



Dolphin Research on Great Barrier

Some of you may know of Sarah Dwyer, a regular visitor to Great Barrier Island and a PhD student with the Coastal-Marine Research Group at Massey University in Auckland. Her visits to the west coast of the island are part of her doctoral research focusing on dolphins in the Hauraki Gulf.

Sarah began her three year fieldwork project in January 2010, where she started conducting boat-based surveys in the Inner Hauraki Gulf. By the second year she extended the outer limits of the study area and began making trips to Great Barrier. Currently at the beginning of her final year of research on the boat, she will continue to come out on monthly visits, staying on Kaikoura Island, until the end of December. After three years of collecting data she will spend a fourth and final year in 2013 completing data analysis and writing a thesis.

The two most frequently sighted dolphin species in the Hauraki Gulf are common and bottlenose dolphins. The main focus of Sarah's project involves common dolphins, the smaller of the two species. Sarah describes this aspect of the research as "investigating the distribution and relative density of common dolphins in the Hauraki Gulf." In order to do this she ventures out in a 5.5m Stabicraft and drives the boat along transect lines while searching for dolphins. She hopes to identify any hotspots or important areas for common dolphins both in the Inner Gulf as well as around Great Barrier. Previous research has found that the Hauraki Gulf appears to be the main stronghold for common dolphins in New Zealand waters and is also an important area for nursery groups given the high numbers of young dolphins sighted year round.

The secondary part of the research began when she started her visits to Great Barrier; she was surprised to find such a frequent occurrence of bottlenose dolphin sightings off the west coast – much more so than in Inner Gulf waters. With no prior dedicated dolphin research having taken place in Great Barrier waters she made the most of the opportunity and began to carry out photo-identification work on bottlenose dolphins in the area. This research allows her to examine photographs she has taken of the dolphins in order to identify individuals by the different nicks and notches on their dorsal fins. Sarah has created a catalogue of bottlenose dolphins that have been sighted in Great Barrier waters and says "we currently have over 120 dolphins in the catalogue." She has photographed some of the individuals up to 14 times over the course of one year. She is excited to see what 2012 brings and what she will continue to learn about the dolphins.

However it is not just dolphin sightings that Sarah takes note of, whilst driving along the transect lines she also records any other species sighted. This includes Bryde's whales, which are frequently spotted in the Hauraki Gulf. She has had reports of orca around Great Barrier and to date has recorded one sighting herself of orca between Great Barrier and Little Barrier.

Sarah also relies on Emmy Pratt, from the Great Barrier Marine Radio, and local boaties to notify her of any dolphin sightings in the area. This is a great help towards her research and she took this chance to say how much she appreciates the support of the Great Barrier community. She says "a big thank you to everybody who has made her feel welcome on the island, called about dolphin sightings and to the Motu Kaikoura Trust for support with accommodation."

Kit Watson in collaboration with Sarah Dwyer

Photographs supplied by Sarah Dwyer: Left: Bottlenose dolphin entrance to Whangaparapara. Right: Bryde's whale south of Broken Island.

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