



## ***Teacher's Guide***

### **Venomous Marine Adaptations** **The Living Oceans**

#### **Grade Levels:**

Junior High  
High School

#### **Subject Areas:**

Biology  
Life Sciences  
Environmental Education

#### **Synopsis:**

Live-action film footage captures the mysteries of venomous marine creatures such as nudibranchs, sea anemones, jellyfish, moray eels and scorpion fish. Although these creatures can be fearsome predators, their defensive behaviors are also illustrated to highlight the predator/prey relationship that is a fact of life in marine environments. Other creatures, like hermit crabs, are shown to benefit from the protection offered by venomous marine animals. The final segment explores the reasons why scorpion fish have been successful in all the oceans of the world.

#### **Learning Objectives:** Students will:

- Describe defensive adaptations of venomous marine animals.
- Provide examples of mutualism between venomous and non-venomous marine animals.
- Explain why scorpion fish are able to thrive in any marine environment.
- Appreciate the ecology of predator/prey relationships in marine environments.

#### **Vocabulary:**

nudibranchs, tentacles, nematocysts, cerata, navanax, proboscis, pectoral fins, flamboyant, dorsal fins

#### **Pre-Viewing Discussion:**

What is the meaning of the term “venomous”?

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Do venomous creatures inhabit marine environments? Can you name some of them?

What is a scorpion fish? What does its name mean?

How could an animal such as a hermit crab benefit from living near a venomous sea creature?

**Post-Viewing Discussion:**

Why are scorpion fish such successful marine animals?

How does the nudibranch obtain its poisonous defenses?

Why would a moray eel prey on a scorpion fish?

What venomous marine animal paralyzes its prey?

How do other sea creatures benefit from living near venomous marine animals?

**Further Activities:**

Do further research on any of the species mentioned in this program.

Investigate the habits and behavior of the Portuguese Man o' War.

Find out if there are other venomous marine animals that were not mentioned in this production.

Find out how doctors treat patients who have been stung by jellyfish.

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