

#### 5 min

To start, please draw 5 coral reef, 5 deep sea, 5 mangrove, and 5 hydrothermal vent ecosystems. In the Mangrove



ecosystems draw 20 jellyfish, 20 oysters, and 20 snails. In the coral reef ecosystem draw 20 rays, 20 sea stars, and











40 fish. In the hydrothermal ecosystems draw 20 spider crab, 20 anemones, and 20 gastropods. In the deep sea







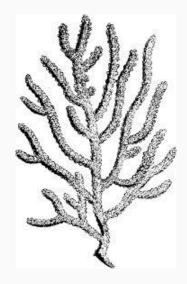


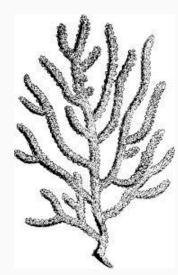
ecosystem draw 20 squid.



### 30 seconds

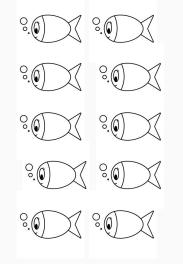
Your coral reef is thriving and spreading! Add 2 more reefs!





#### 1 min

One mating season has passed in the reef! Add 10 more fish, 5 more sea stars and 5 more rays to your coral ecosystem













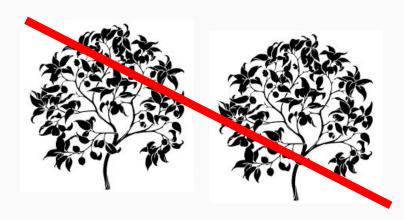






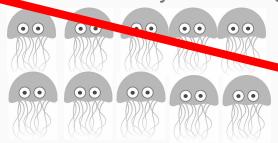
### 30 seconds

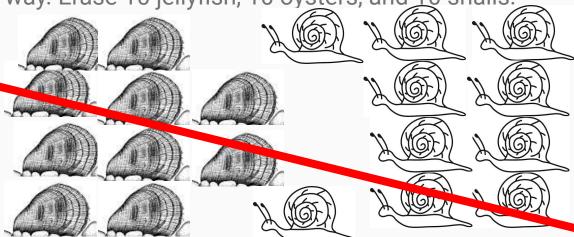
Shrimp farmers have found 2 of your mangroves! Erase 2 of your mangroves



#### 1 min

The jellyfish, oysters, and snails that lived in the two mangroves that became shrimp farms had to move to the next closest mangrove! Some of them unfortunately died along the way. Erase 10 jellyfish, 10 oysters, and 10 snails.





### 15 seconds

Climate change is warming up your reefs, killing them! Erase 1 of your reefs.



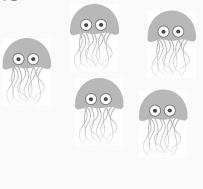
### 45 seconds

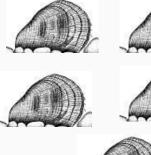
The animals that lived in the reef decided not to move and died with the reef. Erase 10 fish, 5 rays, and 5 sea stars



### 30 seconds

A mating season has passed in your mangrove! Add 5 jellyfish, 5 oysters, and 5 snails









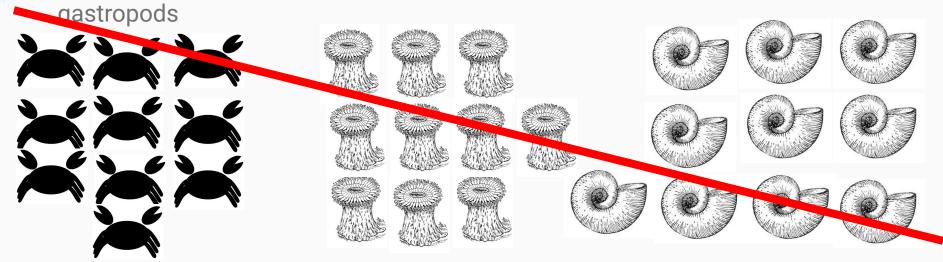






#### 1 min

A pipe down by one of your hydrothermal ecosystems bursts making the animals that live there sick and die. Erase 10 spider crab, 10 anemones, and 10



### 30 seconds

You patch the pipe and clean up the water just in time for the mating season to pass! Add 3 spider crab, 3 anemones, and 3 gastropods















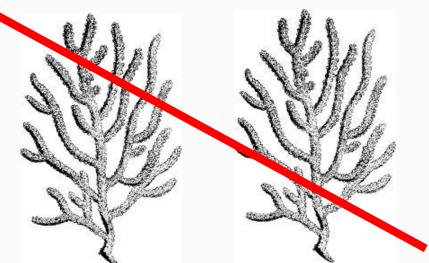




#### 15 seconds

Climate change further warms the reefs and 2 more of your reefs die. Erase 2

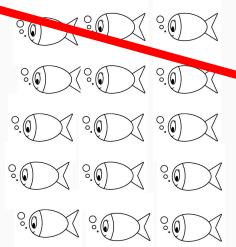
reefs.



### 45 seconds

The animals in these reefs decide not to move again! They die along with the

reef. Erase 15 fish. 10 sea stars, and 10 rays





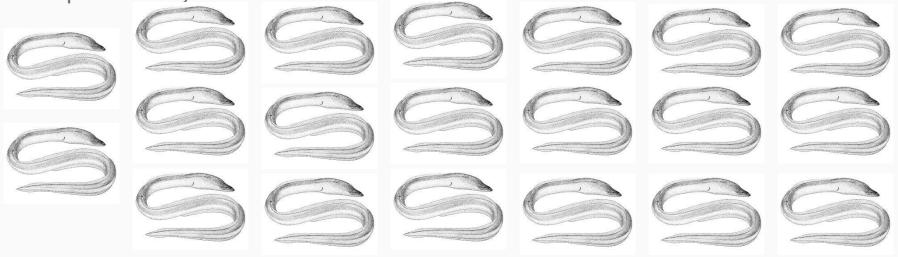






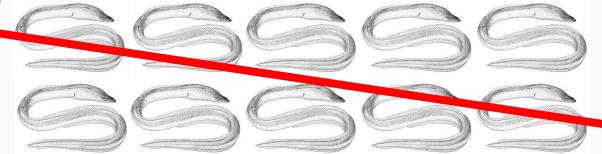
#### 35 seconds

A new species was discovered in the deep sea ecosystem! Add 20 eels to the deep sea ecosystem



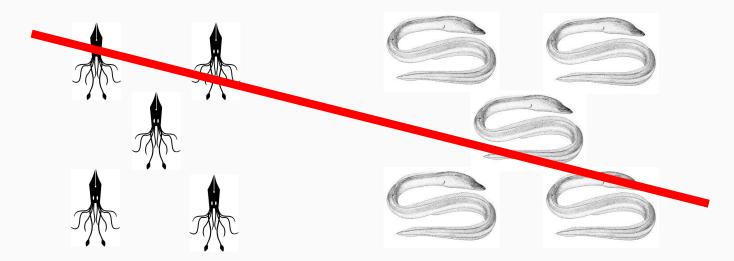
### 20 seconds

You discover that while your vehicles were down in the deep sea ecosystem, they accidentally brought an invasive species with them that killed off some of your eels! Unfortunately it will take some time to go down that deep again with all of the pressure and lack of light, You can't do anything for a while to stop the invasive species. Erase 10 eels.



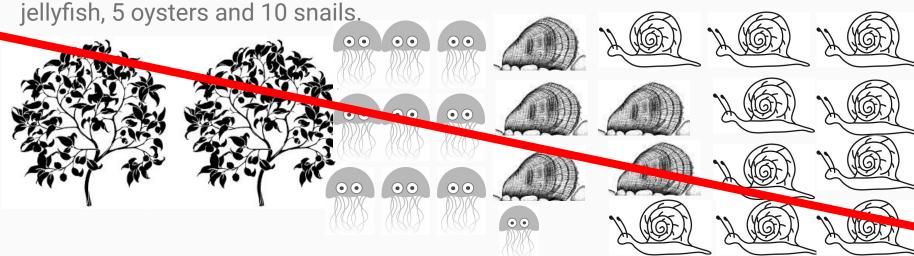
### 25 seconds

A mating season has passed in the deep sea ecosystem! Add 5 squid and 5 eels.



#### 45 seconds

Humans dump 2 tons of trash into your mangrove killing some of the ecosystem by blocking the roots and killing the animals. Erase 2 mangroves, 10 iollyfish. 5 eveters and 10 enails.



### 15 seconds

You hold a cleanup for the trash dumped into the mangroves and replant 3 mangroves. Add 3 mangroves







### 5 seconds

Climate change makes the temperature rise again in the reef! More of your coral reef dies off! Erase 1 reef.



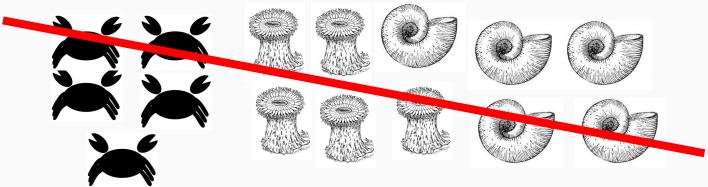
### 25 seconds

You add an artificial reef made out of a sunken boat right near the dying reef and the animals living in the dying reef move there! One mating season passes for the reef ecosystem! Add 5 fish, 5 rays, and 5 sea stars



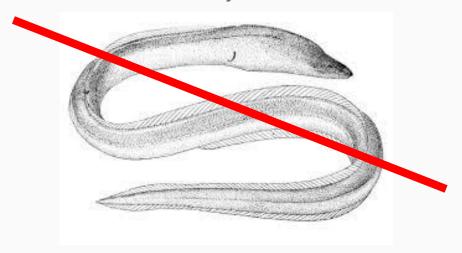
### 15 seconds

A passing ship leaves its mark on a hydrothermal vent by introducing an invasive species that takes its toll on the animals living there. Erase 5 spider crab, 5 anemones, and 5 gastropods



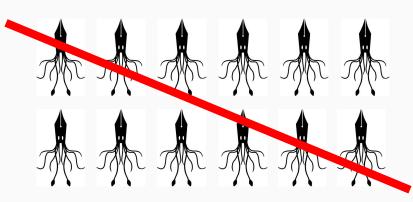
### 10 seconds

The invasive species in the deep makes you lose all of the eels that you knew existed. Eels go extinct. Erase all of your eels.



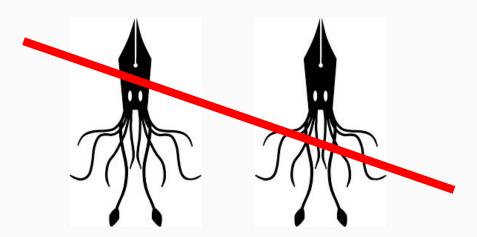
### 10 seconds

The invasive species in the deep turns out to also be affecting the squid. You lose half of your squid! Erase 12 of your squid.



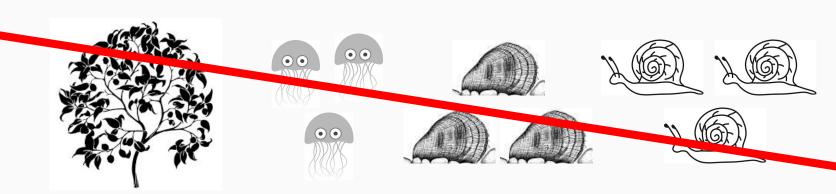
### 5 seconds

You are now able to go down and take out the invasive species from the deep sea ecosystem. But you are not in time to save 2 squid. Erase 2 squid.



#### 10 seconds

Oil spill in your mangroves! The lack of light makes one mangrove die and along with the ecosystem went some of the animals living there. Erase 1 mangrove, 3 jellyfish, 3 snails and 3 oysters.



### 10 seconds

One mating season passed in the mangroves! Add 1 jellyfish, 1 snails, and 1 oysters.

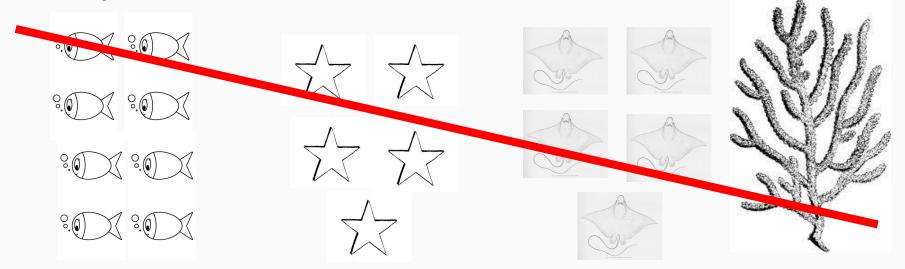






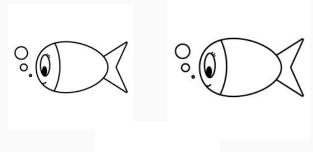
### 15 seconds

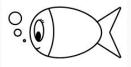
Humans build a new pier which took out one of your coral reefs! Erase 1 reef, 8 fish, 5 rays, and 5 sea stars.



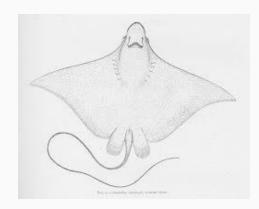
### 5 seconds

Humans build another artificial reef to replace the one they wrecked. One mating season passes in the reef. Add 3 fish, 1 ray and 1 sea star.



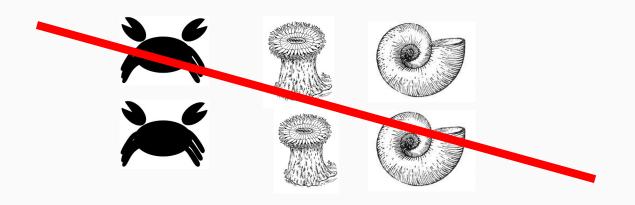






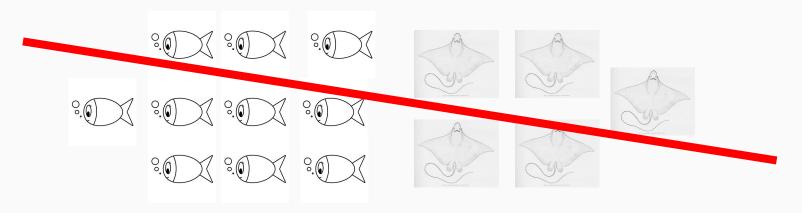
### 5 seconds

Trash is dumped into the ocean and ends up in the thermal vents killing some animals. Erase 2 spider crab, 2 anemones, and 2 gastropods



### 10 seconds

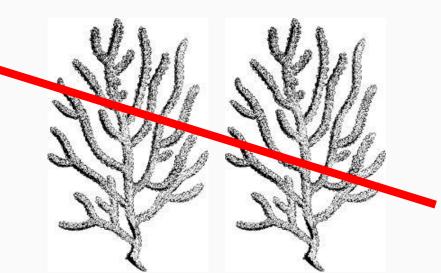
Some more of the trash end up at the reefs. The fish and rays mistake it as food! As a result the fish and rays die. Erase 10 fish and 5 rays



#### 5 seconds

Climate change takes out your two remaining reefs! Erase 2 reefs. Coral is now

extinct.



### **Game Over!**

Count up your remaining ecosystems and species!