

## MAINTAINING NATIVE HABITAT

For centuries, North Dakota's native grasslands were perpetuated by constant disturbances: drought, flood, wind, fire, and massive herds of wild grazers and browsers, especially bison. Grasses and forbs blanketed nearly all the prairie, except about 3-5% that was covered by brush, mostly snowberry. However, by the 1970's, snowberry occupied 50-80% of the prairie, with the remaining native grasses and forbs being replaced by exotic grasses, such as Kentucky bluegrass and smooth brome.

Present day grasslands remain subject to drought, flood, and wind, much like the past. However, two main components have changed. Bison were replaced with cattle, which browse and graze differently, and perhaps most importantly the suppression of fire permitted woody species to expand. Not surprisingly, fire is an important tool to reduce brush and increase grasses and forbs.

Prairie wetlands are mostly managed by nature—flood to drought. Surprising to most, it is as important for prairie wetlands to be dry as it is for them to be filled with water. During droughts, wetland-bottoms are exposed to air, permitting decomposition of organic matter. Without the dry cycle, the water's oxygen is used to decompose organic matter; an oxygen-depleted wetland cannot support quantities of aquatic invertebrates, the main food for most breeding water birds and their young.

Controlled burning photo by Ken Higgins. USFWS photo.



All illustrations by Karen Smith.

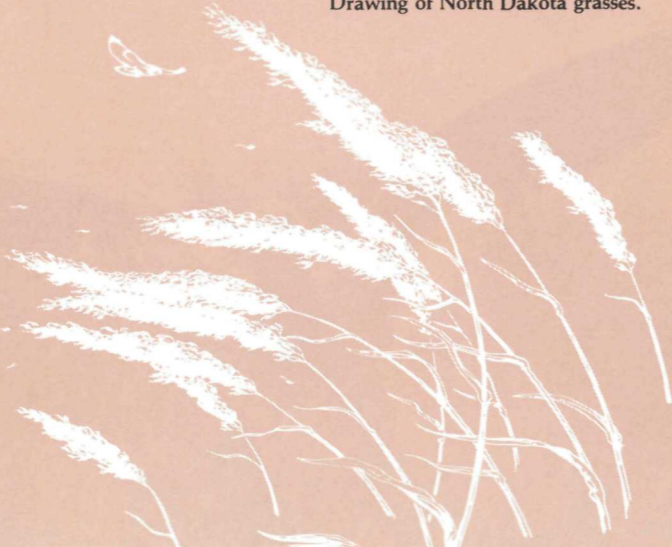
## EXPERIENCE THE ESSENCE OF LOSTWOOD

Unique wetland environments are found over every hill on Lostwood National Wildlife Refuge.

Vehicle and hiking trails provide access for the visitor during portions of the spring, summer, and fall. A sharp-tailed grouse dancing ground blind is available to the public. The wilderness area offers hiking during certain months, as well as snowshoeing and cross-country skiing. Extreme caution must be used in winter because subzero temperatures and strong winds have no mercy.

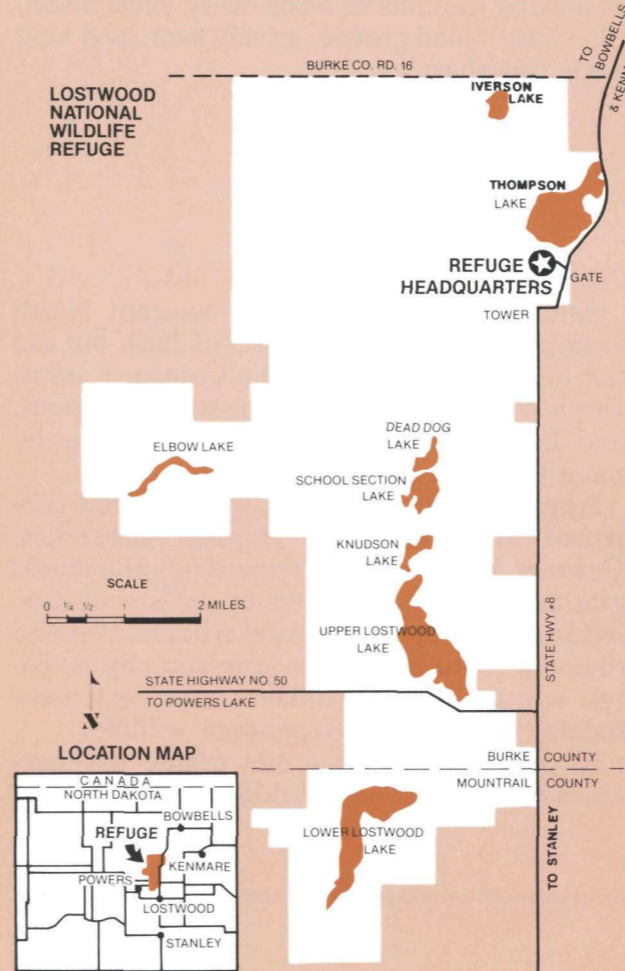
An auto tour leaflet is available on a self-guided auto tour. Regulations concerning wildlife recreational opportunities, including limited hunting programs, are available at Refuge Headquarters located off State Highway No. 8.

Drawing of North Dakota grasses.



## ADMINISTRATION

The Refuge is administered as a part of the Des Lacs Complex with the main office located one mile west of Kenmare, North Dakota. The Lostwood Headquarters, which administers the Lostwood Refuge, is located 12 miles west of Kenmare on Ward County road No. 2 and 4 miles south on Highway No. 8. Inquiries for information should be addressed to the Refuge Manager, Lostwood National Wildlife Refuge, RR 2, Box 98, Kenmare, North Dakota 58746.



U.S. FISH AND WILDLIFE SERVICE  
Department of the Interior



RF-6-62572-1



REPRINT JULY 1988

\*U.S. GOVERNMENT PRINTING OFFICE: 1988-0-573-167/80005

Lostwood  
NATIONAL WILDLIFE REFUGE

## LOSTWOOD NATIONAL WILDLIFE REFUGE

Lostwood National Wildlife Refuge lies in the highly productive prairie pothole region that produces more ducks than any other region in the lower 48 states. The refuge is a land of rolling hills mantled in short-grass and mixed-grass prairie interspersed with numerous wetlands. Established to preserve a unique wildlife habitat, Lostwood is an important link in our nation's system of more than 410 Wildlife Refuges.



Drawing of a pair of Pintail ducks.

### FROM ICE TO MANTLES OF GRASS

Ten thousand years ago, the last glacier had to climb a steep topographical rise, the "Missouri Escarpment," to continue its southwesterly path over the area now known as Lostwood Refuge. The climbing ice pushed tons of material "glacial drift," ahead of it and deposited it just beyond the escarpment.

When the ice began to melt, glacial drift became concentrated on the ice surface and acted as an insulator to the ice beneath. As a result, the drift area retained ice long after it had disappeared from the rest of northwestern North Dakota.

Slowly, the surface of the drift-covered ice warmed, producing forests of spruce, tamarack, birch and poplar along with a myriad of lakes,

wetlands and streams. As the ice melted beneath, the drift settled, creating rocky rolling hills with numerous shallow lakes and wetlands known today as the "Missouri Coteau."

As precipitation slowly decreased, forest gave way to mantles of grass. Lakes and wetlands evolved into highly productive duck hatcheries producing millions of birds every year. Bison, elk, sharp-tailed grouse, grizzly bear, and wolf were also abundant.

### PRESERVING A PRAIRIE HERITAGE

Settlers were spurred into western North Dakota by the Homestead Act of 1862, but did not immediately settle in the Coteau of north western North Dakota because soils were poor, and dreaded prairie fires were frequent. Settlement finally began in 1900-1910.

As man "tamed" the area, wildfires were contained and eventually stopped altogether. Grasses and forbs on remaining grasslands gradually were overtaken by brush species, reducing habitat for grassland wildlife. Wetland drainage (done to increase farmland productivity), which continues today, caused extensive habitat loss to water-dependent wildlife.

In order to preserve our prairie heritage, Lostwood National Wildlife Refuge was

Aerial photo of Lostwood potholes by Allen Aufforth. USFWS photo.

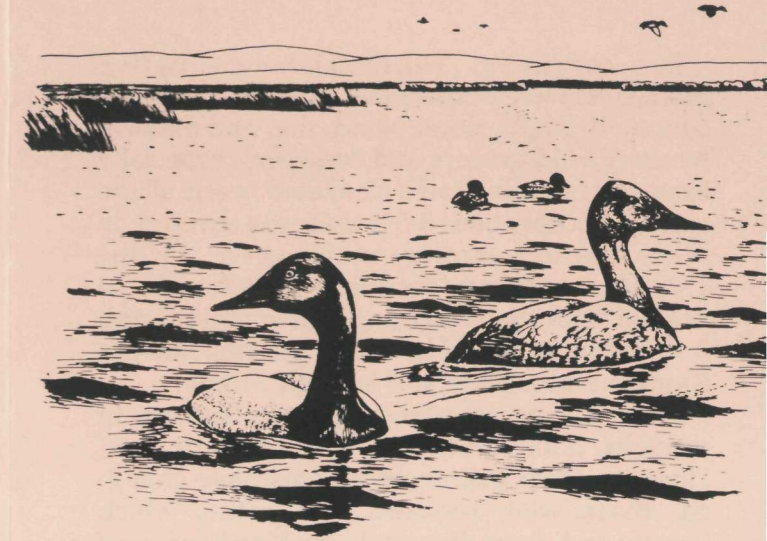


Wilson's Phalarope, photo by Karen Smith.

established on September 4, 1935, ". . . as a refuge and breeding ground for migratory birds and other wildlife . . ." Encompassing 26,747 acres, about 70% of Lostwood is virgin prairie. Most wetlands on Lostwood were not drained and remain as they were prior to settlement.

Congress acted further to guarantee our prairie heritage by establishing the 5,577-acre Lostwood Wilderness Area in 1975. Under wilderness management guidelines, natural or controlled fire is required to maintain and preserve the grassland ecosystem.

Avocet. USFWS photo.



Drawing of a pair of Canvasback ducks.

### FEATHERS AND FUR

Waterfowl and other water-dependent birds are some of Lostwood's highlights. Blue-winged teal, mallard, gadwall, wigeon, and lesser scaup are abundant while redhead and canvasback are less common. Other water birds include Virginia rail, marbled godwit, Wilson's phalarope, and American avocet.

Baird's, savannah, and grasshopper sparrows, upland sandpiper, and Sprague's pipit call on grassland to claim their territorial rights. In early spring, the abundant sharp-tailed grouse engage in elaborate courtship rituals on numerous dancing grounds. Northern harriers, or marsh hawks, drift low over the prairie in search of meadow mice.

Giant Canada geese, once thought to be extinct, again nest on the prairie. The majestic birds were reintroduced on Lostwood in 1964.

White-tailed deer, badger, weasel, and white-tailed jackrabbit are common. Encroaching brush and aspen attract cottontail, showshoe hare, beaver, and porcupine. The howl of the wolf, however, has been replaced with the yodel of the coyote and the yap of the fox.