Concept Plan SP 2022-025

Conservation and management of humpback whales in the Pilbara region.

BCS Marine Science

Project Core Team

X X **Supervising Scientist** Holly Raudino
Data Custodian Julian Tyne

Project status as of Aug. 4, 2023, 1:03 p.m.

X X New project, pending concept plan approval

Document endorsements and approvals as of Aug. 4, 2023, 1:03 p.m.

X X
Project Team required
Program Leader required
Directorate required

Conservation and management of humpback whales in the Pilbara region.

Program

BCS Marine Science

Departmental Service

Service 7: Research and Conservation Partnerships

Background

As humpback whales migrate through the Pilbara region of the WA coast they encounter several potential pressures, including noise pollution from coastal construction, shipping traffic, seismic activities, recreational vessels and commercial in-water interactions with tour vessels and people in the Ningaloo Marine Park (NMP). During their migration humpback whales also utilise coastal areas that encompass different habitat characteristics for different purposes, e.g., Mothers and calves rest in Exmouth Gulf, and individuals may seek protection along the back of Ningaloo Reef. However, there is a paucity of knowledge on the contemporary distribution and availability of humpback whale habitat across the Pilbara, consequently, managing the impact from potential pressures is challenging.

The commercial in-water interactions between tourists and whales in NMP are currently managed through a program where commercial tour operators are licenced under a set of conditions prescribing how and when tour vessels and swimmers are permitted to approach and interact with whales. To minimise and manage potential pressures on humpback whales in the Pilbara, understanding both the distribution of humpback whale critical habitats, and the impact of pressures that can be addressed through management (i.e., in-water interactions) are essential. This research will help to identify critical humpback whale habitats, particularly those used by mothers and calves. Information that will contribute to effective decision-making about both the in-water humpback whale interactions and the potential pressures on humpback whales in their critical habitat. This will, in turn, contribute to a sustainable and viable in-water humpback whale interaction industry, which is underpinned by robust and defendable research and monitoring.

Aims

- Map humpback whale distribution in NMP using monitoring protocols such as consecutive annual aerial surveys that will allow changes in distribution patterns to be detected over time and provide some indication of the natural variation in the number of humpback whales and their calves migrating through the NMP
- Identify critical humpback whale habitats in the Pilbara, the characteristics of these habitats and times of year they are potentially most important.
- Assess the areas in which in-water humpback whale commercial tour operation interactions occur and investigate potential congestion of interactions in those areas

Expected outcome

This research will enable a better understanding of critical humpback whale habitats in the Pilbara, which will assist managers in minimising conflict with potential pressures. Assessing the effectiveness and suitability of licence conditions within the management program for safety of swimmers and vessels, will also inform ongoing management of this industry. This will contribute to a better understanding of the potential impacts to both humpback whales and people from in-water interactions in NMP.

All information from this research will be fed directly into the evaluation and review of management programs to ensure that the programs are consistent with best practice management standards. Specific outputs will include reports with clear management recommendations, and manuscripts in peer reviewed journals.

Strategic context

This project aligns directly with DBCA Strategic Directions 2022-5 to: “Conserve, restore and manage plants and animals, ecosystems and landscapes using world recognised science and best practice management”, “Use world-recognised science to build and share biodiversity knowledge to support evidence-based Management”, “Collate, manage and share data to support effective decision making and conservation”, and “Collaborate and partner across government and with community, industry and other stakeholders”.

Expected collaborations

This project will involve collaboration between the Exmouth District, Marine Science Program and external research scientists, to collect the aerial survey data in the NMP.

Proposed period of the project

May 1, 2022 – June 30, 2025

Staff time allocation

to | X | X | X |

Role	Year 1	Year 2	Year 3
Scientist (SC2) Julian Tyne	0.5	0.5	1.0
MSP Scientist -Holly Raudino/Kelly Waples	0.05	0.05	0.1
Whale shark officer - Gemma Francis	0.05	0.05	0.05
Marine Park Coordinator NMP	0.05	0.05	0.05

Indicative operating budget

to | X | X | X |

Source	Year 1	Year 2	Year 3
Consolidated Funds (DBCA)	$42,490$	120,000	$120,000$
External Funding	$100,000$		