

Broken Promises?
A report on the well-being of
animals at the Greater Vancouver Zoo

Executive Summary and Recommendations

In 1997 two reports (by Zoocheck Canada and UK veterinarian Samantha Lindley) called on the Greater Vancouver Zoo (GVZ) to improve the conditions for the animals it holds. In 2003 it appears few improvements have been made and, consequently, the animals' well-being may be at risk. The case of Tina the elephant, kept for 30 years in a small, barren pen, is just one example of the problems at the zoo. This report, by the Vancouver Humane Society and Zoocheck Canada, has found that:

Many of the animals lack enough space to engage in natural behaviours. For example, birds are held in 'no-flight' cages, and large snakes are confined in pens that barely exceed their body length. Arctic wolves are confined in 450 square-metre enclosures, remarkably small considering the 1,600 square kilometres that a wolf pack would inhabit in the wild.

Many of the animals appear to be suffering from boredom and lack of stimulation. For example, monkeys are kept in small poorly equipped cages lacking enough swings, perches, natural branches and other features to keep them occupied. Lions, tigers and wolves have all been observed pacing for long periods along their fences – indicating possible “stereotypic behaviour” triggered by boredom and frustration. A lone cockatoo has plucked its feathers out to the point of bleeding – also a possible indication of boredom and frustration.

Many of the animal enclosures become waterlogged and excessively muddy during wet weather, leaving animals standing in water for long periods. The west coast climate ensures that this will remain a problem unless the zoo takes remedial measures.

Bears and wolves are being held in the same enclosure. This practice could cause conflict between the two species and create high stress levels. The wolves have been observed chasing a young bear in the enclosure.

The GVZ has not kept public promises to make improvements. In September 2000 the zoo announced a \$1-million expansion of Tina the elephant's enclosure. Plans for a 10-acre pen with hills, gullies, grassland, pond and constantly changing features were publicized, but were never carried out.

The zoo is breeding animals, producing surplus animals for which no accommodation may exist on maturity. Within the last three years the zoo has allowed its lions to breed and produce three litters of cubs. In July 2003 the zoo was searching for homes for the second and third litters (totaling five cubs) as no space was available to keep them with the three adults already held. A number of other species are also being allowed to breed. Young animals are promoted as an attraction at the zoo via a special board recording monthly births.

There is no federal or provincial legislation defining appropriate animal welfare standards for zoos, leaving exotic animals without the legal protection that might enhance their welfare.

Recommendations

The findings of this report necessitate a major change of direction by the Greater Vancouver Zoo. The commentary in this report should not be read as an acknowledgment of the appropriateness of keeping wildlife in captivity in given conditions. The Vancouver Humane Society and Zoocheck Canada object in principle to the keeping, confinement, use, exhibition and performance of wild animals in captivity, as captivity is not in the best interests of those animals. Nor does the exhibition of live wildlife provide a positive educational experience for the general public. Wild animals removed from their natural environment and ecological context bear little or no meaningful resemblance to their counterparts in the wild.

Nonetheless, animals are kept in zoos and similar captive situations at present and for these animals, improvements in the conditions to which they are subjected are urgently needed. The onus must be on the owners/operators of facilities who choose to keep these animals captive, to provide for them the best possible care in the circumstances.

The following recommendations therefore cover both short and medium term action we think necessary. The Greater Vancouver Zoo should:

- **Move away from its current function (as a traditional zoo providing animals for public entertainment) and focus its operations on providing a sanctuary for native species that cannot be released into the wild (i.e. injured, orphaned or abandoned animals). This would require the zoo to:**
 - **Stop the breeding of all the species it holds**
 - **Stop further acquisitions of exotic species and phase out their keeping (by not replacing animals after they expire and, when possible, by transferring exotic animals to accredited sanctuaries and other suitable locations)**
 - **Redevelop the zoo's property to provide accommodation appropriate for native species.**
 - **Develop and implement a detailed site development plan and a timetable to achieve these changes and make that information publicly available.**

(Note: See Appendix for sanctuary criteria)

- **Develop a comprehensive environmental and behavioural enrichment plan for the zoo that addresses the enrichment needs of all animals in the collection.**
- **Move animals that are currently housed in under-sized accommodation to larger cages and enclosures.**

- **Provide separate, spacious enclosures for black bears and Vancouver Island wolves.**
- **Move animals to alternative facilities if they can provide better care for individual animals, as in the case of Tina, the elephant. The GVZ should act in the interest of the animal rather than seek any financial gain through either keeping the animal in inadequate conditions or transferring it to an inappropriate facility.**
- **Take immediate remedial action to prevent the waterlogging of animal enclosures during wet weather.**

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Introduction

During May and June of 2003 the Greater Vancouver Zoo (GVZ) found itself at the centre of public and media attention over the fate of Tina, an elephant held at the zoo for 30 years. Tina's poor condition and the zoo's initial plans to send her to yet another zoo provoked widespread condemnation, ultimately leading the zoo to agree to place Tina in a sanctuary. The decision has been widely welcomed and, for Tina, it has been a happy ending.

But Tina is just one animal and her story just one account of a captive animal's life. Remaining behind the zoo's fences and in its cages are hundreds of other animals. This report examines their lives and conditions. It compares the zoo's current facilities with the findings of two 1997 reports on the GVZ, one by Zoocheck Canada and the other by Samantha Lindley, a UK veterinarian and specialist in animal behaviour. It also looks at how current facilities could and should be improved.

The 1997 reports documented a number of problems and called for substantial improvements. Subsequently, the zoo promised significant investment in better facilities. Did anything change? Were the promises kept? This report answers those questions and raises another one: Can there be confidence in the Greater Vancouver Zoo's ability to improve the environment of the animals it holds?

As the outcry over Tina showed, the people of British Columbia want the zoo to be accountable – to them, but most importantly to the animals, who cannot voice their needs and desires.

On behalf of the animals, this report holds the Greater Vancouver Zoo to account.

NOTE: The Vancouver Humane Society and Zoocheck Canada object in principle to the keeping, confinement, use, exhibition and performance of wild animals in captivity, as captivity is not in the best interests of those animals. Nor does the exhibition of live wildlife provide a positive educational experience for the general public. Wild animals removed from their natural environment and ecological context bear little or no meaningful resemblance to their counterparts in the wild. Indeed, there is no empirical data that proves that any positive education is derived from observing animals in captivity.

Nonetheless, animals are kept in zoos and similar captive situations at present and for these animals, improvements in the conditions to which they are subjected are urgently needed. The onus must be on the owners/operators of facilities who choose to keep these animals captive, to provide for them the best possible care in the circumstances.

Background – a zoo stuck in the past

The Greater Vancouver Zoo, in Aldergrove, BC, has been in operation under various names since 1970. It accommodates more than 100 species of native and exotic wildlife. The zoo has been controversial since its creation, with media criticism of its practices leading to a provincial government investigation in 1994. In 1997 a report by a veterinarian specializing in animal behaviour (commissioned by the Vancouver Humane Society) found that some of the zoo's animals exhibited "classic psychotic behaviour". Later that year a report by Zoocheck Canada concluded that the GVZ was "a menagerie-style animal collection" and needed to improve sub-standard accommodation for a number of animals.

Although some improvements were made in the late 1990s, progress appeared to slow to a virtual halt in 2000. Despite publicly announced claims about forthcoming major investment, few improvements seem to have taken place. Consequently, many of the animals continue to be kept in conditions that fail to fully satisfy their biological and behavioural needs.

While the GVZ's conditions have remained virtually static, scientific understanding of animals in captivity has moved ahead. It is now accepted that inappropriate captive environments are detrimental to the health and well being of animals. This is supported by the widespread observation of zoo animals exhibiting "stereotypic behaviour" – prolonged repetition of apparently purposeless activity, such as pacing, head-bobbing and rocking. Such behaviour is considered indicative of stress, boredom and frustration. (Dr John Gripper, Zoos in Ontario – an Investigative Report 1995; Lawrence and Rushden)

Some zoos introduce a range of features to their animal enclosures, or they employ other kinds of methods and strategies, to encourage the expression of natural movements and behaviours thereby reducing the negative impacts of captivity. This "environmental and behavioural enrichment" only partially compensates for the loss of stimulation and activity that would be available to those same animals if they were in the wild. The GVZ has failed to invest in significant enrichment for many of its animals, leaving them in conditions that impact on their well-being.

In the absence of provincial or federal legislation defining appropriate animal welfare standards it is useful to refer to other countries to find meaningful criteria for measuring animal welfare. The United Kingdom has published the 'Secretary of State's Standards of Modern Zoo Practice'.

These standards are largely based on a set of principles (known as the Five Freedoms) that aim to ensure captive animals are:

- Free from hunger and thirst
- Free from discomfort
- Free from fear and distress
- Free from pain, injury and disease
- Free to express normal behaviours and to experience normal social groupings

Some of the animals at the GVZ are being denied a number of these freedoms – a situation that must surely be unacceptable in any society that cares about the suffering of animals.

Without a refocusing of priorities and a substantial investment of time, energy and resources aimed at improving conditions, including space, environmental enrichment and other aspects of accommodation and care, the GVZ will remain “a menagerie-style animal collection”. Without a new philosophy based on principles such as the Five Freedoms, it will remain mired in its less than illustrious past.

Key issues – has the zoo learned anything?

Breeding

The zoo has been breeding a number of species – a practice that leads to surplus animals and serious problems with their disposal. A telling example concerns the zoo’s lions, which have been allowed to breed and have produced three litters in the last three years. At time of writing the zoo was trying to dispose of five cubs, which, as they mature cannot be accommodated in the same enclosure as the three adults (one male, two female). Zoos and sanctuaries across North America currently have virtually no capacity to take lions – a problem created largely by the irresponsible breeding of these animals by zoos and the subsequent ‘dumping’ of the cats once they are mature.

Breeding is not confined to lions. In the summer of 2003 the following animals at the zoo had produced offspring:

- Lions
- Ibex
- Aoudads
- Buffalo
- Zebra
- Elk
- Black Buck
- Oryx
- Sika Deer
- Yak

The zoo promotes these young animals as an attraction (via a special board announcing monthly births). With limits to the zoo’s space, the question must be asked: “What happens to all the additional animals introduced as a result of the zoo’s own breeding programs?” In the case of the zoo’s lions it appears this question was not considered before breeding was allowed to take place.

Lack of space

“The current live animal collection should be reduced. Existing cages and enclosures should then be expanded to provide increased space for the animals that remain.” (1997 Zoocheck Canada Report)

Space remains a problem for a number of animals at the zoo, with a number of species enduring accommodation that severely restricts the expression of natural behaviours. Most recently, Tina the elephant’s undersized, grossly inadequate enclosure has been publicly exposed as a contributing to her serious foot problems. But other species, including birds, wolves, big cats and reptiles could benefit greatly from increased space. (See comments in individual animal sections.)

Environmental and Behavioural Enrichment

“The lack of species appropriate environmental/behavioural enrichment was particularly concerning.” (1997 Zoocheck Canada Report)

Sadly, the above statement remains true in 2003. Many of the zoo’s animals remain in cages or enclosures that are barren and devoid of significant sources of stimulation. Without measures to provide some compensation for the natural stimulation they are missing, many animals are at risk of becoming bored, frustrated and potentially psychologically damaged.

Waterlogging of enclosures

“The waterlogged quality of the GVZC grounds was impossible to miss. A majority of the paddock floors were comprised of damp earth and mud with substantive pools of standing water.” (1997 Zoocheck Canada Report)

During March 2003 it was evident that the waterlogging problem at the zoo had not been resolved. Many of the animals were standing in water or mud for long periods and had few dry areas to move to. The west coast climate is likely to ensure this remains the case unless the zoo takes remedial measures.

The animals - then and now

Tina the elephant

“ The Asian female (Tina) displayed a classic "head bobbing" stereotypy, while the African female displayed a repetitive pacing pattern incorporating a ritualized head turn. The GVZC should take steps to relocate both elephants to more suitable physical and social accommodation elsewhere as soon as possible. The current conditions are totally unacceptable.” (1997 Zoocheck Canada report)

The unacceptable conditions never changed, Tina’s head bobbing continued and she was not relocated for another six years. She remained in a one-third acre enclosure, which is

featureless, with the exception of a stump, tire and post. The enclosure's sand-covered surface was frequently waterlogged, ensuring that Tina's time outside was sometimes spent standing in water for a number of hours. Her small barn has a concrete floor with rubber mats and no sources of stimulation.

Barren environments such as this are completely unsuitable for elephants, which are intelligent, socially complex animals. In the wild they live with their offspring in tightly knit family groups. For most of her last year at the zoo Tina had no contact with other elephants, leaving her bored and under stimulated.

Tina also suffered from chronic foot infections that affected her ability to walk. This was directly related to lack of space, exercise and stimulation.

Tina endured these conditions for decades. The 1997 report by Samantha Lindley BVSc MRCVS, a UK veterinarian specializing in animal behaviour, described Tina as "disturbed" and recommended that she "be moved to a facility or facilities which have larger numbers of elephants..." The zoo was given this information but took no action.

In September 2000 the zoo announced a \$1-million expansion of Tina's enclosure. Plans for a 10-acre pen with hills, gullies, grassland, pond and constantly changing features were publicized, but were never carried out.

Following a campaign by the Vancouver Humane Society and Zoocheck Canada, the zoo agreed to send Tina to the Elephant Sanctuary in Tennessee in August 2003. Media coverage of the campaign exposed Tina's poor physical and psychological health and the grossly inadequate conditions she was living in.

The sad history of Tina's time at the Greater Vancouver Zoo and its failure to keep its promises to improve her accommodation and care calls into question the zoo's ability and intention to provide appropriate care for animals. Tina will spend the rest of her days in a sanctuary with the space, companionship and stimulation that all elephants require. But what about the other animals at the zoo?

Black bears and Vancouver Island Wolves

"While the new exhibit will be an improvement, it too will be inadequate over the longer term..." (1997 Zoocheck Report)

The "new" bear enclosure under construction in 1997 now accommodates seven black bears and 14 Vancouver Island wolves. Having these two species co-habit in the confined space of a single enclosure is questionable. The wolf pack has been observed chasing one of the younger bears, suggesting friction between the two species.

Paul Paquet, a carnivore expert at the University of Calgary, has noted that there is conflict between the two species in the wild, with wolves having been known to kill bears. He states:

"I have no doubt that bears living with wolves are experiencing a high degree of stress. Wolves do prey on bears and bears occasionally on wolves. This is likely engrained in the

evolutionary history of both species, which suggests strongly that cohabitation requires ongoing vigilance by both species. The resulting stress is likely exacerbated by environmental conditions common to captivity. Specifically, even under the best of circumstances, captive carnivores exhibit hyper-aggression and hyper-sexual activity. The levels of these behaviors usually change seasonally with reproductive behavior. In other words, bears and wolves living in captivity are already "unnatural" under stress. Placing the two species together in the same enclosure only adds to the problem.” (Paul C. Paquet, Ph.D.)

This situation needs to be addressed, with appropriate space being given to each species to eliminate stress and potentially dangerous conflict.

The big cats

“A program of environmental/behavioural enrichment should be developed and implemented for the large cats.” (1997 Zoocheck Canada Report)

The zoo’s big cats (i.e. lions, Siberian tigers, jaguar) continue to lack an appropriate level of mental and physical stimulation. All the cats were observed pacing along the fence lines of their enclosures, often an indication of frustration and boredom.

As they cannot engage in the bulk of their natural behavioural regime, including the hunting of prey and patrolling a territory, this deficit must be compensated for. For example, the territory of a Siberian tiger in the wild may be as large as 170 square kilometres (the GVZ tiger enclosure is under 5000 square metres) allowing it to roam and hunt its prey of elk and wild boar. Life for the tigers at the GVZ is not remotely close to these natural conditions. They live in a very confined space, so efforts must be made to encourage the animals to express at least some of their natural movements and behaviours. Captive wild animals must not be allowed to become frustrated and bored.

Environmental enrichment features in more progressive zoos include, but are not limited to, the use of vertical space (e.g. high wooden platforms, climbing structures), the addition of pools (a necessity for tigers), streams, waterfalls and landscaping to increase surface complexity (i.e. gullies, hillocks, buried culverts). Behavioural enrichment strategies include the provision of toys (e.g. boomer balls) and work-for-food games (such as suspending treats from bungee cords to encourage cats to jump). Other programs involve olfactory stimulation, in which a variety of smells are placed in varying locations in the enclosure from time to time. These can include food, the scents of other animals or even catnip.

Giraffes

“There should have been extensive amounts of browse cut and continually provided for this animal who was, instead, reaching down over the enclosure to interact with the public and looking for anything which would occupy its attention.” (1997 Lindley Report)

The giraffes (there are now two) are still looking for something to occupy their attention. They are held in a treeless enclosure, with no features that would allow them to engage in behaviours

consistent with life in the wild. There was no evidence of high browse being provided during observation on three separate occasions.

In nature giraffes live in both open savanna areas and wooded grasslands in sub-Saharan Africa. They live in loosely bound, scattered herds of 10-20 and may contain any possible combination of sexes and ages.

The zoo's giraffe enclosure needs to be enlarged and its quality increased substantially to compensate for the lack of stimulation and relatively stark conditions. This should include, but not be limited to, the daily provision of high browse and the addition of living trees to the enclosure.

Reptiles and amphibians

“In some cases, the animals are so confined they can only move a distance barely exceeding their body length. This restriction eliminates the ability of the animals to function normally and engage in natural behaviours. Many specimens have been reduced to being nothing more than living museum pieces.” (1997 Zoocheck Canada Report)

Nothing has changed. The zoo's 'vivarium' still holds a number of reptiles and amphibians in generally small, glass-fronted pens, surrounded by plastic foliage. Such conditions are inadequate for many species. Space matters, as Clifford Warwick, a leading academic in the study of reptiles, has pointed out:

“Range studies of reptiles in nature have made clear that these animals are by no means inactive. In fact, not by a long way. Turtles, tortoises, lizards and snakes frequently wander distances measured in hundreds of metres or kilometres per day.... A reptile in a cage, no matter how spacious and environmentally diverse the cage may be, will still notice it and will be adversely affected by it.”

In the GVZ's vivarium there are snakes up to 13 feet long that are confined to tanks measuring less than one square metre. Consequently, they will never be able to stretch to their full length or move naturally, much less cover the distances they would in the wild. Observation of the reptiles in the vivarium will find virtually all of them either completely static or exhibiting minimal movement. They remain “nothing more than living museum pieces” and should be moved to larger accommodation as soon as possible.

Psittacine birds

“These cages were poorly designed and undersized, providing the birds no opportunity for flight.” (1997 Zoocheck Canada Report)

The zoo continues to keep a number of psittacine birds in poorly designed cages that provide little or no opportunity for flight. One bird, a cockatoo, appears to be in especially poor condition. It has been observed plucking out its own feathers, to the point where substantial areas of flesh are exposed and bleeding has occurred. Although feather plucking can have a mix of causes, boredom is often a key contributing factor. According to one UK study:

“Boredom or lack of routine is a very common cause of feather picking. In comparison with the bird's natural life in the wild, life in a cage or a household, when owners are often absent for much of the day may be similar to solitary confinement for a human. A normal bird in the wild spends 50 % of the day flying to and from and searching for food. Thirty percent of the day is spent playing with the birds flock mates, and 20% is spent preening. A captive bird does not have to hunt for food, often has no flock mates to play with, and hence will fill more of the day with the preening which may then become compulsive. This should be addressed with environmental enrichment. If the bird can be kept occupied and active, these problems are less likely to arise.” (Clinical Approach to Feather Plucking, Neil A Forbes, BvetMed Dip ECAMS Cbiol MIBiol FRCVS).

The birds should be transferred to accommodation that allows flight and an enrichment program should be developed. This should include the provision of climbing toys, puzzle toys and chewing materials – all of which need to be changed frequently. Cages should consist of vertical bars (not the current mesh, which can damage beaks and feathers) and be equipped with natural branches (not dowel, which can be damaging to birds’ feet) for perches. The branches need to be changed regularly.

Bald Eagles: Of all the bird enclosures this is the best, as it allows flight. However, the dowel perches need to be replaced with natural branches. The constant pressure of the hard wood can damage feet and leave them open to serious infection.

Arctic wolves

“The pens contained no secure dry rest areas and many of the wolves were muddy.” (1997 Zoocheck Canada Report)

The wolves remain in enclosures that become waterlogged and extremely muddy during wet weather (which, given the west coast climate, is frequent). They can be observed lying in mud, with few dry places to escape to. Whatever the weather conditions, the wolves have been observed pacing back and forth along their enclosure perimeters or simply lying inactive for long periods. This suggests a lack of stimulation and a need for an enriched environment.

In their natural arctic environment wolves often must travel more than 30 kilometres per day in search of food. The territory of a pack of arctic wolves can be up to 1,600 square kilometres. For a far-ranging animal like the wolf, the GVZ’s enclosure of approximately 450 square metres seems grossly undersized. The wolves should be housed in an expansive naturalistic paddock that provides a varied terrain with long grass, brush cover, trees, and multiple hiding and resting places. In addition, an environmental enrichment program should be developed to provide further compensation for the absence of natural conditions.

Squirrel and Spider Monkeys

“The outdoor quarters for the squirrel and spider monkeys were better equipped with branches and ropes than some of the other cages. However, there was still considerable room for improvement.”

A variety of branches of varying sizes with leaves and bark intact should be placed in each enclosure and changed periodically. In addition, bungee cords, rope ladders, and other play objects should be added for variety.” (1997 Zoocheck Canada Report)

The cages for the squirrel and spider monkeys have remained virtually the same. Each cage, with an area of approximately 36 square metres, houses two of each species and is centred around a single evergreen tree. A net covers the top of the cages, at about 5 metres height, preventing the animals from climbing any higher than this. Ironically, the sign on the enclosure states that spider monkeys “live high in the trees and seldom descend to the ground”. In fact, the monkeys have only a few branches to climb on (no bungee cords or rope ladders have been added) and they can be observed sitting on the ground, inactive and unstimulated.

Modern enrichment programs for primates include the addition of cage furnishings, such as of swings and perches, and objects such as toys and feeding puzzles. Cage substrates can be covered with a bed of leaves or woodchip litter in which food can be hidden to encourage foraging. Environmental enrichment is not a static process, so furnishings, objects and other enrichment strategies must be changed regularly (new puzzles and toys, re-arranged branches, etc.) to maintain interest and stimulation. The zoo needs to provide such an environment, with enlarged cages that allow greater opportunity for climbing and the expression other natural movements and behaviours.

Conclusion

All of the key problems identified in the reports published in 1997 by Zoocheck Canada and Samantha Lindley are still in evidence at the Greater Vancouver Zoo. Animals remain without the space, stimulation and the level of care and accommodation they require to retain at least some of the natural life they would have in the wild. Moreover, the zoo continues to breed animals while this state of affairs prevails.

These conditions (so starkly exposed in the case of Tina the elephant) and doubtful policies (as evidenced by the surplus lion cubs resulting from uncontrolled breeding), call into question the zoo’s ability and intention to improve the lives of the animals it holds. This situation is unacceptable. As previously mentioned, the UK’s Five Freedoms provide useful criteria for the measurement of animal welfare standards. Its fifth point, that animals should be “*free to express normal behaviours and to experience normal social groupings*” is a principle that seems especially important for the GVZ to live up to. It is time for the zoo to take a new direction and make major changes to ensure the welfare of the animals for which it is responsible.

Appendix – Sanctuary accreditation criteria

- Must retain services of a properly qualified veterinarian, or at least three on-call veterinarians who are qualified to treat wildlife.
- Must have separate quarantine area for newly arrived, ill or injured animals.
- Must provide accommodation consistent with the biological and behavioural needs of the species being housed.
- Must provide proper social environment for the species being housed.
- Must develop and deliver a program of environmental enrichment for all animals.
- Must provide appropriate food items presented in a manner consistent with the biological and behavioural requirements of each species.
- Must provide potable water at all times.
- Must have formal, written acquisition/disposition (including euthanasia) policy.
- Must keep detailed records of all animals handled or kept.
- Must not buy, sell or trade animals or their body parts.
- Must not use any animals for commercial activities.
- Must not allow public contact with animals.
- Must not allow staff/volunteers to directly contact potentially dangerous animals, such as big cats.
- Must have staff properly trained in the animal care, welfare, handling and emergency procedures.
- Must maintain proper emergency equipment, such as dart guns, kill rifle, etc., in facilities housing potentially dangerous animals, such as big cats.
- Must accept lifetime responsibility for animals.