



the road to recovery

Yes. It is possible to rescue at-risk species from extinction. But the job isn't easy — and it isn't fast

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When it comes to talking about endangered species, it's not hard to fall into discussions about the dangers wildlife face globally. The impact of human development on the planet has not been kind to ecological systems generally, nor to individual species in particular. Indeed, the rate of extinctions globally today is alarming.

Amid the gloom, however, it's important to remember that change is possible. Endangered species can be brought back from the brink and given a new shot at establishing self-sustaining populations. Here, *Canadian Wildlife* explores four of these stories from Canada. Together, they show there is cause for optimism. More importantly, they show that the path to recovery is a difficult one. Success requires time and commitment. Let's get to work.

Swift Fox

The swift fox — the smallest member of the fox family — was once a familiar face on the North American prairies. By the 1930s, it had all but disappeared. The species was extirpated in Canada, and only some populations in the central United States managed to stand up to the pressures of agriculture's massive encroachment on the grassland habitats that were once home to the foxes.

Today, the swift fox stands as one of the leading examples of success in species recovery, but the path back was not an easy one. The decline of swift foxes was largely driven by the loss of habitat due to the expansion of agriculture. But the foxes also suffered as the unintended catch of trappers and from poisoning campaigns meant to target other animals, such as wolves and coyotes. That some swift fox populations survived in the southern parts of their range, despite the threats, suggests that cold winters and droughts may have been the final factor leading to their demise in Canada.

The story of the species' recovery begins with the Smeeton family of Cochrane, Alta., who in 1973 founded the Cochrane Ecological Society and began captive breeding of swift foxes on their family property. In 1983, the Smeetons' work was joined by a broader group of partners — including government, public agencies, zoos, charities, landowners and ranchers — with the goal of restoring the foxes in their traditional range. Over the next 14 years, some 841 captive-bred swift foxes were released to the wild, along with 91 wild foxes brought in from the United States.

According to a recovery strategy published by Parks Canada in 2008, the foxes have re-established themselves in Alberta and Saskatchewan and, with a population estimated at 647, have been successful at breeding in the wild. In the longer term, the recovery strategy has set the goal of establishing a self-sustaining population of 1,000 or more mature, reproducing foxes by 2026. The success to date bodes well for a recovery, but significant threats remain because of habitat loss or degradation, predation, motor vehicle fatalities and climate change.

Current Status
Threatened

Past Status
Endangered (1998),
Extirpated (1978)

Population
647

“It may be easy to bask in our past successes, but there is still more work to do and questions we need to ask to secure a future for swift foxes in Canada.”

Axel Moehrenschrager, co-chair of the Swift Fox Recovery Team, speaking to the Alberta Wilderness Association's Wild Lands Advocate.

Humpback whale

Once hunted almost to extinction, humpback whales have recovered to the point that they were downlisted from “threatened” to “special concern” under the Species at Risk Act in the spring of 2014. The population has been increasing at a rate of four per cent a year since the early 1990s, and the population today is estimated at 22,000 throughout the North Pacific.

Although the whales have made a remarkable comeback, the recovery is variable among different populations. A recent genetic study suggests there are in fact five distinct humpback populations in the North Pacific, based on geographic distribution and strong site fidelity to breeding and feeding grounds,

handed down from mother to calf over the years. On British Columbia’s coast, there are two units, the Northern Washington/Southern British Columbia unit and the northern British Columbia/Southeast Alaska unit. It is likely that recovery has not been as strong for the southern grouping.

Environmental groups criticized the downlisting decision and suggested that the change in status was driven by the motivation to facilitate proposed pipeline projects in British Columbia, which would increase the animals’ exposure to ship strikes, noise and oil spills. Humpback whales are still listed as endangered in the United States under the Endangered Species Act.

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Current Status Special Concern
Past Status Threatened (2003, 1985) **Population** 22,000

“I am a little concerned that the Southern B.C. population has been overshadowed by the increase in the other segment of the population... There is reason for celebration and the success of protecting the whales from hunting. But questions remain about the variability of the recovery.”

Scott Baker, associate director of the Marine Mammal Institute at Oregon State University’s Hatfield Marine Science Center.



Sea Otter

Extirpated in British Columbia by the 19th-century fur trade, sea otters were re-introduced to the province from Alaska more than 45 years ago. They have since reproduced and expanded their range, initially growing at a rate of up to 19 per cent annually in some areas. As of 2008, there were nearly 5,000 otters in B.C. along the west coast of Vancouver Island. There is also a small population off the central B.C. mainland coast. Sea otters are doing so well that in 2009 they were downlisted from “threatened” to “special concern” under the Species at Risk Act.

The recovery of the species is triggering positive ecological changes. Where otters are absent, sea urchins have thrived, eradicating kelp beds, which are important habitat and food for fish. Otters eat urchins, and so their return has helped revive kelp beds and diverse ecosystems. Kelp forests also capture carbon and play a role controlling atmospheric carbon levels.

The return of sea otters comes at a cost, however. Voracious eaters, otters are becoming a nuisance for shellfish harvesters. They are also having impacts on other conservation efforts. Otters, for example, feed on the northern abalone, an endangered species that is also of cultural significance to native communities. Efforts are now underway to develop strategies so that reviving sea otter populations can co-exist peacefully with other species and communities.

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Current Status Special Concern
Past Status Threatened (2000), Endangered (1986)
Population 5,000

Wood Bison

Wood bison, the largest land mammal in Canada, are a subspecies of the American bison, which was hunted to the brink of extinction in the late 19th century. Wood bison suffered a similar fate, seeing their numbers fall precipitously from a once-healthy population estimated at 168,000 to just a few hundred by the start of the 20th century.

The prospect for recovery would have appeared grim in those days. But there was a glimmer of hope: a modest herd of a few hundred wood bison remained in a remote area around the boundary between northern Alberta and Northwest Territories. In 1922, this area was established as Wood Buffalo National Park, laying the groundwork for efforts to re-establish wood bison in at least some of the species’ historical range.

The first efforts focused on securing the herd. During the late 1920s, roughly 6,000 plains bison from Alberta’s Wainwright Buffalo Park were shipped to Wood Buffalo to bolster the original population. It was a controversial move, raising the risk of losing wood bison through interbreeding and the risk of new disease, both of which occurred. The wood bison, however, managed to survive as a distinct species. Careful management over time also set the stage for establishing disease-free herds in new areas.

In the early 1960s, new herds were established in the Mackenzie Bison Sanctuary, on the west side of Great Slave Lake near Fort Providence, and at Elk Island National Park, near Edmonton. Subsequent programs led to the establishment of more herds in N.W.T., Yukon, Alberta, British Columbia and Manitoba.

While wood bison have been rescued from the threat of extinction, they will never recover their status as a keystone species on their historical range. Habitat loss is a major reason. The risk of disease remains an ongoing threat as well. But the recovery has been successful enough that wood bison from Canada are being used to support reintroductions beyond the country’s borders. This month (March), for example, wildlife officials in Alaska will fly several dozen wood bison — members of a captive herd built from Canadian stock — to a remote region of the state and release them into the wild.

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Current Status Special Concern
Past Status Threatened (2000, 1988), Endangered (1978)
Population 5,000 to 7,000

