

A Proposal to Support

CetAI – Using AI to Protect Intelligent Life in Ocean

The Need

Marine ecosystems rarely collapse overnight. Instead, they unravel gradually —through stress, disorientation, and social breakdown—long before the first species disappears.

Dolphins are particularly vulnerable to environmental shifts because their survival hinges on precise acoustic communication. They rely on sound to coordinate feeding, care for their young, and respond to danger. But as oceans get warmer and noisier, these social bonds are beginning to fray.

Current research captures dolphin communication in short segments, detached from the social lives that give those sounds meaning. Short recordings taken days or weeks apart cannot reveal how relationships change, how behavior shifts under pressure, or how disruption accumulates over time. This data gap is the reason conservation efforts are so often reactive. By the time scientists determine that a population is in decline, the damage is already done. We need to see the breakdown as it happens, while there is still time to step in.

CetAI bridges this gap by collecting continuous dolphin vocalizations in the field and using AI to track and connect communication patterns to behavior and social relationships over extended periods. This work is enabled by a rare opportunity in Greece's Gulf of Ambracia, home to a small, intensively studied bottlenose dolphin population confronting the very pressures—shipping traffic, coastal development, and chronic underwater noise—that threaten dolphins globally. The resulting dataset will establish science-based benchmarks for noise limits and help redesign marine protected areas for real protection.

To realize this vision, CetAI is seeking philanthropic and research partners to support the multidisciplinary effort required: field researchers, long-term acoustic monitoring equipment, and advanced AI development. This investment will generate the knowledge needed to safeguard intelligent marine communities while the window for effective intervention remains open.

Project Overview and Impact

CetAI uses continuous underwater recording and non-invasive drone tracking to bridge the gap between dolphin sound and social behavior. By pairing acoustic data with visual identification, we link specific vocalizations to known individuals and family groups across seasons and years. **This allows us to study communication as a living social system rather than a series of isolated clips.**

We use AI to analyze these digital records to better understand how dolphin societies adapt under the weight of human activity. The goal is to provide a more nuanced evidence-based understanding of non-human intelligence that translates directly into protection.

The resulting data will be shared through an open research platform, enabling global scientific collaboration. To ensure impact, an independent advisory board assesses our progress annually—evaluating data quality, ethical compliance, and our ability to detect social disruption in time to influence conservation policy. This rigorous oversight ensures CetAI provides the evidence needed to design strategies that keep pace with the pressures facing our oceans.

Academic Leadership and Global Collaboration

CetAI is based at the University of Haifa's Morris Kahn Marine Research Station of the Kadas Nexus for Blue Solutions and led by a leadership team with decades of experience in marine mammal communication and ecology.

The research project is supported by experts from several partners working on adjacent projects, including Harvard, UC Berkeley, Cambridge, UC Davis, alongside specialized institutes in Italy and Greece. This partnership unites some of the world's leading experts in marine biology, AI, and data science to turn complex data into lasting conservation.

Request for Support

We invite you to partner with us to launch CetAI and establish a new standard for marine protection.

- **A gift of \$2 million** will fund the researchers, equipment, and AI development needed to translate dolphin communication into science-based policy. This investment provides the evidence required to safeguard these intelligent marine communities while the window for effective intervention remains open.