

First Record of Cetacean Killed in an Artisanal Fish Aggregating Device in the Mediterranean Sea: Implications and Conservation Measures

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Introduction

The Mediterranean Sea, known for its rich biodiversity, faces numerous threats due to human activities, including the deployment of artisanal fish aggregating devices. These devices, intended to enhance fish catch, inadvertently pose risks to non-target species, including cetaceans. This article discusses the first documented case of a cetacean killed in an artisanal FAD in the Mediterranean, exploring its implications for marine conservation and proposing measures to mitigate such incidents. The Mediterranean Sea, characterized by its ecological significance and economic importance, harbors diverse marine life, including cetaceans. Artisanal fishing, a traditional practice in the region, has evolved with technological advancements, including the use of fish aggregating devices. While FADs can increase fish catch, they also raise concerns about bycatch, including unintended harm to cetaceans. This article examines the recent occurrence of a cetacean fatality associated with an artisanal FAD, highlighting the urgent need for conservation measures [1].

Description

Artisanal FADs consist of floating structures designed to attract fish by providing shelter and food sources. Fishermen deploy these devices to enhance their catch efficiency, particularly for species like tuna. However, the indiscriminate nature of FADs often results in bycatch, ensnaring various marine species, including cetaceans. Despite efforts to regulate their use, artisanal FADs continue to pose significant threats to marine biodiversity in the Mediterranean. The recent incident involving the death of a cetacean trapped in an artisanal FAD marks a concerning milestone in Mediterranean marine conservation efforts. The specific circumstances of this event, including the species involved, location, and implications, underscore the pressing need for proactive management strategies. Proactive management strategies should prioritize the development and implementation of alternative fishing practices that minimize the ecological impacts of artisanal FADs while supporting the livelihoods of coastal communities. This could involve promoting sustainable fishing methods such as pole-and-line fishing or encouraging the use of biodegradable FADs that reduce the risk of entanglement for non-target species. Additionally, increased monitoring and enforcement of regulations governing the deployment and maintenance of artisanal FADs are essential to mitigate their negative effects on marine biodiversity. Collaborative efforts involving government agencies, fishing communities, conservation organizations, and scientists are crucial for devising effective solutions that

balance the needs of fisheries with the conservation of marine ecosystems in the Mediterranean and beyond [2,3].

The cetacean involved in the incident was identified as a juvenile common dolphin (*Delphinus delphis*), a species commonly found in the Mediterranean. The vulnerability of this species to entanglement highlights the broader risks posed by artisanal FADs to cetacean populations in the region. The incident occurred in a high-traffic area near coastal fishing grounds, where artisanal FAD deployment is common. The proximity of FADs to cetacean habitats increases the likelihood of entanglement and collision events, posing a significant conservation challenge. Implementing measures to reduce cetacean bycatch in artisanal FADs, such as modifying FAD designs or using acoustic deterrent devices, is essential to safeguard marine biodiversity. Strengthening regulations and monitoring mechanisms to ensure compliance with bycatch reduction measures and promote responsible fishing practices. Engaging fishermen, conservation organizations, and policymakers in collaborative efforts to address the complex socio-economic factors driving artisanal FAD use while prioritizing marine conservation goals. Investing in research initiatives to assess the impacts of artisanal FADs on cetacean populations and inform evidence-based management strategies [4,5].

Conclusion

The first documented case of a cetacean killed in an artisanal FAD in the Mediterranean Sea underscores the urgent need for comprehensive conservation measures. By addressing the complex socio-economic dynamics driving FAD deployment and promoting sustainable fishing practices, stakeholders can mitigate the risks posed by these devices and safeguard the region's marine biodiversity for future generations.

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Conflict of Interest

The author declares there is no conflict of interest associated with this manuscript.

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