



River Rangers Field Journal

Name: _____

HUDSON RIVER PARK



Look around! What do you see?

You may be in a city but if you **OBSERVE** your environment you will notice that nature is everywhere!

Look at the river.

Is the river moving? What color is the water? What do you think lives in the water?

70 different types of fish live in Hudson River Park, including seahorses!

Look at a nearby tree.

What shape are the leaves? Is the tree trunk smooth or rough? Do you see any birds or insects on the tree?

Dragonflies, ladybugs and butterflies are just a few of the 85 different insects that are found in Hudson River Park.

Look up at the sky.

Are there clouds? How fast are the clouds moving? Can you spot a bird in flight?

Over 100 different types of birds live in Hudson River Park including water birds such as ducks, cormorants and gulls.

Your job as a River Ranger is to **INVESTIGATE** your surroundings, **DISCOVER** nature and **RECORD** what you see!

Start Exploring, Rangers!










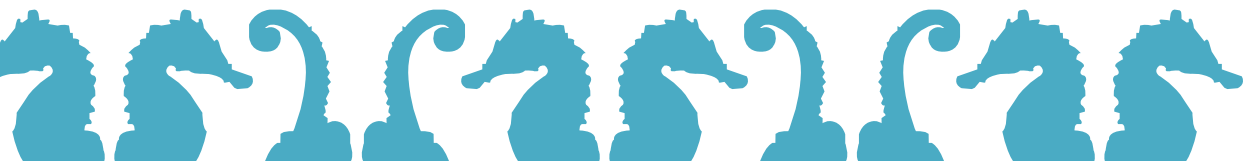


Today's Weather Conditions

River Rangers explore their surroundings by making observations and asking questions! Each week at River Rangers, our first investigation will involve the weather. Weather is the condition of the climate in a particular place at a particular time.

Compare how your measurements change throughout the summer.

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Date 								
Air Temp 								
Water Temp 								
Cloud Cover 								
Wind Speed 								
Wind Direction 								
Tide 								





Week 1 The Hudson River

The Hudson River is over 300 miles long and one of New York City's most important natural resources. The River is filled with brackish water, which means a mixture of both salt and fresh water. How does the salt and fresh water mix?

Observe the estuary model to find out. Draw your observations in the boxes below.

Prediction

Results

We call the Hudson River an estuary because of this mixture of fresh and salt water. Let's compare the difference between salt, fresh and brackish water.

Sample salt, fresh and brackish water then place a check mark next to the type of water you think it is!

	Salt	Fresh	Brackish
Sample 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample 3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>





Week 1 Observation

Look at today's critter tank! Draw a picture of what you see.

Record 2 observations about these animals.

1. _____

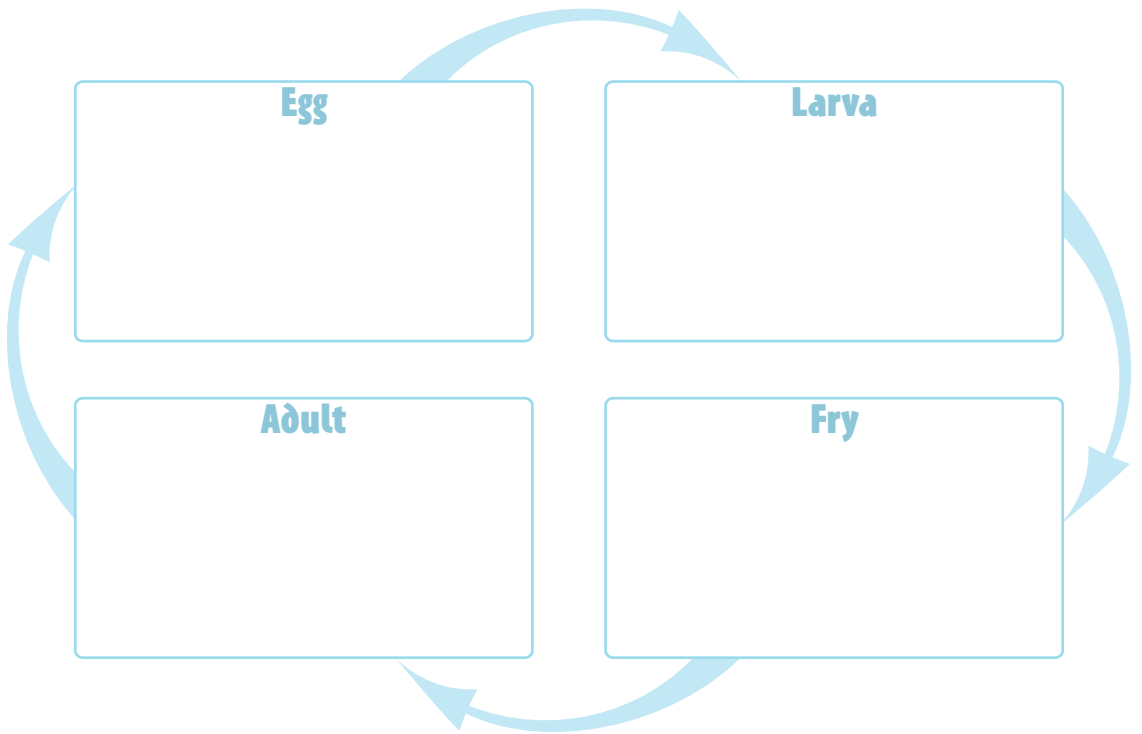
2. _____



Week 2 Fish

Over 70 species of fish are found in Hudson River Park. One of the many fish that live in park waters is the striped bass. An adult striped bass can grow to 4 feet long and weigh 40 pounds! How do they get this large? A healthy diet of mud crabs, grass shrimp & clams. Striped bass have 4 stages in their life cycle.

Draw the stages of a striped bass life cycle in the boxes below.





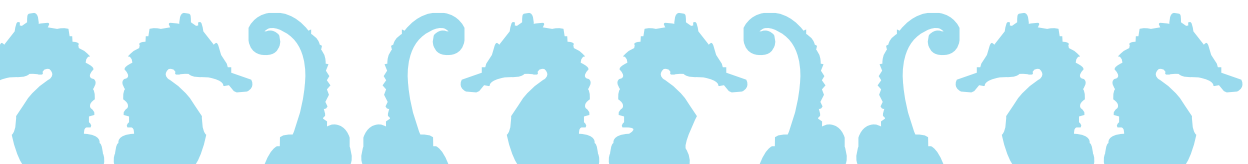
Week 2 Observation

Look at today's **critter tank!** Draw a picture of what you see.

Record 2 observations about these **animals.**

1. _____

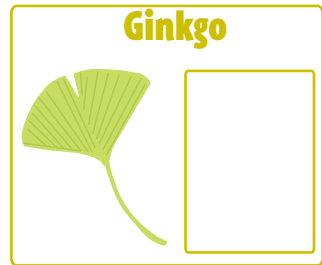
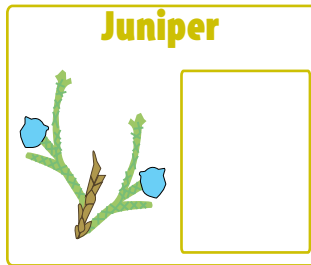
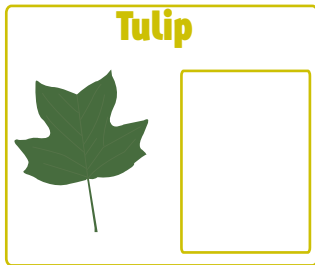
2. _____



Week 3 Seeds and Trees

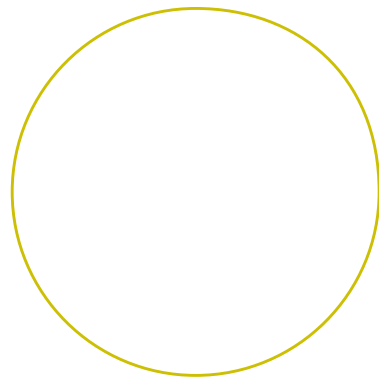
Trees offer us many benefits, such as shade and oxygen. Trees also provide birds with habitat - a home! You can identify a tree by looking at its leaves.

Look at the leaves pictured. Try to match it to the trees on the table, then stamp in the boxes next to the picture!



Ever wonder how old a tree is? If you examine a slice of a tree trunk you can count the number of rings to see a tree's age

Draw your life as a tree cookie.
How old are you? That's how many rings there should be on your tree cookie.





Week 3 Observation

Look at today's **habitat house!** Draw a picture of what you see.

Record 2 observations about **what you find.**

1. _____

2. _____



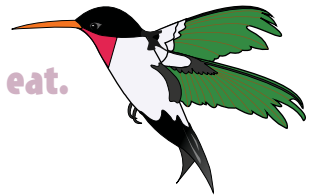
Week 4 Birds

Hudson River Park provides habitat for over 100 different species of birds! Both land and water provide important habitat for birds. See how many birds you can observe in the Park. What are these birds doing?

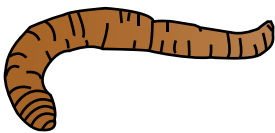
Place a check mark next to each bird behavior you see.

<input type="checkbox"/> Singing	<input type="checkbox"/> Bathing	<input type="checkbox"/> Flying
<input type="checkbox"/> Hopping	<input type="checkbox"/> Swimming	<input type="checkbox"/> Walking
<input type="checkbox"/> Perched on a tree branch	<input type="checkbox"/> Standing on the ground	<input type="checkbox"/> Perched with other birds

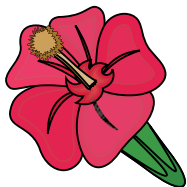
Did you know that birds do not have teeth? Instead of teeth, they use their beaks to break apart food. Bird beaks are shaped different to match the food that they eat. This ruby throated hummingbird has a long, narrow beak which functions similar to a drinking straw.



Circle the food you think the hummingbird wants to eat.



Worm



Nectar



Seeds



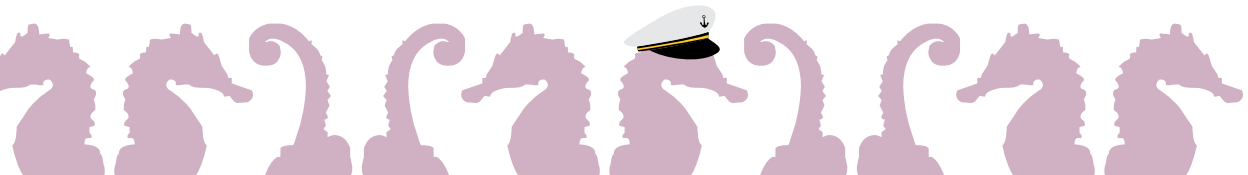
Week 4 Observation

Look at today's *habitat house*! Draw a picture of what you see.

Record 2 observations about *what you find*.

1. _____

2. _____

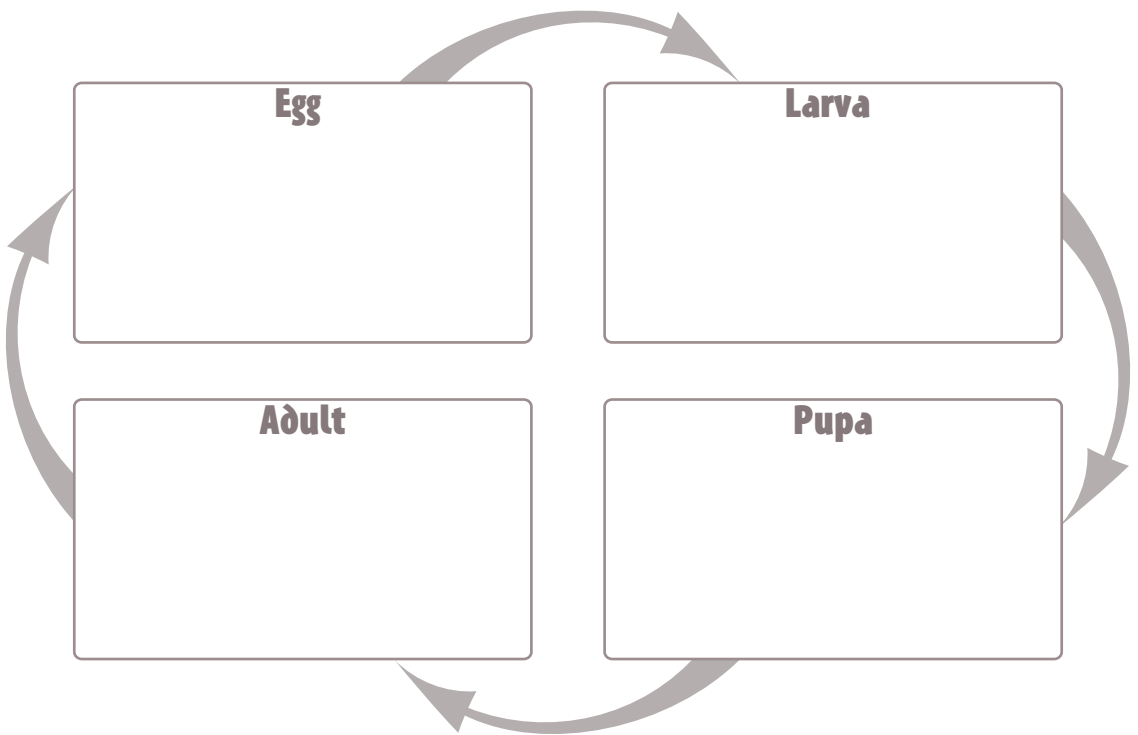




Week 5 Butterflies

During the summer, you can observe many different animals in Hudson River Park. A butterfly is an *insect* because it has 6 legs. Butterflies make an amazing transformation from a caterpillar to an adult, a process called *metamorphosis*.

Draw the stages of a butterfly life cycle in the boxes below!





Week 5 Observation

Look at today's butterfly sanctuary! Draw a picture of what you see.

Record 2 observations about these butterflies.

1. _____

2. _____



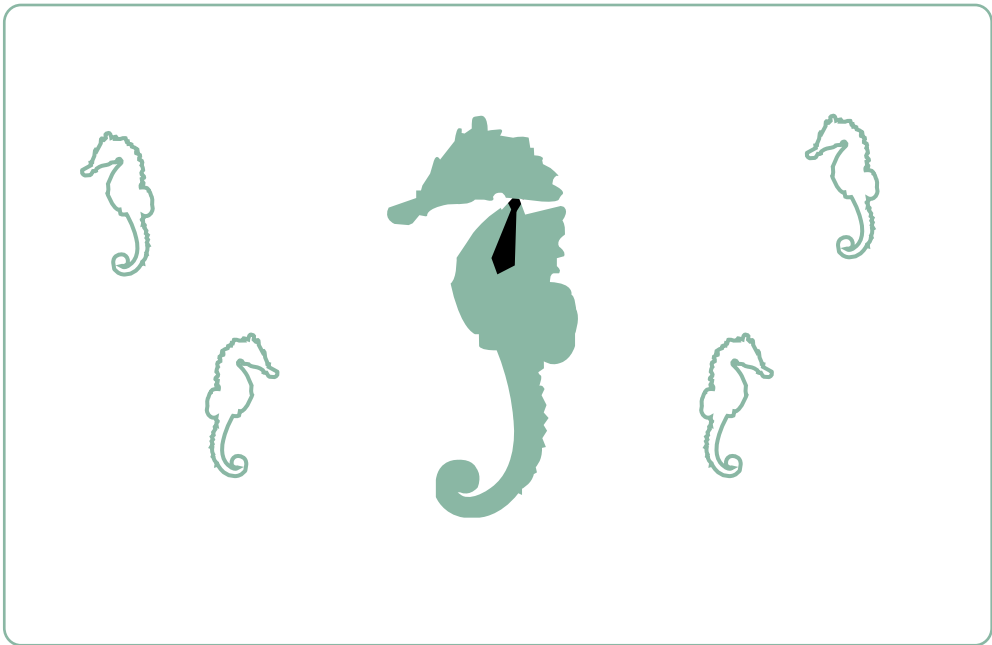


Week 6 Seahorses

Did you know that there are seahorses in the Hudson River? One unique characteristic about them is that *male seahorses* carry the babies in their pouch; not female seahorses!

When baby seahorses are born, they use their *tails* to hang on to *seagrass* because seahorses are not very strong swimmers.

Help the baby seahorses: draw seagrass for the babies to grab with their tails!





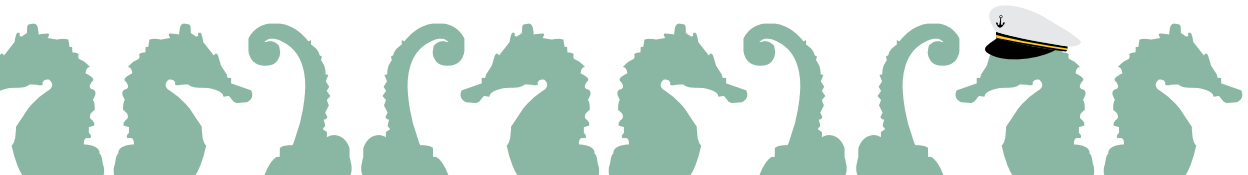
Week 6 Observation

Look at today's critter tank! Draw a picture of what you see.

Record 2 observations about these animals.

1. _____

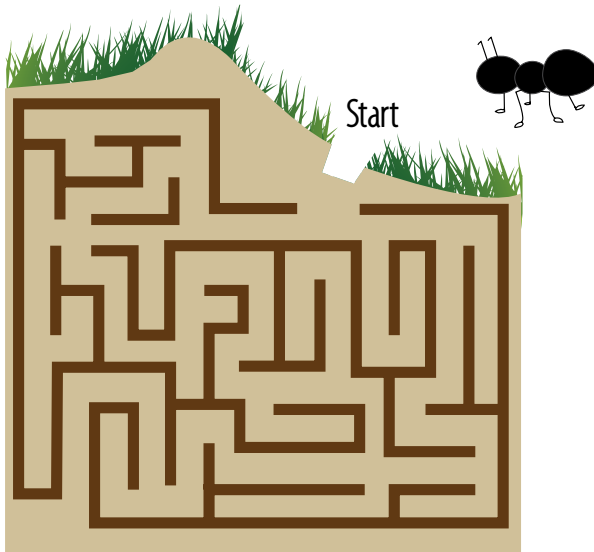
2. _____



Week 7 Ants

Look for some of the smallest critters in Hudson River Park: ants! Ants are insects with 6 legs and 2 antennae. Ants live and work together in large groups. Families of ants that live together are called *colonies*.

Help this ant find its way to the colony in this maze!



End

Everyone has their own job in the ant colony. The queen lays eggs to help the colony grow. Worker ants build nests and search for food.



Week 7 Observation

Look at today's bug bungalow! Draw a picture of what you see.

Record 2 observations about these animals.

1. _____

2. _____



Week 8 Crabs

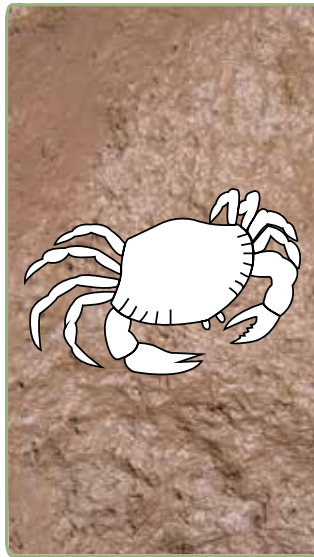
Crabs are *crustaceans* which means their bodies have a hard shell. We call this shell an *exoskeleton* and it is used for protection.

Many crabs call the Hudson River their habitat. A *habitat* is an animal's home. You can tell where a crab lives based on its color. When an animal blends into its surroundings, we call it *camouflage*.

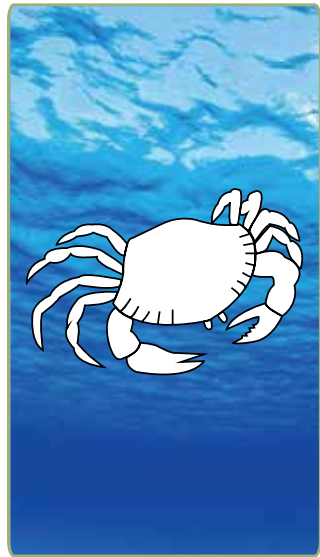
Look at the different habitats below. Color the crab so that it is camouflaged.



Rock Crab



Mud Crab



Blue Crab





Week 8 Observation

Look at today's **critter tank!** Draw a picture of what you see.

Record 2 observations about these **animals.**

1. _____

2. _____





River Rangers Review

There's so much to learn about in the Hudson River!

Test your knowledge with the following questions.

(Answers are on next page after you finish.)

1. What kind of water is found in Hudson River Park?

- A)** Salt Water **B)** Fresh Water **C)** Brackish Water

2. Striped Bass live under the piers of Hudson River Park during the winter.

True or False

3. Which of the following is not helpful when identifying a tree?

- A)** Leaves **B)** Height **C)** Bark **D)** Fruit/Seeds

cont.





River Rangers Review

4. What is an animal's home called?

- A)** Habitat **B)** Adaptation **C)** Apartment **D)** Life Cycle

5. How many legs does a butterfly have?

- A)** 0 **B)** 2 **C)** 6 **D)** 8

6. Seahorses are mammals and closely related to horses.

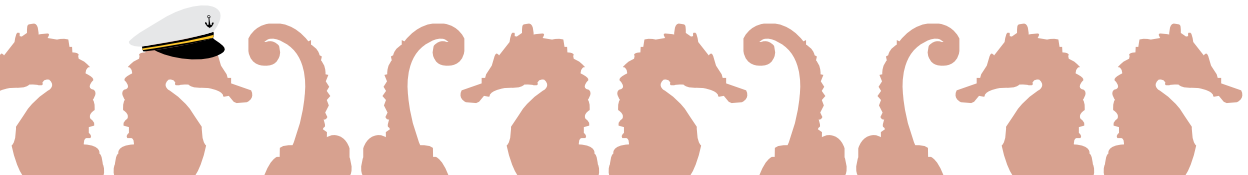
True or False

7. What is a group of ants that live together called?

- A)** Hive **B)** Colony **C)** School **D)** Exoskeleton


8. What is it called when an animal can blend into its surroundings?

- A)** Invisibility **B)** Camouflage **C)** Metamorphosis





Answer Key

1. **C** The Hudson River Estuary water is brackish, meaning it is a mixture of fresh and salt water.
 2. **True!** If you look at the Hudson River, you will notice some visible wooden posts that might look like tree stumps. These posts are piles which are the remnants of old piers, we call this area a pile field. Pile fields are an important habitat for striped bass because they provide both protection and food.
 3. **B** Height is not useful when identifying a tree because it varies with how old the tree is.
 4. **A** A habitat is an animal's home. It is an environment that has food, water, space and air.
 5. **C** Butterflies are insects, and all insects have 6 legs!
 6. **False!** Seahorses are fish, not horses. They have gills to breathe oxygen from water.
 7. **B** Ants live and work together in large groups called colonies!
 8. **B** Camouflage is an animal's ability to blend into its surroundings. Many crabs and seahorses use camouflage for protection!
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River Rangers Stamps

Week 1	Week 2	Week 3
Week 4	Week 5	
Week 6	Week 7	Week 8

REMEMBER to bring your Field Journal each week to collect ALL 8 STAMPS! Collect 4 or more stamps and receive a special prize!



HUDSON RIVER PARK

Hudson River Park is a 550-acre park and estuarine sanctuary from Chambers Street to W. 59th Street in Manhattan. It includes four miles of waterside esplanade, 16 reconstructed public piers to date, four dedicated boat houses for sailing, rowing and paddling, and numerous other places to play, learn and relax.

Hudson River Park's 400 acres of sanctuary waters and the ecological abundance they support have informed virtually every aspect of park planning and operation. Every day, staff, volunteers and park partners work to make the experience of water as direct as possible for millions of visitors each year. In addition to creating access to the River itself, this includes communicating the River's vital ecological role to everyone from school children to the general public.

Hudson River Park receives no government funds for its operation or maintenance. You can support the Park by becoming a Friend at hudsonriverpark.org/friends.

Did you know?

Hudson River Park's estuarine sanctuary includes six pile fields – wooden fragments of former piers that provide valuable habitat for many aquatic species. As the wooden piles deteriorate with time, their many nooks and crevices become filled with aquatic vegetation. Barnacles, mussels and other bivalves become affixed to the aging wood. Fish use the piles both to hunt for food and hide from predators.

