

Purple short crabs

Profession



**ASSIGN
BUSTER**

Purple Shore Crabs, *Hemigrapsus nudus*, are small crabs that are similar in structure to true crabs. They have carapaces that are commonly found to be 4-5.6 cm. A distinguishing characteristic of the Purple Shore Crabs is their lack of setae. They are usually found to be dark purple, olive green or red with white or cream marks, on their carapace.

Their legs match the color of their carapace but have white tipped claws. Though Purple Shore Crabs are capable of living out of water for several hours, they require moisture to survive. These crabs respire with a gill system in which they take in oxygen-rich water orally, obtaining oxygen by diffusion then expelling the excess water and carbon dioxide through their gills. They are commonly found under rocks anywhere from low-tide to mid-tide zones as well as reefs as far down as 10 metres. Purple Shore Crabs prefer an environment in which the shores are medium-energy to high-energy. When their shelters are disturbed, they tend to race towards shelters such as other rocks, ledges, holes and crevices. Purple Shore Crabs are scavengers with dietary preferences that include worms, dead organisms, molluscs, small gastropods, small crabs, algae, carrion and seaweed.

The purpose of our investigation is to determine whether there is a relationship between the relative distance to the shore and the population density of Purple Shore Crabs. To determine this, 3 transects were placed perpendicular to the shoreline of Eagle Bay, Bamfield. A random number generator was used to determine 5 completely unbiased numbers. These numbers were used to establish the distance of which the quadrats were placed. For each number, 1 quadrat was placed by the top left corner of each of the 3 transects. To calculate the population density of Purple Shore Crabs,

<https://assignbuster.com/purple-short-crabs/>

the number of Purple Shore Crabs within each quadrat was counted and recorded. To avoid re-counting of an individual crab, crabs were counted after being collected in a bucket.