We hope you enjoyed your visit. If you do not want to keep this guide, please deposit it in the box at the end of the road.

Questions about public lands administered by BLM should be addressed to: Bureau of Land Management, Airport Road, Lewiston, Montana 59457. If you have any questions about Charles M. Russell NWR, contact the Headquarters Office, P.O. Box 110, Lewistown, Montana 59457, 406/538-8706, or any refuge officer. Arrangements for group tours can be made.

CHARLES M. RUSSELL
NATIONAL WILDLIFE REFUGE

SELF-GUIDED AUTO TOUR

U.S. FISH AND WILDLIFE SERVICE
Department of the Interior
Welcome to the Charles M. Russell National Wildlife Refuge (NWR). The Refuge provides a unique blend of the wildlife, wildlands, history, and scenic vistas of the Missouri Breaks. Along the 20-mile drive is a land nearly the same as that viewed by the cowboy artist - Charles M. Russell - for whom the Refuge is named. We hope that this tour will help you understand the delicate interactions between man's activities, wildlife, and the land in this area.

Posts numbered 1 through 13 along the tour route correspond to the numbered paragraphs in this pamphlet. The driving time for the entire route is approximately 2 hours. If you have less time available, a shorter trip to Stop #6 and back is recommended. This trip takes approximately 1 hour.

There are no facilities along the route other than primitive campsites and toilets. The road is gravelled and can be travelled during wet weather.

Nature provides the clockwork for wildlife events. The best time to observe wildlife is early morning and late evening.

First stop .9 mile
购地供应给大坝，土地用于政府所有。下一站2.5英里

ISLAND FOOTPATH
如果你愿意，可以走一条更短的路线，穿过到Jones Island。在那里，你可以在河上行走。那里的
大型棉花木提供了优良的机会，可以看到各种小鸟。如果你使用
切草工具，切割工具，会发现水的边缘，它们可能是工作
的一架。黑色的海鸥和海鸥在河里常见。此岛与塞拉
地区，水景，催生了，覆盖和覆盖

As you walk through the river bottom, look for ice scars on the upstream sides of the large cottonwood trees. The river often floods in the spring. As the ice goes out, large ice jams move by the floodwaters grind against objects that are normally high and dry. The Missouri is truly a "living river" — carving out its banks, depositing rich silt, and constantly changing channels. Next stop 1.2 miles.

BOTTOMLANDS
这是一个好地方停车

During the spring (April–June) many anglers come to this and other favorite spots to fish for paddlefish. This prehistoric fish has no true bone development, only a cartilage skeleton, similar to

your nose and ears. Paddlefish average 40 pounds, but are known to exceed 140 pounds in these waters. Paddlefish exist in only a few North American rivers. Other

fish often caught from the Missouri include sauger, channel catfish, walleye, and northern pike. Next stop 7 miles

MONARCH OF THE BREAKS
As the cottonwoods flame golden in the crisp September air, as many as 60 elk may be seen here. September is the beginning of the rut of mating season for elk. During this season, if you sit quietly during the evening hours, you may hear the low hoarse bellows and clear high tones of bugling elk. The native plains elk was eliminated from this area by the early 1900's. The present elk herd was established through the cooperation of the State of Montana, private individuals, and the U.S. Fish and Wildlife Service. Elk are truly one of the success stories of the Refuge and man's efforts to manage wildlife populations. The bottomlands provide important winter habitat for elk. The same thickets provide food and cover for white-tailed deer. Immediately after sunrise, or just before sunset, white-tailed deer may often be observed in this area. Next stop 3 miles.

FORMATION OF THE LAND
Some of the exposed rock on the Refuge was formed 80 million years ago. Shallow seas and the deposit of sediment dominated the area for the next 22 million years. During the following 55 million years, sediments were eroded away as glaciers advanced and retreated over the area. The most recent glacier retreated northward about 10,000 years ago.

When these great Pleistocene glaciers spread over northern Montana, the Missouri River was forced from its channel (now the Milk River, 60 miles north) and crowded southward. The mighty river carved out its present channel by burrowing through the face of the glacier where you now stand. As the glaciers melted and began their retreat, the resulting streams flowed across the fragile soils, eroding the deep steep-walled coulees that are now called the "Breaks" or "Badlands" of the Missouri.

Many of the geological formations visible here are composed of brownish-gray Bearpaw Shale, which is very unstable. As you look across the river to the southeast, notice the large landslides on the skyline. Landslides are common in the Bearpaw Shale formation. Next stop 1.1 miles.

(Continued on other side)
SIMPLICITY ON A GRAND SCALE
From this spot you can see the Little Rocky Mountains to the north, the Snowy Mountains and Judith Mountains to the southwest, and the Bearpaw Mountains to the northwest.

Olaus J. Murie, who was largely responsible for the creation of the Refuge, wrote in 1935:

"This region as a whole is extremely picturesque. There is glamour of early explorations over it all, the romance of historic events. A camp out in the badlands, with the jumble of carved and stratified buttes, perhaps mellowed by the setting sun or set off by cloud formations at dawn, leave nothing to be desired. In such a setting the sight of a group of antelope on a ridge, or a sharp-tailed grouse whirring from the head of a coulee completes the picture. An occasional prairie dog or burrowing owl are interesting details that belong to the whole... Simplicity on a grand scale is the keynote of this whole outdoor picture."

Next stop 3.0 miles

CATTLE GRAZING
Grazing is the dominant land use around the Charles M. Russell NWR and it can often be utilized as a wildlife management tool. Grazing, mechanical disturbance, or fire may be used to remove old vegetation and increase plant vigor. Some wildlife such as prairie dogs and kilddeer do not do well with dense grasses or cover; whereas, sharp-tailed grouse and elk require abundant cover. What may be good habitat management for one species could cause another species to decline. On the Refuge some areas have been set aside to be managed for prairie dogs and the species associated with light cover. Other areas are left with abundant cover for species like the sharp-tailed grouse. Elk, bighorn sheep, and sharp-tailed grouse are examples of wildlife species that can be carefully regulated. Next stop 2.3 miles

SPRINGTIME DANCERS
The area east of the road is a traditional sharp-tailed grouse dancing ground. From late March to mid-May and late September and October, male sharp-tailed grouse gather here at daybreak. With a hooping or cooing sound and short rapid stamping steps, they attempt to attract females. Sometimes two males pair off in battle. With wings and tails spread, they rush each other and stop short beak-to-beak. This display is repeated again and again.

"Sharptails" are important game birds throughout the plains of the central United States. These birds are closely associated with grasslands and are dependent on good grass cover. They need 8 to 10 inches of plant cover for nesting; during the winter they utilize shrubs for food and cover. Next stop .9 mile

FISH AND WILDLIFE SERVICE AND BUREAU OF LAND MANAGEMENT
You are now passing from the Refuge onto lands managed by the Bureau of Land Management (BLM). These two agencies are part of the U.S. Department of the Interior. Charles M. Russell NWR objectives include protection of endangered species, resident wildlife, migratory birds, and their habitats. The Refuge preserves historical, archaeological, and paleontological resources. Activities such as hunting, fishing, cattle grazing, and wildlife observation are permitted on the Refuge. However, these activities are allowed only after the primary purpose of the Refuge - wildlife management - has been met.

BLM manages public lands for several major programs such as minerals, timber, grazing, recreation, cultural resources (history, archaeology, and paleontology), and wildlife habitat including threatened and endangered species. Next stop 2.2 miles

TRADITIONAL HUNTING GROUNDS
This area has long been - and still is - a choice hunting ground. Until the late 1800's tribes of Crow, Blackfeet, Sioux, and others travelled into this area to hunt. These tribes depended on the abundant game for food, clothing, shelter, and religious articles.

The Bell Ridge Reservoir to the east is an example of multiple use management by the BLM. Reservoirs can help facilitate cattle distribution. In this area, cattle are watered by well and the reservoir has been fenced to exclude cattle. It is stocked with rainbow trout by the Montana Department of Fish, Wildlife and Parks. Next stop 2.5 miles

THE FUTURE
At one time this area was filled with huge herds of migrating bison. Naturalist Ernest Thompson Seton estimated there were 60 million bison in North America in 1800. Antelope, elk, Audubon's bighorn sheep, plains grizzly, wolf, coyote, prairie dog, and a myriad of other animals completed the scene. By the late 1800's only a few scattered herds of bison remained. The Audubon's bighorn sheep, plains grizzly, and prairie wolf disappeared forever. Elk and antelope almost followed their fate. Thousands of acres of habitat were lost as the great reservoirs flooded the Missouri bottomlands and uplands were converted to agricultural use.

The Charles M. Russell NWR is a major contributor to the wildlife and wildlands of the area. However, the ultimate force in determining the future for wildlife management will rest with the society. You have an important role to play, and have taken the first step to understand this land and its wildlife. What will you do now?