

BLACK-FOOTED FERRET INFORMATION SHEET

Bringing Black-footed Ferrets Back to Canada



Four week old kits



Nocturnal image



Black-tailed prairie dog



Photos: Prairie Wildlife Research, Toronto Zoo, USFWS

Once found throughout the Great Plains, the black-footed ferret is one of North America's most endangered mammals. Thought to be globally extinct until 1981, a small population was discovered near Meeteetse, Wyoming. Between 1985 and 1987, 18 wild black-footed ferrets were brought into captivity to develop a conservation breeding and reintroduction program to save the species.

Building a Future

Toronto Zoo, as part of the Black-footed Ferret Recovery Implementation Team (BFFRIT) and the Black-footed Ferret Species Survival Plan (SSP), has been involved in the ferret conservation breeding program since 1992. Within the SSP, thousands of kits (young) have been born and returned to their natural habitats in the United States and Mexico.

Before black-footed ferrets can be released, they must attend a special “boot camp” to ensure they have what it takes to survive on their own. The National U.S. Fish & Wildlife – Black-footed Ferret Conservation Centre, near Fort Collins, Colorado, offers pre-release training for our ferrets. Captive born kits are transferred to outdoor pre-conditioning pens where they live in burrows and hunt prairie dogs, their primary prey in the wild. Ferrets further rely on prairie dogs to provide burrows in which they live and raise their offspring.

So far, efforts to restore wild populations have shown much promise, with captive bred ferrets successfully reproducing in the wild.

Canadian Comeback

Black-footed ferrets were last seen on the Canadian prairies in the early 1900s. Historical data suggest the ferret's range once included the southern grasslands of Saskatchewan and Alberta. Today, prairie dog towns (black-footed ferret habitat) are restricted to a small area of Canada in Grasslands National Park (GNP), Saskatchewan.

In 2004, the Canadian Black-footed Ferret & Black-tailed Prairie Dog Recovery Team was developed with the goal of reintroducing the black-footed ferret to Canada. The upcoming ferret release into GNP represents the northern edge of the species distribution.

Calgary Zoo joined the effort in 2004 and is conducting valuable prairie dog research. After the ferrets arrive at their new prairie home, researchers from Calgary Zoo, Toronto Zoo, Parks Canada, U.S. Fish & Wildlife, and other partners and volunteers will conduct a monitoring program to see how the ferrets are adjusting to their new Canadian home.

A homecoming on the prairies is a celebration of heritage. On October 2, 2009, GNP is hosting, along with neighbouring stakeholders and partners, the return of a Canadian population of black-footed ferrets. These prairie ambassadors will contribute to a healthy and diverse native prairie home. You are invited to enter this circle of community with your appreciation and support for the conservation of grasslands.

Canadian Black-Footed Ferret Recovery Partner Statement



Same planet. Different world.

"We can sit back and watch species disappearing on this planet or we can take action! The return of the black-footed ferret to the Canadian wilds is truly an international effort and emphasizes the importance of establishing National Parks and the role zoo's have in endangered species conservation."

Contact: Maria Franke, Curator of Mammals, Toronto Zoo Phone: 416-392-5967



Parks Canada Parcs Canada

Canada

Parks Canada is the lead federal agency in the recovery of the black-footed ferret scheduled for reintroduction into Grasslands National Park (GNP) in the fall 2009. The black-footed ferret was once an integral part of the black-tailed prairie dog ecosystem uniquely present in the park. This habitat and the species held within it are part of our national heritage and the return of this extirpated species is a source of pride for every Canadian.

Contact: Joanne Tuckwell, Species at Risk Coordinator, Parks Canada Phone: 204-984-2416



The U.S. Fish and Wildlife Service (USFWS) continues to participate in and encourage the recovery of the black-footed ferret throughout its range. The species was first listed as endangered in 1967. Since the 1980s, aggressive captive-breeding and reintroduction programs support recovering ferret populations in the wild. USFWS appreciates the enthusiastic collaboration and partnership with all U.S. and Canada partners and greatly anticipates the return of the black-footed ferret to the wilds of the Canadian grasslands.

Contact: Pete Gober, USFWS Black-footed Ferret Recovery Coordinator Phone: 605-224-8693 ext. 224



Agriculture and Agri-Food Canada Agriculture et Agroalimentaire Canada



Environment Canada Environnement Canada



Saskatchewan Ministry of Environment



Saskatchewan Ministry of Agriculture



Fact Sheet



Black-footed ferret

Mustela nigripes

Description: Black-footed ferrets can be identified by their black feet, face mask and tail tip. The coat is generally coloured yellow-buff with a paler underside. The forehead, muzzle and throat are nearly white. The top of the head and the middle of the back are brown. There are just three species of ferrets in the world and the black-footed ferret is the only ferret native to North America.

Distribution: Before European settlement, this species lived throughout North America's Great Plains. In Canada, black-footed ferrets were historically found in southern Saskatchewan and Alberta. They are now listed as Extirpated in Canada with the last confirmed ferret found in 1937. Today, thanks to ongoing international collaborations, ferrets have been reintroduced to the wild to 17 sites in the US and one in Mexico.

Habitat: The black-footed ferret inhabits temperate grasslands, also known as the Great Plains in the United States and extends north into the Canadian prairies ecozone. Ferrets live almost exclusively where prairie dogs, their primary prey species, occur.

Size: Head and body length: 38-50 cm. Tail length: 11-15 cm. Weight: 950-1200g (males), 750-950 g (females).

Adaptations: Black-footed ferrets are specialized predators that have evolved to hunt prairie dogs. Their sharp teeth and strong jaws are highly adapted for hunting prairie dogs that are often as large as the ferret itself. Ferrets also sleep, hide from predators and raise their young in prairie dog burrows. Black-footed ferrets are primarily nocturnal, although they are occasionally active in the early morning or late afternoon. They have keen senses of smell, sight and hearing and are skillful climbers. If threatened, ferrets use their sharp, non-retractable claws and powerful jaws to defend themselves. Males are territorial and secrete musk to mark their territory.

Reproduction and Development: Breeding takes place from late January until early June with most successful matings occurring in March and April. After a gestation period of 42-45 days, one to seven young are born (average of three to four) in an enlarged prairie dog burrow. Baby ferrets, called kits, emerge from the burrow in early July and separate from their mother in September or early October by which time they are full size. Both males and females are mature at the age of one year.

Lifespan: In the wild, black-footed ferrets live to approximately two to three years of age and in captivity they can live between five to seven years.

Fact Sheet (cont'd)



Black-footed ferret

Mustela nigripes

Diet in Wild: Prairie dogs make up 90% of a black-footed ferret's diet. It is believed that ferrets will occasionally eat ground squirrels, other small rodents, cottontail rabbits and birds.

Zoo Diet: Toronto Zoo Carnivore Diet, rats and mice.

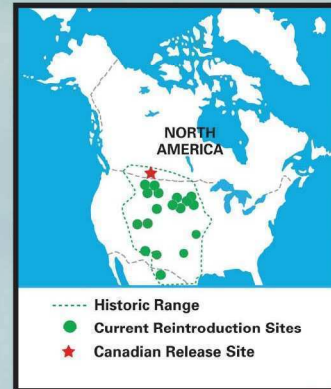
Natural Predators: Common predators of ferrets include coyotes, badgers, great-horned owls, hawks and eagles.

Threats: The arrival of European settlers resulted in a nearly complete conversion of grasslands to agricultural fields. Today urban and suburban development is also threatening black-footed ferret habitat. We do not know why ferrets disappeared from Canada although we know some of the contributing factors such as habitat loss (today, 80% of Canada's mixed grasslands have been lost), prairie dog and ground squirrel poisoning, sylvatic plague and drought. The return of the ferret onto the native prairie is a step towards recreating a whole and diverse grasslands ecosystem.

Status: Black-footed ferrets were believed to be extinct by the late 1970s. Amazingly, a rancher's dog caught a ferret which led to the discovery of a small population near Meeteetse, Wyoming in 1981. After nearly being wiped out by outbreaks of sylvatic plague and canine distemper in 1985, the last 18 wild ferrets were brought into captivity to establish a breeding and reintroduction program as the final attempt to save the species. Today ferrets have been released at 17 sites in the U.S. and one in Mexico. The first Canadian release of black-footed ferrets will occur at Grasslands National Park in October 2009. Black-footed ferrets are currently listed as Endangered by the U.S. Fish and Wildlife Service (USFWS) and the International Union for Conservation of Nature (IUCN). They were listed as Extirpated in Canada in 1978 by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC).

Captive breeding: Six facilities, including five zoos within the Association of Zoos and Aquariums Species Survival Plan (AZA-SSP), now maintain intensively managed ferret populations totalling approximately 280 animals to ensure the survival of the species and provide animals for reintroduction. The largest breeding facility is the National U.S. Fish & Wildlife - Black-footed Ferret Conservation Centre, near Fort Collins, Colorado. To date, over 6,500 kits have been born in captivity with 2,300 kits having been released into the wild so far. Toronto Zoo is the only Canadian zoo breeding ferrets and joined the program in 1992.

RETURN OF THE BLACK-FOOTED FERRET TO GRASSLANDS NATIONAL PARK FALL 2009



QUESTIONS AND ANSWERS

Q: What is a black-footed ferret?

A: The black-footed ferret is the only native ferret known to North America and is listed as one of North America's most endangered mammals.

Q: Why did this species become extinct in Canada?

A: The Canadian wild population of the black-footed ferret disappeared from Alberta and Saskatchewan in the early 20th century. Researchers are still unsure of the reasons for their dramatic decline but some of the contributing factors for extinction include habitat loss, prairie dog and ground squirrel poisoning, and drought. Many prairie species experience an increased population risk due to being at their most northern edge of their geographic distribution.

Q: How did the black-footed ferret begin the process of recovery?

A: The black-footed ferret was thought to be extinct until a small population was rediscovered in Wyoming in the 1980s. Between 1985 and 1987, 18 ferrets were brought into captivity for the purpose of setting up a captive breeding and reintroduction program to save the species. To date, 6,500 kits (young) have been born with the majority being released into the wild at 17 sites in the western United States and one in Mexico.

Q: What is the Toronto Zoo's role in this captive breeding program?

A: The Toronto Zoo joined the program in 1992 and is the only Canadian zoo to breed black-footed ferrets. As part of the black-footed ferret conservation recovery program, the Toronto Zoo has bred hundreds of kits for release in the U.S. and Mexico and will now be breeding them for release in Canada. The Toronto Zoo has also assisted in release/monitoring efforts in the U.S. and Mexico and has helped with valuable prairie dog and disease surveillance research in Grasslands National Park.

Q: How many black-footed ferrets are now in the wild?

A: There are now approximately 1,000 ferrets (as of fall 2008) in the wild in the USA and Mexico. This figure represents 20% of the numbers required to meet recovery plan goals.

Q: What happens after they are released?

A: After the ferrets are released into Grasslands National Park and surrounding areas, the ferrets are expected to disperse within their habitat. The population will require intense monitoring until the effects of ferrets on their ecosystem, and their survival rates can be understood. Monitoring will also be conducted to ensure that other species at risk populations are not adversely affected by black-footed ferret recovery. Recovery of species at risk is a long-term commitment and will require multiple releases and monitoring efforts to ensure the greatest chance of success.



Q: What is the homeland of this species in Canada?

A: Historically, the species ranged from the western prairies to the south of Calgary, Alberta, and south of Regina, Saskatchewan. It was last seen in Canada in the early 1900s and officially listed as Extirpated in Canada in 1978. The largest black-tailed prairie dog distribution in Canada is found in and around Grasslands National Park and the prairie dog is protected within park boundaries. The Calgary Zoo and the Toronto Zoo have joined forces in black-footed ferret recovery efforts and are spearheading prairie dog research including disease surveillance, in and around Grasslands National Park.

Q: Why is Grasslands National Park such a good release site for black-footed ferrets in Canada?

A: Grasslands National Park offers the only protected habitat in Canada with black-tailed prairie dog colonies sufficient to support reintroducing ferrets. The overall black-footed ferret recovery goal is to re-establish populations of black-footed ferrets throughout their historical range. Releases have occurred in the U.S. and Mexico and now it is time to release ferrets into Canada. In addition to the distribution of prairie dogs and the absence of plague, Grasslands National Park has the potential to be a small managed release site with the possibility of future expansion. The exploratory reintroduction will involve frequent monitoring to allay threats and bolster the population when necessary.

Q: When will black-footed ferrets be released into the wild in Canada?

A: The first Canadian release occurred October 2, 2009. Please check torontozoo.com for announcements and updates.

Q: Where will the released ferrets come from?

A: Black-footed ferrets to be released will have been born in the spring of 2009 at the Toronto Zoo and other participating Species Survival Plan (SSP) facilities. The Association of Zoos and Aquariums (AZA) Black-footed Ferret SSP is comprised of six breeding facilities: Toronto Zoo, The National Zoo/Conservation & Research Centre, Louisville Zoo, Cheyenne Mountain Zoo, Phoenix Zoo and the U.S. Fish & Wildlife National Black-footed Ferret Conservation Breeding Centre near Fort Collins, Colorado.

Q: How are black-footed ferrets preconditioned for release?

A: Captive born ferrets are sent to a special "boot camp" at the U.S. Fish & Wildlife National Black-footed Ferret Breeding Centre near Fort Collins, Colorado. Here they are taught how to co-exist with wild ferrets and to hunt prairie dogs.

Q: Why is it important to release black-footed ferrets back into the wild in Canada?

A: Because they – and their prey species, the black-tailed prairie dog belong there – it is their home. The black-footed ferret is a top predator in the grasslands and will assist in the restoration of a balanced and diverse grassland ecosystem. The reintroduction of this extirpated species should be a source of pride to every Canadian.

Q: Who are the partners for the black-footed ferret reintroduction?

A: The black-footed ferret reintroduction in Canada is supported by a tri-national recovery team with the United States, Mexico and Canada who will continue to strengthen this conservation partnership through joint monitoring and research projects. The following are partners: Toronto Zoo; Parks Canada; Calgary Zoo; World Wildlife Fund – U.S.; U.S. Fish & Wildlife Service (USFWS); Canadian Black-footed Ferret/Prairie Dog Recovery Team; Black-Footed Ferret Recovery Implementation Team; Saskatchewan Environment, Fish and Wildlife; Saskatchewan Agriculture, Food, and Rural Revitalization; Agriculture and Agri-Food Canada; and private stakeholders.

Photos: Toronto Zoo, USFWS



coming soon to Canada

The black-footed ferret returns to the Canadian prairies

The black-footed ferret is one of North America's most endangered animals and just a few decades ago, was thought to be extinct. Now after several years of international effort, the black-footed ferret will be reintroduced into the wild in Canada in Fall 2009. In 2004, the Toronto Zoo, in partnership with Parks Canada, US Fish & Wildlife Service (USFWS), Calgary Zoo, private stakeholders and other organizations established a joint Black-footed Ferret/Black-tailed Prairie Dog Canadian Recovery Team to look at the potential for reintroducing black-footed ferrets into Grasslands National Park (GNP) in Saskatchewan. After a lot of hard work on many levels, reintroduction of black-footed ferrets into GNP is now planned for the fall of 2009.



back from near-extinction

The black-footed ferret is the only native ferret known to North America and is listed as one of North America's most endangered species. Ferrets prey almost exclusively on prairie dogs and inhabit prairie dog burrows. Loss of prairie dogs due to wide-scale extermination, agricultural conversion of their habitat, and epidemics of sylvatic plague (black plague) have resulted in the loss of about 95% of the ferret range since the 1800s. The black-footed ferret was thought to be extinct in the mid 1970s but in 1981 there was a dramatic discovery of a small population in Meetetse, Wyoming. Between 1985 and 1987, 18 ferrets were brought into captivity for the purpose of setting up a captive breeding and reintroduction program to save the species. Six facilities, including five zoos within the Association of Zoos and Aquariums Species Survival Plan, now maintain intensively managed ferret populations totaling approximately 240 animals to ensure the survival of the species and provide animals for reintroduction. To date, over 6,000 kits (baby ferrets) have been born, with the majority being released into the wild at 17 sites across the western United States and Mexico. The Toronto Zoo joined the program in 1992 and is the only Canadian zoo to be breeding ferrets. As part of the black-footed ferret conservation recovery program, the Toronto Zoo has bred hundreds of kits for release into the US and Mexico and will now be breeding ferrets for release in Canada.

Black-footed ferret numbers in the wild now total over 750 individuals and several ferret reintroduction sites are now self sustaining. However, these milestones collectively result in only approximately 20 percent of the ferret numbers required to meet recovery plan goals.

research for survival

Two important challenges for the recovery of black-footed ferret's have been identified. The first is that there are not enough large prairie dog complexes currently existing to support more self-sustaining populations of ferrets. Secondly, the ecology of sylvatic plague is poorly understood and this disease can rapidly eliminate crucial prairie dog populations. It is thought that the recommended acreage of prairie dogs is 10,000 acres to support a ferret population. However, there are several current or potential black-footed ferret reintroduction sites that are much smaller in size (less than 5,000 acres). These sites have potential value as "nursery" sites that would be intensively managed to provide wild-produced kits for other reintroduction sites.

In Canada, the black-footed ferret historically ranged from the western prairies, from southern Alberta, and southern Saskatchewan. It was listed as extirpated (no longer found) in Canada in 1978. The largest black-tailed prairie dog distribution in Canada is found in and around Grasslands National Park (GNP) and the prairie dog is protected within the park boundaries. Calgary Zoo joined Toronto Zoo's black-footed ferret recovery efforts in 2004 and is heading up valuable prairie dog research in GNP. Toronto Zoo has been assisting with this research and also spearheaded disease surveillance research in and around the park with support from the World Wildlife Fund, the ELSA Fund, the McLean Foundation, TD Friends of the Environment, the Regina Chapter and the Moose Jaw/Swift Current Chapter and other donors.

The GNP site is currently plague free and has the potential to be a small managed release site with the possibility of expansion in the future. This exploratory reintroduction will involve frequent monitoring to mitigate threats and bolster the population with additional individuals when necessary. "As an international collaborative project, this is very exciting for the recovery of the endangered black-footed ferret in Canada" says Maria Franke, Curator of Mammals at the Toronto Zoo.

We invite you to come out to the Zoo and celebrate this upcoming monumental event being launched April 3 - 4, 2009. Please check torontozoo.com for updates and more information.



black-footed ferret game

The Toronto Zoo Conservation Connection Centre will be unveiling a new computer game featuring the black-footed ferret and other species of the prairie ecosystem. The game was produced by Parks Canada and provides lots of challenging fun and great information.

black-footed ferret fun facts

- Don't get the black-footed ferret mixed up with the domestic ferret. Although they may look alike, the pet store variety was bred from the European polecat, a close relative of the black-footed ferret
- A black-footed ferret family of four will consume an average of 763 prairie dogs per year
- Captive born ferrets are sent to a special "boot camp" at the US Fish & Wildlife National Black-footed Ferret Conservation Breeding Centre in Fort Collins, Colorado. Here they are taught how to be a wild ferret and hunt prairie dogs
- What eats black-footed ferrets?
Common predators of ferrets include coyotes, badgers, great-horned owls, hawks and eagles
- Black-footed ferrets are nocturnal (active at night). This protects them from predators and allows them to prey on sleeping prairie dogs
- Black-footed ferrets have a gestation of 42 to 43 days and the average litter size is three to four kits (young ferrets)

black-footed ferret kit



If you would like to support the Canadian black-footed ferret recovery initiatives please go to our website at torontozoo.com/donations.asp and click on the black-footed ferret box



2009 - YEAR OF THE GORILLA (YoG)

And What the Toronto Zoo is Doing to Help

Wildlife and zoo groups have named 2009 as the Year of the Gorilla (YoG) to focus attention on the urgent need to help gorillas survive. Due to loss of habitat, poaching, and other threats, gorillas, now critically endangered, may not make it into the 21st Century. Some species could even become extinct in the next few decades.

Toronto Zoo Works to Save Gorillas

- Through its Endangered Species Fund, the Toronto Zoo has allocated thousands of dollars to gorilla conservation
- The Zoo supports gorilla conservation and research programs in Africa.
- We are an active participant in the Gorilla Species Survival Program (SSP) with the result that 13 gorillas have been born here. In 2008, we introduced a new breeding female, Ngozi, to our troop to start a new generation of gorillas in North America.
- By participating in the Eco-Cell™ program, which recycles cell phones and directs the resulting funds towards gorilla conservation, visitors to the Toronto Zoo has helped to raise money for the gorilla conservation.

Visit the Zoo's troop of gorillas in the Africa Pavilion.

Want to help? Please visit torontozoo.com/conservation/eco-cell.asp and yog2009.org

Five Fun Gorilla Facts

1. Gorillas are gentle and peace-loving animals.
2. Gorillas are vegetarians (they don't eat meat).
3. Gorillas live in family groups.
4. Gorillas love to play.
5. Gorillas are born after approximately nine months of gestation, like humans.

BLACK-FOOTED FERRETS

Bringing Black-Footed Ferrets Back to Canada

A CONSERVATION SUCCESS STORY

Black-footed ferrets (BFF), slim, cute-faced creatures with masked eyes and trademark black feet, are the only ferret native to North America. They were thought to be extinct until a small population was discovered in Wyoming in the 1980's. An international captive breeding effort began in which the Toronto Zoo played an important role. This program has been very successful with animals being released back into the wild in the western United States and Mexico.

In October 2009, it is hoped that black-footed ferrets will finally return to the wilds of Grasslands National Park, near Val Marie, Saskatchewan. It's a Canadian

homecoming that has been almost thirty years in the making.

Why did BFFs Become Extinct?

Their decline is connected to wide-scale extermination of their primary prey, prairie dogs, agricultural conversion of their habitat, and epidemics of the sylvatic plague and distemper which has decimated the ferret range since the 1800's.

Toronto Zoo's Efforts

The Toronto Zoo is the only Canadian zoo to breed BFFs. Hundreds have been bred here for release in the US and Mexico and now hopefully in Canada.

Back Where They Belong

Re-establishing the black-footed ferret in Saskatchewan is an important step in restoring the ecological integrity of the prairies, which is part of our national heritage. With numerous partners and international collaboration, it will be a Canadian success story of which all Canadians can be proud.

To find out more or to donate: visit torontozoo.com/conservation or torontozoo.com/donations.asp



black-footed ferret breeding

A day in the life of a black-footed ferret keeper

It's breeding season, the most important time of the year for black-footed ferret keepers. And today is testicle feeling day - if my mother could see me now! We are one of six facilities in North America and the only Canadian zoo

that breeds black-footed ferrets with the ultimate goal of releasing them to the wild.

Ferret breeding can be very frustrating! Ferrets only come into reproductive readiness once a year. They are induced by the length of day, or the amount of light they are offered in their holding. We give our animals 14 hours of light prior to the breeding season, starting on December 21 of each year. On the first day of January we catch the female ferrets, weigh them and check to see if they have any development of their vulvas. When a female's vulva is five millimeters, we take a cell sample to see if she is in full oestrus and ready to breed.

Now; the boys are a different matter. Males don't have testicles for most of the year and they start to show them only prior to breeding season. At the beginning of January we catch the males and weigh them. We weigh both sexes to be sure they are at optimum breeding weights. We check the male's testicles by measuring the width and the length and then feel for firmness, as the testicles do not produce

sperm until they are firm. This is an interesting feat as they are spinning in the catch cage! Males usually are firm by February.

So, now we are ready to go and the nail biting begins. The females are all ready to breed and, even though with most of the guys the spirit is willing, the body is not. The U.S. Fish and Wildlife Service, who actually owns our animals, has a geneticist who works out the best breeding combinations and sends us a list of our first, second and third choices of matings. This is the part I usually lose sleep over! Lily doesn't like Jean-Luc. Samantha would really like Ollie, but he is busy with her sister, Hollie. Samantha and Hollie should really go to Schmud but he is resting after several long nights with Aftie!

Finally I get the pairs together to produce the most desirable kits and run back to our video monitors to watch the action and cheer them on. Ferrets breed for about one hour. Then I check for sperm and if it's positive, the female is left with that male for five days under observation. I then move onto another male and female and start the whole process again!

Forty-two and a half days later we are blessed with kits. I have to admit I was disappointed the first time I saw them as they are born hairless. But, in a couple of weeks they start to get hair and open their eyes. From then on they are nothing but cute and funny to watch. In 60 days they will be as large as their mothers. At about 90 days they fly to the U.S. to be conditioned in pre-release pens and are released into the wild. This year's kits will hopefully be the first black-footed ferrets to be reintroduced to the Canadian prairies and start the first Canadian wild born generation of this endangered species.

African Rainforest Gorilla Training Program

Training benefits our Western lowland gorillas in many ways



One of the most rewarding aspects of zoo keeping is interacting with the animals. Psychological Husbandry is the new buzzword for any aspect of animal keeping that impacts the behaviour of the animals. Generally we divide our program into two categories, enrichment and training. Enrichment is aimed at keeping the animals mentally stimulated and training involves modifying the behaviour of the animals.

At the Toronto Zoo we have an overall enrichment and training plan as mandated by the Association of Zoos and Aquariums and developed by the Zoo's Animal Care Branch. The African Rainforest plan identifies the gorilla as a top priority for training, because these animals are very

intelligent and have specific health needs that can be addressed using training. Gorillas in captivity suffer from cardio vascular disease just as we do and it is the leading cause of premature death. Like us they also suffer from being overweight.

It's important to regularly weigh the animals, so the gorillas are now trained to go and sit still on a scale. They are also trained to open their mouths for regular inspection of their teeth and to present body parts such as feet, ears, and fingers for inspection or possible treatment. Silverback gorilla Charles has even been trained to accept ultrasound diagnosis of his heart.

Subira, one of our adolescent males who was recently transferred to Granby Zoo, was trained by gorilla keeper Ali Vella, to sit quietly and accept an injection. This meant that Subira could be anesthetized for transfer without a lot of stress. The introduction of Ngozi, the new female gorilla was also a very smooth operation, thanks to training sessions that allow keepers to reinforce calm, positive behaviour. Still, Ngozi is a very savvy gorilla who knew when to submit and when to stand her ground!

Our training program at the Toronto Zoo is still developing but we are really starting to see results. Nicole Presley is co-coordinating the program and her initiative is paying off well. Animal Care looks forward to many more successes over the next few years.



GENERAL INFORMATION SHEET

Opening Date:

Thursday, August 15th, 1974.

Original Cost:

\$22 million, plus \$6 million for the animal and plant collections.

Staff:

265 permanent full-time, 330 part-time or seasonal staff and 226 full-time volunteers.

Attendance:

Approximately 1.3 million visitors per year.

Area and Layout:

284 hectares (710 acres) divided into six zoogeographic regions: the Arctic, IndoMalaya, Africa, Americas (North & South America), Eurasia and Australasia.

Animals:

- **Collection:** 16,000 animals (including invertebrates and fish), representing 491 different species, not including nvertebrates.
- **Largest:** Tara, an African elephant, weighs 3,992 kg (8,800 lb) and stands 2.5 meters (8 ft 6 inches).
- **Smallest:** a worker Leaf-cutter ant is about 7.5 mm (.3 inches) long.
- **Most Adopted:** snow leopard, elephant, and red panda.

Feeding the Animals:

Professional nutritionists oversee the preparation of the 430 different “menus” daily at a cost of approximately \$1,400,000 Canadian per year. The design of these Zoo diets is based on international Zoo nutrition research and practices. The Animal Nutrition Centre, in collaboration with Guelph University, continuously designs and executes several scientific Zoo nutrition research projects.

Animal Health:

Three full-time veterinarians, two veterinarian residents and four technicians perform 675 immobilizations, 100 surgeries and examine about 2,250 specimens each year.

Zoo Exhibits:

Toronto Zoo is known for showcasing one of the largest collections in the world through state-of-the-art exhibits.

Fun Facts:

1. An elephant’s trunk has about 40,000 muscles.
2. Who enjoys a muffin for breakfast? The Western Lowland gorillas!
3. A jellyfish is 95% water.
4. It’s the daddy seahorse who carries the babies and gives birth.



We're Easy to Find:

- Take Hwy 401 East or West to Meadowvale Rd. in Scarborough (Exit 389)
- Go north on Meadowvale Rd. and follow signs to Zoo entrance
- For T.T.C. (public transit) call 416-393-4636 or visit ttc.ca
- For Go Transit call 416-869-3200 or visit gotransit.com

Hours: Open daily except December 25th. Hours change seasonally. Call 416-392-5929 for hours of operation or visit torontozoo.com.

Food Options*: Several restaurants and snack bars throughout the Zoo site.* Please see torontozoo.com for a full list of food service options. Picnic lunches are also permitted.

Assistance: Family Centre for diaper changes and medical assistance. Rental* strollers, wagons and wheelchairs available at main entrance.*

Admission: General (13-64) \$21, Seniors (65+) \$15, Children (4-12) \$13, Children (3 and under) free. Parking fees apply.

Prices subject to change without notice.

Corporate Functions: Bring your herd to the wildest venue in Toronto. Call (416) 392-5940 to book your next Group Event today!

*Seasonal schedules apply. Weather permitting. Subject to change without notice. Visit torontozoo.com for more details. **OPEN YEAR ROUND.**

For More Information Contact:

Katie Gray, Supervisor of Public Relations

At (416) 392-5941

kgray@torontozoo.ca.

361A Old Finch Avenue

Scarborough, ON M1B 5K7

Information: Tel: (416) 392-5929

torontozoo.com



the Zoo's
big chill

As the threat to the Arctic environment grows,
a new home for the Zoo's polar bears and other arctic
animals takes shape

the magic of polar bears

Polar bears - you gotta love them. Something about their white and furry appearance tugs at our heartstrings. We imprint their image on our toonies, feature them in commercials, make them the most popular zoo animal to visit and build statues to them. For the Arctic aboriginal peoples, too, these animals have long played an important cultural and material role.

Even though we're fully aware that these bears are the largest land predators, twice as big as lions or tigers, with an adult male weighing up to 1,500 pounds, we're still charmed by them, even though they could take us out with one casual swipe of a colossal paw.

polar bears in danger

And yet, in as few as 100 years, these beloved animals may, according to the IUCN (International Union for the Conservation of Nature), "be extirpated from most of their range."

Polar bears are uniquely adapted to snow and ice. They hunt their primary food source, ringed and bearded seals from the sea ice. The rising temperatures caused by global warming are causing the ice to melt before the bears have been able to build the fat reserves they need to survive the long lean months of the late summer and early fall.

Apart from hunting, polar bears also use the ice for courtship and mating. Other fallout includes lower reproductive rates, lower survival rates for cubs and juveniles, poorer physical condition, collapsing dens, and increased disease which tends to flourish in a much warmer climate.

As if that isn't bad enough, temperatures in the Arctic are rising at twice the rate of that of the rest of the world, placing not only the bears, but also the entire ecosystem at risk. Ice is melting, for example, three weeks earlier in the western Hudson Bay area than it did 30 years ago. The population there has dropped 22% since the early 1980's and this is directly linked to early ice breakup. Last summer, the ice that melted was as large as the size of Alaska, Texas, and the state of Washington combined.

Polar Bear International

One of the organizations that has stepped up to the plate is Polar Bear International (PBI). Founded in 1992 by a Canadian, its members of the board now come from across Canada and the United States. Operating on a shoe-string budget, they are able to steer donated funds directly to vital polar bear projects. One of these projects is an educational program called Leadership Camp. Every year more than a dozen top students from four different countries embark on a remarkable adventure in Churchill, Manitoba, exploring issues relating to polar bears, humans, and the environment, thus creating the leaders of tomorrow on northern conservation issues.

tomorrow's arctic leaders

"Every year, we select a group of bright, motivated students who are eager to learn about the bears", says Robert Buchanan, PBI's President. "After they return, they share what they've learned through talks, slide presentations, and media interviews. It's a way to create 'Ambassadors of the Arctic' who can then help people understand the importance of the Far North and the role it plays in the health of our planet." This year's graduates will focus on getting communities to reduce their carbon footprints as a way to restore the polar bears' habitat.

Leadership Camp takes place during the annual fall polar bear migration. Selected students from around the world will meet scientists and learn about their work. They'll be visiting a maternal den site, communicating with their peers through online journals, discussing the implications of climate change, learning how local residents coexist with the bears and participating in science-conferencing classrooms which link polar bear scientists in the field with students in remote locations.

This year, the Toronto Zoo chose Emily Hawling, a 17-year-old student volunteer, to participate in the program. "She's been a student volunteer for several years, is interested in science and is comfortable speaking to the press," says Caroline Greenland, Toronto Zoo Manager of Education. Emily is the only student from Canada to participate in this program.



Visit the polar bear

Visit polarbearsinternational.org

- view the polar bear web cam - join the annual gathering of polar bears in Churchill, Manitoba
- get polar bear FAQ's and information about Polar Bears International



Emily Hawling

- follow the movements of satellite collared bears on the Beaufort Sea
- find ways you can help polar bears



Same planet. Different world.

TUNDRA TREK – NOW OPEN!

The 10-acre Tundra Trek, the Zoo's awesome new Arctic adventure, is now open and animals from the Far North are getting acquainted with their human pals from Down South! Anchored by the Polar bear exhibit, the Tundra Trek will also feature northern denizens such as Arctic wolves, Reindeer, Snow geese, and Snowy owls.

Our three returning Polar bears, Aurora, Nikita and Inukshuk, have eased into a state-of-the-art exhibit, designed just for them and including five times the space, a bear den where visitors can go eye to eye with the majestic inhabitants, a maternity den, spectacular underwater viewing from an ice cave and a "green" roof.

Be on the lookout for features such as a complete whale skeleton, the Wolf Bridge, providing a close-up and intimate look at the world of the Arctic wolf, a Goose Camp detailing the life experiences and contributions of Native Canadians, Arctic fox burrows big enough for kids to bound through, and audio components delivering authentic animal sounds at the push of a button. Visitors can now relax in the Caribou Café restaurant and Polar Patio overlooking the Arctic wolves.

With the Tundra Trek, our visitors can look forward to enjoying some serious Arctic adventures with real Arctic animals, set in the landscape of the Tundra habitat. Free with Zoo admission, the Tundra Trek will also help our guests understand the impacts of climate change and global warming.



Aurora



Inukshuk



Nikita

Polar Bears

The Bears are Back! Our newly arrived Polar bears are Inukshuk (male), Nikita (female) and Aurora (female). Polar bears are listed as Conservation Dependant in the wild. Now visitors can enjoy these magnificent creatures of the north in their newly refurbished exhibit, five times larger than the previous one, and featuring a bear den where visitors can go eye to eye with a live Polar bear, state-of-the-art breeding and maternity areas and an environmentally friendly green roof.

Inukshuk: Our male Polar bear was also orphaned in the wild near Hudson's Bay where he was rescued – he spent a night in a jail cell - by the OPP. Inukshuk was donated to the Toronto Zoo by the Ontario Ministry of Natural Resources. He arrived in Toronto on Feb. 26, 2003 and was loaned to the St. Felicien Zoo in Quebec. As a male, Inukshuk is considerably longer and leaner than the females, with more elongated facial features.

Aurora and Nikita: The females were orphaned in the wild in Polar Bear Provincial Park. They were donated to the Toronto Zoo by the Ministry of Natural Resources and arrived on February 18th, 2001. They were loaned to the St. Felicien Zoo and then to the Cochrane Polar Bear Habitat and Heritage Village on April 20th, 2004. The girls are easy to tell apart: Aurora is larger and her coat is longer and yellower; Nikita is smaller, with a shorter, whiter coat.

Arctic Wolves

In winter, these animals are pure white; in summer greyish-brown. Arctic wolves are very social animals who live in packs for hunting and mutual protection. There is an alpha male and an alpha female, who are the only ones in the pack to reproduce. All of the adults attend to the rearing and education of the young. Watch the pack interactions from the Wolf Bridge or as you're relaxing in the Caribou Café on the Polar Patio.

Arctic Foxes – NEW SPECIES (On Display at End of August)

While most of these beautiful fellows have white fur in winter and two-toned brown fur in summer, a small proportion, around 5%, have stunning coats of pale blue-grey in winter and darker gray in summer. Breeding pairs maintain den systems with several exits and entrances. After a gestation period of 49 to 57 days, a litter of 8 to 11 kits is born from April through June.

Reindeer

Reindeer and caribou are the only deer species where both sexes have antlers, which they use mostly for defense against wolves and to clear away snow to get at food. One bull may have a harem of up to 40 cows. Reindeer are protected from the cold by thick coats of fur, hollow hair for extra insulation, short, compact bodies, and hooves that double as snowshoes. Since they dislike heat, in summer we provide cold showers to cool them off.

Snowy Owl -

This bird has the distinction of being one of the heaviest of North American owls and the largest in overall size. The females are larger than the males. This efficient bird of prey nests mostly north of the Arctic Circle. Some Snowy owls migrate south in winter, others don't. These raptors swallow small prey whole. Stomach juices digest the flesh, bones, teeth. Anything indigestible is regurgitated in pellet form. They will eat practically anything that comes close enough to catch.

Lesser Snow Geese – NEW SPECIES

Over 2 million of these geese nest in Canada's north. Because the nesting colonies are spread over a huge tract of the Arctic, they use many different and lengthy migratory pathways, noisily flying in their undulating and shifting U-shaped formation, composed of family groups, moving both day and night. These monogamous birds return to the same nesting site year after year. The Lesser Snow Goose is called "Lesser" because it is slightly smaller than the Greater Snow Goose, and nests farther south and west.

Tundra Trek Construction Timeline

Start Date: 2007-08-21

Finish Date: 2009-07-20

Total Value of Project: \$13.5 million.

Planning for the Project:

RFP (Request for Proposal) for design consulting services was issued in January of 2005
Design consulting services awarded to CLR on April 21, 2005

Consultants:

Designer (Prime Consultant):	clr Design (Philadelphia, PA)
Civil Engineer:	Valdor Engineering, Inc. (Woodbridge, ON)
Structural Engineer:	Carruthers & Wallace (Toronto, ON)
Mechanical/Electrical/Plumbing:	Stantec Engineering (Toronto, ON)
Interpretive Design:	BaAm Productions (Toronto, ON)
Life Support/Water Systems Engineers:	T. A. Maranda Consultants, Inc. (Edmonds, WA)
Associated Architect:	Balind Architect (Toronto, ON)
Associated Landscape Architect:	Landplan Collaborative Ltd. (Guelph, ON)
Cost Estimating:	Vermeulens Cost Consultants (Richmond Hill, ON)
Contractor:	Terrasan Environmental Solutions Inc. (Toronto, ON)

torontozoo.com.