

Mexico Baja California Sur blue and brown
shrimp – bottom trawl/cast net]
Fishery Improvement Project (FIP)

**Action 1. Conduct a Management
Strategy Evaluation.**

Six-Month Progress Report

June 2025

As outlined in the one-year progress report submitted in October 2024, several components were identified for development under Activity 1. In this regard, this six-month progress report highlights that three of these components have now been addressed.

- Create a scientific publication focusing on the assessment of brown shrimp and blue shrimp stocks in the region.
- Explore the status of the fishery and pinpoint potential contributions to resource management by analyzing the life history of the species.
- Suggest methodologies, built upon existing model assumptions, to assess alternative approaches

A scientific article is currently under review for publication in a peer-reviewed journal. This article is scheduled to be sent in July 2025. The study includes a stock assessment of blue shrimp and brown shrimp in Magdalena Bay, using a dynamic biomass model that integrates existing management measures and provides technical recommendations. Following publication, the next phase will focus on developing a size-structured population model, aligned with the research direction proposed by Dr. Enrique Morales Bojórquez, Director of the Pacific. As part of an institutional commitment, this model is expected to serve as the standard tool for shrimp stock assessment in the Pacific region. Its implementation will enable the evaluation of alternative management strategies based on population-specific dynamics. Once established, this framework will support the assessment and optimization of management approaches for the brown and blue shrimp fishery in Baja California Sur.

In addition, another scientific publication is currently in preparation, focusing on the analysis of size structure and the proportion of mature females in the population. This analysis is being used to explore the potential for extrapolating total length over time to estimate when individuals will reach key size thresholds. Such information is essential for protecting the reproductive cycle and can be integrated into the criteria used to determine the start of the closed season. By aligning the timing of the closure with biological indicators, such as size at maturity, rather than fixed calendar dates, this approach enhances the protection of the spawning stock and supports recruitment. As such, it represents a proactive and science-based management strategy that contributes to the long-term sustainability of the fishery by reducing pressure on immature individuals and ensuring that a sufficient portion of the population reproduces before harvest resumes.

We have already secured funding from the Marine Stewardship Council to cover the publication fees for this article, and we are committed to submitting it for publication between September and October 2025.