

Nature-based reef solution for coastal protection and marine biodiversity enhancement

Fabrizio Del Bianco, Marine Geologist, responsible for the Marine Geophysics sector and Autonomous Surface Vehicles at Proambiente Scrl.

For the NatuReef Project, he is responsible for studying the seabed of the stretch of sea where the reef is planned from a morphological and stratigraphic point of view, using geophysical instruments such as echo sounders.

How did your passion for marine geology arise?

I was born practically in the middle of the sea, you could say. My father had a boat, and as a child, I often spent time out at sea with him, losing myself in fantasies about what the seabed looked like and what lay beneath the surface of the water. The hidden and submerged world always seemed like a realm apart, waiting to be discovered. Later, I graduated in Geology in Bologna and did a doctorate in marine geology at the Institute of Marine Sciences of the CNR.

What is the most interesting aspect of your job?

In my work, I love the contact with nature, the fieldwork, and the fact that I constantly face different situations requiring on-the-spot solutions. Those who work at sea, or even in rivers or lakes, must always account for unexpected events that come with dealing with the natural environment. This unpredictability makes the job stimulating and rewarding.

Another passion that distinguishes you?

Scuba diving. And, again, it's all about the sea. My interest began when I was a boy on a trip to visit tropical coral reefs. From there, simply free diving, as I had always done since I was little, was no longer enough, so I decided to get certified.

Tell us about a significant milestone in your career path.

With my previous group from the Institute of Marine Sciences (Ismar-Cnr) in Bologna, and later with Proambiente, we developed the first surface aquatic robot completely "Made in Italy" for seabed monitoring (SWaP - Shallow Water Prospector). The idea was to create an autonomous and automatic instrument capable of conducting investigations and acquiring geophysical data of the seabed and sub-seabed without the use of boats. Essentially, it is a small catamaran, approximately 1.5 x 1.5 meters, for studying aquatic environments, and it is now in demand for various applications.

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What would you like to change in the future?

Every day, we witness the worsening state of our waters, and the seabed conceals all types of waste imaginable. The health of our planet must be a priority. In my small way, I try to raise awareness by helping people understand that greater control and monitoring of water, using instruments like ours, can contribute to halting this negative trend.