

## Project Update: October 2023

We are delighted to inform you that the first of the three field trips scheduled for the assessment of elasmobranch artisanal fisheries in Puerto Vicente Guerrero was a success. The field trip had a duration of 20 days and was realised during August 2023, at the beginning of the elasmobranch fishery season. Although weather conditions prevented fishermen from going fishing for five days, the rest of the days were successful.

We took part in 20 fishing trips to different fishing points and monitored elasmobranch landings in two cooperatives. Bottom longline was the main fishery art used to target elasmobranchs and other fishes such as snappers. Based on our prospective field trips, we expected that scalloped hammerhead (*Sphyrna lewini*) and sharpnose shark (*Rhizoprionodon longurio*) would present the highest captures among species, similarly as other seasons.

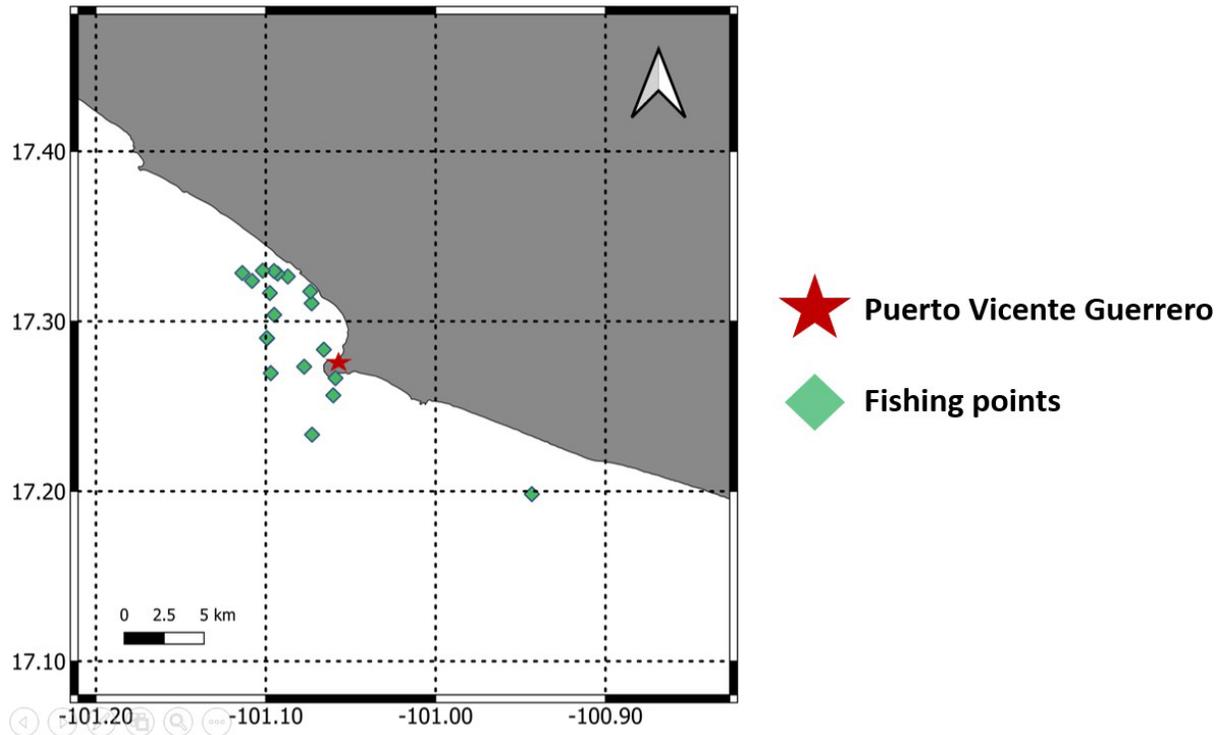
During this trip we reported 240 individuals of seven species (much fewer than we expected). Surprisingly, our findings showed that *S. lewini* was rarely caught during this part of the year, also *R. longurio* was not as abundant as during other months. In contrast, we observed high captures of juvenile blacktip sharks (*Carcharhinus limbatus*), which measured from 72 to 98 cm total length, interestingly, these captures were only found in a specific fishery area. Fishermen told us that this aggregation is observed every year during the post-ban season. This finding was unexpected, and we could even consider it as the first evidence of a putative nursery area for the blacktip shark in the Mexican Pacific.

**Table I.** Species caught by artisanal fisheries in Puerto Vicente Guerrero

Specie	Common name
<i>Carcharhinus limbatus</i>	Blacktip shark
<i>Sphyrna lewini</i>	Scalloped hammerhead
<i>Rhizoprionodon longurio</i>	Sharpnose shark
<i>Hypanus longus</i>	Longtail ray
<i>Rhinoptera steindachneri</i>	Cownose ray
<i>Pseudobatos glaucostigma</i>	Speckled guitarfish
<i>Urobatis concentricus</i>	Bullseye round stingray

It looks like the shark fishery in Puerto Vicente Guerrero is directed at small size sharks such as *R. longurio* and juvenile individuals of *S. lewini* and *C. limbatus*. In contrast, ray fishery is directed to adult organisms, especially the longtail ray (*Hypanus longus*). Curiously, fishermen that causedt small size longtail rays, as well as cownose rays (*Rhinoptera steindachneri*), use to release them alive.

Release of juvenile rays was not the only conservation measure we noticed during sampling trips. Fishermen community have also prohibited the use of surface longlines and fishing nets in an attempt to preserve their fishing resources.



**Fig 1.** Fishing points where bottom longlines were deployed.

**Next steps:**

Due to the high presence of hurricanes and tropical storms in the study area, we have decided to change the dates for the second field trip (which was originally planned for the end of October 2023). Next fieldtrip will be realised by the end of November or the beginning of December 2023. Along with the fisheries monitoring, interviews and workshops will be held (we are currently working on the design). By now, we have the contact of 12 fishermen who are open enough to participate in both activities, and we have the chance to recruit more. Although we have to make some adjustments to our original plans, the project is working as desired.

**Photographic evidence:**



**Fig 2.** Hugo Sanchez Gomez measuring a juvenile blacktip shark (*Carcharhinus limbatus*) during fieldwork.



**Fig 3.** Alejandro Esquivel (Blue) showing Martin (Red), fisherman of Puerto Vicente Guerrero, how we can estimate the total length of an individual based on other morphological measures.



**Fig 4.** Hugo Sanchez Gomez measuring a golden cownose ray (*Rhinoptera steindachneri*), caught as bycatch by fishermen during a fieldtrip. This individual was released alive.



**Fig 5.** Alejandro Esquivel Vieyra measuring a juvenile blacktip shark (*Carcharhinus limbatus*) during fieldwork.



**Fig 6.** Sharpnose shark (*Rhizopionodon longurio*) caught by artisanal fishermen in Puerto Vicente Guerrero



**Fig 7.** Speckled guitarfish (*Pseudobatus glaucostigma*) caught by artisanal fishermen in Puerto Vicente Guerrero.



**Fig 8.** A photograph taken with different fishermen of Puerto Vicente Guerrero during a social meeting. We consider these activities as important keys to strength the bonds between fishermen and scientist. They also allow the interchange of ideas and knowledge.