

AUGUST 14 2015

RECEIVED

AUG 31 2015

Dear John Coupar and colleagues,

My name is

s.22(1)

I am writing to you because I am concerned about the dolphins and belugas at the Vancouver Aquarium. This week I'm at the BCSPCA Summer camp. One of the things the BCSPCA think is really important is for all animals to get the five freedoms. The five freedoms are: 1. freedom from hunger and thirst, 2. freedom from pain, injury and disease, 3. freedom from distress 4. freedom from discomfort, and 5. freedom to express behaviours that promote well being. I think that dolphins and belugas shouldn't be kept in captivity because they are wild animals. In the wild they would travel up to 2000 km a day. In a tiny tank they can't get this much exercise and freedom. Also in the wild belugas usually live 30 to 50 years but in captivity they usually live up to 20 years old. Keeping belugas in a small tank is like us living in a bathtub our whole lives. I know I am just a child and

that you might have more important matters but I would you and your colleagues to pause and think about this issue for just 1 minute. You could help stop belugas and dolphins from dying by putting an end to keeping them at the Vancouver Aquarium. Thank you for pausing to think about this matter.

sincerely,

s.22(1)



*Henry*

Vancouver Parks Board  
 181 Roundhouse Mews  
 Vancouver V6Z 2W3,

MAY 15 2017

To All the Commissioners of the Vancouver Parks Board.

It is said writing a handwritten letter has a lot of merit. I do hope you will take my letter seriously and respond to my requests.

The people involved making decisions do not understand the importance of research of an including a section from "About Cetaceans" to help you understand the research that has been going on at the Aquarium for many years. This booklet was written 1986. Please note the mention of Dr. Murray Newman.

Being a member of the Aquarium for over 20 years, my children, my grand-children and I have learned so much. We have participated with "Animal Encounters with Belugas", "Adopt a Whale Project", visited behind the scenes. My son and I had the opportunity to attend a lecture by Dr. Valeria Vergara whose research identified and classified distinct calls of beluga whales, especially "the contact call".

(2)

the communication between the mother and her calf. The aquarium continues to do research in Cunningham Inlet Nunavut which is especially important due to increasing traffic in the north and other things that disturb the whales habitat.

Have you been behind the scenes at the aquarium? Our family experienced how particular they are about cleanliness and infection control. Our shoes are cleansed with special solution then enter a clean area. Excellent precautions.

It is really sad the beluga whales died. Foul play has not been ruled out! Do you realize what a tremendous loss to the doctors, caregivers and trainers of these beloved belugas. A new habitat with the other belugas that belong here would help.

Beviga Retired Registered Nurse, we are conscientious caring for people mammals and other living things. As you noticed in the article enclosed that whales & dolphins have a brain similar to humans. I cannot understand how you do not take in consideration the impact of closing of the Marine Mammal Rescue Centre. Where will the mammals go that are injured and left to die in the wild? It is a fact that the whales & seals have been rescued & recovered at the centre. It is a great concern! I value to be a nurse and during my life I helped

(3)  
people and mammals.

Buses of children come to the Aquarium to learn and experience live creatures. Each summer the Marine Rescue Centre is open to members. It is wonderful and you are able to touch while the staff explain and educate you.

In closing it is so disappointing that a decision has been made that affects so many here in Vancouver and around the world. I hope and pray you will reconsider.

I am looking forward to your reply handwritten.

Sincerely

s.22(1)

PS Please excuse writing, my hand shakes

Dr. M. Klinowska, of Cambridge University, has analyzed strandings in the United Kingdom, with similar results. Moreover, further studies by Dr. Kirschvink's group suggest that fin whales in the Atlantic tend to swim along areas of low geomagnetic gradients during their spring and fall migrations.

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# THE CETACEAN BRAIN AND INTELLIGENCE

Roy Tanami

The popular media have often portrayed cetaceans as being capable of understanding and speaking human language, and even having human intelligence. In aquarium presentations dolphins are remarkably responsive to their trainers. Stories abound of wild cetaceans coming to the rescue of injured mates and humans in distress. We know that whales, dolphins, and porpoises have large, complex brains, but . . . are they as intelligent as they seem?

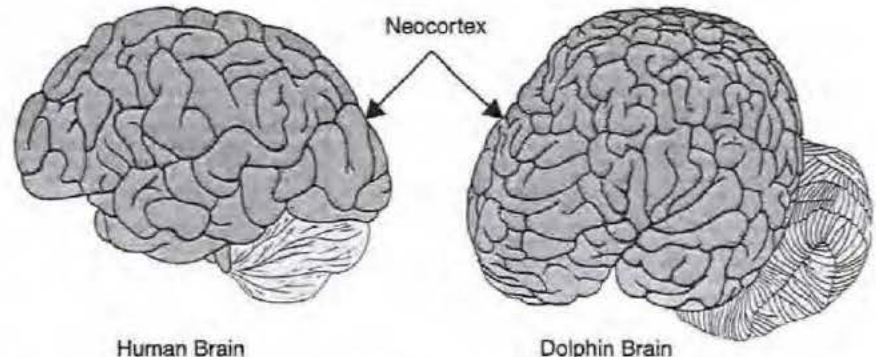
Perhaps the best answer to this question would be "yes" — and "no." Intelligence is a very difficult concept to define. Whether or not cetaceans are intelligent, largely depends on what is meant by "intelligence." In people, it involves the ability to use symbols and solve complex problems. We measure human "intelligence" through "intelligence quotient" (IQ) tests. These tests can provide an accurate measure of a person's mental performance under prescribed circumstances. Although they have a certain predictive value, they don't really seem to tell us how intelligent a person is in the practical sense. This is no surprise, for human brain functions are still relatively poorly understood.

In any event, no non-human animal, not even large brained cetaceans, can ever pos-



Cetaceans in aquarium presentations seem to communicate with their trainers in an almost human fashion. This rapport often leads to speculation about cetacean intelligence.

Tony Westman



sess "human" intelligence. This is because only humans can have it. Human intelligence is an adaptation developed over millions of years of human and pre-human evolution. If other animals are intelligent, they have their own kind of intelligence, which is the result of a totally different evolutionary history.

Intelligence is certainly not a uniquely human adaptation. In fact, it is evident that many species possess intelligence. The problem is that animal intelligence is hard for us to define, understand and interpret, because the only evidence we can get is from brain anatomy and overt behaviour. We can't give animals meaningful IQ tests. Moreover, our perspective of the world is unique to humans, and it is difficult for us to understand a brain that has a different evolutionary history and a different context. Because we cannot view the world exactly as another animal does, our understanding of what is relevant in the lives of other species is limited.

Although we have learned much from animal behaviour studies, some scientists have focussed their attention on the brain itself and its potential capacity to perform the complex mental processes required for intelligence. They view brain size and complexity as indicators of the presence of an adaptation of the brain, i.e. "intelligence." This approach is almost like looking at the circuitry of different computers to determine the information processing capabilities of each. Such studies consider gross brain size, complexity of the different types of brain cells, and the

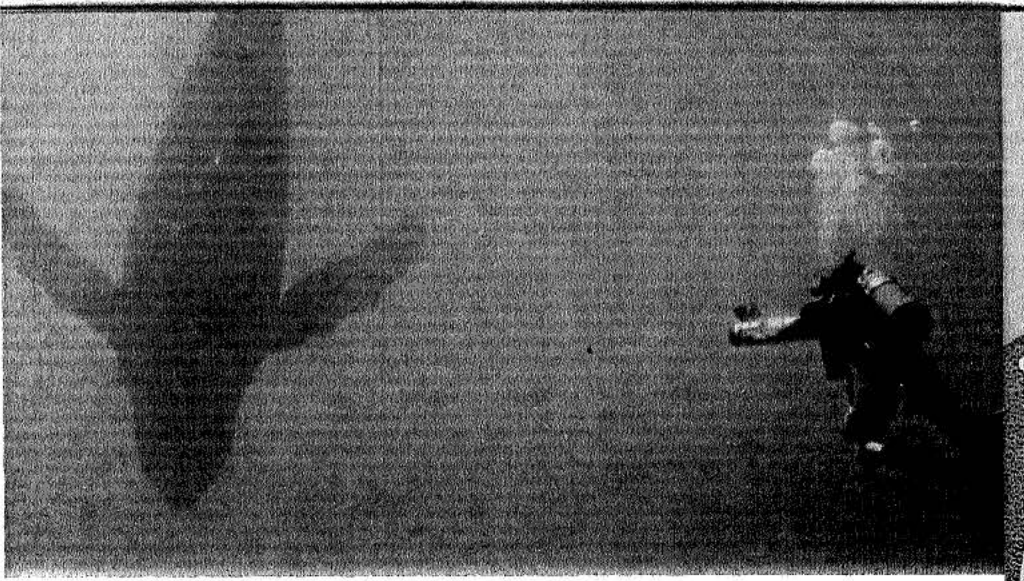
Both dolphins and humans have a large, convoluted (wrinkled) neocortex. This is the part of the brain related to intelligence. Among mammals, the brains of humans and some cetaceans have the greatest amounts of neocortex relative to brain size.

complexity of their cellular interconnections.

Cetaceans are animals with very large, complex brains. However, they are also very large animals. Big animals generally have bigger brains than small animals, because there's more bulk for the brain to take care of. Thus, big brains alone don't necessarily indicate increased intelligence. A more meaningful indicator is the ratio of brain size to body size. Through evolution, birds and mammals have evolved bigger brains relative to body size than have other classes of animals like reptiles and fish.

Brain size can be considered in two separate parts: (1) the amount of the brain that is required to "run" the body, and (2) the "extra" that is left over for information processing. The latter is called the "encephalization factor" by neuroscientists, and some believe it provides a reference number for estimating the potential for intelligence. In these terms, some species of cetaceans have brains which display a degree of encephalization comparable to that in human brains.

Scientists have also been examining the detailed anatomy of the cetacean "neocortex." This is the outer portion of the brain that in both humans and cetaceans is highly



A researcher approaches a "singing" humpback whale to determine the animal's sex. A singing humpback usually hovers 15 to 30 metres below the surface. By carefully sneaking up on the singers and taking photographs of the animals' undersides, scientists determined that the singers were males. Humpback whale songs are complex social signals, and their function is still poorly understood. Males might sing to attract females, or to establish dominance among other males.

Flip Nicklin, West Coast Whale Research Foundation

through visual displays and "jousting" with their horns. The song of the humpbacks may be a form of "acoustic jousting." Whatever the situation, biologists generally agree that male humpback whales are "polygynous" — that is, that they have more than one female mate at a time.

## Comparisons with land mammals

Many biologists currently studying the social organization and behaviour of cetaceans gain insights by making comparisons with land mammals. Some feel that because cetaceans are descended from land mammals,

their behaviour patterns may be similar to those of their closest land relatives, the "artiodactyls." The latter are the even-toed ungulates, such as cattle, deer, and sheep. The example of the humpback song being likened to the behaviour of male bighorn sheep takes this approach.

Other scientists, however, feel that since whales split from their land ancestors so long ago, similarities in behaviour are not due to a common ancestry. These researchers think that the similar patterns of social organization and behaviour might be similar solutions to common problems of survival. Because these patterns are generally better known for land mammals, comparisons with land mammals may help cetacean biologists interpret their observations.

## Discussion

Once the basic social organization of any given population is pieced together to give a reasonably clear picture, researchers can then look at the social ecology of the population. This means looking at the environment in terms of how it relates to the lifestyles exhibited by the animals living there. Incorporating knowledge of the lives and habits

of animals with information on various features of their habitat, biologists can begin to develop and test ideas on what factors in the habitat affect social behaviour — and why. Why, for instance, do different species of cetaceans and sometimes different populations within a species display such different social behaviours? What determines group sizes and what causes some cetaceans to assume different group formations according to what they happen to be doing?

Looking at the accumulated knowledge on some 24 different species of inshore whales, dolphins, and porpoises, one group of biologists has found some correlations between group sizes among these species and their respective habitats. They found that among the smaller toothed whales, those species living in more restrictive habitats, like rivers, lakes, and estuaries, live alone or in small groups of up to ten individuals. Those species living in more open habitats, like river estuaries and coastal areas, tend to form groups of intermediate size, of up to 50 members, and those cetaceans living in the open ocean form the largest groups, sometimes composed of thousands of members.

Biologists have found similar patterns in certain herding land mammals. Studies on antelopes have revealed that the smaller species spread out in "less open" habitats, and that the larger species (that live in open grasslands) tend to form larger, more complex groups. In various land ungulates, social behaviour is strongly affected by such things as the availability of food, presence of predators, and the physical characteristics of the habitat.

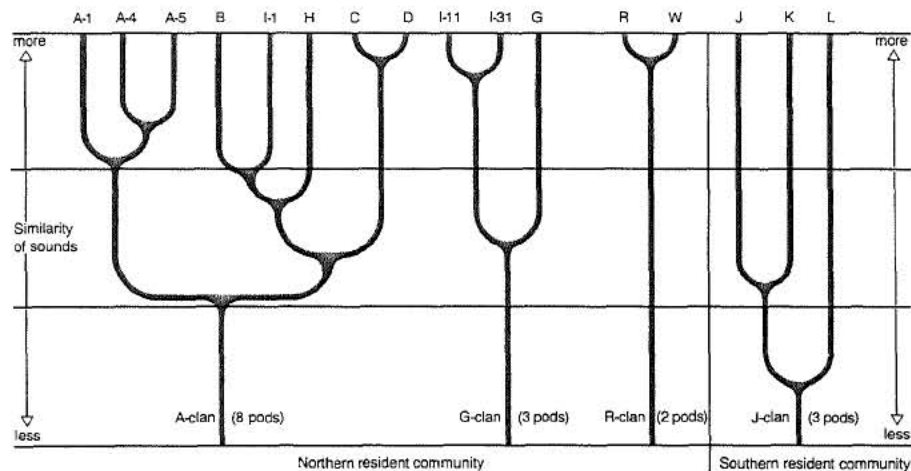
Basically, changes in antelope social groups are affected by their respective dietary needs. These determine where they feed, which, in turn, affects their social groupings in terms of defending against predators. Using this kind of information, biologists making comparisons between closely related species can consider whether or not similar types of social groupings observed between different kinds of animals are due to similar responses to the same environmental pressures.

Studies on the social behaviour of mammals have shown that different factors in the interplay between the biological needs of a species and the characteristics of their habitat are either "attractive," causing individuals to group together, or "dispersive," causing individuals to pursue more solitary lives. The balance between these factors is what some scientists believe is reflected in the social behaviour and ecology of different mammal species.

Whales, dolphins, and porpoises are mammals that have evolved incredible physiological and anatomical adaptations for an aquatic lifestyle. Now, thanks to research into their social lives, we are also beginning to understand the behavioural adaptations these mammals have acquired in response to this environment. Besides the inherent interest in understanding the secrets of cetaceans, biologists believe such knowledge may be important for ongoing and future conservation efforts.

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This "family tree" shows the resident killer whale pods of B.C. arranged according to the sounds they have in common. Pods that share sounds are grouped by biologists into "clans," and may have evolved from a common ancestral pod. The relationships shown here indicate how new pods might be formed by the splitting of older pods. Information supplied by John Ford

B.C. killer whales have a unique social structure. They travel in pods, which are kinship groups based on a mother whale and her offspring. This social structure was revealed through long-term studies involving photo identification and acoustic work. This is a photo of "B-1" pod, of B.C.'s northern resident community. Deborah Cavanagh



rest of the pod may break off and form a new pod.

While resident pods are usually made up of two or more cow sub-groups, the "transient pods" are much smaller. They consist of a single cow sub-group, or else lone males. Pods of one to three individuals are not uncommon. These killer whales look and behave

differently from "resident" whales. First of all, transient whales do not form communities. They travel in and out of areas normally inhabited by resident pods, and they also go into areas where residents never go. Second, the transient killer whales eat marine mammals, while resident animals eat mostly fish.

## Sperm whales

The basic social organization of sperm whales was noticed by early whalers. However, more complete modern observations show that these whales live in different types of groups. Adult females live together along with their calves and juveniles of both sexes. This is called a "mixed" or "breeding" school and numbers between 20 and 40 individuals. The bonds among females in these groups are suspected to be long term.

Male sperm whales form different groupings, called "bachelor schools." The size of these schools generally depends on the age and size of the members. Smaller, immature males seem to form larger bachelor schools of up to 50 members. Larger, sub-adult males form smaller groups of up to around 15 members. The largest males are sometimes solitary or form small groups; most members are sexually mature. During the breeding season, the mixed schools are joined by a small number of mature males, called "schoolmaster bulls." Not all sexually mature male sperm whales breed — only the schoolmaster bulls.

Curiously the social organization of sperm whales is quite similar to that of elephants. Mature, female elephants also lead relatively stable groups, and sexually mature males are separated into breeding and non-breeding groups.

## Bottlenosed dolphins

Bottlenosed dolphins also form complex social groups. Mostly, they are seen in small assemblages of two to 15 animals. Researchers have noticed that some individuals form ties that last for weeks. They call these groups "primary groups," with the members seemingly involved in similar activities. Primary groups sometimes join together to form larger "secondary groups." Secondary groups only

seem to stay together for a few minutes or hours.

Different biologists studying different populations of bottlenosed dolphins have also noted that the dolphins tend to form larger groups in the deeper offshore areas. Larger groups may be more efficient for finding food and guarding against predation in open waters.

Research on a particularly well studied population of these animals off Florida's west coast has revealed that, here, groupings are based on age and sex. Adult males were observed to form small bands that travelled with the different female groups within a part of their range. Younger males form "bachelor" groups and do not generally associate with mature males, or with the female groups. Mothers and young usually stay together for three to six years. Within a given range, different groupings are seen to live in relatively identifiable "home ranges."

## Humpback whales

In the past few years, one type of cetacean social behaviour has become so famous that it is now a tourist attraction in Hawaii. During the winter humpback whales gather at their breeding and calving grounds in Hawaii. Here, male humpbacks sing complex songs composed of a variety of discrete themes. These songs change over time, and all of the singers in a population sing the same basic song. Biologists think these songs are associated with courtship or mating, but they are still unsure of the songs' function.

Some researchers suspect that the songs may be a way to attract females, in much the same way the males of some bird species attract females with their songs. However, other researchers suspect that the songs are one way males compete with each other to form dominance hierarchies. In such a system, the songs may serve a similar purpose to antlers on a male bighorn sheep. In these ungulates males compete with each other







January 24, 2017

Mr. Michael Wiebe  
Vancouver Park Board, Chairman  
2099 Beach Avenue, Vancouver  
V6G 1Z4

Dear Mr. Wiebe,

I'm the Executive Creative Director of a visual effects studio on Granville Island. We create computer-generated visual effects for motion pictures, television series and art installations. Our unique specialization is photo-real water - we created oceans in *The Curious Case of Benjamin Button*, water exploding down a corridor in *Poseidon*, a flood bursting into Da Vinci's vault in *The Three Musketeers*, and we parted the Red Sea for Morgan Freeman in *The Story of God* on National Geographic. One of our projects getting viral social media attention these days is the 106' CG (computer-generated) waterfall we created in the lobby of the Salesforce building in downtown San Francisco. We even got complaints about such an enormous waste of water during California's epic drought. A true complement for CG artists!



Link to moving image of waterfall: <https://vimeo.com/165055658>

I'm writing to you with an idea for the Vancouver Aquarium. With the Aquarium's whale captivity program under such severe public scrutiny, I wanted to propose a discussion about 3D CG 'tanks'. Given the popularity of the Salesforce waterfall and the pressure to eliminate cetacean captivity, we've been approached by several companies - from casinos to resorts to other aquariums - to create CG tanks, which involve playing extremely realistic computer-generated imagery on large LED screens. But it's not like simply playing a movie on a large screen. With visual effects, we have the capability of making these screens appear to have actual 3-dimensional space, as a real tank does. And with computer-generated imagery, we have complete control over the look and behavior of the tank's creatures, which gives us great potential for educational tools. These LED screens can even be interactive, meaning creatures react to

children touching the screen or to the motion of aquarium visitors passing by. Just as CG has transformed the motion picture industry with its photo-real visual effects, it has the capacity for exciting applications at aquariums worldwide.

Here are some advantages to LED screen tanks over actual tanks.

- 1) CG Fascination: They are a great attraction in and of themselves. Huge LED screens with computer-generated creatures are their own unique attraction. A different experience from visiting an actual aquarium, but they still draw a great crowd because of the huge interest in CG images. This has been proven world-wide at current casino & aquarium attractions around the world. Even the Salesforce lobby, a lobby in a downtown business tower, has become a tourist destination in San Francisco because of the computer-generated waterfall. People are getting take-out lunches and sitting in the lobby to eat near the falls.
- 2) Captivity Criticism: It's a unique, refreshing solution at a time when aquariums and water amusement parks world-wide are under intense public scrutiny to minimize or eliminate whales and other cetaceans from captivity.
- 3) An Educational Tool. Because we have complete control over a CG creatures' behaviors, we can have them exhibit a range of behaviors typically seen only in the wild. It's a beautiful way to help visitors learn about rare behaviors or unique characteristics of individual cetaceans. We can even add rare creatures that exist only in the deepest parts of the sea and never captured in an aquarium. The CG environment can provide an active learning tool and we could extend this by developing a downloadable virtual-reality app, for example, where kids can experience this environment at or away from the aquarium.
- 4) Cost Efficiency: More cost efficient in the long run – no real water tank maintenance, care and feeding of sea creatures. The LED screens are a significant up-front investment, to be sure. But the computer-generated content can be changed as frequently as ideas and budgets will allow. The creative content is typically about 1/10<sup>th</sup> the cost of the initial hardware installment. Which brings us to point 5...
- 5) Easily Changeable – what is displayed on-screen can be changed to suit the Aquarium's educational requirements, special occasions or even seasons. New creatures can be added over time, or the display can be completely changed, whatever suits the Aquarium's creative plan.
- 6) Versatility: the screens don't have to be on the wall only, they can be on a floor or overhead. They can be wrapped around pillars or suspended from the ceiling, creating an aquarium in the most unexpected places.
- 7) Boundless Imagination: In terms of the CG creatures created, anything is possible. We can even play with scale and perspective. For example, in some existing CG tanks, whales appear to swim out of the deep and emerge from the tank! And with CG imagery, your tank doesn't have to be actually big enough to accommodate a blue whale and you can still have an enormous blue whale unexpectedly drift by... We can also make the CG 'camera' move through the water, drawing the viewer into the tank, so to speak, taking them on an underwater exploration through tunnels and caves. We can have them *experience* the underwater world, rather than just observing through the glass of a static tank.

Those are a few things to consider about a CG installation rather than or as a supplement to actual tanks at the Vancouver Aquarium. My partner and co-founder of Fusion CI Studios and I would be delighted to meet with you to show you examples of CG installations for aquariums and discuss creative ideas. Even if you decide against it, you'll be informed to understand the potential of CG and realize its vast potential. Please feel free to email me at [Lauren@fusioncis.com](mailto:Lauren@fusioncis.com) or call me at 604-642-6500 (Vancouver direct line) or 236-985-2096 (Vancouver cell) and we can set something up. Thanks for your time, Mr. Wiebe.

All the best,



Lauren Millar, Executive Creative Director  
Fusion CI Studios | incomparable fx

cc Dr. John Nightingale, Vancouver Aquarium  
cc Erin Shum, Vice-Chair, Park Board  
cc John Coupar, Commissioner, Aquarium Liaison

From: s.22(1)  
To: [Coupar, John](#); [Crawford, Casey](#); [Evans, Catherine](#); [Kirby-Yung, Sarah](#); [Mackinnon, Stuart](#); [Shum, Erin](#); [Wiebe, Michael](#)  
Cc: [PB Commissioners](#)  
Subject: Please allow non-releasable Cetaceans to stay!  
Date: Monday, March 13, 2017 2:55:19 PM  
Attachments: [image.png](#)

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Dear Park Board;

I must take this time to implore you to **reconsider the proposed complete ban** on cetaceans at the Vancouver Aquarium. I strongly think that **exceptions must be made** for this bylaw. Animals that have been deemed non-releasable by the Department of Fisheries and Oceans (DFO) deserve proper treatment and care. I would be remiss to think that you would prefer them to be in the hands of a ratched place like Marineland with uncountable animal rights violations. You must remember that the DFO - a government body of **highly trained scientists and specialists** - is who decides which animals cannot fend for themselves, not the aquarium. The aquarium isn't trying to sneak illegal cetaceans in through the backdoor - they are trying to provide a life for animals that otherwise would not have life, normally due to human interactions.

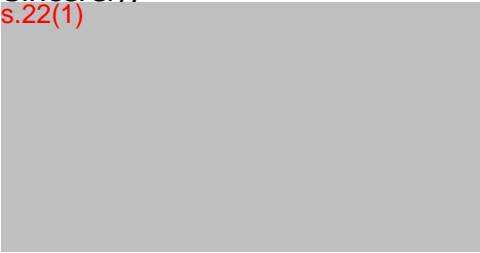
While I agree that cetaceans should not be wild caught and kept for human entertainment, I think it would be a **severe injustice to euthanize or subject rescued and non-releasable ones to improper care** just to appease "the masses". The suggestion that Chester and other cetaceans could move to the rescue centre is very indicative of the research put into this decision - or should I say lack there of. There are no pools at the rescue centre that are adequate for long-term care. The rescue centre is just a stepping stone to re-release or a permanent home. It would be cruel to place a cetacean there for the rest of its life. The facility isn't big enough to create a space that would accommodate a permanent resident, let alone multiple.

If you truly care about these animals, I beg you to let **them stay in their current, safe, loving homes at the aquarium** and not subject them to the possibility of a inhumane life at a different facility. This is not a situation where "one size fits all", this is a situation that each case needs careful deliberation before decisions are made. An outright ban would be a backwards step both from a scientific and conservation point of view.

Not only does the aquarium provide a very high quality of life for these animals that could not survive in the wild, it also provides the opportunity for **public outreach and education**. Both of which are very important to encourage people to protect our natural world as well as inspire the future scientists of the world. People do not protect that which they do not know. Please continue to encourage people to learn about their natural world and to protect these amazing creatures that they grow to love. Nothing brings home the need to keep our oceans clean than to see the devastation it leaves, first hand. Hiding the mutilated cetaceans from public view does not change the fact that HUMANS are the ones who put them there in the first place. Do not condemn them because of our neglect of our natural world - let them teach the public the dangers that they inflict upon our wild whales so that perhaps there will no longer be a need to rescue them.

**Please include an exception to your bylaw and allow rescued, non-releasable animals to remain at the aquarium** - you would do both the public and the natural world an injustice to do otherwise. Please don't deprive, not only Canada, but the entire world of valuable conservation research.

Sincerely,  
s.22(1)



**From:** s.22(1)  
**To:** [PB Commissioners](#)  
**Subject:** Please continue to prohibit the display and importation of cetaceans within Vancouver parks.  
**Date:** Friday, March 24, 2017 12:07:14 PM

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Please continue to prohibit the display and importation of cetaceans within Vancouver parks.

Thank you,

s.22(1)

**From:** s.22(1)  
**To:** [Vancouver Park Board](#)  
**Subject:** Please discontinue the captivity of all whales at the Vancouver Aquarium  
**Date:** Thursday, December 15, 2016 8:07:14 PM

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Hello,

I am writing as a long term resident of Vancouver, raised on the North Shore. I have vivid memories of visits to the Vancouver Aquarium as a spectator of orca shows and more recently the beluga exhibit.

As I have grown older and learnt of the arguments for and against keeping whales in captivity I now consider myself entirely opposed to the captivity of whales and dolphins.

I trust that you have heard both arguments for and against captivity. The purpose of my email is to add my voice to those who are urging the Parks board to discontinue plans to expand the beluga exhibit and additionally, close the beluga exhibit entirely. Let's promote the conservation of our mysterious and magnificent seas and the creatures within them without exploiting our fellow animals whose quality of life must surely be jeopardized when we contain them in a tank. We owe all species of whales and dolphins the dignity and the experience of a life in the wild.

PLEASE put the interests of the whales and dolphins before the paying guests of the Vancouver Aquarium.

It is time to make whale shows an antiquated activity whose value does not advance the cause of the whales.

Thank you for considering my request,

s.22(1)



**From:** s.22(1)  
**To:** [publicrelations@vanaqua.org](mailto:publicrelations@vanaqua.org); [Robertson, Gregor](#); [Vancouver Park Board](#)  
**Subject:** Please discontinue the captivity of whales at the Vancouver Aquarium  
**Date:** Sunday, November 27, 2016 1:20:54 PM

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To Whom It May Concern,

As a 50 year old who was raised in North Vancouver I have many memories of visiting the Vancouver Aquarium during my youth and then as a parent with my own children.

As our society recognized the intrinsic rights of whales and other sentient beings the aquarium evolved, discontinuing the whale "shows" during which trainers rode on whales and whales were directed to jump great heights to dazzle the paying spectators (of which I was one). I have applauded your focus on the capture of injured and sick marine life with the objective to release them. How is it you continue to exploit the beluga whales? This seems inconsistent with all that you represent.

Please honour the death of the two belugas for whom you were responsible by phasing out your beluga captivity program.

It is my impression that the vast majority of people are opposed to keeping these sentient beings in captivity.

I have never been inspired to protect whales or the environment that they live in as a result of visiting an aquarium. Seeing whales in captivity has felt no more right than visiting a circus and watching the enslaved elephants perform.

It is TIME to be true leaders in advocacy for whales and dolphins by discontinuing their captivity.

Thank you,

s.22(1)





**From:** s.22(1)  
**To:** [Kirby-Yung, Sarah](#)  
**Cc:** [Vancouver Park Board](#); [Correspondence Group, City Clerk's Office](#)  
**Subject:** Please end the keeping of beluga whales at Vancouver Aquarium  
**Date:** Sunday, December 11, 2016 10:12:26 AM

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Dear Ms. Sarah Kirby-Yung,

I write to you concerning the beluga whale exhibit at Vancouver Aquarium and to respectfully request your consideration of the proposal to cease the keeping of this species at the Aquarium.

I understand that following the latest deaths of the Aquarium's beluga whales, Qila and Aurora, there are plans to house more beluga whales and increase the size of the current beluga whale tank. I'm writing to share my opposition to these plans and urge you to take this opportunity to end the keeping of beluga whales at the Aquarium.

Your suggestion in opening the discussion on whether the Aquarium continues to keep captive whales at the facility to Vancouver Residents is to be welcomed, however my concern is that more whales will be imported into Vancouver Aquarium before the residents of Vancouver are given the opportunity to rule against their keeping in a vote to be held in 2018. Would you not consider bringing this deciding vote forward into 2017 and prolonging the decision to import more animals until after the results of the vote have been realised?

I am sure you are aware that beluga whales in captivity have half the average life expectancy of the same species in the wild. Numerous eminent marine mammal scientists have recently supported a statement (enclosed), which states categorically that cetaceans do not fare well in restrictive, captive environments. With this increasing knowledge of the challenges cetacean face in captivity, perhaps it is an appropriate time for the Vancouver Aquarium to take a lead concerning beluga whales?

I urge you to please consider the above proposal, and in 2017 lead the captive cetacean industry in bringing an end the keeping of beluga whales in captivity.

I look forward to hearing from you.

s.22(1)



**From:** s.22(1)  
**To:** [Vancouver Park Board](#); [Correspondence Group, City Clerk's Office](#)  
**Subject:** Please free the captive whales and dolphins at the Vancouver Aquarium - that "entertainment" is no longer acceptable to the public  
**Date:** Monday, January 23, 2017 12:06:18 PM

---

Dear Parks Board:

How is that Vancouver Aquarium is lagging so far behind both public opinion and cetacean science and animal behavior studies, that it still keeps cetaceans imprisoned in cruel, fatal and ugly tanks?

From Senator Moore's Bill-203:

" Phil Demers, the former Marineland trainer with whom we consulted on this bill, told us that since the United States generally won't allow the import of whales caught in the wild, Marineland purchases wild caught whales from Russia, breeds them in Canada and provides them to American aquariums. I have also learned that at Marineland, beluga whales and dolphins are trained to perform tricks through starvation and are fed Valium."

From Jane Goodall:

" . . . the current permission of Vancouver Aquarium cetacean breeding programs on-site, and at SeaWorld with belugas on loan, is no longer defensible by science. This is demonstrated by the high mortality rates evident in these breeding programs and by the ongoing use of these animals in interactive shows as entertainment. . . . The phasing out of such cetacean programs is the natural progression of human-kind's evolving view of our non-human animal kin."

"Honourable senators, Jane Goodall is correct. Furthermore, I have yet to hear of that aquarium doing any research that has saved a single whale, nor an explanation of why research cannot be satisfactorily accomplished with rescued and currently captive cetaceans. What I have heard about are the concrete, moral harms of captive breeding, the individual suffering and the deaths. On an empathetic level, the practice is quite plainly cruel."

Why does Vancouver want to be known as Canada's premier centre for whale torture? Is servicing the U.S.'s much-despised SeaWorld Vancouver's mission in life?

Thank you,

s.22(1)



From: s.22(1)  
To: [PB Commissioners](#)  
Subject: Please let Vancouver Aquarium keep their rescued non-releasable cetaceans  
Date: Wednesday, March 15, 2017 8:13:41 PM

---

Hello again Parks Board commissioners,

This is my third email regarding cetaceans at the Vancouver Aquarium. It is discouraging that none of you have answered my two previous emails but I will continue sending you input because it is important that you know the potential outcomes of your decision last Thursday.

I am an employee of Vancouver Aquarium but I am also a resident of Vancouver and therefore one of your constituents as elected officials. I strongly advocate for the creation of an exemption that allows the Vancouver Aquarium to continue to care for rescued and non-releasable animals. Even the senate bill being debated has this exemption written in. If you insist on a total ban on the importation and display of cetaceans at the Vancouver Aquarium, it will have the following outcomes:

- 1) **The ban would not prevent cetaceans from being taken from the ocean and no cetacean will be returning to the ocean from the Vancouver Aquarium.** In 1996, The Vancouver Aquarium publicly stated we would no longer collect cetaceans from the ocean and we have never gone back on that promise. All of the cetaceans currently living at VA are rescued animals deemed non-releasable by government authorities because they would not be able to survive in the ocean.
- 2) **In the event that our rescued dolphins and porpoises need to move, it may be difficult to find facilities able to provide the high standard of care they currently receive.** We are one of only 4 institutions that have had an independent full review of operations by the American Humane association who have accredited us as having impeccable and humane treatment for all our animals. Moreover, few other facilities care for the dolphin and porpoise species we currently do.
- 3) **The only marine mammal rescue center in Canada may no longer be able to rescue stranded whales, dolphins and porpoises that are sick or injured.** On the surface, the Park's Board decision affects only what happens in Vancouver parks, but it actually has broader consequences. The effectiveness of our first-responders depends on the knowledge gained and techniques developed from the hands-on experience they have caring for cetaceans. For example, our veterinarians are on the forefront of developing sedation techniques for marine mammals. This will no doubt increase success rates of future emergency medical procedures. Chester the false killer whale who came through the marine mammal rescue centre in 2014 became the youngest false killer whale to ever survive a stranding. Little is known about the species so what we can learn from his care is especially valuable.
- 4) **Without cetaceans in our care, our ability to conduct important research will be greatly diminished.** Our cetacean research program began in the 1970s and has yielded a vast amount of knowledge that we hope will enable better conservation practices out in the ocean. Researchers pair what they learn from animals in our care to observations in the field to understand the bigger

picture. Listening to and analysing beluga vocalisation at the VA informs the observations our scientists make in the arctic and in the St Lawrence River. We are then able to bring solid evidence to policy makers, informing them of the impacts human created noise has on declining engendered beluga populations in the St. Lawrence. In collaboration with UBC researchers, we've been able to learn about Pacific white-sided dolphin energy requirements. Taking metabolic data that could only be collected from dolphins in human care and combining that data with observations of dolphin demographics and activity out in the field, researchers were able to create a model for calculating caloric requirements for Pacific white-sided dolphins that can be applied to any region of the North Pacific. This information can then inform conservation efforts and fisheries management policy. These are just two examples of many. More to be found here: <https://www.vanaqua.org/learn/reading/publications>

**5) The Vancouver Aquarium will be less effective in spreading the message of awareness that whales, dolphins and porpoises are facing increasing threats from human activity in our world today.** Globally, cetaceans face entanglement in fishing gear, difficulty finding food due to human overfishing, bioaccumulation of toxins, boat strikes, and noise pollution just to name a few impacts of human activity. If we didn't have cetaceans at VA, I would of course still talk about all of these issues. We would still create and run programs to empower people to take action to buy sustainable seafood, clean up shorelines, follow whale watching guidelines and generally reduce our impact on our the oceans. But hear me out; my job is to talk to our visitors, get them to care about the issues and ask them to take action. So I know that most visitors don't come through our doors asking for advice on ocean conservation. They are here to find something interesting to look at. When they see Helen the Pacific white-sided dolphin, they see that her flippers have been damaged by fishing gear. They are then open to hearing me tell them about the thousands of dolphins entangled in fishing nets each year and what can be done about it. Every time I tell an animal rescue story, it builds empathy. People are then able to see how human actions can impact wildlife. Opponents of what we do say we are only providing an entertainment experience that exploits the animals. But while protesters were outside shouting insults and misinformation, I was having regular conversations with visitors excited to tell me they learned something from their visit. I was telling children who were excited to become marine biologists that they could already do the work of one now by collecting information and submitting it, just like our scientists do.

Last year, the Vancouver Aquarium welcomed a record breaking 1.18 million visitors. I am not deluded in thinking that every single one of them was moved to change their behavior to conserve aquatic life. But my conversations with visitors and our members tell me that some of them really are. It does happen. I hope you have read the heartfelt message sent to you by my colleague Laurene Schiller. I quote her again here saying that the reason she became a marine biologist was because "[her] Nana took [her] to the Aquarium every month when [she] was young. The belugas captivated [her] attention from the very beginning and, since then, learning about and protecting the ocean is all [she has] ever wanted to do."

Dear parks board commissioners, if you are trying to do the right thing, allow Vancouver Aquarium to keep caring for rescued and non-releasable dolphins and porpoises. Do not impede the important work of our marine mammal rescue center

and allow the importation of non-releasable animals that are in need of a permanent home. Having them there to receive world-class care while contributing to research and conservation outreach is the best possible outcome for rescued whale, dolphin and porpoises. I do not believe that moving the cetaceans out of Stanley Park serves anyone any good. I worry that in future cetacean strandings, the only option will be euthanasia.

What are your thoughts on what should happen to the non-releasable animals that the Vancouver Aquarium currently cares for?

What is your proposed solution for future strandings?

Sincerely,

s.22(1)



**From:** s.22(1)  
**To:** [Vancouver Park Board](#)  
**Subject:** Please let Vancouverites vote on cetaceans in captivity  
**Date:** Monday, November 28, 2016 7:16:04 AM

---

Hello - I'm writing to ask that the Park Board pass the motion to have the issue of cetaceans in captivity on the ballot in the next municipal election.

I believe that a progressive society needn't inflict suffering on intelligent species in order to be a vibrant, wonderful place to live.

I'll also remind you of Jane Goodall's plea to end cetacean captivity.

<http://bc.ctvnews.ca/mobile/jane-goodall-urges-vancouver-aquarium-to-end-cetacean-captivity-1.1840324>

Please let's do the right thing.

Thanks.

s.22(1)

Sent from my iPhone

**From:** s.22(1)  
**To:** [Vancouver Park Board](#); [PB Commissioners](#)  
**Subject:** Please pass amendment that will prohibit the display and importation of cetaceans within Vancouver parks.  
**Date:** Friday, March 24, 2017 4:56:23 PM

---

Dear Commissioners,

Please pass amendment that will prohibit the display and importation of cetaceans within Vancouver parks.

Sincerely,

s.22(1)

**From:** s.22(1)  
**To:** [PB Commissioners](#)  
**Subject:** Please prohibit display and importation of cetaceans  
**Date:** Friday, March 24, 2017 7:10:14 PM

---

This is very cruel and painful for the animals who have to be separated, locked up, and be imprisoned forever for nothing they had done. We do not have the right to sell, buy, display, or exploit. They are not ours and it is same as human trafficking. This may be allowed legally but it is very wrong ethically. Historically, the humans were sold as slaves and it never was right, so the law prohibited. The animals do not speak human language, so I will be their voice.

Don't do it to others what you do not want done onto you. Please do the right thing.

Thank you for your kindness in the advance.

s.22(1)





**From:** s.22(1)  
**To:** [Vancouver Park Board](#)  
**Subject:** Please prohibit the display and importation of cetaceans within Vancouver parks.....  
**Date:** Friday, March 24, 2017 10:03:49 AM

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Thank you.

s.22(1)

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This e-mail is sent by a law firm and contains information that may be privileged and confidential. If you are not the intended recipient, please delete the e-mail and notify us immediately.

**From:** s.22(1)  
**To:** [Vancouver Park Board](#); [PB Commissioners](#)  
**Subject:** Please prohibit the display and importation of cetacean  
**Date:** Friday, March 24, 2017 12:40:49 PM

---

Dear Vancouver Parks Board,

You did the right thing by passing an amendment to outlaw the display of cetaceans in Vancouver aquariums. Please uphold the amendment again, and help keep the animals in their natural habitat. We have the opportunity to create an ethical and sustainable future that we can be morally at peace with. Let's do it.

Thank you,

s.22(1)



**From:** s.22(1)  
**To:** [Vancouver Park Board](#); [PB Commissioners](#)  
**Subject:** Please prohibit the display and importation of cetacean  
**Date:** Friday, March 24, 2017 12:40:49 PM

---

Dear Vancouver Parks Board,

You did the right thing by passing an amendment to outlaw the display of cetaceans in Vancouver aquariums. Please uphold the amendment again, and help keep the animals in their natural habitat. We have the opportunity to create an ethical and sustainable future that we can be morally at peace with. Let's do it.

Thank you,

s.22(1)



**From:** s.22(1)  
**To:** [PB Commissioners](#)  
**Subject:** Please, ban any future cetaceans from being held at the Aquarium!  
**Date:** Tuesday, March 07, 2017 11:57:27 AM

---

Hello Commissioners

This is turning point where you have the opportunity to take a stand for the welfare of cetaceans, and do the right thing by banning any future displays of cetaceans. We know SO much more now than we did when this despicable practise began. Public and scientific opinion are both turning towards doing away with captivity of cetaceans, so why would we embark on a whole new round?!?

I have two small children under 5, and I will not take them to the Aquarium as long as the policy of having whales/dolphins on display is not ended. I do not want them to think it is OK in any way to do that, and I find it heartbreaking that so many generations of children are basically conditioned to believe that it is perfectly fine to keep them on display for our 'entertainment'.

We have arrived a pivotal point in the history of our city with this decision. Please stand on the side of progress and compassion, and not in the dark ages of exploitation and cruelty.

thank you

s.22(1)

From: s.22(1)  
To: [PB Commissioners](#)  
Subject: Please, prohibit the display and importation of cetaceans within Vancouver parks  
Date: Friday, March 24, 2017 7:08:16 PM

---

Hello Commissioners . . .

Please know that it is cruel and inhumane to take cetaceans out of their natural home and stick them in a confined tank - however nice the tank may be to humans from the outside.

If aliens scooped up humans and stuck them in a cage the humans would also want to be freed no matter how good the cage looked to the aliens from the outside.

We must be humane to animals for the sake of our own humanity and protectors of Earth and for the dignity of these lovely animals!

Please prohibit the display and importation of cetaceans within all Vancouver parks!

***Thank you!***

s.22(1)



**From:**

s.22(1)

**To:**

[Vancouver Park Board](#)

**Subject:**

Plases continue to advocate for cetaceans. They belong in the wild, not in captivity!

**Date:**

Friday, March 24, 2017 7:25:28 PM

---

Congratulations for making the right decision to prohibit the display and importation of cetaceans within Vancouver parks. Please continue to advocate for them! They belong in the wild, not in captivity being ogled.

THANK YOU!!

s.22(1)

# 2016 at a Glance



**20,000**  
K-12 Students  
participating in shoreline cleanups



**675+** OCEAN WISE®  
partners across Canada

**1,717**  
children enrolled  
in AquaCamps

**215,000**

litre capacity  
of our rainwater  
collection reservoirs



**33,686**  
teaching hours delivered  
across all our education programs



**17,000+**  
hours of rehabilitation  
and care provided to sick and  
abandoned marine mammals



**1** green sea turtle  
rehabilitated  
and released

**9,000**

sightings  
reported  
to our B.C. Cetacean  
Sightings Network



**2,531**

Oregon spotted &  
northern leopard frog  
tadpoles raised  
and released  
into the wild



**6,121**  
minutes spent  
underwater  
studying marine life  
in Howe Sound

**1,440**

plastic drink bottles  
removed from the  
West Coast Trail as part of the  
Great Canadian  
Shoreline Cleanup\*



**12%**  
reduction in  
electricity  
usage



**23%**  
reduction in  
natural gas  
usage



**28%**  
reduction in  
greenhouse  
gas emissions



**4,007**  
students reached  
through AquaZone



**74%**  
of waste diverted  
from landfill

**243**  
species logged in  
Howe Sound  
taxonomy



**16,474**  
students reached  
through our AquaVan



**95**

days on the  
water in the  
Howe Sound  
Research Program

**1,180,000**  
people  
contributed to  
ocean  
health  
through a visit

**58,000,000**  
digital connections  
to ocean conservation



**784** school  
programs delivered



## Dedicated to the Conservation of Aquatic Life



# Vancouver's Marine Science Centre





# Vancouver's Marine Science Centre

- In 1996, we made a clear promise to not collect whales and dolphins from the wild.
- In fact, the last wild whale or dolphin was collected 27 years ago.
- Beluga whales currently in human care are not releasable due to their inability to survive in the wild, they either live at Vancouver Aquarium or at another accredited facility.

# Vancouver's Marine Science Centre

- Community members demonstrate their support with each visit – in 2016, 1.18 million people connected to aquatic conservation through a visit.
- As a tenant, Vancouver Aquarium contributes nearly \$1 million annually to the City of Vancouver and does not receive financial support from the City as part of its ongoing operations.
- Our plan includes a multi-million dollar revitalization to aging infrastructure which includes significantly expanded habitats, all of which has been planned, developed and permitted by the City of Vancouver.

# Vancouver's Marine Science Centre

- Vancouver Aquarium is a marine mammal sanctuary for these whales and rescued whales and dolphins.
- Ours is the only Marine Mammal Rescue Centre in Canada.
- We save more than 100 marine mammals a year with the goal of releasing them back into the wild.
- Without the experience gained by taking care of animals daily, the Aquarium will slowly lose the expertise necessary to operate it.

# Our Recent Commitments

- **Maintain a non-breeding beluga whale population** of three to five animals in an enlarged Canada's Arctic exhibit.
- Significantly **expand our beluga research** program on-site and in the wild.
- Aquarium visitors will enjoy a new experience with our **research-first protocol**.

# Our Recent Commitments

- **Discontinue the display of beluga whales** at Vancouver Aquarium by the end of 2029.
  - This permits an orderly transition in the Aquarium's mission, visitor experience and research
- These commitments will also ensure we continue to have **professionally trained first responders** on staff to continue Vancouver Aquarium's role as the only Marine Mammal Rescue Centre in Canada.

# Canada's Arctic is in Real Trouble

- The Arctic is suffering so many consequences related to climate change, it's hard to know where to begin anymore. It's warming more rapidly than almost any other part of the planet; its glaciers are melting and its sea ice is retreating; and its most iconic wildlife, including polar bears and walruses, are suffering.

*(Washington Post, Feb. 27, 2017)*

# Canada's Beluga Whales

- Only about 800 beluga whales left in St. Lawrence Estuary from about 10,000-12,000 animals historically, and the population is annually decreasing.
- Impacts of noise on beluga social structure is one possible reason for the decreasing population.
- Groundbreaking research that started at Vancouver Aquarium has now moved to the field with research in the high Arctic and now in the St. Lawrence over the past four years.

# Canada's Beluga Whales

- Other key areas where research is needed is on:
  - food supply for beluga whales
  - understanding their metabolism and response to warming water
  - impact of pollutants and contaminants
  - emergence of diseases which are moving north with the changing climate



# Cetaceans Like Chester Need Our Help



# We Believe in Rescue, Rehab & Release

- We believe in rescue, rehabilitation and release, not euthanasia which is the alternative
- Our team of first responders perform wild rescues on marine mammals in distress
- Without ongoing hands-on learning with cetaceans at the Aquarium, Canada will lose all future training needed to continue managing its only dedicated marine mammal hospital

# Help us Protect Vulnerable Species

- We're a community-based, not-for-profit marine science centre. Proceeds directly support ocean research, education and animal protection.
- Our goal is to help save endangered wild species like beluga whales that need our help.
- At a time when we're experiencing an exceptionally rapid loss of biodiversity, indicating a sixth mass extinction is underway, we need more science, not less.
- Beluga whale populations in Canada need our help now. Canadian scientists have an obligation to save them.



Questions?

**From:** s.22(1)  
**To:** [ouver Park Board](#)  
**Subject:** Prohibit the display and importation of cetaceans within Vancouver parks.  
**Date:** Friday, March 24, 2017 6:32:53 PM

---

I am writing to congratulate you for making the right decision regarding an amendment that will prohibit the display and importation of cetaceans within Vancouver parks.

Please continue to do so.

Regards,

s.22(1)

**From:** s.22(1)  
**To:** [r Park Board](#); [PB Commissioners](#)  
**Subject:** Prohibit the display and importation of cetaceans within Vancouver parks!  
**Date:** Saturday, March 25, 2017 5:24:36 PM

---

Dear Sir/Madam

PLEASE continue to ban The Vancouver Aquarium from displaying and importing cetaceans within Vancouver parks, at the next round of hearings. This cruelty is barbaric in our modern age and should not be supported.

Regards

s.22(1)

**From:** s.22(1)  
**To:** [Vancouver Park Board](#)  
**Subject:** prohibit the display and importation of cetaceans  
**Date:** Friday, March 24, 2017 11:12:17 AM

---

Vancouver Parks Board voted unanimously to draft an amendment that will prohibit the display and importation of cetaceans within Vancouver parks. The commissioners acknowledged the incredible amount of support that people had sent in.

NO MORE, RESPECT ANIMALS FREEDOM!!!!

**From:** s.22(1)  
**To:** [Vancouver Park Board](#); [PB Commissioners](#)  
**Subject:** Prohibit the Display and Importing of Cetaceans (all Animals in fact)  
**Date:** Tuesday, March 28, 2017 1:40:41 AM

---

Good day,

I'm contacting you regarding the article below and would like to ask that you have a heart for animals who can't speak up for themselves or at least try to imagine what they would say about the situation if they could speak up?

Please continue with draft amendment that will prohibit the display and importation of cetaceans within Vancouver parks, in fact, the whole of Canada not just in Vancouver. Perhaps you can set an example for the rest of the world. It'sd time that people start to see how barbaric and selfish this really is.

Thanking you in advance.

[In Defense of Animals](#)



## **Vancouver Park Board Needs To Hear From You Again!**

The Vancouver Aquarium suffered a major defeat on March 9 when the Vancouver Parks Board voted unanimously to draft an amendment that will prohibit the display and importation of cetaceans within Vancouver parks. The commissioners acknowledged the incredible amount of support that people had sent in. Your voice was definitely heard, but the commissioners need to hear from you again.

**[TAKE ACTION](#)**

Regards,

s.22(1)



From: s.22(1)  
To: [PB Commissioners](#)  
Subject: Proposed ban on Cetacean program at Vancouver Aquarium.  
Date: Monday, March 13, 2017 9:05:17 AM

---

Dear Parks Board,

It is with great disappointment and concern that my family and I learned of your decision to bring forward an amendment for the importation and display of cetaceans at the Vancouver Aquarium. We have been membership holders and supporters of the Aquarium for 5 years, and plan to continue our support. In the time that we have been able to enjoy this world class facility, a world leader in cetacean research, my children and thousands of others have had an opportunity to see and connect with these incredible creatures first hand, to learn more about them and really understand their importance and value in our world, something that would not otherwise have been possible. We, as adults, have become the guardians of our environment, even as we stress it, but the delicate ecology that supports all cetaceans requires a long term plan, long than the term of a park board commissioner or even our lifetimes. To truly support these vital creatures and protect the environment (of which we often forget we are a part) it's crucial that we take the long view and ensure that our children learn to value them too. When a child learns to value something, it becomes part of their core values to protect and nurture it. Without exposure to the amazing animals featured in the Cetacean program at the Vancouver Aquarium, adults and children both will place far less value on the survival of these creatures. Children who don't care about cetaceans usually grow up to be adults who don't care about cetaceans, and the adults they grow into will be the DFO workers, ministers, Park Board commissioners, MPs and just regular joes whose everyday decisions will impact the survival of all species affected by this ban.

Furthermore, I feel there has been very little weight given to the fact that the cetaceans living in the Aquarium, while they do not have the space they would in the wild (clearly), are only the animals deemed unreleasable by the DFO - not by the Aquarium itself - and that these creatures would die in the wild, often very quickly. My family and I fail to see how leaving a creature (whose species is already feeling the effects of global warming, pollution and other environmental damage and loss) to die is of any advantage to that species or to us. I witnessed the passionate testimony of a lady who declared that while she was previously firmly in favor of the cetacean program, the loss of the belugas affected her to such a degree that she felt the program should be discontinued altogether. While I respect her grief, I would argue that this is not, of itself, valid reason to discontinue a program that continues to save lives of these creatures, most of whom are released back into their natural habitat successfully after being treated gently and effectively using knowledge that was in large part gained from the research and learning afforded by the Aquarium's cetacean program.

In short, I see no benefit to the Park Board's decision other than to show that it will listen to whichever voices are loudest, without the benefit of extensive, considered research and consultation with experts, as well as the public. There is no benefit to future rescues (and usually re-release back into the wild) of cetaceans, there is no benefit to the thousands upon thousands who visit the Aquarium every year and there is no benefit to an institution that for 60 years has shown itself to be a respected leader in research of marine mammals. We are incredibly privileged not

only to have such a facility in our city, but to be able to visit it and taste, just a little, the amazing diversity our oceans and rivers hold. Living in a city, marvellous as Vancouver is for outdoor living, in many ways can cut us off from the natural world. The Aquarium allows a glimpse of something otherwise inaccessible to most people.

I realize that my family and I are not the loud voices you heard shouting at the Park Board meeting on March 8th, but we are part of many, many who do support the Aquarium. Please do not cripple this incredible institution and the dedicated, passionate people who work there and strive to share their passion for the natural world with us. You would be doing us all a great disservice.

Yours respectfully,

s.22(1)

A grey rectangular redaction box covers the signature area.

**From:** s.22(1)  
**To:** [Vancouver Park Board](#)  
**Subject:** Protect Cetaseans  
**Date:** Friday, March 24, 2017 10:28:55 AM

---

Dear Commissioners,

I had the great pleasure of visiting Vancouver a few years ago with my family. It is a truly beautiful and welcoming city. Please make your city even more beautiful by prohibiting cetaseans from being used within your parks for the "entertainment" of humans. They are better left in the wild.

Thank you.

Regards,

s.22(1)

**From:** s.22(1)  
**To:** [Vancouver Park Board](#)  
**Subject:** re Cetaceans on display  
**Date:** Friday, March 24, 2017 11:46:43 AM

---

Taking any animal out of its habitat and putting he/she on display for humans is animal cruelty! It is an injustice to an animal's life.....just put yourself in the animal's place....would you like it?

s.22(1)

**From:** s.22(1)  
**To:** [PB Commissioners](#)  
**Subject:** Re: Vote on the Vancouver Aquarium  
**Date:** Friday, March 10, 2017 1:27:55 PM

---

Parks Commissioners:

You should all be ashamed of your disgusting and cowardly vote last night to ban cetaceans at the Vancouver aquarium. There are many good reasons for this program to continue. Your vote was simply a response to the incessant and hysterical campaign by animal rights activists against keeping animals in captivity. This whole process was obviously a set up orchestrated by those same animal rights activists to railroad the Vancouver aquarium.

NPA Commissioners especially should resign their seats, as NPA Parks Commissioners were elected in the last of the collection with a clear mandate to continue the cetacean program at the Vancouver Aquarium. You have betrayed the trust of the people of Vancouver and of British Columbia. Unfortunately, I do not live in Vancouver but if I did, I would be working to have all of you unseated in the next election.

This whole process was a travesty of democracy.

s.22(1)



**From:** [Lifeforce](#)  
**To:** [Vancouver Park Board](#)  
**Subject:** Re: Another 2 Vancouver Aquarium Bred Belugas Die  
**Date:** Monday, November 16, 2015 11:57:18 AM

---

Thank you for forwarding to appropriate staff. You will also distribute to the Parks Board Commissioners?

Peter Hamilton  
Lifeforce Founding Director  
(604)649-5258  
lifeforcesociety@hotmail.com  
www.lifeforcefoundation.org

**From:** [Vancouver Park Board](#)  
**Sent:** Monday, November 16, 2015 11:45 AM  
**To:** 'Lifeforce'  
**Subject:** RE: Another 2 Vancouver Aquarium Bred Belugas Die

Thank you for contacting the Vancouver Board of Parks and Recreation. Your feedback is very important to us and all inquiries are forwarded to the most appropriate staff for follow-up.

Thank you!

~~~~~  
Vancouver Park Board  
2099 Beach Avenue  
Vancouver, BC V6G 1Z4

[pbcomments@vancouver.ca](mailto:pbcomments@vancouver.ca)  
[www.vancouverparks.ca](http://www.vancouverparks.ca)

---

**From:** Lifeforce [mailto:[lifeforcesociety@hotmail.com](mailto:lifeforcesociety@hotmail.com)]  
**Sent:** Sunday, November 15, 2015 7:37 PM  
**To:** Robertson, Gregor; Correspondence Group, City Clerk's Office; Vancouver Park Board  
**Subject:** Re: Another 2 Vancouver Aquarium Bred Belugas Die

Please see attachment

### Another 2 Vancouver Aquarium Bred Belugas Die

A two-year-old beluga whale, "Stella", died Friday, November 13<sup>th</sup>, at SeaWorld San Antonio. She was being treated for signs of gastrointestinal issues, but her cause of death was not confirmed. This baby beluga was fathered by "Imaq" who was captured by the Vancouver Aquarium from the wild in 1990.

This is not the first Beluga whale to die this year at SeaWorld San Antonio. A beluga whale was born premature on June 20, then died on July 12. This

“Martha” was also fathered by Imaq.

Between 2006 and 2012 there were six baby belugas deaths during the joint breeding of wild caught belugas from the Vancouver Aquarium at US Sea Worlds.

The total number of cetacean deaths resulting from the Vancouver Aquarium pro captivity, entertainment business stands at 49 cetaceans (19 belugas, 14 Pacific white-sided dolphins, 7 narwhals, and 9 orcas).

These are at least 49 Reasons to Stop the multimillion dollar Vancouver Aquarium Expansion. More Pools, More Captives, and More Deaths!

<http://globalnews.ca/news/2340875/another-calf-of-vancouver-beluga-dies-in-texas/>

Peter Hamilton  
Lifeforce Founding Director  
(604)649-5258  
[lifeforcesociety@hotmail.com](mailto:lifeforcesociety@hotmail.com)  
[www.lifeforcefoundation.org](http://www.lifeforcefoundation.org)

**From:** [Correspondence Group, City Clerk's Office](#)  
**To:** s.22(1)  
**Subject:** RE: Whales in captivity - no more!  
**Date:** Monday, November 21, 2016 1:28:25 PM

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Thank you for your email which has been circulated to the Mayor, Vancouver City Council, and Office of General Manager, Parks Board.

Correspondence Group  
City Clerk's I City of Vancouver  
mayorandcouncil@vancouver.ca

-----Original Message-----

**From:** s.22(1)  
**Sent:**  
**To:** Kirby-Yung, Sarah; Correspondence Group, City Clerk's Office  
**Subject:** Whales in captivity - no more!

Dear Sarah,

I agree with your idea for a plebiscite about the whales in captivity at the Vancouver Aquarium. It is horrifying that our city allows this kind of abuse towards these animals to continue in this day and age. Renovations over the years have been approved by our city electorate to a money making venue which allows whales to be displayed like circus animals. Trapped. Confined. And abused.

Please do the right thing and stop this kind of blatant corporate greed to continue in our beautiful public park.

Thank you for standing up for what is right.

Sincerely,

s.22(1)

Sent from my iPhone



**From:** s.22(1)  
**To:** [Vancouver Park Board](#)  
**Subject:** Re: Who do I write to about the whales in captivity?  
**Date:** Thursday, December 01, 2016 2:58:27 PM

---

Ok well first of all giving animals a life sentence in prison(tank) is horrifically cruel and unnecessary. NO we DO NOT NEED to keep them captive for "scientific research" that is absurd with everything else going on in the world. How about spend the time, money and energy on climate change and restoring our planet?! There will not be an earth for the whales (or us) to live in if we don't work hard on environment first. It's sick to keep these creatures locked up when it's absolutely not necessary. I'd like to see whoever is responsible for keeping them captive locked up 24/7 and see how it feels. Let the animals back to nature....it is their birthright.

s.22(1)

> On Dec 1, 2016, at 1:10 PM, Vancouver Park Board <PB.Comments@vancouver.ca> wrote:

>  
>  
>

> Thank you for contacting the Vancouver Board of Parks and Recreation. You can adress your concerns about the whales in captivity to this email address and it will be logged.

>

> Thank you!

>  
>

> ~~~~~

> Vancouver Park Board  
> 2099 Beach Avenue  
> Vancouver, BC V6G 1Z4

>

> pbcomments@vancouver.ca  
> www.vancouverparks.ca

>  
>  
>

> -----Or

> From: s. 22(1)  
> Sent: Monday, November 28, 2016 6:08 PM  
> To: Vancouver Park Board  
> Subject: Who do I write to about the whales in captivity?

>

> Hi there,

>

> I'd like to speak my mind about the whales in captivity who do I address it to?

>

s. 22(1)

**From:** s.22(1)  
**To:** [PB Commissioners](#)  
**Subject:** recent hearing on Vancouver Aquarium  
**Date:** Friday, March 10, 2017 12:53:20 AM

---

Date: March 10, 17

Well, Park Board you All prove again how Vancouver caters to special interest groups, basically whoever is the loudest gets their way. Yet another example of why Vancouver is a joke of a city just like their NHL team & hypocritical when you let the 4-20 clowns smoke up a the beach with no repercussions but chase down smokers at the same beach in order to fine them.

**From:** s.22(1)  
**To:** [PB Commissioners](#)  
**Subject:** Recent Vote  
**Date:** Friday, March 10, 2017 3:03:43 PM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[image003.png](#)

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Dear Park Board Commissioners,

I am writing you today to let you know that I strongly disagree with your decision to approve a Parks Control By-law to prohibit the importation and display of live cetaceans in Vancouver parks. I am now very concerned about what will happen to any stranded or 'unreleasable' cetaceans that are found in Canadian waters. Will they simply be euthanized!? Or sent to location in the US with lower standards and protocols? Neither of these options are what is best for the animal. As such, I implore you to reconsider the consequences of this decision, not only for the good of the animals that are found in distress, but also for the internationally renowned research that occurs at the Vancouver Aquarium, research that is now put into question because of this decision.

Thank you for your time.

Best,

s.22(1)



**From:** s.22(1)  
**To:** [Vancouver Park Board](#)  
**Subject:** Reconsider amendment of Bylaw  
**Date:** Tuesday, March 14, 2017 1:14:38 PM

---

I urge the Vancouver Parks Board to reconsider their decision opposite the Vancouver Aquarium and cetaceans.

There are many things that the parks board can do that would positively impact humans impact on nature. This item is very very low on that list and suggests that you are not well informed or even educated on this subject.

Let ignorance lead us and ...we will all be like Trump. I am appalled that the Park Board is so ill informed.

Best regards,

s.22(1)





Via e-mail

Vancouver Board of Parks & Recreation  
2099 Beach Avenue  
Vancouver, BC V6G 1Z4

8th March 2017

Dear Parks Board Commissioners:

I am writing to you today in strong support of the Vancouver Aquarium and our position relating to belugas.

The need for a few well cared for belugas in facilities that have a proven track record in supporting conservation research in the field and in the controlled setting of an aquarium is much greater now than it was when I joined the Vancouver Aquarium back in 1990.

You will already have heard from many of the world's top research scientists the value that these animals provide in relation to scientific inquiry, lab testing of scientific principles and equipment prior to application in the field and to studies that have direct conservation application to wild populations at a time when these very populations are facing unprecedented changes to their environment from human impacts and climate change that effect food availability, contaminant burden, noise and other anthropogenic stressors. I have been working in the field of marine mammal conservation, animal care and management for close to thirty five years, the Aquarium's vision for the next twelve if partnered and supported by Vancouver's Park Board can lay the ground work for a tremendous leap forward in research and a significant conservation impact led by renowned marine mammal scientists. Twelve years might seem like a long time but it will pass in the blink of an eye and in the same period could mark a catastrophic loss of belugas in Canada's St Lawrence Estuary that are already severely compromised and now numbering little more than 800 animals.

There is an assertion that there is an erosion of support for the Aquarium and the animals it cares for yet the attendance has never been stronger and continues to grow annually with over 1.18 million people visiting in 2016 alone, another record attendance year.

The public of course want to be assured that the animals are well cared for, particularly in light of tragic events such as the recent loss of Qila and Aurora. In regards to that case exhaustive testing and evaluation by medical experts worldwide has eradicated disease and illness as a probable cause and through a series of elimination is pointing

39 letters  
of supp  
aquar  
2014 - 2017

toward a toxic event. As we continue to examine the forensic evidence our veterinary team is confident that the additional operational precautions and security measures put in place provide safety to our animal collection going forward.

In terms of public attitudes little has truly changed since I started in this field 37 years ago. There are still some people that would prefer not to see any animals in zoos and aquariums, just as there are others that go further and would prefer not to use animals in any way – in medicine, as food, for clothing, even as companion animals. However the majority of people in Canada still support zoos and aquariums, eat animal products, wear animal sourced clothing and accessories and seek the companionship of family pets.

When it comes to our relationship with animals we each have a line in the sand, for some it is clearly defined and for others it is a transient boundary that can be washed away by the tides of influence. As we develop our own moral compass and personal beliefs there is a tendency to pull in information to support our position – to bolster our decision with rationalization; that is normal. However it is critical for credibility and decision making that such rationalization is based in truth and not tainted with phobias. All too often I hear protests about cetaceans in human care based upon erroneous and corrupted information whipped up into a fanatical frenzy of intolerance and misunderstandings.

The public is naturally fascinated by and concerned about animals, both in the wild and in human care. We are all assaulted on a daily basis of tales of poaching, animal mistreatment, disappearing or poisoned habitats, over-harvesting and extinctions. In a world where human actions are having the greatest negative impact the public turn to the internet and other media for much of their information to determine what is the right thing to do.

The internet unfortunately for all its immediacy and connectivity is a hotbed of distortion and none more evident than when it comes to sites vilifying zoos and aquariums with a toxic brew of pseudoscience and misinformation. The agenda of many hard line anti-zoo and aquarium critics is to spread this misinformation, to “win” at any cost claiming their position as “science” to get the general public on side.

No wonder then that good people with good intentions fall foul of the plethora of blogs, tweets, and pages filled with non-scientific fear-mongering that is relentlessly regurgitated and reverberates uncontested and unsubstantiated.

I am concerned that some Park Board commissioners have already taken a constrained morally motivated choice where their personal belief disregards outcomes entirely. Although in some cases it is clearly stated that caring for the cetaceans is a priority the apparent inability to think of future consequences to these same animals both at the Aquarium and in the wild is restrictive and not in the best interests of animal welfare. I hope that this is not the case.

In regards to our ability to care for cetaceans and the appropriateness of the facilities we not only engage the world's leading animal care experts and scientists on our team we also voluntarily enlist the help of the experts from around the world to inspect us on a regular basis. Professional accreditation standards cover animal husbandry, safety and the principle that accredited aquariums and zoos have a vital role to play in supporting species conservation. Less than 2% of zoos and parks worldwide are accredited.

Aquariums and zoos play a critical role in our society by the unique way that they contribute to education, research and conservation. No other organization or institution can spark affective relations between humans and nature like zoos and aquariums.

The Vancouver Aquarium is accredited by not one but four accreditation bodies: Canada's Accredited Zoos and Aquariums (CAZA); the Association of Zoos and Aquariums (AZA); the international Alliance of Marine Mammal Parks and Aquariums (AMMPA); and most recently from the American Humane Association (AHA) a global, third party certification that upholds rigorous, evidence-based standards for humane animal care. The multi day comprehensive audit verified the many facets of animal welfare including health, housing, positive social interaction etc. These accreditation inspections and the certification audit evaluate and verify compliance during a rigorous multi-day process against internationally recognized best practices. Yet even today we see unfounded stories going to print in the Vancouver Sun with headlines insinuating a cruelty argument.

In 2014 and specifically in relation to marine mammals CAZA incorporated the *Canadian Council on Animal Care Recommendations for the Care and Maintenance of Marine Mammals as part of its rigorous routine inspection and accreditation program* as these recommendations promote best practices in the care and welfare of marine mammals maintained in Canadian facilities. These recommendations were developed at the request of the Federal Department of Fisheries and Oceans Canada (DFO). An intensive 10 year collaboration of marine mammal experts and scientists from across Canada and North America examined best practices in Canada and around the world and developed recommendations based upon an interdisciplinary approach, grounded in science that addresses the many needs of marine mammals in human care. These were prepared under oversight of the CCAC, the national peer review agency responsible for setting and maintaining standards for the ethical use and care of animals in science throughout Canada.

The Aquarium as a member of CAZA works closely with all orders of government to promote the development and implementation of the highest standards of animal care and safety, as well as effective conservation and education programming in zoological facilities. Further recognizing this expertise the government of British Columbia has adopted CAZA accreditation as a condition of licensing for the keeping and exhibition of certain classes of animals.

Finally the value of having the animals on site cannot be understated. The Vancouver Aquarium will have the only purpose built facilities capable of conducting science on

cetaceans in a controlled setting. Universities and research centres simply do not have the resources and skills to maintain a large body of water for cetacean research. Similarly the skills and expertise of the animal care staff and veterinarians means that the animals are healthy and can cooperate with researchers in a collaborative setting. Those same skills developed in aquariums are then applied to wild rescues and research activities.

Without those opportunities many marine mammals would not be alive today and we would not have been able to:

- Rescue and release close to 150 stranded and suffering marine mammals every year
- Conduct the first and only successful relocation of an orphaned killer whale calf back into its family. The return of *Springer* has had a direct conservation impact as she has now had her own calf and contributed to the dwindling wild population of killer whales along our coast
- Successfully rescue, rehabilitate and reintroduce the harbour porpoise *Levi* to the waters off Vancouver Island
- Provide husbandry support for hands-on beluga research in the Arctic
- Provide husbandry support for hands-on narwhal research in the Arctic
- Save many sea lions through pioneering work resulting in their disentanglements
- Provide long term homes to cetaceans like *Chester* and *Daisy* and *Helen* that simply could not survive in the wild.

The Vancouver Aquarium is currently involved in a project to try and save the Vaquita, a small porpoise found in the Gulf of California. Our experience with rescuing small porpoises and access to animals like *Daisy* provides critical scientific information that might just contribute in some small way to saving a species. The Vaquita is drowning in illegal gill nets and there are now just 30 to 40 of them left in the world. A multi-country collaborative effort spearheaded by the marine mammal community is now underway to try and save the last few remaining. There is a real chance that we might be too late and the Vaquita will go the way of the recently lost Baiji river dolphin in China.

When the Vancouver Aquarium opened in 1956, the planet was losing one or two species a year. Today, largely as a result of human activities – habitat encroachment and degradation, climate change, poaching, and overfishing -- the world loses two to three species each day. This insidious loss of species is part of what is being termed the sixth extinction.

What we do know is that if people don't care about the accelerating loss of biodiversity, they and the governments that represent them won't take action to reverse this dramatic trend. That is why the Vancouver Aquarium has proposed its ambitious 12 year plan to greatly facilitate scientific research with this endangered group of animals. We are proud to have played our part in helping to influence three generations of British Columbians as ocean champions and we plan to continue fostering emotional connections between people and nature and inspiring the next generation of



conservationists who will do more research, rehabilitate more habitats, reintroduce more species and educate more people.

You have a difficult decision before you. I understand that personally some of you will have beliefs that might place you at odds with what is presented here. I urge the Park Board to fully consider the options before them. To set personal beliefs aside and take into account the bigger picture to accept a locally driven initiative that will impact globally. The time line is already incredibly short – just 12 years to make a significant and important impact on the science, research and conservation of these animals – it is a sensible rationale to a complex management and science based initiative. With a deadline fast approaching we can aggressively establish a framework that will move off site and out of Stanley Park on or before 2029.

The Vancouver Parks Board is being watched internationally, this is a chance to show leadership and sober political positioning – immediately ending the display does nothing to help the individual animals and may actually be very detrimental to the wild populations. Out of sight out of mind has never been a good idiom to live by, please embrace the change suggested by the Aquarium knowing that an orderly phase out will more than anything keep the Aquarium and Vancouver at the forefront of best practices and a leading example of what a great City aquarium can be.

No-one can truly say what the future will hold – the easy thing to do would be to walk away and to hope that everything will turn out ok; the right thing is to do is step up and be counted and to take affirmative action.

Now is not the time to turn our back on our animals, on Canadians and on our wild populations.

Respectfully submitted,



**Clint Wright**

Vancouver Aquarium Marine Science Centre  
[clint.wright@vanaqua.org](mailto:clint.wright@vanaqua.org)

CC

[john.coupar@vancouver.ca](mailto:john.coupar@vancouver.ca)  
[catherine.evans@vancouver.ca](mailto:catherine.evans@vancouver.ca)  
[stuart.mackinnon@vancouver.ca](mailto:stuart.mackinnon@vancouver.ca)  
[michael.wiebe@vancouver.ca](mailto:michael.wiebe@vancouver.ca)  
[gregor.robertson@vancouver.ca](mailto:gregor.robertson@vancouver.ca)

[casey.crawford@vancouver.ca](mailto:casey.crawford@vancouver.ca)  
[sarah.kirby-yung@vancouver.ca](mailto:sarah.kirby-yung@vancouver.ca)  
[erin.shum@vancouver.ca](mailto:erin.shum@vancouver.ca)  
[mayorandcouncil@vancouver.ca](mailto:mayorandcouncil@vancouver.ca)

February 27, 2017

Mr. Stuart Mackinnon  
Vancouver Park Board Commissioner  
2099 Beach Avenue  
Vancouver, BC V6G 1Z4

Dear Mr. Mackinnon,

As you consider the critical role of cetaceans at Vancouver Aquarium, we wanted to provide you with background information, including letters from scientists and other professional experts from across North America who provided input to this topic in our previous discussions.

We also encourage you to review the independent report Vancouver Park Board commissioned in 2014 with Dr. Joseph Gaydos.

Part of this discussion includes the study of the impacts humans are having on our oceans and aquatic ecosystems, which is why we are working hard at protecting beluga whales in the wild.

We hope you will take the time to review the contents and give them thoughtful consideration.

Warm regards,



John Nightingale, PhD  
Vancouver Aquarium Marine Science Centre



vancouver  
**aquarium**™

2015 ANNUAL REPORT



## Patrons

We would like to extend a warm thank you to our Patrons for their significant and valued contributions to aquatic conservation. To be nominated as a Patron is the Aquarium's highest level of recognition.

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# Message from the President and CEO and Chair of the Board of Directors

As we approach six decades of marine science, conservation and education, we have connected more than 40 million visitors to the wonders of aquatic life. That's an astonishing number. Each one of those connections serves as a spark that lights our imagination, unveils what is beneath the ocean's surface and reminds us we are all a part of something bigger.

Just as every aquatic species has a role to play in the ecosystem of our oceans, so does each one of us. It's the reason we encourage Canadians to participate in our direct action programs, such as our nationwide Great Canadian Shoreline Cleanup and Ocean Wise. Our collective actions can make a big difference on the future of our blue planet.

As a conservation organization, we celebrated several important milestones this year. A decade ago, we started the Ocean Wise program with 16 local partners. This year, we celebrated its 10<sup>th</sup> anniversary as a nationally recognized program with more than 650 partners across Canada. We also held our first Seafood Symposium to bring together fisheries experts, scientists and chefs to help plan for a sustainable seafood industry.

Meanwhile our Marine Mammal Rescue Centre team continued their pioneering work in cetacean rescue and recovery. After receiving more than 11,500 hours of

intensive care, Chester, the false killer whale calf rescued in 2014, is now thriving at the Vancouver Aquarium where he engages with visitors young and old and contributes to vital cetacean research and conservation efforts.

On the research side, we took a deep dive into the world of microplastics and extended our photogrammetry research to collect groundbreaking data on the endangered Southern Resident killer whale population. We also cast an eye north toward Canada's changing Arctic, where we continued to study how noise pollution impacts beluga whale mothers and calves.

Canada's North is warming at twice the rate of the global average, leading to potentially drastic consequences for this iconic region and the rest of the world. This is a key concern for us now and going forward. This year we launched an awareness campaign to draw attention to the complex changes taking place in the Arctic. From disrupted food webs to extreme weather and ocean currents, to an increase of invasive species and disease migration, what happens in the Arctic affects us all. The Vancouver Aquarium is in a unique position to advocate for this fragile territory.

Our long history in Canada's Arctic began about 45 years ago when our team first began exploring the North. During this time

we have become intimately familiar with the issues affecting this region, its culture and its inhabitants. Our continued focus on the Arctic extends to the next phase of our expansion and revitalization which will bring a new Canada's Arctic Gallery to the Aquarium. This engaging space will foster scientific research and conservation efforts to help protect beluga whales in the wild and provide even larger habitats for those in our professional care. It will also connect millions of visitors to the plight of Canada's North and empower individuals to make conservation-minded choices and help them understand that when it comes to the future of our oceans – and our planet – we are all in this together.

We invite you to join us in becoming an ambassador of Canada's Arctic. Learn more at [vanaqua.org/journorth](http://vanaqua.org/journorth)



*John Nightingale*  
John Nightingale, PhD  
PRESIDENT AND CEO



*Janet Landucci*  
Janet Landucci  
CHAIR OF THE BOARD

## Governors' Council

Members of our Governors' Council are former Directors who continue to serve the Aquarium with passion, dedication and commitment. We extend our deepest gratitude for their contributions.

Amyr Abdala  
D. Ainsworth  
Joan Anderson  
Dr. David Anderson  
Betsy Bennett  
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Mark Tindle  
Kenneth Toimie  
Dr. Andrew Toites  
Chuck van der Lee  
Cameron Walker  
Paul Williams  
Duncan Wilson  
Lisa Woodward  
Norm Yurik

# 2015 at a Glance



**59,136**  
Canadians participated  
in protecting our waterways through our  
Great Canadian Shoreline Cleanup®



**650+** OCEAN  
WISE®  
partners across Canada

**3,600**  
nautical miles  
surveyed by our  
research vessel *Skana*



**76** hours of recording  
beluga whale vocalizations  
in the high Arctic



**70,133**  
teaching hours  
provided by staff and volunteers



**25,000+**  
hours of rehabilitation  
and care provided to sick and  
abandoned marine mammals

**105,000**  
donated volunteer hours  
to help protect aquatic life



**10,664**



sightings  
reported  
to our B.C. Cetacean  
Sightings Network

**1,041**

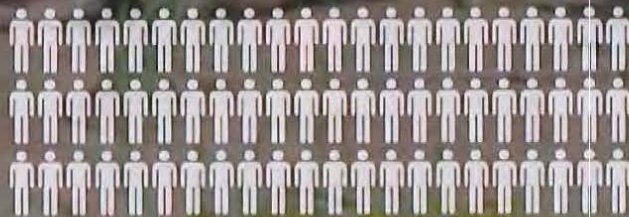
Oregon spotted &  
northern leopard frog  
tadpoles raised  
and released  
into the wild



**6,587**  
hours spent  
underwater  
studying marine life  
in Howe Sound



**409,417**  
cigarette butts  
collected as part of the  
Great Canadian  
Shoreline Cleanup®



**1,116,075**

visitors contributed to aquatic conservation  
through a visit to the Vancouver Aquarium



**1,334**  
children  
embraced aquatic learning  
through day camps



**178**  
students engaged  
in virtual education programs

**13**



species  
identified in our rockfish  
abundance survey



**29,247**  
community members engaged  
through our AquaVan  
and AquaZone programs



**94 days**  
of programming  
in 90 schools and  
41 communities  
through AquaVan

**477**  
employees  
committed to  
conserving our  
natural world



**81** southern  
resident  
killer whales  
photographed by hexacopter

**21,850**

students participated in  
onsite education programs





# Operating Fund Financial Statement



|                                 | 2015<br>(in 000s) | 2014<br>(in 000s) |
|---------------------------------|-------------------|-------------------|
| 50%   Admissions and Membership | \$18,739          | \$17,429          |
| 30%   Retail                    | \$11,200          | \$10,105          |
| 3%   Programs                   | \$1,114           | \$991             |
| 12%   Grants and Donations      | \$4,710           | \$3,372           |
| 5%   Interest and Sundry        | \$1,751           | \$1,553           |
| <b>Total:</b>                   | <b>\$37,514</b>   | <b>\$33,450</b>   |

|                                            | 2015<br>(in 000s) | 2014<br>(in 000s) |
|--------------------------------------------|-------------------|-------------------|
| 9%   Admissions and Membership             | \$3,413           | \$3,251           |
| 19%   Retail Operations                    | \$7,260           | \$6,591           |
| 9%   Marketing and External Relations      | \$3,404           | \$3,612           |
| 21%   Facility Operations                  | \$7,893           | \$5,812           |
| 10%   Animal Care                          | \$3,521           | \$3,620           |
| 15%   Conservation, Research and Education | \$5,497           | \$4,639           |
| 12%   General Administration               | \$4,681           | \$4,659           |
| 5%   Transfers to Capital and Reserve Fund | \$1,859           | \$1,519           |
| <b>Total:</b>                              | <b>\$37,528</b>   | <b>\$33,703</b>   |

- Dollars have been rounded to the nearest thousand.
- For Capital Asset and Reserve Funds information, see the audited Financial Statements.
- Certain 2014 amounts have been reclassified for comparative purposes.
- Audited by BDO Canada LLP. For a complete set of the audited Financial Statements, please contact us at 604.659.3400.

## Our Supporters

To the countless supporters who contribute to our conservation efforts, our team expresses immense gratitude. Thank you.

### Donations

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#### OCEAN ADVOCATES

\$1,000 - \$2,499

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Joe Fortes Seafood & Chop House  
Cindy Johnson  
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Susan Kaltenegger  
Sherry Kao\*





# Join Us in Conserving Our Oceans

Our oceans need our help, and the Vancouver Aquarium is a great place to start. Please consider supporting our conservation efforts by providing financial support to us as a not-for-profit organization. You can take action in all kinds of ways, and every little bit means a whole lot.

Provide much-needed and greatly appreciated financial support through your company or on your own at [vanaqua.org/support](http://vanaqua.org/support)

## Contact us

Vancouver Aquarium  
P.O. Box 3232  
Vancouver, B.C.  
Canada V6B 3X8

Phone: 604.659.3781  
Fax: 604.659.3515  
Web: [vanaqua.org](http://vanaqua.org)



@vanaqua

# Vancouver Aquarium Marine Science Centre

July 26, 2014



## Vancouver's Marine Science Centre



## Vancouver's Marine Science Centre

- 58 years as Vancouver's marine science centre
- 1,500+ scientists, veterinarians, staff and volunteers – all deeply committed to conserving our oceans
- Not-for-profit organization that is self-supporting and financially contributes to Vancouver Park Board



## Our Mission

- Connected over 40 million visitors to critical ocean issues
- Lead award-winning, national conservation programs:
  - Ocean Wise™
  - Great Canadian Shoreline Cleanup™
- Conduct original cetacean research which would be impossible in the wild
- Only Marine Mammal Rescue Centre and hospital in Canada



## Our Commitment

- We do not and will not capture whales and dolphins from the wild.
- We only care for animals born in human care or those that deemed unable to live in the wild.
- For a rescued animal to remain at the Aquarium it must be deemed non-releasable by an independent scientific body.
- Vancouver Aquarium applies the knowledge we learn for our animals.



## Marine Mammal Expertise

- We operate the only marine mammal rescue centre in Canada
- Rescue, Rehabilitation and Release
- Our professional team is the only one in Canada with expertise to conduct cetacean rescues



## Marine Mammal Expertise



## Accredited Aquarium Standards

- Vancouver Aquarium has been accredited by AZA since 1975, first aquarium to achieve accreditation.
- AZA/CAZA accreditation is recognized by local, state, provincial and federal officials as the gold standard in animal care.
- Accreditation requires compliance with formal US government facility and animal welfare standards
- Zoos and Aquariums, including Vancouver Aquarium, are often the only connection people have to wild animals and nature.



## Exceptional Animal Care Practices

- Vancouver Aquarium is accredited and exceeds high standards set by:
  - Association of Zoos and Aquariums
  - Canada's Accredited Zoos and Aquariums
  - Alliance of Marine Mammal Parks and Aquariums
- Vancouver's marine science centre is unique and its conservation-focused philosophy is unparalleled in North America



## Caring for Cetaceans

- Vancouver Aquarium cetaceans are vital to:
  - Education and inspiration
  - Animals are safe, secure and accessible
  - Opportunities to discover new knowledge
- By all behavioural measures, cetaceans at Vancouver Aquarium are healthy, engaged and display behavioural diversity



## Cetaceans in Human Care

- A tradition of excellence in cetacean research and care
- In our changing world, much of marine science still remains a mystery
- Cetaceans receive the finest veterinary attention and benefit from state-of-the-art medical technologies



## Saving Endangered Killer Whales





## Saving Endangered Killer Whales



## Saving Endangered Killer Whales



## Canada's Marine Mammal Rescue Centre

- Each year, we rescue, rehabilitate and release up to 100 marine mammals back into their natural environment
- Without our hands-on learning with cetaceans, Canada will lose all future learning
- Last year's release of **Levi**, a harbour porpoise, was a marker for how far we've come as a rescue centre



## Protecting Canada's Beluga Whales

- Canada's Arctic is rapidly changing
- Skills development and transfer to research teams
- Decades of baseline medical data used as comparative for animal health in wild populations
- 12 years of studying beluga whale vocalization patterns between mom and calf now applied to wild populations

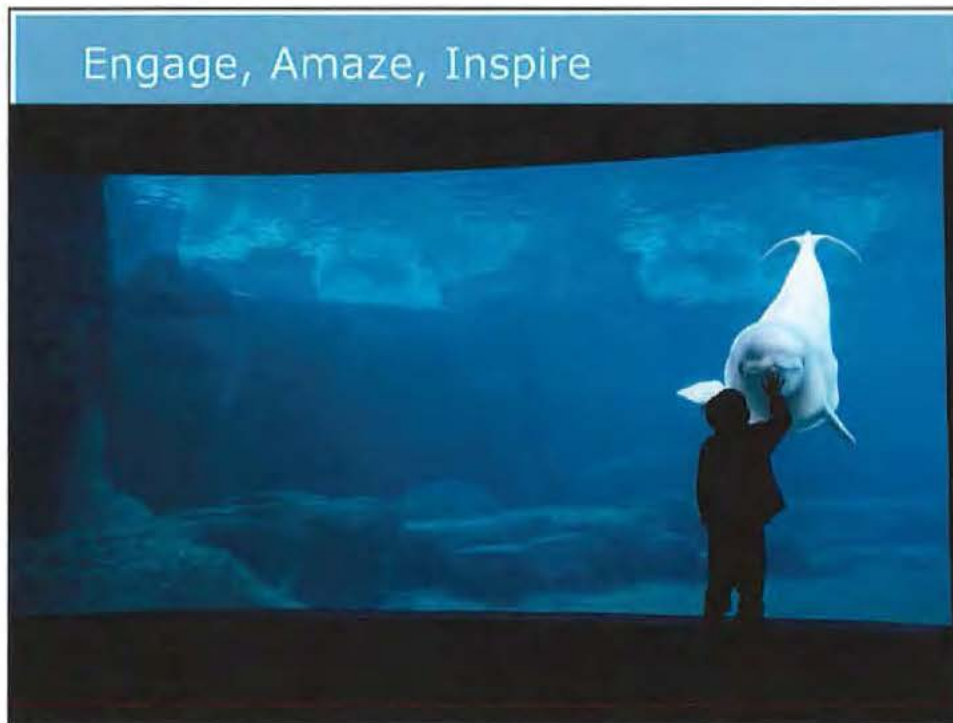


## Why research is important

- Research is founding mandate of Vancouver Aquarium
- Critical research is needed to understand what is taking place in the wild
- Cetaceans in aquariums provide the strict environmental controls that are required in research
- Financially impossible for researchers to maintain separate research facilities for cetaceans

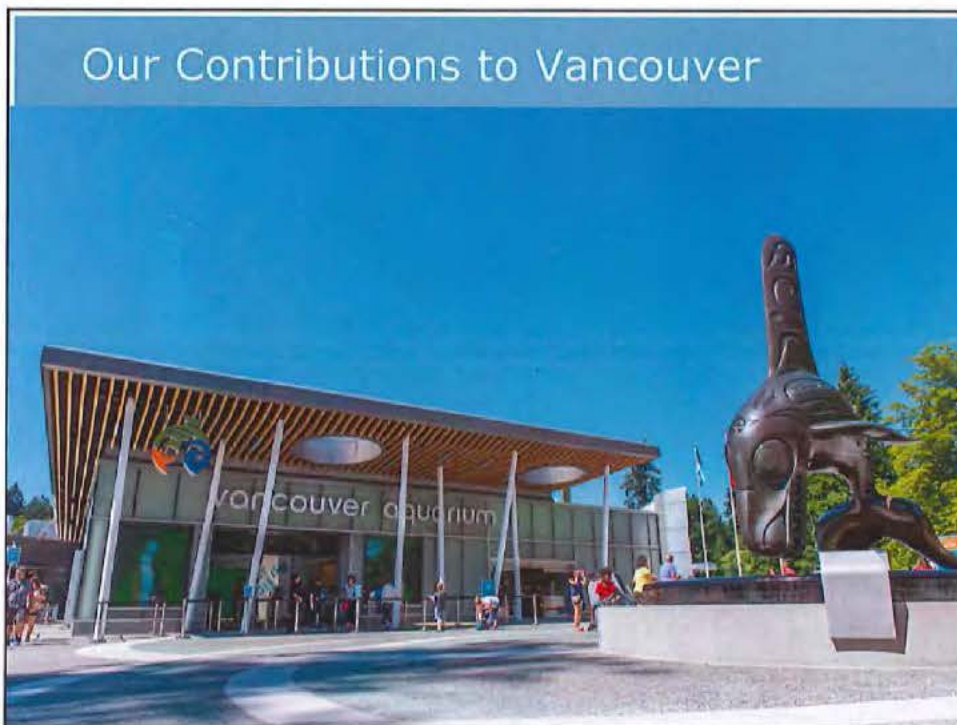


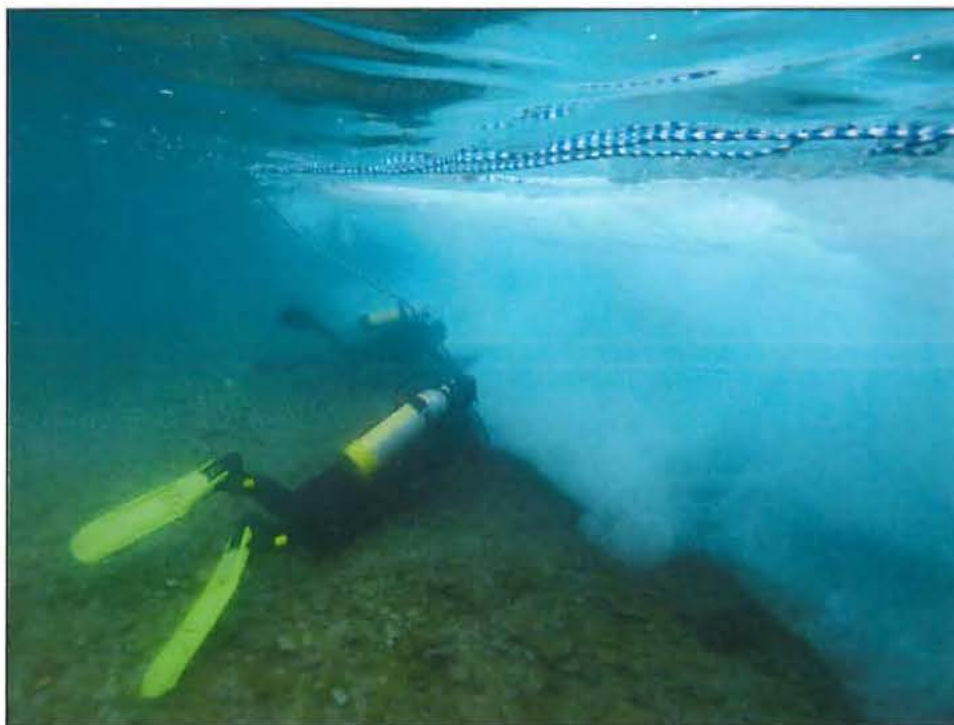
## Engage, Amaze, Inspire





## Our Contributions to Vancouver







## The Vancouver Aquarium Marine Science Centre Covenant for Marine Mammal Protection

The Vancouver Aquarium is dedicated to providing a living bridge to our global ocean heritage for current and future generations of British Columbians. The one-thousand plus scientists, veterinarians, staff and volunteers who work at the Aquarium are ever-mindful of this commitment to our community. At the heart of this commitment are both our dedication to ocean conservation and education, and the covenant we hold for the marine mammals in our care.

1. **We do not and will not capture whales and dolphins from the wild:** In 1996, we became the first aquarium in the world to make the commitment to no longer capture cetaceans from the wild for display.
2. **We only host marine mammals in our care that are unable to live in the wild:** This includes animals born in human care or rescued animals. For a rescued animal to remain at the Aquarium, it must be deemed non-releasable by an independent, third party scientific body or panel. All marine mammals in our care at the Aquarium have either sustained injuries that would put them at a great disadvantage in the wild or lack the life skills to survive on their own.
3. **We are committed to marine mammal rescue: Our efforts are guided by our own 3Rs – Rescue, Rehabilitate and Release:** The Vancouver Aquarium operates the only rescue facility in Canada with the skills and expertise to conduct cetacean rescues in the wild. This work includes ongoing disentanglement efforts with sea lions and other marine mammals on B.C.'s coast. With every rescue, our team works around the clock to rehabilitate the animal with the goal of reintroducing it to the wild. Each year, we succeed in rescuing, rehabilitating and releasing up to 100 marine mammals back into their natural environment.
4. **We provide the best care possible for all our animals:** The Aquarium is known globally for very high standards of care for all animals including the cetaceans. This means the best care practices and the best facilities possible. Because care practices change with new discoveries, many made by others, the Aquarium is equally committed to continuous improvement in its care of cetaceans.

## VANCOUVER AQUARIUM MARINE SCIENCE CENTRE ("VA")

*A self-supporting, non-profit society dedicated to effecting the conservation of aquatic life through display, communication, education and public programming, research and direct action.*

### BY THE NUMBERS

1. **Economic Impact** (As reported by MNP LLP, July 2013, based on 2012 data):
  - Total Estimated VA Output - **\$103M** comprised of **\$44M** directly from VA and **\$59M** from out-of-town visitors directly attributable to VA.
  - Total economic impact of spending by all out-of-town visitors to VA - **\$212M**
2. **Annual Operating Budget** - **\$32M**, 84% of which is supported by revenues generated from visitor experience
3. **Total Engagement** – Vancouver’s largest tourist attraction with annual attendance of **1.1M** (2015), a digital reach of **37.7M** and **2.1B** earned media impressions
4. **Membership** – A total of **26K** member households, representing **77.5K** individuals made **241K** visits to the Aquarium in 2015, an average of **2.1 visits** per person
5. **Education Programs** – The Aquarium engaged **80K** school children in 2013, including **27K** in Ministry of Education approved curriculum programs, **40K** in other onsite visits and **13K** participated in program delivered at their own schools by the AquaVan team.
6. **Nation-wide Community Engagement Programs**
  - **Great Canadian Shoreline Cleanup** – In 2013, **62.5K** volunteers participated in **2K** shoreline cleanup events across Canada
  - **Ocean Wise Sustainable Seafood Program** – has engaged **500** restaurant and seafood retail partners, representing **1,700+** locations across Canada
7. **Animal Collection** – The Aquarium’s collection includes **550** different species, represented by over **50K** aquatic creatures
8. **Environmental Management System**
  - The Aquarium’s EMS has been certified under ISO 14001 since 2009
  - In 2013, **86%** of all waste, including that generated by our visitors, was diverted from landfill through composting and recycling programs
9. **Support Structure**
  - Volunteers – Our **1,000+** youth, adult and senior volunteers donated **>130K** hours of service
  - Employees – The Aquarium employed over **450** individuals, representing the equivalent to **340 full-time employees**



## **Vancouver Aquarium Letters of Support Writers**

### **Research General**

- Dr. Kathleen M. Dudzinski, PhD – Director of the Dolphin Communication Project
- Dr. Shawn R. Noren, PhD – Associate Research Scientist at the Institute of Marine Science at the University of California, Santa Cruz
- Pierre Richard, BSc, MSc – Retired Research Scientist, Center of Expertise in Marine Mammalogy at the Department of Fisheries and Oceans
- Dr. David Rosen, PhD – Research Associate, Marine Mammal Research Unit at the University of British Columbia
- Dr. Peter Ross, PhD – Director, Ocean Pollution Research Program at the Vancouver Aquarium
- Dr. Andrew W. Trites, PhD – Professor & Director, Marine Mammal Research Unit at the University of British Columbia
- Terrie M. Williams, PhD - Founder of Center for Ocean Health – Long Marine Lab at the University of California, Santa Cruz
- Dr. Geoffrey Wood, DVM, PhD, DVSC – Associate Professor, Pathobiology at the Ontario Veterinary College at the University of Guelph

### **Research Belugas**

- Shelly Elverum – Northern Coordinator of Ikaarvik and Anthropologist
- Dr. Robert Michaud, PhD – President & Director of the Group for Research and Education on Marine Mammals and Founder & Director of the St. Laurence National Institute of Ecotoxicology
- Jack R. Orr – Research Technician, Marine Mammal Research, Arctic Research Division at the Department of Fisheries & Oceans
- Madeleine Redfern – President of Ajungi Arctic Consulting, Director, Northern Region at Ecojustice, Mayor of Iqaluit 2010 – 2012

### **Marine Mammal Rescue and Animal Care**

- Canadian Veterinary Medical Association - is the national voice for the veterinary profession dedicated to serving and representing the veterinarians of Canada. The Association is committed to excellence within the profession and to the well-being of animals. It promotes public awareness of the contribution of animals and veterinarians to society.
- Dr. Stephen Raverty, DVM, MsC, PhD, Pilomat ACVP – Veterinary Pathologist, Ministry of Agriculture and Lands at the Animal Health Centre, Abbotsford
- Dr. Sam Ridgway, DVM, PhD – President and Director of the National Marine Mammal Foundation
- Dr. Andreas Fahlman, PhD – Professor & Research Associate, Marine Mammal Behavioral Ecology Group at Texas A&M University, Galveston
- Marina Piscitelli, MsC - PhD Student, Zoology at the University of British Columbia
- Dr. Maria Morell, PhD – Professor, Zoology at the University of British Columbia

- Dr. Robert Shadwick, PhD – Professor & Department Head, Zoology & Canada Research Chair in Physiology at the University of British Columbia
- James “Jim” F. Gesualdi, J.D. – Lawyer, Animal Rights at James F. Gesualdi Attorney-at-Law and Special Professor of Law, Animal Law at Hofstra University and Former Committee Chair, Animals and the Law at the New York State Bar Association

### **Public Engagement and Education**

- Dr. David Anderson, PhD – Professor & Director, Museum Education & Professor, Science Education at the University of British Columbia
- Peter Kendall – Executive Director of Earth Rangers
- Canadian Association of Science Centres – since 1985, CASC’s mission has been to create synergy among Canada’s science centres and science-related museums, to assist in finding solutions to the challenges faced by these important public institutions, and to provide a single voice before government
- Dr. Brian E. Riddell, PhD – President and CEO of the Pacific Salmon Foundation
- Dr. David B. Zandvliet, PhD – Associate Professor, Education & Director, Institute for Environmental Learning at Simon Fraser University

### **Economic Impact and Tourism**

- Vancouver Board of Trade – a non-profit organization whose mission is to work in the enlightened interest of our members to promote, enhance and facilitate the development of the region as a Pacific centre for trade, commerce and travel
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- West End Business Improvement Association – is an independent, non-profit association created by businesses along the West End’s three primary commercial streets: Davie, Denman and Robson

### **Public Support**

- Ross J. Beaty – Chairman of Pan American Silver Corporation
- Ned Bell – Executive Chef at the Four Season Hotel Vancouver
- Dr. F.J. John Blatherwick, CM, OBC, CD, FRCP(C), MD – Chief Health Officer at Vancouver Coastal Health 1984 – 2007

- Marilyn Blusson – Philanthropist, Patron of the Vancouver Aquarium
- Stewart L. Blusson, OC, PhD – Patron of the Vancouver Aquarium
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- Rob Clark – Owner the Fish Counter
- Larry W. Campbell – Senator representing British Columbia, Mayor of Vancouver 2002 – 2005
- John A. Fraser, PC, OC, OBC, CD, QC – Member of Parliament for Vancouver South 1972 – 1993, Federal Minister of the Environment 1979 – 1980, Federal Minister of Fisheries and Oceans 1984 – 1985
- Michael Harcourt – Mayor of Vancouver 1980 – 1986, Premier of British Columbia 1991 – 1996
- George W. Hungerford, OC, OBC, QC – Partner of Hungerford Properties
- Jane K. Hungerford – Philanthropist
- David Jensen – Chief Designer and Principal at D. Jensen & Associates Ltd.
- Mary C. Jordan – Philanthropist, Patron of the Vancouver Aquarium
- Paul Kennedy – Host, Ideas on CBC Radio One
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- Lily Lee – Patron of the Vancouver Aquarium
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- Bjorn Moller – Private Citizen
- Dana Montalbano – Director of the Arts Umbrella Association, Director of Community Arts Council of Vancouver
- John Montalbano – CEO of RBC Global Asset Management, Chair of the Board of Governors at the University of British Columbia
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- Philip W. Owen, OC – Mayor of Vancouver 1993 – 2002
- Brian Riddell, PhD – President and CEO of the Pacific Salmon Foundation
- Sam Sullivan, OC – MLA for Vancouver-False Creek, Mayor of Vancouver 2005 – 2008
- Praveen Varshney – Director at Varshney Capital Corporation
- Captain Don Walsh, USN (ret), PhD - Oceanographer, Explorer, Marine Policy Specialist, Hubbard Medal Recipient
- Dr. Yosef Wosk, OBC, PhD – Philanthropist, Businessman, Rabbi

## **Vancouver Aquarium Endorsers**

### **Subject Matters Experts (Speakers at the Park Board Hearing)**

- Dr. John Nightingale. PhD – President and CEO of the Vancouver Aquarium, Director of the Canadian Polar Commission
- Clint Wright – Senior Vice President and General Manager of the Vancouver Aquarium
- Dr. Martin Haluena, DVM, MSc, Dipl. ACZM – Head Veterinarian of the Vancouver Aquarium, Adjunct Assistant Professor, Clinical Sciences at College of Veterinary Medicine at North Carolina State University
- Dr. Heidi Harley, PhD – Director, Environmental Studies and Professor, Psychology at the New College of Florida
- Dr. Shawn R. Noren, PhD – Associate Research Scientist at the Institute of Marine Science at the University of California, Santa Cruz
- Kris Vehrs, J.D. – Executive Director of the Association of Zoos & Aquariums

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- George W. Hungerford, OC, OBC, QC – Partner of Hungerford Properties
- Jane K. Hungerford – Philanthropist
- David Jensen – Chief Designer and Principal at D. Jensen & Associates Ltd.
- Mary C. Jordan – Philanthropist, Patron of the Vancouver Aquarium
- Paul Kennedy – Host, Ideas on CBC Radio One
- Hassan Khosrowshahi, OBC – Chairman of Persis Holdings Ltd
- Lily Lee – Patron of the Vancouver Aquarium
- Robert H. Lee, OC, OBC – Chairman of Prospero Group, Patron of the Vancouver Aquarium
- Donald R. Lindsay, OBC – President and CEO of Teck Resources Ltd
- Bjorn Moller – Private Citizen

- Dana Montalbano – Director of the Arts Umbrella Association, Director of Community Arts Council of Vancouver
- John Montalbano – CEO of RBC Global Asset Management, Chair of the Board of Governors at the University of British Columbia
- Rudy North, OC, OBC – Chairman of North Growth Management Ltd, Patron of the Vancouver Aquarium
- Philip W. Owen, OC – Mayor of Vancouver 1993 – 2002
- Brian Riddell, PhD – President and CEO of the Pacific Salmon Foundation
- Sam Sullivan, OC – MLA for Vancouver-False Creek, Mayor of Vancouver 2005 – 2008
- Praveen Varshney – Director at Varshney Capital Corporation
- Captain Don Walsh, USN (ret), PhD - Oceanographer, Explorer, Marine Policy Specialist, Hubbard Medal Recipient
- Dr. Yosef Wosk, OBC, PhD – Philanthropist, Businessman, Rabbi

*An open letter in support of the Vancouver Aquarium*

July 26, 2014

Mr. Mayor and Councillors, City of Vancouver  
Mr. Chair and Commissioners, Vancouver Board of Parks and Recreation  
Mr. Malcolm Bromley, General Manager, Vancouver Board of Parks and Recreation

Ladies and Gentlemen:

We are writing to express our joint support for the Vancouver Aquarium. The Aquarium is the City's major tourist destination, largest cultural institution and a globally recognized research and conservation centre. Unlike its Canadian counterparts, the Aquarium operates without government subsidies from any level, including the City.

We are concerned by recent comments indicating that the City of Vancouver, through the Board of Parks and Recreation, is seriously considering changing municipal policy to negatively affect the Aquarium's ability to continue operating as a world class cultural and educational institution.

The Vancouver Aquarium is recognized internationally for its high standards of animal care, the important research it conducts with many species, including Beluga whales, its Marine Mammal Rescue Centre and its focus on enhanced public engagement. Eighteen years ago the Aquarium took a principled stand as the first institution in the world to pledge to never capture cetaceans from the wild. That pledge means the Aquarium houses only whales and dolphins that cannot live in the wild. We believe these animals are far better off in Vancouver than they would be in other facilities elsewhere.

Vancouver has a tremendous asset in the Aquarium. Locals and visitors from around the world come away changed by the experience of seeing animals up close – animals they are unlikely to ever see in the wild. They



leave more curious about and interested in current ocean issues ranging from basic coastal ecology to the impact of climate change. And what both Aquarium and collaborating scientists are able to learn from the animals in the Aquarium's care grows more and more important as the animals' natural environments change.

We urge that this issue be considered very carefully, and that decisions be made based on facts. The Aquarium is a world leader and has our unequivocal support. It deserves the same from the City of Vancouver and the Park Board.

Most Sincerely,

A handwritten signature in cursive script, appearing to read "Sam Sullivan". The signature is written in black ink and is positioned above the typed name.

MLA Vancouver-False Creek

July 25, 2014

Mr. Mayor and Councillors, City of Vancouver  
Mr. Chair and Commissioners, Vancouver Board of Parks and Recreation  
Mr. Malcolm Bromley, General Manager, Vancouver Board of Parks and Recreation

To all concerned,

I'm writing to support our marvellous Vancouver Aquarium, in the face of a potential ill conceived proposal to alter municipal policy in a way that will harm the Aquarium. The potential policy change is to phase out, within three years, the Aquarium housing any already captured or wounded cetaceans, i.e. whales and dolphins.

Even "punting" this proposal to the next newly elected officials, after the November 15 election, will only create unnecessary uncertainty for the Aquarium's invaluable activities.

So just say no to this misguided campaign.

Eighteen years ago the Vancouver Aquarium was the world's first institution to pledge never to capture cetaceans from the wild. Only whales and dolphins that can't survive in the wild are living at the Aquarium. Plus they're far better off than at any other facilities.

Don't waste our Aquarium staff and supporters' efforts. Let them focus on the Aquarium's-

- Marine Mammal Rescue Centre,
- being the City's major tourism destination, largest cultural institution, and a globally recognized research and conservation centre,
- fiscal success - operating in the black, not needing government subsidies, unlike its other Canadian counterparts.

Lastly, let the Vancouver Aquarium focus its people, resources and expertise on its latest initiative-the Coastal Ocean Research Institute. This institute will make BC's coastal ecosystems a major priority.

We talk about being a "green city". A green city does not turn its back on nature. The conservation focussed research and direct activities that are at the core of the Vancouver Aquarium, and the role cetaceans play in those activities, are the kinds of activities that a "green city" should support, not make more difficult.

It's far better that the Vancouver Aquarium build on its huge success, and exciting ideas for the future, than be diverted, delayed, and held up by this ill-conceived proposal.

Yours truly,

Michael Harcourt  
Mayor of Vancouver 1980 - 1986  
Premier of British Columbia 1991 - 1996

PO Box 3232, Vancouver, British Columbia, Canada V6B 3X8  
Telephone 604 659 3400 Facsimile 604 659 3515 www.vanaqua.org  
Accredited by American Zoo & Aquarium Association  
Alliance of Marine Mammal Parks & Aquariums  
Canadian Association of Zoos and Aquariums

July 26, 2014

Mr. Mayor and Councillors, City of Vancouver  
Mr. Chair and Commissioners, Vancouver Board of Parks and Recreation  
Mr. Malcolm Bromley, General Manager, Vancouver Board of Parks and Recreation

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Vancouver has a tremendous asset in the Aquarium. Locals and visitors from around the world come away changed by the experience of seeing animals up close – animals they are unlikely to ever see in the wild. They leave more curious about and interested in current ocean issues ranging from basic coastal ecology to the impact of climate change. And what both Aquarium and collaborating scientists are able to learn from the animals in the Aquarium's care grows more and more important as the animals' natural environments change.



We urge that this issue be considered very carefully, and that decisions be made based on facts. The Aquarium is a world leader and has our unequivocal support. It deserves the same from the City of Vancouver and the Park Board.

Most Sincerely,

*P. W. Owen*  
PHILIP W. OWEN  
MAYOR OF VANCOUVER  
1993 TO 2002

*An open letter in support of the Vancouver Aquarium*

July 26, 2014

Mr. Mayor and Councillors, City of Vancouver  
Mr. Chair and Commissioners, Vancouver Board of Parks and Recreation  
Mr. Malcolm Bromley, General Manager, Vancouver Board of Parks and Recreation

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Most Sincerely,

Ross J. Beaty

Ned Bell

F. J. (John) Blatherwick, CM, OBC, CD,  
FRCP(C)

Marilyn Blusson

Stewart L. Blusson, Ph.D., OC

Richard F. Bradshaw

Valerie Bradshaw

Peter M. Brown, OBC, LL.D.

Rob Clark

John A. Fraser, PC, OC, OBC, CD, QC

George W. Hungerford, OC, QC

Jane K. Hungerford

David Jensen

Mary C. Jordan

Paul Kennedy

Hassan Khosrowshahi

Lily Lee

Robert H. Lee, OC, OBC

Don Lindsay, OBC

Bjorn Moller

Dana Montalbano

John Montalbano

Rudy North, CM

Brian Riddell, Ph.D.

Praveen Varshney

Yosef Wosk, Ph.D., OBC

Mr Mayor, City Counsel and Parks Board Members,

I write this letter to support the important work that the Vancouver Aquarium is doing with respect to its scientific outreach and collaboration with northern and indigenous communities.

Unlike other aquariums or zoos, Vancouver Aquarium recognizes the value and need to expand its work beyond the aquarium itself. When the Vancouver Aquarium renovated its arctic exhibit, it ensured that the information provided to the public included northern and indigenous perspectives. The majority of other zoos or aquariums make little or no effort to incorporate our local knowledge. Additional information is not only more respectful but it is also more balanced and accurate.

In addition, the Vancouver Aquarium has committed to working with our northern communities in expanding its scientific research - something that Marineland or Marine World absolutely do not do. Ikaarvik: Barriers to Bridges is a very successful - award winning - program that ensures there is a mutually respectful and beneficial exchange of western science to Inuit and that scientists also learn from our extensive Inuit knowledge. This approach ensures that science is not done in isolation from the environment and indigenous people, of where arctic species come from, such as the belugas.

The research being done with respect to beluga hearing is particularly important, given the changes that are happening in our region, including the proposed seismic testing, increased shipping and other resource exploration and exploitation. Inuit are extremely worried that these activities will have significant negative impacts on marine life: whales, seals, fish, etc. and that the lack of scientific data has permitted the approval to proceed with potentially harmful activities, that will not only affect wildlife but our people and our ability to feed our families.

The Vancouver Aquarium scientific work clearly is of national importance and a necessary component in conservation, especially with respect to responsible management and use of the arctic ecosystem. This includes ensuring that resource development proceeds with the least damage or not at all, if scientific evidence shows that the harm cannot be adequately mitigated. This is why, I support the Vancouver Aquarium's work and trust that the Park Board will similarly recognize that this work should continue for our mutual benefit.

Yours truly,

Madeleine Redfern  
Mayor of Iqaluit 2010 – 2012  
President, Ajungi Arctic Consulting  
Director, Northern Region Ecojustice  
Iqaluit, Nunavut

Mr Mayor, City Counsel and Parks Board Members

July 22, 2014

Your Honor, Counsel and Commissioners,

As a youth in the early 1970s, I had an opportunity to visit the Vancouver Aquarium and this experience sparked an interest in marine mammals and fish that has culminated in a career in comparative veterinary pathology. During my first year at the aquarium, I was a volunteer and, subsequently, was hired as a part time weekend and summer aquarist assistant through my high school and undergraduate university studies. Interactions with the aquarium biologists, research scientists and veterinarians spurred an interest in veterinary medicine and pathology. The commitment and passion of these individuals for the care and welfare of the display animals is exceptional and truly inspirational.

The staff, scientist, veterinarian and senior management are not only concerned about the care and welfare of those marine mammals at the aquarium, but are very much stewards of local and remote marine habitats. There are ongoing efforts to respond to, recover, rehabilitate, and ultimate release those animals that respond to medical intervention and supportive care with successes dealing with neonatal harbour seals, harbour porpoise and, more recently, efforts with a false killer whale. Although rare, opportunities to rescue and rehabilitate stranded cetaceans provide unique insights into the nature history of these animals and help with management, treatment and potential mitigation of future strandings, particularly those precipitated by human activities or catastrophic environmental events.

The Vancouver Aquarium has been at the forefront of care for display of marine mammals and, in 1996, self imposed a moratorium on future collection of wild cetaceans for display. The trainers, management and veterinarian team are committed to animal care, applied ocean research and public education, particularly related to conservation and science.

I fully support the efforts of the Vancouver Aquarium staff and their care of marine mammals. Should you require any additional details, my email address is [sraverty@telus.net](mailto:sraverty@telus.net).

Yours respectfully,

Stephen Raverty, DVM, MSc, PhD, Diplomat ACVP

Director, Marine Ecosystem Health Network

Adjunct Professor, UBC Fisheries Department

Research Associate, UBC Department of Zoology





DEPARTMENT OF ECOLOGY & EVOLUTIONARY BIOLOGY  
CENTER FOR OCEAN HEALTH  
LONG MARINE LABORATORY  
100 SHAFFER ROAD  
SANTA CRUZ, CALIFORNIA 95060  
FAX 831-459-5353

July 13, 2014

Dear Committee Members,

I am a biologist that has been studying marine mammals for the past 33 years. I am currently on expedition heading north to Greenland to study the most iconic of Canada's animals, the narwhal. Because of this, I will not be able to attend the open hearing on July 25. But I wanted you to know about the critical role of the Vancouver Aquarium in marine mammal conservation.

We are part of a team studying how oceanic noise from shipping traffic to military sonars and oil exploration may affect wild dolphins and whales. This conservation research has been made possible by foundation work we have been conducting with the beluga whales (a cetacean cousin of narwhals) at the Vancouver Aquarium. Without the Aquarium's help in determining the basic physiology of whales and in developing our instrumentation we could never have moved forward with this field work.

I've worked with zoos and aquariums across the world – you have a jewel in what is sadly a very small network of forward-thinking, conservation-minded zoological facilities. It is unimaginable that anyone would consider the Vancouver Aquarium team, a non-profit organization, as anything less than heroic. Here are just a few my observations about their contributions over the years:

1. **Cetaceans.** As mentioned above **the Vancouver Aquarium and its cetaceans including the beluga whales have been integral to our field research that is directly related to the mitigation of human impacts on wild whales.** The application of our cooperative research program concerning heart rates in whales is far-reaching, not just for Canada's narwhals but for potentially safeguarding millions of marine mammals across the globe. That is how important the work is at the Vancouver Aquarium. Their dolphins and whales work in concert with trainers and researchers as voluntary partners in which the animals teach us about their biology; this has proven to be a powerful research approach.
2. **Sea otters.** In 1989 **the Vancouver Aquarium was one of the first responders that sent volunteer Animal Care personnel to the site of the Exxon Valdez oil spill.** As Director of the Valdez Sea Otter Rescue Center, I relied on their expertise regarding the care of injured sea otters in Valdez. The aquarium staff helped to establish the rehab facility, husbandry protocols and veterinary procedures where none existed in this remote part of the world. When our Valdez facility became inundated with oiled animals, the Aquarium opened their doors to sick and dying sea otters. Not only did they alleviate the suffering of the animals, they provided invaluable

feedback to our Alaskan team on oiled otter care and veterinary treatment that led to the survival and release of hundreds of sea otters back to the wild.

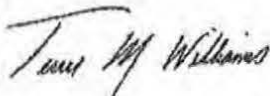
- 3. Pinnipeds. For the past two decades the Vancouver Aquarium has remained the premier facility for the study of Steller sea lion nutrition.** This marine mammal is endangered in many parts of the North Pacific and the work conducted at the aquarium has formed a critical part of the US National Marine Fisheries Service Steller sea lion Recovery Plan. Researchers from the Aquarium worked with many of us for over six years to develop the conservation plan for Steller sea lions, the largest of all otariids. It remains the template for conservation and management for this unique species.

Ultimately, the people involved in this debate on both sides have the same goal, to save the dolphins and whales of the world. But we can no longer stand on the beach and hope that the animals will survive on their own in this rapidly changing world- the demise of many of the marine mammals of the North Pacific and now the Arctic have demonstrated that we must act quickly and with intelligence. Three decades of experience has demonstrated to me that such conservation can only take place with knowledge gained through science, and that the critical foundational science can only take place in facilities like the Vancouver Aquarium. They have the infrastructure and expertise to provide superb care for marine mammals while maintaining an unwavering dedication to marine mammal conservation research.

Facilities like the Vancouver Aquarium are a critical instrument in our marine mammal conservation toolbox. This link of marine mammal “facility-to-field” research was first recognized by the founder of the International Society for Marine Mammalogy and father of marine mammal conservation, Dr. Ken Norris, who developed several cetacean research facilities expressly for this purpose. Clearly, without the ability of researchers to work in such facilities, wild dolphins and whales will continue to decline in numbers and eventually go extinct through our ignorance about human impacts on them. A review of the IUCN Red List of Endangered Species (<http://www.iucnredlist.org>) demonstrates how critical the situation is for dolphins and whales; we know so little about this group of mammals that most cannot even be ranked on an endangered list- rather they are relegated to “DD” (Data Deficient) with no conservation plan. We need more facilities like the Vancouver Aquarium to expand and help solve this problem.

We are in a desperate race to save wild marine mammals, and it is unfortunate that valuable time has been lost in arguments. Instead, I hope that the public and politicians will recognize the tremendous good for marine mammals that is done by the working partnership between humans and marine mammals in facilities such as the Vancouver Aquarium. Their Director and staff are committed to marine mammal welfare and are deserving of our support.

Sincerely,



Terrie M. Williams PhD  
Founder, Center for Ocean Health- Long Marine Lab  
University of California- Santa Cruz,  
100 Shaffer Road  
Santa Cruz, CA 95060

Dear Elected Officials of Vancouver,

Vancouver Aquarium is Canada's leading marine science centre and is recognized worldwide for its high standards of animal care. As a veterinary scientist, I can tell you that it would be very embarrassing for Canadian science if the cetacean research program there were diminished or shut down for political reasons due to pressure from an uninformed minority. It would also be sadly ironic that "saving" a small number of whales from captivity will ultimately harm many thousands of cetaceans by effectively ending the training of experts in cetacean rescue, rehabilitation, and research.

It is perhaps a romantic notion that cetaceans should remain mysterious and doomed to die as humans encroach on their habitat, but it is only through understanding cetaceans better that we will intimately be able to help them. Scientists are frequently criticized for not engaging with the public about their research. The Vancouver Aquarium is actively and effectively engaging the public, yet faces criticism about doing it. Their arctic research is more important than ever and is specifically focused on Belugas and protecting wild populations. Ending the cetacean program would end this research as well.

Vancouver Aquarium is the only marine mammal rescue centre in Canada and the only real hope for stranded, sick and injured marine mammals, including endangered killer whales. They're able to undertake this due to skills gained from on-site cetacean care. If cetaceans are phased out, all future skill development will also cease.

I urge you to support the Vancouver Aquarium and their cetacean research program for the future training of experts in this field and the health of all cetaceans in captivity and in the wild.

Dr. Geoffrey Wood. DVM PhD DVSc  
Associate Professor  
Department of Pathobiology  
Ontario Veterinary College  
University of Guelph  
Guelph, ON  
N1G 2W1

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LONG MARINE LABORATORY  
100 SHAFFER ROAD  
SANTA CRUZ, CALIFORNIA 95060  
FAX 831-459-3383

July 15, 2014

Attention City of Vancouver Mayor and Council Mayor Gregor Robertson, Parks Board General Manager Malcolm Bromley, Parks Board Chair Aaron Jasper, and the Parks Board Commissioners,

My name is Dr. Shawn Noren, and I am a Research Scientist at the University of California, Santa Cruz. For the past 2 decades, I have studied the bioenergetics and physiology of marine mammals. I use the data that I collect to model the ability of marine mammals to respond to environmental perturbations, such as fishery interactions and global climate change. Most of my studies have been reliant on collaborations with aquaria and zoos to obtain access to marine mammals to collect scientific data.

Indeed, throughout my twenty year career, I have collaborated with nearly 20 zoological facilities that house marine mammals in the United States as well as internationally. By working within these facilities, I had the opportunity to have a controlled scientific approach because I could minimize the variables that the animals were experiencing throughout the duration of the study. The types of data that I have collected at aquaria could not have been collected from free-ranging animals. For example, for bioenergetics modeling I required access to long-term records of daily food consumption and body mass. For diving physiology research, I required longitudinal records of hematology. For other studies I needed access to marine mammals that were trained to use scientific equipment and to follow the experimental protocol. As an aside, while I was on site at these facilities I routinely witnessed exceptional care of the animals by

deeply committed staff with the expectation of maintaining the highest standards. I never witnessed poor treatment of the animals, and the health care that these animals receive is better than my own health care!

Although some argue that marine mammals in captivity are justified when deemed necessary for research purposes, it is physically and financially impossible for a research organization to maintain such a facility. The costs associated with building a facility large enough to house marine mammals, and providing for daily maintenance and care of the facility and animals are extreme and beyond the budget of any grant. Only aquaria, through ticket sales to the public, have the financial support to sustain these costs. Research at aquaria makes scientific research on marine mammals possible within the confines of limited grant money. Vancouver Aquarium, as well as other aquarium, have a long history of being involved in research and they have several ongoing research projects.

The data that I have collected using marine mammals in aquaria as models have influenced policies that have aided in the conservation of free-ranging marine mammals. For example a study that I conducted on mother-calf dolphin pair swimming effort and performance helped sway the United States federal government's 2013 decision to expand the scope of the dolphin safe certification requirements. Data that I have collected on walrus in aquaria will be used in population models that will be the cornerstone of the pending 2016 decision to determine if the Pacific walrus should be listed as endangered under the United States endangered species act. These are only two examples of many that demonstrate that marine mammals in aquaria are a valuable assets for scientific inquiry.

We cannot predict what issues marine mammals will face in the future. With each new issue we will need to ask novel questions and collect data to address these questions. Long-term management of marine mammals in aquaria plays a vital role by providing the infrastructure in which to conduct these studies, that will aid in the future conservation and management of wild marine mammal populations as their existence in the wild continues to be challenged by human impacts.

But being involved in external research is only one role of aquariums. Our generation is concerned about the future of our planet and the animals that live on it because during our childhood we played outside and observed nature first hand. The children of today spend less time outside and more time using electronics and viewing the world through the internet. Seeing

a picture of a marine mammal is not the same as seeing the dolphin or seal up close and personal. The later connects people to the animals, and this connection is the first step in making future generations care about wanting to conserve the animals that reside on this planet. It is this connection that will be the seed for the future generation of wildlife biologists and veterinarians. It is this future generation that will have the most dire conservation issues to mitigate as the human activities that marine mammals must encounter continue to escalate.

The arguments of the animal rights activists are often emotionally charged and quite often lack scientific evidence for the accusations made against the aquaria industry. It is my hope that this letter demonstrates to you just a few of the benefits of aquariums, and their role in conservation and education. I encourage you to contact me if you would like to discuss this further.

Best Regards,

A handwritten signature in black ink, appearing to read "Shawn R. Noren", is written over a horizontal line.

Shawn R. Noren, Ph.D.  
Associate Research Scientist  
Institute of Marine Science  
University of California, Santa Cruz  
snoren@ucsc.edu



a place of mind  
THE UNIVERSITY OF BRITISH COLUMBIA

**Fisheries Centre**  
University of British Columbia  
2202 Main Mall  
Vancouver, BC V6T 1Z4

Phone 604 822 2731  
Fax 604 822 8934  
[www.fisheries.ubc.ca](http://www.fisheries.ubc.ca)

July 21, 2014

Vancouver Aquarium  
P.O. Box 3232  
Vancouver, British Columbia  
Canada V6B 3X8

**Re: Cetaceans in Human Care**

To Whom It May Concern:

I have always been fascinated with the ocean and the health and welfare of marine mammals living in our coastal waters. Like many people, I want to know why changes are occurring in their numbers and distributions, and whether human activities are negatively affecting them. I am also concerned about their future, and whether some species may disappear from Canada as sea levels rise and ocean temperatures increase.

There are no simple answers to any of these questions. However, they are all answerable through coordinated research of marine mammals in the field and in the lab. Unfortunately, many questions about marine mammals cannot be addressed by only observing them in the field. Answering them also requires studying marine mammals that are in human care.

Since 1992, I have been undertaking field and laboratory-based research with other scientists from the University of British Columbia (UBC). Our research has focused on both cetaceans and pinnipeds, and includes studies at the Vancouver Aquarium.

UBC has collaborated with the Vancouver Aquarium since 1992 to resolve why Steller sea lions are endangered in Alaska. We have also worked with the Aquarium to explain the decline of northern fur seals (which are threatened in Canada), and have addressed questions about the food requirements of Pacific white-sided dolphins and beluga whales. To date, we have published over 100 scientific publications (see [www.marinemammal.org/MMRU2](http://www.marinemammal.org/MMRU2)) and have trained a number of graduate students.

The research we conduct at the Vancouver Aquarium resolves hypothesis proposed to explain increases and decreases in marine mammal numbers. Data are collected to determine food requirements of wild animals, and are also used to assess the health of wild populations. In addition, the animals cared for by the Vancouver Aquarium allow researchers to develop and test novel technologies for field use (ranging from microelectronics to DNA dietary barcoding) — technologies that can then be used in the field without endangering wildlife.



Re: Cetaceans in Human Care

July 21, 2014

Page: 2

Researchers can only undertake this complement of studies by working closely with animal trainers, health-care staff, and marine mammals. This collaborative work between UBC and the Vancouver Aquarium is unparalleled. There is no other facility in Canada or elsewhere in the world conducting this level of research.

The success of our research program reflects the commitment of the Aquarium to research, the high quality of their facilities and staff, and the calm and relaxed demeanor of the animals in their care that ensures the data collected are useable and can be applied with confidence to guide conservation and management decisions about wild animals.

Most of our research to date at the Vancouver Aquarium has focused on the seals and sea lions they house. However, much remains to be learned about the whales, dolphins and porpoises because so little is known about the nutritional needs of cetaceans by time of year, their habitat requirements, and their abilities to tolerate a rapidly changing ocean. No one knows, for instance, why Pacific white-sided dolphins have recently recolonized in the Strait of Georgia after an absence of almost 100 years—and whether they will stay—or whether the harbour porpoises that are being seen less regularly are in trouble. Equally perplexing is whether the continued existence of beluga whales further north is threatened by ice-free summers and the influx of species from southern waters. The whales, dolphins and porpoises housed at the Vancouver Aquarium can contribute significantly to resolving these uncertainties and providing the public with scientific data that contributes to conserving cetaceans in the wild.

UBC scientists have published many articles based on data collected at the Vancouver Aquarium that have changed scientific and public understanding about seals, sea lions and cetaceans. Our data are highly cited by other scientists as well as in conservation and management documents. We have made ground-breaking discoveries that would have never happened had the Vancouver Aquarium not stepped up to work with academic researchers and provide their expertise working with marine mammals in human care. The thought that Canada might no-longer have a facility to care for and study marine mammals is unimaginable, and would be a significant step backwards in efforts to make sound conservation and management decisions based on science.

Much remains to be learned about cetaceans to secure their future in B.C. and the Arctic. Working with the Aquarium and their captive mammals is providing knowledge needed to save marine mammals. Without these animals, scientists would be forced to make many incorrect guesses about what they observe in the field. Some of these incorrect guesses could result in management decisions that are ultimately detrimental to wild populations.





a place of mind  
THE UNIVERSITY OF BRITISH COLUMBIA

Re: Cetaceans in Human Care  
July 21, 2014  
Page: 3

There is no other facility in Canada with the husbandry expertise and knowledge of both cetaceans and pinnipeds needed to fill this critical role. Losing it would be a loss to marine mammal science and would do a great disservice to the species we all want to see thrive in the wild.

I fully support the Vancouver Aquarium's commitment to keeping marine mammals for research and public education — and look forward to UBC continuing to provide research expertise in our joint effort to resolve the pressing questions that have significant repercussions for people, marine mammals and the health of our marine ecosystems.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'A. Trites'.

Andrew W Trites, Ph.D.

Professor and Director, UBC Marine Mammal Research Unit  
Co-Director, UBC Fisheries Centre  
[a.trites@fisheries.ubc.ca](mailto:a.trites@fisheries.ubc.ca)  
604 822-8182



*An open letter of support of the Vancouver Aquarium*

July 23, 2014

Mr. Mayor and Councillors, City of Vancouver  
Mr. Chair and Commissioners, Vancouver Board of Parks and Recreation  
Mr. Malcolm Bromley, General Manager, Vancouver Board of Parks and Recreation

Ladies and Gentlemen:

I am writing to express my strong support for the Vancouver Aquarium. The Aquarium is the City's major tourist destination, largest cultural institution and a globally recognized research and conservation centre. Further, the Aquarium operates without government subsidies from any level, including the City.

Like many others, I am concerned by recent comments indicating that the City of Vancouver, through the Board of Parks and Recreation, is seriously considering changing policy regarding the holding of marine mammals at the Aquarium. This would without question negatively affect the Aquarium's reputation as a world class educational, research, and conservation institution.

The Vancouver Aquarium is recognized internationally for its high standards of animal care, the important research it conducts, its Marine Mammal Rescue Centre, and its focus on public engagement. Eighteen years ago the Aquarium took a principled stand as the first institution in the world to pledge to never capture cetaceans from the wild. That pledge means the Aquarium houses only mammals that cannot live in the wild. While the animals are certainly in captivity, they are secure, receive full veterinary care, and are maintained in a carefully monitored environment.

Vancouver has a tremendous asset in the Aquarium. Locals and visitors from around the world come away changed by the experience of seeing animals up close – animals they are unlikely to ever see in the wild. They leave more curious about and interested in current ocean issues ranging from basic coastal ecology to the impact of climate change. International author Richard Louv's has written two acclaimed books on the topic of 'nature deficit disorder' in modern (and largely urban) civilizations. The term refers to the isolation of most of our populations from natural settings and animals. In

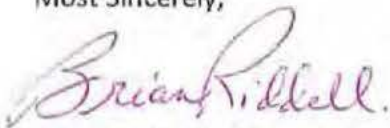
Vancouver, we are blessed with the Aquarium and the opportunity to present to our children some of the incredible animals we share our environment with. Please do not undervalue this opportunity. I have spent a 40 year career in the conservation of Pacific salmon and can say without hesitation that people value and will protect what they appreciate ... most people that visit the Aquarium are drawn to see animals that they will likely never see or appreciate without that opportunity!

Further, as a scientist, the Aquarium also provides the opportunity to study these animals and provide important knowledge about their needs. This information could prove critical these species as their natural environments change through time. The Aquarium will play an increasingly important role in monitoring these changes through their recently announced Coastal Oceanography Research Institute (CORI).

As a professional biologist, I am certainly sensitive to peoples' concern about retaining animals in captivity. But as a parent and a conservationist, I can't over-state the educational importance of people being able to observe and appreciate the animals cared for by the Aquarium. The Aquarium is a world leader in conservation, research, and education. The City of Vancouver should be proud of their support and of the accomplishments of the Aquarium. If the Aquarium was prohibited from retaining marine mammals, it would be a significant loose to the Aquarium, the people of Vancouver, and our visitors.

I appreciate this is a difficult issue to address, but please consider the greatest interests of these species, a world class institution, and the vast majority of your people.

Most Sincerely,



Brian E Riddell, PhD.

CEO/President, Pacific Salmon Foundation,  
300 – 1682 West 7<sup>th</sup> Avenue,  
Vancouver, B.C. V6J 4S6

cc. Dr. J. Nightingale



July 24, 2014

Malcolm Bromley  
General Manager  
Vancouver Board of Parks and Recreation  
2099 Beach Avenue  
Vancouver, BC V6G 1Z4

Dear Mr. Bromley

Please accept this letter of support for the research activities conducted by the Vancouver Aquarium and Marine Science Centre. As a member of the Canadian Association of Science Centres, the Vancouver Aquarium Marine Science Centre is part of a national body that is committed to teaching science and connecting people of all ages to the natural world and, in fact, has received awards from our organization for their innovative approach to using their research for science communication and the advancement of scientific knowledge at all age levels.

The Vancouver Aquarium and Marine Science Centre works collaboratively with other organizations across the country and provides important learning opportunities and inspiration for future marine scientists that will benefit marine life for many years to come. Their ongoing research is imperative to increasing marine science literacy across Canada.

The Canadian Association of Science Centres fully supports the Vancouver Aquarium and Marine Science Centre in their future research activities and hope that this support is taken into consideration during the Vancouver Board of Parks and Recreation's review of its current agreements.

Yours truly,

Guy Labine  
President

cc: D. DeJong, Vice President, Conservation and Education  
Vancouver Aquarium and Marine Science Centre



Business Council of  
British Columbia

Suite 810  
1050 West Pender St  
Vancouver, BC  
V6E 3S7

Telephone 604 684 3384  
Facsimile 604 684 7957  
info@bccbc.com  
www.bccbc.com

July 18, 2014

Mr. Aaron Jasper  
Chair, Vancouver Park Board  
AND  
Mr. Malcom Bromley  
General Manager Board of Parks and Recreation at City of Vancouver

Vancouver Board of Parks & Recreation  
2099 Beach Avenue,  
Vancouver, BC V6G 1Z4

Dear Sirs:

Research and access to credible information enables thoughtful conversation and informed decision-making. When this information is brought to people in ways that cause them to focus on conservation and excite future generations towards sustainable behaviours, it is powerful and something to be celebrated.

The Vancouver Aquarium Marine Science Centre has been doing exactly that for generations in this province and city and we are the richer for it. It has been a catalyst for thought leaders, lawmakers and citizens to understand our environment and take action to it.

We support the Vancouver Aquarium, its mission, and the important role that it plays in our community. Specifically its place as a tourism attraction, economic generator, research leader, and educator whose contributions inform and engage citizens across generations, here and globally.

I am disappointed with the current level of debate and often uninformed or distorted commentary related to issues of expansion, cetaceans in captivity or the contribution of the Aquarium in general. While there is a legitimate place for a values discussion related to issues such as cetaceans in captivity or the value of an organization and its approach, they cannot come at the expense of the facts, or neglect consideration of the benefits.

So when there are calls to "empty the tanks," the real implication is that it is a demand to euthanize those mammals in current captivity, or to turn away those animals that have been injured or stranded. The reality is that neither the belugas in the care of the Vancouver Aquarium, nor injured marine mammals could survive in the wild if released today.

.../2

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As collective values change over time with new knowledge, so to have those of the Aquarium, while also being a force to shape that understanding in the area of marine mammals for decades. As a forward thinking organization, 20 years ago they were the first aquarium to publically declare that they would not capture wild cetaceans for display. The result is that their current resident cetaceans are those born in captivity or already held by a zoo or aquarium before 1996.

While the continuation of breeding in captivity is a legitimate debate, the value of the research gained with the past and current belugas has been invaluable. As quoted in a recent Vancouver Sun article, noted DFO researcher and cetacean's expert John Ford stated:

*"A lot of what we know about the physiology of cetaceans and a lot of what we know about their hearing abilities, their sound production, functional anatomy, is from studies in captivity...If we didn't have the information we've learned from captivity, we would be even worse off than we are today. There is some research that is really difficult to do on a free-ranging animal. You can ask lots of scientific questions of them in the wild but you just can't get answers."*

This research, observation and public access to these animals is even more important in light of changing climate in the Arctic and the implications it has on these wild animals and their habitat.

As you are undoubtedly aware, the Aquarium is a self-supporting tourism, educational and community economic asset that is often taken for granted, let alone understood. Its activities are funded in large measure through its attractions, including cetaceans, that allow the Aquarium to pay rent to the city, rather than receiving public grants from them.

The work of the Aquarium requires 450 direct employees, 1,000 volunteers, has launched countless first jobs and long term careers and generates over \$200 million in economic benefit to the region each year.

In welcoming over one million visitors annually, as the city's largest attraction, fully 85 percent of the gate revenues generated support the broad array of research work that is done to understand our environment and engage this and future generations in protecting it.

My son was one of the 80,000 school children that have been profoundly impacted by the educational programs offered by the Aquarium each year. His experience had a profound effect on his awareness and passion for marine life, has caused him to focus his studies in part on biology, and to volunteer for causes related to habitat and marine mammal preservation.

And then there are the many research and direct-action conservation programs led by the Aquarium. A few of the many examples include: the Great Canadian Shoreline Cleanup, the national sustainable seafood program Ocean Wise, the newly launched Coastal Ocean Research Institute (which also includes the Aquarium's Ocean Pollution Research Program), the cetacean research program, and the Marine Mammal Rescue Centre.



Lastly, regarding criticism of the expansion of the facility - the fact that it has attracted public and private sector capital with overwhelming public support is recognition of the fine work and valuable role the facility and its researchers play in our society. It also speaks to the popularity of the attraction among the 77,000 individuals that are members, the local visitors and international guests alike.

I thank you for your consideration of these facts and ask that you incorporate them into your thinking as you support the future of learning, research, tourism, and economic and societal growth through the Aquarium for many years to come. We will all be the better for your continued support of this unique Vancouver treasure.

Sincerely,

A handwritten signature in blue ink, appearing to read "Greg D'Avignon", written over a faint circular watermark or background.

Greg D'Avignon  
President and CEO

cc: Dr. John Nightingale



CANADIAN VETERINARY  
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339, rue Booth Street  
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f • (613) 236-9681  
admin@cvma-acmv.org

July 25, 2014

**Re: Vancouver Aquarium marine mammal rescue and rehabilitation program**

To Whom It May Concern:

The Canadian Veterinary Medical Association (CVMA) supports the Vancouver Aquarium's cetacean research and rescue and rehabilitation programs, and recognizes the Vancouver Aquarium as a leading marine science center that is accredited by the Association of Zoos and Aquariums (AZA) and the Canada's Accredited Zoos and Aquariums (CAZA). This accreditation signifies that the Vancouver Aquarium has met or exceeded established standards for animal health and welfare including animal exhibits, environmental enrichment and training, water quality, safety, nutrition and veterinary care. This institution is internationally recognized as an active leader in best practices in animal care, ocean research and marine animal rescue, rehabilitation, and release. For almost two decades the Vancouver Aquarium also has been committed to keeping wild cetaceans in their natural habitat, with the last collection of a wild cetacean occurring prior to 1996.

The Vancouver Aquarium features the only rescue center in Canada that is equipped with a highly dedicated and experienced team that can be immediately mobilized to rescue cetaceans in cases of mass stranding, oil spills, and other emergencies.

The Vancouver Aquarium works with other professionally accredited aquariums to collaborate on research studies, share best practices, and enhance staff expertise. They actively contribute to the scientific world through publications in leading journals and presentations at scientific conferences, as well as demonstrate a solid commitment to public education on environmental stewardship of our aquatic ecosystems.

Sincerely,

Dr. Jean Gauvin  
President  
Canadian Veterinary Medical Association

**One Profession, One Strong Voice  
Une profession, une seule voix**

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www.fisheries.ubc.ca

July 23, 2014

Vancouver Board of Parks and Recreation  
2099 Beach Avenue  
Vancouver, BC  
V6G 1Z4

Dear Vancouver Park Board Commissioners:

As a marine mammal scientist at the University of British Columbia, I feel compelled to write to you to emphasize the scientific value and provide insight into the well being of the cetaceans held at the Vancouver Aquarium.

As you are well aware, the issue of keeping animals in zoos and aquariums is complicated, with considerations relating to economy, politics, scientific value, and animal welfare. I feel that my experience and credentials permit me to speak on the latter two topics.

*Is the welfare of cetaceans at the Vancouver Aquarium compromised?*

It is imperative that the welfare of all animals in human care is properly protected. There are no federally mandated animal care requirements for marine mammals in Canada, so it is left to each institution or jurisdiction to implement a set of standards. This is why the Government of Ontario recently commissioned a report on "*Developing Standards of Care for Marine Mammals in Captivity and Recommendations Regarding How Best to Ensure the Most Humane Treatment of Captive Cetaceans*". As Chair of that report, I feel that I can provide context and an informed opinion on how the Vancouver Aquarium ensures the welfare of its cetaceans and how it compares to other institutions.

The United States has the most comprehensive, internationally recognized set of holding requirements for cetaceans. These obligations have been vetted and endorsed by members of the scientific, veterinary, and public communities and represent a high level of Standards of Care for this group of mammals. The Vancouver Aquarium, through its voluntary membership in the Association of Zoos and Aquariums, is obligated to meet these standards, as verified through regular inspections. In addition, its membership in the Alliance of Marine Mammal Parks and Aquariums requires the Vancouver Aquarium to meet a set of even higher standards of care, including larger minimum space requirements, which are recognized internationally as representing Best Practices in the care of cetaceans.



While there are always challenges in keeping any large animal in a display facility, there is no scientific reason to believe that the welfare of cetaceans at the Vancouver Aquarium is compromised. In fact, this institution goes beyond any reasonable expectations to ensure their welfare.

*Are the whales displayed at the Vancouver Aquarium a valuable scientific resource?*

As a scientist that has been working with marine mammals in the wild - in University labs and in aquariums around the world for almost 30 years - I feel that I am qualified to comment on the scientific value of the cetaceans held at the Vancouver Aquarium.

Many zoos and aquariums say they support scientific research at their institutions, but the extent of the value and encouragement of that research varies tremendously. The Vancouver Aquarium is known throughout the international scientific community for its willingness to facilitate outside researchers to conduct valuable science with the marine mammals in its collection. This research goes far beyond aspects of husbandry, and relates directly to the conservation of cetacean populations in the wild.

There are two often-cited arguments against the value of research on whales in aquariums in general; that almost no real research is conducted on these animals, and that the results of these studies are irrelevant to animals in the wild. Both of these assertions are patently false.

Those who suggest that there is little (further) scientific value to be gained from studying cetaceans in aquariums often cite an unreviewed study by Naomi Rose *et al.* who calculated that only 5% of scientific studies concerning cetaceans derived from work conducted with captive individuals. However, a more comprehensive, peer-reviewed examination estimated 30% of all scientific studies relied on research conducted with cetaceans held in display facilities. Several other published reviews have highlighted the scientific information pertaining to animal care and conservation that have been obtained from managed cetacean populations, including additional reviews encompassing two issues of the *International Journal of Comparative Psychology*.

Those who contend that research in "artificial environments" has no scientific value clearly have no real understanding of how science works. Empirical studies under controlled conditions are the foundation of scientific investigations. They allow for testing of specific hypotheses and fine-scale measurements without extraneous variation. These studies can then be applied to observations of animals in the wild.



The Vancouver Aquarium is unique in its active support of research with animals in its collection, including its cetaceans. They do far more than provide lip service that conservation research is part of their mandate. Their outstanding level of care and training, and their institutional philosophy of encouraging external scientists to conduct conservation-focussed studies, is unparalleled among North American aquariums. I have personally had the opportunity to conduct studies with the Aquarium cetaceans that have resulted in peer-reviewed papers in the scientific literature that have been directly used to address species management in the wild. It would be a substantial blow to the goal of conservation science if Canada's premier Aquarium were no longer able to provide such a valuable resource to the international scientific community.

As a biologist, I am naturally concerned with the well being of both wild animal populations as well as individual animals under human care. I appreciate that, given the vocal public opinion of a minority of residents, the Vancouver Park Board requires assurance that the cetaceans held within its jurisdiction are not suffering mentally or physically. However, it is my professional opinion that these animals are well cared for and provide a very important role in contributing to the conservation of their wild counterparts.

The Vancouver Aquarium is a model for other Canadian and international aquariums that hold cetaceans for research and public display. I encourage the Park Board not to consider any actions that would jeopardize this position.

Yours sincerely,

A handwritten signature in black ink that reads 'D. Rosen'.

David Rosen, Ph.D.  
Research Associate  
Marine Mammal Research Unit  
University of British Columbia



Faculty of Education

Dr. D.B. Zandvliet  
EDB 8642  
Faculty of Education  
8888 University Drive  
Burnaby BC V5A 1S6

T: 778.782.5680  
F: 778.782.4203  
E: dbz@sfu.ca

[www.educ.sfu.ca](http://www.educ.sfu.ca)

Dr. John Nightingale  
President & CEO, Vancouver Aquarium

Aaron Jasper  
Chair of the Vancouver Parks Board

Malcolm Bromley  
General Manager, Vancouver Board of Parks and Recreation

June 12, 2014

Today I am writing to you in support of the excellent programs and educational supports that your community-based institution has provided to British Columbia residents for many years. In my experience as an environmental educator, there is now an urgent need to connect people with oceans/nature and the aquarium is an important part of this equation.

Through its interactive exhibits and displays and other educational programs such as fieldtrip support, *AquaSchool* and *AquaCamps*, I believe there is great value in the work the Vancouver Aquarium is doing to connect people to the natural world – aquarium programs bring students closer to nature.

Now, like never before, we need to work together to achieve the goal of ocean literacy and I note that the aquarium has worked for many years with educational organizations (such as mine) from across BC. I'd also like to note that according to many of my colleagues, the Vancouver Aquarium is a well-respected marine science centre and a leader in the field.

In my honest opinion, the aquarium is a centre committed to education, research and action, and has played its part in educating well over a million students that have passed through its exhibits. As an educator, I look forward to my continued collaborations with the people and programs that form the heart of this important institution.

Yours in education,

A handwritten signature in black ink, appearing to read "David B. Zandvliet".

David B. Zandvliet  
Associate Professor, Director  
Institute for Environmental Learning

Faculty of Education  
Simon Fraser University

July 30, 2014

Park Board Commissioners  
Vancouver Board of Parks and Recreation  
2099 Beach Avenue  
Vancouver, B.C.  
V6G 1Z4



**Sent by e-mail only.**

**Subject:** Reaffirmation of our support for The Vancouver Aquarium

Commissioners,

In the Fall of 2006, our association participated in the public discourse on whether or not the aquarium should revitalize and expand its facility that would include larger pools for cetaceans. After careful deliberation, the Board of Directors agreed to support the aquarium's proposal on the basis that it contributes significantly to the regional economy. Attached for your reference is a copy of our letter to you dated November 20, 2006.

Since that last written communication to you on this matter, the Vancouver Aquarium has secured the necessary approvals from the Parks Board and the City of Vancouver to proceed with the revitalization and expansion. It has also successfully raised the funds, including \$25 million of senior government funding, to finance its \$105 million project. About forty percent of this amount has already been spent.

In light of the renewed public discourse about the aquarium, the Board of Directors revisited its position of almost eight years ago at its regularly scheduled meeting held on July 29, 2014. The result: a unanimous reaffirmation of our support for the Vancouver Aquarium for these reasons:

1. It is a consistent contributor to the regional economy as reported by MNP LLP in its 2013 report entitled **Economic and Social Contributions: Vancouver Aquarium**. According to MNP LLP, the economic impact of spending by all out-of-town visitors that can be attributed to the aquarium is pegged at \$212 million annually.
2. It is a major employer in this market with 450 staff, 340 full-time equivalents. In fact, according to the Vancouver Economic Commission's **2009 BIZMap Market Area Profiles** on Downtown Vancouver, if the aquarium was listed, it would be classified as a large employer, 50-plus employees, and it would be in a very small group representing only 5% of the total employers based downtown. Micro employers (less than 5 employees) and small employers (5 to 20 employees) make up the majority of employers, 55% and 33% respectively.

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**PRESIDENT AND CEO:**

Charles Gauthier

Also noteworthy, a full 61% of businesses located downtown are retail or service businesses—15% and 46% respectively. This further underscores the important role that the Vancouver Aquarium plays in supporting many of these micro businesses.

3. It is the largest tourist attraction in the region, in excess of over 1,000,000 annual visitors.

In closing, we kindly request that you reaffirm your support for the Vancouver Aquarium so that it can grow and continue its role as a major contributor to the regional economy.

Sincerely,  
DOWNTOWN VANCOUVER BUSINESS IMPROVEMENT ASSOCIATION



Charles Gauthier, MCP  
President and CEO

c.c. Dr. John Nightingale, President and CEO, The Vancouver Aquarium  
Mayor and Council, City of Vancouver

1 Attachment



Vancouver Board of Parks and Recreation  
Administration Office  
2099 Beach Avenue  
Vancouver, BC V6G 1Z4

July 23, 2014

Dear Members of the Vancouver Parks Board,

I have been following the recent debate as to the housing of Cetaceans at the Vancouver Aquarium Marine Science Centre, and to this end, I wish to comment on the considerable education benefits and public understanding that housing of such Cetaceans provide. I do so as 1) an academic and research professor with more than 20 years professional experience in the field of informal science education, and 2) with backing of a plethora of peer-reviewed, published research studies that attest to such educational benefits and public understanding (c.f. Mann & Vernon, 2013). In crafting this letter of support I would like to preface two points from the outset, namely,

1. the knowledge gained through research at the aquarium is used to protect these animals in the wild and to rescue and rehabilitate them at the Aquarium's marine mammal rescue centre.
2. the aquarium is recognized as a leading institution in engaging people and connecting them to the natural world, of which whales are an important part.

The focus of my comment, however, pertains primarily toward the considerable educational benefits and public understanding and awareness that housing of the Cetaceans provide.

No one can argue against the established fact that our natural world and its oceans are in trouble because humankind has been, and is, increasingly disconnected (Kim, Anderson, & Scott, 2014) from them. Because of our disconnection from marine nature, the world faces huge issues of ocean pollution, marine debris, overfishing, and lack of knowledge! We need institutions like Vancouver Aquarium and alike that can provide experiential and educational opportunities for connectedness and understanding. Such mediation of positive experiences with nature, including those facilitated by Vancouver Aquarium are important because they increase our connected to nature. Indeed, connecting people to nature and marine life is the first step in helping them care about our environment and wanting to make it better. Furthermore, it is imperative that today's youth learn about the threats facing marine mammals in the wild. They are the ones who will be making future decisions that affect these species. Hence, it is through institutions such as the Vancouver Aquarium, that knowledge, understanding and caring effectively mediated.

A number of peer-reviewed, published research studies attest to the positive impact of aquarium visits on people and the learning (knowledge/attitudes/behaviours) that results. For example, in a study by Falk, et. al., (2007), which included 1,862 visitors over a three-year period, it was demonstrated that visits to accredited zoos and aquariums prompted many individuals (54%) to reconsider their role in environmental problems and conservation action, and to see themselves as part of the solution. Furthermore, a majority (57%) of visitors said that their visit experience strengthened their connection to nature. A study by Ballantyne, Packer, Hughes, and Dierking (2007), supports the fact that visitors' first hand encounters with real animals contribute significantly to conservation learning, including observing animals in their 'natural' environment; opportunities for close encounters with wildlife; opportunities to observe animal behaviour. Furthermore, engaging visitors emotionally; connecting with visitors' prior knowledge and experiences; using persuasive communication; linking conservation goals and everyday actions; and providing incentives and activities to support visitors' behaviour change – all of these pedagogies are employed by the Vancouver Aquarium's education programs, particularly in the programs concerning Cetaceans. It is because of this first hand encounter that visitor environmental attitudes and behavior change – connecting them more to our ocean environments, helping them care more about our environments, and helping them want to make a difference. While it is certainly possible to put together an effective educational program about marine mammals using biofacts, videos, and other tools, there is nothing more impressive, memorable, or transforming than encountering the live animals. Being able to directly observe animal care techniques, meet the marine mammal care professionals, and see these amazing animals up close are second to none when it comes to educational impact and transformation of attitudes and environmental behaviours.

As a professor of museum education at UBC, I can further attest to aquarium leadership in the education field and it works to support educators at all levels (K-12 Schools, Universities). For many years UBC's teacher education program has partnered with Vancouver Aquarium as a practicum venues for pre-service teachers to acquire pedagogical skill as educators they could not acquire in the classroom alone. The Cetaceans and associate program has been an instrumental training ground for teaching the next generation of teacher how to become effective educators, which in turn has beneficially affected 1000's of students in the science classroom of British Columbia.

I would urge you to continue to strongly support the Aquarium's mission to support the conservation of aquatic life through display, communication, public programming and education, research and direct action.

Yours sincerely,



Dr. David Anderson  
*Director – Master of Museum Education (MMEd) Program*  
*Professor – Museum Education*  
Department of Curriculum and Pedagogy



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25 July 2014

Niki Sharma (Chair) [niki.sharma@vancouver.ca](mailto:niki.sharma@vancouver.ca);  
Constance Barnes (Vice-Chair) [constance.barnes@vancouver.ca](mailto:constance.barnes@vancouver.ca); and  
Park Board Commissioners ([sarah.blyth@vancouver.ca](mailto:sarah.blyth@vancouver.ca), [trevor.loke@vancouver.ca](mailto:trevor.loke@vancouver.ca),  
[Aaron.Jasper@vancouver.ca](mailto:Aaron.Jasper@vancouver.ca), [Melissa.deGenova@vancouver.ca](mailto:Melissa.deGenova@vancouver.ca),  
[john.coupar@vancouver.ca](mailto:john.coupar@vancouver.ca), [mayorandcouncil@vancouver.ca](mailto:mayorandcouncil@vancouver.ca),  
[gregor.robertson@vancouver.ca](mailto:gregor.robertson@vancouver.ca)

Dear Vancouver's Park Board Chair, Vice-Chair, and Board Commissioners,

I am writing with concern over the debate regarding maintaining cetaceans in human care at the Vancouver Aquarium. Animals at Vancouver Aquarium receive exceptional care, led by a world-renowned veterinarian who collaborates with vets and scientists from around the world to share knowledge.

I have 25+ years experience studying acoustics, behavior and communication of several delphinid species both in the wild and in captivity. I collect my data from the underwater perspective with support during the entirety of my career from eco-tourists. I have spent more than two decades studying wild Atlantic spotted dolphins (Bahamas) and Indo-Pacific bottlenose dolphins (Japan), and more than a dozen years in systematic comparative studies of three groups of captive bottlenose dolphins (Roatan Institute for Marine Sciences, Honduras; Dolphin Encounters at Blue Lagoon Island, Bahamas; Zoo Duisburg, Germany). Although some claim that research in zoological parks is not relevant to wild populations, I find significantly more similarities in behaviors and vocal cues between individuals in all groups than I do differences.

The Dolphin Communication Project (DCP) is the only organization to conduct direct comparative behavioral studies on both captive and wild dolphins – collecting our data via a focal follow, all occurrence sampling protocol in *exactly* the same manner at all of our field sites and then analyzing the data from all field sites also in *exactly* the same manner. We find no statistically significant differences between how dolphins exchange information – their signals as behaviors, postures, gestures or vocal cues, etc. – whether the dolphins are wild or captive. We have several papers published – see list below.

Specifically, my colleagues and I have examined whether individual dolphins from three wild and two captive groups exchange pectoral fin (aka flipper) contact in the same or different ways. Our results suggest that the messages dolphins share with each other via their pectoral fins (e.g., greetings via flipper to flipper touch, appeasement via flipper to body rubs, etc.) are conserved across dolphin species and study sites. The signals used and messages sent are roughly the same whether dolphins are wild or captive (natural lagoon or man-made pool), tropical or temperate in habitat.

Indeed, we are much closer to understanding dolphin cognitive comprehension precisely because of research with captive dolphins; Dr. Louis Herman and his colleagues at the Kewalo Basin Marine Mammal Laboratory in Hawaii spent several decades enlightening the scientific and public communities to the fact that dolphins can comprehend the

[www.dolphincommunicationproject.org](http://www.dolphincommunicationproject.org)

DOLPHIN COMMUNICATION PROJECT

P.O. Box 711, Old Mystic, CT 06372-0711 • Tel: 860 514 4704

components of language (syntax, semantics), that they have body awareness, can understand abstract labels, gestural pointing and human gaze directions. Similarly, the professional teams at Vancouver Aquarium are at the forefront of best practices in animal care, ocean research and direct action programs. Vancouver's marine science centre is considered one of the top five in the world contributing to global knowledge on ocean conservation and science. As the only rescue centre in Canada with a team that can be mobilized to rescue cetaceans, Vancouver Aquarium's continued learning is vital to ocean and marine mammal conservation efforts.

Conservation is a key issue in protecting our planet – both terrestrial and aquatic habitats and species. Presenting charismatic megafauna (e.g., dolphins) allows a facility to capture the attention of millions of people who will never visit the oceans. Aquariums allow people to connect to the animals and systems that drive our ocean planet. It is precisely because of these displays that many folks will become passionate about the oceans and protecting them.

Our understanding of dolphin physiology, behavior, and biology has increased dramatically, even exponentially, since the first marine park opened more than 70 years ago. This increased knowledge led to technological innovations that allowed facilities to greatly improve their husbandry practices as well as their enrichment, research, and educational programs. In fact, I believe that our understanding of dolphins would be a mere shadow of our current knowledge and collective expertise if we'd not been able to observe, study, care for, and maintain dolphins in captivity. We would know next to nothing of their physiology nor have any real insight into their mind or cognitive abilities. All of these arguments are relevant for other delphinids. Without a keen understanding of a species at both the group and individual levels, how could we even make informed decisions about conservation or management issues that would also benefit wild populations?

Our oceans are in peril. The number of people in cities greatly exceeds those in rural regions. These urbanites rarely get to interact with wild animals on land, much less visit the coastline or oceans. In fact, many residents of cities will only ever experience dolphins as a result of school trips or because of ready access to an aquarium. It would be the rare few who might ever see a wild dolphin or whale. Indeed, we have residents of cities join our eco-tours but we can accommodate 8-10 people per week program – and only are able to run a few programs each year to assist with our data collection field work! Yet, to protect these animals, the majority of the voices will come from cities and these people need a way to connect with these animals. They need an up-close and personal way to connect with our natural world and our oceans. Facilities like Vancouver Aquarium offer the personal connection to foster the next general of environmental stewards. Learning gained from working closely with cetaceans is used to help rescue, rehabilitate and release marine mammals.

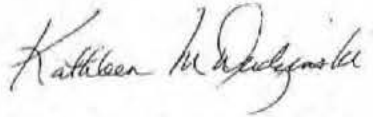
There are multiple layers involved in understanding another species; research results fuel and encourage a greater connection for humans as environmental stewards. All of the captive animals I have studied are healthy, happy and enriched. The fact that captive and wild dolphin behaviors that I have studied are often statistically indistinguishable from each other supports my view. The benefits we gain from having these animals in human care, in captivity, are not just for research but also for conservation and education efforts.

In an effort to share what our community has learned from captive dolphins, John Anderson, Terramar Productions, and I produced a film titled *Understanding Dolphins*. Our film presents a fraction of what we have learned from studying captive dolphins. You can view this 26 minute film at the following link: <https://vimeo.com/92797184>

Dolphin Communication Project  
P.O. Box 711, Old Mystic, CT 06372-0711  
[www.dolphincommunicationproject.org](http://www.dolphincommunicationproject.org)

Thank you for your time and consideration. Please feel free to contact me with questions or comments.

Sincerely,



Kathleen M. Dudzinski, Ph.D.  
Director, Dolphin Communication Project

cc.: Charlene Chiang, Vancouver Aquarium ([publicrelations@vanaqua.org](mailto:publicrelations@vanaqua.org),  
[webmaster@vanaqua.org](mailto:webmaster@vanaqua.org))

**Available Files:**

*List of Scientific Publications - captive versus wild dolphin comparisons*

- Dudzinski, KM, Danaher-Garcia, N, Gregg, JD. 2013. Pectoral fin contact between dolphin dyads at Zoo Duisburg, with comparison to other dolphin study populations. Submitted to *Aquatic Mammals*. 39(4): 335-343
- Dudzinski, KM, Gregg, JD, Melillo-Sweeting, K, Levensgood, A, Seay, B., Kuczaj II, SA. 2012. Tactile contact exchanges between dolphins: self-rubbing versus inter-individual contact in three species from three geographies. *International Journal of Comparative Psychology - Special Symposium Issue* 25: 21-43
- Greene, W, Melillo-Sweeting, K, Dudzinski, KM. 2011. Comparing object play in captive and wild dolphins. *International Journal of Comparative Psychology* 24(3), 292-306
- Dudzinski, KM. 2010. Overlap between information gained from complimentary and comparative studies of captive and wild dolphin communication. *International Journal of Comparative Psychology* 23(4): 566-586.
- Dudzinski, KM, Gregg, JD, Paulos, RD, Kuczaj, SA. 2010. A comparison of pectoral fin contact behaviour for three distinct dolphin populations. *Behavioural Processes* 84: 559-567.
- Dudzinski, KM, Gregg, JD, Ribic, CA, Kuczaj, SA. 2009. Flipper's flipper - a comparison of how, where and why spotted and bottlenose dolphins use their pectoral fins to touch peers. *Behavioural Processes* 80: 182-190.

PDFs available on request, and some are available for free download from the publications page on the DCP web site at: <http://dolphincommunicationproject.org/publications/scientific-publications.html>

Dolphin Communication Project  
P.O. Box 711, Old Mystic, CT 06372-0711  
[www.dolphincommunicationproject.org](http://www.dolphincommunicationproject.org)

**SUBJECT: Presentation to the Parks Board meeting on captive cetaceans at the Vancouver Aquarium**

Dear members of the Board of Parks and Recreation (Vancouver):

My name is Dr Peter Ross, and I speak to you today as Director of the new Ocean Pollution Research Program at the Vancouver Aquarium. Unfortunately I am unable to present this in person because of a prior commitment on Monday July 28 (I was registered as speaker number 82).

I speak to you as a newcomer to the Vancouver Aquarium, having served as a scientist with the Canadian government for 17 years; one whose laboratory was shut down along with our country's entire national marine pollution research team in 2013. During my time at the DFO Institute of Ocean Sciences in Sidney (BC), I worked on PCBs in our beloved killer whales, flame retardants in harbor seals, and hydrocarbons in sea otters. I did so largely by working on wild populations, but I also gleaned important insight into pollutants and health using samples from captive marine mammals. These more controlled studies would simply not have been possible in wild whales.

I would like to be clear: science does not need whales in captivity, but science does benefit from access to such individuals. And the study of captive marine mammals has on countless occasions provided invaluable information to managers, regulators and conservationists on factors affecting the health of wild whales and their habitat.

In taking me and my program on, the Vancouver Aquarium took a courageous step in assuming responsibility for ocean science at a time when so many others have seemingly abandoned our oceans. I joined the Vancouver Aquarium because I believe that it represents the best place for me to continue my work on some of the most pressing conservation threats facing our ocean. This research will provide guidance to stakeholders and regulators on what steps we can take to reduce our impact on the ocean and ensure the survival of wild whales for future generations.

And this, in my view, is in fact central to today's discussion.

Because we are talking today about whales, their needs, their well-being, and what's right.

And as we ponder the future of captive cetaceans at the Vancouver Aquarium, I cannot be but profoundly concerned about the future of wild whales and the ocean. Over half a million marine mammals die each year in fishing nets around the world. Over 400 sea

lions are presently entangled in plastic packing straps on the west coast of Vancouver Island alone. Pesticides, industrial chemicals, flame retardants, pharmaceuticals and plastics enter our ocean through sewage, runoff, deliberate release or accident. Beluga whales in the arctic and the St Lawrence are threatened by oil, industrial chemicals, by underwater noise and by a changing environment.

In a perfect world, these issues would be an integral part of a prolonged and energized conversation with concerned citizens from Vancouver and elsewhere.

Ladies and gentlemen of the Parks Board, your mandate is to deliberate on the fate of the cetaceans at the Aquarium. I can only hope that your deliberations will consider the broader plight of wild whales, and our information needs from the best possible science, as we seek to protect them in a rapidly degrading ocean.

Thank you.

-Peter S. Ross, PhD  
Director, Ocean Pollution Research Program, Vancouver Aquarium  
And Adjunct Professor, University of Victoria



Department of Zoology  
University of British Columbia



Dear Vancouver's Elected Officials,

We are a group of researchers that are writing this letter in support of the Vancouver Aquarium and their collection of cetaceans (whales, dolphins, and porpoises). Members of our group conduct respiratory and hearing anatomy and physiology research on wild belugas in the Western Arctic. Our research conducted on cetaceans at the Vancouver Aquarium provides us an essential comparative framework for these wild populations.

Vancouver Aquarium is not only a leading marine science centre in Canada but it is also recognized internationally for its high standards of animal care and important research that has direct conservation consequences for wild marine mammals. Our group of scientists are involved with them to study the respiratory physiology and to develop tools to perform lung function testing in captive and stranded cetaceans. Respiratory disease is a major cause of disease and mortality in both wild animals and those held under human care. The studies we are performing with the Vancouver Aquarium and their rehabilitation centre allows us access to determine what is normal versus diseased. These data can then be used to diagnose and determine the efficacy of clinical treatment for specific respiratory diseases. In addition, the tools can be used by stranding networks to triage animals on a beach to increase the success of release.

Moreover, part of our research also focuses on the effects of man-made underwater noise on cetaceans. We analyze the inner ear of stranded and harvested individuals to diagnose whether the animals have suffered present or past acoustic trauma. The hearing measurements that the Vancouver Aquarium is performing on their cetaceans are critical to build normal cochlear frequency maps of several cetacean species. This information is necessary so that when acoustic trauma is found in cetaceans they can then be overlaid onto the map and then the acoustic source(s) can then be extrapolated based on sound frequency level. Without the Vancouver Aquarium's research on hearing ability and cochlear mapping, we would not be able to track the source causing acoustic trauma in wild populations.

For the beluga whale, our research with the Vancouver Aquarium is vitally important as Canada's Arctic is facing increasing pressure and impacts due to human presence. Consequently, without marine science centres like the Vancouver Aquarium, this vital research cannot be performed and we will lose the ability to assess how man-made change affects their ecosystem and ability to survive. Thus, belugas at the Vancouver Aquarium provide critical research opportunities to protect wild populations. If the cetacean program is phased out, so will this vital research.

In addition, the marine mammal rehabilitation center at the Vancouver Aquarium is unique as they are among few places that have successfully rescued, treated and released harbor porpoises. This is a testament to the dedication and expertise that exist among their veterinary and care taker staff. If this facility is closed, not only will the ability to care for stranded, sick and injured marine mammals, including endangered killer whales, be lost entirely, but also the knowledge of how to care for, treat and rehabilitate these animals.

We understand you are reviewing best practices and this is an important process to assure that these animals are given the best care that is possible. As one of the top five marine science centres in the world, Vancouver Aquarium is the one setting those high standards of best practice and they are continuously striving to improve.

Sincerely,

Dr. Andreas Fahlman, Professor, Texas A&M  
Marina Piscitelli, University of British Columbia  
Dr. Maria Morell, University of British Columbia  
Dr. Robert Shadwick, Canada Research Chair, Department of Zoology, University of British Columbia



17<sup>th</sup> July 2014

**Aaron Jasper**, Chair, Vancouver Board of Parks and Recreation  
**Malcolm Bromley**, General Manager, Vancouver Board of Parks and Recreation  
**Park Board Commissioners**  
Vancouver Board of Parks and Recreation  
2099 Beach Avenue  
Vancouver, BC V6G 1Z4

Dear Mr. Jasper, Mr. Bromley and Park Board Commissioners:

I am writing to you today in support of the Vancouver Aquarium and its cetacean program.

I am a marine mammal research technician working in the Central Arctic Region with the Department of Fisheries and Oceans. Part of my work involves stock assessment research on beluga, narwhal and walrus. For over 30 years I have been working alongside scientists largely on population assessment of Canadian Arctic odontocete cetaceans (belugas and narwhals), including hunter kill biological sampling, population census surveys and studies of movement and habitat use patterns using satellite tracking and time-depth recording. For the past 20 years I have been developing and perfecting field techniques related to the capture, handling and tagging of belugas and narwhals.

I have had a close working relationship with the professional animal management team at the Vancouver Aquarium since the early 90s. Arctic studies are critically important in the assessment and protection of wild stocks and we greatly value partnerships that enhance our ability to effectively conduct this scientific work. The belugas at the Vancouver Aquarium appear to be well cared for and very well trained. This condition allows for field scientists to test or pre-qualify non-intrusive attachments, equipment and techniques with the aquarium beluga collection prior to deployment in the field. The knowledge we gain from captive whale reactions can be invaluable at times. The Arctic is remote and the climate can be harsh and extreme making the field research efforts expensive and our particular work limited to a window of just a few months every year – having equipment and techniques calibrated before heading to the field can result in improved reliability, confidence and success. One such example is the use of flipper bands a simple noninvasive bracelet that we developed to specifically identify individual wild beluga. These passive identification bands were tested on Vancouver Aquarium belugas for comfort, durability, swimming and maneuverability impact, evaluation of potential physical trauma etc. and then when satisfied, successfully deployed on belugas in the wild.

The Vancouver Aquarium has also provided experts in the handling and care of cetaceans to assist directly in our Arctic field studies. Clint Wright the General Manager and Senior Vice President of Animal Operations has over 30-years hands-on

experience working with marine mammals. He has been a regularly participating field crew member over the last 20 years by providing invaluable support to our beluga tagging and science programs in the Western, Central and Eastern Arctic. For the last 5 years he has been providing that same support to our narwhal research program. The expertise that Clint has gained from routinely handling and caring for belugas and other cetaceans in aquariums is of great benefit to the care of the animals that we are studying in the Arctic. The crews consist of scientists, technicians, veterinarians and local Inuit support. It is always extremely important that the scientists can access the animals safely and conduct their work rapidly with minimum discomfort to the animals, so that they may be released as soon as we can. We have confidence in our animal handling operations and with experts like Clint improving handling techniques, providing health care support to the veterinarian and providing expert behavioural advice this is continually improving.

Yours truly,



Jack R. Orr

204 984-2187 | facsimile 204 984-2403

[Jack.Orr@dfo-mpo.gc.ca](mailto:Jack.Orr@dfo-mpo.gc.ca)

Marine Mammal Research

Arctic Research Division

Central & Arctic Region

Fisheries and Oceans Canada

501 University Crescent, Winnipeg, Manitoba, R3T 2N6

Government of Canada

cc: Dr. John Nightingale, Vancouver Aquarium  
Clint Wright, Vancouver Aquarium

**JAMES F. GESUALDI, P.C.**  
Attorney at Law  
58 Wingam Drive  
Islip, Long Island, New York 11751-4112  
(631) 224-4801  
Facsimile: (631) 224-1678  
[Jfges@aol.com](mailto:Jfges@aol.com)

July 28, 2014

Mr. Aaron Jasper, Chair, Vancouver Board of Parks and Recreation  
Mr. Malcolm Bromley, General Manager, Vancouver Board of Parks and Recreation  
Park Board Commissioners  
Vancouver Board of Parks and Recreation  
2099 Beach Avenue  
Vancouver, British Columbia V6G 1Z4

Re: Vancouver Aquarium

Dear Mr. Jasper and Mr. Bromley:

This is to thank you for the opportunity to comment upon the Vancouver community's leading edge efforts in cetacean conservation and welfare and the Park Board's review of the Vancouver Aquarium's (the "Aquarium") cetacean program.

The following comments are respectfully submitted, on my own behalf and not in any representative capacity, and are based upon twenty-five years' experience working on animal welfare and wildlife conservation matters in the marine mammal and broader zoological communities as well as within the field of Animal Law.<sup>1</sup> My efforts have been dedicated to making a difference for animals and people by bringing people together and working constructively to elevate consciousness about animal welfare.

### The Cetacean Conversation

Vancouver is a diverse and dynamic world class community noted for its storied parks and environmental sensitivity, as well as for the Aquarium and its outstanding work on behalf of marine life throughout Canada and around the world. Vancouver has periodically been at the forefront of the global "cetacean conversation" and has through collaboration with the Aquarium

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<sup>1</sup> Admitted to practice in New York State in the United States. I am not admitted to practice law in British Columbia or Canada but these comments are based upon animal welfare policy matters in the United States and several other countries.

**James F. Gesualdi, P.C.**

Mr. Aaron Jasper  
Mr. Malcolm Bromley  
Page 2  
July 28, 2014

elevated consciousness about cetaceans and enlightened means for their care, conservation and protection. This constructive action has extended beyond the Aquarium and Vancouver and has provided the world with a unique model worth emulating and one which allows the Aquarium to be even more influential within and outside the zoological community.

### **The Vancouver Model**

The Vancouver community's full engagement with its beloved and respected Aquarium and the Park Board's judicious oversight appears to have challenged the Aquarium to higher standards beyond provincial and Canadian requirements as well as above even those of the professional organizations accrediting the Aquarium. This has heightened the Aquarium's extraordinary commitment to enhancing cetacean welfare and promoting cetacean conservation. It has also fueled continuous improvement while the Aquarium and its staff remain ever vigilant and sensitive as to the importance of serving the animals in their care, those in the wild, and others elsewhere that might benefit from further advances.

### **The Park Board Bylaw**

The Park Board's Bylaw section 9(e) sets forth the limited circumstances where cetaceans may reside at the Aquarium. (See, <http://vancouver.ca/files/cov/parks-control-bylaw-january-2008.pdf>.) In essence, only those animals dependent upon human care, whether long term residents, born in human care, or rescued and rehabilitated animals deemed unsuitable for release. This protects both cetaceans in the wild and in human care. Cetaceans in the wild are to be maintained and conserved in their natural habitats, and those cetaceans residing at the Aquarium are there because their welfare and quite possibly their lives require the Aquarium staff's loving care.

### **The Aquarium's Cetacean Covenant**

The Aquarium has further elevated its commitment to cetacean welfare and conservation via the Cetacean Covenant which expands upon the Vancouver Model. (See, <http://www.aquablog.ca/2014/07/our-promise-for-marine-mammal-protection/>.) The Cetacean Covenant advances the compassion, dignity and respect to be afforded cetaceans in the wild and in the Aquarium's care.

### **Excellence in Advancing Cetacean Welfare**

The Park Board and the Aquarium have collaboratively advanced cetacean welfare and conservation through the Cetacean Conversation, the Park Board Bylaw and the Cetacean Covenant. The Vancouver Model provides the foundation for a further paradigm shift in terms of cetacean welfare and conservation where the Aquarium continues as a world leader and is better positioned to help cetaceans everywhere.

James F. Gesualdi, P.C.

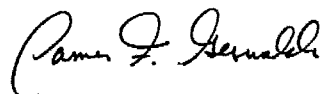
Mr. Aaron Jasper  
Mr. Malcolm Bromley  
Page 3  
July 28, 2014

The following constructive measures are respectfully suggested:

1. The Aquarium Cetacean Covenant should be modified slightly as follows. Item 5 will be supplemented (or an item 6 will be added) to make clear what the Aquarium already does: **We will apply the knowledge we learn from our rescue, rehabilitation, release and research work with marine mammals in the wild to the animals in the Aquarium's care.** This simply memorializes what the Aquarium already does but makes clear that all activities also benefit and enhance the welfare of the cetaceans in the Aquarium's care.
2. Although current Aquarium staff may perform aspects of this function, the Aquarium shall establish an executive level Animal Welfare Officer whose primary focus and responsibility is the continuing enhancement of the welfare of the cetaceans and other animals in the Aquarium's care.
3. Through the Animal Welfare Officer the Aquarium will create and maintain an Animal Welfare Plan for the ongoing enhancement, assessment, validation and refinement of cetacean and animal welfare related measures at the Aquarium.
4. The Aquarium shall prepare and make available an Annual Report on animal welfare enhancements as well as on the direct and verifiable contributions of its many activities to enhancing animal welfare, promoting wildlife conservation, and educating and activating public action on behalf of aquatic life and aquatic environments. (This is somewhat broader than the recommendation in the July 23, 2014 Report to the Vancouver Board of Parks and Recreation entitled, "A review of the Vancouver Aquarium's current operations pertaining to cetaceans with comparison to other aquariums" by Joseph K. Gaydos, VMD, PhD and Sarah Bahan, MESC).

Thank you for your anticipated thoughtful consideration and your commitment to constructively advancing cetacean welfare and conservation.

Very truly yours,



James F. Gesualdi

JFG/pam

**James F. Gesualdi, P.C.**

Mr. Aaron Jasper  
Mr. Malcolm Bromley  
Page 4  
July 28, 2014

ccs: [constance.barnes@vancouver.ca](mailto:constance.barnes@vancouver.ca)  
[sarah.blyth@vancouver.ca](mailto:sarah.blyth@vancouver.ca)  
[trevor.loke@vancouver.ca](mailto:trevor.loke@vancouver.ca)  
[Aaron.Jasper@vancouver.ca](mailto:Aaron.Jasper@vancouver.ca)  
[Melissa.deGenova@vancouver.ca](mailto:Melissa.deGenova@vancouver.ca)  
[niki.sharma@vancouver.ca](mailto:niki.sharma@vancouver.ca)  
[john.coupar@vancouver.ca](mailto:john.coupar@vancouver.ca)  
[mayorandcouncil@vancouver.ca](mailto:mayorandcouncil@vancouver.ca)  
[webmaster@vanaqua.org](mailto:webmaster@vanaqua.org)  
[publicrelations@vanaqua.org](mailto:publicrelations@vanaqua.org)

**James F. Gesualdi** has dedicated himself to his work on legal, regulatory and related matters regarding animal welfare and wildlife conservation. He works extensively with the U.S. Animal Welfare Act and champions ways to improve its administration and enforcement, as well as engaging in consensus building on related policy matters. He is the author of the forthcoming book, *EXCELLENCE BEYOND COMPLIANCE: Enhancing Animal Welfare Through the Constructive Use of the Animal Welfare Act*.

Gesualdi's leadership experience includes serving as chair of the New York State Bar Association Committee on Animals and the Law; founding co-chair of the Suffolk County Bar Association Animal Law Committee; vice chair of the American Bar Association Young Lawyers Division Animal Protection Committee; and as a member (and an incoming General Vice Chair) of the American Bar Association Tort Trial and Insurance Practice Section Animal Law Committee, and the Section of Administrative Law and Regulatory Practice. He has served as special professor of law at Hofstra University School of Law, where he has taught Animal Law. He has also served on the faculty of the Association of Zoos and Aquariums' "Zoo School" for zoological professionals, where he taught courses on ethical considerations relating to animals.

He was special counsel to the marine mammal community's Working Group on the Reintroduction of Marine Mammals to the Wild, and participated in the U.S. Department of Agriculture Animal Plant and Health Inspection Service's Marine Mammal Negotiated Rulemaking, completing a voluminous "Analysis and Commentary" on this subject.

He earned his B.A. degree from St. Lawrence University where he graduated magna cum laude, Phi Beta Kappa, with highest honors in Government; his M.A. in Political Science (Public Affairs) from the State University of New York at Stony Brook; and his J.D. degree from the Hofstra University School of Law from which he graduated with Distinction and where he served as a Notes and Comments Editor of the Law Review. His work has been profiled in the American Bar Association Journal, The New York Times, The New York Law Journal, Newsday, Long Island Business News and in Careers in Animal Law.

**Hon. John A. Fraser**  
P.C., O.C., O.B.C., C.D., Q.C. LL.D. (Hon.)  
6427 Balsam Way  
Whistler, BC V0N 1B6

16 July 2014

Mr. Mayor and Council, City of Vancouver  
Mr. Chair and Commissioners, Vancouver Board of Parks and Recreation  
Mr. Malcolm Bromley, General Manager, Vancouver Board of Parks and Recreation

To Whom It May Concern:

I am writing to express my strong support for the Vancouver Aquarium Marine Science Centre. My career has been dedicated to bettering our great nation and our world, having been privileged to serve in the House of Commons from 1972 through 1993. During this time I held portfolios including Minister of Environment, Minister of Fisheries and Oceans and completed my political career as Speaker of the House of Commons. I was then appointed by the incoming Liberal government as Canadian Ambassador to the Environment.

I am a life-long conservationist. I have visited all corners of this country and some other countries and have learned much about the importance of the conservation of our natural world. There are few organizations that are as well regarded and have had such an important impact on the conservation of our natural world as has the Vancouver Aquarium.

I am not an advocate for catching animals from the wild. However, over my many years of working as a conservationist I have learned that without a doubt, the most impactful and effective way to connect and endear children and adults is through seeing live animals up close. In 1996, the Vancouver Aquarium took a leadership role by becoming the first aquarium in the world to commit to never again catch a wild whale or dolphin, and it has lived by this policy since that time. We Canadians should be very proud of this fact.

The animals in the care of the Aquarium are important ambassadors for the organization's work in conservation but are also vital to understanding these species. The world is changing. The knowledge and insight gained by the Aquarium in taking care of whales and dolphins is vital to understanding what the world needs to do to have a hope of maintaining populations in the wild. Scientists, policy makers and environmental strategists look to the Vancouver Aquarium for groundbreaking research on the impacts of the rapidly changing climate in the arctic.

This is not the time to be questioning the holding of cetaceans at the Vancouver Aquarium. This is the time to support this world-leading organization and the important work that it does in saving species and understanding the impacts of human actions on our natural world.

Sincerely,



John A. Fraser

cc: John Nightingale, Vancouver Aquarium

Residence: 604.932.2645  
Cell: 604.908.1733  
Email: [Johnfraser@shaw.ca](mailto:Johnfraser@shaw.ca)





THE KIDS'  
CONSERVATION  
ORGANIZATION

June 13, 2014

Aaron Jasper  
Chair  
Vancouver Board of Parks and Recreation  
2099 Beach Avenue  
Vancouver, BC  
V5G 1Z4

Dear Mr. Jasper,

My name is Peter Kendall and I am the Executive Director of Earth Rangers. I am writing you today to express our respect and support for the Vancouver Aquarium and its programs.

Earth Rangers is the kids' conservation organization, we are dedicated to educating children and their families about biodiversity, inspiring them to adopt more sustainable behaviors and empowering them to become directly involved in protecting animals and their habitats. Each year we visit over 550 schools across Canada delivering interactive school-wide assemblies and hands-on classroom experiments focused on biodiversity and environmental science. Our programs feature our live animal ambassadors who demonstrate their natural behaviors like our eagles, hawks and owls that soar over an audience of students. After participating in our assembly program, or seeing our PSA's on YTV, children are inspired to join Earth Rangers online to help protect wildlife by fundraising to support conservation projects across the country and by accepting animal saving missions to protect animals in their own backyard. Our membership program currently features 30,000 members and averages over 250 new members per day.

While we agree with Dr. Jane Goodall that it's important for wild animals to live in their natural habitats, the reality is that many species face dire threats in the wild and require human led conservation measures to ensure their survival. Animals born into certified and approved captive breeding programs not only help to bring back endangered species through specialized, controlled and monitored breeding, but as we at Earth Rangers' experience firsthand, also provide educational opportunities for children and families to experience wildlife first hand so they can be inspired to take action.

An example of how effective captive breeding and education can be is Earth Rangers' and the Vancouver Aquarium's Oregon spotted frog conservation project. From September 2012 to August 2013, over 5,000 kids signed up to protect the most endangered amphibian in Canada, Oregon spotted frogs. Funds raised supported the construction of a state-of-the-art tadpole breeding facility at the Aquarium and wetland restoration in Aldergrove Lake Regional Park, B.C. which enabled Earth Rangers and the Vancouver Aquarium to re-introduce this species back into the wild to help natural populations. A total of 8,105 Oregon spotted frog tadpoles were released into the restored habitat. This new habitat is also near other important wildlife areas, so as the wetland is restored it will not



THE KIDS'  
CONSERVATION  
ORGANIZATION

only help Oregon spotted frog populations but will also provide a home for other species including endangered fish.

The Vancouver Aquarium is a well-respected marine science centre – a centre that's led with critical research and direct action on numerous important species to Canada. They have educated tens of millions of people all around the world about the importance of biodiversity. It is not only disrespectful but grossly incorrect to publicly compare them to entertainment organizations like Seaworld.

Please do not hesitate to contact me with any questions or concerns.

Best regards,

Peter Kendall  
Executive Director  
[pkendall@earthrangers.com](mailto:pkendall@earthrangers.com)  
905-417-3082

cc. Dr. John Nightingale

Vancouver Parks Board Commissioners

Dear Commissioners,

I am a retired research scientist from the Department of Fisheries and Oceans, where I had a 30 year career, working on the population biology and conservation of wild belugas in the Canadian Arctic. My colleagues and I have had very successful collaborations with the Vancouver Aquarium on several projects over the years.

I have heard that you will soon be reviewing the case for maintaining or not cetacean exhibits at the Vancouver Aquarium. I would like to share with you my opinion on the matter, particularly with regards to the belugas exhibited at the Aquarium.

First, I must say that I have been and continue to be impressed by the high standards of husbandry and care of those belugas and the valuable public education programs that have been put together by the Aquarium staff on the biology and ecology of beluga (and its relative the narwhal). We collaborated with several of your education coordinators.

In addition, we collaborated over the years with Vancouver Aquarium staff and researcher associates on research both at the Aquarium and in the wild. In 2007, an international workshop on beluga whale research, husbandry and management in Valencia (Spain) highlighted the science needs for the conservation and management of the world's beluga populations. It was quite evident that some of those science needs could not be achieved in the wild and there were several areas for research collaboration that were already being achieved and others that could be achieved by studying aquarium belugas.

For example, thanks to Clint Wright, our program tested some mark-recapture bands on Aquarium belugas, which were later used on wild belugas. In addition, we collaborated with Valeria Vergara who was able to confirm that parts of the vocal repertoire found in aquarium belugas was indeed used by wild beluga in Hudson Bay. These observations validate the behavioral context of vocalizations that are observed in aquaria, but would be impossible to correlate in the wild. An understanding of the behavioral context of beluga vocalizations will lead to a better understanding of behavioral responses to man-made disturbances to wild belugas. These two examples are one of several areas for research collaborations with aquaria highlighted by the Valencia workshop.

I know that many object to having cetaceans in captivity. I truly think that this view is born from an unrealistic understanding of their life in the wild and an over-inflated view of their intelligence and consequently environmental needs. Much has also been made about the death of aquarium-born neonate belugas.

Contrary to that idyllic vision, life in the wild is a constant struggle and many belugas do not live to be very old. In fact, many neonates in the wild are likely to die in the first weeks of their life. And, yes, they are intelligent and social marine mammals but, like dolphins and their peers, there is little to suggest that they are any more intelligent or social than canids (dogs) - not to diminish the latter's intelligence, by the way! I think that, like dogs, the beluga is a species that adapts quite well to regular interaction with benevolent keepers and, as long as they have sufficient stimulation from those keepers and from other captive belugas, they do well in an aquarium setting. The Vancouver Aquarium is a good example of a place where those conditions are available to belugas.

I sincerely hope that you will consider keeping the beluga exhibits at the Vancouver Aquarium and will continue to support its valuable education and research efforts.

Feel free to contact me if you have any questions.

Sincerely,

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#### Reference

Gregg, Justin. 2013. Are Dolphins Really Smart?: The mammal behind the myth. Oxford University Press. (<http://justingregg.com/are-dolphins-really-smart/>)

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