

# Building a Meta-database of Marine Research in Mexico

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## Abstract

Research and management of marine resources increasingly depends on various biological, ecological, social, and economic data. Limited information is often perceived as a barrier in advancing research and policy discussions. In Mexico, numerous information regarding the seas and coasts has been produced by academic institutions, government, and NGOs both inside and outside the country, however, in many cases, the existence and availability of these data is not straightforward. While diverse barriers can compromise the exchange of information among stakeholders, having publicly accessible descriptions of existing data is a huge step towards increasing collaboration and innovative research. A meta-database fosters collaboration and eases the process of informing best policies relevant to any community or region. Hence, the following project aims to create a comprehensive meta-dataset of marine research in Mexico. Moreover, we aim to identify the major trends in marine data availability in Mexico as well as information and research gaps that can be addressed in the future. Finally, the meta-database will be public and available for consultation, and is expected to be largely self-maintaining. Since November of 2016, we have collected 35691 records that contain information on more than 209 thousand data generated between 1791 and 2017. These metadata come from more than 56 sources of free access and scientific publications being fisheries and ecology the disciplines with more records and the Pacific coast the littoral with more data, at the moment. If we omit records containing multiple species, we find that *Manglar* and *Camaron* are the organisms with the most records and the locations with the most records are *Sian Kaan* and *Banco Chinchorro*. Despite a positive response from more than 60 individuals from the scientific community and from different governmental and non-governmental institutions, there is still a lack of information to be collected. This initiative is still outgoing, collecting metadata, creating inter-institutional relationships, and inviting researchers to collaborate with the population of the metadata. Data availability is key not only to better understand Mexico's marine and coastal environments, but to identify knowledge gaps so that research can be prioritized. This will facilitate furnishing management and conservation policies, for example, for marine habitats and fisheries resources vulnerable to climate change. The more people involved, the better we can reflect the state of marine research in Mexico.

**Note:** The data, graphs, and tables reported here are preliminary and do not, in any way, reflect the current state of marine research in Mexico. This result can only be achieved when the project has managed to capture a large part of the data produced in the country.