A Great Place To Be a Curlew

Thanks to ranchers, tribal leaders, and other conservationists, the Mission Valley's intermountain grasslands still provide abundant habitat for the nation's largest shorebird and other wildlife. **By Ben Long**

Ice-carved peaks of the Mission Mountain Range are aglow in the evening sun, sharp against the black of massing thunderclouds. A long-billed curlew drops like a smokejumper from the summer sky, calling its own name: an up-rising *curlewwww*. The bird descends on cupped wings, extending its slender legs to land so it can probe the wet meadow with its impossibly long bill for snails and insects.

With a wingspan of nearly three feet, the curlew is North America's largest shorebird. The only species remotely similar in appearance is the marbled godwit, about two-thirds the size and with a straight bill rather than the curlew's downward-curving one.

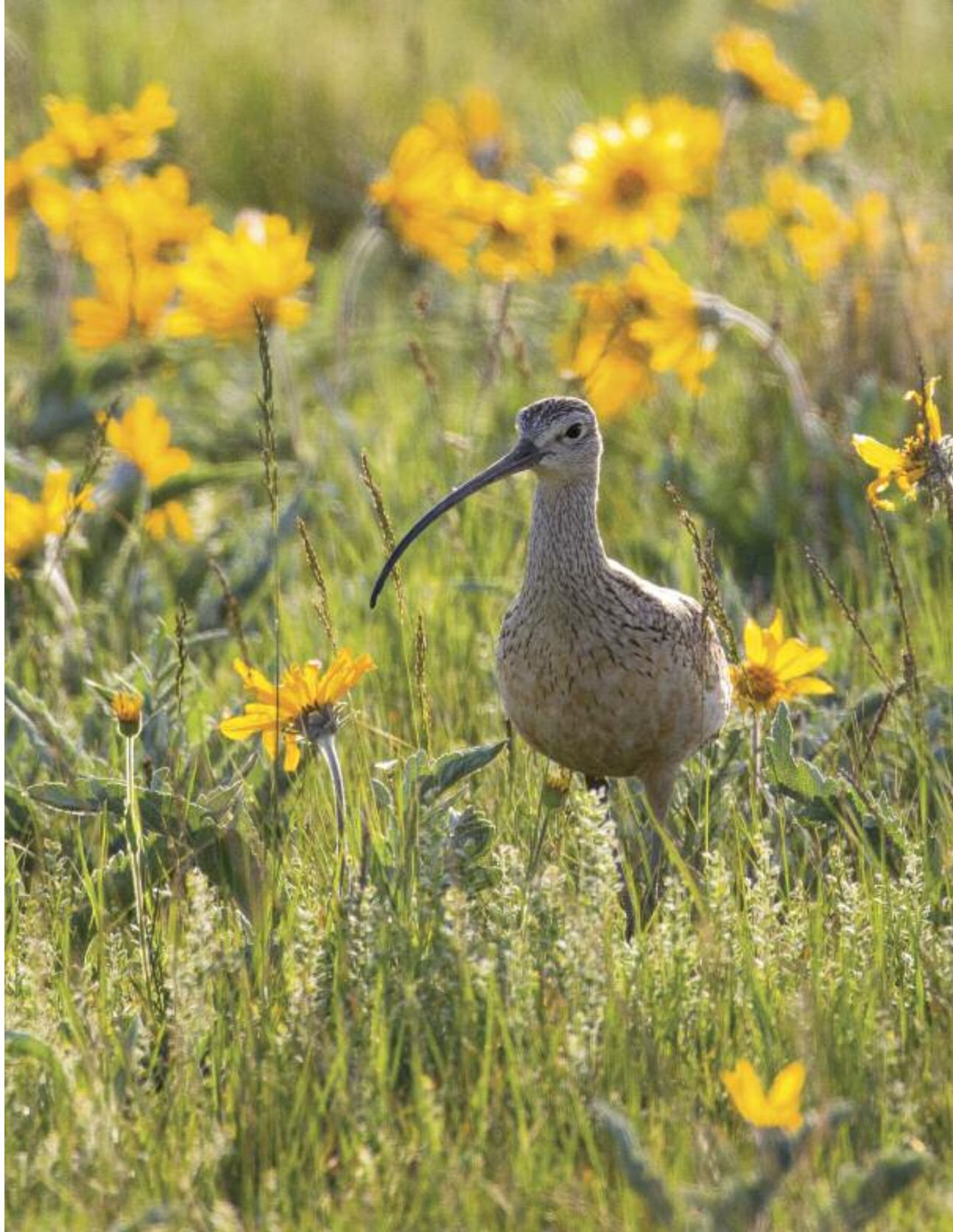
Long-billed curlews winter mainly on the warm coasts of Mexico, Texas, and California, extracting crabs, shrimp, and other tasty creatures from wet sand and mudflats with their scythe-like bills. As do most shorebirds, they abandon the fertile coastlines in spring to find grasslands for nesting and rearing their young.

Though long-billed curlew populations are declining in much of their range nationwide, the birds appear to be faring well in many parts of Montana. Roughly 20 percent of all long-billed curlews in the United States live here, and statewide curlew surveys conducted by Montana Fish, Wildlife & Parks in 2012 found decent abundance and distribution.

These stately birds nest throughout much of Montana, including intermountain grasslands west of the Continental Divide. There, conservationists are using curlews as a recognizeable symbol for prairie ecosystems that most people don't recognize as important for wildlife. "Western Montanans know that wildlife use forests, lakes, and rivers, but the importance of the in-between mosaic of grasslands and wetlands is often overlooked," says Amy Seaman, Montana Audubon associate director of conservation.

PRAIRIES BETWEEN THE MOUNTAINS

Most people don't picture prairies when they envision western Montana, with its snow-capped mountains, tree-ringed lakes, and old-growth cedar forests. Yet grasslands have long dominated the vast Mission and



JASON SAVAGE

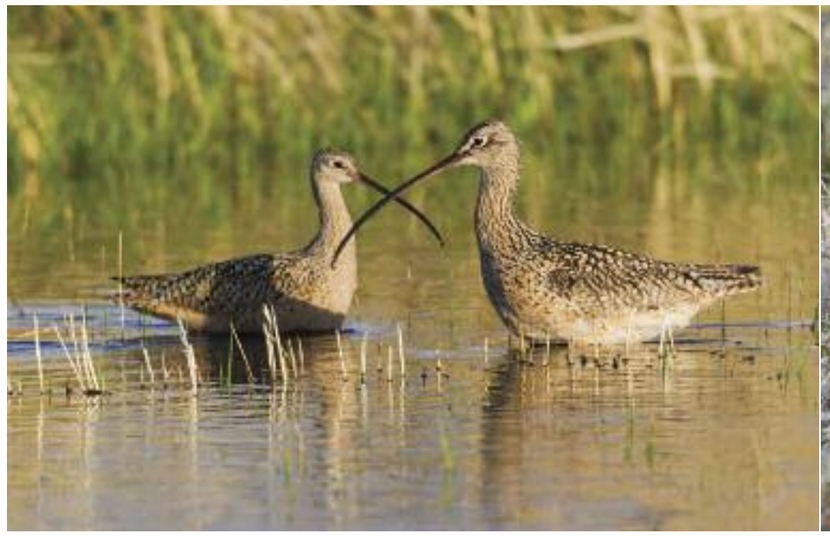
POSTER BIRD With its long, downward-curving bill and three-foot wingspan, the curlew is hard to misidentify. Conservationists are using the shorebird to raise public awareness of the intermountain grasslands where it lives. "The diversity of mixed-grass prairie and shallow wetlands in intermountain grasslands creates great wildlife habitat, and the curlew is a recognizable species we're hoping will bring attention to these areas," says Amy Seaman, associate director of conservation for Montana Audubon.

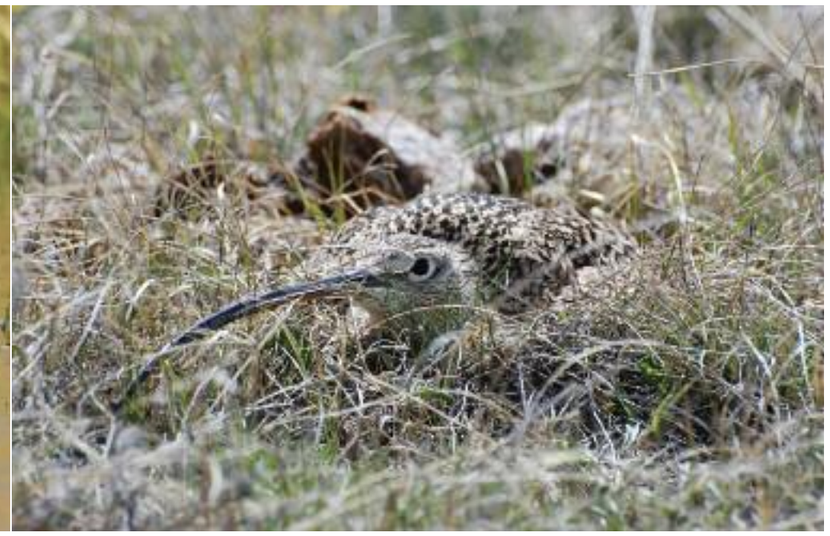
Flathead Valleys surrounding Flathead Lake between the Mission and Salish Mountains. Intermountain, or foothill, grasslands also exist between other mountain ranges on both sides of the Continental Divide.

The large, open valleys are formed by large meandering rivers and are covered in grasses such as rough fescue and bluebunch wheatgrass as well as a wide range of forbs (wildflowers). Sagebrush occasionally grows in drier areas, while moist lands support sedges and bulrushes. In the Mission and Flathead Valleys, wet meadows and marshes dot the grasslands, creating a patchwork of habitats for amphibians, reptiles, songbirds, waterfowl, raptors, and big game such as mule deer, pronghorn, and black and grizzly bears. Shorebirds abound.

The lush, sweeping valleys cradled by the peaks of the Rockies attract people, too. Farmers plant the rich soil and ranchers graze cattle on verdant pasture. Increasing numbers of people are building homes here, surrounded by some of North America's most spectacular scenery. The challenge for conservationists in western Montana and elsewhere is to keep the grasslands intact in the face of growing human use. "Of course economic development is important for communities," says Seaman. "Our goal is to find ways for it to happen while still maintaining the wildlife and habitats that have been here for thousands of years."

MONTANE PRAIRIE Above: An intermountain grassland in the Blackfoot River valley shows the diversity of grasses and forbs that characterize these productive habitats. The prairies often contain wet meadows and other shallow wetlands that curlews use for courting (below) and feeding. Below right: The birds nest in short grass, where their mottled plumage works as camouflage.





CLOCKWISE FROM LEFT: JOHN LAMBING; CHUCKINGALE ROBBINS; KEN ARCHER

A FEW MONTHS IN MONTANA

As they have for millennia, from late March to early April curlews follow the mysterious call of instinct and fly from their wintering grounds along the Pacific Coast, Gulf Coast, and central Mexico up to 2,000 miles inland. From early April to May, the oversized sandpipers drop from the sky onto grasslands of the Intermountain West and Great Plains. Here they stalk through pastures, probing mud and cow flops for larvae and earthworms if the ground is soft, or snatching grasshoppers, beetles, or even young voles and shrews in drier locations.

Males meet females, scratch a little nest depression in the duff, and use their mottled brown plumage as natural camouflage as they incubate their clutch of four eggs. The pair fearlessly attacks any egg-eating bull snake, coyote, magpie, or other prairie predator that comes too close.

Males and females take turns keeping the eggs warm. In late June, females leave the nest shortly before the eggs hatch and fly back to wintering grounds—considered a "fall" migration even though summer has barely begun. The males finish rearing the brood until the young birds fledge when they reach roughly 40 days old. Then they too head south.

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During breeding season, curlews fare best in expansive prairies of mixed-height grasses combined with wet meadows, mudflats, or shorelands. The shorter grass is for nesting, the mid-height grass is where the newly hatched chicks hide, and the wet and open areas provide food.

Agriculture is a mixed bag for the large shorebirds. Some practices, such as flood irrigation in alfalfa fields, provide places for curlews to forage. On the other hand, converting virgin grassland into cultivated row crops robs the birds of habitat. "Perhaps the single biggest opportunity to stem the tide of continued long-billed curlew population declines is to prevent the further plowing of native prairie wherever it occurs within the species' range," states the American Bird Conservancy's 2013 document, *Conservation Strategies for the Long-billed Curlew*.

As long as grazing cattle aren't allowed to trample nests or overgraze pastures down to the nubs, cows and curlews usually get along fine. Cattle keep grass cropped to shorter heights that curlews prefer for nesting. The birds also like to nest near cow flops so newly hatched young can feed on the nutritious insect buffet underneath.

Ben Montgomery, a district conservationist with the federal Natural Resources Conservation Service (NRCS) in Ronan, helps local ranchers improve their grazing practices for the good of livestock and wildlife. For instance, by moving cattle among three or four different pastures throughout the year, ranchers can boost grass production and increase livestock weight while helping curlews and other grassland species. "More and more ranchers are seeing the benefits of making some minor grazing adjustments," Montgomery says. To sweeten the deal, the NRCS pitches in to help pay for new fencing, stock watering systems, and other infrastructure that lets ranchers rotate cattle among several pastures.

CURLEW EDEN

Though curlews can tolerate some forms of ranching and farming, it's a different story when it comes to the roads, parking lots, and buildings of urban and suburban development. Fifty years ago, a person could likely hear the call of a curlew along today's Missoula's Reserve Street, the Bitterroot Valley's Highway 373, or Kalispell's Consumption Junction. A curlew flying these commercial corridors today would need to continue for miles to locate a safe and restful landing spot.

The Mission Valley, between Polson and Missoula, is different. Virgin grasslands exist in some of the drier, hillier areas that are harder to till. Though much of the remaining land was farmed decades ago, many tracts have since been planted to pasture grasses and are grazed by the cattle of small-parcel ranchers.

Confederated Salish and Kootenai Tribes' (CSKT) biologist Art Soukkala says the tribes have invested heavily in maintaining and restoring grasslands and wetlands across the Flathead Indian Reservation. The CSKT are using habitat mitigation money that Montana Power Company was required to pay after it built Kerr Dam, which inundated thousands of acres of wildlife lands on tribal property. Grasslands are reinvigorated with prescribed burns, restored with native grass plantings, and protected from invasive species with selective control methods, Soukkala says.

The Mission Valley's grasslands have been officially recognized as important for conservation since 1908, when Congress established the National Bison Range. Thirteen years later, Ninepipe National Wildlife Refuge was created, protecting an additional 4,000 acres of wetlands and prairie within the boundaries of the reservation. Nearby Ninepipe Wildlife Management Area and CSKT conservation lands protect another 4,000 acres total. "The Mission Valley has a

A longtime Montana Outdoors *contributor, Ben Long lives in Kalispell.*

great diversity of wildlife because of its mosaic of grasslands, shrubs, prairie potholes, and wetlands," Seaman says. "These public lands protect some of the best of it."

Lacking adequate funds, grassland conservationists undergo a kind of habitat triage. In some places, like much of the Bitterroot, Flathead, and Missoula Valleys, development is so rapid that native grasslands are too far gone to rescue. In the Mission Valley, there is still plenty of habitat to conserve, so conservationists turn their attention there.

The Mission Valley provides some of western Montana's most important curlew habitat. To settle, curlew pairs need grassland (preferably native) parcels of at least

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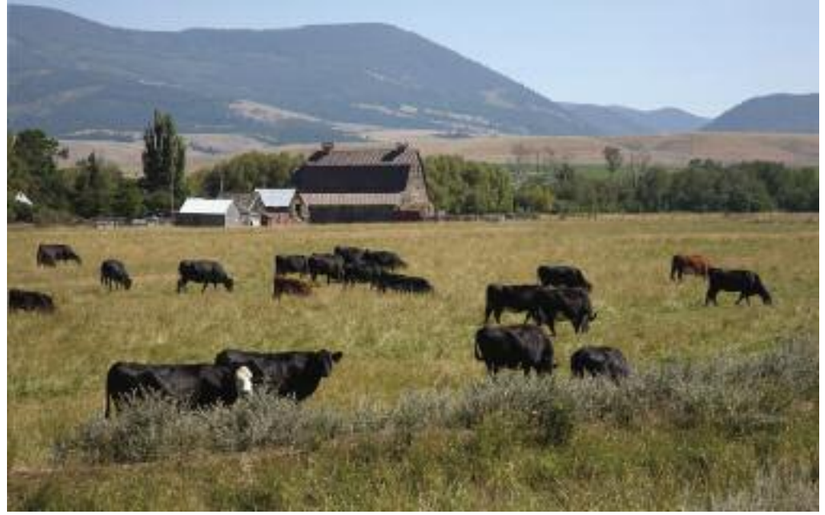
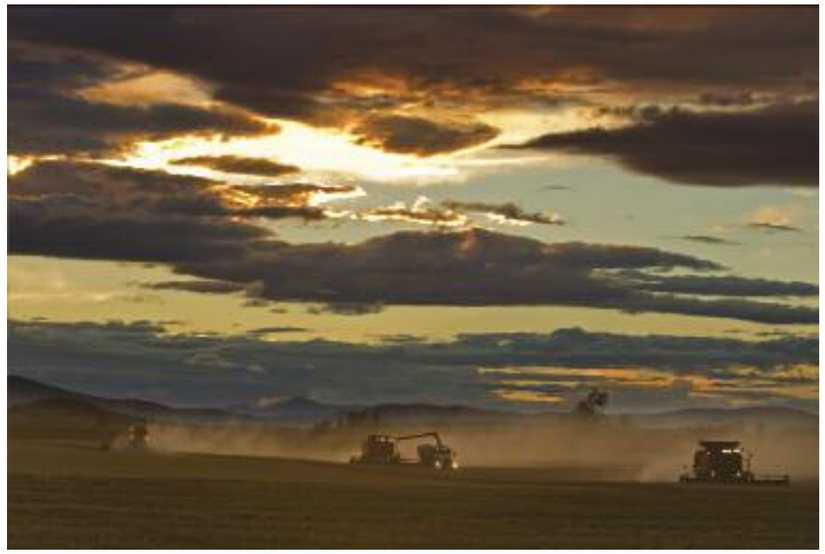
120 acres. The Mission Valley still has prairie tracts that size and larger. Lake County is a "focal area" where biologists focus their conservation work. Within the county, particularly important curlew areas are the Camas Prairie and the upper Little Bitterroot and Mission Valleys. "We can't work everywhere, so we try to figure out the best places to put our energy," Seaman says.

Fortunately, the CSKT and many private ranchers and farmers in the Mission Valley recognize the importance of grasslands. "A lot of landowners and land managers want to conserve their land for the long term," says Janene Lichtenberg, head of the Wildlife and Fisheries Department at Salish Kootenai College in Pablo. "The curlews are here in large part because so many people are doing a good job."

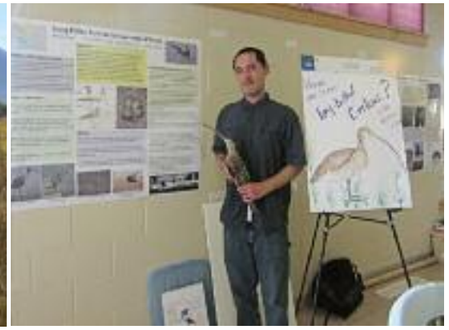




GRASSLAND FRIENDLY? Top: Cattle that are rotationally grazed can benefit prairie plant communities and the curlews living there. Below and bottom: When grasslands are plowed and converted to row crops or housing, curlews and many other native species disappear.

ON THE LOOKOUT

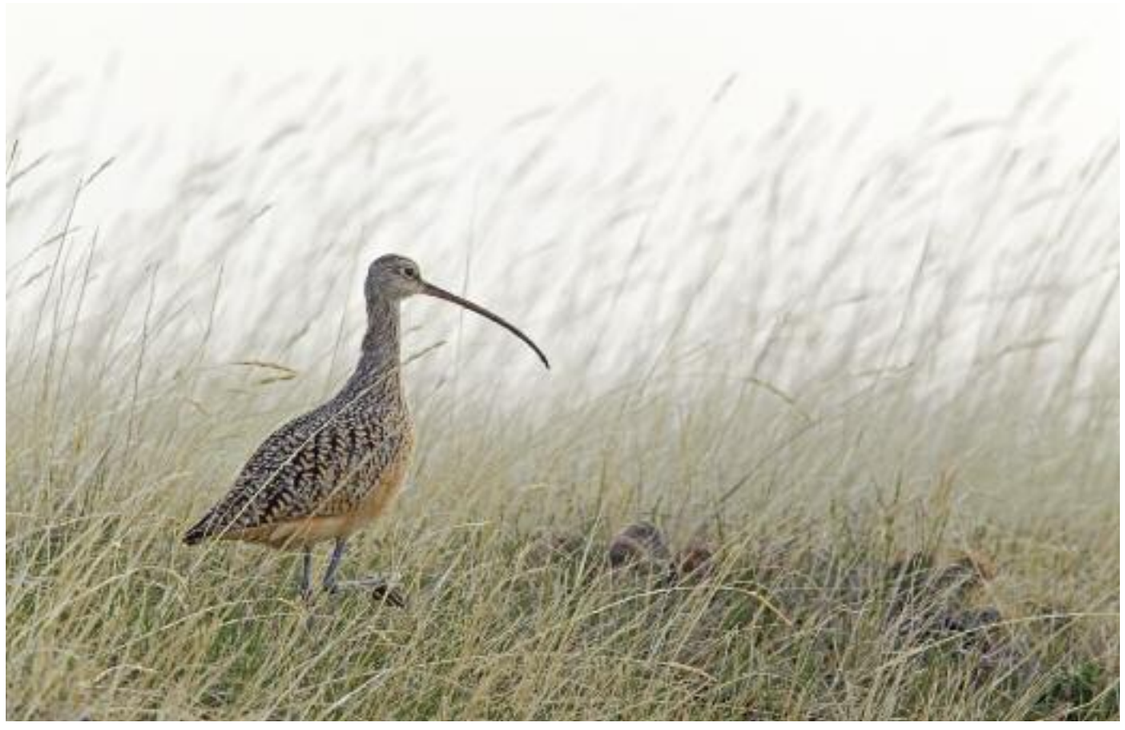
For the past four years, the college, the CSKT, and Montana Audubon have cooperatively coordinated volunteer survey routes in the Mission Valley to locate curlews. "The idea is to raise awareness of conserving both the birds and intermountain grasslands," says Lichtenberg. When volunteers see one of the long-billed shorebirds, they record the location and other information. Later the information is entered into a database maintained by the Montana Natural Heritage Program, which creates digital maps showing curlew habitat. At the college, Lichtenberg organizes students and other volunteers to travel survey routes transecting the valley. Sometimes they don't have to look far. Curlews are occasionally spotted near the dorms, just off campus. "One student was disappointed because he'd run some curlew routes and hadn't seen any," say Lichtenberg. "When he went back to his dorm room, he heard one outside and was thrilled."



UNDERGRAD STUDIES Above left and right: Students at Salish Kootenai College in Pablo look for curlews along a riparian area and present a poster on the native shorebirds. Below: The future of curlews in western Montana is tied to the intermountain grasslands where they live and the people—young and old—working to conserve that habitat.

The fabric of native prairies throughout much of North America is tattered, patched, and threadbare. Thanks to ranchers, tribal members, biologists, and others who care, the prairie tapestry in the Mission Valley is still relatively intact. "We're not facing any big threats to the Mission Valley's grasslands right now, and that's a good thing," says Montgomery. "Over the next 20 years, with the right grazing practices and other conservation measures, we could see a massive improvement in grassland health and the wildlife that live here."

To report a curlew sighting in the Mission Valley, visit the Montana Audubon website at mtaudubon.org and scroll down to the curlew survey page.



CLOCKWISE FROM TOP LEFT: CRAIG & LIZ LARCOM; JANENE LICHTENBERG; JANENE LICHTENBERG; DONALD M. JONES; STEVEN ARRE; CHUCK HANEY