

Assessment of Animal Welfare Issues at Public Marine Park

Lori Marino, Ph.D.

This statement represents my professional opinion, as a neuroscientist and marine mammal expert with over 25 years of experience, about the welfare of beluga whales at this facility from video and written notes supplied by Last Chance for Animals. I have reviewed all of the materials.

Below I describe my major concerns about the beluga whales in this facility. This list is by no means exhaustive but represents the most egregious welfare violations I have identified from the video and notes.

Emaciated calf in Isolation

Video sequence 4:26 – 11:49 shows a beluga calf (G a) left alone in a shallow pool for 49 days, from 8/20/15 to 10/7/15. Prior to that period she was held in that pool with two other belugas, a mother and calf.

The isolation of this calf from the rest of the group violates any reasonable standards of welfare. The isolation pool is meant to separate animals on a short-term basis and not for months, as is apparently the case with G a.

Most notable and concerning is the emaciated appearance of this calf. She shows clear signs of severe wasting. An observer on 8/17/15 notes:

G a's ribs were very pronounced, as was her dorsal ridge. The ribs could literally be counted. Her eyes looked lifeless and the sweet little calf I had seen weeks before, thin at that time, was now nothing but a skeleton with a thin layer of skin. No blubber existed on her frail little frame and she swam slowly—and alone. Q a was at the opposite end of the shallow pool. I was devastated, and then immediately angered by the state at which they had allowed her to decline. The friendly, social, young calf that once was, was now clinging to life and losing her grip. [Emaciated Calf in Isolation > MLD 08-17-15 Redacted]

From the video I see clear evidence of a condition commonly termed “peanut-head” by marine mammal scientists. This condition becomes discernible as a depression behind the skull when the blubber starts to become depleted. Thus, the head region looks like an unshelled peanut. As cetaceans typically have a thick layer of blubber that encompasses their body, signs of emaciation to the extent where a depression behind the cranium is visible, are typically indicative of advanced illness or prolonged lack of food. Therefore, peanut-head is considered a reliable indicator of emaciation and poor body condition in cetaceans (Joblon et al., 2014).

Compulsive and Self-Injurious Behaviors

Video sequence 16:08 – 48:35 shows several adult females engaging in excessive genital rubbing and dragging of the genital area along the bottom of the tank. Notes indicate at least five different females are engaged in excessive genital rubbing.

A particularly alarming sequence in the video from 17:35 to 19:52 shows a female (apparently K a) rubbing on the wall of the tank. When she flips over to expose her underside one can see that both of her nipples are severely inflamed, swollen and discharging a substantial amount of blood into the water. This was noted on three different days in the notes [Genital Rubbing > MLD 08-06-15, 08-07-15, 08-14-15 and 08-21-15 Redacted]. On several occasions the note taker mentions that the skin around her genitals is worn off.

The incessant rubbing also has a negative impact on nursing, as I observed, from 33:11 – 34:01, a calf trying to nurse but unable to latch on to the nipples because the mother was dragging them along the bottom of the tank.

Referring to K a, an observer notes:

At one point when I watched her during my shift tonight, she squished K3 as she tried to nurse- to rub her genitals on the floor. [Genital Rubbing > 09-14-15 Redacted]

The initial cause of the incessant genital rubbing is not identified. However, it may have started as mastitis or another kind of infection among the new mothers which then took on a compulsive character for both physical (to relieve itchiness and irritation) and mental (self-stimulatory or soothing behaviors) reasons. Self-inflicted physical trauma, such as described here, is a well-established indicator of poor mental and physical welfare in captive cetaceans (Sweeney, 1988) and is part of a whole syndrome of aberrant, and often stereotypical, behaviors found in captive cetaceans (see Marino and Frohoff, 2011, for a review).

The apparent lack of concern and neglect by the staff in the face of these abnormalities is nothing short of egregious.

Poor Oral Health

I reviewed the video sequence 49:30 – 53:08 showing several whales being fed. These sequences provided an opportunity to look at their dentition when they opened their mouths. It was easier to see the bottom teeth than the top but it was evident that the overall dentition in these whales is very poor. In some of them I could not see upper teeth or spied just a few worn down to the gum. Even more clear is that the lower teeth of all of the belugas in those feeding sequences were worn down to stubs and, generally, looked very unhealthy. Normal beluga whale dentition features an average of 34 homodont conical teeth, 8 to 10 on both sides

of the lower and upper jaw regions. The dentition in these belugas is far from normal. Not only were there missing teeth but they were irregular in shape and had holes in them.

Captive cetaceans are known to repeatedly chew on the hard surfaces that abound in their barren environments, including, but not limited to, steel gates, concrete tank edges and grates. These behaviors have been documented to lead to tooth infections that need to be treated with painful daily dental “flushes” (Jett & Ventre, 2011). This is apparently the case at this facility as well and is consistent with the other kinds of abnormal compulsive behaviors many of the whales exhibit. Certainly this is not normal wear from feeding, as these belugas have fish thrown directly into their mouth and they do not need to use their teeth to grab or process the fish at all.

An observer notes about the whale K a:

I immediately noticed the overpowering odor of pus coming from K a’s mouth. K commented on the odor, saying it was always present and foul ... K a’s front teeth were missing altogether. Her molars were drilled out behind the incisors (where the incisors would be) and others were jagged and appeared broken off. The back molars were filed down... There was nothing natural about what I was looking at in her mouth.... A few hours after she had her gelatin, K and J returned to her and fed her fish and squid. They then rinsed her mouth with a saline/ oxy fresh solution. Concentration was mostly on the drilled-out molars, with the tip of the device inserted into the bored-out holes. The smell was that of abscess, pus, and very familiar to me having worked with animals with infections in the past. [Dental Issues 10-01-15 Redacted]

As with people, it can be assumed that dental disease in belugas can cause serious and even fatal systemic disease if left untreated. It is difficult to imagine that this problem has not contributed significantly to the high mortality rates in captive belugas.

In reviewing the video from 53:15 – 54:00 I see hypersalivation from one of the belugas being fed. Hypersalivation can be caused by many conditions but one of them is oral infections. One observer noted that no staff member at this facility seemed to know why a particular whale, J e in Pool B, was hypersalivating [Hypersalivation >MLD 05-25-15]. In fact, it is clear from the notes that none of the staff took any particular interest in the cause or treatment of this condition in the whales.

Failure to Protect Whales from Potentially Harmful Visitor Interactions

The final specific point I would like to make about this facility is also the most obvious. While reviewing the videotape I was struck by the lack of safeguards against disease transmission during the public feeding sessions and the lack of any barriers to prevent visitors from reaching into the tank and throwing objects into it.

Video sequence 1:14:42 – 1:16:56 shows trainers allowing visitors to feed the beluga whales at tank side. The visitors are allowed to pick up the fish with their bare hands and throw them in the whale's mouth and then pat them on the melon area. It is unclear whether any precautions are taken against zoonotic disease transmission and, given the abundant health concerns and illnesses in this facility, it is extremely worrisome that such casual interaction would be allowed between the whales and the public. Zoonotic disease transmission from human to whale and whale to human is a realistic problem in captivity (Waltzek et al, 2012).

There are also no apparent safeguards against visitors entering or falling into the tank and/or introducing harmful objects such as plastic straws and cups and other items. Visitors can reach right into the tank. For example, at 1:15:33 and 1:16:04, during the public feed, the video shows a boy in red shorts perched on top of the ledge of the tank. There were several trainers just a few feet away feeding the whales and apparently no one said anything to him during that time. At 1:40:42 the video shows a boy leaning well over the tank wall while sipping (from a straw) some kind of beverage in a plastic container. There were no safeguards to prevent him from dropping the item into the tank inadvertently or otherwise. Objects like this, e.g., sunglasses, cameras, soda cans, etc. represent a clear health risk for the whales who would suffer intestinal blockage and illness if ingested. Ingestion of these kinds of objects has led to fatalities in captive orcas.

These kinds of brief examples show that the whales and their environment are, essentially, at the mercy of whomever walks up to the edge of their tank. This is a hazardous set-up for the whales as well as for visitors.

Over-crowding and Incompatible Social Groups

This facility is forcing a large number of whales to share a very small space. In the natural setting, belugas commonly occur in groups of 2-10 individuals that may aggregate, at times, into a herd of hundreds of animals but, importantly, only over a very large distance and certainly not at the density observed in these tanks (O'Corry-Crowe, 2009).

It is critical to point out that, in the natural setting, group composition is fluid. Therefore, the number and density of whales at this facility is at odds with the whales' natural tendencies to live in very small groups which, when they choose, join larger aggregations.

Moreover, belugas in open water can cover thousands of kilometers over a few months and can swim at a rate of up to 6 km/hour and to depths of 600-1000 m (Lydersen et al., 2001; Richard et al., 2001). Therefore, belugas need to travel and dive to great distances and depths to thrive. Yet, this is impossible in a captive facility such as this.

Finally, female belugas with calves (the tightest social unit) often come together

with other mother-calf pairs to form nursery groups. These groups may involve exclusion of adult males. Thus, mothers need to exercise choice about group composition at any given time.

One of the serious consequences of over-crowding for any animals, including belugas, is that there is a higher frequency of conflicts and no way to resolve or escape those conflicts by spacing. This leads to hyper-aggression, injuries, and, on a chronic basis, stress-related immune system dysfunction and disease. Given that there are numerous rake marks on these belugas it appears that they are suffering from the same kinds of limitations to resolve conflict that we see in other captive cetaceans. In the expert notes [Social Structures MLD 07-27-15 Redacted] the observer confirms this situation with the following statement:

In reference to the female whales' ability to exercise a decision about which other whales she wants to socialize with the observer states: "Unfortunately, that option is not available to the cows... they have run out of room. Injuries are prevalent..."

The critical point for welfare is that natural beluga groups are fluid, dynamic, and involve the ability for groups to contract or expand according to their needs. This is entirely taken away from them in this facility and the results are distress, poor quality of life, and increased injuries and illness.

Conclusions

My review of the notes and videotape leads me to conclude that the beluga whales (and other animals) in this facility are in very poor psychological and physical health and are continually placed at risk by the hazards of public feedings and easy access to their tanks. While I made mention of some specific issues above, these are only a subset of problems at this facility. In addition to the clear violations of any North American welfare standards for captive cetaceans, there is the very troubling matter of neglect and lack of expertise on the part of the care staff, as pointed out in the notes.

The manipulation of these animals into artificial social groups (from social isolation to overcrowding), poor oral health, behavioral abnormalities, and being put at risk of further infection from being handled by the public are all factors which contribute to a standard "recipe" for high mortality rates and shortened lifespan in captive cetaceans. I would not be surprised if this were the case at this facility. These welfare issues make it abundantly clear that this facility is not capable of caring for beluga whales, that the whales are not thriving, and that these whales' quality of life and survival would be substantially increased if they were transferred to an open water sanctuary.

Sincerely,

A handwritten signature in cursive script that reads "Lori Marino". The signature is written in black ink on a white background.

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