

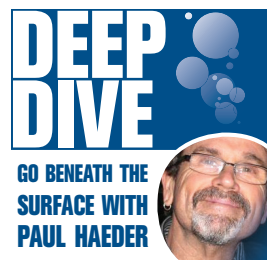
Should We Trust Science?

Conference celebrates how the ocean connects to all of us — coastlines, people, cultures

“Scientists working on the issue have often told me that, once upon a time, they assumed, if they did their jobs, politicians would act upon the information. That, of course, hasn’t happened. Anything but, across much of the planet. Worse yet, science failed to have the necessary impact in significant part because of disinformation promoted by the major fossil-fuel companies, which have succeeded in diverting attention from climate change and successfully blocking meaningful action.”

— Naomi Oreskes, author of “Why Trust Science?” and professor of the history of science at Harvard University

There were 60 of us with four facilitators asking us deep questions about the best ways to protest, preserve, rehabilitate and reimagine Oregon’s rocky intertidal habitat.



“What does make a community resistant and resilient?” Steven S. Rumrill, Department of Fish and Wildlife shellfish program leader, asked us all.

In a nutshell, this breakout

session was a microcosm of Saturday’s conference, State of the Coast at Salishan Resort.

Three other leads to this afternoon session titled, “Complex and Connected: Holistic Approaches to Management in the Nearshore” — Sarah Gravem, OSU Marine Ecologist; Dom Kone, OSU graduate student in Marine Resource Management; and Deanna Caracciolo, Department of Land Conservation and Development — challenged us to think about issues near and dear to not only the scientists, but to us lay persons. We held onto the anchor question: “What makes the Oregon Coast vibrant, healthy and a visitor destination?”

Rumsill posed key brainstorming questions:

1. What are the primary drivers of variability in rocky habitats?
2. What are the key stressors and threats to them?
3. What proactive steps can resource managers take?

4. Think of five words associated with holistic management of rocky shores.

This was the sixth year in a row for the State of the Coast, but this past Saturday’s was the first sold out gig, according to Shelby Walker with Oregon Sea Grant, main sponsor of the Gleneden Beach soiree.

The all-day session included the requisite keynote — Bonnie Henderson, author of several books, to include “Day Hiking: Oregon Coast,” “The Next Tsunami: Living on a Restless Coast” and “Strand: An Odyssey of Pacific Ocean Debris.” Even more compelling and intriguing — and dovetailed to the State of the Coast theme of looking into the future — 28 student researchers with their posters projects displayed in the Longhouse conference room, and the 10 student artists alongside their creative endeavors, with both groups being voted on by all the guests.

Projects tied to pollution, microplastics, the Pacific heat blob, hormone mimickers, ocean acidification and more are at the forefront of these highly motivated and interdisciplinary-steeped students from OSU, UO, and PSU.

I spent time talking with Reyn Yoshioka from UO, as he explained the remarkable findings in his participation in Oregon Institute of Marine Biology’s BioBlitz in the Coos Bay area. We discussed how his team’s inventory of invertebrates would be ideal to present to city and county officials, as well as groups like Rotary clubs and chambers of commerce.

“The people with political and economic clout need to see not only the work you all do, but what really is at stake if anything threatens this incredible biodiversity,” I told many of the fledgling scientists and artists.

Every single one agreed. Many asked me how they might connect to myriad other stakeholders and powerbrokers in their communities.

I introduced Reyn to OSU senior in arts Kenneth Koga, whose watercolors of various elements of a vibrant ecosystem bring the scientist’s eye in focus with a much broader scope beyond just the materialistic world and into the interpretation of nature through the artist’s lens. Reyn told me “it would have been cool” to have dancers, photographers, painters, sculptors and musicians as part of the biodiversity transect inventory.

The Arts Help Define and Contextualize Science

While we received quick teach-ins (one hour presentations of eight minutes each) from researchers looking at rocky habitats, the warm Pacific blob, Oregon’s five marine



HANNAH O’LEARY/OSU

Reyn Yoshioka of UO

reserves, sea star wasting disease, threats to Gray, fin, blue and humpback whales on the West Coast, and the status of groundfish recovery, Marion O. Rossi, OSU Associate Dean of Liberal Arts, gave a quick snapshot of Republican Governor Tom McCall’s legacy in helping preserve our coastal habitats.

Author Studs Terkel asked McCall decades ago where the heroes of the political world are. “Heroes are not giant statues framed against a red sky,” McCall said. “They are people who say, ‘This is my community, and it’s my responsibility to make it better.’”

Rossi and I talked about what better things might be done to bridge the divide between the sciences (and technology, engineering and math — STEM) and the arts.

Part of the conference included a rather telling — possibly debilitating — aspect of science and various stakeholders. I counted more than 21 agencies involved in just managing and setting plans for our rocky habitats. Unfortunately, there are many more agencies, bureaucracies, boards, quasi-legal, legislative, non-profit, industry groups with some sort of skin in the game tied to our coast.

Think of tidepools, habitat for many juvenile species, kelp incubators, biodomes to invertebrates such as anemones and sea stars. One issue we tackled was the fact that we can love our coastlines to death, i.e. since we have so many visitors and local aficionados wanting to get into these areas, so many species are being trampled upon.

Ecological balance, keystone species and the entire web of life also were prominent discussion points for the speakers.

For instance, the wasting disease promulgated deeper response in coordinated

research projects called STARS — Seastar Tragedy and Recovery Study. Sarah Gravem of OSU discussed the implications of this species’ decline most probably attributed to a virus as well as ocean conditions (warming) spurring the virus’ growth. In some areas along the Pacific Coast, there had been a 100 percent die off of sea stars observed in 2018. Recovery has been slow.

The ecological consequences from this wasting disease hitting *pisaster ochraceus* that once was ubiquitous in our rocky shorelines (purple, orange, brown many-legged beauties) spurred a kind of domino effect.

- this predatory sea star feeds on the mussel *Mytilus californianus* and is responsible for maintaining much of the local diversity of species within certain communities

- compensatory predators come in when a die-off hits

- low sea star prey growth occurs upsetting the balance of the ecosystem

All these pieces to the marine puzzle make up the coast’s mosaic of life. With warming waters, the bull kelp die off, and then sea urchins populations explode and any sort of juvenile kelp that might attempt a foothold on rocky bottoms gets gobbled up by the armies of sea urchins.

Everything is connected in the coastal life in and around the sea.

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Read on as *Deep Dive* continues at www.oregoncoasttoday.com

Paul Haeder is a writer living and working in Lincoln County. He has two books coming out, one a short story collection, “Wide Open Eyes: Surfacing from Vietnam,” and a non-fiction book, “No More Messing Around: The Good, Bad and Ugly of America’s Education System.”