

October 31, 2022

Health and Welfare Assessment of Tokitae (also known as Lolita), killer whale housed at Miami Seaquarium, Miami-Dade County, Florida.

Report of James McBain, DVM retired, and Stephanie Norman, DVM, PhD
(Biographical statements below)

At the invitation of Friends of Toki, a non-profit organization formed by Pritam Singh, we are continuing our health and welfare assessments of Tokitae (Toki).

Since the last update in September, we have seen some deterioration and some improvement. Toki went through a period of deteriorating hematology and chemistry (bloodwork) laboratory results which coincided with poor to no appetite at all and dramatically decreased activity. This was a very discouraging and challenging time for the husbandry and veterinary staff. Toki's robust body condition going into this period of inappetence aided her in progressing through the medical challenges confronting her. Supportive therapy and medication changes appear to have resulted in significant improvement. Toki is again active, eating well, and engaged with her trainers. Improvement continues as this is written. She is still dependent on medication so we cannot assume she is out of the woods but we all feel much better about her future prospects.

The life support systems in Toki's pool have been significantly upgraded resulting in much improved water quality. Changes in the sand filter media and improved operational procedures have resulted in sustained and desired pH water ranges and increased removal of organic particles from her pool. Water clarity is improved, as is her pool salinity with major repairs to her existing system. Her pool water temperatures have been stable within her prescribed range. The planned, immediate installation of two new chillers will shortly enable better long-term water quality management.

With additional Friends of Toki full-time staff onsite collaborating with the Miami Seaquarium trainers, Toki's enrichment activities have been increased. She is currently more active and is more engaged in her environment, something that complements and supports the efficacy of the veterinary care she is receiving.

The husbandry and veterinary teams take nothing for granted as we continue to monitor Toki's condition and response to ongoing therapy. The molecular

diagnostic probes mentioned in the September report are currently in use, but it is too early to know if this new testing modality will provide clinically valuable insight.

All of these improvements, her therapy and medication, her water quality, her enrichment program and her engagement with her trainers are all contributing to her welfare and improved quality of life.

Respectfully submitted:



James McBain, DVM retired



Stephanie Norman, DVM, PhD

Dr. James McBain, DVM, Retired Vice President of Corporate Veterinary Services for SeaWorld and Busch Garden Parks. is considered a pioneering expert in marine mammal veterinary medicine. His career at Sea World included serving as senior staff veterinarian corporate director of veterinarian medicine and Vice President of Corporate Veterinary Services. He has authored and coauthored more than 83 scientific papers, books and presentations on marine mammals and is recognized worldwide for his experience and expertise. Dr. McBain is seen by his peers as having fundamentally altered the way in which marine mammal medicine is practiced. Dr. McBain has served as a mentor and trained countless veterinarians seeking his specialized knowledge. In 2009 he received the Distinguished Veterinary Alumni Award for Outstanding Service from Washington State University.

Dr. Stephanie Norman, DVM, PhD, veterinary epidemiologist and wildlife veterinarian, received her DVM from Texas A&M University; her Master of Science in epidemiology from the University of Washington, Seattle; and her PhD in wildlife epidemiology from the University of California, Davis. She has been involved in the field of animal health, disease, and conservation for more than 20 years. Dr. Norman has extensive clinical and teaching experience, and has authored or co-authored more than 40 peer-reviewed scientific papers and reports. In addition, she has served as a wildlife epidemiologist for NOAA, National Marine Fisheries Service.