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FOR THE ESTABLISHMENT OF TUNA FARMS IN RELATION TO THE SPATIAL DISTRIBUTION OF CETÁCEOS IN THE GOLFO DULCE, COSTA RICA

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Abstract

This contribution deals with the spatial distribution of marine top predators, particularly odontocete and migratory mysticete cetaceans. The study describes the potential risk of disturbances due to the establishment of mariculture operations and corresponding infrastructure: tuna feed lots. Through a mixed theoretical and empirical approach, this research corroborates how the maximum depth, a limiting factor in the definition of cetacean trophic niches off the study area, overlaps with the values for depths from an area proposed as the focal location of a tuna feed lot facility. The latter implies two particular scenarios: the translocation of the local predator population from a potential foraging habitat-niche, and the progressive negative interaction between predators and the accompanying fish fauna around of the cages, with a high probability of incidental capture of those predators by entanglement. Additionally, the occurrence of humpback whales during the rainy season associated with a migratory route from feeding grounds off Chile-Antarctica, that would pass through the area projected to

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harbor the mariculture operation. The results illustrate the need of considering a precautionary approach and relocate mariculture projects to areas of lesser value in terms of marine biodiversity.

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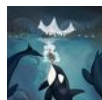
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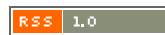
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