

WHERE HAVE ALL THE PLOVERS GONE?

Looking for mountain shorebirds where there are no mountains or shores

By EMILY WORTMAN-WUNDER

IT'S ONLY 7:30 A.M. and the temperature is already 81 degrees as ecologist Mike Wunder and I coast to a stop in his pickup beside a vast stretch of mixed pasture and wheat fields near Judith Gap in central Montana. Grasshoppers click in the weeds below the door as I focus my binoculars on the ragged pastures beside us, searching patches of bare ground for mountain plovers. A bird startles up near a fence, but I ignore it, having learned that a bird calling attention to itself isn't a mountain plover. Instead, I continue to scan the scant, ankle-tall grass for faint flickers of movement. Just as I've decided the field is empty, Wunder says, "We've got plover."

I feel a charge of excitement at the chance to see this elusive bird. I'm here today to help Wunder gather data for his doctoral study at Colorado State University on the migration and continental distribution patterns of the mountain plover. And also to see for myself a little of

what all the fuss is about. In September 2003, the U.S. Fish and Wildlife Service decided against listing the mountain plover as a federally threatened species. That has angered environmentalists, who maintain that the birds are apparently and mysteriously declining. "The mountain plover is rapidly declining and desperately in need of federal protection under the Endangered Species Act," says Dr. Nicole Rosmarino, endangered species coordinator for Forest Guardians, a group fighting for federal listing. Mountain plains ranchers, on the other hand, breathed a sigh of relief when the decision was announced.

Mountain plovers were once abundant in the Great Plains, but no longer. Early explorers and settlers reported seeing the bird in most of what is now Montana, wherever the land had wide-open prairie. Now the species is scattered across its former range, often existing in pockets of

10 to 20 birds, although some large populations of up to a few hundred birds exist. The mountain plover is a sensitive species in the Great Plains ecosystem, an important indicator of the shortgrass prairie's overall health.

Because much of the plover's range is now farms or ranchland, it would seem that the rarely seen bird would spark a typical rancher versus environmentalist conflict: people trying to make a living from the land pitted against those wishing to preserve it in a pristine condition. But that's not quite the case with mountain plovers, which have adapted to a disturbed prairie environment and may actually thrive on land altered by certain types of grazing and cultivation.

This is only one of several contradictory traits of a bird the *Sibley Guide to Birds* calls "distinctively plain." Another is that the mountain plover lives nowhere near mountains. And then there's the fact that it's a shorebird, yet it avoids the lakes and rivers where most shorebirds reside. The best place to see a mountain plover is on overgrazed pastures and fallow fields.

There's considerable debate over how mountain plovers are faring. According to some estimates, their numbers have declined drastically in the past three decades. According to others, numbers have risen slightly in recent years (though these increases may be due to greater attention from trained observers such as Wunder).

One of the biggest challenges to determining whether mountain plover populations are going up or down is seeing the camouflaged birds. I wipe sweat from the rim of my binoculars and ask Wunder where the plover is.

"Over by that big lump of dirt," he says, gesturing vaguely.

Once I've found the right dirt lump, all I can see beside it are a few pale rocks. Then one rock moves slightly. The



plover is maybe two shades lighter than the nearby dirt, and it's nervous. It eyes the truck then lifts its tail, scuttling along the ground, neck outstretched. Then it stops, midstride, and stands upright, looking like a miniature bowling pin.

"It's got a nest," Wunder explains. "Right between that cow pie and that dead weed." He reaches behind him for a homemade chicken wire trap about the size and shape of a bread box and, without taking his eyes off the nest site, slides out of the truck.

He places the trap, which contains a plover-sized hole, over the nest. When the bird returns, it will enter the trap. So strong is the bird's loyalty to its nest that it won't leave unless chased.

Meanwhile, I look around at the vegetation: short, bitten, and trampled almost to the ground, with large bare patches. Most of the plants are noxious weeds, like tumbleweed and Russian thistle. According to the Bureau of Land Management's (BLM) upland rangeland health standards, the forage should be taller, denser, and with fewer patches of bare and eroded soil. If it were, however, Wunder says he wouldn't even bother looking for plovers here.

Dr. Fritz Knopf is a research scientist with the U.S. Geological Survey who has studied mountain plovers for almost two decades. He speculates that one reason for the plover's apparent decline is that the Great Plains states have been managing much of their shortgrass prairie for a mid-sized grass that plovers don't use. What plovers need, he suspects, is grazing that takes grass nearly down to the dirt. Knopf's theory is contested by other scientists, who maintain such agricultural practices harm mountain plover habitat, not improve it.

The fact is, nobody knows why or even if plover numbers are declining and, if they are, at what rate. Even healthy populations can fluctuate wildly in number from one year to the next.

According to John Grensten, wildlife biologist at the BLM field office in Malta, these fluctuating numbers are one reason he and other Montana biologists have been

studying mountain plovers since the late 1970s. He has collaborated with Knopf and Steve Dinsmore, of Mississippi State University, who has conducted extensive studies on the mysterious birds.

"What Dinsmore's research has done," Grensten explains, "is to give us a baseline for understanding the species. It takes five to six years of work to really start seeing what's going on. For example, his data have shown us that, given enough properly managed habitat, plover populations seem to be fairly stable over time."

Despite this research, important puzzles still remain. For example: Where do plovers go when they leave their breeding grounds? Do they continue to associate only with the birds they grew up with, or do they congregate on wintering grounds with birds from throughout the West? And what part of the global population breeds in Montana?

Wunder is hoping to answer these questions. As we drive to a nearby ridge to give the parent plover a chance to return to its nest, he tells me more about this particular bird, part of a population he has been studying for the past two years. These plovers are scattered throughout the private rangeland and cropland in Montana's Big Snowy, Little Belt, and Crazy mountains. One hundred miles northeast of here is the continent's fourth-largest breeding mountain plover population, located in southern Phillips and Blaine counties. That's where plover habitat is most like the bare, disturbed ground—prairie dog towns where bison herds concentrated—that early pioneers encountered. Though now the bison are gone and the prairie dogs less abundant, mountain plovers appear to have adapted to breeding on rangeland and cultivated fields.

Of the 300 birds Wunder and others have banded on the plover's wintering grounds in southeastern California's Imperial Valley, 20 have been recovered on breeding grounds throughout the Rocky Mountains. That nearly 7 percent recovery rate, high for banded birds, shows the limited range and habits of mountain plovers. Birds from across the Rocky Mountains return each year to the same sugar beet and Bermuda grass fields in California.

Though it's heartening to know mountain plovers can be so faithful to the land,



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BARRENS BIRD Graduate student Mike Wunder holds a mountain plover captured for banding in central Montana. Some scientists believe the uncommon bird thrives in heavily grazed rangeland, such as that shown here.

their annual winter concentration makes them vulnerable to changes in land-use patterns and localized use of environmental contaminants.

After roughly 15 minutes, the plover returns to its nest and enters the cage. We leave the truck and cautiously approach. Not until we stand looking down on the nest, a scratch in the bare dirt, can we see the three greenish, black-speckled eggs that blend in with the ground.

Wunder snakes a practiced hand in through the cage door and gently picks up the bird, which we take back to the truck to measure and band. Up close, the mountain plover is quite handsome, with a pale beige body and a coffee-colored stripe across its eyes. After weighing the pigeon-sized bird, Wunder pinches a metal numbered band over its leg. Throughout the process the plover doesn't flinch but just looks up through the windshield at the brilliant sky.

Is this bird part of a declining plover population? Some people argue yes, and that the bird should be listed under the federal Endangered Species Act. Others say no, that it's part of a stable population, which, while not as abundant as it once was, is doing fine.

It doesn't seem possible such controversy could involve the plover we've banded today. This dapper little bird knows nothing of growing or shrinking populations. All it wants is to return to its nest, which is what Wunder allows it to do. Released unharmed, the plover flies off, a quick flutter of pale brown vanishing back into the prairie. 🐦

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