



MARINE MAMMAL COMMISSION

8 December 2020

Ms. Jolie Harrison, Chief
Permits and Conservation Division
Office of Protected Resources
National Marine Fisheries Service
1315 East-West Highway
Silver Spring, MD 20910-3225

Dear Ms. Harrison:

The National Marine Fisheries Service (NMFS) has requested that the Marine Mammal Commission (the Commission) provide informal expedited review of Mystic Aquarium’s (Mystic) proposal “to provide safe and effective contraception or other means to prevent breeding of the five subject beluga whales” that would be imported for research purposes from Marineland in Ontario, Canada, and housed at Mystic or the Georgia Aquarium. The plan was submitted to satisfy condition III.B.6.e. in Marine Mammal Protection Act (MMPA) permit 22629 issued to Mystic. In the Commission’s [2 December 2019 letter](#) commenting on Mystic’s permit application, the Commission recommended that the permit, if issued, be conditioned to require the facility¹ to take steps to preclude breeding of the imported beluga whales. The Commission appreciates that NMFS adopted this recommendation and included a condition in the permit. However, condition III.B.6.e. requires Mystic to only “submit a plan” that is “developed in consultation with the licensed attending veterinarian and other specialists experienced in beluga whale reproductive husbandry.” It does not explicitly require that Mystic or any other facility abide by the plan. Therefore, the Commission strongly suggests that NMFS amend condition III.B.6.e. to require Mystic, Georgia Aquarium, or any other facility that may house the whales to abide by the conditions specified in the contraceptive plan to preclude breeding of the imported whales.

The Commission provides the following technical comments on Mystic’s contraceptive plan, focusing on its safety and effectiveness. The Commission urges NMFS, before approving the plan, to amend it to require Mystic to—

- conduct reproductive ultrasound examinations of imported female beluga whales starting at six years of age rather than seven and separate all male whales eight years or older (not ten) from any female whale covered by the permit throughout the breeding season. Based on a study by Robeck et al. (2005), female whales may become pregnant at six years of age and male whales are considered sexually mature at eight years of age.

¹ Both Mystic and Georgia Aquarium.

- separate any of the four reproductively-mature, female beluga whales covered by the permit from all mature male whales whenever the holding facility determines that the whale has an ovarian follicle size of 1 cm or greater in diameter and allow that female whale to rejoin the social group no sooner than three days after ovulation or resorption of such a follicle. Given that pre-ovulation may occur when a follicle is 2.4 cm in diameter and that a scheduled examination may be missed for behavioral or logistical reasons, a follicle size could be underestimated, or ovulation or resorption could be incorrectly determined. As such, the Commission believes that such a precautionary approach is prudent.
- pre-emptively separate the four reproductively-mature female beluga whales covered by the permit from all mature males for the entirety of the breeding season (from January through June²) during their first year at Mystic. Mystic stated that the female whales to be imported are not currently trained to perform all of the behaviors necessary for the facility to conduct a completely voluntary ultrasound examination or for the hydraulic lift to be used for a non-voluntary ultrasound. Also, the whales may be under heightened stress at the facility for the first year as they acclimate to the new environment and social group. Thus, attempting to conduct a non-voluntary ultrasound examination using the hydraulic lift may only compound the stress on the female whales.

The Commission has five additional concerns. First, Mystic did not describe what steps it would take to prevent the male whale covered under the permit, 'Havoc' from impregnating any female whale housed at Mystic, Georgia Aquarium, or any other facility that may be authorized to maintain the male. Given the limited mechanisms for further separating the whale social groups and that any preventative measure(s) would not completely eliminate the possibility that Havoc could impregnate another whale, NMFS could consider authorizing Mystic to import only female whales. Second, Mystic's contraceptive plan lacks details regarding the potential use of oral contraceptive drugs on the female beluga whales to be imported, including which drugs might be used and what conditions or circumstances would prompt their use. Mystic stated in its plan only that "in the highly unlikely instance that oral contraceptives become necessary, a contraceptive plan would be developed in consultation with appropriate specialists and submitted to NMFS for approval." Third, the plan did not specify that Mystic would examine the four female beluga whales covered by the permit before they are imported to ensure that none is pregnant, per conditions III.A.2.b. and III.B.6.i. in the permit. Fourth, in the event that any of the female whales covered by the permit becomes pregnant or if the male whale covered by the permit impregnates any female whale, the plan should require Mystic to submit an incident report detailing which whales were involved, when and how the mating occurred, the exact methods in use to prevent conception and possible explanations as to why those methods failed, additional measures that would be taken to prevent future pregnancies, and the plan for pre-natal care of the dam and for the birth, per condition III.B.6.d. in the permit. In addition, Mystic should be required, in this event, to separate all males and females until NMFS has reviewed and approved revisions to the contraceptive plan. Fifth, the plan did not specify whether the same contraceptive protocols would be implemented in the event that the whales covered under the permit were moved to Georgia Aquarium or any other facility.

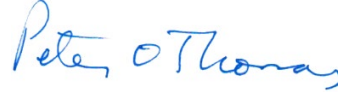
The Commission encourages NMFS to require Mystic to amend the plan to include the three conditions described above, as well as address these five issues, and provide a revised version to the Commission for its review before the contraceptive plan is approved and importation of the

² As defined by Robeck et al. (2005).

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whales is authorized to proceed. The Commission appreciates the opportunity to comment on Mystic's contraceptive plan. Please contact me if you have any questions about our suggestions or rationale.

Sincerely,



Peter O. Thomas, Ph.D.,
Executive Director

Reference

Robeck, T.R., S.L. Monfoft, P.P. Calle, J.L. Dunn, E. Jensen, J.R. Boehm, S. Young, and S.T. Clark. 2005. Reproduction, growth, and development in captive beluga (*Delphinapterus leucas*). *Zoo Biology* 24:29–49.