

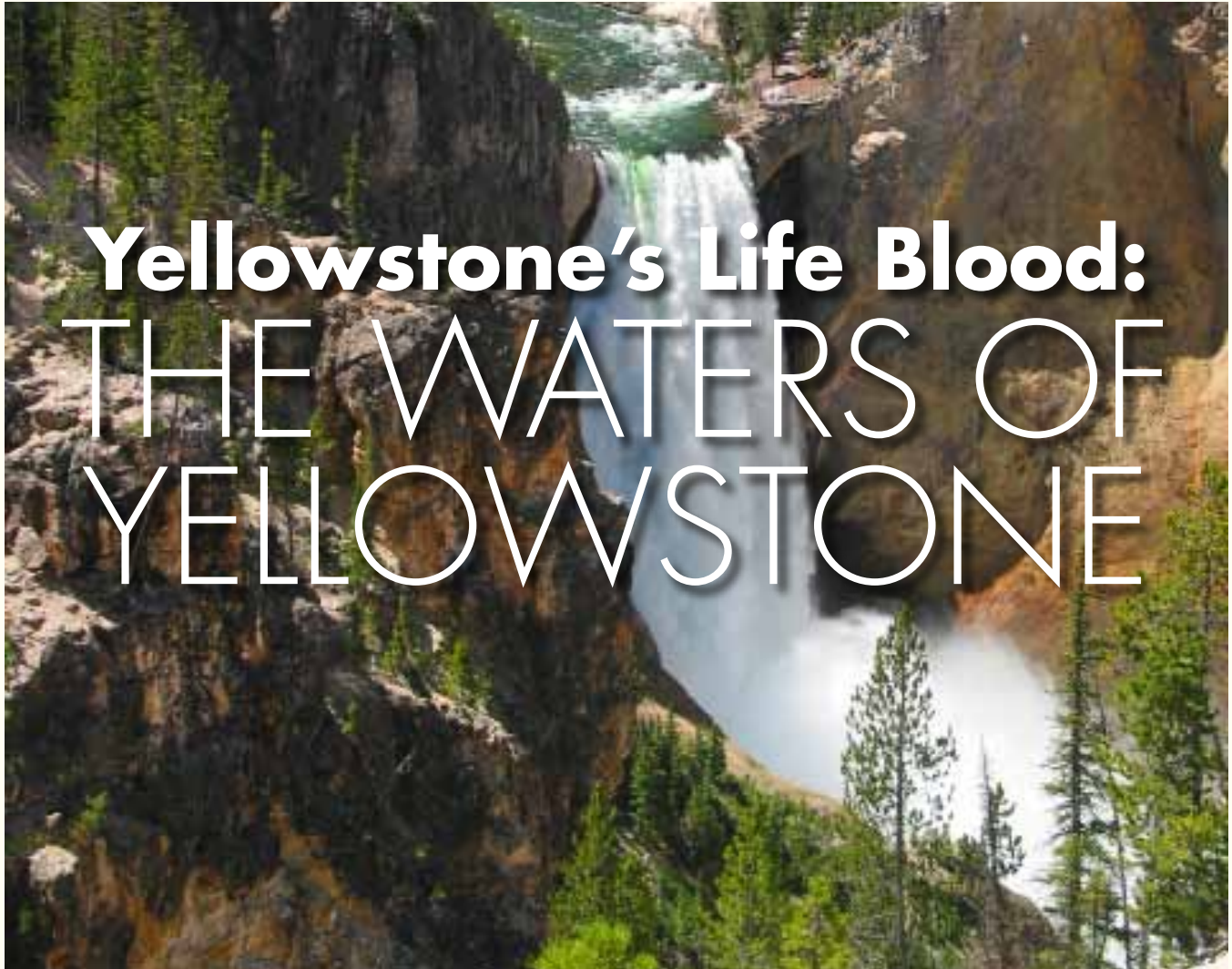


Y E L L O W S T O N E

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DISCOVERY

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Yellowstone's Life Blood: THE WATERS OF YELLOWSTONE

The Lower Falls of the Yellowstone River is one of the highest waterfalls in the park at 308 feet. Photo: Dave Syfert

By Michael Leach
Yellowstone Association

Spring in Yellowstone is a much-anticipated event. The return of the mountain bluebird, frolicking newborn bison calves, and vibrant shooting stars emerging from the moist soil represent the re-awakening of Yellowstone. The re-opening of the park's interior roads beckons visitors from all over the globe, who come to witness the

What's Inside...

- SUCCESSFUL COMPLETION OF FUNDRAISING EFFORTS
- FAREWELL FROM EXECUTIVE DIRECTOR PAT COLE
- NEW PARK SUPERINTENDENT TAKES THE HELM

wildlife, geysers, hot springs, and other countless scenic wonders. But it is the thawing of river-choking ice and the melting of mountain snow that perhaps best symbolize the return of life to the world's first national park.

Spring has long been heralded as one of the most lucrative times to watch wildlife in Yellowstone. And while there are few sights more rewarding than a glimpse of a raggedy, winter-battled bison or newly emerging grizzly bear, one could easily argue that the park offers no more



The Yellowstone River remains the longest free-flowing, undammed river in the United States. Photo: Pam Cahill

humbling and rewarding experience than to stand at the brink of the 308-foot Lower Falls when swollen with snowmelt. For the more adventurous visitors to Yellowstone, experiencing the power of

standing among the 2.7-billion-year-old Precambrian rock in the Lamar Canyon at the height of spring runoff—as 20,000 cubic feet per second of life-thrusting water bursts its way towards the mighty

Yellowstone River—is an awe-inspiring moment, never to be forgotten.

Water is one of the most important and abundant elements on our planet. The Earth is 97 percent water. Our bodies are two-thirds H₂O. Without the presence of water, life on Planet Earth would cease to exist. While Yellowstone’s surface area consists of only 5 percent water, that 5 percent has a disproportionately large impact on everything that lives and operates in and around the park.

While 80 percent of Yellowstone National Park consists of forests, driving along any one of the park’s winding roadways tells a completely different story. Rivers, streams, lakes, and ponds course throughout and dot the landscape, and the riparian areas surrounding these waters are some of the most biologically rich and diverse habitats in the ecosystem. This abundance and diversity of water throughout the region breathes life into Yellowstone—especially come spring.

Everything that inspired the creation of Yellowstone National Park has been touched and shaped by water. The geysers, hot springs, mudpots, and fumaroles are fed by groundwater re-charged by snowmelt. The countless waterfalls of the Cascade Corner and other falls found throughout the park have been sculpted by the grinding forces of water. The rich grasslands of the Lamar and Hayden valleys (home to the greatest concentration and diversity of large and small mammals anywhere in the Lower 48 States) were gouged by ice and later enriched by melting glaciers and deposited sediment. And the inspiring Grand Canyon of the Yellowstone River continues to be carved by the powerful force of running water.

From its inception as a national park, Yellowstone has been associated with water. Contrary to many visitors’ belief that Yellowstone received its name for the brilliant yellow colors highlighting the Grand Canyon of the Yellowstone River, the park was actually named after the river that dissects the landscape known as “Wonderland.” While the Crow people knew it as the Elk River, it appears that the major tributary to the Missouri received its name “Yellow Stone River” from early fur-trappers around 1797. It is believed that the pre-Lewis-and-Clark trappers translated the name “Mi tse a-da-zi” to

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**YELLOWSTONE
ASSOCIATION**

THE MISSION OF THE YELLOWSTONE ASSOCIATION

The Yellowstone Association, in partnership with the National Park Service, fosters the public’s understanding, appreciation and enjoyment of Yellowstone National Park and its surrounding ecosystem by funding and providing educational products and services.

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“Roche Jaune” from a band of Native Americans known as the Minnetaree tribe. The Minnetaree apparently gave the massive river its name because of the weathered, yellow sandstone bluffs near present day Billings, Montana.

The hurried waters of the upper Yellowstone served as a travel corridor for many of the 26 tribes associated with Yellowstone National Park. The river also acted as a major travel artery for early, legendary explorations into the mystical wilderness. Historians believe that John Colter—the first white man to enter the hallowed grounds of Yellowstone country—as well as the legendary Washburn and Hayden expeditions followed the winding path of the Yellowstone River in search of new discoveries.

While their flows change with each passing season and are determined largely by the amount of annual snowfall, the rivers found coursing throughout Yellowstone are a harmonious constant, revered and respected by visitors to and residents of the region. Water in the arid West has long been a contentious subject. A favorite saying in the ranch communities throughout the region holds that “Whiskey is for drinking and water is for fighting over.” True to that maxim, Yellowstone’s waters have faced many threats.

For much of the 1920s, ambassadors and advocates of Yellowstone fought the agriculture interests of potato farmers in southeastern Idaho who wanted to dam the pristine Bechler River and in the process deface the area known as the

“Cascade Corner” for its abundance of natural waterfalls. This battle was won for Bechler, but Yellowstone’s namesake river was under attack.

The Yellowstone River remains the longest free-flowing, undammed river in the United States. Its headwaters rest southeast of the park, in one of the most remote and unspoiled mountain forests in the Lower 48. But three major threats inside the park, and many others outside, almost led to its despoilment. Beginning in the early 1900s, and again in the ’30s, ’40s, and the hydroelectric glory days of the ’50s and ’60s, efforts to dam the Yellowstone seemed unrelenting.

While the majority of these threats occurred outside the park’s north entrance, one of the earliest environmental “water wars” occurred over a dam proposed at the outlet of Yellowstone Lake. Roughly 10 years after the historic environmental loss caused by the construction of the Hetch Hetchy dam in Yosemite National Park, Yellowstone’s first superintendent, Horace Albright, and National Park Service Director Stephen Mather joined forces with conservationists to protect the integrity of the Yellowstone River—the keystone watershed in the park, gathering approximately 60 percent of drainages. Under attack, defenders of Yellowstone stood strong and eventually weathered the storm created by those wishing to spoil its wild nature.

Yellowstone’s reputation as a wilderness Shangri-la predates its 140-year history as a national park. While many think more of land when they contemplate wilderness,

the untamed waters of the park not only represent wilderness to the fullest extent, they are arguably also the lifeblood of Yellowstone. As stated by John Varley and Paul Schullery in their book *Yellowstone Fishes*: “The water wilderness is enormously exciting, full of harshness, vulnerabilities, and beauty, with ecosystems as elaborate as those of the land that surrounds it.” In fact, because they are even more susceptible and sensitive to change than terrestrial environments, the aquatic ecosystems found throughout Yellowstone act as a “canary in the mine” of sorts, indicating environmental degradation and threats such as climate change.

The health of Yellowstone’s waters extends well beyond the rivers and streams themselves and into the neighboring plant communities. The willows, shrubs, and trees that grow along the banks of the waterways—better known as riparian areas—not only add biological diversity to the ecosystem but also provide critical habitat for wildlife, birds, and amphibians as well, while acting as a natural filtration system for the rivers themselves. Plant life in the riparian area stabilizes the banks and reduces the amount of sediment flowing through the water, at the same time providing shade needed to cool the water for trout during hot summer months. And what is good for trout benefits other wildlife too. Forty-two species in the park are known to feed on Yellowstone cutthroat trout alone, including grizzly bears, otters, osprey, American white pelican, and mink—just to name a few.

Yellowstone sits at the headwaters of many

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The willows, shrubs, and trees that grow along the banks of the waterways provide critical habitat for wildlife. Photo: Karen Withrow