

Ascension Bay Lobster Fishery

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1 Static Analysis - Collective action

Ascension Bay Lobster Fishery is a bay in the state of Quintana Roo on the eastern side of the Yucatan Peninsula that is 160 square kilometers. The original study was conducted in 1982 by David Lawrence Miller for the entire Quintana Roo state. The focus of this analysis will be on the contemporary fishing in Ascension Bay regarding Spiny Lobster. The Cozumel and Vigia Chico are the cooperative groups that fish Ascension Bay, with their primary goal being Spiny Lobster. This case study is part of the original Common-Pool Resource (CPR) database.

1.1 The Commons Dilemma

Based on the documents, there is no evidence of a commons dilemma or overuse of the resource.

1.2 Biophysical Context (IAD)

Natural Infrastructure: Ascension Bay is a large shallow bay in the central region east Quintana Roo coast. The bay is surrounded by mangroves and swamp, while the floor ranges from sandy at the entrance and sandy mud in the interior. Turtle Grass accompanies the sandy portions of the bay in depths of 1 to 10 meters. Turtle Grass is one of the habitats for the Spiny Lobster. Spiny Lobster are also typically found in shallow water at the juvenile age that are fished.

Human made infrastructure include Casitas, artificial habitats, and fiberglass outboard powered boats. Casitas are structures that replicate a niche in the landscape that lobsters like to hide in that consist of a row of poles and a top, or roof, to the structure.

1.3 Attributes of the Community (IAD)

Ascension Bay is part of the Central Zone that starts at Punta Petenpich and extends to Punta Xocosh. The cooperatives that fish the Central Zone are the Cozumel and Vigia Chico, which started in 1960 and 1968 respectively, with about 100 members each. Technically, Vigia Chico should be the only one with access to Ascension Bay, but this is not true in practice. The Vigia Chico co-op is a group of members from the Cozumel co-op that split off. This resulted in people being in different areas that they technically do not belong in because their campo was there. Campos are plots of land that range from .5 to 3 square kilometers. These campos can hold 50 to 300 casitas which are placed about 20 meters

apart. In order to fish for lobster a permit is required, and the cost is simply reporting captures and paying tax on the captures.

1.4 Rules in Use (IAD)

1. Boundary Rules

-Only members of the Vigia Chico and some members of the Cozumel co-op are allowed to fish for lobster.

-In order to fish for lobster, you must have a permit

-Anyone can join if they are accepted by the co-op and have a permit

-You must have your own, or with permission use someone else's, campo and equipment. The campos and equipment are privately owned.

2. Position Rules

Not enough information to conclude

3. Scope Rules

-Knowledge of the bay floor, and where casitas can be placed. Casitas can't be placed in mud

-Knowledge of where the Central Zone starts and ends

4. Choice Rules

-Fisherman can:

-fish for scale fish with no permit

-get a permit and join a co-op to fish for lobster

-sell their campo

-buy a campo

-There are no rules against using other types of equipment to catch lobsters, but the bay is set up for, and all the members use, casitas. Therefore, there may be no legal issue, but pressure from the members to use casitas.

5. Aggregation Rules

No evidence of aggregation rules

6. Information Rules

-A permit holder must report their catch

7. Payoff Rules

-Their are government agents that enforce rules

-The members do most of the enforcing since they own the campos and equipment, so they have a large investment in this system.

1.5 Summary

The Vigia Chico and Cozumel co-ops fish for lobster using casitas. The casitas, other equipment, and campos are privately owned giving the fishermen incentive to fish sustainably and uphold rules. The Vigia Chico and Cozumel co-op are some of the only groups that have been able to uphold boundaries.

2 Case Contributors

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