

SARA REVIEW - PLAINS BISON CASE STUDY

A Century of Recovery

Introduction

This case study provides a brief overview of efforts to recover the Plains Bison—efforts which pre-date the *Species at Risk Act* (SARA). There has been a long history of efforts to address the survival and recovery of the Plains Bison. This case study also provides an example of how recovery efforts for a single species can benefit an entire endangered ecosystem.

Plains Bison (*Bison bison bison*) is one of two bison sub-species found in North America. Historically, Plains Bison inhabited a variety of ecosystems in Canada (including grasslands, shrublands, montane meadows and wooded areas) and their range extended from the Rocky Mountains east through southern Alberta, Saskatchewan and Manitoba. Plains Bison were nearly driven to extinction following European settlement. In 1888, there were just 8 Plains Bison left in Canada and only 85 in all of North America.

Early Recovery Efforts

In 1907, with the intent to reintroduce bison to the Canadian prairies, the Canadian government purchased about 400 bison from ranchers in Montana, and kept them at Elk Island National Park, near Edmonton, Alberta. Soon after, all but 50 of these bison were moved to Buffalo National Park, near Wainwright, Alberta.

- The Buffalo National Park herd grew considerably, but in 1924, it was discovered that 75 percent of the population was infected with bovine tuberculosis, a disease introduced to North America by domestic herds of European cattle. To avoid a massive slaughter, more than 6500 young animals, which were thought to be uninfected, were moved to Wood Buffalo National Park in northern Alberta, an area that was historically within the range of Wood Bison (*Bison bison athabasca*). The tuberculosis in Buffalo National Park persisted, and by 1939, the remaining bison were destroyed and the park was eventually closed.
- Today, many bison in northern Canada range freely in protected areas. Unfortunately, the bison in and around Wood Buffalo National Park are infected with bovine tuberculosis and brucellosis, making it impossible to re-establish disease-free plains bison herds in this area.
- The animals that remained in Elk Island became the founding herd for all present-day conservation herds in Canada.

Assessment and Listing Decision

In May 2004, the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) assessed the status of Plains Bison and considered it to be threatened. The Plains Bison was not listed under SARA, however, due to concerns that listing the Plains Bison could lead to lower consumer demand for bison products, which would have detrimental economic implications for the Canadian domesticated bison industry. Moreover, since all wild Plains Bison in Canada are found within national parks, they would continue to be protected under the *Canada National Parks Act*.

Recovery Implementation and Broader Ecosystem Benefits

Despite not being formally listed as a species at risk under SARA, the federal government works with provincial and territorial governments, the bison industry and other stakeholders on the recovery of wild Plains Bison.

In May 2006, 71 plains bison were successfully released into Grasslands National Park in southwestern Saskatchewan, an area that had been home to millions of bison prior to European contact.

Because bison grazing was instrumental in maintaining the diverse patterns of vegetation that sustained a large variety of native species, the disappearance of the bison in the late 19th century had profound effects on grassland ecosystems in the Prairies. Prairie grasslands are one of the most threatened ecosystems in the country. Only 19 percent of Saskatchewan's original mixed grass prairie ecosystem remains, largely due to habitat destruction and conversion for cultivation, and much is fragmented into small parcels. Grasslands National Park protects the last remaining large contiguous area of mixed grass prairie in Canada.

Despite the fact that the species has not been listed under SARA, the successful reintroduction of Plains Bison into Grasslands National Park represents an important recovery effort for the species. Furthermore, grazing by the Plains Bison in the park is essential to the restoration of the endangered native prairie grassland ecosystem, which in turn is important to the conservation and recovery of other grassland species.

Conclusion

This case study demonstrates the possibility of implementing several elements of the SARA cycle simultaneously when enough information exists, and of implementing recovery actions before listing occurs. It also illustrates the potential for actions under SARA to advance Canada's conservation agenda more generally, because recovery actions for a threatened species—in this case the Plains Bison—can also support the recovery of an endangered native ecosystem.