

Gr 2 Science Interdependent Relationships in Ecosystems  
NGSS 2-LS4-1. Make observations of plants and animals to compare the diversity of life in different habitats.  
LS4.D: Biodiversity and Humans  
There are many different kinds of living things in any area, and they exist in different places on land and in water.

Phenomena: A`ama ~ Rock Crabs ~ Thin Shell Crabs



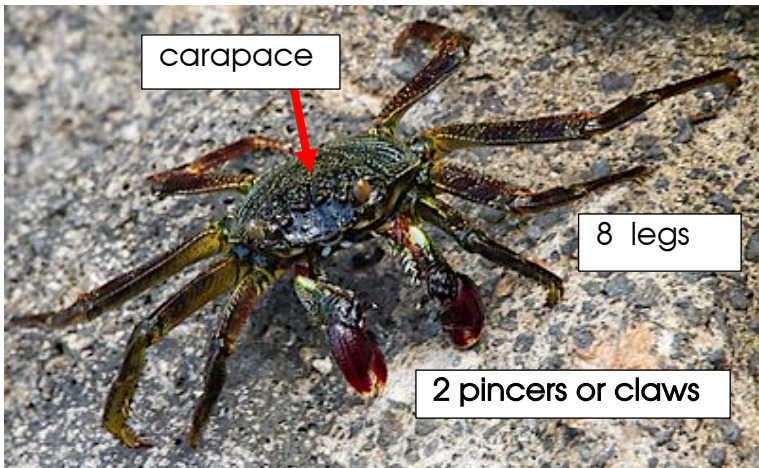
I see ~ Maka nānā 👁️👁️ I notice. I observe.

- 1) \_\_\_\_\_
- 2) \_\_\_\_\_
- 3) \_\_\_\_\_
- 4) \_\_\_\_\_

I think ~ Mana`o I think the crabs \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Next, read this page.**

## Gathering Information About The Phenomena: `A`ama Rock Crab



`A`ama crabs have a thin, hard shell. Its shell is an outside skeleton or **exoskeleton** that protects its soft insides and gives its body shape. `A`ama crabs make their shells dark colored to camouflage on the rocks.



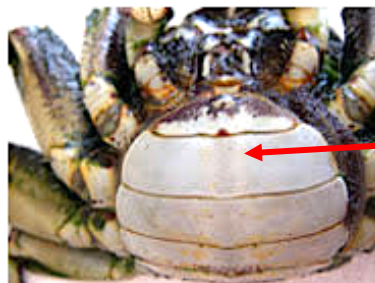
`A`ama crabs **molt** or climb out of their old shells as they grow and leave their old shell, which later turns red, their true color.



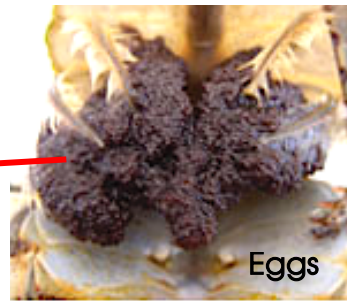
`A`ama crabs have eyes that can stand up, called **eyestalks**. They can see very well so get away fast, running on the tips of their legs. They have a flat shell and flat legs to get into small places to hide. The tips of their legs can grip the rocks tight, so even waves won't push them off.



No eggs



Eggs



Eggs

`A`ama crabs lay eggs. Females carry their eggs under their body. If you catch one holding eggs, let it go!



`A`ama crabs are important for our beaches! They eat **limu** or seaweed, but also any rotting plants and animals like small fishes and birds.

`A`ama crabs keep our beaches clean!

I didn't know before, but now I know `a`ama crabs...

I learned `a`ama crabs \_\_\_\_\_

Phenomena: Hā`uke`uke ~ Helmet or Shingle Urchin



I see ~ Maka nānā 👁️👁️ I notice. I observe.

- 1) \_\_\_\_\_
- 2) \_\_\_\_\_
- 3) \_\_\_\_\_
- 4) \_\_\_\_\_

I think ~ Mana`o I think \_\_\_\_\_  
\_\_\_\_\_  
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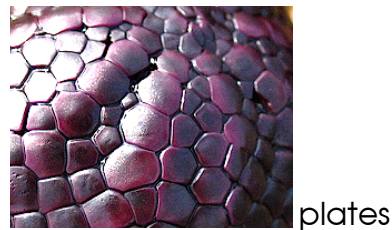
### Gathering Information About The Phenomena: Hā`uke`uke Helmet Urchin



Hā`uke`uke live where waves crash on the rocks. The **spines** around the bottom of the urchin helps it hold tight to the rocks. The dome shape of its body and flat plates can take the crashing waves.

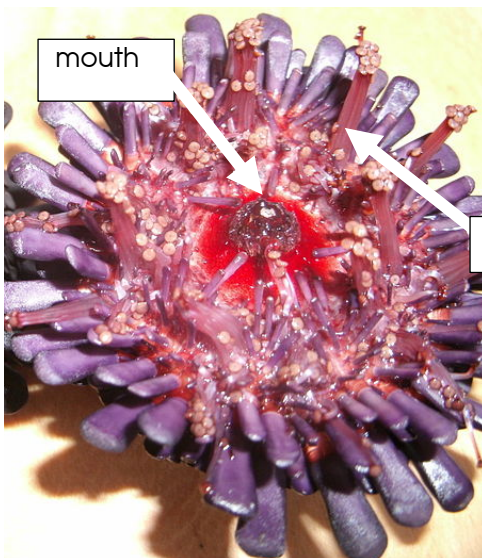
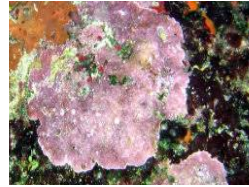


These urchins like to eat coralline algae that grows on the rocks, other limu, and tiny periwinkles.



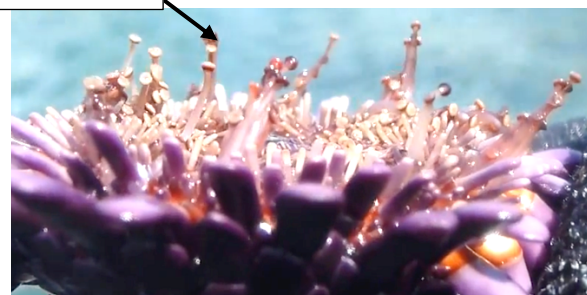
coralline algae

periwinkles



Hā`uke`uke can move its spines to grab onto rocks and tubefeet to urchin move over the rocks.

Under the body, in the center, is its mouth. The mouth can scrape coralline algae, limu, and tiny periwinkles off the rocks to eat.



People love to eat the yellow eggs of the hā`uke`uke.



I didn't know before, but now I know hā`uke`uke...

I learned hā`uke`uke sea urchins \_\_\_\_\_