TAF- The Animal Fund's 2024 Whale Watching Report:

Examining the Negative Effects of Today's Whale Watching Industry

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Abstract:
This report comprises of a holistic review of today's whale watching industry. **We will discuss the research collected on the detrimental effects whale watching has had, and continues to have on global whale populations, the marine ecosystem, and our environment as a whole**.
We have further included an expansive, if not exhaustive, list of whale watching companies across the globe.
The final portion of this paper will outline and discuss sensitive whale watching, and a more sustainable future for the whale watching industry.

Introduction:
Concepts like ecotourism and 'ecotours' have been notably successful in greenwashing the practices of whale watching and similar marine wildlife tours.
Whale watching, it seems, expresses appreciation for marine creatures and is often characterized by ecological and sustainable components.
While this marketing tactic may be legitimately realized to certain extents, the reality of whale watching practices and the associated effects on marine organisms are deeply troubling.
Despite the concerning reality of whale watching and similar wildlife interactions, these unsustainable practices continue across the globe.

Our research into the global whale watching industry has provided insight into the enduring nature of this unsustainable practice.
In today's modern economy and current state of climate decline, we are often faced with the incompatibility of well-established industry practices and the health and wellbeing of our planet.
Through a compilation and holistic overview of global whale watching companies, we have been able to realize the sheer size of the whale watching industry; moreover, average prices across these companies have indicated a billion-dollar industry.

This report includes companies across the globe, specifically in areas with a high concentration of whale sightings, i.e. locations along their migration path.
Within these countries, the economic relevance of marine life in coastal communities cannot be underestimated.
The Marine Mammal Commission of the United States has estimated that each whale, individually, contributes two million dollars to coastal economies, for a global total of three trillion dollars.[1] Acknowledging this scale helps us understand why certain regulations and guidelines are enforced or lackadaisical.

[1] Tedesco, M. (2020). It's time to rethink the practice of whale watching. In *State of the Planet*. Columbia Climate School. https://news.climate.columbia.edu/2020/07/02/rethink-whale-watching-practice/

There exists a plethora of different whale watching regulations across different countries.
The International Whaling Commission lists over 50 countries that have specific regulations in place.[2]
The extent to which these guidelines are enforced, are unknown by trained guides, let alone the tourists, making it a difficult industry to regulate and monitor.
The conversation is further complicated by the general positive benefits of whale watching, specifically safe responsible whale watching.
Many experts have argued a "net positive" impact of educating the public on marine mammals and advocating for conservation efforts.[3]
However, due to the inability of global commissions or advocates to observe and regulate the behavior of commercial whale watching, the negative impacts of noise pollution and vessel collision injury cannot be discounted.

Literature review:
The International Monetary Fund estimated the ecosystem services of one whale could be valued at over $2 million, with a combined worth of all large whales estimated at over $1 trillion.
Whales aid in our fight against climate change, as when a whale dies, its carcass sinks and creates a "whale fall," taking the stored carbon within it to the ocean depths. While some of the carcass supports benthic ecosystems, some of the carbon is buried in the sediment, sequestered for millennia.[4]
Whales also are ecosystem engineers and play a vital role in stabilizing the marine food web.
A single blue whale can consume up to 16 tons of krill in one day, which has a major impact on maintaining the balance of ocean ecosystems.[5]
These impacts represent only a few of the reasons that underpin the need for protecting whale populations.
Whale watching is an ever-growing international industry valued at around US$2.9 billion globally.[6] The benefits of this industry include an educational aspect for tourists and locals alike, significant contributions to employment and local economies, both of which can bestow a sense of pride and stewardship of whales and dolphins to communities whose economies depend on these animals.

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[2] Kim-Dannibale, A. (2025). Whale watching is booming. Here's how to do it responsibly. In *Travel*. National Geographic. https://www.nationalgeographic.com/travel/article/how-to-whale-watch-responsibly
[3] ibid
[4] Marine Mammal Commision. (2023, May 17). *The value of marine mammals*. Marine Mammal Commission. https://www.mmc.gov/priority-topics/value-marine-mammals/
[5] Roman, J., Estes, J. A., Morissette, L., Smith, C., Costa, D., McCarthy, J., Nation, J., Nicol, S., Pershing, A., & Smetacek, V. (2014). Whales as marine ecosystem engineers. *Frontiers in Ecology and the Environment*, *12*(7), 377–385. https://doi.org/10.1890/130220
[6] Wiederholt, R. (2023, February 13). *How the wondrous whale benefits the global economy*. Triple Pundit. https://www.triplepundit.com/story/2023/whales-benefit-economy/766121#

The ability of whale-watching firms to maximise the possible benefits of their field relies on the understanding of potential risks that are linked to the disruption of natural environmental systems. **The risks outlined in existing literature include changes in feeding, breathing, or breeding behaviours, population impacts, increased stress levels, and disrupted communication within and between pods.**

Most baleen whale populations—and some toothed whale populations—experienced significant declines due to centuries of whaling.[7] Although many baleen whale populations have been recovering since the global moratorium on commercial whaling was implemented in 1986, some show little to no signs of increase. Additionally, all whale and dolphin populations now face various modern threats, including accidental entanglement in fishing gear (bycatch), climate change, ship strikes, marine pollution, and the degradation or loss of critical habitats. Whale watching continues to add to these pressures.

Boat-based whale watching exposes whales and dolphins to underwater noise, as well as the risk of injury from collision with the boat's hull or propeller. The presence of boats can distract the whales from important behaviours like resting, socializing or feeding.[8]

These effects can firstly be seen in the article *'Meta-analyses of whale-watching impact studies: comparisons of cetacean responses to disturbance'* by Senigaglia et al.

By finding the standardised mean difference of whale swimming speed in the presence versus the absence of whale-watching boats, and accounting for sample size differences, it was found that different cetacean species responded differently to the stimulus of tourist boats. For example, Right Whales in Argentina increased their swimming speed, whilst Humpback Whales in New Caledonia decreased their mean swimming speed during whale-watching interactions. Inter-breath intervals were also measured in this study, and again the results varied by species. Minke Whales in Iceland and Humpback whales in Australia significantly decreased their inter-breath intervals, whilst Killer Whales in Haro Strait, USA, significantly increased their intervals.
Though the effect of whale watching is seen to differ between whale species, the disturbance of natural ecological rhythms is enough to condemn the current whale watching practices.

[7] Avila, I. C., Kaschner, K., & Dormann, C. F. (2018). Current global risks to marine mammals: Taking stock of the threats. *Biological Conservation*, *221*, 44–58. https://doi.org/10.1016/j.biocon.2018.02.021
[8] Read, A. J. (2008). The looming crisis: Interactions between marine mammals and fisheries. *Journal of Mammalogy*, *89*(3), 541–548. https://doi.org/10.1644/07-mamm-s-315r1.1

Another study by Scheidat and Castro[9] found that Killer Whales increased their swimming speed when boats were within 400m of them, and another by Williams, Trites, and Bain[10] found that this happened within 100m.
The frequency and strength of animals' responses can also change with the number of vessels present, with a higher number of boats causing stronger responses.
These avoidance behaviours may result from the whales' or dolphins' perception of whale watching vessels as potential predators, and how strongly they react is affected by the distance of the vessel, with stronger responses when the vessel is closer.[11]

Whales and dolphins are mammals with similar stress response systems to other mammals, including humans. Many whale and dolphin species have exceptionally strong family bonds, with calves of most species being dependent on their mothers for feeding and learning for at least 6 months, if not several years. The persistent following of whales by countless boats raises stress levels, elevating their heart rates and blood pressures, and causing stress hormone levels to rise throughout their bodies.[12] These elevated stress levels[13] can contribute to the changes in behaviour that were analysed by Senigaglia.

Furthermore, the presence of boats reduces the communication channels between whales and pods, which will only add to the stress of the situation.
A study conducted by Jensen et al.[14] modelled the effects of vessel noise on Killer Whales and found that 30–50 minutes of exposure to vessel noise within 450 meters could lead to a temporary hearing threshold shift. Furthermore, prolonged exposure to overlapping sounds from multiple boats—commonly experienced by many whales and only becoming more widespread—was predicted to result in **permanent hearing damage. This poses a significant threat to a species that depends heavily on sound and echolocation for feeding and maintaining social bonds**. Such disruptions in communication and hearing are particularly likely to impact the most vulnerable group members, including dependent calves and their mothers.

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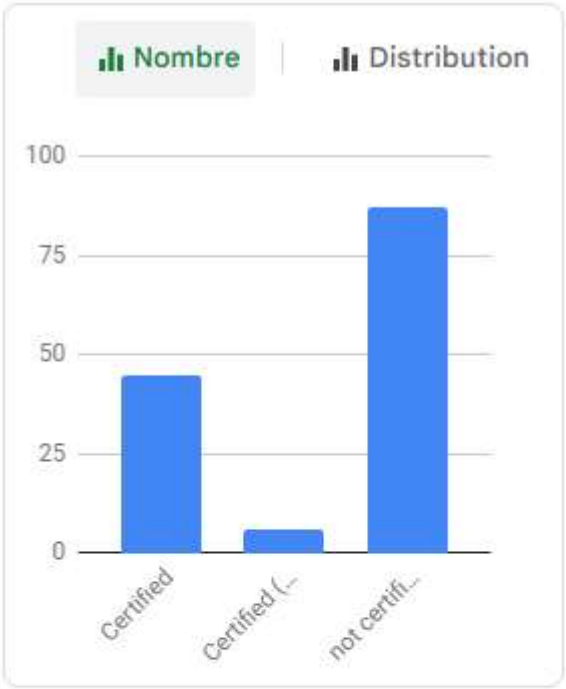
[9] Scheidat, M., Castro, C., Gonzalez, J., & Williams, R. (2023). Behavioural responses of humpback whales (Megaptera novaeangliae) to whale watching boats near Isla de la Plata, Machalilla National Park, Ecuador. *J. Cetacean Res. Manage.*, *6*(1), 63–68. https://doi.org/10.47536/jcrm.v6i1.791
[10] Williams, R., Trites, A. W., & Bain, D. E. (2002). Behavioural responses of killer whales (Orcinus orca) to whale-watching boats: Opportunistic observations and experimental approaches. *Journal of Zoology*, *256*(2), 255–270. https://doi.org/10.1017/s0952836902000298
[11] Frid, A., & Dill, L. (2002). Human-caused disturbance stimuli as a form of predation risk. *Conservation Ecology*, *6*(1). https://doi.org/doi:10.5751/ES-00404-060111
[12] International Whaling Commission. (n.d.). *Whale Watching Handbook*. Whale Watching Handbook. Retrieved March 10, 2025, from https://wwhandbook.iwc.int/en/preparing-for-a-trip/what-is-responsible-whale-watching.
[13] Muto, M. M. (2019). HUMPBACK WHALE (Megaptera novaeangliae): Central North Pacific Stock. *Alaska Marine Mammal Stock Assessments 2019*. Southwest Fisheries Science Center.
[14] Jensen, F., Bejder, L., Wahlberg, M., Aguilar de Soto, N., Johnson, M., & Madsen, P. (2009). Vessel noise effects on delphinid communication. *Marine Ecology Progress Series*, *395*, 161–175. https://doi.org/10.3354/meps08204

This is especially significant because "unlike humans, the dominant sense in whales is not sight but hearing," wrote Kate R. Sprogis, an Australian scientist.
Sprogis's team studied how much noise comes from boats and found that at the highest level of 172 decibels (dB) at a distance of 100 meters, the resting time of whale mothers, decreases by 30 percent, their respiratory rate doubles and their swimming speed increases by about 40 percent.[15]
In human terms, 170 dB is very close to the roar of a rocket lifting off. **Excessive while watching, especially at distances that are less than 100m, have long-lasting effects on whale hearing, and therefore upon their communication channels, both within and between pods.**

Regional Focuses and Certifications

To mitigate the negative effects of whale watching, it is important for tourists to have a general understanding of global certifications and licenses, and how the behavior of whale watching companies differs in various parts of the globe.
Several online applications including NOAA's Marine Life Viewing Guidelines and the International Whaling Commission provide a handbook[16] of guidelines for different regions and countries.[17] Further, most websites for various whale watching companies conclude a seal of certification or mention of the adherence to regional regulations.
While these websites may also list the existence of certain permits, certifications and Whale Watching permits for boats are not the same.

[15] Tedesco, M. (2020).
[16] *Whale Watching Handbook*. (n.d.). Whale Watching Handbook. Retrieved March 10, 2025, from https://wwhandbook.iwc.int/en/downloadable-resources/guidelines-and-regulations
[17] Kim-Dannibale, A. (2025).

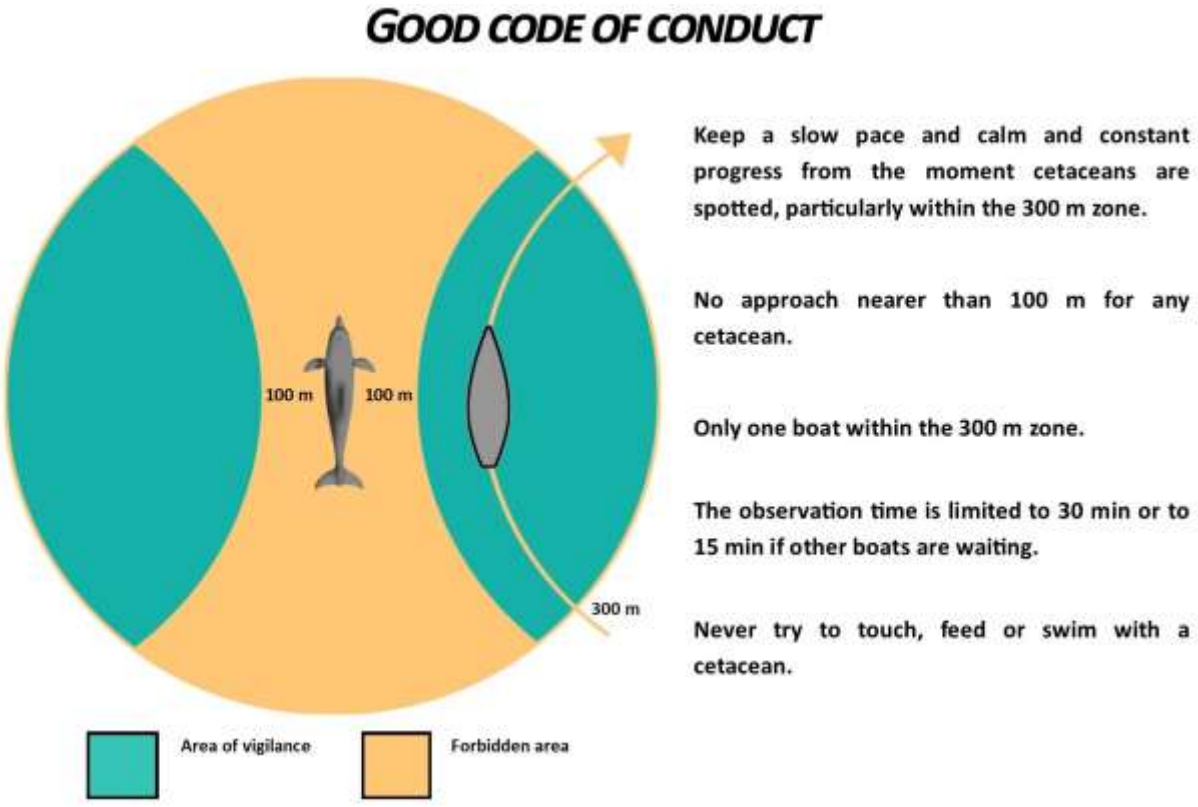


Valeurs le... | Valeurs les...

VALEUR	FRÉQUENCE
not certified	87
Certified	45
Certified (but quest...	6

The certification with the most expansive sphere is the **World Cetacean Alliance** (WCA), which has certified operators across all major whale watching regions and locations.
The WCA certification has several strict whale watching regulations as well as requires companies to incorporate sustainability practices for both the environment and the economy into their operations. Another prominent certification is **The High-Quality Whale Watching Certificate** by the Agreement on the Conservation of the Black Sea, Mediterranean Sea, and contiguous Atlantic area (ACCOBAMS).[18] The certification includes guidelines for distance, pace, and etiquette around marine mammals as seen in the image below.

[18] *High quality whale watching certificate*. (2016, June 15). Accobams. https://accobams.org/main-activites/high-quality-whale-watching-certificate/



What solutions for more sustainable whale watching?

First, by choosing certified companies that adhere to strict environmental standards, tourists can play a key role. **These standards encompass maintaining minimum viewing distances, integrating marine biologists into their teams or the use of silent hybrid-electric boats to observe whales.**

These certifications, recognisable by environmental labels, make it easy to identify responsible operators that really consider the whales' well-being. **Just like those produced in the Azores for instance, labels indicate that companies are trained on the ecological impact of their practices.**

By giving preference to these greener actors, tourists contribute to less stress for the whales, thus limiting the drawbacks of whale-watching.

Moreover, whale-watching operators must actively be involved in conservation. Yet, most of them remain more interested in profits, hence the nuisances which include overcrowding, noise pollution, and harassment of cetaceans. **To counter this, the operating conditions must get stricter, using a licensing system, which would rely on compulsory ecological training and regular audits.**

Legal obstacles are also an option, including fines or prosecutions, as well as the support of social media campaigns and reports. Nonetheless, it is also paramount to highlight ethical conducts to encourage operators to implement them more. In addition to eco-certifications and labels such as "Ocean-friendly tourism", one can create subsidies for the use of ecological boats or provide tax breaks. **Thanks to these solutions, whales, if not disturbed too much, would continue to return to tourist areas, therefore ensuring a sustainable income for local communities and preserving the marine ecosystem for future generations. Implementing eco-responsible practices thus also benefits their own interests as operators**.

Indeed, travel agencies, cruise lines, and online booking platforms guide consumer choice and have a key role to play. In collaboration with certification bodies, they can flag environmentally-friendly operators. Public accountability campaigns, aimed at denouncing partnerships with unethical companies, can also encourage change.

Clearly visible certification badges on platforms would help tourists easily identify sustainable options. Plus, even though the establishment of such policies to protect marine life is mainly vested in the hands of governments, petitions and awareness programs, along with collaborations with NGOs and the local community, might drive them into adopting more robust actions. Also, entrenching the internationally recommended policy measure such as from the IWC, at a national level, will ensure that the best practices are being followed.

As well, research is a major lever for a better understanding and control of the impact of tourism activities on cetaceans. **The non-invasive technologies, drones, or acoustic tagging make it possible to monitor the level of stress in whales without perturbing their behaviour**. Such scientific input will be essential to adjust the management policies by limiting, for instance, the number of boats or the time of observation in sensitive areas. Besides, it helps in researching the most threatened species and their solutions that could be appropriate for the local need.

Education plays a vital part in sustainable tourism. Marine Conservation must be added to the syllabus of every school to raise awareness about marine mammals' protection, such as cetaceans, and their various habitats. Such awareness campaigns, sustained by governments and NGOs, can be more broadly diffused using several tools, including documentaries, interactive exhibitions, or local events, such as those organised in marine reserves in New Zealand (Environmental Education Research, 2019).

The public must be informed about the impact of irresponsible practices and the necessity of choosing responsible operators, since one of the most efficient ways to encourage ethical behaviour is by informing.