

## Project Update: March 2024

Here we present the advances for the second period of the project "Biological and socio-economic assessment of elasmobranch fisheries in Costa Grande, Guerrero". During the second period of the project, we continued with the monitoring of elasmobranch fisheries in Puerto Vicente Guerrero. This time we reported 430 individuals of eight species (**Table 1**). The pacific sharpnose shark (*Rhizoprionodon terranovae*) was the most abundant species by far (n= 276). In addition, juveniles of scalloped hammerhead sharks, with sizes between 49 and 134 cm total length were considered as a common catch during this part of the year. Similar to the summer trip, fishermen do not retain some ray species such as the speckled guitarfish (*Pseudobatus glaucostigma*), gorgona guitarfish (*Pseudobatus prahli*), and the golden cownose ray (*Rhinoptera stendaichneri*). All these rays were released alive.

**Table 1.** Species composition during the second period of the project

Common name	Species name	Abundance
Pacific sharpnose shark	<i>R. longurio</i>	276
Scalloped hammerhead shark	<i>S. lewini</i>	99
Silky shark	<i>C. falciformis</i>	23
Speckled guitarfish	<i>P. glaucostigma</i>	16
Longsnout butterfly ray	<i>G. crebripunctata</i>	9
Longtail stingray	<i>H. longus</i>	5
Gorgona guitarfish	<i>P. prahli</i>	1
Golden cownose ray	<i>R. steindachneri</i>	1

With the support and participation of students from the Universidad Michoacana de San Nicolas de Hidalgo (UMSNH) and Universidad Autonoma de Baja California Sur (UABCS), we conducted a workshop with nine fishermen from Puerto Vicente Guerrero. During the workshop we conducted a talk about the objectives of the project and discussed with fisherman why is important their collaboration to preserve sharks and rays' populations. The workshop was led by Adriana Lechuga and had a good welcome by locals, which motivated us to continue with conservation and research actions in this locality.

We also conducted several interviews to fishermen of Puerto Vicente Guerrero. Here we present some questions and the answers of two contrasting fishermen opinions'.

### 1. Do you consider there have been reductions in the ray and shark catches since you started fishing? Why?

Fisherman 1: *There has not been a noticeable reduction because in Puerto Vicente Guerrero we take care of our fisheries, we banished fishing nets a time ago*

Fisherman 2: *Yes, there have been reductions in all species, due to the increase of fishermen in recent years*

## 2. Which are the principal threats to sharks and rays?

Fisherman 1. *Overexploitation, industrial fishing, and "Tiburoneros" (Fishermen from other localities that incur in their fishing areas)*

Fisherman 2. *Use of fishing nets and increase of water temperature*

## 3. What is your perception about shark and ray banning season in the Mexican Pacific?

Fisherman 1: *I think it works well. Of course, we have a shortage of resources during the summer, but we have seen the benefit for the species during the next seasons*

Fisherman 2: *It is poorly executed. It may protect big sharks, but not the smaller ones or rays*

## 4. What do you think are the best conservation strategies for sharks and rays?

Fisherman 1. *We must respect the banning season, use adequate fishery tools to fish sharks, and avoid the use of fishing nets*

Fisherman 2. *Government compliance and enforcement in vigilance. More support to small- scale fishermen, workshops with fishermen, and application of administrative sanctions*

### Photographic evidence:



Itan Armas, a student from UABCS measuring the interdorsal length of a juvenile silky shark (*Carcharhinus falciformis*)



Workshop opening by team member Adriana Lechuga (White t-shirt) with fishermen of Puerto Vicente Guerrero.



Hugo Sánchez Gómez (Team leader) during his interview with Martin de Jesus Díaz, a fisherman from Puerto Vicente Guerrero.





Alejandro Esquivel and Ulises explaining the fishermen about the diversity of sharks and rays



Hugo Sanchez Gomez (Team leader) during his interview with Jose Luis Pérez, a fisherman from Puerto Vicente Guerrero.