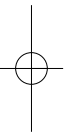


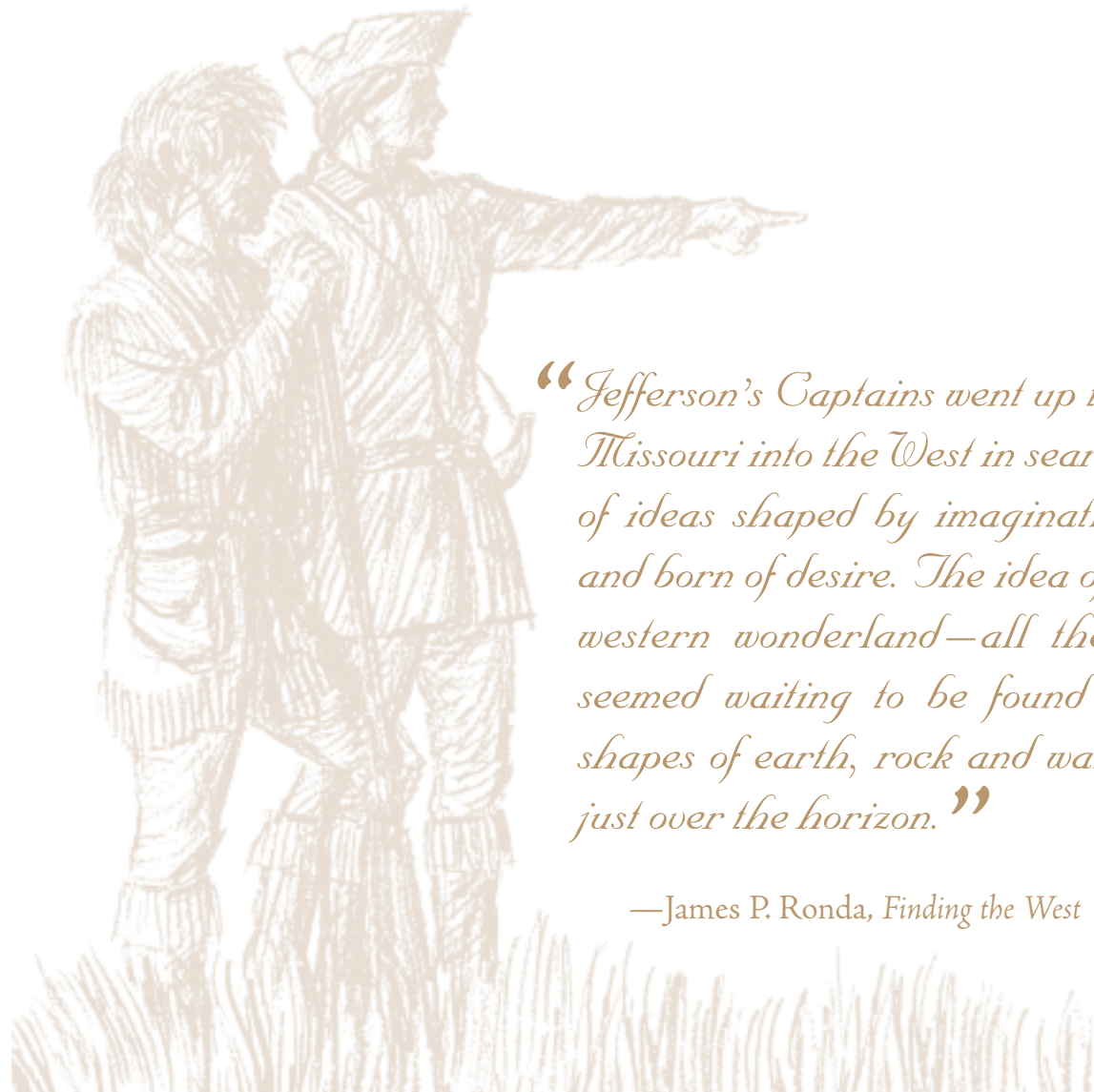
ENDURING STORIES
DYNAMIC LANDSCAPES

*The Lewis and Clark Expedition
on National Forests and Grasslands*



USDA FOREST SERVICE





“Jefferson’s Captains went up the Missouri into the West in search of ideas shaped by imagination and born of desire. The idea of a western wonderland—all these seemed waiting to be found in shapes of earth, rock and water just over the horizon.”

—James P. Ronda, *Finding the West*

Take Your Own Journey of Discovery

On many National Forests and Grasslands, you can stand in the exact places where Lewis and Clark did, imagine what they saw, and discover what has changed. By reading their journals and comparing the landscapes they described 200 years ago to those we now see, we can better understand the complexity of nature—how wind, fire and flood shape forests, plains, and rivers, and influence fish and wildlife. We can then consider the effects of human activities like fighting fires, harvesting timber, taming rivers, and grazing livestock. Comparing the present to the past helps us to evaluate our success as stewards of public lands. The ultimate challenge is to sustain and conserve America’s wild nature and wild places for future use and wonderment as our human population and demands on resources grow.

What role can we play as explorers in a new age of discovery and restoration? What can we gain from our own personal journey on the Lewis and Clark Trail? Find out by visiting a National Forest or Grassland today.

Cover photo by Jim Wark

Enduring Stories, Dynamic Landscapes

The Lewis and Clark Expedition on National Forests and Grasslands

Four long years passed between Meriwether Lewis’ farewell to President Thomas Jefferson at Monticello, and his return, with William Clark, to St. Louis. The explorers had paddled down the Ohio and the Mississippi Rivers in the shade of giant hardwood trees; pushed up the Missouri River through vast prairies teeming with immense herds of bison; climbed the steep, snow-covered Rocky Mountains; rafted to the Pacific Ocean through boiling rapids filled with salmon on the Columbia River; and returned to the city from which they had departed.

Lewis and Clark set out in search of the Northwest Passage. They found instead a well-populated land already connected by timeworn trade routes. Aided by Indian guides, the Corps of Discovery battled terrain and weather, collected plant and animal specimens, charted mountains and rivers, and wrote it all down, for their president and for posterity.

Two years into this journey, Captain Lewis had already seen unbelievable sights. Despite the daily wonders, on June 13, 1805, he gazed upon a scene that left him frustrated, unable to describe what his eyes saw and his heart felt. “that I might be enabled to give to the enlightened world some just idea of this truly magnificent and sublimely grand object, . . .”

Lewis was expressing his awe at seeing the Great Falls of the Missouri for the first time. This excitement of discovery keeps us yearning for the next horizon, for the next revelation of the unknown, for a new taste of the wild. the Corps of Discovery described an important point in history for native peoples, wildlife and the West. Their journals left us a legacy of scientific inquiry and stories that inspire and inform us still. While we cannot relive their journey, we can recreate their adventure by visiting the dynamic landscapes they saw on National Forests and Grasslands along the Lewis and Clark National Historic Trail. ■



William Clark



Meriwether Lewis





Passage of the Weeks Act in 1911 marked a shift from public land disposal to the expansion of the public land base by purchase, which established the National Forests in the east.

Eastern Forests – Nature’s Renewal

What looks “wild” today may have been a cleared field or an eroded gully 100 years ago.

Wander through the rolling Appalachian foothills of the Wayne National Forest in southeastern Ohio. Walk beneath towering hickory in the Hoosier National Forest in south-central Indiana, or surprise a flock of wild turkeys in the Shawnee National Forest in southern Illinois. Gazing from the top of sandstone cliffs across beautiful wooded bluffs, you can imagine the landscape as Lewis and Clark saw it.

Captain Lewis spent 1803 gathering the men and supplies his Corps would need to survive in a land they knew to be wild and uncharted. Since it could not depend on fresh supplies or reinforcements, the expedition had to be self-sufficient and resourceful. Lewis selected experienced frontiersmen for the job, many who had learned their skills in the vast woods and waterways of what was then the western frontier— West Virginia, Ohio, Indiana, Illinois, Kentucky and Tennessee.

During his service as Army paymaster, Lewis had traveled extensively through the Ohio River Valley beneath the sheltering limbs of enormous hickory, white oak, black walnut, tulip poplar and black cherry trees. If he were to revisit the same places today, he might be hard pressed to recognize the rivers and forests he saw.

Many Eastern forests fell to the axe by the late 1800s, removing tree cover from millions of acres. Exposed soil was lost to massive erosion. Public concern for protecting and restoring forested lands led to the creation of National Forests in the East. Much of the early work of the Forest Service focused on restoring logged and overgrazed lands. What looks “wild” today may have been a cleared field or eroded gully 100 years ago, and could have been covered by a towering forest 200 years ago.



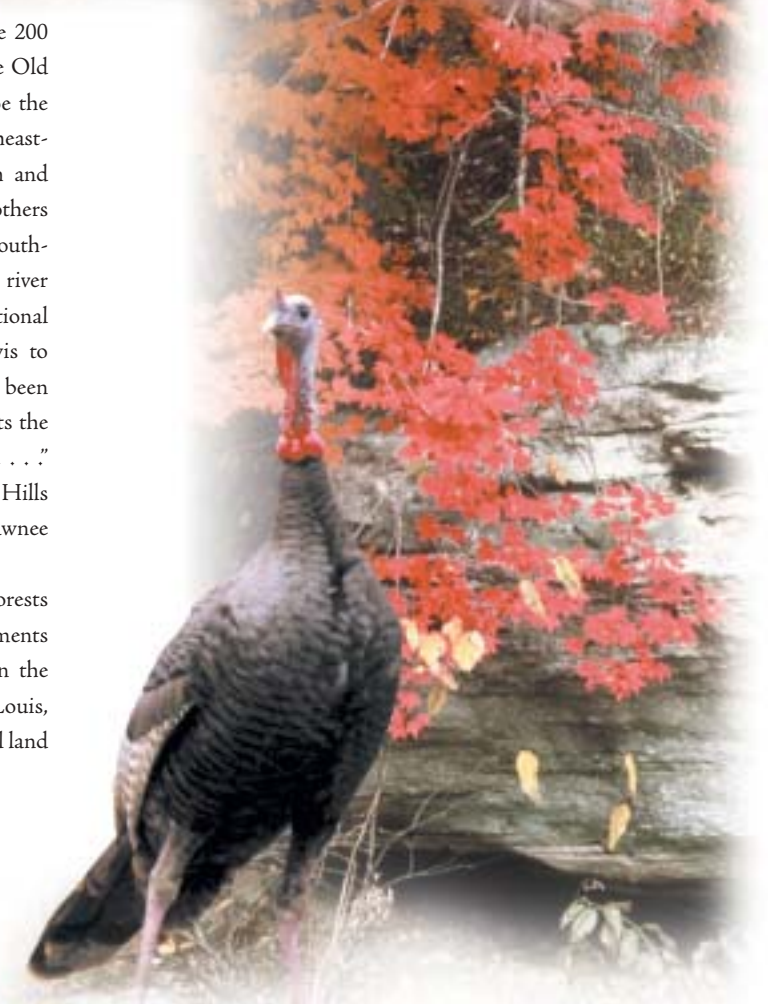
Tree Planting Photo Courtesy Library of Congress



To imagine what this landscape must have been like 200 years ago, visit the National Forests in what was once the Old Northwest Territory of Ohio, Indiana and Illinois. Canoe the Little Muskingum on the Wayne National Forest in southeastern Ohio. Walk under 100-foot-tall walnut, poplar, ash and beech trees in an unspoiled virgin forest in the Pioneer Mothers Memorial Forest on the Hoosier National Forest in south-central Indiana, or float the Ohio River between historic river towns. View majestic sandstone bluffs on the Shawnee National Forest. These landmarks were notable enough for Lewis to comment on November 24, 1803: “The main shore has been generally bold . . . all day, but here putts in some high cliffs the summits of which are crowned with pitch-pine & seader. . . .” Lewis was writing about the world-renowned LaRue Pine Hills Ecological Area along the Mississippi River in the Shawnee National Forest.

The rebirth of the woods in the eastern National Forests ranks as one of the most remarkable conservation achievements of this century. When you travel from Pittsburgh, down the Ohio to the Mississippi River, and up the Missouri to St. Louis, you can marvel at National Forests renewed by professional land management, nature and time.

The Ohio River winds through classic hardwoods clothed in fall splendor. Wild turkeys thrive in the forests.





The Great Plains – Grassland Abundance

All grasses rippling in the wind lead the eye and the mind toward infinity. On a moonless night, millions of stars illuminate the plains. A coyote chorus rises, descends and lingers. "Anyone can love the mountains, but it takes a soul to love the prairie."

*Anyone can love
the mountains
but it takes
a soul to love
the prairie.*

These grasslands, which at first might seem empty, teem with life. On September 17, 1804, Meriwether Lewis wrote, "this senery already rich pleasing and beatiful, was still farther hightened by immense herds of Buffaloe, deer Elk and Antelopes which we saw in every direction feeding on the hills and plains." The plains were as rich as the African Serenghetti. Stretching 1,000 miles from east to west and 2,000 miles from north to south, the North American grasslands once formed one of the largest prairies in the world. Here grizzly bears and wolves feasted on the great bison herds that numbered in the millions.

As the expedition pushed up the Missouri River, Lewis and Clark noted the change in the landscape from tall grass to mixed grass, and finally to short grass prairie, coinciding with a gradually drier climate. Lewis identified trees and shrubs hugging the river's edge, from cottonwoods and elms to wild rose and buffalo berry.

President Jefferson foresaw the westward expansion of settlement. He believed in a rural, agricultural America. In the years after the Lewis and Clark expedition, settlers streamed across the Mississippi River to homestead. Demand for wheat after World War I accelerated the cultivation of the Great Plains. By the 1930s, virtually all the prairie had been broken to the plow, converting grasses to farms growing significant food supplies for the nation and the world.

But traditional farming techniques did not work everywhere. Farming the native prairie exposed fragile soil to incessant winds. Huge clouds of dust from the fields darkened the skies; in less than 20 years, many farms were bankrupt and deserted.

During the 1930s and 1940s, the federal government acquired over 11 million acres of ruined farmlands in 45 states. The Soil Conservation Service, which developed and applied many conservation practices used today, first managed these lands. In 1960, close to four million of those acres, mostly in the Great Plains states, were transferred to the U.S.D.A. Forest Service and designated as National Grasslands.



Sod Homestead, South Dakota Courtesy of Library of Congress

Although farms have replaced most of the original native prairie, and cattle have replaced the bison on the grasslands that remain, the vastness of space and richness of life here can still be experienced in National Grasslands. In North Dakota, monochrome grasses are broken by multi-colored landforms on the Little Missouri National Grassland. On the Ft. Pierre National Grasslands in South Dakota, near where Lewis and Clark had their standoff with the Teton Sioux, you can see prairie chickens and burrowing owls. Some of the last remaining long grass prairie on public lands are on the Sheyenne National Grasslands in eastern North Dakota. ■



OUR NATIONAL GRASSLANDS

National Grasslands were originally established to demonstrate how farmers and ranchers could use the grasslands in ways that sustain both the prairie and their livelihoods. As native prairie diminishes, however, the value of these public lands for recreational use and for maintaining grassland dependent wildlife is increasing. Scientifically based resource management and nature's ability to heal itself help the Forest Service balance human uses, so the prairie species seen by Lewis and Clark can roam the prairie into the future.

To learn more about National Grasslands, visit www.fs.fed.us/grasslands



On September 2, 1806, Captain Clark wrote "the plains are tolerably level on each Side and very fertile. I saw 4 prarie fowls Common to the Illinois, those are the highest up which have been Seen . . ."

On the Ft. Pierre National Grassland, the fertile mixed-grass prairie provides tall, dense nesting cover for the greater prairie chicken and sharp-tailed grouse. These birds nest on the prairie and winter-feed on private cropland, making this grassland nationally significant as grouse habitat. You can most easily view these birds from early April to about mid-May.



Lewis & Clark

Journey Through the Landscapes of America

Less than 100 years after Lewis and Clark described natural resources in The West as virtually limitless, Congress created the first Forest Reserves in 1891 to restore and conserve our nation's forests and watersheds. In succeeding years, more National Forests were established in the west and east, followed by National Grasslands in the prairies. Today, there are 191 million acres in 155 National Forests and almost four million acres in 20 National Grasslands in 44 states, Puerto Rico, and the Virgin Islands.



Pacific Northwest

Although the incessant rain made for a miserable winter for the Corps of Discovery, they found it nurtured evergreen forests of gigantic trees and one of the richest salmon fisheries in the world.

Rocky Mountains

Stretching from Canada to Mexico, the rugged spine of the continent dominates this diverse landscape of forested ranges interspersed with broad grass filled valleys.

Great Plains

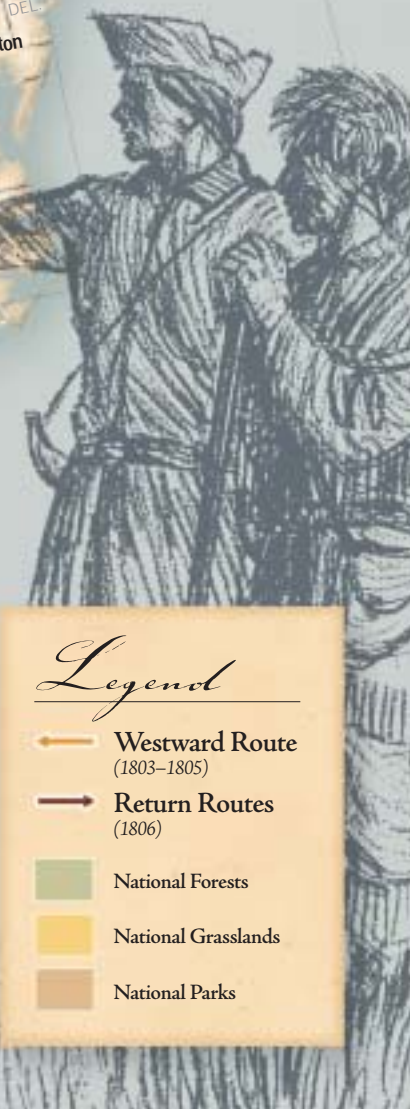
Appearing to be a sea of grass, the Great Plains is actually a complex ecosystem of hundreds of grass, shrub, and tree species supporting huge herds of grazing animals.

Eastern Woodlands

The hardwood forests of the East coast had been familiar to European settlers for over 200 years in 1803

Legend

- Westward Route (1803-1805)
- Return Routes (1806)
- National Forests
- National Grasslands
- National Parks





Looking east into Montana from the Continental Divide at Lemhi Pass, Montana, Beaverhead-Deerlodge National Forest. Photo courtesy Travel Montana.

The Rocky Mountains – Big and Bold

If grasslands suggest infinity, a view of the peaks of the Rockies will stop you in your tracks, awestruck.

Within the Rocky Mountains lie the headwaters of North America. High mountain peaks rise sharp and challenging, rivers run fast and clear, snow and high winds are commonplace, and dense forests block the sun. Grizzly bears, wolves, elk and moose still roam freely. Even after 200 years, vast stretches of this big country are as wild as when Lewis and Clark saw it. If grasslands suggest infinity, a view of the peaks of the Rockies will stop you in your tracks, awestruck.

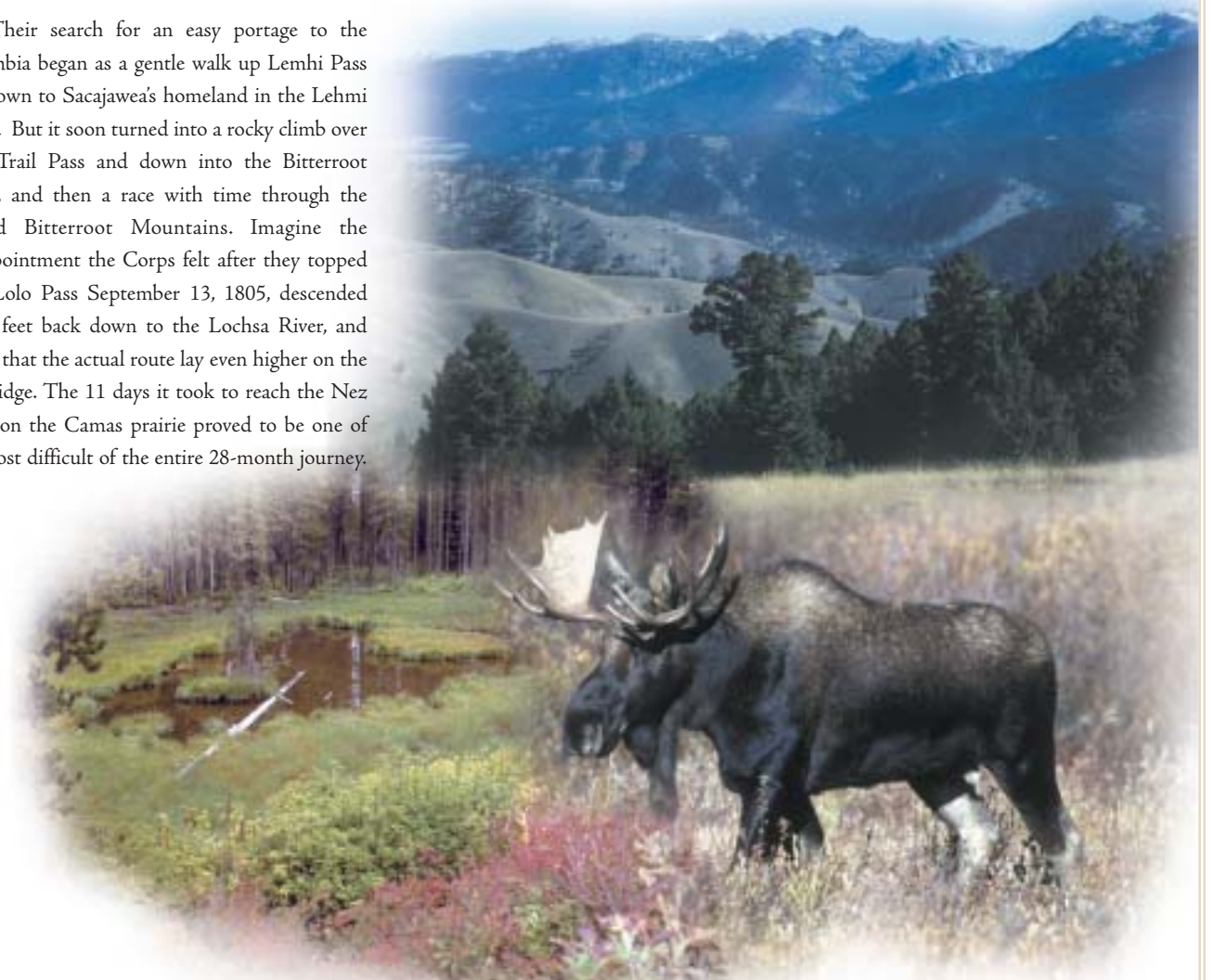
Thomas Jefferson had instructed Lewis: "The object of your mission is to explore the Missouri River, & such principal stream of it, as, by its course and communication with the waters of the Pacific ocean, whether the Columbia, Oregon, Colorado or any other river may offer the most direct practicable water communication across the continent for the purposes of commerce."

These orders came into full focus when Lewis and Clark left the Great Falls and passed through the Gates of the Mountains. Here, their search for the Northwest Passage began in earnest. In 1805 and 1806, they crossed the mountains of present-day Montana and Idaho, country so rugged and confusing they had to rely on native guides to lead them over well-worn "Indian highways" used for centuries in the salmon-buffalo trade.



The Gates of the Mountains
Helena National Forest, Montana

Their search for an easy portage to the Columbia began as a gentle walk up Lemhi Pass and down to Sacajawea's homeland in the Lemhi Valley. But it soon turned into a rocky climb over Lost Trail Pass and down into the Bitterroot Valley, and then a race with time through the rugged Bitterroot Mountains. Imagine the disappointment the Corps felt after they topped over Lolo Pass September 13, 1805, descended 3,000 feet back down to the Lochsa River, and found that the actual route lay even higher on the next ridge. The 11 days it took to reach the Nez Perce on the Camas prairie proved to be one of the most difficult of the entire 28-month journey.

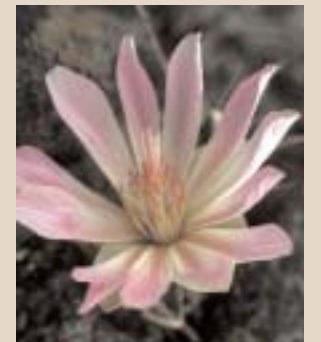


Top: The Bitterroot Mountains of Montana and Idaho, Bitterroot National Forest
Middle: Moose Photograph by Chuck Bartlebaugh
Left: The Siquie Hole on the Lolo Trail, Clearwater National Forest, Idaho

"A VERY BITTER TASTE . . ."

Lewisia rediviva was named in honor of Captain Lewis, who first scientifically collected this most celebrated of all plants he brought back. It is the state flower of Montana, and its name has been given to the Bitterroot Valley and the national forest that surrounds it, as well as to the mountain range the Corps struggled through on their way west.

Lewis noticed these plants for the first time on August 22, 1805, when the Shoshone informed him that the roots "were always boiled for use. I made the experiment, found that they became perfectly soft by boiling but had a very bitter taste, which was naucious to my palate, and I transferred them to the Indian who had eat them heartily." On the return journey, when the Corps was camped at Traveler's Rest (near Lolo, Montana), he collected several specimens that were later examined and found to have sprouted. Hence the species Latin name — *rediviva!*





Lewis and Clark Pass, Helena National Forest, Montana.
Left: Photograph by Chuck Bartlebaugh. Below: Horseback rider, courtesy Travel Montana.



The mountains Lewis and Clark explored include some of the biggest, wildest country managed by the Forest Service. The wave upon wave of mountains that Lewis first saw when he reached the Continental Divide at Lemhi Pass are part of the Frank Church River of No Return and Selway Bitterroot Wilderness Areas, over four million acres just as primitive now as then. Here on the Salmon-Challis and Beaverhead-Deerlodge National Forests, you can explore what author Stephen Ambrose called one of the most pristine portions of the trail. Hike the upper three miles of the Trail from Lemhi Pass, and then continue eight miles more by horseback, mountain bike, or motorized vehicle to the Lemhi Valley floor. Or hike a six-mile section of isolated trail from Wagonhammer Springs to Trail Gulch on your own or with a guide.

On the Bitterroot National Forest, drive backcountry roads around Lost Trail Pass to discover why the expedition had such a difficult time in these mountains in 1805, or hike the ancient Indian trail over Gibbon's Pass, the route that Clark followed in 1806.

Perhaps the best way to get a sense of Lewis and Clark's overland journey is to follow their footsteps on the Lolo and Clearwater National Forests. You can either drive 120 miles of winding highway along Lolo Creek and the Wild and Scenic Lochsa River, or hike, bike or slowly drive the primitive Lolo Motorway, which parallels the Nee-me-Poo Trail, the old Nez Perce trail to the buffalo, within the heart of the Lolo Trail National Historic Landmark. Whichever route you choose, you will encounter some of the most remote, and rugged country along the Lewis and Clark National Historic Trail.

Lewis and Clark traveled over 2,000 miles, crossing and re-crossing the Rocky Mountains. Despite the challenges of geography, Lewis took time to gather information about what they saw. Their journals are the first scientific descriptions of Montana and Idaho. Besides the daily details of the trek, Clark recorded the courses of rivers and streams; Lewis described the trees, birds and other animals. Most of the tree species he noted on the Lolo Trail were new to science. Today, scientists scour the journals to better understand the influence of humans on the historical conditions of the land and wildlife. ■



FIRE: CHANGE ON THE LAND

As you pass through the grasslands and the rugged, timbered mountain country, you will encounter the effects of climate, fire and timber harvest. Ghostly larch snags rising up from younger forests are specters of the famous fires of the turn of the 20th century.

Fires are facts of nature in this landscape, and fallen fire-killed timber makes walking difficult. After the exhausted Corps ascended Wendover Ridge on September 15th, 1805, Clark noted the "emence quantity of falling timber which had [been] falling from dift. causes i e fire & wind and has deprived the Greater part of the Southerly Sides of this mountain of its green timber."

Clark had observed the Mandan setting fire to the prairie "for the benefit of their horses," and concluded that fires were the reason there were so few trees on the prairies, rather than the lack of rain. While many of their conclusions proved astute, this one was not. Similarly, public land managers once misunderstood the role of fire, believing all fires should be put out. Now we know that fire contributes not only to the health of the forests, but also to the prairies by consuming undergrowth and grass litter and releasing fertilizers like nitrogen and phosphorus. Returning fire properly and safely to forests and grasslands is one of the biggest challenges facing the Forest Service today.



NATURE'S HARVESTER

On Aug 22, 1805, Clark wrote, "I Saw to day Bird of the wood pecker kind which fed on Pine burs its Bill and tale white the wings black every other part of a light brown, and about the Size of a robin."

Biologists now know that without a bird, a squirrel, and a tree, the grizzly of the Rocky Mountains could be in trouble. The Clark's Nutcracker harvests white bark pinecone seeds and stores them in ground caches. These slow-growing trees of the high mountains depend on the nutcracker to establish new seedlings. Red squirrels harvest white bark pine cones from the tops of trees in late summer and stores them in piles for winter. Grizzly bears can't reach the cones; instead, they dig up the squirrels' caches and eat seeds that are high in

essential fatty oils for pre-hibernation fare. White bark pine trees and Clark's Nutcrackers can easily be seen along the Lolo Trail on the Clearwater National Forest.

"FAROSITY": THE GRIZZLY BEAR

Clark first saw "Tracks of white bear which was very large." on October 7, 1804 at the mouth of the Moreau River in north central South Dakota. From then on, Lewis wrote frequently about seeing signs, encountering and killing brown, cinnamon, and white bears, ranging in size from cubs to big males estimated to weigh 600 pounds! At first, Lewis wasn't sure if these were the familiar black bear of the East, but he soon decided they were a new species of larger, more aggressive bear that came in a variety of colors. He reported killing some 37 of the bears on the western leg of the journey. Later they were named *Ursus Arctos horribilis*, or Grizzly bear.

Although the Corps lived among the bears for much of their prairie journey from North Dakota to the Great Falls, the once common grizzly has declined dramatically, and is now found only in the foothills and mountains in the West. The only place on the entire Lewis and Clark National Historic Trail where you may be lucky enough to see a grizzly is at Lewis and Clark Pass on the Helena National Forest. Grizzly bears are listed as a threatened species. The Forest Service, the U.S. Fish and Wildlife Service and western state wildlife agencies are working together on recovery plans to ensure that grizzly bears will survive.





Columbia River Gorge National Scenic Area

The Pacific Northwest – Rivers of Salmon

“The forests were rich with wildlife and filled with trees of gigantic proportions.”



Once across the Rocky Mountains, the Corps set their sights on finding the Pacific Ocean. They canoed down the Columbia River through the Cascade Mountains, leaving the dry sagebrush-covered hills and basalt canyons for the stately evergreen rainforests growing in the shadow of ancient volcanoes.

The free-flowing Columbia River roiled and boiled with rapids. Clark described the narrows near the Dalles as “agitated gut Swelling, boiling & whorling in every direction.” Celilo Falls and the Narrows just downstream were the most important salmon fishing grounds on the Columbia River. Tribes converged here during the salmon runs. As many as 3,000 people fished and dried salmon along the banks at one time. Every member of the expedition marveled at the salmon. John Ordway wrote, “Saw a great quantity of pounded Sammon Stacked up on the Shores.” Although the expedition missed the peak salmon run, Clark counted 107 Indian baskets containing an estimated 10,000 pounds of dried salmon in the Narrows, evidence of a successful harvest.

The legendary salmon runs of the Columbia River defined cultures, trade and an entire ecosystem. A salmon’s journey — from birth in a mountain stream, downriver to the ocean, and eventually back upriver to spawn and die where it was born — is arguably one of nature’s most fantastic epics. Birth, death and renewal are inseparable.

Before the construction of the Bonneville Dam in the 1930s initiated a series of hydropower projects on the Columbia, as many as 16 million salmon entered the Columbia River from the ocean. Now, only a few hundred thousand fish are able to navigate past dams and reservoirs that flooded Celilo Falls and the Narrows. Restoring the historic salmon runs in the face of demands for water and power is one of the greatest conservation challenges facing scientists and land managers.

West of the Cascade Mountains, the Corps found the coastal forests rich with wildlife and full of gigantic trees. Although salmon were a significant part of life in the Northwest, the Indians also drew on the wealth of the forests and uplands. Chinookan tribes used the versatile Western red cedar to make sturdy plank houses, dugout canoes, baskets and boxes to gather and store their harvests, and even clothing.



Celilo Falls, Oregon.
Courtesy of Oregon Historical Society. #Gi 156_A

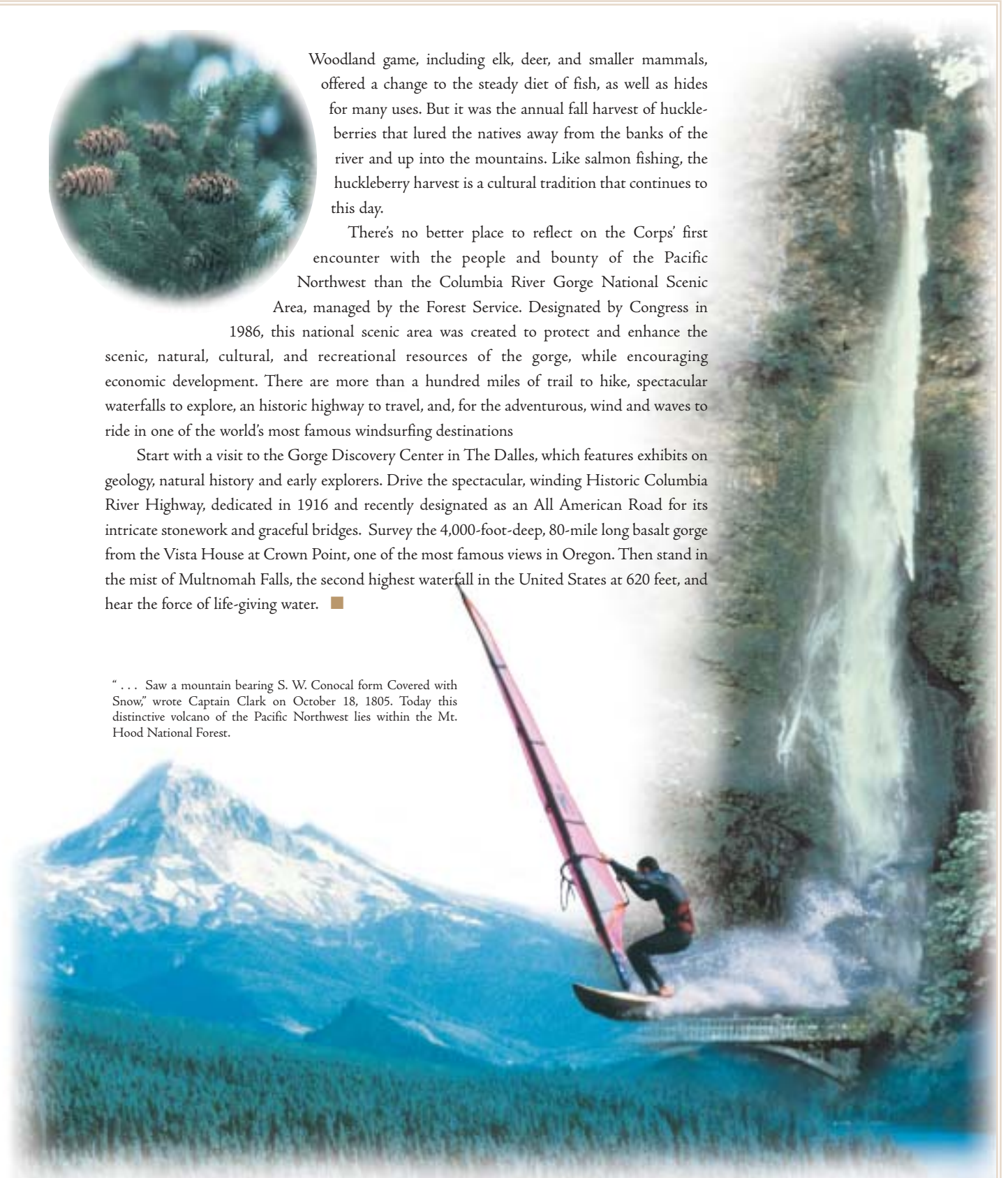


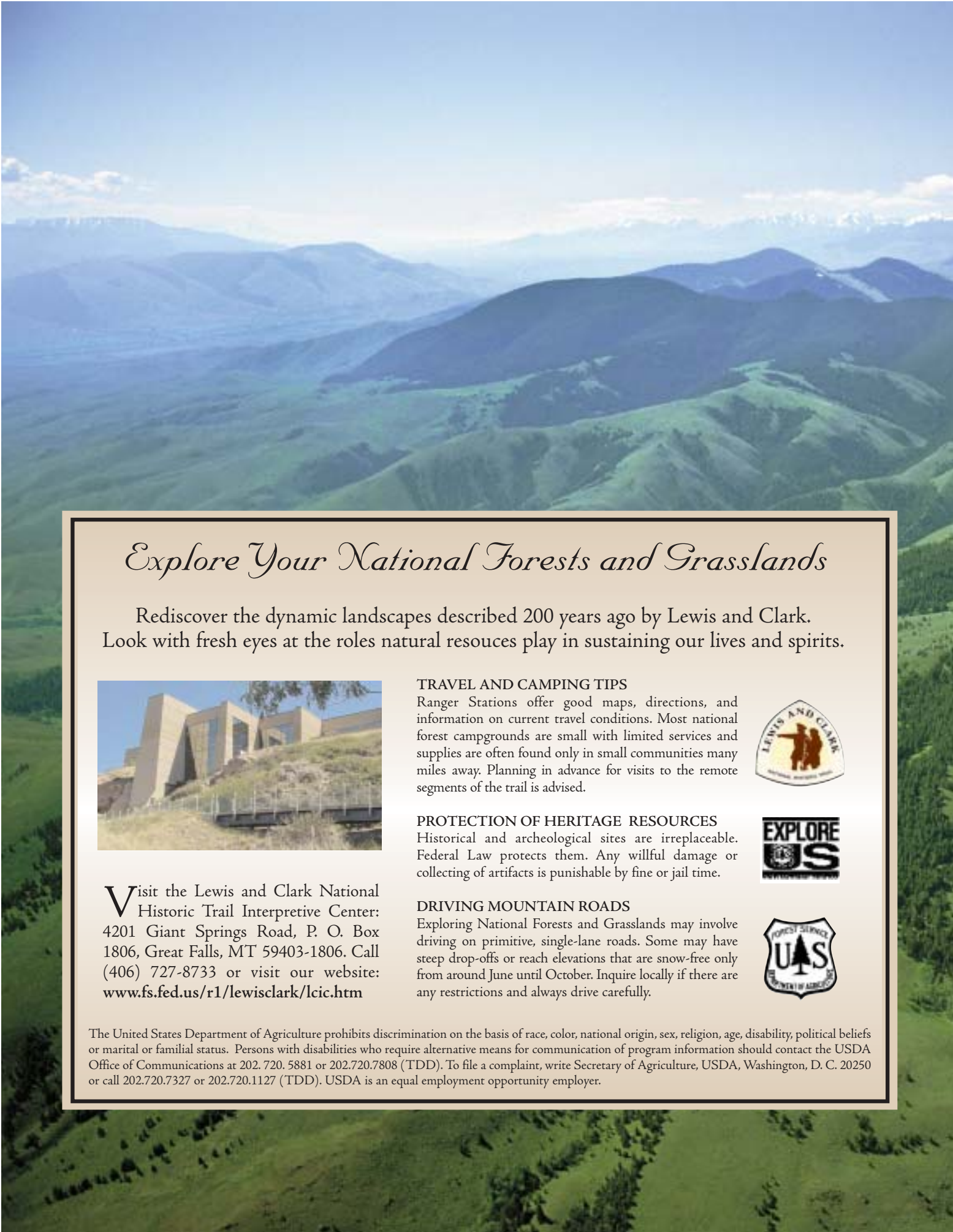
Woodland game, including elk, deer, and smaller mammals, offered a change to the steady diet of fish, as well as hides for many uses. But it was the annual fall harvest of huckleberries that lured the natives away from the banks of the river and up into the mountains. Like salmon fishing, the huckleberry harvest is a cultural tradition that continues to this day.

There’s no better place to reflect on the Corps’ first encounter with the people and bounty of the Pacific Northwest than the Columbia River Gorge National Scenic Area, managed by the Forest Service. Designated by Congress in 1986, this national scenic area was created to protect and enhance the scenic, natural, cultural, and recreational resources of the gorge, while encouraging economic development. There are more than a hundred miles of trail to hike, spectacular waterfalls to explore, an historic highway to travel, and, for the adventurous, wind and waves to ride in one of the world’s most famous windsurfing destinations

Start with a visit to the Gorge Discovery Center in The Dalles, which features exhibits on geology, natural history and early explorers. Drive the spectacular, winding Historic Columbia River Highway, dedicated in 1916 and recently designated as an All American Road for its intricate stonework and graceful bridges. Survey the 4,000-foot-deep, 80-mile long basalt gorge from the Vista House at Crown Point, one of the most famous views in Oregon. Then stand in the mist of Multnomah Falls, the second highest waterfall in the United States at 620 feet, and hear the force of life-giving water. ■

“... Saw a mountain bearing S. W. Conical form Covered with Snow,” wrote Captain Clark on October 18, 1805. Today this distinctive volcano of the Pacific Northwest lies within the Mt. Hood National Forest.





Explore Your National Forests and Grasslands

Rediscover the dynamic landscapes described 200 years ago by Lewis and Clark. Look with fresh eyes at the roles natural resources play in sustaining our lives and spirits.



Visit the Lewis and Clark National Historic Trail Interpretive Center: 4201 Giant Springs Road, P. O. Box 1806, Great Falls, MT 59403-1806. Call (406) 727-8733 or visit our website: www.fs.fed.us/r1/lewisclark/lcic.htm

TRAVEL AND CAMPING TIPS

Ranger Stations offer good maps, directions, and information on current travel conditions. Most national forest campgrounds are small with limited services and supplies are often found only in small communities many miles away. Planning in advance for visits to the remote segments of the trail is advised.



PROTECTION OF HERITAGE RESOURCES

Historical and archeological sites are irreplaceable. Federal Law protects them. Any willful damage or collecting of artifacts is punishable by fine or jail time.



DRIVING MOUNTAIN ROADS

Exploring National Forests and Grasslands may involve driving on primitive, single-lane roads. Some may have steep drop-offs or reach elevations that are snow-free only from around June until October. Inquire locally if there are any restrictions and always drive carefully.



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