

# Minke Whales

## RESEARCH UPDATE

9 JUNE 2000

### INFORMATION SHEET NO. 3

This year marks the fifth year of our field research into the biology and behaviour of dwarf minke whales and the management of peoples' interactions with them. The 2000 Great Barrier Reef minke whale season has started well with animals sighted in April and May. The research team are greatly looking forward to the peak June-July sighting period with at least six weeks of field work planned, starting in the second week of June. The 2000 season will see an increased effort by the research team to collect biological and behavioural data on the whales. Sightings from previous seasons have contributed significantly to our understanding of the whales' local abundance and distribution. A new sighting sheet has been designed (specimen attached in MWIP2000) and we encourage all boat operations in the area to fill them in. Summaries of the season's data will be returned to each vessel.

Work has continued throughout the summer analysing the results of the record 1999 season. A draft paper (Birtles & Arnold, 2000) summarising some of our findings particularly with respect to managing the commercial swim programs is being submitted to the Scientific Committee of the 52nd Meeting of the International Whaling Commission (IWC) in Adelaide next week (copy attached in MWIP2000). It addresses many of the concerns that have been raised recently by organisations such as the UK-based Whale and Dolphin Conservation Society about swim programs.

Highlights from our five week 1999 season aboard *Undersea Explorer* include the over 70 hours we spent in contact with approximately 200 whales in 41 individual encounters. The longest was over six hours and the individual whales seen in an encounter ranged up to a total of over 25. We're still analysing but so far we have good material for identifying over 100 of these whales. We're still working on our within-season re-sightings data but at least 15 animals have been confirmed as seen twice or three times. These sightings have been up to 16 days and 40 km apart (see Table 6 from Birtles & Arnold, 2000). Video film from other boats has already allowed one confirmed re-sighting so your photographic contributions are warmly sought.

The identification of individual whales continues to be an important element of the research, and we are now adding details on gender and approximate size to the individually named animals which is building an increasingly complex picture of their social groupings in space and time. The natural markings on the body of each whale is unique, similar to a fingerprint. However the often subtle differences can be difficult to distinguish. An identification technique developed by Peter Arnold and Alastair Birtles has been very successful in its application, and is currently being incorporated into a computer-based whale identification program, called PODPIC (Portable Digital Photo-Identification Catalogue). This is based on 68 different features of their colour patterns

and 246 different character states. Digital images of named animals are stored on a CD-ROM for reference and comparison. Other new material from the Project in 2000 includes an updated Whale Sightings Sheet, an updated Minke Whale Information Package (MWIP2000), the establishment of an industry sightings network, and some fine-tuning of the Code of Practice for swimming with the whales. This is presented in a new, more accessible form in the draft Minke Whale Brochure which should be easier for passengers to find.

Important feedback from passengers and industry members in 1999 has led to improvements to the Code of Practice and the Minke Whale Information Package. Following the 1999 minke whale season, dive industry members were interviewed to help better understand operational procedures, and to ensure industry input into future management of the industry. Results of these interviews are being incorporated into the revised Code of Practice and improved interpretive material for the industry. The ultimate goal of this aspect of the Minke Whale Project is that the industry will be able to provide consistently high quality experiences for tourists, whilst ensuring the sustainability of its valuable and unique resource. Our findings have already been incorporated into the new GBRMPA Whale and Dolphin Conservation Policy Document (attached in MWIP2000).

As growing numbers of people are experiencing in-water encounters with these whales, the Minke Whale Project has focused on testing and implementing solutions to existing and potential threats to the whales and the industry. The involvement of the industry has been critical to the development and improvement of the Code of Practice for swimming with the whales. Further feedback from industry members and passengers has also significantly contributed to the improvement of interpretive material. The research conducted within the dive industry since 1996 has led to a better understanding of the experiential and operational issues involved in ensuring a sustainably managed human-wildlife interaction. These results have also consistently shown how powerful the effects of encounters with minke whales are on tourists' experiences.

Members of the research team for the 2000 season include Dr Peter Arnold (Museum of Tropical Queensland); Dr Alastair Birtles (CRC Chief Investigator), Peter Valentine, Matt Curnock and Vimoksalehi Lukoschek (all James Cook University) and Andy Dunstan and Monique Matthews (*Undersea Explorer*). Additionally, this season we will be testing a draft passenger brochure with the involvement of JCU Master of Tourism student Liam Smith. Liam will be seeking feedback on this brochure to develop a final version for use by dive operators in 2001. Further research on whale vocalisations is being conducted by PhD student Jason Gedamke of the University of California at Santa Cruz who has been working with us since 1997.

We would like to acknowledge and sincerely thank all participating Cairns section live-aboard dive operators, their crew and staff members, whose contributions to the Project have assisted its many discoveries and successes. We hope that further outcomes of the Project continue to be of use to the industry and lead to the long-term sustainability of human-dwarf minke whale interactions.

For further information please contact:

**Dr Peter Arnold, Museum of Tropical Queensland, 78-102 Flinders St, Townsville QLD 4810**

Ph: 07 4726 0615

Fax: 07 4721 2093

Email: [petera@mtq.qld.gov.au](mailto:petera@mtq.qld.gov.au)

**Dr Alastair Birtles, c/- Tourism Program, James Cook University, Townsville QLD 4811**

Ph: 07 4781 4736

Fax: 07 4725 1116

Email: [alastair.birtles@jcu.edu.au](mailto:alastair.birtles@jcu.edu.au)

**Peter Valentine, c/- Dept. of Tropical Environment Studies and Geography, James Cook University, Townsville QLD 4810**

Ph: 07 4781 4441

Fax: 07 4781 4020

Email: [Peter.Valentine@jcu.edu.au](mailto:Peter.Valentine@jcu.edu.au)

The Minke Whale Project is a combined initiative of James Cook University, Museum of Tropical Queensland and *Undersea Explorer*. The Project is partially funded by NHT under the Marine Species Protection Program (Coast and Clean Seas) of the Commonwealth Department of the Environment (Environment Australia) and is managed by the CRC Reef Research Centre Ltd. It would not be possible without the support of the participating Cairns section live-aboard dive industry operators.

