

Policy recommendation on whaling, trade and watching of cetaceans (Mammalia Cetacea) in the Republic of Korea

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ABSTRACT

Most of the cetacean (Mammalia Cetacea) species are endangered due to various past human activities and most of these species are still under threat due to the same reason. We recommend the development of policies regarding whaling, trading and watching of cetaceans in the Republic of Korea. We recommend the restriction of trade in marine mammals, whether for human consumption or for entertainment purposes, and the development and adoption of ethical rules for marine mammal watching activities.

KEY WORDS

Policy recommendation; conservation; cetacean; Republic of Korea.

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INTRODUCTION

Most cetacean species are under threat, as a result of past human actions (Brito et al., 2017; Hofman, 2017), and although measures were taken, a number of species is still declining (Avila et al., 2018). As a measure for whale protection, parties of the International Whaling Commission (IWC) voluntarily ratified a moratorium banning commercial whaling in 1986 but allowed special exceptions in the case of scientific research. Additionally, whales are also listed under the Appendix 1 of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES Appendix 1). Despite a few countries not adhering to the moratorium of the IWC, several governments have found it too lax and reinforced the legal protection for whales. For instance, importing wild-caught cetaceans is banned in Finland since 2003, and in Mexico since 2006 (Ordorica, 2003; Mexico Wildlife Law, 2006; Alaniz, 2008). Since 2007, dolphins originating from Taiji, Japan are banned in

the Dominican Republic (WDC, 2007), and since 2012 marine mammals cannot be kept for entertainment purpose in Switzerland (Swiss Parliament, 2012). The Republic of Korea has also reinforced the guidelines of the IWC moratorium, although these additional laws do not prevent illegal whaling practices through by-catch and whale meat trade (Choi, 2018; Park, 2018), nor the consideration of beginning whaling for “scientific research” (Kang, 2012). Here, we suggest a reinforcement of policies for live trade, meat trade, husbandry, consumption, and tourism in the frame of integrated cetacean conservation.

DISCUSSION

Trade and breeding of live animals

Dolphins have been used for entertainment purposes in the Republic of Korea since 1984 (Nam, 2017a). From then on, Bottlenose Dolphins (*Tur-*

siops sp.) used in the industry originate principally from Japan, while Indo-Pacific Bottlenose Dolphins, *Tursiops aduncus* (Ehrenberg, 1833), are locally caught, and Belugas are imported from Russia (Lee, 2017). As of October 2019, a total of 38 cetaceans were held captive in eight aquariums in the Republic of Korea (Hotpinkdolphins, 2019). The last specimens imported were two Bottlenose Dolphins in January 2017, accommodated at the Jangseong-po Whale Museum and Whale Experience Hall, Ulsan, and one of the two specimens died within five days of arrival (Nam, 2017b). Because of negative popular press, and in response to the death, several Korean NGOs created the “Cetacean Captive Facility Report”. This report highlights that the average life expectancy for captive cetaceans in Korea is 4 years, compared to 40 to 50 years in the wild (Lee, 2017). As a result, the Korean Ministry of Environment banned both the importation of live cetaceans captured from Taiji, Japan, and “*erroneously captured*” individuals (Ministry of Environment, 2018). However, importation from other localities is still legal, without the quantitative assessment of captures, or the definition of legal conditions of capture. Finally, the current cetacean breeding program still lacks strict regulation.

In view of the information presented above and under the current situation, we recommend a ban on the import of any marine mammal for entertainment purposes, especially for species requiring high housing standards in captivity. It is also essential to update the laws on this topic and improve the quality of the farms of all the specimens still in captivity.

Meat trade and consumption

Whale and dolphin meat is readily available along the south-eastern coast of the Korean peninsula (Kang & Phipps, 2000), allegedly originating from legal catch and by-catch (Mills et al. 1997). It is affecting cetacean populations in the waters exploited by the Republic of Korea and nearly resulted in a local extirpation. The population size of Finless Porpoises, *Neophocaena asiaeorientalis* (G. Cuvier, 1809), dropped from an estimated population size of 36,000 individuals to 13,000 between 2004 and 2011, with an additional 7,869 individuals killed between 2011 and 2016 (Heo, 2017). As a re-

sult, the Finless Porpoise was designated as a Marine Protected Species on 29 September 2016, legally forbidding trade from 2017 (Ministry of Ocean and Fisheries, 2016). However, 792 cases of by-catch were reported in 2018 (Ministry of Ocean and Fisheries, 2019), a number estimated to be between 5000 and 7000 individuals by official dolphin meat traders (Lee, 2019a).

In addition, evidence shows a mismatch between whale meat reported as by-catch and the amount offered for sale. This is the result of illegal whale meat entering the market (Baker et al. 2006; Baker et al. 2010). For instance, over 700kg of whale meat disguised as shark meat entered the country in 2018 (Kim 2018). Also, more than 53 marine mammals were illegal caught, by an estimated 30 illegal whaling vessels in Korean waters, and traded between 2014 and 2018 (Lee 2019b).

The consumption of the cetacean meat maintain a demand, pressuring both illegal and legal whale and dolphin meat trade. Consequently, we recommend banning the sale of all cetacean meat to eliminate any sales of disguised illegal by-catch of species that cannot be legally hunted, and alleviate hunting pressure on legally hunted species.

Tourism

Marine mammal watching is a recognised profitable industry, with very clear benefits for education and thus conservation when conducted appropriately (Foxlee, 2001; Lück, 2003; Mayes et al., 2004). However, tourism based on marine mammal watching is often conducted without strict guidelines, which can have a stronger direct negative impact than the positive output of education (Parsons, 2012). For instance, surveying research vessels reduce time spent foraging at the surface by Sperm Whales (Isojunno & Miller, 2015); boats within a 1 km radius result in decreased communication in Bottlenose Dolphins (Luís et al., 2014); the sound produced by boats is correlated with the production of stress hormones in Right Whales (Rolland et al., 2012), and boat traffic from dolphin watching affects the amount of rest time available to Bottlenose Dolphins (Constantine et al., 2004). Finally, the presence of boats has been found to be related to the cause of death to one-third of stranded cetaceans in the Canary Islands (Arbelo et al., 2013) and to the decrease in breeding output in Gray

Whales, where as little as 10 days of lost foraging opportunities due to disturbance can result in an unsuccessful pregnancy or the loss of a calf (Villegas-Amtmann et al., 2015). Cetacean watching programs are being developed on Jeju Island and have been present in Ulsan for a few years.

In this case, a ban on cetacean observation should not be proposed because the development of this practice can have invaluable educational and conservation results. However, the establishment of stricter rules, respecting the life of cetaceans, would be desirable. Adopting a better marine mammal observation policy can protect these populations from negative anthropogenic effects, both in the Republic of Korea and in other countries.

CONCLUSIONS

Based on the data presented above and on the critical survival situation of some cetacean species, we recommend the development of new and better policies for the conservation of marine mammals present in the territorial waters of the Republic of Korea.

In this case, all governmental and ministerial branches dealing with the environment, culture, tourism and fishing should be concerned with more frequent and efficient controls and rapid sanctions appropriate to the seriousness of the violations carried out.

These regulations and their application must be shared with all other countries that have the same problems to ensure greater protection for cetaceans worldwide.

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