

# Advanced Scavenger Hunt

*Start inside the Galleria!*

## The Bay

1. Find a shark that hunts at night.
2. Find the large, bright orange fish (the state marine fish of California.) Write its name here: \_\_\_\_\_
3. How long can a spiny lobster live?
4. How many eels can you find?
5. How much of a moon jelly's body is made of water?

## The Marsh

1. Find a fish with venomous spines.
2. What can an octopus do to help it camouflage?

## The Uplands

1. Name three animals at the Nature Center that live in the upland habitats.
2. Find an 8-legged animal that lives in the uplands. \_\_\_\_\_
3. When birds migrate along the Pacific Flyway, where do they go?
4. How many people currently live in the Sweetwater River Watershed? \_\_\_\_\_ Are you one of them? \_\_\_\_\_

*Time to head outside!*

## Shark & Ray Experience (Turn right when you enter.)

1. What is the shape of most rays' teeth?
2. What is the name of the opening on the top of the head of rays and guitarfish that carry water to their gills?
3. Which county in the U.S. has more species of endangered plants and animals than any other county?
4. How many pups can a female shark or ray produce during her lifetime? What about a bony fish?
5. Observe the sharks as they swim; do they move their caudal fin (tail) side to side or up and down to swim?

## Chula Vista's Fossil Bay

1. Three million years ago what areas were covered by the large fossil bay?
2. How many fossil species have been found there?
3. How many marine invertebrates that lived 3 million years ago still live today?



**Marsh Observation Deck** *(Now go to the deck on your left.)*

1. What are the four refuges that comprise the San Diego National Wildlife Refuge Complex?

**Burrowing Owl Exhibit** *(Now walk down the ramp for your next questions.)*

1. Why would a burrowing owl imitate a rattlesnake?

**Shorebird Enclosure** *(Now take the boardwalk to the aviary.)*

1. How many different shorebirds can you spot within the large aviary? See if you name one!
2. What does a clapper rail eat? *(Hint: Look at the dinner plates.)*

*(After you exit the aviary)...*

1. What bird is thought to be extinct in San Diego County?
2. Why is the coyote a “friend” of clapper rails?

**Eagle Mesa and Raptor Row** *(Now follow the path to your left, to Eagle Mesa.)*

1. What are the three things all raptors have in common?
2. Why are raptors important?
3. How many pounds of pressure per square inch can an eagle’s toes squeeze?
4. How is raptor vision better than ours?
5. Why do owls move their heads in order to look from side to side?
6. Which hawk is the most common in the United States?

**Turtle Lagoon**

1. How long can Eastern Pacific green sea turtles live?
2. Count how many seconds one holds its breath and write it here: \_\_\_\_\_
3. What do they use their flippers for?
4. Sea turtles are endangered- True or False?

**Composting Garden** *(Now continue towards the Composting Garden.)*

1. What does composting save?
2. What kinds of things can you compost?

**Bay Observation Deck** *(Now go up the ramp to the Bay Observation Deck)*

1. How did the native people use the plants and animals of Sweetwater Marsh?
2. When was the marsh and upland designated as a national wildlife refuge?
3. Name one living thing you can see from the Observation Deck?
4. What is your favorite animal at the Nature Center?

# Advanced Scavenger Hunt

## ~Answers~

### The Bay

1. Find a shark that hunts at night. *Horn Shark, Swell Shark*
2. Find the large, bright orange fish (the state marine fish of California.) Write its name here: Garibaldi
3. How long can a spiny lobster live? *Up to 30 years*
4. How many eels can you find? *Answer based on current number of eels on exhibit*
5. How much of a moon jelly's body is made of water? *97%*

### The Marsh

1. Find a fish with venomous spines. *California Scorpionfish*
2. What can an octopus do to help it camouflage? *Change color, shape, and even texture*

### The Uplands

1. Name three animals at the Nature Center that live in the upland habitats. *Any animal currently on exhibit in the upland area*
2. Find an 8-legged animal that lives in the uplands. Desert Tarantula
3. When birds migrate along the Pacific Flyway, where do they go? *South America*
4. How many people currently live in the Sweetwater River Watershed? Are you one of them? *300,000 people*

### Shark & Ray Experience

1. What is the shape of most rays' teeth? *Flat, molar-like teeth for grinding shellfish*
2. What is the name of the opening on the top of the head of rays and guitarfish that carry water to their gills? *Spiracles*
3. Which county in the U.S. has more species of endangered plants and animals than any other county? *San Diego County*
4. How many pups can a female shark or ray produce during her lifetime? What about a bony fish? *200; millions*
5. Observe the sharks as they swim; do they move their caudal fin (tail) **side to side** or up and down to swim?

### **Chula Vista's Fossil Bay**

1. Three million years ago what areas were covered by the large fossil bay? *Tijuana, Chula Vista, San Diego*
2. How many fossil species have been found there? *470*
3. How many marine invertebrates that lived 3 million years ago still live today? *90%*

### **Marsh Observation Deck**

1. What are the five refuges that comprise the San Diego National Wildlife Refuge Complex? *Tijuana Slough NWR, Sweetwater NWR, South San Diego Bay NWR, Otay/Sweetwater NWR, Seal Beach NWR*

### **Burrowing Owl Exhibit**

1. Why would a burrowing owl imitate a rattlesnake? *Defensive hiss to keep predators from entering their den*

### **Shorebird Enclosure**

1. How many different shorebirds can you spot within the large aviary? See if you can name one! *Black crowned night heron, great egret, snowy egret, black oyster catcher, re-breasted merganser, white-faced ibis, gadwall, cinnamon teal, mallard hooded, merganser, North American ruddy duck, light-footed clapper rail*
2. What does a clapper rail eat? (Hint: Look at the dinner plates.) *Olive ear snail, insects, crabs, snails, cordgrass seeds*

### **Outside Aviary**

1. What bird is thought to be extinct in San Diego County? *The Black Rail*
2. Why is the coyote a "friend" of clapper rails? *Coyotes eat small mammalian predators (red foxes, rats, red tailed hawks) which eat rails, their eggs, and destroy their nests.*

### **Eagle Mesa and Raptor Row**

1. What are the three things all raptors have in common? *Strong toes and sharp talons, hooked beaks for tearing flesh, and excellent binocular vision*
2. Why are raptors important? *They help maintain balance in nature by controlling rodent, reptile, and insect population*
3. How many pounds of pressure per square inch can an eagle's toes squeeze? *200 pounds of pressure per sq. inch*
4. How is raptor vision better than ours? *8x more powerful than human vision*
5. Why do owls move their heads in order to look from side to side?
6. Which hawk is the most common in the United States? *Red-tailed Hawk*

### **Turtle Lagoon**

1. How long can Eastern Pacific green sea turtles live? *80 years +*
2. Count how many seconds one holds its breath and write it here: Subject to change
3. What do they use their flippers for? *To swim and females use to come onshore during nesting*
4. Sea turtles are endangered- True or False? *True*

### **Composting Garden**

1. What does composting save? *Landfill space*
2. What kinds of things can you compost? *Organic matters, lawn clippings, see board for details*

### **Bay Observation Deck**

1. How did the native people use the plants and animals of Sweetwater Marsh? *Food, medicine, dyes, and materials*
2. When was the marsh and upland designated as a national wildlife refuge? *1988*
3. Name one living thing you can see from the Observation Deck? *Possible answers: birds, squirrels, rabbits or plants*
4. What is your favorite animal at the Nature Center?