

Find this creature!

Name: Weedy Sea Dragon

What are 3 limiting factors in an aquatic ecosystem? (Limiting factors: Environmental factors that influence population size)

Nutrients/food, space, predators, sunlight, climate

What are 3 different factors limiting the carrying capacity of a tank at the aquarium?

Dissolved O₂, ammonia levels, salinity, H₂O purity, how fast filtration can clean, number of hiding places

What is added to the water at the aquarium to clean it? What is removed?

Ozone & air bubbles added; waste, debris, bacteria, viruses, chlorine, fluoride removed

Find two organisms that share a symbiotic relationship. Explain how each benefit.

Polyps and algae in rainbow reef tank, clownfish & anemone, upside down jellies & algae, groupers & little fish

Why is the size of the grouper, octopus and halibut tanks not a limiting factor to each creature's aquatic ecosystem?

All these creatures are in tanks specially designed for them. Groupers prefer small enclosed spaces so they don't feel exposed. The octopus tank is meant to mimic a cave where an octopus would naturally hide in. The halibut do not need large spaces to swim if they are not hunting for food and prefer to lay on the bottom of the ocean floor

STUDENT NAME: _____

Identify a fish that is considered an invasive species. What makes it so dangerous?

The red lionfish is an invasive species to the Caribbean and tropical western Atlantic. They have very few predators, are carnivores at the top of the food chain, they can outcompete native fish, they can expand their stomachs up to 30X the normal volume, they will eat anything, can reproduce extremely quickly (release egg masses every 4 days; 2 million eggs/year), remove grazing and cleaning fish

Sea lampreys are parasitic pests. They attach to fish with their suction mouth and teeth, and use their tongue to rasp through a fish's scales and skin so they can feed on its blood and body fluids. A single sea lamprey will destroy up to 18 kg (40 lb) of fish during its adult lifetime. Sea lampreys are so destructive that, under some conditions, only one out of seven fish attacked will survive. Sea lampreys prey on all types of fish, such as lake trout, salmon, rainbow trout (steelhead), brown trout, whitefish, yellow perch, burbot, walleye, catfish, and even sturgeon.. More than 40 million people depend on the Great Lakes for food, drinking water, and recreation. The fishery alone generates up to \$7 billion for the region annually, offering recreational angling opportunities for five million people and providing 75,000 jobs.

STUDENT NAME: _____