



BIOLOGY COLLOQUIUM

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Hosted by Dr Zeehan Jaafar

The Truth about Tagging Conservation Benefits and Limitations of Tagging Mantas and Other Marine Megafauna

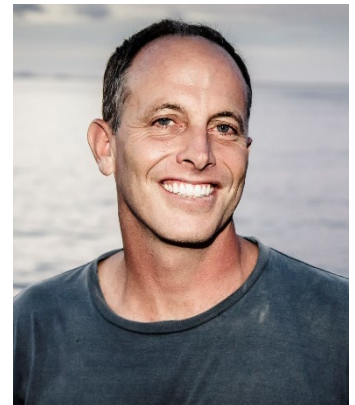
By Mark Erdmann

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Over the past decade, satellite and acoustic telemetry (“tagging”) has come into widespread use as a technological solution to track the horizontal movements and diving behavior of marine megafauna that are otherwise difficult to locate or observe in the open ocean. These technologies have become increasingly sophisticated and have resulted in many unexpected revelations on the long distance migrations (or lack thereof!) and often extremely deep diving of marine megafauna.

At the same time, there is a growing concern that many scientists and well-meaning conservation organizations are simply “tagging for tagging’s sake”, perhaps because tagging of manta rays and sharks in particular has sensationalised in social and traditional media. The reality of course is that satellite and acoustic tagging are invasive techniques that have the potential to cause stress and even pain in the target animals, making it morally imperative that researchers have clearly-articulated objectives for any tagging program. These telemetry techniques hold tremendous potential to reveal behaviours and habitat use that are critical to understand to design effective conservation programs, but they also have the potential to be misused.

This talk provides a succinct but comprehensive summary of the types of satellite and acoustic telemetry techniques commonly in use for investigating the secret lives of manta rays and other marine megafauna, and will also discuss how each of these techniques can be used appropriately to inform conservation and management of these species - many of which are threatened with extinction.



About the Speaker

Dr. Mark Erdmann is coral reef ecologist whose work largely focused on the management of marine protected areas. He is the Vice President of Conservation International’s Asia-Pacific and the Director of CI New Zealand. His research interests include reef fish and mantis shrimp biodiversity, satellite and acoustic telemetry of endangered elasmobranch species, and genetic connectivity in MPA networks. Mark is an avid diver and has logged over 12,000 scuba dives while surveying marine biodiversity throughout the region, discovering and describing over 170 new species of reef fish and mantis shrimp in the process. He was awarded a Pew Fellowship in Marine Conservation in 2004 for his work in marine conservation education and training for Indonesian schoolchildren, members of the press, and the law enforcement community. He has published 214 scientific articles and five books, including most recently the three-volume set “Reef Fishes of the East Indies” with Dr. Gerald Allen.