

Mexico Baja California red rock lobster – trap Three-Year Evaluation Report

Version 1.3, November 2022

Purpose

The three-year evaluation report template was developed by FishChoice. The objectives of the three-year evaluation report are:

1. To assess the fishery's MSC performance indicator scores
2. To verify the results of the FIP's environmental workplan progress as reported on [FisheryProgress](#)
3. Optional: To provide recommendations to the FIP on environmental workplan actions that should be modified, including recommendations for additional actions/tasks that should be taken or suggested changes to timelines, to help the FIP achieve their stated objectives.

FIP Information

Target species scientific name(s) and common name(s) [state target stock(s), if relevant]	Spiny Lobster (<i>Panulirus interruptus</i>)
Fishery location	Pacific coast of the state of Baja California, Mexico
Gear type(s)	Pot / Trap
Estimated FIP Landings (weight in tons)	1,884 metric tons
Vessel type(s) and size(s)	Small-scale vessels < 24 ft
Number of vessels	82 vessels
Management authority	National Commission for Fisheries and Aquaculture (CONAPESCA) National Institute of Fisheries and Aquaculture (INAPESCA)

Assessor name(s)	Pablo Álvarez
Assessor Organization/Affiliation	Pronatura Noroeste
Date of report completion	06/30/2023

Note: The qualified assessor (M.C. Gabriela Ehuan) prepared this report based on the audit process carried out by SCS Global Service in June 2023.

Stakeholder Consultation & Meetings

Name	Affiliation	Date and Subjects Discussed
Gabriela Ehuan	Pronatura Noroeste (PNO)	<p style="text-align: center;"><u>Junio 2023</u></p> <ul style="list-style-type: none"> • Logbooks used for data collection. • FIP Actions • Scope of the project
Dr. Carlos Álvarez	Department of Fisheries, Pronatura Noroeste (PNO)	<p style="text-align: center;"><u>Junio 2023</u></p> <ul style="list-style-type: none"> • Fishery objectives • Stock assessment and stock status • Harvest strategy development and stock status evaluation
Dr. Alfonso Medellín	Independent Consultant.	<p style="text-align: center;"><u>Junio 2023</u></p> <ul style="list-style-type: none"> • Stock assessments' methodology (approach, robustness, data source) • Principle indicator
Dra. Mariela Brito	INAPESCA	<p style="text-align: center;">Junio 2023</p> <ul style="list-style-type: none"> • Stock assessments' methodology (approach, robustness, data source) • Monitoring and Data Collection Programme • Decision-making processes

Dr. Rodrigo Beas	UABC	<p style="text-align: right;">Junio 2023</p> <ul style="list-style-type: none"> ● Ecological research support
Mr. José García	Representative of the fishermen of S.C.P.R Punta Canoas	<p style="text-align: right;">Junio 2023</p> <ul style="list-style-type: none"> ● FIP Actions ● Scope of the project
Mrs. Argelia Uribe	Diver monitor Fishermen	<p style="text-align: right;">Junio 2023</p> <ul style="list-style-type: none"> ● FIP Actions ● Coordinate fishing logbooks

Summary of Findings and Recommendations

- The project has made significant improvements and has completed several of the tasks in the work plan, however, there is still a large percentage of fishermen who are not aware of the scope and implementation of the project. Better efforts are needed to include the necessary participants.
- The project involves many fisheries organizations, enhancing its far-reaching scope. However, the large number of participants can be a difficulty in the processes of consensus and negotiations, which can extend the programmed timeframe of the actions, and the implementation of participatory and inclusive tools is recommended.
- The fishery has managed to improve knowledge on the state of the stock using a data-limited approach, therefore, it needs to improve its information collection program. In the understanding that the work with fishermen is slow and in special conditions, it is recommended to find better alternatives to strengthen the human capital of the sector in terms of fisheries information transfer.
- The indicators with the most limitations for improvement are linked to the process of management and collaboration with government institutions. The fishery still has some general limitations in terms of collaboration with government institutions.

Summary of MSC Performance Indicator Scores

Principle	Component	Performance Indicator		Previous Score 2022	Current Score 2023	Rationale or Key Points
1	Outcome	1.1.1	Stock status	60-79	>80	In October 2020, the National Fisheries Institute, presented a stock assessment report reporting the status of the stock for years 2018 to 2019. Results indicate that the harvest intensity, along the history of the fishery, has kept the biomass well above the level producing MSY. However, it is reported that the catch increased considerably in the latest years with a clear reduction in biomass abundance (INAPESCA, 2020). The MSC standard in PI 1.1.1 requires, in SIa at the SG80 level, that it should be highly likely that the biomass is above the point of recruitment impairment. For SIb at the SG80 level, it is required that the biomass is fluctuating around a level consistent with MSY. Although it is necessary that an updated stock assessment is conducted, the fishery has evidence that the requirements of the MSC standard are met for the performance indicator 1.1.1
		1.1.2	Stock rebuilding outcome	N/A	N/A	
	Management	1.2.1	Harvest strategy	60-79	60-79	<p>According to the pre-assessment report, it is known that all red lobster stocks in the Mexican Pacific fisheries have the same harvest management strategy design, through a combination of rules and measures.</p> <p>The CAB considers that the harvest strategy is likely to work based on prior experience or plausible argument, but as the strategy is not responsive to the state of the stock, only SG60 is met.</p> <p>There is a draft technical report in which the elements for the preparation of an Exploitation Strategy for the red lobster, <i>Panulirus interruptus</i>, in Baja California have been identified. In this document it is recommended to include the local environmental variability in relation to the abundance of the red lobster and it is pointed out that there</p>

						is a lack of complementary information to develop or modify in more detail the current structure of the control rule of the PMP.
		1.2.2	Harvest control rules & tools	60-79	60-79	There are some tools (minimum size, permits, seasonal closures, etc.) in the fishery which if employed correctly should be effective in controlling exploitation. Catch data is used as a proxy for F and FMSY to indicate that overfishing is not occurring, and because of the relative stability of catch data, it is determined that there is some evidence that tools used or available to implement HCRs are appropriate and effective in controlling exploitation. SG60 is met. The improvement of this indicator is linked to 1.2.2 and is therefore planned to be addressed until the completion of 1.2.2.1.
		1.2.3	Harvest strategy information & monitoring	60-79	60-79	The Lobster fishery collects information on catches from the log-books of the fishers and it is mandatory to submit logbooks to the authorities. However, there are still important deficiencies in the process of collecting information from fishing logbooks. Since 2021, the working group has made significant efforts to strengthen among fishers the correct completion of the form. Pertinent training has been provided and the first progress has been made in changing fishers behaviour. Some organisations have been regularised with the correct filling of their logbooks, but it is required to include more participants and to improve the process of information transfer. SG60 is met.
		1.2.4	Assessment of stock status	>80	>80	
2	Primary species	2.1.1	Outcome	60-79	60-79	From the information gathered through the fishing logs, it was found that only three organisations use small pelagics as bait, and that the rest of the organisations use sea roach, clams and snails for the baiting process. By 2020 there was no specific information on bycatch or bait use in the northern zone (specifically minor pelagics), therefore, following SCS Global Services recommendations to establish a follow-up programme to identify the origin of the

bait, it was agreed that in each fishing season the fishing groups will share an inventory of their main bait suppliers, specifically minor pelagics. Félix - Uruga et al., (2005 6), propose a hypothesis of three sardine stocks that are distributed along the Baja California coast according to thermal conditions: a cold stock (C) that can be distributed as far as Punta Baja, a temperate stock (T) that is distributed between San Carlos, BCS and southern California, and a warm stock (W) that is distributed south of the Gulf of Ulloa, BCS (Fig.1)

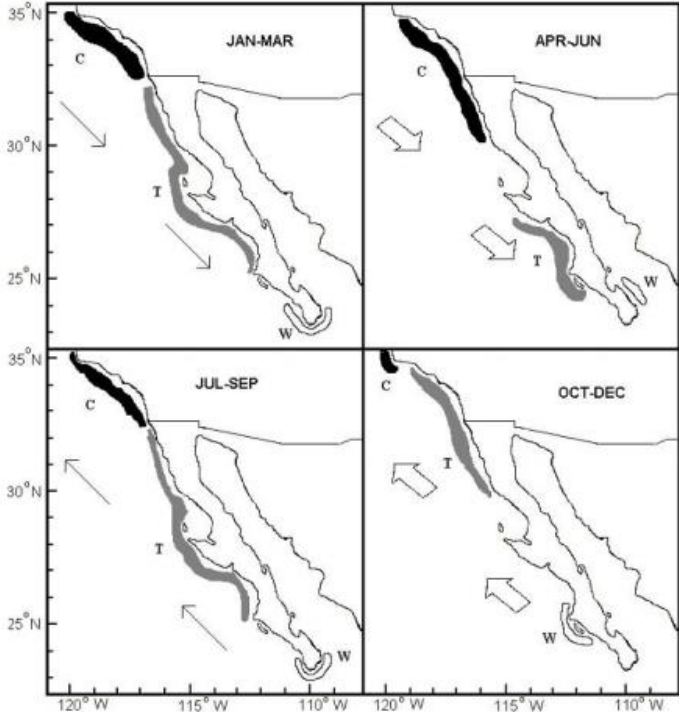


Fig. 1 Distribution of sardine stocks according to the three-stock hypothesis proposed by Felix - Uruga et al. proposed by Felix - Uruga et al (2005). Figure from Felix - Uruga et al., 2005.

With the purchase invoices collected for October 2022, the catches of the bait suppliers were analysed and a technical report on the origin and state of the stock of these pelagics

					<p>was generated, from which three main conclusions were drawn.</p> <ol style="list-style-type: none"> 1) To date, no evidence was found of the existence of a stock assessment for the southern sardine sub-stock. 2) For 2022, the northern sardine stock is below the established reference point, so the recommended catch was zero tonnes. 3) No evidence was found of an assessment of the southern sardine stock, so the status of that stock is unknown. 4) The sardine landed in Ensenada may come from catch sites located in Baja California Sur, so it would be advisable that whoever markets this sardine indicates the origin or catch site. <p>Although improvements and new information are available, SG80 is not available.</p>	
		2.1.2	Primary species management	>80	>80	
		2.1.3	Information	60-79	60-79	<p>The working group launched a single monitoring plan that responds to all the needs of the UoA. This monitoring is using official fishing logbooks (NOM, 2007). With this tool, the fishers can obtain information regarding fish production, interaction with primary species, secondary species, ETP and the type of fishing gear they use. The first cooperatives have made significant progress in changing the fishers behavior in the correct use and filling in of their fishing trip information. During the following months, work will be promoted with the rest of the fishing organizations to increase the level of participation. In addition, the technical group will be processing and analyzing the information collected. Due to the fact that the monitoring programme still has some limitations in the collection of information, SG80 is not met.</p>

		2.2.1	Secondary species outcome	>80	>80	
	Secondary species	2.2.2	Management	60-79	60-79	<p>A fishbase search (in technical report) was carried out to analyse morphological and biological data on the shark species <i>Cephaloscyllium ventriosum</i> and <i>Heterodontus francisci</i>, which are distributed in the in the central lobster fishery stock. Mesh size data from the MSC pre-assessment for the lobster FIP were cross-checked with data provided for commercially valuable shark individuals from (Dominguez, 2017) to demonstrate through biological criteria that they do not represent commercial value.</p> <p>The shark species, <i>Heterodontus francisci</i>, is an elasmobranch measuring around 100 centimetres in length. It inhabits rocky bottoms, kelp beds, sandy streams, sand flats and deep crevices. and deep crevices. It has broad fins that are used as limbs for climbing. The main commercial use of the species is the production of fishmeal. That, according to Domínguez, (2017). In a study carried out with artisanal fishing gear as a method of capture, he mentions that the sizes of commercially important individuals for the production of fishmeal are found to be in the upper range of the fishmeal production are found in the intervals ranging from 35 to 89 cm in length for females and between 25.4 to 89 cm in length for females and between 25.4 to 89 cm in length for females and between 25.4 and 77 cm in length for males. However, the traps used in lobster trapping have a mesh size of 5.1 x 10.2 cm and therefore the bycatch of these individuals is of of these individuals is of very small sizes and does not represent commercial value. In addition, given that this species does not appear on lists of international markets as in the case of (Cardeñosa et al, 2020), it is confirmed that the species does not represent value in the shark fin marke. In addition to the species' out-of-water resilience, this makes it conducive to the management for the return of individuals to the water, as demonstrated in videos and fishers logs.</p>

						<p>The <i>Cephaloscyllium ventriosum</i> shark is a nocturnal species of elasmobranch that can reach up to 110 centimetres in length. up to 110 centimetres in length. It inhabits continental shelves and upper slopes and upper coastal slopes down to deep water, in rocky areas covered with algae. This species is is neither listed in shark fin markets nor of commercial value.</p> <p>Some cooperatives have made significant progress in changing the fishers behaviour in the correct use and filling in of their fishing trip information about hark destination. During the following months, work will be promoted with the rest of the fishing organisations to increase the level of participation. Due to the fact that the monitoring programme still has some limitations in the collection of information, SG80 is not met.</p>
		2.2.3	Information	60-79	60-79	<p>The working group launched a single monitoring plan that responds to all the needs of the UoA. This monitoring is using official fishing logbooks (NOM, 2007). With this tool, the fishers can obtain information regarding fish production, interaction with primary species, secondary species, ETP and the type of fishing gear they use. The first cooperatives have made significant progress in changing the fishers behaviour in the correct use and filling in of their fishing trip information. During the following months, work will be promoted with the rest of the fishing organisations to increase the level of participation. In addition, the technical group will be processing and analysing the information collected. Due to the fact that the monitoring programme still has some limitations in the collection of information, SG80 is not met.</p>
		2.3.1.	ETP species outcome	>80	>80	
		2.3.2	ETP species management	>80	>80	

	ETP species	2.3.3	Information	60-79	60-79	The working group launched a single monitoring plan that responds to all the needs of the UoA. This monitoring is using official fishing logbooks (NOM, 2007). With this tool, the fishers can obtain information regarding fish production, interaction with primary species, secondary species, ETP and the type of fishing gear they use. The first cooperatives have made significant progress in changing the fishers's behaviour in the correct use and filling in of their fishing trip information. During the following months, work will be promoted with the rest of the fishing organisations to increase the level of participation. In addition, the technical group will be processing and analysing the information collected. Due to the fact that the monitoring programme still has some limitations in the collection of information, SG80 is not met.
	Habitats	2.4.1	Habitat outcome	>80	>80	
		2.4.2	Habitat management	>80	>80	
		2.4.3	Information	60-79	60-79	Analyses such as that of Shester (2008), who conducted experimental studies inside and outside red lobster fishing areas to assess the lobster fishing areas to assess the substrate composition of the polygons in Baja California, showed that there are no significant differences in benthic cover between the areas inside and outside lobster trap areas, both immediately and after 24 hours of activity. The study concluded that the lobster traps do not appear to cause any short-term change in benthic habitat cover when the benthic habitat set for a period of 24 hours, which is the typical trap placement time. On the other hand, the study referred to above was reported in pre-assessments of the red lobster fishery in the central (Alvarez et al. 2016) and northern (Morsan and Shelby, 2019) conducted by SCS Global Service Report of the Baja California peninsula, in the context of MSC certification requirements, and the assessors enhance the results of the research by arguing that the traps appear to have negligible effects on the associated benthic habitat of the fishery under assessment, which is composed mainly of low-relief sand

						<p>and boulders with Eisenia algae and gorgonian coral. The lower impact can be explained by the low weight of the traps, the deployment of a single trap, the relatively shallow depths (in the study) and a wide area of coverage of potentially sensitive species. The traps are sunk with weights to prevent them from being dragged along the bottom, so they rarely cause a more direct impact on the substrate.</p> <p>Studies to detect the effects of fishing on essential fish habitat (Goode et al. 2021) suggest that traps in lobster fisheries make a negligible contribution to the accumulation of marine habitat damage due to the large fishing area and the small footprint of each trap. Finally, the impact assessments of the different fishing gears did not reveal significant negative physical or biological biological impacts of methods such as traps (Chuenpagdee et al. 2003).</p> <p>Although the state of knowledge has been improved, SG80 is not met.</p>
Ecosystem	2.5.1	Ecosystem outcome	>80	>80		
	2.5.2	Ecosystem management	>80	>80		
	2.5.3	Information	60-79	60-79	Improvements needed for this PI are directly related whit 1.2.3.	
	3.1.1	Legal and customary framework	>80	>80		
	3.1.2	Consultation, roles and responsibilities	>80	>80		
	3.1.3	Long term objectives	>80	>80		

	Fishery specific management system	3.2.1	Fishery specific objectives	60-79	60-79	The FIP working team agreed that the state government's fishing secretariat, in coordination with INAPESCA and the fishing sector, would coordinate the installation of the fishery management Plan. it cannot be confirmed as to whether information on the fishery's performance and management action is available on request, and therefore SId at the SG80 level is not met.
		3.2.2	Decision making processes	60-79	60-79	The FIP working team agreed that the state government's fishing secretariat, in coordination with INAPESCA and the fishing sector, would coordinate the installation of the fishery management committee. it cannot be confirmed as to whether information on the fishery's performance and management action is available on request, and therefore SId at the SG80 level is not met.
		3.2.3	Compliance and enforcement	60-79	60-79	NOM-006-SAG/PESC-2016 states that fishers must deliver logbooks monthly to the CONAPESCA regional offices. Similarly, fishers must deliver the "landings notice" 72 hours after the conclusion of the fishing trip. During the implementation of this project the diagnostic report on the inspection and surveillance of the red sea urchin fishery was completed (Juárez-Salas, R.A. y A. Castillo-López. 2021), in which the general strategies for improving the conditions for surveillance of the fishery are indicated. in June 2022 fishers and the FIP coordinator decided to operate a general programmer to demonstrate compliance and non-compliance with fisheries regulatory standards using two sources of information: 1) annual reports of community surveillance operations of fishing organizations, and 2) official data from CONAPESCA regarding fishery inspection and surveillance activities and operations. In relation to the above, data from the sources have been collected and the elaboration of the first report is in process

		3.2.4	Management performance evaluation	60-79	60-79	<p>There are mechanisms in place to evaluate some parts of the fishery-specific management system. The National Fisheries Act is reviewed and updated periodically, although the system for when the updates are conducted is not clearly outlined. The reviews of the draft of the FMP may be considered an occasional internal review of the fishery specific management system.</p> <p>The performance of the activities of this action is linked to the installation of the advisory committee (PI 3.2.2). As soon as the committee is consolidated, a technical commission will be appointed to the Red Lobster fishery management committee to evaluate the management system.</p> <p>No evidence was presented that the fishery management system is subject to regular internal and occasional external review, thus the SG80 is not met.</p>
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Environmental Workplan Results

Result	Related Action on FisheryProgress	Related MSC Performance Indicator	Explanation
Stock assessment evaluate and Harvest control rules & tools	A1, A2, A3, A4, A5,	1.1.1, 1.1.2, 1.2.1, 1.2.2	With the progress of the project, the status of the target resource was known. In October 2020, the National Fisheries Institute, presented a stock assessment report reporting the status of the stock for years 2018 to 2019. Data are aggregated into a single database and shared with the Department of Fisheries, which analyze the data to inform an annual stock assessment. With this progress, a change has been achieved in indicator 1.1.1. There is a draft technical report in which the elements for the preparation of an Exploitation Strategy for the red lobster, <i>Panulirus interruptus</i> , in Baja California have been identified
Monitoring Program and information	A6, A7, A8, A9, A10	1.2.3, 2.1.1, 2.1.3, 2.2.2, 2.2.3, 2.3.3, 2.5.3	Data collected by FIP participant directly supports the population assessment conducted by the Department of Fisheries. Since 2022, the project has established a monitoring programme through the use of official fishing logbooks. This has required capacity building of fishers, work to improve the practice of correct filling and strengthening of human capital (leaders fishers monitors) so that information is shared in a transparent way with the work team and fishing institutions. The information gathered from this programme has supported the main technical reports developed by our independent consultant (Tracking the origin of the caranda and interaction with sharks).
Surveillance and management	A,11, A12, A13, A14, A15	3.2.1, 3.2.2, 3.2.3, 3.2.4	The diagnostic report on the inspection and surveillance of the red rock lobster fishery was completed, in which the general strategies for improving the conditions for surveillance of the fishery are indicated. Following up on the recommendations of the diagnosis, an inventory of materials destined for the surveillance activities of the FIP's fishing organizations was carried out with the aim of identifying the strengths and needs to operate the community groups. Intergovernmental cooperation between SEMAR, CONAPESCA, CONANP and SEST has strengthened the capacities of the organizations through different workshops and inspection and reporting tools, such as: a) responsible transport of seafood and the national surveillance system, b) the operating rules of PROREST (Programmer for the Protection and Restoration of Ecosystems and Priority Species), and c) workshop on search and rescue,

			<p>safeguarding life at sea, and legal fishing and aquaculture origin in Baja California..</p> <p>in June 2022 fishers and the FIP coordinator decided to operate a general programmer to demonstrate compliance and non-compliance with fisheries regulatory standards using two sources of information: 1) annual reports of community surveillance operations of fishing organizations, and 2) official data from CONAPESCA regarding fishery inspection and surveillance activities and operations. In relation to the above, data from the sources have been collected and the elaboration of the first report is in process.</p> <p>In November 2022, some FIP fishing organizations agreed to launch a pilot programmer for the operation of electronic logbooks for the systematization and geo-referencing of actions linked to community surveillance. The process of setting up training has been initiated.</p> <p>On November 30, 2021, an informative workshop was held to share with the fishing sector the procedure and requirements for requesting the creation of the fishery management committee. EDF (Environmental Defence Fund) participated in this meeting to share its experience and advice on the creation of the committees; likewise, representatives of SEST gave recommendations to the sector to start the management process. As a result of this training process, the FIP working team agreed that the state government's fishing secretariat, in coordination with INAPESCA and the fishing sector, would coordinate the installation of the fishery management committee</p>
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