Indigenous communities and marine mammal tourism management: incorporating the perspectives of the indigenous Māori people of Aotearoa/New Zealand

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Scope Statement

For indigenous Māori in Aotearoa/New Zealand marine mammals have significance as cultural “taonga” (treasure) and the relationship between whales and Māori is deep and entwined with understanding and connection to the Pacific Ocean and the Pacific islands. Aotearoa/ New Zealand’s Marine Mammals Protection Act formally recognises this relationship and is considered world-leading in its incorporation of indigenous Māori rights concerning marine mammals alongside the strong focus on marine mammal conservation. This legislative regime sits within the context of increasing evidence from New Zealand that shows that the current growth patterns and intensity of marine tourism activities can have adverse impacts on marine mammals. This qualitative study uses a case study approach to explore Aotearoa/New Zealand’s indigenous Māori people’s connection with marine mammals and their role in MMT management. Data were obtained through semi-structured, in-depth interviews with Māori participants directly involved in marine mammal conservation and tourism management. The findings show a strong historical, spiritual, and cultural connection between indigenous Māori and marine mammals. Recommendations for improving marine mammal tourism policy and management include greater engagement of indigenous communities in conservation efforts and incorporating Māori traditional ecological knowledge and perspectives into marine mammal tourism management.

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The authors declare a potential conflict of interest and state it below

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Keywords

indigenous people, Māori, marine mammals, marine mammal tourism, Intergenerational management, Traditional ecological knowledge (TEK), Aotearoa/New Zealand

Abstract

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Introduction: Many coastal and island indigenous people have long-standing important relationships with marine mammals. In many cases whales and dolphins have been viewed as spiritual beings with strong connections to indigenous people’s histories, and connections to the world around them. In other cases, they have been viewed as important guides and symbols that form parts of creation stories, art, music and important cultural practices. For indigenous Māori in Aotearoa/New Zealand whales have a significance as cultural “taonga” (treasure) and the relationship between whales and Māori are deep and entwined with understanding and connection to the Pacific Ocean and the Pacific islands. Aotearoa/ New Zealand’s Marine Mammals Protection Act formally recognises this relationship and is considered world-leading in its incorporation of indigenous Māori rights with regards to marine mammals alongside of the strong focus on marine mammal conservation. This legislative regime sits within the context of increasing evidence from New Zealand and elsewhere that shows that the current growth patterns and intensity of marine tourism activities can have adverse short- and long-term impacts on marine mammals. Consequently, there is a tension between the ambitions to protect marine mammals and include indigenous Māori’s important relationship with marine mammals and the risks associated with the growth of marine mammal tourism.Methods: This qualitative study uses a case study approach to explore Aotearoa/New Zealand’s indigenous Māori people’s connection with marine mammals and their role in marine mammal tourism management. Data were obtained through semi-structured, in-depth interviews with Māori participants directly involved in marine mammal conservation and tourism management.Results and discussion: The findings show a strong historical, spiritual, and cultural connection between indigenous Māori and marine mammals. Recommendations for improving marine mammal tourism policy and management include greater engagement of indigenous communities in conservation efforts and incorporating Māori traditional ecological knowledge and perspectives into marine mammal tourism management. The study emphasises the importance of intergenerational decision-making in natural resource management, with a particular focus on marine mammal tourism. The study contributes to the broader understanding of indigenous Māori’s relationship with nature and tourism, particularly how indigenous people’s perspectives can inform marine mammal conservation and tourism management.

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decision-making in natural resource management, with a particular focus on marine mammal tourism. The study contributes to the broader understanding of indigenous Māori's relationship with nature and tourism, particularly how indigenous people's perspectives can inform marine mammal conservation and tourism management.

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1 Introduction

Marine mammal tourism (hereafter, MMT) is a subset of wildlife tourism that focuses specifically on interactions with wild marine mammals (Orams, 2002). Marine mammals comprise five distinct animal groups: cetaceans (whales, dolphins and porpoises), pinnipeds (seals, sea lions and walruses), sirenians (manatees and dugongs), sea otters and polar bears (Lemelin & Dyck, 2008; Öqvist et al., 2018; Palomino-González et al., 2021). Interactions between tourists and marine mammals can take place in captive settings, semi-captive settings, or in the wild (Markwell, 2018; Orams, 2002). This study focuses on the latter form of tourist-marine mammal interactions, i.e., interactions that take place in the animals' natural environment. MMT comprises "…tours by boat, air or from land, formal or informal, with at least some commercial aspect, to see, swim-with, and/or listen to" marine mammals (Hoyt, 2001, p. 3).

The seas surrounding Aotearoa/New Zealand are home to both resident and migratory cetacean and pinniped species. Because of the proximity of a number of these species to the coast, MMT in the country has grown rapidly, with tourists utilising different viewing platforms (e.g., boat-based, land-based, air-based, and in-water encounters) to view, swim with, and photograph marine mammals. Aotearoa/New Zealand has been viewed as a world leader in marine mammal conservation and its regime for managing MMT has been touted as best practice (Elmahdy et al., 2021; Lück, 2003; Markowitz et al., 1999; Orams, 2004, 2005). Nevertheless, despite the claims of enlightened management, MMT presents a challenging tourism-environment management situation (Elmahdy, 2022; Lundquist, 2014; New et al., 2015). Aotearoa/New Zealand's Marine Mammals Protection Act 1978 (MMPA) and associated Marine Mammals Protection Regulations 1992 (MMPR), which were created to protect and conserve marine mammals and to control the large MMT industry in the country, have been in effect for more than 30 years (New Zealand Government, 1992; Orams, 2004).

Despite this regulatory framework, and the view by many that it is world-leading (Elmahdy et al., 2021; Markowitz et al., 1999; Orams, 2004, 2005), a variety of studies conducted in Aotearoa/New Zealand (and elsewhere) have shown that depending on various situations, locations, and species, the current patterns and rates of growth of marine mammal tourism activities have adverse short and long-term effects on marine mammals (Cowling et al., 2014; Fumagalli et al., 2021; Lundquist, 2014; New et al., 2015). Moreover, a range of studies has demonstrated that the regulations are frequently violated by marine mammal tour operators in various locations (see, for example, Lusseau, 2006; Martinez et al.,

2011; Meissner et al., 2015). Therefore, the industry's sustainability is being questioned (Elmahdy et al., 2021).

The increased human impact on the marine environment from tourism (and other industries) requires effective management (Crain et al., 2009). It has been argued that due to the inadequacies of ocean management strategies, there is a growing interest in finding new and innovative ways to conserve marine ecosystems and the benefits they bring to current and future generations (Friedlander, 2018). In many locations, incorporating customary practices and traditional ecological knowledge (TEK) into modern marine conservation and management has proven promising (Aswani & Ruddle, 2013; Austin et al., 2018). Including indigenous beliefs and practices in modern management tools, such as ecosystem-based management and marine protected areas (MPAs), can help address wider significant issues such as coastal degradation, climate change, limited resources, weak governance, corruption, and rising poverty (Friedlander, 2018).

This study adopted a qualitative approach to explore the connection between an indigenous people and marine ecosystems, focusing on their role in MMT. This was achieved through a single country case study focusing on Aotearoa/New Zealand. The study examines TEK and customary practices of indigenous communities to highlight how these practices and knowledge contribute to sustainable marine conservation and tourism management. It demonstrates how integrating indigenous knowledge into modern MMT can inform policy and management strategies and promote more sustainable tourism while addressing environmental and socio-economic challenges. The MMT literature reveals a scarcity of research and publications exploring indigenous Māori's perspectives on MMT management in Aotearoa/New Zealand. This study seeks to contribute to the broader understanding of indigenous people's relationships with nature and tourism while providing insights for shaping future marine mammal conservation and sustainable MMT policies in Aotearoa/New Zealand and potentially elsewhere.

2 Literature review

2.1 Marine mammal tourism in Aotearoa/New Zealand

Aotearoa/New Zealand, a South Pacific islands country with a diverse and rich fauna of marine mammals, is home to nearly half of the world's species of cetaceans (Department of Conservation, 2020). MMT is currently considered a significant aspect of the wider tourism offering in Aotearoa/New Zealand (Abbott et al., 2021; Fumagalli et al., 2021). "Since the first commercial operation began at

Kaikōura in 1987 with a single six-metre vessel taking commercial tours to watch sperm whales (*Physeter macrocephalus*)" (Constantine, 1999, p. 6) the MMT industry has witnessed a significant increase in the number of tourists and tour operators (Fumagalli et al., 2021). Currently, there are over 100 permits held by more than 80 MMT operators in Aotearoa/New Zealand (Lück et al., 2024).

Examples of MMT activities range from viewing cetaceans such as sperm whales off Kaikōura (Lundquist et al., 2012), common dolphins in the Bay of Plenty (Meissner et al., 2015) and Mercury Bay (Neumann & Orams, 2006), and bottlenose dolphins in the Bay of Islands (Constantine et al., 2004) to viewing and swimming with dusky dolphins off Kaikōura (Lundquist et al., 2012) and Hector's dolphins in Akaroa Harbour (Martinez et al., 2011). Activities focusing on pinnipeds include swimming with New Zealand fur seals and viewing them from land, air, or tour vessels and kayaks (Boren et al., 2002; Elmahdy, 2022) in locations such as the Bay of Plenty, North Island (Cowling et al, 2014) and Kaikōura, South Island (Boren et al., 2002).

The rates of growth of MMT and marine recreation in Aotearoa/New Zealand and elsewhere have raised concerns over the impacts on both the animals and the tourists (Garrod & Fennell, 2004; New et al., 2015; Orams, 2005). In many locations, the rapid development of MMT (especially whale watching) has outpaced its management, resulting in concerns over the long-term sustainability of the industry (New et al., 2015). The desire to mitigate the potential for disturbance has led to the introduction and development of different management policies, guidelines, and regulations (Garrod & Fennell, 2004; Lück & Higham, 2008; New et al., 2015) that have been introduced in more than 100 countries (New et al., 2015).

Aotearoa/New Zealand provides an example of a country that has adopted a formal regulatory management approach (Hoyt & Parsons, 2014; Lück, 2008; Orams, 2004, 2005). In addition, some locations within the Aotearoa/New Zealand also have semi-formal, voluntary codes of conduct, such as in Kaikōura (Duprey et al., 2008; Lück, 2003). At an early stage, Aotearoa/New Zealand regulated its MMT industry with a set of operating regulations and a permit scheme (Hoyt & Parsons, 2014) based on precautionary management and scientific studies (Hoyt & Parsons, 2014).

2.2 Marine mammals and indigenous Māori in Aotearoa/New Zealand

Indigenous Māori have an interconnected, intricate, and holistic relationship with the natural environment and its resources, "with a rich knowledge base – *mātauranga Māori* – developed over thousands of years and dating back to life in Polynesia and trans-Pacific migrations" (Harmsworth &

Aewari, 2013, p. 274). Aotearoa/New Zealand's indigenous people have a historical and unique relationship with marine mammals (Gillespie, 1999; Mulcahy & Peart, 2012; Rodgers, 2017) collectively referred to as *ngā tamariki ō Tinirau* (the children of Tinirau - Tinirau was said to be a son of Tangaroa) (Rodgers, 2017). Māori have a strong historical, cultural, and spiritual connection to whales in particular, and many tribes recount the arrival of *Paikea*, their ancestor, on the back of a whale (Mulcahy & Peart, 2012; Rodgers, 2017; Wehi et al., 2021a). Whales were not generally captured and killed at sea by Māori, but rather, when stranded, were regarded as a gift from *Tangaroa*, the God of the Sea (Mulcahy & Peart, 2012; Rodgers, 2017). Māori customarily consumed their meat, utilised their oil for wood preservation and lighting, and made weapons, ornaments, and tools out of their bone (Mulcahy & Peart, 2012). Similarly, dolphins have a special significance to Māori, who believe them to be messengers of the gods (Alpers, 1963; Lockyer, 1990). For many Māori, marine mammals are considered *taonga* (cultural treasures) and, as such, are given special status within some *iwi* (tribes) (Orams, 2002; Rodgers, 2017).

2.2.1 Te Tiriti o Waitangi (The Treaty of Waitangi)

The rights of indigenous Māori are an additional issue of significance in Aotearoa/New Zealand's management of its marine resources (including their utilisation for tourism) (Orams, 2003; Rodgers, 2017). Māori are guaranteed various rights relating to traditional uses of the sea as a source of food and as an area of cultural, spiritual, and historical significance under *Te Tiriti o Waitangi* (Treaty of Waitangi) and subsequent legislation (Mulcahy & Peart, 2012; Orams, 2003). The Treaty of Waitangi laid the foundation for engagement and partnership between indigenous Māori and representatives of the British Crown (i.e., colonising people) in 1840. It granted obligations and responsibilities for subsequent Aotearoa/New Zealand governments (representing the Crown) to uphold Māori's rights as British subjects and Aotearoa/New Zealand citizens and to protect and preserve their land, estate, forests, water, and other resources or treasures *(taonga)* (Harmsworth & Awatere, 2013). Hence, under the Treaty of Waitangi, *taonga* species, such as marine mammals, are guaranteed protection and rights under Aotearoa/New Zealand law (Elmahdy, 2022; Rodgers, 2017).

The Department of Conservation (DoC), the government agency charged with administering the Marine Mammals Protection Act 1978 (MMPA) and associated Marine Mammals Protection Regulations 1992 (MMPR) in the country, is obliged to have regard and give effect to the principles of the Treaty of Waitangi (Orams, 2002; Rodgers, 2017). It must also acknowledge the spiritual, cultural, historical, and traditional association with marine mammals (Rodgers, 2017). Due to Māori's special

connection and long tradition with marine mammals, they often have a deep interest in all facets of their management (Suisted & Neale, 2004). Therefore, DoC aims to aid the early and active involvement and consultation of Māori in marine mammal management (Suisted & Neale, 2004).

2.2.2 Te Ao Māori (Māori worldview)

Te ao Māori (the Māori worldview) is central to the ways that Māori experience and make sense of the world (Harmsworth & Awatere, 2013; Marsden, 2003; Marques et al., 2018). The behaviours, concepts, and values that Māori live by are formed by their worldview and derived from the traditional belief system based on *mātauranga Māori* (traditional Māori knowledge) (Harmsworth & Awatere, 2013; Marques et al., 2018). There are several important values and concepts that inform and guide Māori customary practices *(tikanga)* (Cheung, 2008). These include *wairuatangai* (spirituality), *tapu* (sacred), *whanaungatanga* (kinship), *kaitiakitanga* (stewardship or guardianship of the environment), *manaakitanga* (acts of giving and caring for), *taonga tuku iho* (intergenerational protection of highly valued *taonga*, passed from one generation to the next, in a caring and respectful manner), *te ao tūroa* (intergenerational concept of resource sustainability), and *kotahitanga* (wholeness or unity) (Cheung, 2008; Harmsworth & Awatere, 2013; Marsden, 2003).

Through the *whakapapa* (process) of creation, *tapu, whanaungatanga, wairuatanga, kaitiakitanga, kotahitanga* and *manaakitanga* all have *whānau* (family) at their core (Cheung, 2008; Shirres, 1997). *Whanaungatanga,* for example, integrates ways of relating to human family members, whereas *manaakitanga* has to do with relating to guests and other people. *Kaitikitanga* is concerned with means of relating to the natural environment, and *kotahitanga* acknowledges how each person's deeds and actions impact on the collective (Cheung, 2008; Marsden, 2003; Mead, 2003).

2.2.3 Māori and Marine Mammal Tourism

The holistic world view of Māori recognises the sacred connection that people have with the natural environment, other people, and themselves (Cheung, 2008). "Practicing these ways of being recognises a key principle of holism, the interdependence of relationship to others. Intrinsic in this principle is how each little part affects the whole" (Cheung, 2008, p. 3). Māori who regard themselves as *kaitiaki* (guardians) of all lands, water, forests, and fisheries (Harmsworth & Awatere, 2013), have always played a significant role in the local tourism industry, particularly MMT (Orams, 2003). Members of Māori communities were among the first to consider initiating whale watching, with the first commercial operation taking place at Kaikōura in 1987 (Constantine, 1999; Lück & Altobelli, 2009).

It is not surprising that hosting and looking after visitors on whale watching tours came naturally to Māori, since an important Māori concept, *manaakitanga*, emphasises the idea of being hospitable, looking after visitors, and caring for them (Cheung, 2008; Harmsworth & Awatere, 2013). Hence, Māori are considered an important and preeminent stakeholder group in MMT management in Aotearoa/New Zealand.

3 Methods

This study adopted a qualitative approach to explore the connection between indigenous people and marine ecosystems, focusing on their role in MMT. This was achieved through a single country case study focusing on the indigenous Māori people of Aotearoa/New Zealand. Approaches were made to Māori *iwi* groups where potential interest or involvement in MMT was considered relevant. These contacts were provided and facilitated by key staff in the Department of Conservation who have established long-standing and important ongoing relationships with Māori as part of their role in representing the "Crown" (government) as required under Te Tiriti o Waitangi.

3.1 Participant recruitment

The study utilised purposive sampling to identify, approach, and recruit Māori who were involved in MMT to engage in the study. For Māori, introductions via personal connections, and relationship building are considered a respectful and culturally appropriate way of engaging with *manuhuri* (outsiders). As a consequence, the key staff member within DoC facilitated the introductions and the request to engage in the study. In order to provide for respectful and in-depth *korero* (conversations), only four Māori individuals who were involved in MMT were engaged in this study.

3.2 Data collection

Primary data were collected by the first author between May 2018 and March 2019, using semi-structured face-to-face in-depth interviews with the four Māori participants who are directly involved in MMT and conservation. This approach, recommended by Seidman (2006), allowed participants to discuss the research topics in detail and share their experiences. Interviews are argued to be particularly useful for exploring complex issues and personal perspectives (Denzin & Lincoln, 2018). An interview guide, consisting of general questions and topics, was used to ensure consistency across interviews. Interviews were conducted in the English language and all four Māori interviewees spoke English fluently.

A flexible, responsive interviewing technique was utilised to help adapt to new information during the interview and to better understand unanticipated insights (Rubin & Rubin, 2012). All interviews were audio-recorded with the interviewees' consent and transcribed for subsequent analysis. Given the small number of interviewees and the interconnected nature of the MMT, there was a risk of identifying individuals involved when reporting the outcomes from this study. As a consequence, all interviewees were informed, both verbally and in writing, that measures would be taken to protect their identity from being discovered and that confidentiality would be maintained. Therefore, interviewees' name, gender, role, and location are purposefully not disclosed as these are considered identifying information.

Participant observation was used as a secondary data collection method. Participant observations were conducted on board marine mammal (whales, dolphins, and seals) watching and swim-with tour vessels in six locations in New Zealand. This technique enabled the principal researcher to participate in the social activity/process being studied, offering an insider's perspective on MMT operations and management (Creswell, 2014; Veal, 2017). During the participant observations, field notes were taken, supported by photographs, audio, and video recordings. These were used in the subsequent analysis, documenting some participants' behaviours and the researcher's reflections.

3.3 Data analysis

The qualitative data from recorded interviews were analysed employing a manual thematic analysis technique used for "identifying, analysing, and reporting patterns (themes) within data" (Braun & Clarke, 2006). As recommended by Braun and Clarke (2006), the data analysis process was divided into six phases: 1) becoming familiar with the data; 2) generating initial codes; 3) searching for themes; 4) reviewing themes; 5) defining themes; and 6) writing up. First, the data were repeatedly read and reviewed to gain a deep understanding of the dataset. Next, relevant data were labelled with codes that capture key ideas and points related to the research objectives. Codes were then grouped into broader themes that reflect significant patterns within the data. After identifying themes, they were reviewed and refined to ensure they are coherent and accurately represent the dataset. Each theme was then defined, providing an explanation of what it represents. Finally, the findings were reported in the results section, using examples and quotes from the data to illustrate the identified themes, offering deeper insights into the research objectives.

It should be noted that the focus of the interviews was on depth rather than breadth. The aim was to gain detailed, rich insights into participants' experiences and/or perspectives on MMT rather than

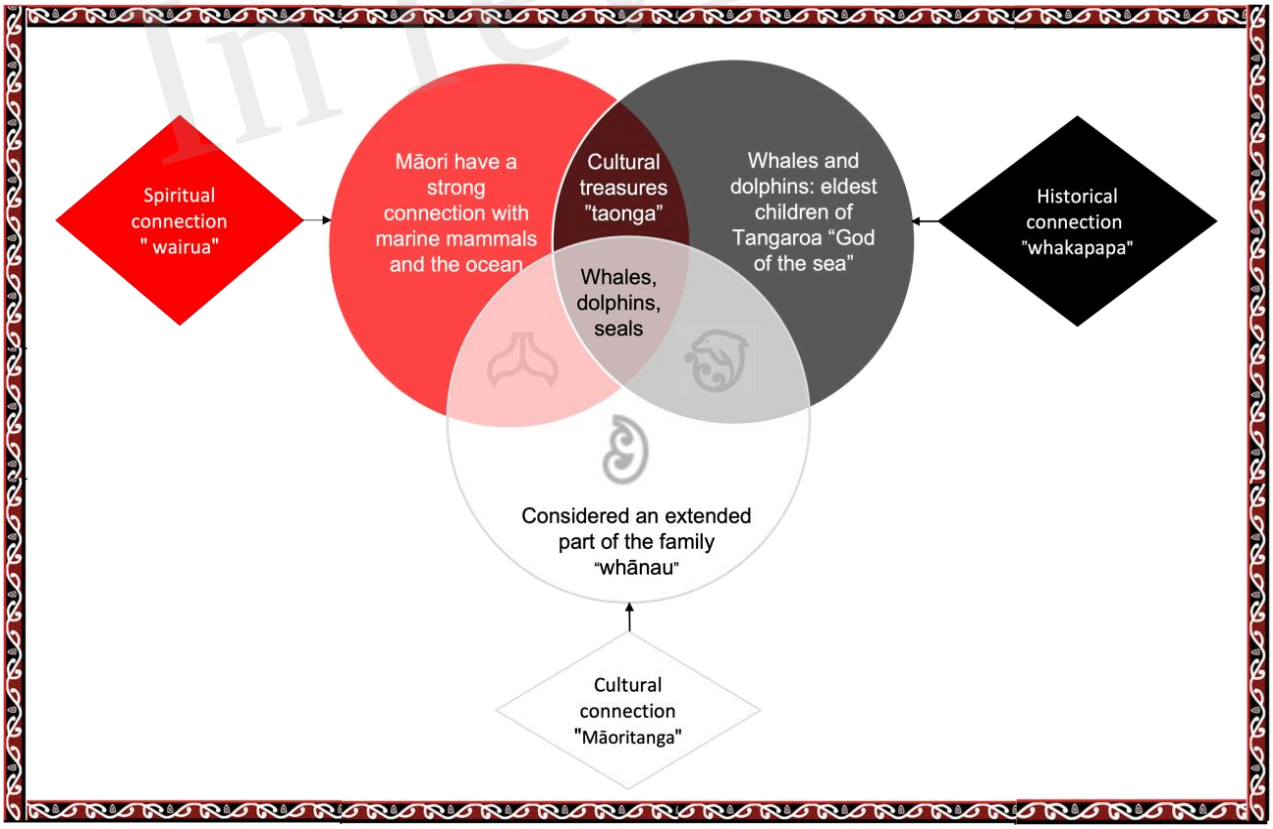
achieving generalisation. As a qualitative study, this research prioritises the quality of data over quantity, ensuring that even with a smaller group of participants, the authors could explore complex phenomena in depth. Authenticity was elicited by building a good rapport with the study participants, leading to successful interviewing and observations, and consequently obtaining authentic data. To build rapport, adequate time was spent with participants during interviews in locations they chose. Success in building rapport was achieved by genuinely responding to any questions or concerns raised and by endeavouring to read and respond to their body language (Neuman, 2011).

4 Results

4.1 Indigenous Māori's Connection with Marine Mammals

> *He taonga no Tangaroa, I waihotia mo tātou, Ko te tohorā ki uta. This whale cast on the beach is the treasure left to all of us by the great god of Tangaroa.* (Rodgers, 2017, p. 8)

Figure 1. Indigenous Māori's Connection with Marine Mammals



According to one interviewee, it was now more acceptable for Māori to talk about their spiritual connection with marine mammals:

> *The Department of Conservation understands that the indigenous people talk strongly about spirituality. You know now government agencies are accepting that it's an intangible value and concept to understand. So even mainstream are understanding that spirituality now. We no longer get strange looks when we talk about, you know, the spirit of a mammal, yeah. (P-1)*

Similarly, another interviewee emphasised Māori's strong spiritual connection with marine mammals and the ocean. This meaningful connection dates to when they first came to Aotearoa/New Zealand:

> *For us, whales, marine mammals, they're all part of our family. And then, we have a strong connection to the ocean as well. So, the name of this ocean here is Te Tai o Marokura and Marokura is what Māori would refer to as a demigod, that came here, and they shaped the canyons and gave the upwelling and all those things that we enjoy today. So, a very deep spiritual and meaningful connection between Māori and the marine mammals, yeah. And for us, it goes right back to when we first came to this land. (P-2)*

Māori's historical connection with marine mammals (especially whales) goes "a fair way back" as explained by one of the interviewees:

> *For us, we have to go a fair way back. So, you've probably heard of the story, the Whale Rider? There's a movie that was made about it. I'll just tell it very briefly. So Paikea was the favourite son of his father, and we have this Māori heaven ancestral homeland called Hawaiki. So, there's an island which is where we came from before we came to New Zealand. And so he was the favourite son, he had some brothers, his brothers were very jealous that Paikea was the favourite of their father so they put together a plan to take Paikea out fishing and then they would kill him. But Paikea overheard his brothers' plan, so they went out there and one thing led to another, and he sank the boat and his brothers all drowned, but he was alive. And then a whale came along, and we call this whale Tohorā. Tohorā picked up Paikea and Paikea rode this whale Tohorā to New Zealand at a place called Whangara and that's sort of where those stories begin. And so how that connects down to us, so that's that whale riding tradition right back at the earliest. (P-2)*

The same interviewee narrated another historical story:

> *And then we also have stories here of a famous chief, Rakaitauheke, and he used to have a kaitiaki, or guardian whale and this whale's name was Matamata, and this was a sperm whale. So, this chief when you come to Kaikōura, Matamata would always follow him and Matamata's role in life was just to serve the biddings of Rakaitauheke. So, he was his guardian. I don't know if you know where Takahanga Marae* [meeting grounds] *is, but Takahanga Marae is up on the hill on the Peninsula. Then in front of Takahanga Marae, you have the Garden of Memories where there are some palm trees. And so out from this where*

> *Matamata would be seen when Te Rakaitauheke was up at the marae, and so that was that connection. (P-2)*

Seals are another marine mammal species that feature strongly in Māori history. When asked about the significance of seals to Māori and whether they held a similar level of importance as whales to them, an interviewee stated:

> *More of us would see a seal rather than a whale. And we have a story in our meeting house of using the seal as a seal skin. And it was an ambush; we were hiding pretending to be a seal. A group of seals in the water and they were soldiers, or they were Māori warriors hiding under the seal skin. And then this group that we were fighting with, they came down on the beach to gather this food up and then it was a war party. We were waiting for them. So yeah, seals are featured just as strongly as whales in our history (…). We speak about them in our history, and they are local marine mammals and extension of Māori heritage (…). (P-1)*

From a cultural perspective, marine mammals have always had a high importance for Māori. Whales and dolphins, for example, held a special place as the eldest children of *Tangaroa* (God of the Sea):

> *If you look at the whales from a cultural perspective, they've always held a greater level of significance. So, they were never looked at like a fish; in fact, they were looked at as one of Tangaroa. Tangaroa was a god of the sea. So that's historically some of the Māori not myths - they're not myths - beliefs. And we had Tangaroa. I think Greeks had what's his name? Neptune. You know, it was in that realm anyway. And whales were considered to be some of his oldest children, the oldest of his children and that's why they always had a very lofty place in, I suppose, Māori's belief and hierarchy structure. So, it went Tangaroa, God of the Sea, to whales, you know his oldest children, and then dolphins and other things (…). (P-3)*

For Māori, marine mammals are considered an extended part of the family. They hold an important post in their beliefs:

> *In terms of the cultural connection with marine mammals, we view them as an extended part of our family, what we call the whānau, and they are revered as family members (…). (P-4)*

Whales were not perceived as just ordinary animals by Māori. Māori were aware that whales possessed a high level of intelligence and, therefore, they sought to learn from them:

> *(…) I think historically we always knew that they* [whales] *had a greater degree of intelligence than the average fish and because of that we learnt a lot from them. Their seasonal movement indicated that water temperatures were cooling or warming, and it was time to harvest this sort of fish or that sort of fish. (…) we depended on their assistance from*

> *time to time. So yeah, they held, and they still hold a significant spot in Māori beliefs and tradition. (P-3)*

Since marine mammals are viewed as *taonga* for Māori, when a whale washes up on the beach it is regarded as a gift from the atua (gods):

> *(…) if one was washed up on the beach, it was considered to be a gift. And so every part of the whale, the mammal, would be used. And in that way, we believe we're honouring the mammal again by using its bones or its teeth in jewellery or tools, maybe even weapons. But they will go from generation to generation, they will become family heirlooms (…). (P-1)*

4.2 From whaling to whale watching

According to some interviewees, whales were not actively hunted by Māori: "We didn't hunt them as practice culturally" (P-1). Whaling was introduced by European settlers who bought their whaling stations and introduced harpooning:

> *…they* [whales] *were never actively hunted. Despite the fact that they would have provided a huge amount of sustenance, they were never targeted to be fished. That happened later on when whaling was introduced and, well, our people being natural fishermen sort of took to it and became really well-known legendary whale hunters. I think you'll find the story of Moby Dick, his harpoon man was a Māori [laughs], so they called him Queequeg. I think that was the name in the book, but he was actually a Māori fisherman, that's really where the story sort of comes from apparently. (P-3)*

These findings indicated that pre-European Māori had traditionally been passive harvesters rather than active hunters of whales. After Aotearoa/New Zealand ceased whaling in 1964, the country made a strong move towards the "Save the Whales" stage, in which the Government took an opposing position against all commercial whaling as well as killing for scientific reasons (Rodgers, 2017). The Government fervently advocated for whale sanctuaries as a tool for protection, affiliations with other environmental forums and groups, the avoidance of whale eating, and whale euthanasia to shorten the suffering that beached whales endure before passing away (Department of Conservation, 2004). After that, Aotearoa/New Zealand changed from being a staunch whaling nation to a strong anti-whaling advocate (Nagtzaam, 2014).

Legislation followed the "Save the Whales" movement with the creation of the Marine Reserves Act (MRA) in 1971 (see Figure 2) which provides for areas within the territorial sea to be set aside in their natural condition for scientific research (Bess, 2010). This was followed by the creation of the Marine

Mammals Protection Act (MMPA) in 1978 which provides for the protection, management, and conservation of marine mammals:

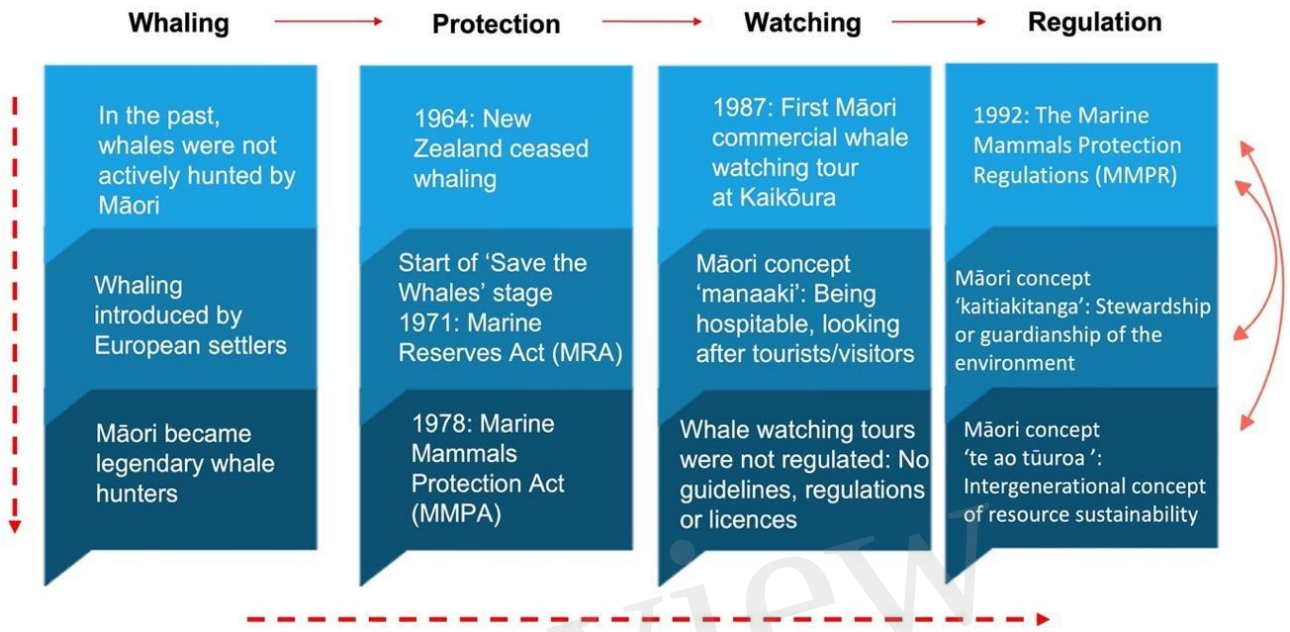
> *(….) So historically whales used to be harvested up and down this coastline, primarily around the Cook Strait with probably the last operation left in the country for whale hunting. And so after that era sort of came to an end, they introduced the Marine Mammals Protection Regulations and the Marine Mammals Protection Act. So, it was really born out of that period of time, so it's a historical document. It was designed really to place a level of protection over the marine mammals so they couldn't be fished, they couldn't be hunted and harvested in that way. (P-3)*

Individuals from Māori communities were among the first to consider initiating whale watching with the first commercial operation taking place at Kaikōura in 1987 (Constantine, 1999; Prasetyo et al., 2020; Richter et al., 2003). "We no longer shoot whales by harpoon; we shoot them by camera now" (P-4); a statement that sums up Aotearoa/New Zealand's transition from whaling to whale watching. Initially, whale watching tours were not regulated; there were no guidelines, regulations or licences governing such interactions. Consequently, shortly afterwards, the Marine Mammals Protection Regulations (MMPR) were introduced in 1992 (see Figure 2). Māori were involved in the process of designing and implementing the MMPR:

> *(….) initially when we first started the idea of going out to watch whales there was nothing in between to allow us to do that, no licences and so we played quite a big part in the early stages around 89, 90 in designing the existing Marine Mammals Protection Regulations which we have today. And really it was about what we believed would be probably the best way to go about viewing the mammals without impacting on them adversely. So we designed initially the rules that we operate under today, the regulations, voluntarily. They were tested over a period of time we sort of liaised and worked with the Department of Conservation at the time to form those regulations. And at that point in time, we were pretty confident that they were robust, robust enough to work and to manage this level of interaction with marine mammals (…). I think a lot of the lead was taken from the Department of Conservation by reviewing what was happening around the world at the time and they believed that it probably should be regulated. (P-3)*

As stated by interviewee P-3, around the late 1980s and early 1990s, Māori, particularly those involved in the MMT industry, worked with the Department of Conservation to design and implement the current MMPR.

Figure 2. From Whaling to Whale Watching



4.3 Māori values and concepts

Māori interviewees reported that hosting and looking after visitors on whale watching tours came naturally to them. They pointed out that an important Māori concept known as *manaaki* emphasises the idea of being hospitable, looking after visitors, and caring for them:

> *Back then because it's always been that important, you know, working on the ocean was no sweat and because of cultural identity, hosting and looking after people, we call it "manaaki." So, it's a cultural concept, it sort of goes without saying, it's inbred. So, looking after visitors like yourself and others that might visit our area, part of the concept is looking after them as well as you might look after your mum and dad. So, we found ourselves quite natural at hosting and talking to people. Yeah, because of that background we found that we were quite good at looking after people, but we really had a steep learning curve to understand business and how to run businesses. How to run accounts, how to market the business, how to put a business infrastructure and management. So, that came over time. (P-3)*

Although Māori were naturally good at looking after visitors on whale watching tours, running a whale watching business was a different case. As reported by interviewee P-3, becoming good at managing a whale watching business came with time and developed through experience. Māori, who were involved in the formulation of the regulations (MMPR), were attentive to the importance of having a

sustainable MMT industry, not only from an economic perspective but also from a *kaitiakitanga* (guardianship of the environment) perspective:

> *So, in designing the rules that we're currently using today, we were mindful of the sustainability of the industry, not just from a financial or economic perspective but also from a kaitiakitanga or conservation... a sustainability sort of perspective as well, because we actually live here, you know (…). (P-3)*

In addition to emphasising the importance of the *kaitiakitanga* concept for Māori in the preceding quote, interviewee P-3 also drew attention to the significance of two other important environmental concepts for Māori. These are *taonga tuku iho* (intergenerational protection of highly valued *taonga*, passed from one generation to the next, in a caring and respectful manner) and *te ao tūuroa* (intergenerational concept of resource sustainability):

> *(….) We want our children to enjoy the natural resources which we have enjoyed all our lives, which our parents enjoyed before us. So, with that in mind, we sort of shaped the rules to sort of create an environment where we could still go and view the whales and do it with the smallest amount of impact as we possibly could. (P-3)*

The *taonga tuku iho* and te *ao tūroa* concepts articulate a desired intergenerational equity for natural, treasured resources, passed from one generation to the next in as good a condition as in the previous generation. This is illustrated in both the previous and following quotes.

When asked whether Māori were content with how marine mammals were being used for tourism purposes, interviewee P-2 again mentioned the importance of adopting an intergenerational decision-making approach to natural resource management in general, and MMT management in particular:

> *I think for all utilisation of natural resources, as long as it's done in a way that is respectful, is also done in a way that minimises any long-term impacts, I think that's what everyone is really focused on. Because for Māori part of our thought process is considering the next generation, so we also look at ourselves as intergenerational businesses. When we make decisions, it's based on an intergenerational horizon. So, looking at our actions today in terms of you know our kids, their kids, their kids' kids, how would that impact them? And really hoping that, you know, the things that we are able to enjoy today our kids, and their kids can enjoy them as well. So, we have a responsibility to them to sort of do what we can to minimise impacts we have in this world, where we can, yeah. (P-2)*

Interviewee P-2 explained that it was important that MMT activities were carried out in a way that was respectful and minimised any long-term impacts on targeted species. The importance of preserving natural resources including marine mammals for the next generations was emphasised.

4.4 A management perspective

When asked about Māori's opinion regarding the effectiveness of the current MMT management regime, one Māori interviewee stated:

> *…We believe in the Act. The Act is about preserving and looking after the natural environment for what we call our taonga species. Taonga species means a gifted species. So, we understand in terms of the cultural value that that's mind, spirit, body and soul. We look at the holistic, so we can't separate one from the other. Everything needs to go through four processes almost for us in terms of ratifying what our needs are and/or what the guidelines would be. Because we need to ensure that you know the spirit, the mind, and the body and then there's the fourth element is family. Nothing is a disadvantage, you know, while moving forward. And if something's not quite right, we just stop there and just keep working on it until it is right and then move on to the next part. It's not good saying "ah, we got it 96 percent right," you know we got to make sure it's a 100 percent not just under. (P-1)*

This interviewee explained that Māori believe in the MMPA which aims to protect and preserve marine mammals. However, they explained that for management and guidelines to be successful, they needed to meet their cultural needs and acknowledge the protection of that which forms their beliefs and values, is prioritised.

In answering the question "Is the current MMT management regime effective in responding to those needs?" the same interviewee responded:

> *Well, no, it's a little bit one-sided. We're really strong on giving an experience. Experience to people, to tourists. At one stage, there were 56 ecotours and ventures you could do in Kaikōura. Fifty-six from whales to sharks to dolphins to penguins to seals to birds, planes, helicopters, whatever, you know. Everyone was doing it. But yeah, we need to make sure that there is a balance in terms of how our wildlife is viewed, how frequently. (P-1)*

According to this interviewee, the MMT industry focused more on providing tourists and visitors with an ideal experience even if this experience might be at the expense of the wildlife being viewed.

5 Discussion

Indigenous people's involvement in marine mammal conservation and tourism

Sustaining traditional indigenous values, establishing collaborative management efforts, equitably including indigenous knowledge, and respectful and meaningful collaborations amongst all stakeholder groups are crucial to maintaining healthy marine mammal populations (Breton-Honeyman et al., 2021). Hillmer-Pegram (2016) investigated points of convergence and divergence between present tourism and the values of indigenous people, the Iñupiat, in Barrow, Alaska. The study found that the increased presence of modern types of tourism (e.g., cruise ships) that do not consider the integration of traditional ecological knowledge (TEK) on marine mammals, has eroded the sense of indigenous identity and the local community. The study revealed conflicting interests amongst stakeholders and concluded that integrating indigenous values into marine tourism management is essential. The study concluded that indigenous knowledge and practices can and should play an essential role in ensuring the long-term viability of marine ecotourism development that benefits communities.

A notable example is The Great Barrier Reef Marine Park (GBRMP) where indigenous people's values and heritage are integrated into marine tourism management and governance. The GBRMP Authority has partnered with indigenous communities to acknowledge their heritage and involve them in marine conservation and tourism management (GBRMPA, 2019). Governance measures include guidelines for indigenous participation, representation on the GBRMP Authority Board, and the development of the Aboriginal and Torres Strait Islander Heritage Strategy. This strategy enhances co-management efforts, and 18 indigenous marine tourism operations have been prioritised for tourism permits to boost Aboriginal and Torres Strait Islander involvement (GBRMPA, 2019). Yet, Huntington (2017) pointed out that involving indigenous communities in conservation and tourism efforts can be difficult, failing to do so can doom, or complicate, these efforts. Indigenous people demand recognition as rightful partners in biodiversity conservation and sustainable tourism development strategies that affect their territories (Melubo, & Carr, 2021; Ramer, 1999). This study findings corroborate those of previous research and confirm that with any marine tourism development, indigenous people must be involved in regulations, policies, initiatives, and programmes that protect heritage and culture, and support the continuation of their role as stewards of nature.

In Aotearoa/New Zealand, indigenous business models based on the principles of *kaitiakitanga* (stewardship or guardianship of the environment), *manaakitanga* (acts of giving and caring for), and

tino rangatiratanga (self-determination), aim to achieve *taonga* (culturally valuable treasures) protection, cultural renaissance, community wellbeing, intergenerational wealth creation, and long-term ecological integrity. These outcomes align with the principles of management effectiveness and enhanced sustainability, and the role of such business models in reforming MMT will need to be fully incorporated in emergent tourism paradigms (Fumagalli et al., 2021). The International Union for Conservation of Nature (IUCN) has paid particular attention to the role of indigenous people in nature conservation. The IUCN recognises that the culture, beliefs, and rights of traditional and indigenous people living in natural areas must be honoured by promoting and permitting full participation in natural resource co-management. Indigenous and other traditional people's knowledge, practices, and innovations can significantly contribute to conservation management (Beltrán, 2000). Similarly, the current study reveals the valuable traditional ecological knowledge (TEK) of Aotearoa/New Zealand's indigenous Māori and their strong connection with the natural environment and its resources. The findings of this study indicate that the acknowledgement and inclusion of local/indigenous knowledge and values is an essential contributor to effective MMT management. They affirm the importance of involving Māori in regulations, policies, initiatives, and programmes that protect culture and heritage through an intergenerational management approach. This highlights the importance of incorporating customary and indigenous tenure, control, and resource use systems by governments and conservation managers to strengthen biodiversity conservation.

This study shows the essential contribution of indigenous beliefs, knowledge, and practices in the conservation and tourism of marine mammals, with parallels found in global examples like the Iñupiat in Alaska (Hillmer-Pegram, 2016) and the Aboriginal and Torres Strait Islander communities within Australia's Great Barrier Reef Marine Park (GBRMPA, 2019). These exmaples emphasise the need to incorporate indigenous viewpoints into MMT management to maintain sustainability and cultural continuity. In New Zealand, the role of indigenous Māori in MMT has been imperative, as exemplified by the establishment of Whale Watch Kaikōura in 1987 (Constantine, 1999; Lück & Altobelli, 2009). This study stresses the importance of genuine partnership with indigenous communities, recognising that their involvement is essential for cultural respect and the practical sustainability of MMT in the long-term.

Research underscores the swift expansion of MMT in Aotearoa/New Zealand and the related challenges in managing its impact on marine mammals (New et al., 2015; Orams, 2005). This study builds on aforementioned by demonstrating that indigenous Māori values provide a framework for

sustainable MMT practices. Through the inclusion of Māori ontologies in MMT management, Aotearoa/New Zealand can address the shortcomings noted in previous research, such as the necessity for more inclusive and culturally sensitive governance models (Hoyt & Parsons, 2014; Lück, 2008).

Māori worldview in the political and legislative context of Aotearoa/New Zealand

Examining the MMT literature reveals a paucity of research and publications exploring indigenous Māori's perspectives on MMT management in Aotearoa/New Zealand. In this study, Māori interviewees affirmed that they believed in and supported the intentions of the Marine Mammals Protection Act 1978 (MMPA) and associated regulations (MMPR 1992), that aim to protect and preserve marine mammals and manage the MMT industry. They pointed out that for management and guidelines to be successful, they need to meet their cultural needs and acknowledge that protection of that which forms their beliefs and values is prioritised. As *kaitiaki* (caretakers or guardians) of coastal and marine areas, Māori interviewees reported that they were attentive to MMPR 1992 and how they were designed and implemented. Interviewees pointed out that they were mindful of the sustainability of the MMT industry, not just from an economic perspective, but also from a *kaitiakitanga* (acts of guardianship) perspective. They emphasised the importance of preserving natural resources, including marine mammals, for future generations. The concepts of *taonga tuku iho* and *te ao tūroa* were expressed using statements such as "We want our children to enjoy the natural resources which we have enjoyed all our lives, which our parents enjoyed before us. So, with that in mind, we sort of shaped the rules (…)" (P-3). The notions of the *taonga tuku iho* and *te ao tūroa* concepts convey a sought-after intergenerational equity for treasured, natural resources, passed from one generation to the next in the same condition as they were experienced in the previous generation (Harmsworth & Awatere, 2013). The philosophy, interwoven throughout Māoridom, that reinforces these broader responsibilities to the natural environment and its resources, is articulated in the *Ngāi Tahu* (the iwi or tribe from Te Wai Pounamu or the South Island of Aotearoa/New Zealand) *whakataukī* or proverb (Wehi et al., 2021b, p. 1059):

> *Mō tātou, ā, mō kā uri ā muri ake nei*
>
> *For us and our children after us.*

A relevant example of how Māori worldview manifests itself in Aotearoa/New Zealand legislation is the legal recognition of the Whanganui River in the central North Island as a person, in so far as the *awa* (river) is considered to have equivalent status under the law (Clark et al., 2018; Knauß, 2018).

While legally granting personhood upon an element of nature is novel, it acknowledges an essential principle of indigeneity, that all things – human and nonhuman – are connected (Mika & Scheyvens, 2022). Thus, in the Aotearoa/New Zealand context, marine mammals have a special status for Māori and several laws recognise this (e.g., the Animal Welfare Act 1999, which recognises marine mammals, among other animals, as sentient beings – see New Zealand Government, 1999) and provide special rights to Māori (Harmsworth & Awatere, 2013; Mulcahy & Peart, 2012; Orams, 2003). Yet, Mulcahy and Peart (2012) argued that the current MMPA and MMPR have failed to address iwi interests and that Māori involvement in MMT has been less significant in other locations (Kanwar et al., 2016; Mulcahy & Peart, 2012).

The Treaty of Waitangi *(Te Tiriti o Waitangi)* is the founding agreement established between Māori and representatives of the British Crown, representing the colonising powers in 1840. This document is, therefore, foundational with regard to the nationhood of Aotearoa/New Zealand and, to this day continues to be interpreted, applied, and contested. Because *Te Tiriti o Waitangi* is a formal agreement between Māori and The Crown (Harmsworth & Awatere, 2013; Orams, 2002, 2003; Rodgers, 2017), it has been increasingly recognised and included in legislation. This includes people's use of and interactions with the natural environment, including (marine) wildlife. As a result, Māori are regarded as a key stakeholder group in managing human interactions with marine mammals (including MMT) in Aotearoa/New Zealand. Because many Māori consider marine mammals to be *taonga* as a group of animals, they are given special status and protection under *Te Tiriti o Waitangi*. Consequently, Māori's cultural values must be considered in the planning, decision-making, and management of natural resource laws and regulatory regimes implemented by the Aotearoa/New Zealand Government (Orams, 2002, 2003; Rodgers, 2017).

The Department of Conservation is obliged to consider the principles of *Te Tiriti o Waitangi* under Section 4 of the Conservation Act 1987, which states that: "This Act shall so be interpreted and administered as to give effect to the principles of the Treaty of Waitangi" (New Zealand Government, 1987, p. 24). However, there has been some critique as to whether DoC and the Aotearoa/New Zealand Government honour these intentions as expressed in the Conservation Act. For example, in the Waitangi Tribunal hearing WAI262 Flora and Fauna, the Waitangi Tribunal determined that the Treaty obliges the Crown to actively maintain and protect the continuing relationship of *kaitiaki* regarding *taonga* in the natural environment, as one of the key components of *te ao Māori* (Levine, 2016; Rodgers, 2017; Waitangi Tribunal, 2011). Another example from 2018 is that of Auckland's *iwi Ngāi*

Tai, who won a Supreme Court dispute over commercial tourism operations rights on the Rangitoto and Motutapu islands in the Hauraki Gulf. *Ngāi Tai* argued that by issuing tourism concessions to other entities (including a commercial tourism operator), DoC did not properly give effect to Section 4 of the Conservation Act, relating to the principles of *Te Tiriti o Waitangi* (Neilson, 2018).

This research identifies a gap in the literature concerning Māori views on MMT management, particularly within the legal context of Aotearoa/New Zealand. Although the Marine Mammals Protection Act 1978 (MMPA) and the related regulations (MMPR 1992) are designed to safeguard marine mammals, Māori participants voiced apprehensions about the insufficient meaningful engagement and the inadequate consideration of iwi interests (Mulcahy & Peart, 2012). These insights mirror criticisms of the Conservation Act 1987, which requires the incorporation of *Te Tiriti o Waitangi* (Treaty of Waitangi) principles but has been applied inconsistently in reality (Levine, 2016; Rodgers, 2017).

This study underscores the necessity for a re-evaluation of the MMPR 1992 to more effectively incorporate Māori principles and ensure their active involvement in decision-making processes. This is consistent with previous work, which highlights the importance of co-management and the acknowledgment of Māori as *kaitiaki* (guardians) of marine resources (Orams, 2003; Rodgers, 2017). Examples such as the legal acknowledgment of the Whanganui River as a person (Clark et al., 2018; Knauß, 2018) illustrate the potential for novel legislative approaches that mirror Māori perspectives. Embedding Māori ontologies into MMT governance, can help Aotearoa/New Zealand rectify the limitations of existing policies and establish a more inclusive and sustainable model for marine conservation.

Māori ontologies and their connection with marine mammals

> *Ka mau tonu ngā taonga tapu o ngā matua tupuna*
> *Koinei ngā taonga i tuku iho, na te ātua*
> *Hold fast to the treasures of the ancestors*
> *For they are the treasures that have been handed down to us by God*
> (Dymond, 2013, p. 274)

The findings of this study provide valuable insights into how indigenous Māori experience and articulate their unique historical, cultural, and spiritual connection with marine mammals. To Māori, marine mammals are considered *taonga* (cultural treasures), so when a whale washes up on a beach, it

is considered a gift from the *atua* (gods) (Elmahdy, 2022; Mulcahy & Peart, 2012). Māori interviewees considered marine mammals part of their extended *whānau* (family), and whales and dolphins hold a special place as the eldest children of *Tangaroa* (God of the sea). The findings affirmed that whales have special significance to Māori, as many tribes recount the arrival of their ancestor, *Paikea*, on the back of a whale (Mulcahy & Peart, 2012; Rodgers, 2017; Wehi et al., 2021a). Data from in-depth interviews and narrative analysis provided rich, first-hand accounts of how these connections remain salient and impact contemporary Māori identity, worldviews and practices. While previous literature has noted Māori's strong relationship with the natural environment and its resources, particularly marine mammals (see, for example, Gillespie, 1999; Mulcahy & Peart, 2012; Rodgers, 2017), the current study findings contribute to a deeper understanding of how these connections are experienced, interpreted, and passed across generations.

Māori experience, interpret and make sense of the natural environment from the traditional belief system based on *mātauranga* Māori (traditional Māori knowledge) (Harmsworth & Awatere, 2013; Marques et al., 2018). This is derived from the Māori worldview (*te ao Māori*) and provides the principles, concepts, and lore that Māori employ to varying levels in everyday life. In this study, Māori interviewees pointed out several important Māori environmental values and concepts derived from a *te ao Māori* perspective when seeking and aspiring to understand, assess, and manage ecosystems (Harmsworth & Awatere, 2013). These include concepts such as *manaakitanga* (acts of giving and caring for); *kaitiakitanga* (stewardship or guardianship of the environment); *taonga tuku iho* (intergenerational protection of highly valued *taonga*, passed from one generation to the next, in a caring and respectful manner); and *te ao tūroa* (intergenerational concept of resource sustainability). Acknowledging the intrinsic link between the well-being of the *tāngata* (people), the *whenua* (land) and the *moana* (waters), Māori also have an intergenerational commitment to ensure that the relationship with the natural environment and its resources is reciprocal and sustainable (Wehi et al., 2021b). In *te ao Māori* (the Māori worldview), the wellbeing of individuals cannot be disconnected from the wellbeing of the natural environment (Marques et al., 2018). *Kaitiakitanga* (stewardship or guardianship of the environment) is a concept entrenched in national legislation (Simmons, 2014), according to which marine mammals are an integral element of the community's identity (Fumagalli et al., 2021).

These indigenous cultural lenses (for there are more than one) are the basis for principles and ethics that guide views and practice concerning interacting with nature, with one another, and with a sense of

collectivism, compared with the predominant individualistic worldview of the European and other non-Māori perspectives (Harmsworth & Awatere, 2013). In the context of the natural environment, it is essential that from a *te ao Māori* perspective, people are not distinct or separate from nature (Marques et al., 2018). Connection and a shared sense of being, characterise Māori's relationship with natural features and the connection with specific marine mammal species as an embodiment of being spiritually the same. This sense of collectivism (i.e., not being distinct and separate from another living thing) is difficult to reconcile with a reductionist scientific tradition based on a fundamental division of things (living and non-living) into distinct and separate entities (such as different organisms/species).

This research offers a profound understanding of the distinct historical, cultural, and spiritual relationships between the Māori and marine mammals. These results correspond with earlier studies that depict the Māori's comprehensive worldview (*te ao Māori*) and their connection with the natural world (Harmsworth & Awatere, 2013; Marques et al., 2018). To the Māori, marine mammals are more than just resources; they are part of their broader family (*whānau*) and hold spiritual and cultural importance. This view is echoed in the Māori saying, "Ka mau tonu ngā taonga tapu o ngā matua tupuna" (Hold fast to the treasures of the ancestors), which highlights the generational duty to safeguard these *taonga* (Dymond, 2013).

This study underscores the value of traditional Māori knowledge in comprehending and managing marine ecosystems. Māori principles offer a framework for sustainable resource management that is frequently overlooked by Western scientific methods (Harmsworth & Awatere, 2013; Simmons, 2014). It adds to the expanding literature that supports incorporating indigenous knowledge into environmental governance (Aswani & Ruddle, 2013; Friedlander, 2018). Recognising the inherent connection between the well-being of tāngata (people), whenua (land), and moana (waters), Māori ontologies offer a holistic approach to MMT that aligns with global sustainability goals.

Incorporating Māori values into MMT management

Despite New Zealand's policy landscape increasingly incorporating Māori perspectives on natural resource management, it is contended that this translates to realising effective implementation in practice to a large extent (Durette & Barcham, 2009; Harmsworth, 2005). It has been argued that the current MMPR 1992 are outdated, calling for a comprehensive review and update of the system to better encompass Māori perspectives and engagement (Chalcobsky et al., 2017; Elmahdy, 2022; Hartel et al., 2014). These calls are supported by this study, and it is recommended that the integration of

Māori values and concepts into MMT be holistic and collaborative. The study also recommends the integration of the Māori ontologies in the multiscale policy and planning processes. This means looking at, and integrating, governance and decision making at local, regional and national levels. This would have involved aligning these values across community level initiatives, regional policies and national legislation to provide a cohesive approach to resource management.

Based on Māori worldview, participants identified distinctive perspectives to environmental stewardship, community well-being, and intergenerational responsibility that are all key aspects of sustainable MMT. This has the potential to enrich MMT practices and are values that can inform or be integrated to Western resource management models (Aswani & Ruddle, 2013; Austin et al., 2018; Friedlander, 2018). In particular, the study recommends integrating *kaitiakitanga* (guardianship) into MMT by engaging Māori in decision making processes, co-managing marine reserves, and including Māori ecological knowledge into tourism operations. The study further suggests that the principles of *manaakitanga* (care and hospitality) which are part of Māori business practices could also support the growth of eco-friendly tourism activities that have visitor education on marine mammals and the welfare of the mammals as their focus. The study emphasises the importance of *taonga tuku iho* (cultural and environmental treasures) being embedded within tourism policies to improve the understanding of visitors to the cultural and ecological importance of marine mammals. In addition, the integration of *tikanga* Māori (customary practices) through guidelines for appropriate marine wildlife interactions, and the use of Māori tour guides may be a way to guarantee that MMT is consistent with Māori values and viewpoints.

The integration process should concentrate on setting up formal discussions with local tribes and sub-tribes at the primary stages of policy development or planning. In doing this, it is equally important to create effective strategies for engagement that allow for regular meetings with key Māori stakeholders to ensure that their views are captured in MMT plans and management activities. This study recommends that the establishment and activation of advisory boards with *iwi* and *hapu* members can be used to help inform policy and operational decision making. Furthermore, the interviewees are of the view that co-management relationships that enable direct control by the Māori over decision-making in MMT operations and the development of cultural impact assessments as a standard part of the MMT permit application process should be adopted. These assessments should evaluate the cultural effects of MMT activities and outline strategies to minimise negative impacts while enhancing Māori administer principles. The other point revealed by the study is that the need to ensure that the MMT

operations are carried out in accordance with and respect to the local *tikanga* MMT is achieved by incorporating *Te Ao* Māori into the MMT monitoring protocols. This can be done by incorporating traditional Māori environmental indicators into monitoring activities, educating. Also, as pointed out by some participants, the respect of local *tikanga* is critical in curating MMT experiences that include appropriate Māori greetings, conduct, and marine life such as greetings and blessings. This includes training tour guides on culture and Māori etiquette, as well as incorporating the Māori language and cultural stories into MMT materials and activities for the tourists.

Another important recommendation of this study is the promotion of the principle of intergenerational equity. According to some Māori participants, the MMT industry today focuses more on providing tourists and visitors with an optimal experience, even if this experience comes at the expense of the marine mammals being targeted. Regarding natural resource management in general and MMT management in particular, Māori interviewees emphasised the importance of adopting an intergenerational management approach. This view was supported by Wehi et al. (2021b), who noted that ecotourism can potentially promote indigenous frameworks that focus on intergenerational responsibilities for the natural environment. While the concept of intergenerational equity is pervasive in discussions of sustainability, it has a constellation of implications for the Māori context. *Te ao tūroa* addresses the obligation to care for natural resources keeping the future into consideration, especially for the advancement of sustainable MMT practices for marine mammals. Māori culture advocates for a holistic approach to the environment to achieve a healthy balance between the land, sea, people, and future generations. This can be incorporated into MMT through the intergenerational concept of management, which seeks to safeguard marine mammals while incorporating Māori customs and traditions. As pointed out by the participants in the study, marine mammal management in conjunction with intergenerational equity can be achieved in MMT by instituting tourism health practices such as limit on visitors, off season bans, and other restrictions to ensure the optimal population health and avoid depletion. These strategies help ensure that marine species abound and thrive for the coming generations, which is in coherence with the Māori value and concepts.

This study shows the necessity for an inclusive and cooperative strategy in incorporating Māori values within MMT management. This involves coordinating governance and decision-making procedures across local, regional, and national tiers to establish a unified framework for resource management. Incorporating Māori values into MMT practices can improve sustainability by encouraging respectful engagement with marine mammals and enhancing visitors' appreciation of their cultural importance.

The study also underscores the importance of intergenerational fairness, a concept deeply rooted in Māori traditions. The implementation of an intergenerational management strategy, can help MMT secure the enduring well-being of marine mammal populations while safeguarding cultural heritage for future generations. This aligns with the Māori saying, "Mō tātou, ā, mō kā uri ā muri ake nei" (For us and our children after us), which demonstrates the dedication to protecting *taonga* for those to come (Wehi et al., 2021b).

Whale Watch Kaikōura –an example of incorporating Māori ontologies into MMT

The study showed that Whale Watch Kaikōura provides a valuable example of how indigenous Māori business models in MMT can serve as a vehicle for the concepts and values of Māori ontology. The findings revealed how Māori, who established Aotearoa/New Zealand's first whale watching business in 1987 in Kaikōura, were influenced by the *manaaki* concept, emphasising the importance of being hospitable to visitors when operating their MMT businesses. As the first Māori-led whale watching operation in the country, it successfully integrates Māori cultural principles with MMT, promoting sustainable practices that honour both marine mammal populations and Māori cultural heritage. Whale Watch Kaikōura adopted a stewardship approach rooted in *kaitiakitanga* and that ensured that marine species are protected for future generations, aligning with Māori emphasis on intergenerational responsibility (Lundquist et al., 2012).

Furthermore, *manaakitanga* is rooted in their operations through a focus on respectful interactions with visitors and the environment, advancing both ecological sustainability and cultural exchange (Lück et al., 2024). The success of an indigenous business model such as Whale Watch Kaikōura has "demonstrated for local iwi a sense of sovereignty in that they are a people whose customs come from a marine environment, and it is from this environment that they derive their kawa or 'ways of doing things'" (Poharama et al., 1998, p. 28). This indigenous business model was praised for setting a positive example of Māori sustaining themselves by providing employment opportunities and conserving the nation's unique natural and cultural heritage (Carr, 2004; Poharama et al., 1998). However, to fully realise the potential of Māori business models in MMT, further examination is needed to understand how such models can be replicated and scaled. This includes exploring how Māori principles can inform current MMT practices, particularly in the context of co-management and governance.

Whale Watch Kaikōura exemplifies how Māori business models can blend cultural values with sustainable tourism. The research emphasises the success of this indigenous-led venture, which is based on Māori values, aligning with the concepts of intergenerational responsibility and ecological stewardship (Lundquist et al., 2012; Lück et al., 2024). This model not only offers economic advantages to the local community but also advances cultural exchange and environmental education, underscoring the implication of indigenous leadership in MMT.

Nevertheless, the study highlights obstacles to expanding and replicating such models, especially in areas where Māori participation in MMT has been limited (Kanwar et al., 2016; Mulcahy & Peart, 2012). To tackle these challenges, the study suggests forming advisory boards with iwi and hap representation, creating cultural impact assessments, and integrating traditional Māori environmental indicators into monitoring protocols. These actions can help ensure that MMT operations honour local *tikanga* (customary practices) and help preserve Māori cultural heritage.

6 Conclusion

This research emphasises the profound cultural, historical, and spiritual links between the indigenous Māori and marine mammals in Aotearoa/New Zealand. It stresses the importance of incorporating Māori principles and traditional wisdom into the management of marine mammal tourism (MMT). The results highlight the need for meaningful involvement with Māori communities, reinforced legal frameworks, and co-management strategies that acknowledge Māori as *kaitiaki* (guardians) of marine resources. Integrating Māori viewpoints not only advances sustainability but also safeguards cultural heritage, creating a more inclusive and respectful model for MMT. The achievements of initiatives like Whale Watch Kaikōura illustrate the capacity of indigenous-led projects to harmonise cultural, ecological, and economic objectives, providing important insights for the upcoming governance of marine tourism in Aotearoa/New Zealand and elsewhere.

Conflict of Interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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Figure 1.JPEG

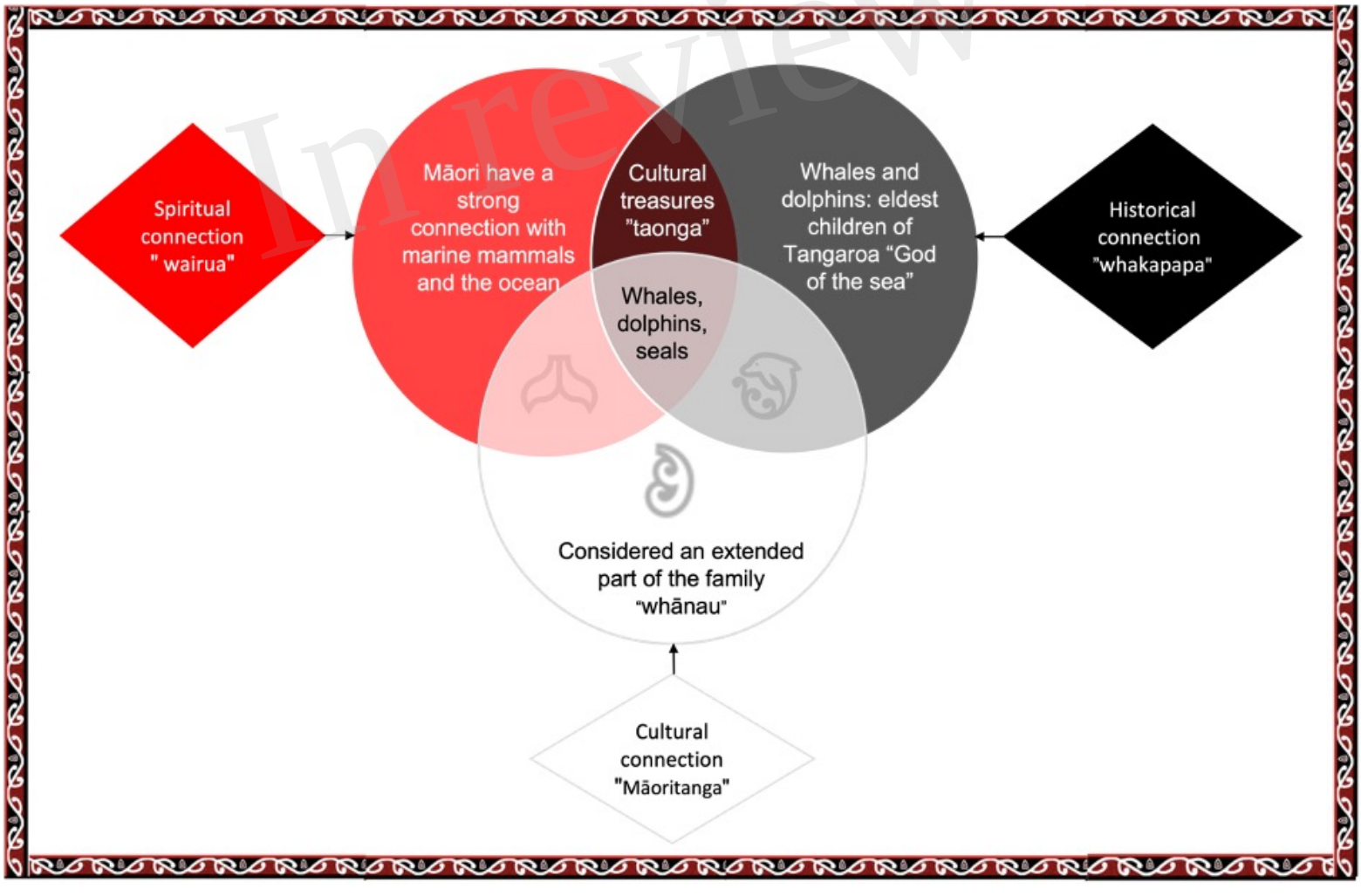

Figure 2.JPEG