INQUIRY INTO EXHIBITION OF EXOTIC ANIMALS IN CIRCUSES AND EXHIBITION OF CETACEANS IN NEW SOUTH WALES

Organisation: Australian Institute of Marine Rescues and Sea Shepherd

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Inquiry into the use of exotic animals in circuses and the exhibition of cetaceans in New South Wales

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A: Responses to Questions posed in the Survey:

1. <u>Do you think the welfare needs of exotic animals can be met in a circus environment? Please give reasons for your answers:</u>

I believe that some species have been domesticated and survived several generations in a circus environment, and as such these animals are accustomed to this lifestyle. These animals are under scrutiny by the general public, and are generally well cared for and in good body condition, suggesting their welfare needs are being met. I have personally attended multiple "animal" circuses over the past few years to look at the animals' body condition, and I have been quite surprised by what I have seen. That is not to say every circus is able to meet the needs of their animals, but I have certainly seen first hand that there are circuses able to give their animals a good quality of life, despite the unusual circumstances of their existence.

The domestication of circus animals, is akin to the domestication we are used to with cats, dogs, birds, farm animals etc living in close proximity to humans, and adjusting to this way of life for lack of any alternative. Providing all husbandry needs, dietary requirements, socialization needs and behaviour needs are met, my professional opinion is that circuses are able to provide for the needs of exotic animals. My personal opinion is that circuses with live animals are a dying business model, and should be phased out for more suitable alternatives. Such alternatives are already being seen in various circuses around the world, for example performing dinosaurs, as well as holographic animals, and 4D cinematography.

2. <u>Do you think the welfare needs of dolphins and whales can be met at a marine park? Please give reasons for your answers.</u>

As a qualified marine mammal and wildlife veterinarian I believe that in certain circumstances the needs of some smaller cetacean species particularly odontocetes and other marine mammals such as pinnipeds can be accommodated for in a captive situation.

Understanding of husbandry requirements is of absolute paramount, as is an understanding of animal behaviour and social structure, in order to fully appreciate the complexity of the needs required by each species.

Cetaceans born into captivity are essentially domesticated animals, and unsuitable for release to the wild. The longer a cetacean is in captivity/care, the more adverse effects it can have on the animal, including learned behaviours, stereotypical behaviours, affinity for human contact, and inability to practice hunting techniques. Inadequate facilities such as small enclosures can also have adverse effects on growth rates, and can result in malformations such as scoliosis. Thus, to provide adequately for cetaceans in care, there needs to be a thorough understanding

of all its physiological needs. Thus, it is for these reasons that the policies and procedures for the animals in care need to have been directed by a suitably qualified veterinarian, in consultation with either very experienced and or qualified animal keepers.

3. Do you think the practice of breeding exotic animals to be used in circuses, and the breeding of cetaceans to be used in marine parks should continue? Please give reasons for your answers.

Captive breeding programs are designed to specifically enhance the survivability of a species. That is endangered or critically endangered species that require breeding programs to ensure their future survival as a species. To carry out breeding programs of common species is counterproductive, unnecessary and in contradiction to conservation initiatives. Thus, I do not condone nor endorse the practice of breeding common species such as bottlenose dolphins in captivity. If a marine mammal is endangered and a breeding program is beneficial to the species, then I not only support but encourage these breeding programs. For example, The Australian Sea Lion was listed as a Threatened species in the Vulnerable category under the Act in 2005, thus breeding programs focused on the Australian Sea Lion should be prioritised.

4. <u>Do you think there should be a phase out of the use of exotic animals in circuses and cetaceans in marine parks? Please give reasons for your answers.</u>

As previously mentioned, circuses and marine parks with live animals are a dying business model, and should be phased out for more suitable alternatives. Such alternatives are already being seen in various circuses, aquariums, and themed parks around the world, for example performing dinosaurs, which I personally have at my tourist attraction, as well as holographic animals in circuses, and 4D cinematography.

The National Geographic Encounter Ocean Odyssey in New Yorks Times square is a virtual aquarium, with no live animals. "Encounter's immersive technology lets you play with sea lions, get up-close with a majestic, life-sized humpback whale...". This is the future of oceanariums. (https://natgeoencounter.com/).

B: Other matters of interest:

1. Herpes and Tuberculosis considerations for animal-human kiss-interactions:

Organisms that can be transmitted from animals to humans and vice versa are known to cause zoonotic disease. The two that are most concerning with human interactions and marine mammals are Tuberculosis and herpes virus.

Mycobacterium pinnipedii causes tuberculosis in a number of pinniped species, and transmission to cattle and humans has been reported (Roe et al., 2019). In addition, the organism causing tuberculosis has also been found in cetaceans (Roe et al., 2019).

Van Elk et al., (2009) identified herpesvirus in dolphins as being a member of the gammaherpesvirinae. In a study carried out by Martina et al., (2007) they demonstrate that Seal Gammaherpesvirinae are capable of cross reacting with other species, in vivo and in vitro. In addition it is known that Herpes virus can be spread between primates and humans (Estep et al., 2010; Tischer and Osterrieder, 2010), chinchillas and humans (Wohlsein et al., 2002), rabbits and humans (Grest et al., 2002), and hedgehogs and humans (Allison et al., 2002), thus it is possible that humans carrying herpes virus may be able to cause disease spill-over into other species such as dolphins. A further study by Esperón et al., (2008), investigated a stranded dolphin that was found to have a Human Herpes like virus with 98% homology with the human virus. They conclude that contact with human sewerage sources may have played a role in transmission from human to cetacean.

Both these diseases carry consequences, with the risk of tuberculosis being a significant health factor that should be considered when allowing members of the public to interact with marine mammals, particularly "kiss" interactions.

2. Role of Captive marine parks for cetacean and marine mammal rescue:

Marine Exhibition Parks that have a conservation focus for rescue and rehabilitation serve an important role for sick and injured marine mammals. Firstly, these facilities are armed with the knowledge and expertise to assist these animals and ensure their welfare and husbandry requirements are met. Secondly these facilities are already operational, which makes the logistical operations of a rescue more feasible. This role of these facilities needs to be greatly acknowledged and expanded, so that more animals that require care are able to benefit from the knowledge and expertise of such facilities, without substantial red tape that may hinder rescues and prevent such rehabilitation work from occurring.

The ultimate goal of rehabilitation is for the re-introduction of the animal to the wild. In the past the success in rehabilitating stranded cetaceans has been low, however rehabilitation practices have dramatically improved, making release of rehabilitated cetaceans an important consideration (Townsend, 1999). However, in order to be successful, the rehabilitation process must be as short as possible. Cetaceans that are kept in care and rehabilitated for a short period of time have far greater chances of successful re-introduction to the wild, and assimilation back to their former wild behaviours.

3. Marine Parks vs Release vs Sea Sanctuaries

Marine parks have been home to some dolphins for decades. Dolphins do not fair well if released, with most succumbing to death shortly after their "freedom" release back to the ocean, as occurred in WA with Atlantis closing down. Dolphins become institutionalised rather quickly, and a return to the wild becomes difficult if not impossible, making release of captive dolphins a very sensitive matter.

An analogy that I often give with regard to freedom of dolphins, with people that romanticise the notion of the dolphins going back to the ocean is like taking a group of people back to Africa, the heart of civilization, dropping them off in the African Savannah, and expecting them to adjust rapidly to the new way of life. Every human being should love the idea of going back to the wild, to hunt and gather as was expected of humans, to fend for yourself and protect yourself from predators. Whilst this is an easy task for humans raised in this environment, taking humans from "captivity" where they have food provided for in supermarkets, and safety offered by community, these humans have no idea what to do in the "wild". As you may expect it might take years to adequately prepare these humans for this new lifestyle. The same is true of dolphins. So for dolphins that have been in captivity or care for prolonged periods, re-release becomes questionable, and animal welfare becomes paramount as these animals do not cope with the transition very well, and usually death ensures.

Sea Sanctuaries offer an alternative to concrete pools for cetaceans, and are far more pleasing to the general public. These sanctuaries offer dolphins the protection they are used to whilst exposing them to some elements of nature. With Sea Sanctuaries come the risk of disease, as their environment fluctuates, and so monitoring of health becomes more important to avoid preventable deaths.

The transition of some dolphins from sea sanctuary to soft-release may be possible with short-term care and rehabilitation, making this an easier transition than from pool to the ocean.

C: In summary:

Community expectation of the welfare of exotic animals exhibited in circuses in New South Wales and of cetaceans exhibited in New South Wales has changed drastically over the past decade. With social media there is increasing awareness of poor conditions that animals may be kept in. Some venues particularly circuses with animals no longer permit photography, presumably due to the backlash from social media.

Having attended both animal circuses and non-animal circuses, I can say that the attendance and enjoyment was far greater at the non-animal circuses. There is definitely a push away from the stereotypical circuses, with animals for entertainment, and a greater collective conscience from the general public towards animals in entertainment. However, there is definitely a role for rescue and rehabilitation at captive facilities, providing homes for marine mammals that would otherwise be euthanised.

Breeding of exotic animals for circuses and marine mammals for captive exhibition parks should only be carried out in accordance with conservation guidelines, using the red list to quantify the necessity for a breeding program. Breeding of common species should not be encouraged, particularly bottlenose dolphins in marine parks.

Whilst breeding of common species should be phased out, I do not believe it would be beneficial to phase out live animals at marine parks altogether. These parks do serve a vital conservation role. There are several hundred marine facilities and hospitals in the USA offering homes and assistance to marine animals in need. This is not true in Australia. As Australia only has two facilities capable of looking after cetaceans, it is imperative that these parks be viewed as primary resources for this area of expansion. There is no doubt that this is an area that requires expansion in Australia, and as such the knowledge and expertise at these facilities will be vital.

The Pet Porpoise Pool initially started as a rescue and rehabilitation facility with a strong conservation goal. I initially visited the park as a veterinary student 18 years ago, and at that stage I was strongly opposed to dolphins in captivity. However, under the management at the time, my views were swayed. I saw animals that were not releasable given a home instead of facing euthanasia. The park was built on these "misfit" animals. The park thus served a dual purpose, rescue and rehabilitation, as well as entertainment to keep the facility operational. However, I have also witnessed a change in management to the same park, and the complete reversal of the objectives of the park and the original founder. This made me question the legislation governing such facilities and their animals. There should never be a situation where a manager of an animal park, particularly a dictator type management makes decisions regarding the welfare of animals without consultation with an animal ethics committee or a scientific advisory committee. The fate of these animals can rely on one person, which may not even have any animal related qualifications.

The said park has again changed management 12 months ago, and is aligning back with its original intention, and now has a strong conservation focus. The problem that is evident is that the fate of the park and its occupants relies on the discretion of one person. The only way I see to protect the animals is by legislating a nominated body who makes decisions regarding the care of the animals. Similarly, the fate of the animals should one die, be subjected to a full investigation. Particularly with regard to cetaceans.

D: Qualifications:

I have had 18 years' experience in the Marine Mammal field, and in addition to my Veterinary Science qualification, I also have a Bachelor's Degree in Animal Science (Marine Mammal Behaviour and Pathology), a Masters in Veterinary Conservation Medicine, a Masters in Veterinary Disease Surveillance, and I am completing a PhD in dolphin health assessment. I am also a member on two IUCN Specialist groups, the CBSG (Conservation Breeding specialist Group), and the WHSG (Wildlife Health Specialist Group). I am a contributing author on the Disease Risk Assessment Toolkit Published by the OIE.

Yours Sincerely

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E: References:

- Allison, N., Chang, T.C., Steele, K.E., Hilliard, J.K., 2002, Fatal herpes simplex infection in a pygmy African hedgehog (Atelerix albiventris). Journal of Comparative Pathology 126.
- Esperón, F., Fernández, A., Sánchez-Vizcaíno, J.M., 2008, Herpes simplex-like infection in a bottlenose dolphin stranded in the Canary Islands. Diseases of Aquatic Organisms 81, 73-76.
- Estep, R.D., Messaoudi, I., Wong, S.W., 2010, Simian herpesviruses and their risk to humans. Vaccine 28, Supplement 2, B78-B84.
- Grest, P., Albicker, P., Hoelzle, L., Wild, P., Pospischil, A., 2002, Herpes simplex encephalitis in a domestic rabbit (Oryctolagus cuniculus). Journal of Comparative Pathology 126, 308-311.
- Martina, B.E., Verjans, G.M.G.M., Kuiken, T., van Amerongen, G., Osterhaus, A.D.M.E., 2007, In vitro and in vivo replication of seal gammaherpesviruses in cells of multiple species. Microbes and Infection 9, 40-46.
- Roe, W.D., Lenting, B., Kokosinska, A., Hunter, S., Duignan, P.J., Gartrell, B., Rogers, L., Collins, D.M., de Lisle, G.W., Gedye, K., Price-Carter, M., 2019, Pathology and molecular epidemiology of *Mycobacterium pinnipedii* tuberculosis in native New Zealand marine mammals. PLoS ONE 14(2): e0212363. https://doi.org/10.1371/journal.pone.0212363

- Tischer, B.K., Osterrieder, N., 2010, Herpesviruses—A zoonotic threat? Veterinary Microbiology 140, 266-270.
- Townsend, F., I, 1999, Medical management of stranded small cetaceans, In: Miller, F. (Ed.) Zoo & Wild animal Medicine, Current therapy 4.
- van Elk, C.E., van de Bildt, M.W.G., de Jong, A.A.W., Osterhaus, A.D.M.E., Kuiken, T., 2009, Genital herpesvirus in bottlenose dolphins(Tursiops truncatus): cultivation, and associated pathology. Journal of Wildlife Diseases 45, 895-906.
- Wohlsein, P., Thiele, A., Fehr, M., Haas, L., Henneicke, K., Petzold, D.R., Baumgärtner, W.,2002, Spontaneous human herpes virus type 1 infection in a chinchilla (Chinchilla lanigera f.dom) Acta Neuropathologica 104, 674-678.