

# AquaQuest Answers

## Grades 6-8

### **Tropical Cove**

1. To climb trees or to crack open hard nut shells, or hang from their beaks playfully.
2. Dermal denticles
3. From the patterns on their bodies.

### **Butterfly Garden**

4. Bright colors can warn predators that they may be poisonous or bad tasting, also bright colors can scare predators, like the Blue Morpho. It has a dark color on the underside of the wings for camouflage, but when it spreads its wings, the bright blue color can scare off would-be attackers. Bright colors may also help to attract a mate.
5. Eyespots can confuse the predator as to where the 'head' of the body is, so instead of attacking the head, the butterfly can trick the predator and is able to escape. Eyespots may frighten a small predator if it thinks a large animal has suddenly made its eye visible.

### **Penguins' Rock**

6. b. 17
7. Counter-shading
8. Southern
9. Orcas, sharks, seals, birds, foxes

### **Secret Reef**

10. The Secret Reef represents the Flower Garden Banks National Marine Sanctuary, which is located 110 miles off the coast of Texas in the Gulf of Mexico.
11. Answers may vary--The coral reef is very colorful, so colorful fish blend in or are camouflaged in the colorful reef. Bright colors may help to attract a mate.

### **Boneless Beauties**

12. They can weigh up to 40 pounds full grown.
13. This gives the octopus enrichment, or activities to help stimulate its mind. The Giant Pacific Octopus has the intelligence of a three year old child. So instead of handing food to the octopus, they put it in jars and toys to give the octopus something to do so it won't get bored. If an octopus gets bored, it can become destructive to its exhibit or aggressive to its keeper and try to escape. It can also get sick and depressed.

### **Seahorse Gallery**

14. They live in water, breathe using gills, and move with fins.
15. The male seahorse carries the fertilized eggs and gives birth to the young.

### **Cove Forest**

16. They use their venom primarily to kill their prey so they can eat. Venom can also be used as a last resort to protect the snake from harm, but venomous snakes only rarely bite in defense.
17. Answers will vary. Brook trout have distinct white strips bordering most of their fins. Brown trout have large red spots speckled along their bodies, but have no spots on their tails or

paired fins. Rainbow trout have an iridescent red to pink stripe that runs along the side of their bodies.

### **Discovery Hall**

18. Mother alligators build large nests and protect these nests. Once the young gators hatch the mother will carry them to the water in her mouth. She guards the young for three years protecting them from predators and responding to their chirping distress signals.
19. Answers will vary – like leather, rubber. Sturgeon do not have scales like most fish. They have rows of hard plates with skin stretched over them for protection.
20. Answers will vary- habitat loss, climate change, pollution, a parasitic fungus called 'amphibian chytrid'.

### **Delta Swamp**

21. The mud floor of the swamp is black. Dead and decaying leaves release a tannin that can dye the water.
22. The alligator snapper remains very still on the bottom with its mouth open and lures fish with a wiggling worm-like appendage on its tongue. When a hungry fish gets too close, the turtle quickly slams its extremely strong jaws shut to capture its meal.
23. Preening with oil waterproofs their feathers.

### **Gulf of Mexico**

24. Smaller fish use the roots for shelter and protection from larger fish.
25. It gains a wider field of vision. By slowly scanning the head side to side, a larger area can be surveyed.

### **Rivers of the World**

26. Piranha become aggressive when food is scarce and there is increased competition for food and space. This usually occurs during the dry season when the river recedes.
27. Green sea turtle

### **Turtle Gallery**

28. Flat and flexible soft shell. They have thin bones and wide gaps between the carapace bones.

### **Tennessee River Gallery**

29. 19 species.
30. Earthquake.

### **Lake Nicaragua**

31. They have so many fry because predation is so high and most of the fry will be eaten.
32. They guard their fry so that predators will not eat them.

### **Flooded Amazon Rainforest Exhibit**

33. Arapaima. Top of the tank. Any reasonable answer such as its mouth is upturned and feeds at the surface, therefore spends the majority of its time there.

