

Canadian Recovery of the Black-footed Ferret

The black-footed ferret (*Mustela nigripes*) is the only native ferret in North America. Once thought to be extinct, it is now listed as one of North America's most endangered species. The IUCN Red List of Threatened Species and CITES each list the black-footed ferret as "Endangered." In the 1980s, the last remaining wild ferrets were brought into captivity to set up a breeding and reintroduction program. Over 6,800 kits have been born in six facilities within the Association of Zoos and Aquariums Black-footed Ferret Species Survival Plan. Toronto Zoo received a start up grant from Environment Canada in 1991 and has been involved in the breeding program since 1992 and is the only Canadian facility which has been breeding black-footed ferrets for release into 17 sites within the USA and 1 site in Mexico. Ferret numbers in the wild now total about 1,000 individuals (as of fall 2008), and several ferret reintroduction sites are now self-sustaining. However, these milestones only represent about 20% of the ferret numbers required to meet the goals of the recovery plan.

In 2004, the Toronto Zoo, Parks Canada, US Fish & Wildlife Service, Calgary Zoo, private stakeholders and other organizations established a joint Black-footed Ferret/Black-tailed Prairie Dog Canadian Recovery Team to reintroduce black-footed ferrets into Canada where they once ranged on the western prairies from south of Calgary to south of Regina.

The black-tailed prairie dog (*Cynomys ludovicianus*), the ferrets primary prey, is critical to the survival of the black-footed ferret and their lives are closely linked. The largest Canadian population of prairie dogs is found in Grasslands National Park, Saskatchewan, which was selected as the site of the first reintroduction of this species in Canada. After extensive research and planning, the first release occurred on October 2, 2009 when 34 ferrets were released into the National Park.

Now that the ferrets have been released onto the Canadian prairies, they will be monitored to estimate their population size, survival and reproduction. The first post-release monitoring session will evaluate immediate survival rates and the short-term suitability of Grasslands National Park as a release site. Subsequently, ferrets will also be surveyed by spotlighting every spring in late March or early April to determine over-winter survival and spatial distribution. In addition, from late July to September, a combination of spotlighting surveys and live trapping will be used to estimate annual population size and litter production.

The goal for the Canadian Recovery Plan is to have a wild population of black-footed ferrets in Canada that has at least 80% probability of persisting for 20 years and to have the black-footed ferret recovering to the point where their status can be downlisted and once again considered a native species. It is anticipated that a self-sustaining population of black-footed ferrets in Grasslands National Park will not be achieved after just one release. To increase the population, additional ferrets will be released annually for at least three years (2010-2012). Population parameters will continue to be monitored to determine if there is a need for regular or occasional releases thereafter.

Black-footed ferrets are finally back in Canada after being extirpated and last reported in 1937. Introducing the black-footed ferret into Canada is of great conservation significance by

establishing a population in its most northerly historic range. It emphasizes the role that zoos can play in saving endangered species through captive breeding, and the value of National Parks and protected places. It also represents an example of an international and multi-institutional collaboration. Here at the Toronto Zoo we are excited to be able to breed black-footed ferrets for release into our own country and all our partners are optimistic that the ferret will make a full recovery in Canada.