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Extraordinary Stories of Biodiversity

A fascinating journey into nature that regenerates
itself

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The Wolf Who Changed Rivers

In 1995, a historic event forever transformed one of America's most iconic ecosystems. Fourteen gray wolves were reintroduced to Yellowstone National Park after almost

70 years of total absence. In 1996, another 17 wolves were added, for a total of 31 reintroduced wolves.

No one could have imagined the cascade of changes these magnificent predators would trigger.

What seemed like a simple conservation operation turned out to be one of the most extraordinary ecological experiments in modern history.



What happened next is incredible



Predators at Work

The wolves immediately began hunting the elk, which for decades had grazed undisturbed along the rivers.



Pressure on Vegetation

Without natural predators, the elk were literally devastating riparian vegetation, preventing tree regeneration.



Balance Restored

The presence of wolves altered elk behavior, making them avoid the most vulnerable areas near watercourses.





With fewer elk, riparian vegetation began to thrive again

01

Vegetation Rebirth

Willows and aspens, decimated for decades, were finally able to grow lushly along the riverbanks.

02

Return of the Beavers

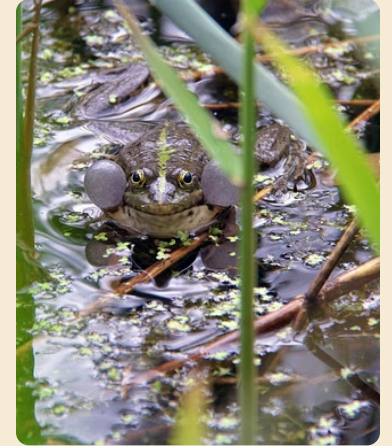
The return of the trees created the perfect habitat for beavers, who had not been seen in the park for years.

03

Ecosystem Engineers

The beavers built sophisticated dams, completely transforming Yellowstone's river landscape.

The dams created ponds that attracted birds and fish



But here's the plot twist: the rivers themselves changed course!

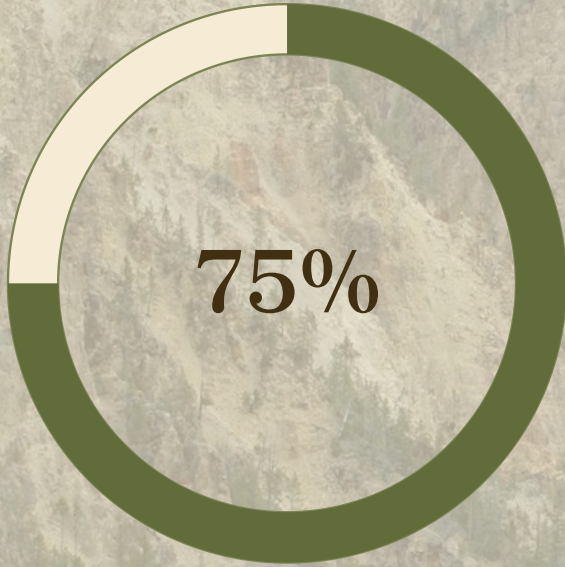
The ponds created by beaver dams became oases of biodiversity. Ducks, herons, dragonflies, trout, and countless other species found new life in these aquatic microhabitats that hadn't existed for generations.

Reborn vegetation stabilized the banks

The deep roots of willows and poplars literally held the soil together along the rivers. Soil erosion drastically decreased.

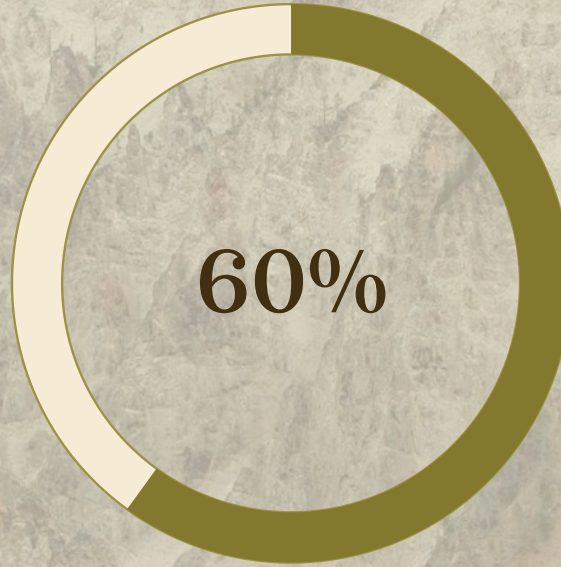
The river channels, previously unstable and constantly moving, found new stability. The river curves were redefined in a more sustainable way.





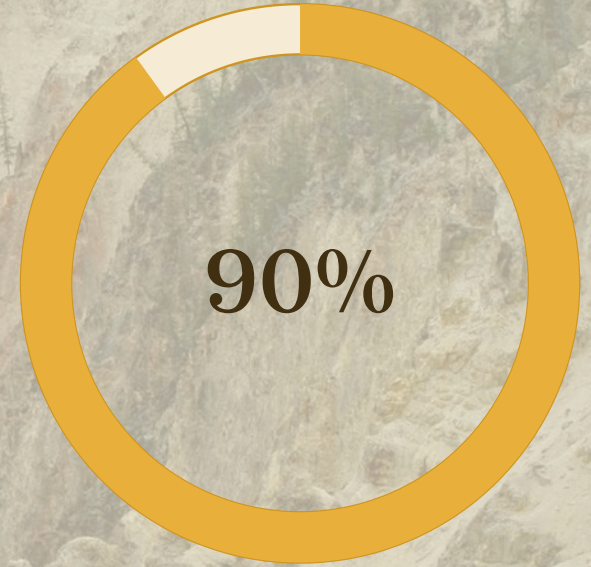
Erosion Reduction

Decrease in riverbank erosion



Tree Cover

**Increase in riparian
vegetation**



Water Stability

Improvement in water quality



31 wolves

have literally reshaped Yellowstone's biodiversity

1

1926

Complete elimination of wolves from the park

2

1995-1996

Reintroduction of 14 gray wolves and subsequent 17 others

3

2000-2005

Massive regeneration of riparian vegetation

4

2010-Today

Ecosystem completely transformed and in balance

The Importance of a Single Species

"Keystone Species"

Just as a single brick supports an entire architectural arch, so too does the wolf uphold the entire structure of the Yellowstone ecosystem.

This is the perfect definition of a keystone species: an organism whose impact on the environment is disproportionately large compared to its numerical abundance.





The Power of Complex Interactions

"Trophic Cascades"

The phenomenon observed in Yellowstone is called a trophic cascade: when a predator at the top of the food chain triggers a series of effects that propagate through all levels of the ecosystem.

Every species matters. Every connection is vital. Biodiversity is not a luxury: it is the very structure of life on Earth.



A lesson for the future

*In the attempt to protect nature, we have learned
that we cannot simply remove one piece and
expect everything to still work.*