UC SANTA BARBARA

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Nautical by Nature

Sometimes the sea does not cooperate. This Christoph Pierre knows well. It is a lesson he's learned over more than a decade of collecting a dazzling array of ocean-dwelling specimens for use in research and teaching at UC Santa Barbara.

As director of marine operations in the university's Department of Ecology, Evolution and Marine Biology (EEMB), Pierre, a self-described "slightly stubborn person" with vast knowledge of native marine life, gets his job done no matter what challenges or conditions he faces.

Take, for instance, the elusive box jellyfish (*Carybdea confusa*), present in the channel for only two to three weeks per year, and usually in low-visibility areas at that. "There can be 100 one week and zero the next week," Pierre said. "You're looking for an opaque, golf-ball-sized thing that is floating in the water. They can be up to a meter long in tentacle length, so you have to try and bop it with your finger so it contracts and get everything into a plastic bag while you can't see."

Such challenges come with the territory. Pierre is responsible for a wide variety of tasks related to the upkeep of resources used by EEMB for what he calls their "on-water" needs. That includes both making sure that the department's fleet of boats and inventory of scuba gear are properly maintained and diving for any specific marine specimen a class or professor might need — no matter how obscure or hard to find.

“Anything that is a marine support service, I oversee or do myself,” Pierre said. “My primary job is to collect all of the animals for classes and for researchers as well. This position was created in the ‘70s because we’re located on the coast and can provide really robust marine science education to students with live specimens, so we need someone who has local knowledge to collect and manage those specimens.”

With a background in marine science and impressive expertise in navigating the Santa Barbara Channel, Pierre is the perfect fit.

A typical week goes like this: he (along with assistant collector Christian Orsini) will compile what is essentially a shopping list of specimens — a researcher might request a specific number of sea stars, for example — and then determine the most likely places to find them. They also carefully consider what collection materials they might need to safely capture and transport their haul.

“We prepare an obscene amount of collecting materials, whether that is buckets and nets or specialized collecting apparatus that goes on our boat,” Pierre explained. “We will dive up and down the Santa Barbara mainland and sometimes out to the Channel Islands if that is the only place we can access the species that we need.”

Pierre goes out on the water up to four days per week, captaining a boat (of which EEMB has four: Fish 1, Fish 2, Fish 3, and the R.V. Connell) and collecting everything from seaweed to small sharks, depending on the time of year. Even seaweed collection has a specific protocol (the animals who snack on it prefer the strands without any bryozoans — small white spots). As for the sharks, Pierre, a skilled diver, says they are easiest to catch by hand.

Because ocean conditions can vary widely (and because he dislikes letting people down), Pierre often dives multiple times looking for exactly what has been requested. “We’ll do anywhere from one to five dives per day if necessary,” he said.

While exhilarating, the work can also be taxing. “Everyone thinks it’s going to be a Caribbean, blue, warm sea but no — we’re wearing thick wetsuits with full gloves and I consider it a good day if I can see five feet in front of me,” Pierre said. “Doing the job in 52-degree water — those are the more challenging days. It’s physically exhausting sometimes.”

Once the specimens are back on land, Pierre and his team make sure they are placed in tanks and ready to go whenever they are needed. Most of the specimens stay on campus, but the occasional requests come in from the community at large, and sometimes even from as far away as Japan or Germany.

Pierre also works with Facilities Management to oversee UC Santa Barbara's seawater system, which pulls water from the ocean, filters it, then delivers it on demand via pipes to classrooms and labs. "The cool thing about UCSB is that we have both a boating and diving program, so we are able to do a lot of on-water and underwater studies," he said. "Our seawater system allows us to take the same animals we find underwater and replicate their conditions in a controlled environment on campus."

In addition to collection, boat maintenance (handled by technician Mickey O'Connell), scuba gear upkeep and rental, and facility operations, Pierre and Orsini also take water samples, assist with research projects, and even certify boat captains. They strive to have all of the equipment a marine researcher might need organized, well-functioning and ready to go. "Part of what we do is provide the support services to our researchers so it's one less thing they have to worry about," Pierre said. "They can focus on the fieldwork and know that everything else will be taken care of."

Pierre says the best thing about his job is the lack of predictability, and the surprises the sea provides (both good and bad). He once saw a great white shark while diving, a moment he described as heart-stopping but "epic from a marine biology standpoint."

For his professional success, Pierre credits his doggedness. "I like to tell people that being a good collector means you have to be willing to run your head into the wall over and over again until it goes through," he said. And even then he isn't always able to find exactly what he needs.

"What we do is educated fishing," Pierre explained. "We are making a guesstimate that something is going to be where we think it is, in the numbers they want. Sometimes, you get skunked."

Despite the difficult days and unpredictable conditions, Pierre says he loves his job, and has enjoyed seeing the UC Santa Barbara scientific diving program grow to be one of the largest in the country. His predecessor retired after 33 years, and he

hopes for a lengthy professional future as well.

“As long as I’m physically able to do this, I’m not going anywhere,” he said. “You drive down the freeway at the end of a good day out on the water and you can look at the person in the lane next to you and go, ‘I’m pretty sure I had a cooler day than you.’”

About UC Santa Barbara

The University of California, Santa Barbara is a leading research institution that also provides a comprehensive liberal arts learning experience. Our academic community of faculty, students, and staff is characterized by a culture of interdisciplinary collaboration that is responsive to the needs of our multicultural and global society. All of this takes place within a living and learning environment like no other, as we draw inspiration from the beauty and resources of our extraordinary location at the edge of the Pacific Ocean.