

Monkey Mia News

Issue 1 Summer 2000



DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT



SHIRE OF SHARK BAY

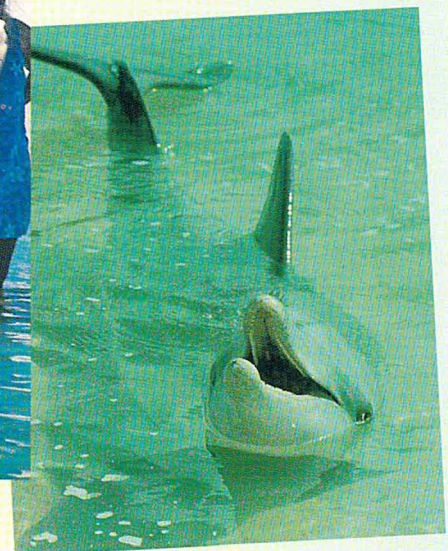
Welcome to the first edition of Monkey Mia News.

This newsletter will be produced twice a year giving an update on what's happening in this important Shark Bay World Heritage area. Profits raised from this publication will go towards joint research and management projects, including the on-going monitoring of Red Cliff Bay dolphins. Support this work by becoming a Monkey Mia Dolphin Friend and receive regular newsletters. See back page for details!

HISTORY

Some thirty years ago something special began at Shark Bay, Western Australia. Although no one knows exactly why, several bottlenose dolphins began interacting with people in shallow water by the Monkey Mia Caravan Park (now the Monkey Mia Dolphin Resort). It is most likely that dolphins were thrown fish from the boats of local fishermen. By 1964 at least one dolphin was accepting hand-held fish. Today as many as seven dolphins regularly visit the beach shallows at Monkey Mia. Several other dolphins visit on an occasional basis. These dolphins are part of a huge dolphin society of over 300 dolphins in Shark Bay.

Richard Connor and Rachel Smolker discovered the remarkable research opportunity in 1982. Over the years since then, the site has become firmly established as one of the most important dolphin research sites in the world. An important discovery is that the dolphin society is a fission/fusion society that sees individuals constantly joining and leaving small sub-groups. Also, males were found to travel in 'alliances' of two to three other males who work together to 'herd' females in the mating season. One special sub-group of female dolphins carries a sponge over the rostrum (beak) which is thought to be used as a tool in feeding. Dolphin acoustics include various specialized whistles and clicks; some are used for identification, others in threatening situations or in 'echolocation' of prey. These are just a few examples of the exciting and on-going research discoveries.





would rather play than be fed. As well as two regular beach dolphins giving birth, this season there have been a number of calves born to dolphins who only visit the beach occasionally. Joysfriend gave birth to Jambo and Joy gave birth to Bliss. Both these mothers have brought the young in close to the beach. When all four calves are inshore it creates a lot of excitement for visitors at the beach.

There has been a total of seven births this season in the immediate Red Cliff Bay area.

New visitor facilities for the new millennium

The first dolphin visitor centre was built in 1986, and although this building served its purpose well, it is now bursting at the seams to cater for the current number of visitors to Monkey Mia.

2000 will see the exciting redevelopment of visitor facilities on the Reserve. Work will begin shortly on a state-of-the-art interpretation centre, which will include a shaded amphitheatre, interactive displays and information on the latest research projects. A purpose-built children's playground will add to the new amenities.

Management changes having a positive effect

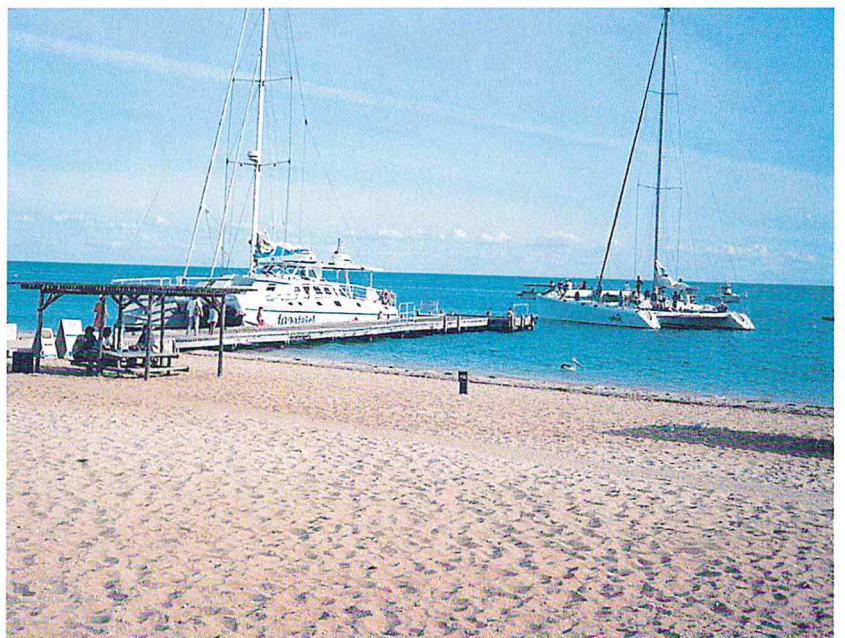
Management of the dolphins changed in 1994 after research showed that the survival rate of the calves born to the inshore dolphins was much lower than those dolphins who never visited the beach for fish handouts. Dr Barry Wilson reviewed the dolphin management at Monkey Mia and the following recommendations were adopted:

Dolphin update

There are currently seven dolphins who regularly visit the beach at Monkey Mia. Nicky (female) is the oldest at 24 years. She is the offspring of one of the old regular dolphins, Holey Fin, who died about four years ago. Nicky has successfully reared Holikin (male) who is now 4 years old and only visits the beach on an occasional basis. Nicky is also the mother of one of the new arrivals, Nomad (male), 10 weeks old.

Puck (female) is 23 years old and was also born to one of the old regular beach dolphins, Crooked Fin. Puck has also successfully raised a calf, Piccolo (female), who is now 6 years old and still visits the beach with her mother most days. Puck also has a 2 year old calf Kiya (female) who will stay with her mother for a few more years until she is weaned.

Surprise (female) is the youngest of all the adult dolphins who visit the beach. We don't know who her mother was but estimate her age to be approximately 20 years. Surprise has also successfully raised a calf, Shock (female), who is now 5 years old. She still visits the beach with her mother but not as frequently as Piccolo. Surprise also has a new born calf, Sparky (male), 1 year old. Piccolo was at the centre of an important research project in August/September this year, co-ordinated by CALM and Dr Amy Samuels. This involved offering Piccolo fish at the beach for the very first time. She is a fully independent juvenile, offspring of one of the beach-fed dolphins and ideally suited to join the feeding program. Piccolo thoroughly enjoyed the extra attention given by her 'dedicated' ranger; however, she clearly showed that, for now, she



- ❖ Ensure that the beach dolphins maintain their natural functions (feeding, socialising) as members of the larger dolphin community in the bay by minimizing the time mothers and calves spend at the beach and reduce the risk of over-feeding.

- ❖ Continue the feeding regime (adopted in 1989) at the beach to one third of their estimated daily requirements for each adult dolphin. This is about 2kg of fish. Feeding sessions to be limited to the mornings only.

- ❖ Eliminate feeding of dolphins from boats. Adult males are not to be fed, nor calves, regardless of gender, until twelve months after they are fully weaned (about 5 years old). Thus only adult females will be fed.



The development of these recommendations and the monitoring of the dolphins have been made possible through the dedicated work of the rangers and the dolphin researchers working at Monkey Mia. The Monkey Mia dolphin research is the most comprehensive of anywhere in the world.

Since these changes in management we have had no deaths of new-born calves, and three calves survive who are now fully weaned. Although it is felt these changes have played a big role in the survival of these calves it will be a number of years before management can gauge the degree of success.

Research spotlight

Researcher: Michael Krutzen,
University of New South Wales

Researchers have observed the social relationships of the dolphins of Shark Bay over the last 15 years. As calves stay close to their mothers for a period of about 3-4 years, it is possible to document their maternal family history; however, because females mate with more than one male, it is not easy to tell which dolphins have fathered offspring. The male dolphins in Shark Bay form alliances of two or three individuals and work together to capture females during the breeding season.

Using small tissue samples from many of the dolphins the DNA inside their cells can be matched to see how individuals are related. A tiny sample of skin and blubber is collected using a small biopsy dart. In 1997 researchers refined the sample collection techniques and developed darts that ensure minimal disturbance to the dolphins and take just enough tissue for genetic analysis.

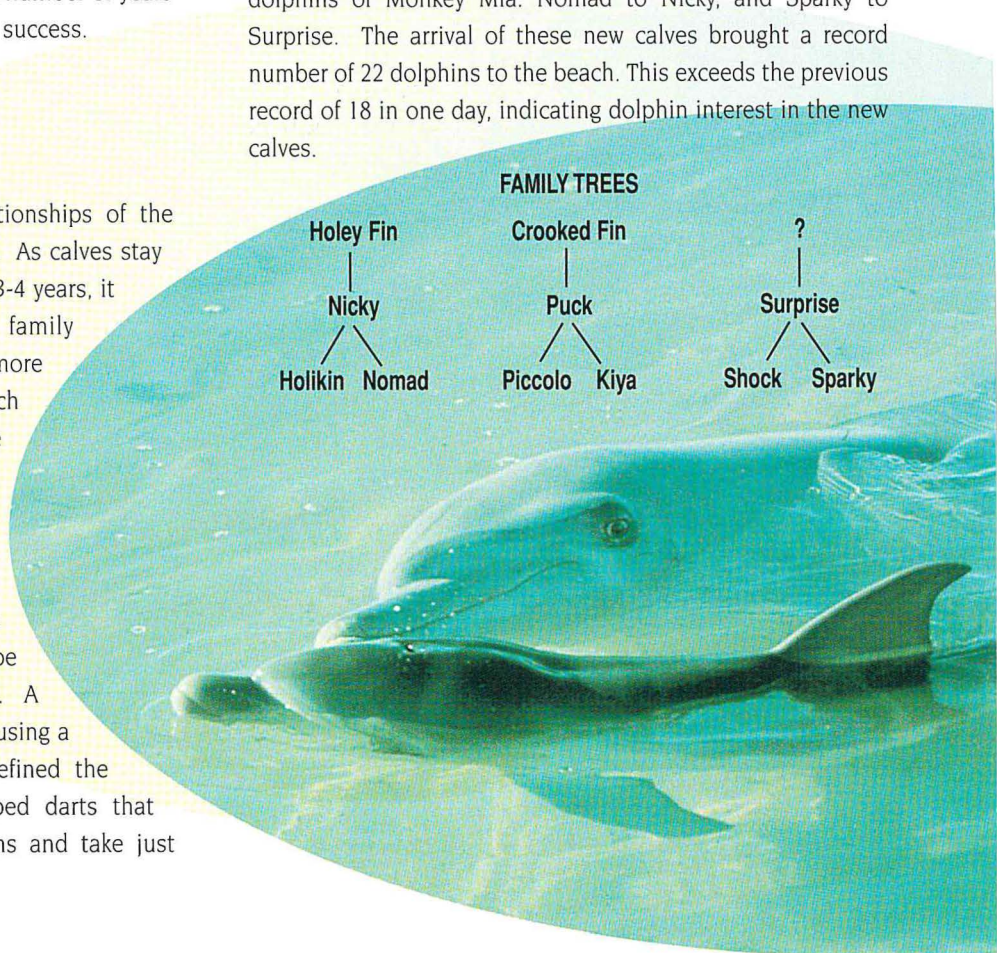
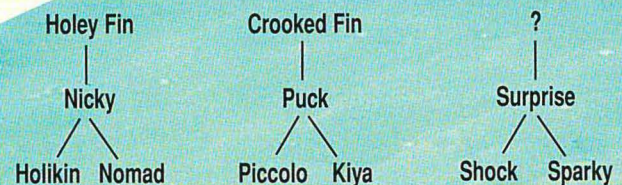
Back in the laboratory where DNA samples of different dolphins are compared, the researchers can tell which males have fathered which calves. The DNA profiles can also be used to check if the male alliances involve dolphins who are themselves closely related.

It will be interesting to see if related individuals remain close throughout their lives and help us understand their social structure. That would enable us to adjust policies, allowing minimal disturbance to their natural lives but continuing this unique experience for the people who visit Monkey Mia.

Dolphin News

In November 1998 two new male calves were born to the beach dolphins of Monkey Mia: Nomad to Nicky, and Sparky to Surprise. The arrival of these new calves brought a record number of 22 dolphins to the beach. This exceeds the previous record of 18 in one day, indicating dolphin interest in the new calves.

FAMILY TREES



New Arrivals

The dolphin interaction at Monkey Mia has remained the focus for visitors for over thirty years and visitors have increased from a handful to hundreds each day. To cater for this increase in visitors and to increase their awareness of the other attractions in this unique World Heritage area, other activities have been introduced. There are now several boat trips available, with wildlife cruises, pearl farm tours, fishing charters and a walktrail to be enjoyed at any time of year. Rangers offer guided walks during the winter months, kids, activities during school holidays and slide shows through the summer months. Visiting researchers also give fascinating talks on their latest research work in the evenings

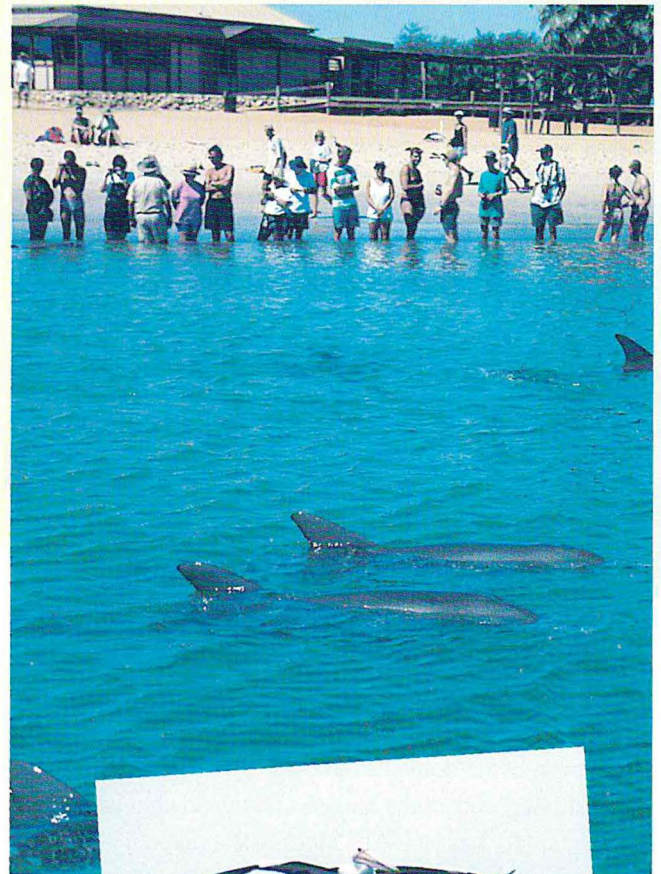
Subscribe Now

We hope that reading this newsletter has given you a better understanding of the wonderful natural heritage to be found in Monkey Mia and the whole Shark Bay Area.

You can be a part of the great exploration into the behaviour of the Monkey Mia dolphins, sharks and other marine life and assist in ensuring a safe future for this World Heritage Area.

Become a Monkey Mia Dolphin Friend member and receive two newsletters each year!

If you would like to subscribe, and if you would like to make suggestions for future articles, please fill in the coupon below and return with cheque for \$10.00 Australian or credit card details via the address as listed on the coupon. You will receive a copy of the Monkey Mia learning package and a discount voucher for entry to Monkey Mia (valid for 1 year). Thank you for your support.



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