



Seeing the Ocean in a New Way

Cruz Erdmann

New Zealand

For Cruz, being underwater feels like being in space. He feels weightless. He can dive in any direction and gaze at his surroundings. “It’s like a dream,” he says. “Swimming through an ocean is like visiting another planet.”

At first, the infinite seascape might seem empty. But it is really full of life. There is plankton flowing through the water. If you listen closely, sometimes you can hear dolphins clicking in the distance, or parrot fish crunching coral. And you can see reefs that are teeming with life: fish of all colors and shapes.

The ocean has been a part of Cruz’s life since he was born. His parents met in South Sulawesi, Indonesia when his father, a marine biologist, was working on his PhD, and his mother was traveling through Asia. Later she became his father’s field assistant, and then a marine conservationist working with local communities to help them protect their natural resources. “Living in Bali, there is always the ocean that you go to,” Cruz says of his first eight years of life. “I just have been immersed in that since I was born.”

Cruz’s family would spend their holidays in nature, traveling around Asia and going on diving trips. Sometimes he would accompany his father on expeditions, searching for unknown species in the depth of the oceans. There he would be his father’s field assistant, holding jars and syringes for him while he documented the underwater wildlife.

When Cruz was 10, his father decided that he would invest in a new underwater camera for his work. So, after a long lecture on the value of the equipment, Cruz got to try his hand at underwater photography for the first time, using his father’s old camera. His father gave him a quick explanation of what the different dials on the camera would do, but from there on out it was all about experimenting with different perspectives, and trying to capture various species underwater. “It wasn’t something I really thought of taking to a high level,” he says. “It was just for fun.”

Then one day, on a diving trip in the Lembah Strait off North Sulawesi, Indonesia, camera in hand, he had an unexpected encounter with a Bigfin Reef Squid. Cruz raised his camera and pressed the shutter. In the photo, the animal hovers in the pitch black, glowing in different shades of blue, green, brown, and red, its tentacles stretched out in front of it. It won Cruz the Young Wildlife Photographer of the Year Award, organized by London’s Natural History Museum. “Winning that award was a real opportunity to get a footing,” he says. “I’ve always wanted to do something that revolved around media, or art, or science, around the oceans.”

Receiving the award opened up more doors for 14-year-old Cruz: he was invited to speak at the Davos Forum in Switzerland, the yearly meeting of leading economic decision makers, dignitaries, celebrities, and heads of state. He was thrilled to meet Dr. Sylvia Earle, a marine biologist he greatly admires, who spoke there, and said, “I wish you would use all means at your disposal—films, expeditions, the web, new submarines—to create a campaign to ignite public support for a global network of marine protected areas—‘hope spots’ large enough to save and restore the blue heart of the planet.” And as he began *his* presentation, Cruz said, “We blink 15 to 20 times a minute. Why? We blink because our eyes haven’t yet fully adapted to seeing outside of water.”

“Life on our planet is shaped by the oceans,” Cruz says. Ocean currents regulate the earth’s temperature. Plankton and other ocean plant species produce more than 60 percent of all of the oxygen found in our atmosphere. But human

activity is destroying biodiversity and the intricate ecosystems that support life underwater. “It’s a great natural resource,” Cruz says. “But it’s become expendable, and we’ve been pushing it to the brink.”

Growing up in Indonesia, Cruz was able to witness the importance of marine life and coral reefs for local communities. “Coral reefs are fish factories,” Cruz said, on the stage at Davos. “They produce a large amount of fish mass that spills into the surrounding ecosystems, linking it with the food chain that extends into the open ocean.”

Oceans provide a livelihood to people where crops simply can’t grow, and other natural resources aren’t available. Ecosystems like coral reefs support coastal populations as well as all the other life in the ocean. But climate change is causing them to bleach and die off more than in the past. “Most instances of bleaching occur during El Nino warming events,” Cruz says. “And those are now more intense, and more common, with climate change.” During diving trips in Indonesia and the Maldives, as well as in Papua New Guinea and the Solomon Islands, Cruz has noticed that some coral reefs are more resilient to changing temperatures than others. But he adds, “Most of them are suffering badly around the world.”

Cruz explains that the invention of trawl nets and large-scale fishing has led to a new level of consumerism that is simply not sustainable. “For a long time, there was an assumption that we could just fish as much as we wanted, without decimating populations. But we can’t.”

The main problem, as Cruz argued on the stage at Davos, is that we have become so disconnected from the oceans. We buy our food from the shelves of supermarkets, without thinking twice about where it came from. This means that most people are unaware of the negative effects their decisions as consumers have on the environment—effects that include overfishing, pollution, and habitat destruction. “We’ve basically grown used to it as consumers of the ocean,” he says. “And it hasn’t really stopped, even though we know that it is having a very negative impact.”

Another threat caused by climate change is ocean acidification. This happens when the oceans have to absorb more carbon dioxide from the atmosphere than usual. That changes the chemical balance of sea water, and many organisms can no longer grow properly. Oysters, mussels, and plankton can even be dissolved if the water is too acidic.

“If the foundations of our ocean food chains are not able to grow their shells, the consequences will be disastrous,” Cruz says. “It’s a serious issue, with real consequences that affect every single one of us, no matter how far from the ocean we live.”

Cruz wants to change the way we look at the ocean. By sharing powerful photographic images, he wants to give the creatures living underwater a face—and help us to see that our current way of life is unsustainable.

As an underwater photographer, Cruz feels it is his responsibility to bridge the gap between humans and the ocean. “I want to captivate people’s attention about a world they may never have seen before,” he says. “And allow us to develop a better appreciation for our dependence on the ocean.” He is particularly interested in macro photography, in which the objects photographed are very close to the lens. “It’s like exploring a hidden world through much sharper eyes than my own,” he says. Many people don’t really think of fish as animals. It’s hard to imagine that they can feel pain, and even harder to have an affinity for them. But fish—especially the tiny fish that Cruz likes to take pictures of—are the “rice of the reef.” “Without them, the coral reef ecosystem would crumble and starve,” he says. “They are the staple base food; they keep the coral reef ecosystems going.”

On a recent dive in the Maldives, Cruz was overcome with a feeling of awe. He was surrounded by marine wildlife. Around him, the entire ocean was filled with sharks, and fish, and rays. Animals that he rarely saw in Indonesia were found by the dozens in a single dive.

“I’ve heard stories about how the ocean used to be so full and rich, and so thick with life,” he says. “It didn’t really hit home until I saw that dive site—this what it is supposed to be! The clicking and crackling of creatures on the reef, and the sound of fishes rushing by, was deafening.”

“If you genuinely love or believe in something and you want to do something about it, no matter how insignificant you may feel about it, you should do it,” he says. “Because if you do what you love, and you fight for what you believe in, then ultimately, you’re going to get there.”

Protect the natural systems as if your life depends on it, because it does!

Our lives do depend on making peace with nature.

Sylvia Earle

Call to Action: Natural beauty and life is all around us! Grab the camera. Inspire others to protect the environment. You can follow Cruz on Instagram: @cruzerdmann

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