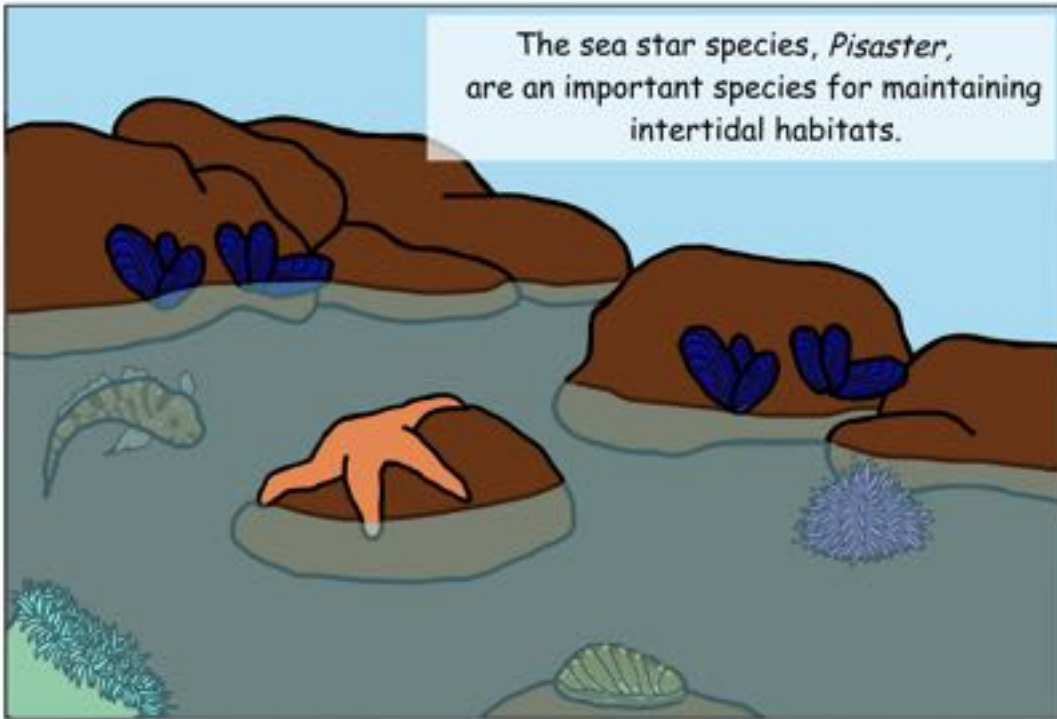


The sea star species, *Pisaster*, are an important species for maintaining intertidal habitats.



Luckily, *Pisaster* are ferocious predator that love to eat mussels.



Without *Pisaster*, fast growing mussels will out compete and overgrow tidal habitats.





However, we have seen about **80%** of sea stars die off over the past few years.






Symptoms range from:

Lesions 

Arm twisting 

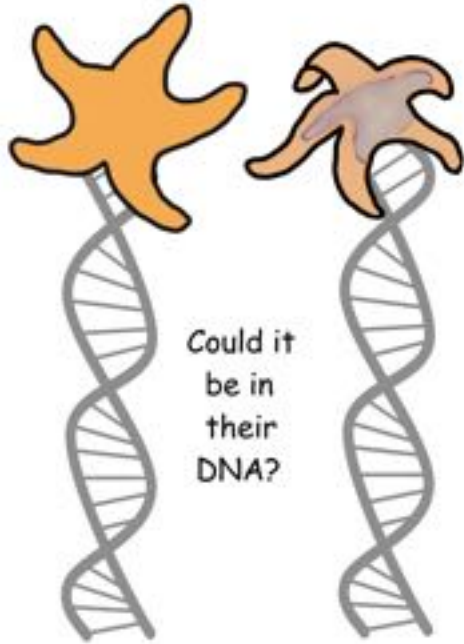
Tissue decay 

Symptoms usually result in death

However, among sick Pisaster are perfectly healthy Pisaster.

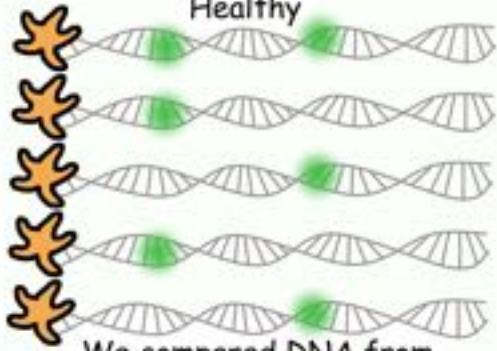


Why did some individuals not get sick?

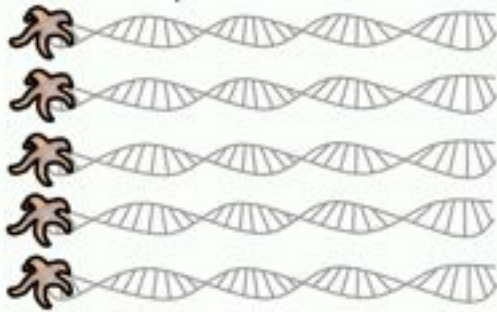


Could it be in their DNA?

Healthy



We compared DNA from healthy and sick Pisaster.



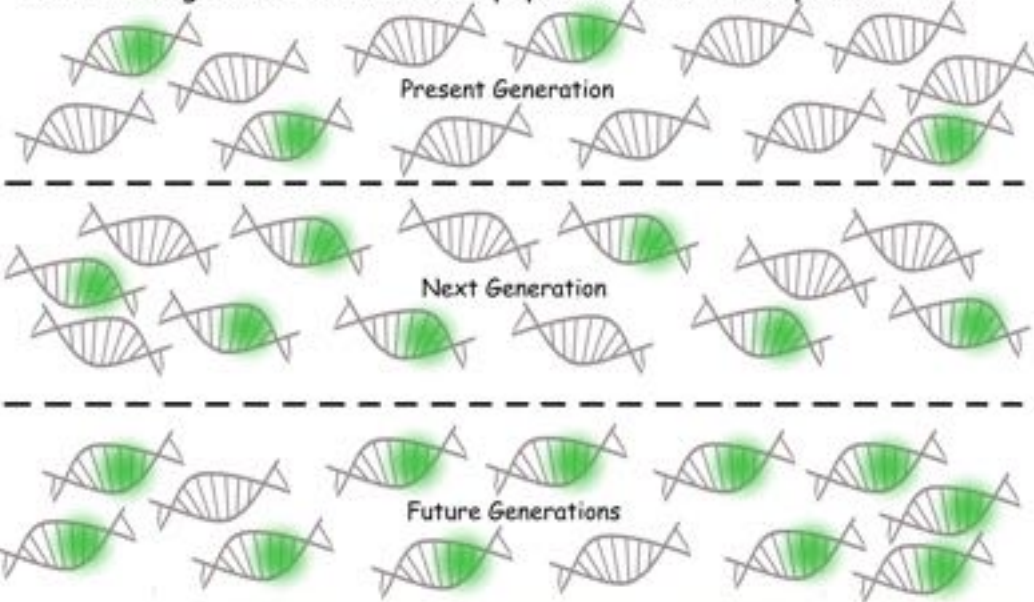
Sick

We found a number of regions in the genome regions that are more common in healthy than in sick individuals.



These regions of the genome can be passed on from one generation to the next.

This means genes in the *Pisaster* populations could adapt over time.

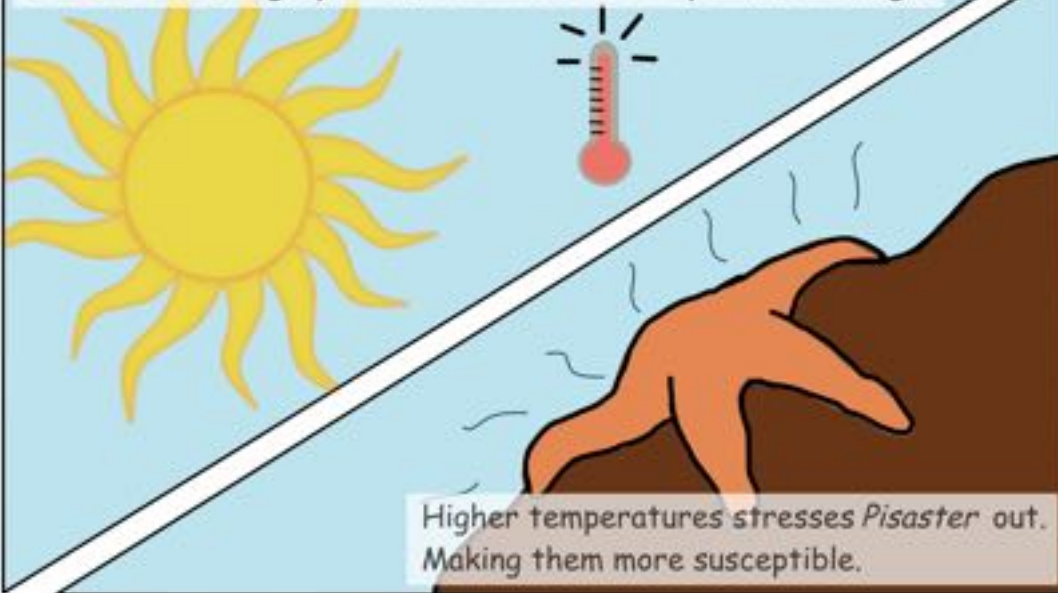


Enabling more
Pisaster to survive



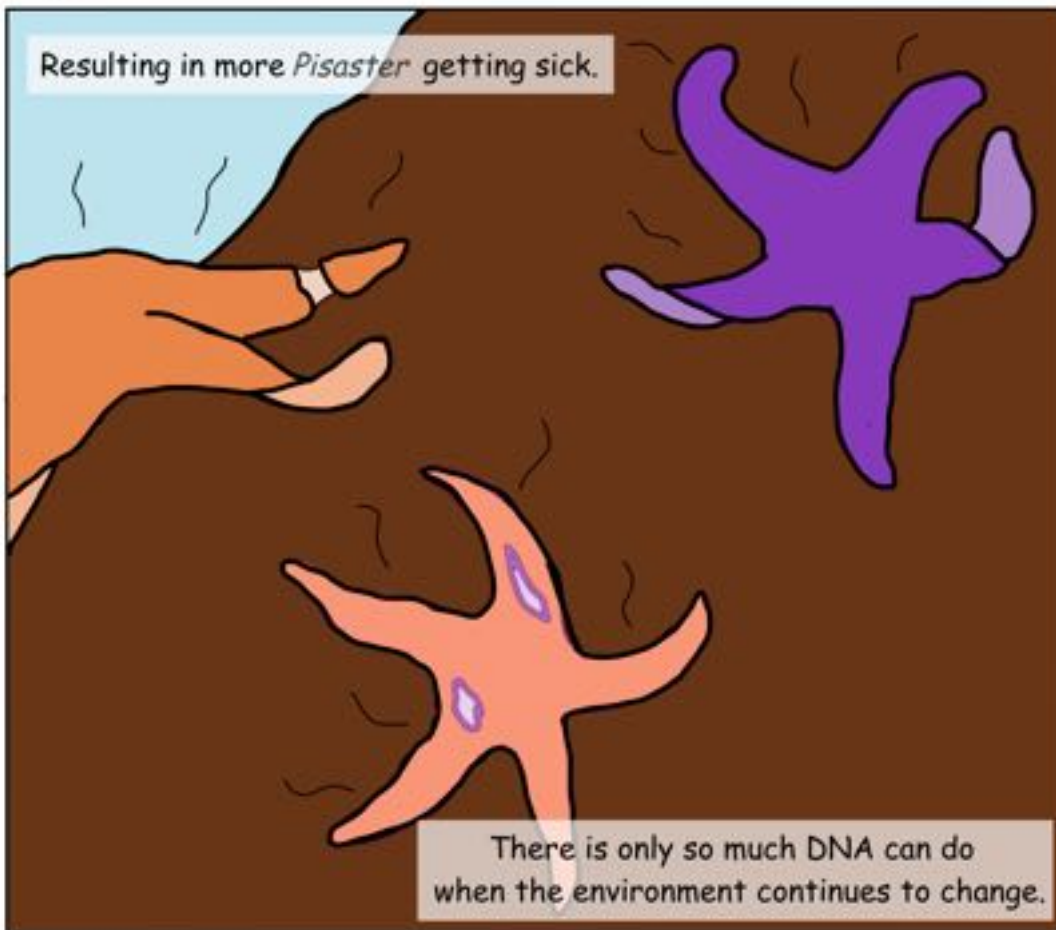
But it's not over yet.

Sea Star Wasting Syndrome is exacerbated by climate change.



Higher temperatures stresses *Pisaster* out. Making them more susceptible.

Resulting in more *Pisaster* getting sick.



There is only so much DNA can do when the environment continues to change.

Pisaster and other sea stars species require ongoing monitoring.

We want to make sure that their populations aren't completely wiped out



Pisaster recovery is important to maintain balance in intertidal habitats