https://news.mongabay.com/2017/06/surprisingly-indonesias-most-famous-dive-site-is-also-a-playground-for-whales-and-dolphins-commentary/

Surprisingly, Indonesia's most famous dive site is also a playground for whales and dolphins (commentary)

by Heike Iris Vester, Ricardo F. Tapilatu on 27 June 2017 |

- *Raja Ampat — an island chain in Indonesia's West Papua province — is world renowned for its beautiful and unique marine biodiversity. But its marine mammals have not received as much attention.*
- *Half of the 31 whale and dolphin species found in all of Indonesia — 16 different types — have been regularly observed there.*
- *However, a designated long-term study of the behavior of whales and dolphins there has yet to be conducted. We don't know much about them; more to the point, we don't know how to effectively protect them.*
- *This post is a commentary. The views expressed are those of the author, not necessarily Mongabay.*

Bottlenose dolphins in Raja Ampat. Photo by Heike Iris Vester / Ocean Sounds.

Raja Ampat — an island chain in Indonesia's West Papua province — is world-renowned for its beautiful and unique marine biodiversity. But its marine mammals have not received much attention despite the fact that half of the 31 whale and dolphin species found in all of Indonesia — 16 different types — have been regularly observed there.

Raja Ampat, or "four kings," consists of hundreds of islands, although the four largest dominate: Waigeo, Batanta, Salawati, and Misool. The archipelago's Dampier and Sagewin Straits host major oceanic and biomass exchanges between the Indian and Pacific Oceans, making Raja

Ampat a major transit point for megafauna like whales and dolphins. Our preliminary research indicates that multiple species are feeding, mating, and calving in the area, making Raja Ampat a critical habitat for whales. However, a designated long-term study of the behavior of whales and dolphins there has yet to be conducted. We don't know much about them; more to the point, we don't know how to effectively protect them.

Short-finned pilot whales in Raja Ampat. Photo by Heike Iris Vester / Ocean Sounds.

Whales play a key role in the health of marine ecosystems, from predator-prey interactions to fertilization through prodigious amounts of poop and upwelling of deep-sea nutrients. Across Raja Ampat, small dolphins are numerous; these predators influence fish populations, and at the same time they are preyed upon by large sharks and killer whales. Sperm, Baleen, and other large whales bring nutrients from their 3,000-meter-deep dives to the ocean's surface, adding essential nutrients and supporting a healthy marine ecosystem. In Raja Ampat, both sperm whales (*Physeter macrocephalus*) and Bryde's whales (*Balaenoptera brydei*) are seen regularly and in great numbers; their role in the health of the marine ecosystem in Raja Ampat is profound.

Usually marine mammals are found in cold, nutrient-rich waters near the poles. Although many whales and dolphins make long migrations between polar feeding grounds and breeding grounds closer to the equator, we did not expect the rich abundance of whales and dolphins in Raja Ampat.

Sperm whales in Raja Ampat. Photo by Heike Iris Vester / Ocean Sounds.

In January 2015, equipped with a camera and hydrophone to record whale sounds, we went out into Raja Ampat's Dampier Strait, and to our shock, found 15 different species of whales, dolphins, and dugong in the first week. On every boat trip out we encountered small Indo-Pacific bottlenose dolphins (*Tursiops aduncus*). More numerous were the oceanic dolphins, such as the acrobatic spinner dolphins and spotted dolphins which can travel in packs of over 1,000! We encountered large groups of short-finned pilot whales (*Globicephala macrorhynchus*) feeding on squid; they were often accompanied by bottlenose dolphins, Fraser's dolphins (*Lagenodelphis hosei*), and even pygmy killer whales (*Feresa attenuata*). We found Bryde's whales: filter-feeders of the Baleen family that consume plankton and small fish. We also saw pods of sperm whales: these huge mammals, as well as Bryde's whales, were observed mating and calving in previously unknown feeding and breeding grounds, with peak activity between December and early March. We even encountered a large adult killer whale (*Orcinus orca*) in the Dampier: these are rare in tropical waters, but two pods have been spotted. In Raja Ampat they feed on manta rays, dolphins, and newborn Bryde's whales.

Negative impacts on cetaceans were also observed. Whales are scarred from boat collisions; some dorsal fins were completely severed. Boat traffic, especially from large speed boats and ferries, are a major threat to cetaceans in the Dampier Strait; the daily Sorong–Waisai passenger ferry nearly collided with a sperm whale when we were on it. The need to educate people using the strait, and establish protocols for shipping traffic, is obvious, as is the need to introduce and regulate whale-watching tourism, so that locals can benefit from the giants in their neighborhood.

Short-finned pilot whale with severed dorsal fin, Dampier Strait, February 2015 . Photo by Heike Iris Vester / Ocean Sounds.

In order to assess the health of Raja Ampat's biodiversity, and the Bird's Head ecosystem — that off the northwestern coast of New Guinea island — more broadly, it is essential to both protect and study whales and dolphins. In the coming years, the University of Papua and Ocean Sounds, an international NGO, will be doing so, in order to better understand cetacean life cycles and behaviors, and ultimately, to create protection plans. We'll be tracking individual whales through non-invasive photo identification and the building of databases that will ultimately show the routes by which whales travel throughout Indonesia.

We intend to establish a marine research station in Raja Ampat, not only to conduct research, but also to teach people about whales and dolphins.

Kabupaten Raja Ampat, West Papua, Indonesia. Photo by Buzz.

About the authors:

Heike Iris Vester *(heike_vester@ocean-sounds.org) is the founder and director of Ocean Sounds, a group dedicated to marine research, education and conservation through engagement with local communities. Ocean Sounds focuses on the biology and vocal communication of cetaceans, and has projects in Chile and Norway; they will soon open an office in Indonesia.*

Ricardo F. Tapilatu *(rf.tapilatu@unipa.ac.id) is the director of the Research Center for Pacific Marine Resources at the University of Papua (UNIPA). The Center is dedicated to the research and conservation of Pacific Marine Resources across the Bird's Head Seascape in the western Pacific region. The Centre is the only local organization engaged in Pacific Leatherback Turtle protection in the world's largest remaining nesting beaches in West Papua.*

Ocean Sounds and UNIPA both work closely with APEX Environmental, a group with extensive expertise in oceanic whale and dolphin surveys, cetacean ecology research, conservation, management, policy development, and training.