



Updates on this year's survey ...

The research vessel, 'Aurora Boreal', a catamaran used by KAI for the survey of this EU LIFE+ project around the Maltese Islands, has now left Maltese waters after completing 3 months of surveying (from August to November). Equipped with solar panels and a recycling system, the Aurora Boreal proved also to be an environment-friendly vessel.



The 'Aurora Boreal' survey vessel

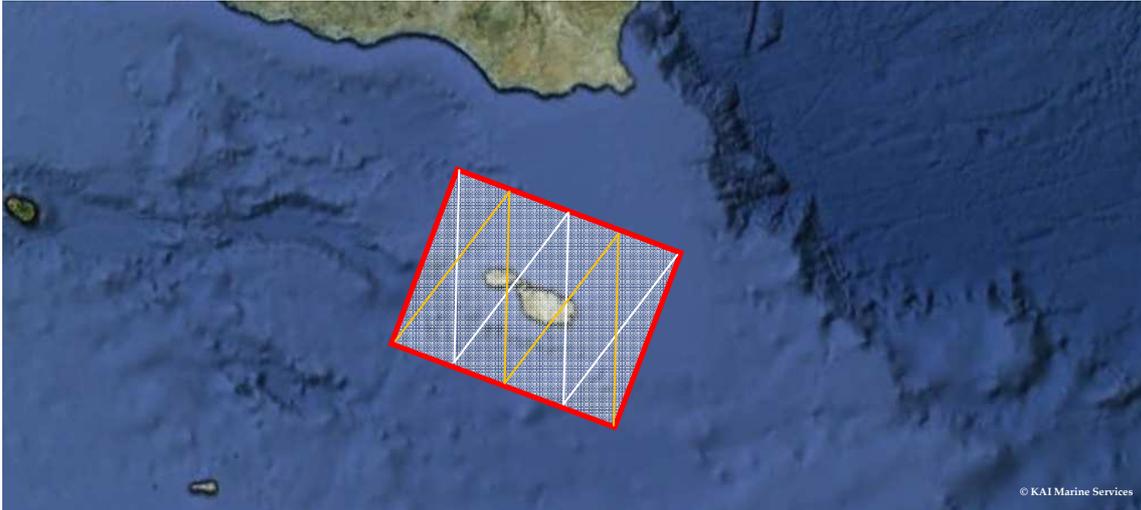


Solar panels installed on the boat

Some details of what was observed can be read below:

The number of species encountered during this survey shows the success of this first campaign and also the relevance of Maltese waters in relation to the conservation of the cetaceans (dolphins, whales and porpoises) and the loggerhead turtle.

A total of 2,220 nautical miles were covered over a series of pre-designed line transect grids. The survey included visual and acoustic observations along with other methodologies such as photo identification, habitat use studies and sampling. Acoustic observation is an important technique used in surveying cetacean species. It records the sounds species make, allowing identification without visually observing the species.



Survey design of two 200 nautical mile grids covering the 25 nautical miles of Malta

With regards to cetaceans, the preliminary data and analysis of previous work, shows that the most common species locally are the bottlenose dolphin, the striped dolphin and the common dolphin. From the aforementioned survey, carried out between August and November 2013, 87 cetacean sightings were recorded.



Common dolphins



Pod of bottlenose dolphins



Bottlenose dolphin

Data from acoustic surveying, which is pending analysis, reveals that cetacean encounters recorded acoustically (i.e. 'heard' on the acoustics but not visually observed) were frequent during the survey, probably due to the inconspicuous nature of small dolphin groups. The group size of cetacean encounters was generally small (1 to 10 individuals per sighting) and it was rare to observe pods of more than 30 individuals. Other cetacean species such as the risso's dolphin, and the sperm whale were also recorded from this survey.



Acoustic research on board the survey vessel



Sperm whale's caudal fin



Risso's dolphin

Pilot and fin whales previously sighted in Maltese waters were not recorded during this research period.

The loggerhead turtle encounters have been numerous during this first 2013 survey, with a total of 112 sightings. Six turtles were rescued from longline gear in which they had been incidentally caught and in which they were entangled. Part of the line has been ingested. Four of these turtles were brought to shore for veterinarian assistance, while the remaining two were freed on site after the right procedures for disentanglement were followed. Nature Trust Malta, through their efficient networking also with MEPA, helped in transporting and taking care of these animals at the rehabilitation centre. At least one of these turtles, named Ricardo, after its first rescuer, was released this month, following rehabilitation and care at San Luċjan Centre, Marsaxlokk.



An injured turtle and one eating a jellyfish

On the 23rd of October, during the IMPAC 3 (the 3rd International Marine Protected Areas Congress, 21-27th October) Conference in Marseille, Ricardo Sagarminaga, the principle investigator of this research mission from KAI Marine, the Spanish partners in this EU LIFE + Project, presented the road map proposal for Action E13. This Action targets Natura2000 capacity development of relevant marine stakeholders. During this conference, meetings were held with diverse representatives of marine protected areas stakeholder involvement programmes and other potential participants to the process of this action.

Analysis on the visual and acoustic data collected during the survey has started, with the aim of identifying key issues of concern for the maintenance or attainment of favourable conservation status of cetaceans and marine turtles in Maltese waters.

The Striped Dolphin

The striped dolphin (*Stenella coeruleoalba*) is fairly easy to identify at sea thanks to its distinctive striping.

At first glance it may resemble the common dolphin (see picture above of common dolphin), which is broadly similar in size and shape; however, the striped dolphin has a dark body stripe, and unlike the common dolphin, it does not have a yellow hourglass pattern on its sides. One of its most distinctive features is the striking black line which extends from the eye to the middle area of the body with another one stopping behind the eyes. Its belly is pinkish white in colour. It has a slender body and a prominent beak. The adult dolphin can reach a size of 200 to 220 cm. It is much smaller than the bottlenose dolphin which has an even grey colour on its body, but which can reach 3.8 metres in size.

The striped dolphin is active and highly conspicuous. It frequently breaches, and is capable of performing amazing acrobatics, including somersaults and tail-spins. *Breaching is when the whale or dolphin launches itself into the air and falls back with a splash.* When swimming at speed, up to one-third of a school will be above the surface at any one time, with dives typically lasting 5 to 10 minutes. They will often bow-ride in some areas (mainly in the Atlantic and Mediterranean) but rarely approach vessels in other areas.

One of the most abundant populations is present in the Mediterranean Sea, particularly in the Ligurian Sea, the Alboran Sea and the waters off the Balearic Islands and Iberian Peninsula.



Striped Dolphin (*Stenella coeruleoalba*)

The Sperm Whale

The sperm whale (*Physeter macrocephalus*) is one of the easiest whales to identify; it is the largest toothed cetacean, with the males growing up to 18 metres in length, while the females only reach around 12 metres. They have a black to brownish grey colour with white areas around the mouth and often on the belly and can weigh up to 50 tonnes. Sperm whales have a huge head (one-quarter to one-third of the total length), short stubby flippers and very broad triangular flukes which can often be seen being raised high into the air before a long dive. Sperm whales are deep divers, capable of reaching depths of 3,000m and can last at least two hours. Their diet mainly consists of giant squid, squid and octopus.

Sperm whales are often found in bachelor schools (young males) or breeding schools (females with young of both sexes) which are large groups containing up to fifty whales. The older males live in smaller groups of around 6 whales or are even often solitary and join the breeding school during breeding season. Their distribution is worldwide in deep waters both offshore and inshore, but most commonly in continental canyons.



Sperm whale (*Physeter macrocephalus*)

A dolphin experience

The following text is a short story recalling the experience of Anna Degiorgio, a keen diver and instructor, who encountered a family of dolphins in Maltese waters this summer.

“It was early September and a beautiful summer morning when I met up with some colleagues to take a group of young children on a snorkelling trip to Santa Maria caves in Comino. The highlight of the day was to be the large amount of saddled bream that regularly gather outside the caves seemingly in anticipation of a free meal regularly provided by the dozens of divers who visit the caves daily.

We set out from Marfa on the luzzu which had been booked to take us across the narrow channel between Malta and Comino and I started briefing the children on some safety rules and also the programme for the day. The children were excited and couldn't wait to get there and get into the sea. The adults were a little worried about the weather holding up as in the distance we could see some rather large rain clouds. As one of my colleagues came up behind me to point out the clouds, something in the corner of my eye caught my attention. I looked intensely at the water. Was it my imagination? What had I seen? But wait, there it was again! The unmistakable shape of a dolphin's dorsal fin broke the water just a few metres away. Then another, and another.

It was a spectacular sight as two adult dolphins casually swam alongside the luzzu with their baby safely in between them. I couldn't contain the excitement and instinctively pointed in their direction shouting 'dolphins, dolphins'. The children, picking up on my excitement, searched the sea for them scrambling towards the starboard side of the boat shouting and yelling “where, where are they?” When suddenly all three fins broke the surface right under the children's eyes. You could feel their excitement as they too noticed it was a family with a baby.

The dolphins continued to swim parallel to our boat for a few minutes and stole everybody's hearts with the care the adults seemed to be displaying towards their young.

Unfortunately some oncoming traffic of power boats soon disturbed the peaceful scene. We went on towards Comino and our snorkelling experience but the beautiful sight we experienced along the way will be forever etched in our memories.”



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