

# The Thirty-One That Came Back

PASSAGE · NON-FICTION

SKILLS TRAINED

Working memory

Delayed recall

Critical analysis

## HOW TO USE THIS SHEET

About 25 minutes

- 1 Read the passage twice, slowly. Take about eight minutes.
- 2 Turn to the next page and cover this one. No looking back.
- 3 Write what you remember, then mark it on the last page.

In January 1995 a convoy brought fourteen grey wolves down from Alberta to Yellowstone National Park, in a country where the last of the park's own wolves had been shot in 1926 under a policy that paid men to remove predators. The fourteen spent roughly ten weeks in chain-link pens at Crystal Creek, Rose Creek and Soda Butte, eating carcasses pushed through the gate, before the doors were opened in March. Seventeen more arrived from British Columbia the following winter. Thirty-one animals, released into a park of almost nine thousand square kilometres, were being asked to answer a question nobody had been able to test.

Within a decade the northern range looked different. The elk herd that wintered there had numbered around nineteen thousand in the mid-1990s and fell below seven thousand. Willows along the creeks grew taller than a person for the first time in living memory, young aspen pushed above the browse line in places, and beaver colonies on the northern range climbed from a single one counted in 1996 to about a dozen. Coyote numbers dropped, and more pronghorn fawns survived their first summer. Biologists had a name ready for this shape of change: a trophic cascade, the effect of a predator running downhill through a whole system.

The story travelled further than most science does. A short film arguing that the wolves had rebuilt the park's streambanks — that they had, in effect, changed the course of its rivers — was watched tens of millions of times. It is a clean narrative with a satisfying shape, and it is the version most people now carry in their heads.

The researchers who work on the northern range are considerably less tidy about it. The elk did not decline only because of wolves. Those same years brought a long drought, a growing population of grizzly bears and cougars taking calves, and a generous late-season hunt outside the park's northern boundary that removed thousands of animals from the migrating herd. Picking the wolves out of that tangle as the single cause requires an assumption, not a measurement, and the herd had already begun falling before the pens were opened.

The willows were tested directly. For about a decade one experiment fenced some stands of willow so that nothing could browse them, built small dams on other stretches to raise the water table, and left a third set alone. The willows that grew tall were the ones with water. Fencing out the elk, on its own, did not do it. That result points at the beaver rather than the wolf: beaver dams flood the gravel, flooded gravel grows willow, and willow feeds beaver — a loop that had been broken for seventy years and does not restart simply because something frightening has moved into the valley.

So two readings sit on the same pile of evidence. One says the cascade is real but modest and local: wolves changed where elk linger and what scavengers eat, and the rest of the recovery depended on water, weather and the hunting rules. The other says the cascade is real and large, and that the drought and the hunt were working alongside the wolves rather than instead of them, which is how any living system behaves. Both camps agree that elk no longer stand about in open valley bottoms, that ravens, magpies and bears now find carcasses in midwinter, and that something like a hundred wolves live in the park.

What neither camp can supply is the thing the experiment needed: a second Yellowstone with no wolves in it, no drought and no hunt, to hold up against the first. Each spring, field crews walk the creek bottoms counting willow stems, measuring their height against a marked pole and writing numbers in waterproof notebooks. The wolves, who have no interest in the argument, are usually somewhere up the slope.



- 5 How does the writer treat the popular film about wolves changing rivers, and how can you tell?

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- 6 Weigh the two readings of the evidence that the passage sets side by side. Which is better supported by what you were told?

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- 7 The passage says no one can supply “a second Yellowstone”. Evaluate how far that missing comparison limits what the Yellowstone experiment can prove.

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## PART C Mark your own work

Now go back to the passage. Tick every answer you got right. You do not need the same words as the answer below — if you wrote the same idea in your own words, it counts.

- ☐ 1 • Thirty-one in total: fourteen from Alberta in January 1995 and seventeen from British Columbia the following winter.
- ☐ 2 • Because several causes were acting at the same time — a long drought, more grizzly bears and cougars taking calves, and a large late-season hunt outside the park — and the herd had already started to fall before the wolves were released. Nothing in the record separates one cause from the others, so anyone who credits the wolves alone is choosing an explanation rather than demonstrating it.
- ☐ 3 • It suggests they needed water more than they needed safety from browsing. Willows grew tall where small dams raised the water table, but fencing the elk out on its own did not produce tall willows, which points to the beaver — and the beaver-and-willow loop — as the missing part rather than fear of wolves.
- ☐ 4 • A cascade is water falling from one level to the next, so the word suggests an effect that starts at the top and spills downwards through everything beneath it — wolves acting on elk, elk on willow, willow on beaver and birds — each level pushed by the one above rather than changing on its own.
- ☐ 5 • Sceptically, but without mocking it. The film is credited with being clean, satisfying and widely believed, which sounds generous, yet the compliment is about its shape as a story rather than its accuracy — and the next paragraph opens by calling the actual researchers “considerably less tidy about it”. The dry understatement signals doubt while leaving the film's appeal intact.
- ☐ 6 • The modest reading is better supported on this evidence. The timing of the elk decline, the drought, the extra predators and the late-season hunt all weaken any claim that wolves did the work alone, and the willow experiment directly tested browsing against water and found water mattered more. The large reading is not unreasonable, however: real systems do have several causes pushing together, and the undisputed changes — elk avoiding open valley bottoms, carcasses feeding scavengers in midwinter, coyotes down and more pronghorn fawns surviving — are genuinely attributable to the wolves. The honest verdict is that the cascade exists but has been credited with more than can be shown.
- ☐ 7 • It limits it severely. Without a matched park that had the same drought and hunting rules but no wolves, there is no way to subtract the other causes, so every figure in the passage describes what happened rather than what the wolves caused. That is why the same numbers support two readings. It does not make the work worthless: direct experiments like the fenced and dammed willow plots create small comparisons inside the park, and undisputed behavioural changes can be observed close up. But the headline claim about rivers can only ever be an interpretation, and the passage is careful to present it as one.

FACTS RECALLED IN PART A

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QUESTIONS CORRECT

— / 7

DATE

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## THE STRATEGY Map the argument

When a passage holds two positions, stop reading it as one voice and split it into two columns on a scrap of paper: every claim goes on the side it supports, and shared ground goes in the middle. You will usually find the middle column is the biggest. Sorting as you read means you are organising the material instead of absorbing it, and an organised page is far easier to rebuild from memory later than a flat run of facts.

## WHERE YOU ALREADY DO THIS

Where do you already sort things into sides as you go — a match you are watching, an argument between friends, a decision at home? What do you notice that people arguing from only one side tend to miss?

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**FOR THE PARENT OR TEACHER** · This sheet trains delayed recall, not reading speed. Let your teenager read the passage once, then cover it completely before Part A — no glancing back and no prompting, because the effort of hauling a half-remembered fact out of memory is what fixes it there. At this level mark the thinking rather than the wording: the answers given for the inference, tone and analysis questions are one good response each, not the only one.