



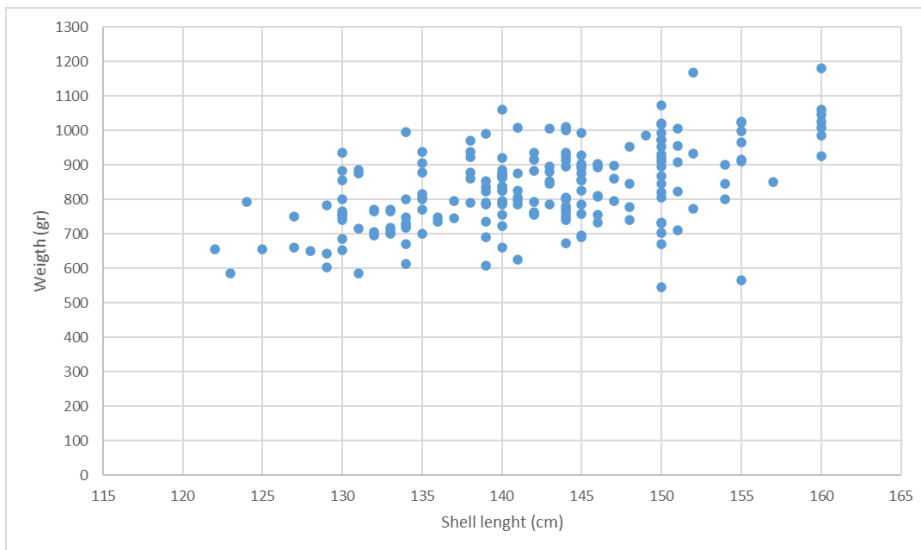
Biological Monitoring Program Gulf of California Cortez geoduck Preliminary Report

Biological Monitoring Program needed to be re-scheduled and modified due to the COVID-19 Pandemic. Geoduck exports were limited along the year and operational difficulties were presented. Nevertheless, a preliminary description of the catches in November 2020 and January 2020 at the polygon is presented.

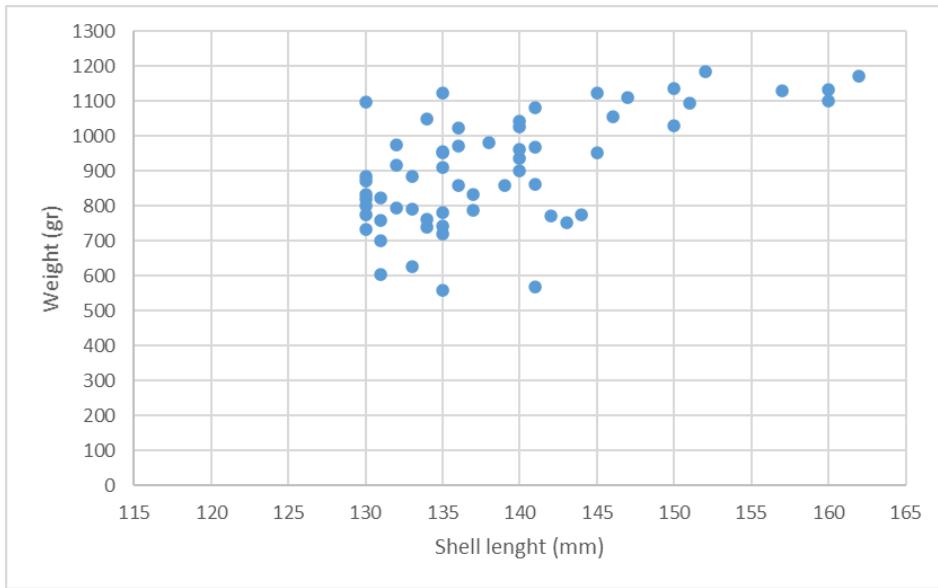
Preliminary description of the catches

The size range of geoduck caught between November 2020 and January 2021 varies between 122-162 mm in shell length and is consistent with the sizes reported for the beginning of the fishery (2007) in the Management Plan¹, which reports sizes between 113 mm and 150 mm (PMP, 03/23/2012). This is an indicator of the good conditions of the clam population located inside the FIP area.

November 2020



January 2021



The entire population of this organisms is not 100% visible at any time of the year, the best time to count and observe this specie is between January and April due to oceanographic conditions that allow high visibility, which is why the density estimate of geoducks is usually underestimated in this area.

As a consequence, the observation of recruits is extremely complicated, especially of young organisms, and there is practically no information on this subject for *P. globose*.

Cortez-Lucero¹ et al. studied the age, growth and mortality of this species in 2011. In their samplings the youngest organisms they found correspond to 66.21 mm of shell (valve) length.

During the first days of February 2021, a large number of young recruits were observed in the area, due to the extraordinary visibility conditions. Videos of the area were made and some samples were taken, which are now in the laboratory.



Sandy bottom where young geoduck holes are observed in the area



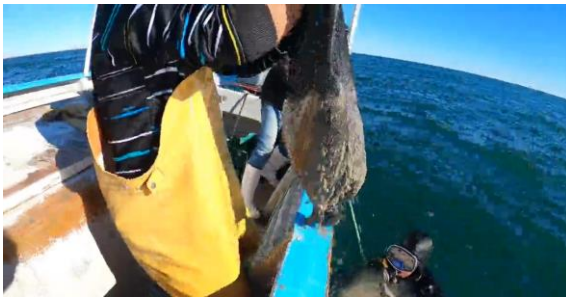
Sandy bottom where the double marking of an adult can be seen



Young recruit being pulled from the sandy bottom



Handful of sand in which you can see 3 young recruits



Sand sample



Some recruits from the sample



The size ranges of recruits ranged from 19 to 23 mm in length, and 11 to 15 mm in valve (shell) width.



Cleaning the recruits



Recruits in the laboratory ponds

Technical reports made by INAPESCA in the FIP area show a density between 0.4 and 0.6 organisms per m² with a positive trend², coupled with the presence of a large number of recruits suggest a healthy geoduck population in the FIP area.

Regional stock assessment

As part of the collaborations established with INAPESCA and suggestions made, INAPESCA is reviewing historical technical reports corresponding to the Northern Gulf of California Area, CRIP offices in Sonora & Baja California. The objective is to determine and separate information from biological monitoring from estimations. This information is the base to analyze the possibility of development of a regional assessment with the historical information and/or determine next steps.

Literature Cited

1. DOF, 2012; 23/03/2012 Secretaría de Agricultura, Ganadería, Desarrollo Rural, Pesca y Alimentación (SAGARPA), Acuerdo por el que se da a conocer el Plan de Manejo para la Pesquería de Almeja Generosa (*Panopea* spp.) en las costas de Baja California, México; 33 pp.
2. No de Oficio RJF/INAPESCA/CRIP-EN/0480/2014