

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

Alessandro Lambertini

A fixed-term researcher at DICAM, University of Bologna, Alessandro Lambertini is responsible for monitoring the reference area for the NatuReef project, primarily using drones. "We use drones as platforms to install sensors that allow us to create a precise three-dimensional reconstruction of the area," he explains.

What is your specific field of expertise?

I specialize in geomatics, a discipline that involves the collection, distribution, storage, analysis, processing, and presentation of georeferenced data—in simpler terms, geographical information. I have a real passion for remote data surveying related to structures, the Earth, and the environment.

When did this passion begin?

Since I was a child, people used to call me an engineer because of my natural inclinations. When I got to university, it was natural for me to follow in my father's footsteps and choose this path, eventually specializing in civil and environmental engineering. The moment I discovered topography; it was love at first sight. I was immediately fascinated by the world of surveying and the use of technological tools like drones for data processing. Becoming a spatial data scientist was the natural next step—I am truly passionate about any entity that can be represented on a map. Over the past ten years, this field has evolved significantly, achieving results that were once unimaginable. I became a drone pilot, an expert in these technologies, and in their application, I found my true habitat.

What do you like most about this field?

Its interdisciplinarity and the fact that each project presents new challenges, always requiring different solutions. In this job, no two days are the same—every project has countless facets and involves multiple disciplines and fields of knowledge. It demands a creative mind that is open to collaboration. The application contexts are also constantly evolving. Throughout my career, I have worked on surveying major structures, cultural heritage sites, landslides, and various natural environments—not only on land but also underwater.

What do you like about NatuReef?

What I love about NatuReef is its vast puzzle of expertise, a project with many different souls that will deliver a collective and impactful result for the environment. It's one of those projects you can't help but fall in love with because it has the potential to make the world a better place.