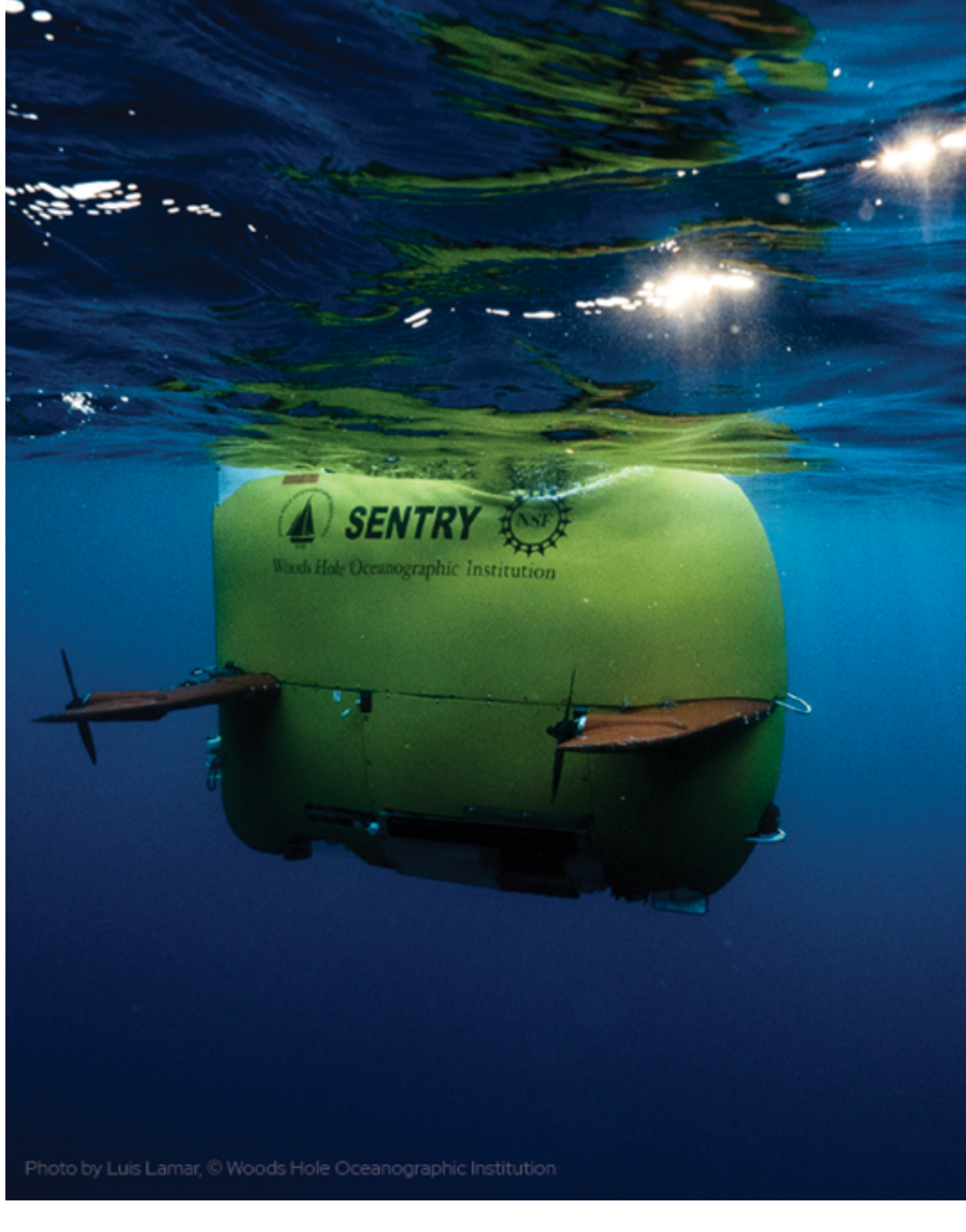


Winter 2023

Hello! Here's the latest from the National Deep Submergence Facility. *Alvin* and *Sentry* have just completed an expedition to the hydrothermal vent field at 9°50'N along the East Pacific Rise under Chief Scientist Dan Fornari. In the spring, *Alvin* will travel to the Galápagos Islands in Ecuador, and *Sentry* and *Jason* to New Zealand for separate expeditions. [Read on for deep-submergence themed profiles, updates, and upcoming events.](#)

How does *Sentry* know where it is?



Sentry has acquired some new smarts, in the form of terrain relative navigation, which enables the vehicle to use a map to recognize where it is and course-correct as it goes. The software was developed by collaborators at MBARI for NSF-funded missions to the Axial Seamount. [Read the whole story.](#)

Around the facility



Microbes as a gateway to deep sea science

Meet URI professor Roxanne Bienart



Diving into ocean data

Meet the NDSF data team



A conversation with *Alvin* expedition leader Randy Holt

"*Alvin* and WHOI have a long legacy of being pioneers for ocean exploration and technology—it feels great to be a part of that."

Updates

Two new *Alvin* pilots

Rick Sanger and Nick O'Sadcia are the newest *Alvin* pilots, now qualified to pilot the sub on science expeditions in the deep sea. Both passed examination by a board of current *Alvin* pilots, a science review panel made up of NDSF science users, a technical review panel of WHOI Engineers, and the U.S. Navy Deep Submergence Pilot Certification Board. Sanger is *Alvin*'s 44th pilot and the 67th civilian to receive deep submergence pilot certification from the Navy. O'Sadcia is *Alvin*'s 45th pilot and 68th civilian. [Get to know them both.](#)

Interested in becoming a future *Alvin* pilot?

The Alvin Group is hiring a [Mechanical Engineer](#) and an [Electrical Engineer](#), both of whom may be entered into the pilot-in-training program.

Increased bandwidth on UNOLS fleet

Both R/V *Neil Armstrong* and R/V *Atlantis* will have expanded bandwidth at sea for the rest of 2023. The faster data speeds are part of a fleet-wide trial, funded by the Office of Naval Research, and are for use by everyone sailing—crew as well as science parties. Faster data speeds will allow for a wide range of telepresence and data exchange that were difficult at former speeds. [Find vessel-specific speeds, capabilities, and cruise planning tips here.](#)

NDSF User Samantha Joye wins 2022 Captain Don Walsh Award for Ocean Exploration

Joye is an internationally recognized educator, deep ocean explorer, oceanographer, and environmental advocate. She is an expert in ocean biogeochemistry and microbial ecology and her work has focused on the Gulf of Mexico and the Gulf of California, and along the North American Atlantic Margin. The award was given jointly by the Marine Technology Society and the Society for Underwater Technology. [Read more.](#)

UNOLS Deep Submergence Science Committee (DeSSC) news

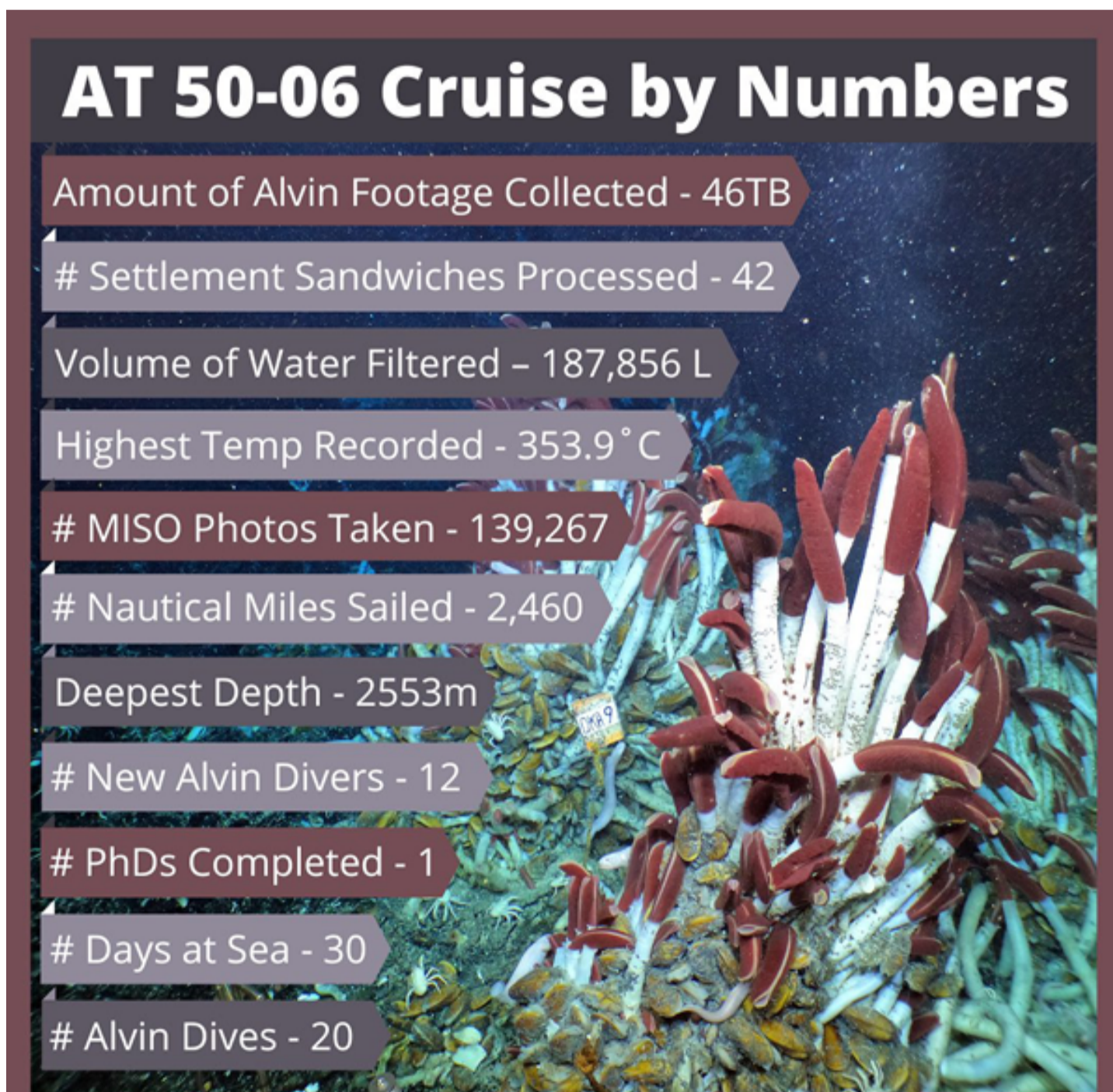
DeSSC members will hold a [hybrid meeting on February 28](#) to recap deep submergence science in 2022.

An in-person [new user program is scheduled for March 1-2](#) at Woods Hole Oceanographic Institution. [Agendas and more details here.](#)

Please join DeSSC in welcoming their newest committee members:

Dr. Jill McDermott (Lehigh University) and Dr. Andrea Quattrini (Smithsonian Institution—National Museum of Natural History).

Sea stories



Expedition highlights at a glance from R/V *Atlantis* and *Alvin* expedition (NSF OCE-1948580) to the East Pacific Rise in December 2022, created by Larval Lab Intern Dexter Davis, courtesy of Chief Scientist Shawn Arellano, Western Washington University.

[MARINE TECHNOLOGY](#)
Submersible Technology Advances at Speed at WHOI

[WHOI PRESS ROOM](#)
HOV *Alvin* honored with IEEE Milestone for Technical Innovation and Excellence

[QUICK TELECAST](#)
The Extraordinary Shelf Life of the Deep Sea Sandwiches

[AP NEWS](#)
13 rescued from sinking vessel off Virginia

[CNN](#)
Humans can dive deeper into the world's oceans than ever before with *Alvin*

[UNDARK](#)
Podcast: Mining the Ocean for Minerals

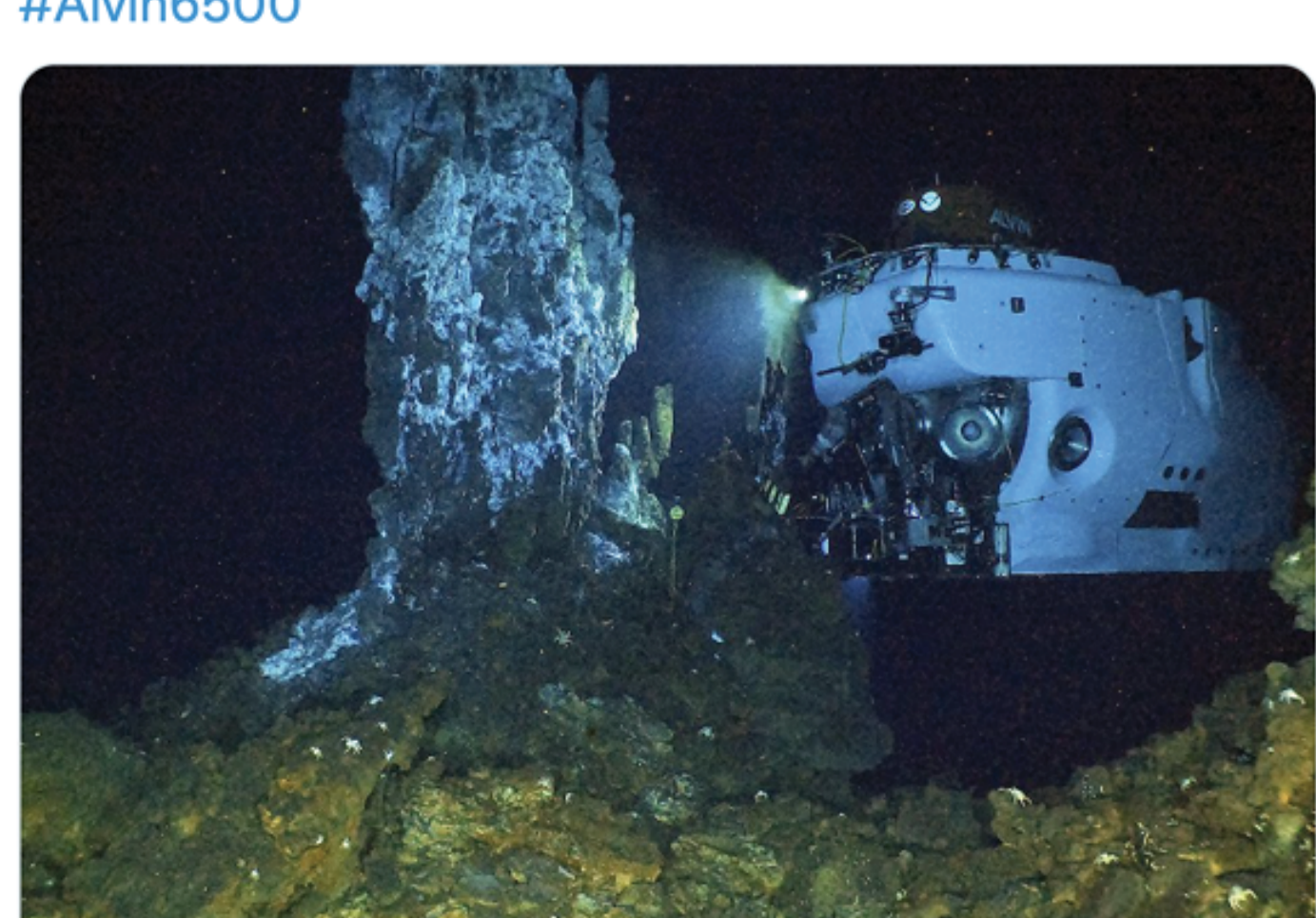
[OREGON PUBLIC BROADCASTING](#)
Battling crabs 250 miles off the Oregon Coast, while studying an underwater volcano

Back to the East Pacific Rise



Woods Hole Oceanographic Institution (WHOI) @WHOI

#HOV*Alvin* has visited the #EastPacificRise at 9°50'N many times over the years, but recently scientists discovered that some #hydrothermalvent chimneys had grown 20 feet+ @NSF @NavalResearch @oceanexplorer @unols #NSFfunded #Alvin6500



9:30 AM · Jan 22, 2023 · 8,088 Views