

FISHERY IMPROVEMENT PROJECT

**MEXICO GULF OF CALIFORNIA
BROWN SHRIMP - TRAWL**

ACTION 3

**EVALUATE THE IMPACT OF THE FISHING GEAR
ON THE HABITAT AND ITS RECOVERY TIME**

SIX-MONTH PROGRESS REPORT

PREPARED BY:
VICTOR VARGAS
FISHERIES CONSULTANT

AUGUST, 2025

Action 3. Evaluate the impact of the fishing gear on the habitat and its recovery time.

This action only includes the development of a single task, aimed at designing a study on the impact of the fishing gear on the habitat and estimating its recovery time. This activity is specifically oriented toward the implementation of the Benthic Impact Tool; however, the information requirements are considerable.

Task 1. Design and implement a research project to assess the area's recovery impacted by trawling to ensure that there are no serious or irreversible impacts to the habitats.

For the development of this action, the hiring of a specialist in the analysis and application of the Benthic Impact Tool has been considered. In this regard, a recent meeting was held with him to identify the strengths and limitations of the analysis, as well as to outline a research proposal. It is therefore expected that this action can be completed through the engagement of this consultant.

However, the collaboration has not yet formally begun. A preliminary database of fishing trips, along with the information collected by the onboard observer program, will be provided to him so that he can prepare a preliminary trial, which will then serve as the basis for feedback and refinement.

It is also important to note that the incorporation of the fleet's VMS data will be considered to strengthen the analysis; however, this is still to be defined and finalized.

Table 1. Activity Schedule Proposal and Expected Outcomes

Month	Activities	Outputs
1	<ul style="list-style-type: none"> i. Review of specialized literature ii. Selection of study areas iii. Interviews with fishers and experts 	Technical document with validated fishing zone boundaries.
2	<ul style="list-style-type: none"> i. Collection of fishing effort data ii. Fishing gear characterization 	Georeferenced database of fishing effort Technical profiles of the fishing gear
3	<ul style="list-style-type: none"> i. GIS analysis of benthic habitats ii. Review of associated bycatch 	Habitat map Ecological description of benthic fauna
4	<ul style="list-style-type: none"> i. Parameterization of the Benthic Impact Tool (BIT) model ii. Integration of input data (effort, substrate, gear, fauna) 	Interim report on model setup with preliminary simulations
5	<ul style="list-style-type: none"> i. Analysis of results: Relative Benthic Status (RBS), depletion rates, and recovery rates 	Spatial impact atlas MSC score for each habitat (Indicator 2.3.1a of the MSC Standard v3.1)
6	<ul style="list-style-type: none"> i. Final technical report ii. Draft paper writing 	Final report Scientific publication draft

Deliverables

- **Spatial Impact Atlas** of industrial shrimp fishing on Benthic Habitats in the Gulf of California.
- **Preliminary report** including fishing effort spatial and temporal distribution analysis.
- **Final report**, including results, conclusions, and recommendations.
- **Scientific publication draft.**