities were reported to range from 0.9 to 2.4 birds/km<sup>2</sup> (2.3 to 6.2/mi<sup>2</sup>) (Oelklaus 1989, Thunderbird Wildlife Consulting, Inc. 2003). From 1982 to 1991, a total of 26 broods were reported on mine permit areas, while only 6 broods have been reported on the same permit areas from 1992 to 2002 (Thunderbird Wildlife Consulting, Inc. 2003). Parrish (1988) inventoried mountain plovers over an extensive area of the southern Powder River Basin, and reported an overall density of about 0.1 mountain plover/km<sup>2</sup> (0.3/mi<sup>2</sup>). Mountain plovers throughout the southern Powder River Basin are generally thought to be widely scattered at low densities, with a few areas of local concentrations (Oelklaus 1989). Inventories from the Laramie Plains and Cheyenne Plains in the late 1950s report densities ranging from 0.3 to 23.8 mountain plovers/km<sup>2</sup> (0.9 to 61.9/mi<sup>2</sup>) (Laun 1957, Finzel 1964). Therefore, densities reported from the southern Powder River Basin in the 1980s are less than those reported from the Laramie and Cheyenne Plains in the 1950s, but it is unknown whether the difference is due to a decline in