

**ISSUES PAPER**  
**April 2002**

**Ecologically sustainable management of swim-with-dwarf minke whale activities in the northern Great Barrier Reef – can it be achieved and how would we know if it is?**

**Background**

Since the early 1980's, dwarf minke whales have approached vessels and swimmers in the Cairns section of the GBR, leading to both opportunistic interactions and advertised swim-with-whales programs (from the mid-1990's). To date the interactions have been managed through legally binding regulations and a voluntary Code of Practice based on current understanding of dwarf minke whale behaviour and response to human interaction. With the introduction of GBRMPA swim-with-minke whales permits in the coming season there will be an associated suite of permit conditions. GBRMPA is also currently looking at ways to improve the management of tourism and recreation in the Marine Park, which include opportunities for self-management, such as industry codes and accreditation.

**The Workshop**

The workshop scheduled for Friday 19 April 2002 will bring together members of the tourism industry, management agencies and researchers. After brief presentations by managers and researchers participants will be invited to join in discussions:

- to discuss ways of achieving and demonstrating ecologically sustainable management of swim-with-dwarf minke whale activities in the northern Great Barrier Reef;
- to agree on, and finalise the Code of Practice, which incorporates both legally binding regulation and voluntary guidelines;
- to workshop ways of measuring the Code's effectiveness; and
- to look at ways of measuring compliance by users.

There are various examples of industry codes, such as the CHARROA Code of Practice and the Whitsunday Bareboat Industry Standards, but these have not yet been evaluated. Likewise, the effectiveness of the Hervey Bay whale-watching management plan has yet to be assessed. The workshop will therefore be breaking new ground in developing performance indicators to evaluate the effectiveness of management of swim-with-dwarf minke whale activities.

**What do we mean by 'performance indicator'?**

A performance indicator is a measure of how close we are to achieving what we set out to achieve – a yardstick to estimate the degree of achievement of different objectives.

In this case our prime objective is: **to achieve ecologically sustainable swim-with-minke whale activities within the GBRWHA**, with two key sub-objectives:

- **to maintain the dwarf minke whale population in the GBRWHA**, and
- **to allow sustainable tourism interaction with dwarf minke whales in the GBRWHA.**

Different sets of performance indicators will be needed to assess the extent to which each objective is met.

### **Aims of the workshop**

The main aims of the workshop are therefore to work together:

- to discuss different ways of achieving ecologically sustainable swim-with-minke whale activities on the GBR;
- to finalise the Code of Practice;
- to agree on a process for developing draft performance indicators; and
- to prioritise these performance indicators.

Based on the results of the workshop draft indicators will be developed for presentation and discussion at the pre-season workshop in May.

## **1. FINALISING THE CODE OF PRACTICE**

### *ISSUES FOR DISCUSSION*

#### **1.1 Finalising the Code of Practice (Attachment 1)**

The attached revised Code of Practice will provide a basis for discussion.

It is important that the potential users of the Code are involved in its development and agree with its content. Those conditions which are currently in law (in **bold**) cannot be changed, but there is flexibility to discuss and review the guidelines.

- Is there general acceptance of the Code?
- Some conditions may seem impractical as they have been based on knowledge of humpback whales which behave differently from dwarf minke whales – how can we best work with these conditions?
- Should Workplace Health and Safety issues (e.g. the use of lines in open water when drifting) be managed through the Code or are they best left to industry to handle?
- Operators and crew members have a responsibility to brief the passengers - should there be a training condition in the Code?

#### **1.2 Adopting the Code of Practice**

The industry will need to think about what processes it will use for formal or informal adoption of the Code, and to agree on the status of the Code.

- Do you want the Code to be mandatory as in a GBRMPA permit condition?
- How will we make sure other incidental commercial and recreational whale watchers are aware of and follow the code?

## **2. OTHER MANAGEMENT ISSUES**

### *ISSUES FOR DISCUSSION*

## 2.1 Education and training

All users need to be aware of the Code and its content, and their responsibilities (including incidental commercial and recreational whale watchers). It is important that relevant educational materials are available to all stakeholders, trainers etc.

- What are the respective responsibilities of managers and industry to provide appropriate information on the Code to all participants?
- In this context, what are the training needs for the crew (if any) and who should be responsible for providing the training?
- Does the industry think that accreditation would be of benefit?

## 2.2 Industry publicity

It is important that the publicity (brochures, web promotions etc.) reflects the conditions of the Code of Practice and does not promote unrealistic passenger expectations.

- The workshop could consider the type of promotion that may be consistent with legal requirements.
- Should publicity be another requirement of the Code?

## 2.3 Additions to the Code

As we learn more about the human/whale interactions through monitoring and research it may be necessary to introduce additional management strategies to maintain the value of the experience, such as time limits on encounters, or resource allocation at particular sites e.g. Lighthouse Pinnacle.

- How would this be best achieved - through a voluntary industry code, a CHARROA agreement or other channels ?

## 3. DEVELOPING A FRAMEWORK FOR PERFORMANCE MONITORING

Given the difficulties in measuring directly the objectives detailed on page 1, at least in the short term, an interim 'surrogate' objective is **that the impacts of swim-with-whale activities on the whales are minimised.**

These encounters are two-way interactions, with both parties being affected by the other. The ecologically sustainable management of such interactions requires considerable knowledge of the swimmers (their attitude, motivation, behaviour & experiences) and of the whales (life history parameters, spatial and temporal distribution, impacts on critical life history stages). Monitoring of both crew/swimmer behaviour and the whales is therefore necessary to measure whether ecological sustainability is being approached or achieved.

Since 1996 researchers, including staff of *Undersea Explorer*, with industry assistance, have studied the interactions between swimmers and whales. This has involved:

- direct observations of the behaviour of both swimmers and whales
- completion of questionnaires by passengers and crew; and
- whale sighting sheets filled in by crew.

Research has focused on:

- the passengers – where they are from, their expectations, their experiences (good and bad), their perceptions on how effectively encounters were managed, and on quality of interpretive material); and

- the whales (behaviour throughout an encounter, spatial and temporal patterns of encounters, spatial and temporal patterns of individual whale distribution).

This information will provide the baseline for future monitoring. With a move towards self-regulation, there is a push to shift responsibility for monitoring at least some of these features to the industry rather than relying on directed research. How best can we achieve this result? What measures can we use as 'performance indicators'?

## ***ISSUES FOR DISCUSSION***

### **3.1 What information should be collected?**

- Information collected should be demonstrably and directly relevant to management of the industry.
- Information should be suitable for identifying trends and have the potential to trigger some action.

### **3.2 Data collection**

- What mechanisms are there for collecting data (e.g. whale sighting sheets, passenger questionnaires addressing how encounters have been managed)?
- Data collection would need to be done consistently and accurately. If industry members are to be involved there should ideally be a commitment by all operators involved in the activity. To eliminate bias a certain minimum percentage of returns should be received from all vessels.
- Where vessel crews are involved, their primary responsibility for client service and safety should be recognised.

### **3.3 How will the data be analysed and reported?**

- The data collected would need to be compiled, analysed and acted upon. How could this be managed, and by whom?
- There could be provision for sharing of information so that the process is transparent.

### **3.4 What processes will be put in place to respond to monitoring outcomes?**

- What results (e.g. observed changes in whale behaviour) will trigger an action (e.g. crew stops the interaction)?
- What mechanisms are in place to act upon negative comments from passengers (either by a particular operator or by an organisation such as CHARROA if there are repeat complaints about individual operators)?

4. EXAMPLES OF PERFORMANCE INDICATORS (These and further examples will be discussed at the workshop)

Indicator 1	Possible mechanisms for recording	Trigger	Response
<p><b>Participant swims toward a whale</b></p> <p>This indicator is <b>relevant</b> - it contravenes a Commonwealth regulation in the EPBC Act and past experience shows that it often results in disturbance of the whale, as indicated by a veering away or speed-up of the whale).</p> <p>Instances can be recorded <b>accurately and consistently</b>.</p> <p>There is a potential to measure trends of performance and to <b>trigger a response</b>.</p>	<p>a) All crew asked to note any instances sighted and report to central records keeper (skipper) as soon as possible</p> <p>b) One item in visitor questionnaire covers concerns about any breaches in the management of an interaction and responses are used to cross reference perceived breaches with recorded breaches</p> <p>c) A formal "complaints" mechanism which passengers fill out</p> <p>d) Independent researcher on board, recording all aspects of interactions</p> <p>e) Crew member, acting as 'ship's naturalist', interprets activities to passengers and records any breaches (?plus takes any necessary actions if there are breaches)</p> <p>f) Staff of management agency on board for spot checks (either with operator's knowledge or acting <i>incognito</i>)</p>	<p>Not more than <b>one instance</b> of a person swimming at a whale.</p>	<p><i>Short-term:</i> participant told to leave water if action is repeated, and allowed to resume interaction after an explanation of concern only if crew judges the action is unlikely to be repeated; any breaches discussed at end of the day with all of passengers (e.g. at briefing) and re-emphasis of the requirement not to swim at a whale highlighted in subsequent briefings</p> <p><i>Long-term:</i> operators as a group need to have agreed upon action if there are repeated breaches on one or more vessels</p> <p>Question: Who else has access to these data and under what circumstances? Is there a corresponding sequence of triggers and responses for others (e.g. management agencies?)</p>

Indicator 2	Possible mechanisms for recording	Trigger and Response
<p><b>Number of hours that whales are in contact with a vessel at a site</b></p> <p>This indicator addresses possible long-term or cumulative impacts of the interactions on the whales. It requires knowledge of number of vessels in contact with whales, frequency and duration of the contacts, the ability of the whales to seek a refuge area and the composition of the group e.g. does it contain a cow and calf? (GBRMFA 2000. <i>Whale and dolphin conservation in the Great Barrier Reef Marine Park</i>, pp. 41-43).</p> <p>It is thus <b>relevant to management</b> and, with the total commitment of the industry, could be recorded <b>accurately and consistently</b> on a whale sighting sheet.</p>	<p>a) Skipper or assigned crew member fills in whale sighting sheet, recording date, time and duration of encounters, location, details of interaction, etc. Operators agree to supply information on their weekly itinerary in order to assess amount of vessel activity in particular areas.</p> <p>b) Independent researcher on board records all aspects of interactions and vessel track through the cruise</p> <p>c) Crew member, acting as 'ship's naturalist', interprets activities to passengers and records all aspects of interaction as well as cruise path</p>	<p>Unlike the first example, there is not a clear breach calling for an immediate response. However, depending on the information coming from the whale sighting sheets, a judgement among operators and managers may have to be reached on an acceptable upper limit to the time during any day that whales are in contact with a vessel. Once this judgement has been accepted, it may require responses such as limits on number of vessels using an area, time limits on individual vessels, etc.</p> <p>This information is crucial for assessing the ecological sustainability of the industry. However, it raises a series of issues including who is to collect the data, how is the data to be shared without breaching commercial in confidence agreements, who is to analyse the data upon which decisions can be reached?</p>

**Attachment: Revised Code of Practice.**

Researchers and representatives of the management agencies (Environment Australia, Great Barrier Reef Marine Park Authority, Qld Environmental Protection Agency) will be at the workshop to discuss the different parts of the Code and to receive industry feedback and any concerns.