

Pedagogy Option 6: Attend an Ocean Science Webinar

Webinar: Ocean Encounters: An Ocean of Sound: Communication, soundscapes, and noise under the sea from Woods Hole

Date: Wednesday, March 26 7:30 - 8:30 PM

Reminder: Ocean Encounters: An Ocean of Sound: Communication, soundscapes, and noise under the sea

Hi Kyle Strom,

This is a reminder that your webinar will begin in 1 hour:

Ocean Encounters: An Ocean of Sound: Communication, soundscapes, and noise under the sea

Date & Time Mar 26, 2025 07:30 PM Eastern Time (US and Canada)

Webinar ID 955 3190 2423

Passcode AcF#1q

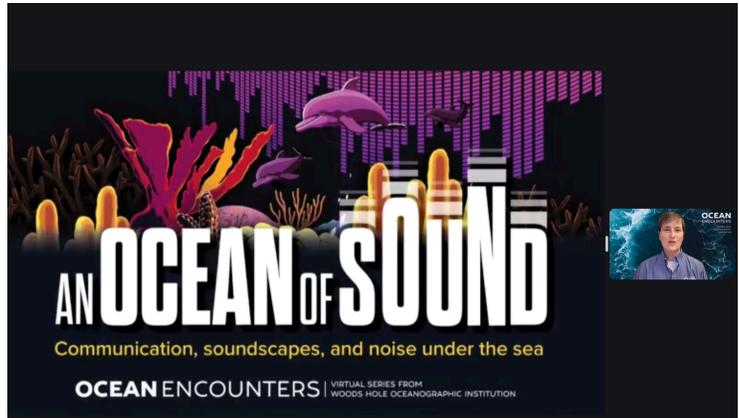
Description The ocean is awash with a complex symphony of sound, where the clicks, grunts, and whistles of marine life compete with the rumbles, whirs, and thuds of natural and human activity. Join us to learn how biologists are working to decipher animal communication and use sound to protect ocean life and even restore degraded habitats.

Panelists:

Aran Mooney, sensory biologist, **WHOI**

Laela Sayigh, marine biologist, **WHOI**

Véronique LaCapra, host, **WHOI**

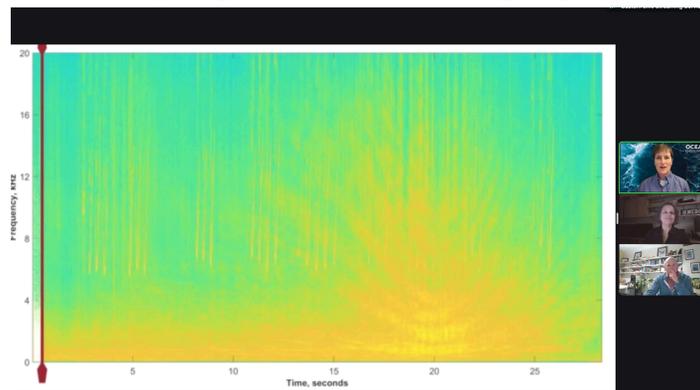


Synopsis

On March 26th, I attended a webinar from Woods Hole that focused on sound under the sea. It featured two WHOI scientists, Aran Mooney, a sensory biologist who studies the soundscapes of coral reefs and Laela Sayigh, a marine biologist who studies dolphin communication. Overall, the webinar focused on how animals produce, receive, and respond to sounds as well as how humans are anthropogenically altering the soundscapes of the ocean with noise pollution. Dr. Sayigh went over a brief history of studies with dolphins and how we use various technologies to monitor dolphin sounds and associate them with dolphin behavior. Dr. Mooney went into depth of his current work with corals in the lab and in the field across the globe during which he records the soundscapes of healthy and bleached coral reefs and uses them to see if they can encourage coral polyps to repopulate unhealthy reefs.

Lessons Learned

For me, this webinar was really cool to hear actual recordings of coral reefs and dolphin communication. Sure, I have heard dolphin noises before, but I had never heard them explained by an expert. The screenshot below is from a recording of dolphins communicating with each other before, during, and after a boat approached. Listening with headphones, it took me by surprise how loud it was going to be. And, it was disorienting.



Dr. Sayigh also discussed studies in which she monitored dolphin communications between mother and offspring, when they have been together and after they have been separated. It was interesting to hear a clear difference in the ways in which the mother tried to communicate with her young.

However, the most interesting part of this webinar was the work on soundscapes of healthy and unhealthy coral reefs by Dr. Mooney. I hadn't really thought of the sounds that small organisms like snapping shrimp or squid make; instead, sounds are often thought about with megafauna like whales or dolphins. Dr. Mooney shared really cool research in which his group goes out and records the sounds produced by healthy reefs and unhealthy reefs. Then, they use these recordings to compare to various other reefs as a way to determine the overall biodiversity and health of the reef. But, the most exciting research was done in the USVI, in which they replayed sounds from healthy reefs to encourage coral larvae to settle in lower diversity areas in order to encourage the formation of new reefs. And, it worked! They are expanding their research to other areas across the Caribbean and Hawaii.

Relationship with My Classes

In APES, we discuss both noise pollution and threats to coral reefs (mostly with excess nutrients, sea level rise, ocean warming, and coral bleaching). For noise pollution, I've normally had students think about terrestrial ecosystems by first having them listen to the sounds they hear in their daily lives and then use a mapping program that measures sound exposure to road and air traffic. We briefly discuss noise pollution in the ocean, but the resources shared about dolphin communication could be a great way to allow the students to hear what ocean life hears when a boat goes by. And, again, it was deafening to hear with headphones on. I'm most excited to tie in Dr. Mooney's research on soundscapes and coral polyp establishment next year when we talk about coral reefs. As written in my last reflection, we often don't talk about solutions and how we can fix problems. But, Mooney's research is an incredibly simple idea - use the sounds of healthy reefs to "trick"/attract corals back and begin to establish a healthy reef community. I would've never thought of this as a solution, especially since large-scale projects like artificial reefs with the SS United States or old subway cars from public transportation systems get all the spotlight. I think it would be a great learning moment for students to see outside the box and think about how we could harness what we know about healthy ecosystems to design ways to foster biodiversity and reverse/fix some of the damage we have created.