



ALLIANCE™

[.https://www.globalseafood.org](https://www.globalseafood.org) Fisheries

New fish aggregating device aims to reduce marine waste in tropical tuna fisheries

15 May 2024

By Responsible Seafood Advocate

Trials underway to validate new fish aggregation device that is biodegradable, floating and submersible

Ocean technology company Zunibal has created a new floating industrialized platform made from biodegradable materials and designed specifically for tropical tuna fishing boats that use purse seine nets. The concept aims to reduce marine waste and minimize the environmental impact on ocean ecosystems.

Fish aggregating devices (FADs) are tools used by the tuna fishing industry for their ability to concentrate fish. Their designs over the years have evolved to minimize their impact on the marine environment. However, significant challenges remain, particularly in finding more sustainable materials and simplifying their configuration.

Zunibal first introduced this innovation to the fishing industry in November 2023. While preparing for trials in tropical oceans, Zunibal, AZTI Technology Center and the fishing industry realized that the platform, which was initially meant to float on the water as part of a FAD, could also be adapted to work underwater. This makes it better suited for places like the Indian Ocean.



Validation tests have started on new floating and submerged fish aggregation devices developed by Zunibal in collaboration with the AZTI Technology Centre. Photo courtesy of Zunibal.

To achieve this, the team built and incorporated a submerged, non-meshed grid made from the same compostable bio-based material into the trials. This design, like the floating version, limits the number of elements required to construct these devices, making them easier to recover in the event of loss at sea or stranding.



A comprehensive solution for the wild seafood supply chain.

- Crew rights
- Food safety
- Environmental responsibility



LEARN MORE 

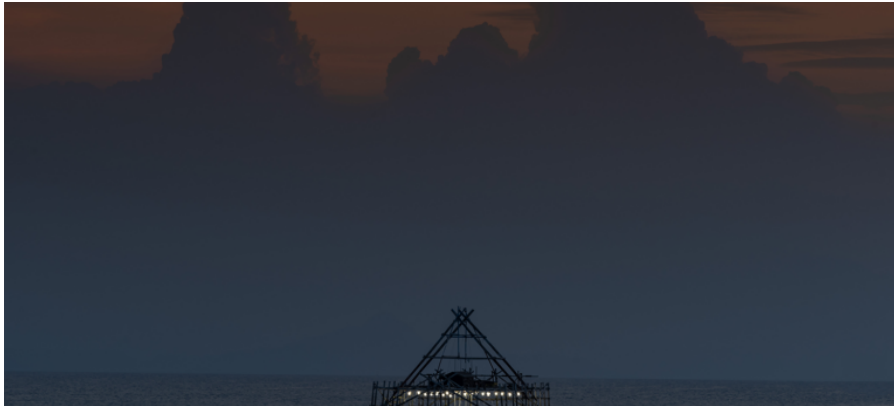
[\(https://bspcertification.org/\)](https://bspcertification.org/)

“These two designs eliminate or significantly reduce the need for synthetic canvas and raffia, or flotation components such as foam floats (skittles),” said Iker Zudaire, AZTI’s sustainable fishing expert. “In this way, by using materials that improve the characteristics of the FAD, we can minimize its

impact on the environment.”

The two new FAD prototypes will be tested in two phases. The first phase, lasting 18 months, started in March at the Achotines Laboratory in Panama, under semi-controlled tropical conditions.

The second phase will test the FADs in real conditions with help from companies like Albacora, Nauterra, Pevasa, Echebstar and Inpesca. Starting in May, they will deploy 60 floating platforms in the Atlantic Ocean and 150 submerged platforms in the Indian Ocean.



Fisheries in Focus: What are fish aggregating devices and why is there debate about banning them?

Use of fish aggregating devices increases fishing efficiency but can potentially increase bycatch and ocean pollution if FADs are lost or abandoned.



Global Seafood Alliance

The main challenge is to study the effectiveness of the new material for the construction of FAD platforms and compare them with conventional ones to confirm that they not only contribute to reducing the environmental impact of the tuna sector but are also useful tools for fishing practice.

“The industry and the scientific community must work together to ensure the sustainability of marine resources, particularly in tropical tuna fisheries,” said Álvaro Núñez of Zunibal. “The adoption of practices based on scientific research will ensure optimal operations and effective long-term management, which is essential to preserve both the ecosystem and the economic viability of the sector.”

[@GSA_Advocate](https://twitter.com/GSA_Advocate) (https://twitter.com/GSA_Advocate).

Author



RESPONSIBLE SEAFOOD ADVOCATE

editor@globalseafood.org (<mailto:editor@globalseafood.org>)

Copyright © 2024 Global Seafood Alliance

All rights reserved.