

Abstract

This thesis explores the relationship between cetaceans and shipping, focusing on three aspects: habitat disturbance, collisions and noise pollution. Cetaceans are considered important players in the marine ecosystem and are also valuable for tourism by being able to offer whale watching services. In doing so, they collide - sometimes literally - with that other important activity at sea, shipping. Shipping activities disrupt their habitat, particularly through water pollution, noise pollution and disruption of migration routes. Collisions with ships regularly result in serious injuries or death to cetaceans. The increase in anthropogenic noise has led to increased background noise in the oceans. This has negative effects on communication, navigation, reproduction and finding food.

The thesis highlights the need for measures such as reducing ship speed and inserting or relocating shipping lanes to reduce the impact of shipping activities on cetaceans. Existing solutions and potential future measures are discussed, with the goal of promoting cetacean protection and habitat conservation.

The research focuses on the waters of Port Ensenada, Mexico, a crucial habitat for cetaceans, including gray whales, humpback whales and blue whales. Although the original goal of conducting a comprehensive analysis of the relationship between cetaceans and shipping in Ensenada Harbor could not be fully met due to a lack of whale data, the analysis of vessel AIS-data provided valuable insights. Through a mapping approach, different ship types were mapped and their behavior explained. Container ships, passenger ships and fishing vessels pose the greatest problem for interaction with cetaceans. A roadmap describes how the AIS data is processed in the program QGIS until it is ready for analysis.

This thesis is a first step toward protecting cetaceans in the Ensenada Harbor area. It emphasizes the importance of awareness and action to reduce the negative impact on these vital marine animals.