

Geoduck and Horse Clam

Geoduck (*Panopea abrupta*) and horse clams (*Tresus capax* and *T. nuttallii*) are native bivalve species.¹ The geoduck clam, otherwise known as the King clam, is found from Alaska to the Gulf of California and is widespread throughout the BC coast.² It is found from the intertidal zone to depths of at least 110 m, typically buried at least one metre deep in sand, silt, gravel and other soft substrates. The horse clam is similar in appearance to the geoduck clam. Horse clams burrow to a depth of one metre and can inhabit similar habitats but are typically found in the lower third of the intertidal zone.¹

The Geoduck Fishery

Geoduck and horse clams are harvested commercially by divers using high pressure water delivered through a nozzle. This tool loosens the substrate around the clam and allows the diver to remove the clam intact and alive. This gear is only permitted for commercial geoduck fishing.¹

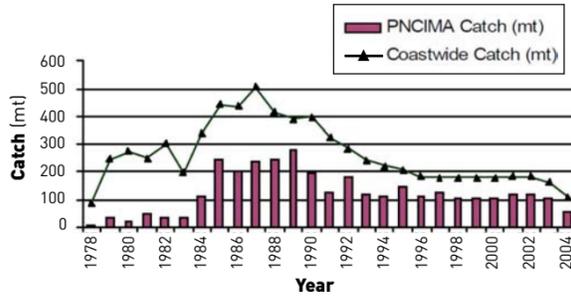
Geoducks and horse clams are commercially managed under a single 'G' licence. The geoduck fishery is managed by quota, based on a fixed exploitation level applied against a bed abundance estimate.¹ Horse clams are usually harvested incidentally to geoduck but they are not included in the quota system.² Each geoduck bed has a limit reference point that does not allow the bed to be fished down below 50 percent of its virgin density.¹ The location of the fishery and schedule of openings and closings vary annually on a three year rotational fishery period. Other management measures include licence quotas and licensing areas. Due to a lack of stock assessment information, the commercial fishery for horse clams has been limited since 1992 to an incidental fishery only when the geoduck fishery is open.²

Geoduck and horse clam catches relative to coastwide catches are presented in the graphs.²

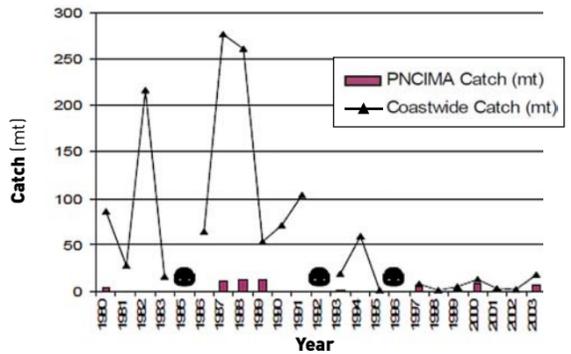
Fishery Effort

The fishery effort map represents effort of the 'G' licensed fishery, which primarily harvests geoduck, but also some horse clam. The map uses four by four km gridded data, represents 95.3 percent of the data available for PNCIMA after screening for confidentiality (minimum three licences reporting per grid

Geoduck Catch in PNCIMA



Horseclam Catch PNCIMA vs. Coastwide



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cell).² The five data classes presented on the map are based on natural groupings inherent in the data such that similar values are grouped and differences between classes are maximized (Natural Break or Jenks statistical method).

The geoduck dive fishery is predominantly found along the inner coast.² In much of PNCIMA, clams are found at the heads of inlets where there is some deposition from river outlets, as well as in bays accumulating suitable clam substrates.¹

The proximity of fishing to the coast makes the gridded data appear to overlap land, an artifact of applying the data to the standard grid. The fishing data were layered above the land only to make the data more visible.

Map data are viewable online through DFO Mapster at www-heb.pac.dfo-mpo.gc.ca/maps/maps-data_e.htm
 Material presented is drawn from the following literature reviews, which include primary references:
 1 Lucas, B.G., Verrin, S. and Brown, R. (Editors). 2007. Ecosystem overview: Pacific North Coast Integrated Management Area (PNCIMA). Can. Tech. Rep. Fish. Aquat. Sci. 2667: xiii + 104p.
 2 MacConnachie, S., Hillier, J. and Butterfield, S. 2007. Marine use analysis of the Pacific North Coast Integrated Management Area. Can. Tech. Rep. Fish. Aquat. Sci. 2677: viii + 188p.

