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Oceanography  
Homework 2: Marine Organisms

**Assignment:**

Pick a marine organisms of any kind (extremophile bacteria, seaweeds, dolphins).  
Classify it by taxonomy, location, feeding method, etc.  
Tell us what makes this organism oceanographically interesting!

**Description of project:**

This is a painting of an imaginary world combining the **Great Barrier Reef & coral fish** with the moon and a couple of planets and some ancient Mayan & African masks. It was inspired from a combination of this class and Mesoamerican Art History. The name of the piece is "Connected" and is 11 x 22 in Acrylic on a wood panel. The fish in the painting are a **clown fish and a pennant coral fish**.

**Scientific Information:**

***Clown fish:***

Kingdom: Animalia  
Phylum: Chordata  
Class: Actinopterygii  
Order: Perciformes  
Family: Pomacentridae  
Subfamily: Amphiprioninae

***Pennant Coral fish:***

Kingdom: Animalia  
Phylum: Chordata  
Class: Actinopterygii  
Order: Perciformes  
Family: Chaetodontidae  
Genus: Heniochus  
Species: H. acuminatus

Both of these fish can be found around the Great Barrier Reef off the coast of Queensland in northeast Australia. The reef contains an abundance of marine life and has over 3000 individual reef systems and coral cays in addition to hundreds of tropical islands with some of the world's most beautiful beaches.

This area is of particular interest because The Great Barrier Reef can be seen from outer space and is the world's biggest single structure made by living organisms. This reef supports a wide diversity of life including the clown fish and pennant coral fish.

Clown fish feed on small invertebrates which otherwise potentially could harm the sea anemone, and the fecal matter from the clownfish provides nutrients to the sea anemone. Clownfish are omnivores. Algae are about 25% of its diet. It has also been suggested that the activity of the clownfish results in greater water circulation around the sea anemone. In addition to providing food for the clownfish, the sea anemone also provides safety due to its poison. The sea anemone and the clownfish have a mutualistic relationship.

The pennant coral fish is mostly black and white, with an elongated dorsal fin making the fish reach around 25 cm. The fish's caudal, anal and pectoral fins are most commonly bright yellow. The pennant coalfish eats mostly plankton in the wild but are omnivorous in an aquarium setting.

References:

Information:

Clownfish:

<http://www.reeftime.com/profiles/marine-fish-information/ocellaris-clownfish/100001.htm>

Pennant Coral fish:

<http://animals.nationalgeographic.com/animals/fish/butterflyfish/>

[http://www.redorbit.com/education/reference\\_library/fish/pennant\\_coralfish/2268/index.html](http://www.redorbit.com/education/reference_library/fish/pennant_coralfish/2268/index.html)

For images:

<http://www.oceanfootage.com/stockfootage/Pennantfish/owner%3Dskipstubbs>

<http://animals.nationalgeographic.com/animals/fish/clown-anemonefish.html>