

## Conservation

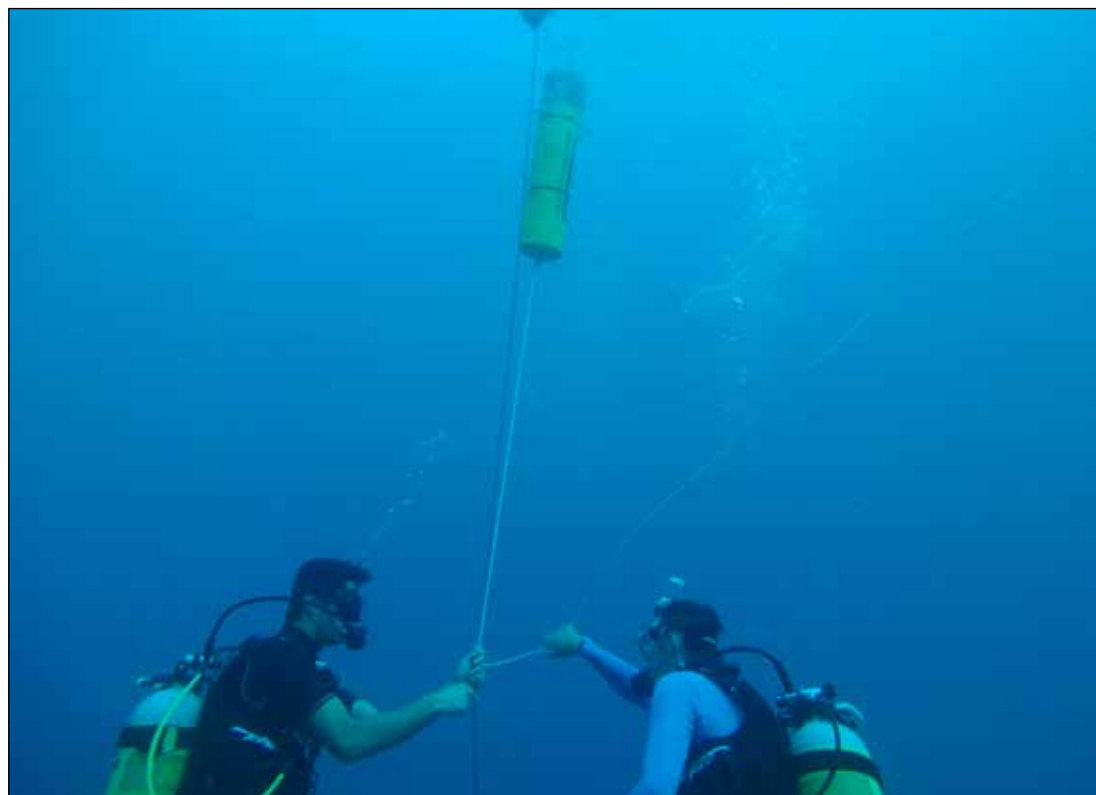
# MCSS and ICS partnering for a better understanding of Seychelles marine mammals

You can learn a lot simply listening to the sounds emitted by the creatures of the deep, on the condition of understanding what it is you're hearing.

CONTRIBUTED BY PETER HOLDEN MCSS AND PEP NOGUES ICS



Weighing in on the music of marine mammals.



Unplugged: the acoustic being set up.

Did you know that Seychelles is not only a home and a holiday destination but also a transit route for some of the world's most important species of whales and dolphins. Seychelles boasts the highest marine mammal diversity in the Indian Ocean with a staggering 27 recognised species: 13 whales, 13 dolphins and the dugong. Over the years, little research has been conducted within Seychelles' EEZ to actually understand these majestic creatures of the deep. The Marine Conservation Society Seychelles (MCSS), in partnership with Island Conservation Society (ICS), are on a mission to understand the distribution, diversity and abundance of marine mammals in Seychelles' waters.

To date, Peter Holden, acoustician and marine mammal researcher, and Dr Joanna Bluemel, project coordinator and senior scientific researcher, from the MCSS have trained 31 people in Seychelles in marine mammal visual monitoring

techniques; 11 of whom are members of the ICS team from multiple islands including Alphonse, Aride, Desroches, Farquhar and Silhouette. Marine mammals have long been highly-prized targets for humans looking for a good source of food, skin, oil or other products. In recent decades, the direct killing of whales and dolphins has become less important, and the indirect deaths of especially dolphins and porpoises have increased dramatically.

From February 16-20, the Desroches Island Conservation Team learnt how to visually identify and monitor marine mammals as well as how to use Passive Acoustic Monitoring (PAM) techniques. The visual monitoring techniques provide the most appropriate information for accurate identification and allow us to more easily identify marine mammals. Many species appear similar to each other, especially from brief glimpses at sea and are especially difficult to identify. Therefore, it is important to combine both visual and

passive acoustic monitoring techniques to ascertain results. The method of detection uses hydrophones (underwater microphones) to record the sounds produced by marine mammals as they vocalise during their day-to-day activities such as navigation, social acts, reproduc-

tion and foraging for food. experience in acoustic detection methods of these incredible animals.

The marine mammal PAM training introduced our ICS team to an exciting method on how to monitor such magnificent creatures by recording their vocalisations underwater. The acoustic recorder

very difficult to identify the different species of marine mammals, especially based on at sea sightings, but we assume that there will be future opportunities to gain knowledge and experience.

Fortunately for all of us, we recently had a great opportunity to see a mother and calf

pair of bottlenose dolphins swimming close to our research boat whilst conducting ongoing surveys around Desroches Island. This gave us all a unique opportunity to test our newly acquired skills. The Desroches ICS team is now ready to collect information not only visually but also acoustically on marine mammals around the island. This data will in the long run allow both the MCSS and ICS to learn more about species diversity, the ecology, and better understand their distribution and abundance. These findings can better guide management actions to protect such unique and amazing marine animals around Seychelles.

*If you would like to get involved and submit your sightings or even help as a volunteer then please contact [info@mcss.sc](mailto:info@mcss.sc).*

*ICS would like to thank its partners - the Island Development Company and Desroches Island Lodge - for providing the logistical support to make this training possible.*



Music class: learning about vocalisations and the like.



Understanding the equipment is important too.

tion and foraging for food.

In order to achieve this, Mr Holden gave the Desroches Conservation Center an autonomous recorder (static sound recording device), which was deployed with great success in a remote part of the surrounding waters of Desroches Island. The visual monitoring training provided new skills in marine mammal identification such as variation in morphology and coloration, behaviour, species characters, diagnostics. In addition to learning these new skills in marine mammal visual monitoring, the ICS team gained knowledge and

is now set up suspended over the seabed. On a monthly basis, we will be recording the full spectrum of sounds and listening in to the calls of marine mammals. At the end of each month, the sounds recorded will be analysed by both the ICS and MCSS to determine the species present in the area and possibly to identify what they are using the area for. At the same time, Desroches staff members will regularly patrol the island in our small research boat searching for marine mammals to enrich the Desroches wildlife list. We know that it can sometimes be



At sea: conducting a patrol in the research boat.