



Seadragon Q & A with Leslee Matsushige and Paula Carlson

Seadragons in Aquarium Care

Leslee Matsushige and Paula Carlson are members of the IUCN SSC Seahorse, Pipefish and Seadragon Specialist Group, the global expert group for the conservation of these fishes. Leslee is Associate Curator at Birch Aquarium at Scripps Institution of Oceanography (USA) while Paula is Director of Husbandry at The Dallas World Aquarium (USA) and Ex Situ Focal Point for the Specialist Group.

What are seadragons?

Seadragons are an extraordinary group of fish that are related to seahorses and pipefish. They are ornately camouflaged with leaf-shaped appendages on their bodies to conceal themselves in their seaweed and seagrass habitat in Southern and Western Australia. There are three species of seadragons, the leafy seadragon, weedy seadragon and the newly discovered ruby seadragon.



(Left) Weedy Seadragon by Greg Rouse/Scripps Oceanography. (Right) Leafy Seadragon by Leslee Matsushige/Birch Aquarium.

Why are they held in aquarium collections?

Seadragons are popular in aquariums, capturing people's curiosity because they are such an unusual fish. Because of this, they serve as excellent ambassadors for their natural environments. Aquariums around the world educate people on the amazing diversity in our oceans, with the hope that people will in turn protect and preserve our oceans.

Where can people visit seadragons in an aquarium?

Many public aquariums around the world have weedy seadragons on display. A few aquariums may have leafy seadragons also on display, but this is more rare due to limited availability. Check your local aquarium's website which may inform you if they have seadragons on display.



Birch Aquarium at Scripps by Erik Jepsen.

Where do aquariums get their seadragons?

Many aquariums acquire their seadragons from aquaculture facilities in Australia that raise seadragons that are born in human care. In recent years, a few aquariums have achieved successful breeding of weedy seadragons at their facilities, sharing them with other aquariums around the world.

Why are seadragons tricky to breed and raise in aquariums?

Seadragons can be difficult to breed and raise in aquariums because they are very particular feeders that require a specific type of food to keep them healthy — mysid shrimp. In addition, seadragons typically require much cooler water temperatures than most other marine fishes. However, with proper nutrition and appropriate habitats, they can thrive in aquarium care.

How are aquariums doing at breeding seadragons?

In the past decade, the number of aquariums that have been successful at raising weedy seadragons has grown! This is because successful aquariums have shared their techniques and knowledge with fellow seadragon aquarists, fostering a collaborative learning environment! While successful breeding of leafy seadragons has not yet occurred in an aquarium, public aquariums believe that with continued research and collaboration, successful reproduction of this species will occur in the future.

See this link for a successful breeding event at Birch Aquarium at Scripps:

<u>Birch Aquarium: Egg-citing Weedy Seadragon News</u>



(Right) Male Weedy Seadragon with newly hatched babies by Jordan Tomasek/Birch Aquarium. (Left) Weedy Seadragon babies at 2 days old by Jordan Tomasek/Birch Aquarium.

What have aquariums learned from keeping seadragons?

Aquariums have learned that live mysis shrimp is the preferred food for seadragons, contributing to their overall health and increased likelihood of breeding. Deeper habitats enhance the breeding success of seadragons so exhibits with increased vertical space help facilitate their unique breeding behavior! Females will transfer their eggs to the underside of the male's tail as they engage in an elaborate courtship "dance." The male then carries the developing embryos until they hatch.

Are aquariums planning to release seadragons to the wild?

There isn't currently a need to release seadragons back to their natural environment.

Successful rearing of seadragons in an aquarium environment establishes a sustainable population in human care, reducing the need for removing seadragons from their native waters.

How else can aquariums help with seadragon conservation?

Public aquariums contribute to seadragon conservation by raising awareness about these spectacular fish. Educating guests about threats to these species and how people can play a role in protecting this fragile species and their habitat is key. Aquariums can also encourage visitors to contribute financially to seadragon research and citizen science monitoring programs.

What's your favorite seadragon story?

An interesting seadragon story is the discovery of the Ruby Seadragon! This newly discovered species was stumbled upon from a few preserved specimens in Australian museums. Initially misidentified, new DNA tissue sampling technology revealed it to be an entirely different species that lives in deep ocean depths in Southern Australia.

See the story here:

New Species, The 'Ruby Seadragon' Discovered By Scripps Researchers

See video story here:

Ruby Seadragon First Glimpse in Wild