Articles with Attitude Section

“Dark times lie ahead of us and there will be a time when we must choose between what is easy and what is right” – the sad case of vaquita, the Trump administration and the removal of protections for whales and dolphins

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On June 13 this year, there was a briefing on Capitol Hill in Washington DC on the vaquita, or Gulf of California harbor porpoise (*Phocoena sinus*), currently the most endangered cetacean in the world. Sadly, the meeting was mostly populated by employees and interns of a small number of NGOs and a tiny smattering of scientists, but very few Congressional aides or staffers. Leading up to this summer’s last-ditch attempt to rescue the population, this event was rather an analogy of the situation related to the vaquita in general – a species that a small number of NGOs and a few dedicated scientists are trying to save, with few policy-makers involved.

The vaquita population is currently estimated to be less than 30 individuals, with five animals found dead in spring 2017 alone (UNESCO 2017). The major threat to these animals is entanglement in nets. The Mexican government has introduced a two-year gillnet ban in key vaquita habitat, but the most problematic fishery is currently an illegal one for totoaba (*Totoaba macdonaldi*), which, along with the vaquita, is listed as “Critically Endangered” by the IUCN (Findley 2010; Rojas-Bracho and Taylor 2017). The swim bladders of this fish are considered a delicacy in China. The value of these swim bladders can be as much as US\$15,000-US\$50,000 (Environmental Investigation Agency 2016). As this fishery is illegal, further regulations can do little to curb this carnage.

Both the vaquita and the totoaba are already protected under US Endangered Species Act and the Mexican equivalent¹. In 2000, the “Rules of the General Law of Ecological Equilibrium and

¹ In Mexico, threatened species are protected under the General Law of Ecological Balance and Environmental Protection (Ley General del Equilibrio Ecológico y Protección al Ambiente), the General Wildlife Law (Ley General de Vida Silvestre) and Official Mexican Standard (Norma Oficial Mexicana [NOM]) NOM-059-ECOL-2001, with the latter specifically listing endangered species in Mexico.

Environmental Protection in matters of Natural Protected Areas” prohibited fisheries catch of either the vaquita or totoaba in the biosphere reserve area in the upper Gulf of California (designated in 1993), the area of most important vaquita habitat. Both species are also listed under Appendix I of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), which prohibits international trade, so most of the totoaba fishing is done under the cover of darkness, with the catch smuggled out of the country. Mexican cartels support this illegal fishery and trade, which makes enforcement, and standing against those that conduct the fishery, especially dangerous.

This fishery is not the only threat, however. There is also a legal fishery for the Gulf corvina (*Cynoscion othonopterus*), which is not so economically attractive, but the Mexican government has exempted nets for this type of fishing from current bans (Rojas-Bracho et al. 2006). Shrimp boats, which are also permitted, frequently use illegal gillnets to top up their catches (Rojas-Bracho et al. 2006). To give an idea of the scale of the problem, between December 2016 and April 2017, 115 gillnets were found and removed from protected waters in the Gulf of California (UNESCO 2017).

To try to save the vaquita from extinction, several initiatives have been attempted, usually with limited success. These ranged from buying out fishermen, and/or providing them with alternate fishing gear or livelihoods, to increasing international awareness of the problem. Attempts have also been made to encourage countries, such as the US, to use legislation to either boycott or introduce sanctions against Mexican shrimp and other Mexican fisheries products.

One ambitious, and admittedly risky, plan that received a high level of press attention was to save the few remaining vaquita by capturing them and placing them in sea pens (tuna aquaculture pens). The plan relied upon finding enough animals, and their survival following the stress of handling from the capture process and transfer to the sea pens. As it turned out, fears for the inability of the vaquita to withstand the capture process were realized. The first animal captured (on 19 October 2017) was a juvenile, possibly no more than 6 months old, and likely to still be dependent upon its mother. It showed signs of severe stress upon being placed in the capture pen, resulting in the animal being released, although whether the animal subsequently survived, or was reunited with

its mother, is unknown. The second animal was a female of reproductive age, who also showed signs of stress and subsequently died (Gilman 2017). Although the necropsy report for the female has not yet been released, one hypothesis was that her death was the result of cardiomyopathy – a condition associated with stress in cetaceans (Cowan and Curry 2002)

Four months before the capture attempt, the International Whaling Commission (IWC) Scientific Committee² met in Bled, Slovenia and, in their report, they made an impassioned plea to save the vaquita:

*“The Committee **expresses** its disappointment and frustration that, despite almost two decades of repeated warnings and the significant efforts made to protect vaquitas, the species continues to be on a rapid path towards extinction. The Committee is **gravely concerned** about the estimate that only 30 individuals remained as of November 2016, the news that 5 dead vaquitas were recovered during March/April 2017, and the fact that conservation measures have been ineffective and insufficient.”* (p. 96, IWC 2017)

They succinctly summarized the problem:

“the vaquita is the world’s smallest cetacean, inhabiting a very limited range in the upper Gulf of California, Mexico. The population was being steadily reduced by lethal entanglement in fishing gear for decades before a recent surge in illegal fishing for totoaba began, fuelled by the demand for swim bladders in China and Hong Kong. Previous estimates of abundance were 567 (95% CI 177 - 1,073) in 1997, dropping to 245 (95% CI 68 - 884) in 2008, to 59 (95% CRI 22 - 145) in 2015, and to around 30 remaining in November 2016 (95% CRI 8 - 96). Now, after another massive illegal totoaba fishing season during the first five months of 2017, with six documented vaquita deaths in that period, the vaquita population has been even further reduced and species extinction is imminent. If the current illegal fishery for totoaba continues unchecked in 2018, the vaquita will be gone. It will have followed the same course as China’s Yangtze River dolphin (the

² The IWC is the international competent authority for the management of cetaceans. The IWC Scientific Committee is comprised of 2-300 international cetacean science experts.

baiji) and become the second species of small cetacean to be lost in the early 21st century.”
(p. 97, IWC 2017)

They made several recommendations, including ensuring that the Mexican Government make the current ban on gillnets in the northern Gulf of California permanent and improve enforcement of the ban. They recommended that the Mexico Government develop “vaquita safe” fishing gear, that member nations of the IWC urgently raise the profile of the vaquita and its imminent extinction, and that the CITES Secretariat immediately act to address the illegal international trade in swim bladders from totoaba “as a matter of utmost urgency.” As a result of the problems with the capture initiative, these recommendations are now the only hope for the vaquita. There must be strict and thorough enforcement and prevention of nets in vaquita habitat. Whether the Mexican Government will be able to do this alone, especially considering the links between the fishery and organized crime, is debatable.

However, although it is the flagship species for the current crisis in cetacean conservation, the vaquita is not the only cetacean facing imminent extinction – the IWC’s 2017 report outlines several other sub-species, populations and even species whose disappearance may be inevitable (IWC 2017). For example, there are probably less than 28 Ganges river dolphins (*Platanista gangetica*) left in Nepal, the Yangtze finless porpoise (*Neophocaena asiaeorientalis asiaeorientalis*) may soon be extinct in the river itself, many riverine populations of Irrawaddy dolphins (*Orcaella brevirostris*) are close to local extinction, as are populations of Australian snub fin dolphins (*Orcaella heinsohni*). The various sub-species of Amazon river dolphins (*Inia geoffrensis*, including subspecies *I. g. geoffrensis*, *I. g. boliviensis* and *I. g. humboldtiana*) continue to be impacted by dams, barrages and illegal killing of both them and the tucuxi (*Sotalia fluviatilis*) for bait used in the piracatinga (*Calophysus macropterus*) fishery. In addition, the Critically Endangered Maui’s dolphin (*Cephalorhynchus hectori maui*) continues to decline (less than 50 individuals), as the New Zealand Government is not addressing the problem posed by fishing gear entanglements on this sub-species. Finally, a major wind energy development has been planned in and adjacent to the highly restricted habitat of the Critically Endangered Taiwanese white dolphin (*Sousa chinensis taiwanensis*; less than 75 individuals), which may be the final nail in the coffin for that sub-species.

Concerns over dolphins and porpoises in Latin America and Asia have been expressed for many years. However, this year's IWC meeting revealed a new whale in US waters, which may become extinct almost immediately after its discovery. A distinct type of Bryde's whale is resident in the Gulf of Mexico, which inhabits waters on the edge of the continental shelf in the northeastern part of the Gulf. Genetically these whales are, at the very least, a new sub-species, but quite possibly an entirely new whale species (Rosel et al., 2016). In 2009, it was estimated that there were just 33 of these whales. Then the Deepwater Horizon oil spill occurred - it is estimated that mortality due to this spill led to a 22% decline in these whales. The IWC Scientific committee stated that "*these Gulf of Mexico Bryde's whales should ... be considered critically endangered*" (p. 40, IWC 2017). However, it is likely that these whales may very well go extinct before they have even been officially described in the peer-reviewed scientific literature.

It is in this climate of imminent extinctions that the Trump Administration tried to defund the US Marine Mammal Commission (MMC; <https://www.mmc.gov>) in its 2018 proposed budget (Yachin 2017). The MMC was created under Title II of the 1972 US Marine Mammal Protection Act, which was passed during the Nixon Administration. The MMC was created to provide non-partisan scientific advice to Government agencies on marine mammal management issues within US waters. It also plays a major role internationally in marine mammal conservation, including in the case of the vaquita. For example, small research grants from the MMC have provided important data essential to developing conservation plans for marine mammals in developing countries. At present, the MMC's annual budget is just over \$3 million (MMC 2016), less than the estimated cost to the taxpayer of a weekend presidential visit to the Mar-a-Lago resort in Florida (Carroll 2017). This led to many petitioning the Government not to defund the agency, including the Society for Marine Mammalogy (the professional society for marine mammal scientists; <https://www.marinemammalscience.org/letters/letter-members-united-states-congress-regarding-marine-mammal-commission/>), and lobbying efforts by environmental NGOS. Thankfully, Congress included funding for the agency in its proposed budget...for now. However, its future is by no means certain.

In addition, there are currently attempts underway to amend the US Marine Mammal Protection Act (MMPA) to favor the oil and gas industry. The “SECURE American Energy Act” (HR 4239) seeks to weaken the protections found in the MMPA (D’Angelo 2017). If successful, HR 4239 would remove provisions in the MMPA that require only “small numbers” of marine mammals be impacted by anthropogenic activities in “specific geographic regions;” hinder the ability of Government agencies to establish mitigation measures against seismic airgun noise; and force agencies to review requests to conduct seismic surveys under a strict series of deadlines that would not allow adequate review, and if the agencies were unable to complete their review within these unreasonable times frames, then the potentially harmful activity would automatically be approved. This will not only impact protection upon cetaceans in in US waters, but it will impact protection upon cetaceans in the waters of any country where US vessels or companies, or indeed US nationals as individuals, operate.

Although these political issues are being faced in just one country, what happens in the United States does have policy ramifications world-wide. From a purely practical standpoint related to marine mammal conservation, 59%³ of the membership of the Society for Marine Mammalogy is currently based in North America, so anything that happens in the US that hampers the ability of this group of researchers from conducting science has a large knock-on effect on marine mammal research in general. In addition, some of the largest funding bodies for marine mammal research and conservation are based in the US. In short, the US has the resources (in funding, scientific expertise and political influence) that could make the difference between a marine mammal species going extinct or not. Purely from the perspective of the vaquita alone, a lot of the conservation work done has been funded or staffed by US agencies or organizations. Moreover, the US has the ability to make a substantial difference in terms of clamping down on the illegal trade of the totoaba (as many of the illegal shipments are routed through US ports, so customs agents can identify and confiscate them). With so many cetacean species at the brink of extinction, current attempts to undermine cetacean protections could not come at a worse time.

³ As of 14 October 2017.

To quote Albus Dumbledore (in Rowling 2000) “Dark times lie ahead of us and there will be a time when we must choose between what is easy and what is right”. This statement was made during a time when authorities in the fictional wizarding world were eroding protections for non-magical persons and their magical relations, and the future looked bleak. It is not difficult to see parallels within the current situation with respect to cetacean conservation. But it was also a call to arms, an entreaty for those who were listening not to sit idly by, but to act. There is a need for more marine scientists, along with the general public, to follow the lead of the Society for Marine Mammalogy and others, to step out of the ivory tower and take a more active role in publicizing and advocating for marine protection (Parsons 2016), to not be passive bystanders, but rather to make every effort to prevent the removal of protections for marine mammals, and other threatened wildlife, and to call for greater protections globally.

References

- Carroll, L. (2017). How much do Donald Trump's trips to Mar-a-Lago cost? Available online at <http://www.politifact.com/truth-o-meter/statements/2017/apr/18/center-american-progress-action-fund/how-much-do-donald-trumps-trips-mar-lago-cost/> . Accessed 10 December 2017.
- Cowan, D.F. and Curry, B.E. (2002). Histopathological assessment of dolphins necropsied onboard vessels in the eastern Tropical Pacific tuna fishery. Administrative Report LJ-02-24C. National Marine Fisheries Service, La Jolla, CA. Available online at: https://swfsc.noaa.gov/uploadedFiles/Divisions/PRD/Programs/ETP_Cetacean_Assessment/LJ_02_24C.pdf. Accessed 10 December 2017.
- D’Angelo, C. (2017). Energy bill would make it easier for companies to harm, kill marine mammals. *Huffington Post*, 8 November 2017. Available online at: https://www.huffingtonpost.com/entry/secure-act-marine-mammals_us_5a00c6e9e4b066c2c0398ed1?1g8. Accessed 10 December 2017.
- EIA (Environmental Investigation Agency). (2016). *Collateral Damage: How illegal trade in totoaba swim bladders is driving the vaquita to extinction*. Available online at <https://eiainternational.org/wp-content/uploads/EIA-Collateral-Damage-FINAL-mr.pdf>. Accessed 10 December 2017.
- Findley, L. (2010). *Totoaba macdonaldi*. The IUCN Red List of Threatened Species 2010: e.T22003A9346099. Available online at <http://dx.doi.org/10.2305/IUCN.UK.2010-3.RLTS.T22003A9346099.en>. Accessed 8 December 2017.

212
213 Gilman, S. (2017). No happy ending for the vaquita. *Hakai Magazine*, 14 November 2017,
214 <https://www.hakaimagazine.com/article-short/no-happy-ending-vaquita>. Accessed 10 December 2017.
215
216 IWC (International Whaling Commission) (2017). Report of the Scientific Committee. Bled, Slovenia, 9-21 May
217 2017. Available online at <https://archive.iwc.int/pages/search.php?search=%21collection73&k=>. Accessed 10
218 December 2017.
219
220 MMC (Marine Mammal Commission) (2016). *Performance and Accountability Report*
221 *Fiscal Year 2016*. Available online at http://www.mmc.gov/wp-content/uploads/PAR2016_FINAL_Online.pdf .
222 Accessed 10 December 2017.
223
224 Parsons ECM (2016) “Advocacy” and “Activism” Are Not Dirty Words—How Activists Can Better Help Conservation
225 Scientists. *Front. Mar. Sci.* 3: 229. doi: 10.3389/fmars.2016.00229
226
227 Rosel, P.E., Corkeron, P., Engleby, L., Epperson, D., Mullin, K., Soldevilla, M.S. and Taylor, B.L. (2016). Status
228 review of Bryde's whales (*Balaenoptera edeni*) in the Gulf of Mexico under the Endangered Species Act. *NOAA Tech.*
229 *Memo*. NMFS-SEFSC-692.
230
231 Rojas-Bracho, Reeves, R.R. and Jaramillo-Legoretta, A. (2006). Conservation of the vaquita *Phocoena sinus*.
232 *Mammal Review* 36: 179-216.
233
234 Rojas-Bracho, L. & Taylor, B.L. (2017). *Phocoena sinus*. The IUCN Red List of Threatened Species 2017:
235 e.T17028A50370296. Available online at [http://dx.doi.org/10.2305/IUCN.UK.2017-](http://dx.doi.org/10.2305/IUCN.UK.2017-2.RLTS.T17028A50370296.en)
236 [2.RLTS.T17028A50370296.en](http://dx.doi.org/10.2305/IUCN.UK.2017-2.RLTS.T17028A50370296.en). Accessed on 08 December 2017.
237
238 Rowling, J.K. (2000). *Harry Potter and the Goblet of Fire*. Scholastic Press, New York.
239
240 UNESCO (2017). Report on the reactive monitoring mission to the islands and protected areas of the Gulf of California
241 (Mexico) from 09 to 15 April 2017. UNESCO World Heritage Center, Paris. Available online at
242 <http://whc.unesco.org/document/158671>. Accessed 10 December 2017.
243
244 Yachin, J. (2017). Commission would be axed under Trump plan.
245 E & E News 23 May 2017. <https://www.eenews.net/eenewspm/2017/05/23/stories/1060055002>. Accessed 10
246 December 2017.
247
248