

October 31, 2012

Dear Colleagues,

This letter is in reference to the health and well-being of the killer whale (*Orcinus orca*) named Morgan. After being discovered alone and in a debilitated, stranded, condition in the Wadden Sea in 2010, Morgan was rehabilitated back to health at Dolfinarium Harderwijk. She was then determined to be non-releasable based on expert assessment and transferred for permanent housing to Loro Parque, an internationally recognized zoological park on the island of Tenerife, Canary Islands, Spain.

In my role as vice president of veterinary services for SeaWorld Parks & Entertainment, I have the privilege to provide directional oversight for the health care of the killer whales housed at Loro Parque. In the past year I have made 5 visits to Loro Parque, and am otherwise in daily communication with Dr. David Perpignan (Director of Veterinary Services for Loro Parque) and the animal training team. As such I have a very clear and current understanding of Morgan's health.

Based on both objective and subjective assessment, Morgan's health and well-being is positive and appropriate for her species. She has readily adapted to both the physical environment and the social group of whales. Her appetite and food intake is within normal limits, and she is growing at a rate that is consistent with other known and assessed killer whales. Her preventive health care program is identical to that which is used with the other whales at Loro Parque, which is the same program that is applied to all whales housed at SeaWorld zoological parks, and one which is considered the standard of care for whales housed in zoological parks around the world. This preventive health program includes but is not limited to the following: a daily complete visual inspection performed by the animal trainer/keepers that work with her daily, weekly body weight measurements, and routine monthly physical examination and assessment of blood (complete blood cell count and serum chemistry analysis) performed by Dr. Perpignan and reviewed by myself and Dr. Geraldine Lacave (Consulting Veterinarian – Marine Mammal Veterinary Services). Weekly ultrasound examinations of her abdomen and ovaries are also performed to facilitate responsible decision making regarding her reproductive maturity and health.

Morgan has received occasional, superficial abrasions during normal and dynamic social interactions amongst the cohort of whales at Loro Parque. These abrasions, colloquially referred to as 'rake marks' due to their similarity in pattern to a rake, are identified by the animal training professionals and communicated to the veterinary staff. This reporting is standard practice. The abrasions are assessed and monitored by a veterinarian and a decision is made every time regarding the need to provide medical intervention or therapy. None of these abrasions has required medical therapy. While skin abrasions can carry a very low risk of possible complication from bacterial or fungal infection, nearly all

resolve without any medical treatment at all. It is similar to a person skinning their knee. Medical treatment is not commonly applied, and the mild injury is self limiting. Rake marks are also a common phenomenon amongst wild whales and dolphins, as well as cetaceans housed in other zoos and oceanaria.

Of noted importance was the observation made by the animal training professionals that upon her arrival to Loro Parque Morgan did not respond to any acoustic tones used to signal the end of trained behaviors. This phenomenon continues still. This is unusual as compared to other whales and dolphins housed in zoos and oceanaria. It is so unusual as to draw in to question Morgan's ability to hear. As such, the animal health and science teams at Loro Parque are currently engaged in a responsible effort to perform appropriate hearing tests on Morgan. The technique used is an Auditory Evoked Response. It is the technique used with human babies to test their hearing, and it has been used with success in other small cetaceans. Dr. Almunia and team are coordinating with the world experts in this field. A lengthy preparation is necessary to accomplish this testing. This test has not ever been performed on killer whales to date, and Morgan, along with several of the other whales at Loro Parque are being trained to participate in the testing so that it can be completed in the safest and most positive fashion possible.

The diligence and professionalism that is being applied to the investigation into Morgan's hearing is a perfect example of the high quality care and attention she is receiving by the animal health professionals at Loro Parque. It should be considered indicative of all aspects of her care. And it is because of this high level of care and the clear success that Morgan has demonstrated in this first year at Loro Parque that I can say without any reservation that the decision to transfer her to this zoological park was correct for her immediate, and lifelong, health and well-being.

Respectfully submitted,



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Vice President of Veterinary Services

SeaWorld Parks & Entertainment