

Since the beginning of recorded history whales have always held an extraordinary magnetism for humans. Now, for a particular subspecies of minke whale, which visits Queensland's north coast each year, humans seem to have become just as magnetically interesting. Apart from offering tourists the surreal and often life-changing experience of coming face-to-face with a cetacean, the peculiar mutual fascination that these dwarf minkes have with humans is providing a world-first opportunity for underwater research, writes **Viarnne Mischon**.

The sub-species of minke, *Balaenoptera acutorostrata*, was first noticed in the Great Barrier Reef in the late 1970s and dwarf minke whales were only recognised as a distinct form in the mid-1980s. By this time these small baleen whales, which grow up to eight metres long, were becoming regular visitors at dive sites north of Cairns, where they appeared to be actively seeking out boats and divers.

In 1996, Dr Alastair Birtles (Senior Lecturer in Environmental Management and Ecotourism at James Cook University in North Queensland) and Dr Peter Arnold (Senior Curator of Tropical Natural History at the Museum of Tropical Queensland; now deceased) began a participatory dwarf minke research program known as the Minke Whale Project (MWP). Since its establishment, the initiative has gathered tens of thousands of underwater photos and many hours of video footage, making it the most extensive underwater study of whale behaviour and individual identification in the world.



# Encountering mutual respect



Mike Ball Dive Expeditions' vessel, the *Spoil Sport*, ferries eager whale watchers to the outer Reef. Mike Ball Dive Expeditions.



Dwarf minke whales are just as curious about humans as we are about them and seem to enjoy the close encounters between the species. John Rummye/Eye to Eye Marine Encounters

With a team of three PhD students plus a host of volunteers, Dr Birtles' project is also greatly assisted by the growing scuba diving ecotourism industry. In 2008 alone over 20 000 digital underwater images were donated by tourists and dive crew to the identification catalogue being compiled and analysed by PhD student Susan Sobotzick at James Cook University. Sobotzick is very grateful for this huge contribution. 'Because so many people are contributing photos to the project I am able to build a far more complete picture of the whales' movement patterns and their spatial and temporal distribution than could ever be achieved under normal research conditions on just one observation vessel.'

Dwarf minke whales have the most complex colour patterns of all baleen whales. The subtle variations in these markings can be used much like a human fingerprint to distinguish between individual whales. One individual minke that was regularly identified from 2005 to 2007 is known as 'Pavlova'. Appropriately named after the famous Russian ballerina, this particular whale became somewhat of a celebrity with her distinctive and very close behavioural displays, including 'pirouetting' vertically in front of swimmers. 'Pavlova', along with several other minkes, has been known to approach swimmers to within less than a metre. Underwater photographer and dive instructor Julia Sumerling, of Mike Ball Dive Expeditions, has had several close encounters with the minke. In 2007 'Pavlova' swam directly towards Julia and gently nudged her camera 'It felt like this might have been a gesture of recognition', Sumerling said.

Matt Curnode/Minke Whale Project

PhD student Arnold Mangott is currently researching the visual and acoustic behaviour of the whales. Although dwarf minkes are most commonly observed alone or in pairs, occasionally large groups of more than 20 whales have been seen together. 'One very interesting finding is that once the minkes have engaged in an interaction with a boat and swimmers they usually stay within 60 metres of the vessel and sometimes will follow it when it moves to the next dive site, to continue their interaction with swimmers. Such long-lasting and close interactions with vessels and swimmers have not been documented in other cetaceans.'

The reasons why these dwarf minkes return each year to the same locations in the northern Great Barrier Reef are still uncertain. There has been no indication that the whales are feeding during their time in the Reef. It is possible, however, that the minkes are aggregating in these protected waters for breeding purposes, as courtship behaviours are frequently observed.

An important research objective of the MWP has been to determine the effects on the minke of a growing tourism industry seeking underwater whale encounters. Habituation of individual whales to repeated interactions with boats and swimmers is a primary concern being investigated by Mangott, while his colleague Matt Curnock (the third PhD student) is working with key stakeholders to develop sustainability indicators and a long-term monitoring program for the industry.

In many countries it is illegal to swim with whales and heavy penalties apply.



Queensland's unique opportunity for tourists to have an underwater encounter with dwarf minke whales is governed by Marine Park permits and a comprehensive Code of Practice. There are only nine Great Barrier Reef tourism operators permitted to conduct whale encounters and the stringent Code of Practice ensures that interactions are entirely on the whales' terms.

'One of the most encouraging outcomes of our research so far is the wonderful collaboration that has developed between the tourism operators, Reef managers, conservation NGOs and the MWP research team,' says Curnock. 'Tourism operators are genuinely concerned about their potential impacts on the whales. A great result of this collaboration is the new Code of Practice that is now in place, which far exceeds the requirements of the Marine Park Regulations.'

The three PhDs are expected to be completed by mid-2009, after which the MWP team will be integrating key findings and recommendations for the sustainable management of the swimming-with-whales industry into a report to the Great Barrier Reef Marine Park Authority (GBRMPA).

Dr Alastair Birtles, MWP Team Leader, stresses the importance and uniqueness of the project's collaborative approach to the

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research and management of this growing ecotourism industry. 'Our first imperative was to understand enough about this remote Reef phenomenon to facilitate its ecologically sustainable management. However, the experiences the whales provide are so wonderful and utterly memorable that it soon became more a labour of love.'

Dr Birtles is understandably passionate about the overall outcomes of the MWP. 'Our research activities now have a wide range of biological, sociological and applied management objectives,' he says. 'This is the only known predictable aggregation of these whales in the world and they provide a remarkable opportunity

**Minke Whale Project researchers have become very familiar with 'Pavlova', named after the Russian ballerina because of her habit of pirouetting in front of swimmers.**

Matt Curnock/Minke Whale Project

to study oceanic rorqual whales. The dwarf minke belongs in the same genus (*Balaenoptera*) as the mightiest animals on the planet, including the blue, finback and sei whale. The minkes therefore not only provide magnificent wildlife experiences, but a unique window into the lives of other rare and endangered whales.'

Whilst the reason the dwarf minke find humans so fascinating is yet to be determined, the personal impact of an underwater interaction with a whale is an undeniably exhilarating event for those who are fortunate enough to experience such a profound encounter of mutual respect.

*Viarnne Mischon is Executive Producer of Wonderful World Media Network, [www.wonderfulworldmedia.net](http://www.wonderfulworldmedia.net)*

#### **More information:**

Minke Whale Project,  
[www.minkewhaleproject.org](http://www.minkewhaleproject.org)

Great Barrier Reef Marine Park Authority information, [www.gbrmpa.gov.au/corp\\_site/key\\_issues/conservation/natural\\_values/whales\\_dolphins/dwarf\\_minke\\_whales](http://www.gbrmpa.gov.au/corp_site/key_issues/conservation/natural_values/whales_dolphins/dwarf_minke_whales)