





Welcome to the Junior Ranger Program at the Culebra National Wildlife Refuge

Congratulations on accepting the challenge of becoming a Junior Ranger!

To become a Junior Ranger, visit the different areas of the Culebra National Wildlife Refuge and complete the activities in this booklet. Once you're done, bring it to the office and a staff member will check your answers and award you your official Junior Ranger badge.

Junior Rangers know that safety comes first! Do your part to make sure you have a fun and safe experience.

All plants and animals in the Refuge are protected. You can observe and admire them, but remember not to touch or take them with you. Never feed wild animals—human food is not good for them.

As a Junior Ranger, I promise to help take care of National Wildlife Refuges. I will follow the rules "Leave no trace" and "Take nothing but memories." I won't leave trash behind or harm nature. I won't feed or disturb wildlife, pick plants, or take anything from nature that could hurt the ecosystem.

I will always respect wildlife, nature, the people who visit, and historical sites. I will continue to learn about the National Wildlife Refuge System and explore the amazing natural world!

Signature of the Junior Ranger Candidate



Complete the names of the cays

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

11. _____

12. _____

13. _____

14. _____

15. _____

16. _____

17. _____

18. _____

19. _____

20. _____

21. _____

22. _____

23. _____

24. _____

What is the most important meeting place for migratory shorebirds in Puerto Rico and the U.S. Virgin Islands?

Information Sign in Front of the Office

Which cays are not part of the Culebra National Wildlife Refuge?

_____ Cay

_____ Cay

What are three conservation rules for Culebrita Island and Luis Peña Cay?

-
-
-

What Spanish-era structure is still preserved in Culebrita?

What is the maximum speed limit that boats should follow in shallow waters?

5 mph

20 mph

40 mph

True or False

Can you enter bird nesting or resting areas in Culebra and its cays?

Name the 3 species of sea turtles found in Culebra. (Bonus points if you can identify which species is in each image)

01. _____

02. _____

03. _____



Draw what you observe from the observation tower



Hiking Trail

Stay on the trail

Look for labeled plants along the way:

- **Higüero** (*Crescentia cujete*)
- **Úcar** (*Bucida buceras*)
- *Leptocereus grantianus*
- **Almácigo** (*Bursera simaruba*)
- **Corcho** (*Guapira fragans*)
- **Róble Blanco** (*Tabebuia heterophylla*)
- **Cóbana Negra** (*Stahlia monosperma*)

DANGER POISONOUS Manchineel Tree



The Manchineel tree is one of the most poisonous trees in the world.

Scientific Name: *Hippomane mancinella*

Common Name: Manchineel, manzanillo.

It has shiny, perfect-looking green leaves, small greenish-yellow flowers, and crisp green fruits that may look like apples. Usually, you'll see these beautiful but dangerous trees on beaches and in coastal areas.

Don't be fooled! Every part of the Manchineel tree is extremely toxic.

Ingesting any part can be fatal—medical attention is crucial.

Warnings

- **Bark & Sap:** The sap of the entire tree is poisonous and acidic..
- **Leaves:** Smoke from burning the leaves can cause serious irritation.
- **Fruit:** Even a small bite can cause blisters and allergic reactions.
- **Avoid touching or standing under Manchineel trees.**

Draw one (1) animal you saw that caught your attention.



Did you leave a note in the mailbox?

Name: _____

Date: _____

SCAVENGER HUNT

Check  each item you spot from the list



- | | | | |
|--------------------------|--------------------------------|--------------------------|-----------------------|
| <input type="checkbox"/> | A piece of plastic | <input type="checkbox"/> | A piece of trash |
| <input type="checkbox"/> | An animal track | <input type="checkbox"/> | A flower |
| <input type="checkbox"/> | Something that can be recycled | <input type="checkbox"/> | A yellow or red fruit |
| <input type="checkbox"/> | A native plant | <input type="checkbox"/> | A spider web |
| <input type="checkbox"/> | An insect | <input type="checkbox"/> | A fungus or lichen |
| <input type="checkbox"/> | A bird feather | <input type="checkbox"/> | A rock |
| <input type="checkbox"/> | A yellow leaf | <input type="checkbox"/> | A bird |
| <input type="checkbox"/> | A body of water | <input type="checkbox"/> | A cloud shape |



Word Search

U Q S S M Y Y Q W R T K R G W G F N
O J R F W N M X M E S H Q E Y L W H
B I R D Q E K H Z X S J X R F P M U
G O U V N L W J K O L V Y F Z U E P
H S C O A R Q N S F T Y A R T K G P
C J S S G Z T X L M A N G R O V E E
Z R G K P Z X A X M T U R T L E L T
Y S C K O M N K M T R W R T C F Q E
M Z U L C U R C L N X U T G S U X H
Q D S C O N S E R V A T I O N X P Q
V T E R G S E N D A N G E R E D R I
V F J Z O G M H M I B N R B U K Q Y
W M Y V C S H B Y M Z U D D O V M Y
H S S J E T R R C C A K L D U A D H
E O K B A I K L U J I L P Q R B R W
P F J E N P R O T E C T C W M A S O
Z Q R S G O K G G Z Q F B B J E J J
W L J R R H A X T P L I D N Q I F B

- conservation
- bird
- turtle

- endangered
- protect
- ocean

- mangrove
- refuge

- boa
- crab

Learn Some Knots!

<https://www.animatedknots.com/complete-knot-list>



Square Knot



Loop Knot



Square Knot



Half Knot or Overhand Knot

Stahlia monosperma
Family: Leguminosae

Cóbana Negra

Description

Cóbana Negra is a medium-sized tree (can reach between 25 and 50 feet tall, with a trunk up to one and a half feet in diameter). Its leaf is composed of 12 to 17 leaflets, which have on their lower side small glands that look like black spots. The flowers are pale cream and are produced between March and May, depending on the rainfall. The fruit is a little fleshy, with a pleasant smell (aromatic smell similar to that of the soursop) and bright color. Each fruit contains a single seed (hence the species name "monosperma"). The name of the genus honors the memory of Agustín Stahl, considered the first Puerto Rican naturalist.



Biological Information

Cóbana Negra belongs to a large family of plants (Leguminosae), which has approximately 700 genera and more than 17,000 species. This family, which is distributed practically all over the world, is very important for man. From many species of this group dyes, ornamental plants and seeds for food are obtained, both for man and for domestic animals. To this family belong species that are known, such as the beans and tamarind, as well as the moriviví, the flamboyán and the caoba. *Stahlia* is a unique genus from Puerto Rico and España. Little is known about the species of this group. The only one that is also commonly known is one of the species that make up the reserve of Mona Island. Twelve of the trees of this island can obtain high economic values, such as sculptor trees and species that also retain the bark and wood for tanning and medicinal use. As for the Cóbana Negra, it has also been used as firewood, and the seeds of the Cóbana also floated.

Distribution

This species is unique to Puerto Rico, Vieques and the Dominican Republic. In all three islands it is considered a very rare (uncommon). In Puerto Rico, it is mainly found in the southwest and northeast of the island.

Threats

La Cóbana was highly sought after and harvested in the past for producing excellent Bark. This activity especially affected mature and reproductive individuals (those of older age and size). At present, its biggest threat is industrial development and the uncontrolled development of the coastal zones of the island.

Conservation Measures

Cóbana is protected by the Endangered Species Act of Extinction from 5 April 1990, under the Endangered and Vulnerable Species Act. The Department of Natural and Environmental Resources and the Federal Fish and Wildlife Service are implementing recovery projects to spread the species, with the purpose of planting trees in protected areas.

References

- Little, E.L. and F.H. Wadsworth. 1964. Common trees of Puerto Rico and the Virgin Islands. U.S. Department of Agriculture. Agriculture Handbook No. 249.
- U.S. Fish and Wildlife Service. 1996. *Stahlia monosperma* (cóbana negra) Recovery Plan. U.S. Fish and Wildlife Service, Atlanta, GA. 15 pp.

More Information

Call the U.S. Fish and Wildlife Service, Caribbean Office, at 787/851 7297, or write to P.O. Box 491, Boquerón, Puerto Rico 006.

**Complete the sentences with the missing information.
The highlighted letters will form the secret word.**

1. The scientific name of the Cóbana black is _____ **A**.
2. This species is endemic to Puerto Rico and the **D** _____.
3. Cóbana negra is classified as a species in _____ **R** of extinction.
4. The fruit is slightly fleshy and **B**_____ in color.
5. The wood of the Cóbana negra is hard and resistant to **T**_____.
6. The Cóbana negra is well known for its _____ **K**.

Secret word: _____ (Another word for protection)

Anolis roosevelti
Family: Iguanidae
Order: Squamata



Description

The Giant Culebra Lizard is similar in proportion to the green lizard of Puerto Rico, *Anolis cuvieri*, except that the head is thinner and pointed and the body is, in general, longer.

The color of the mature big specimens collected in 1931 was brownish gray with two light bands on each side of the body, had a clear spot on each side of the head, yellow, yellow brown eyelids and whitish belly.

Biological Information

Not much is known about the habits of this lizard. The specimen collected in 1931 was found in an area of Ficus forest and limestone (Bucida buceras). It is presumed to feed on fruits, insects and other small lizards.

Distribution

It is known from the island of Culebra, although many years ago specimens were collected in Vieques, Tortola (British Virgin Islands) and St. John (American Virgin Islands).

Although no sightings of this species have been verified since 1932, interviews with Culebra residents suggest that these people may still exist, at least on the island of Culebra, including areas close to Monte Resaca, the vicinity of Cornelio Lagoon and the mount near the water tank at Fulladosa Point. In censuses conducted by the Department of Natural and Environmental Resources in 1986 and 1987, no individuals were found of this species.

Giant Lizard of Culebra

Threats

Deforestation of mature forest areas in Culebra is considered to be the main cause of the apparent disappearance of this species.

Conservation Measures

The Culebra giant anole was included in the federal list of endangered species in 1977, and the Federal Fish and Wildlife Service designated as critical habitat certain mature forest areas in the northern part of Culebra.

Killing, collecting, capturing, trapping, buying or selling an endangered species, as well as parts or products derived therefrom, are violations of the federal Endangered Species Act of 1973 (as amended) and can carry a fine of up to \$100,000 and/or one year in prison.

References

Carr, T. and A. Carr. 1977. The reptiles and terrestrial reptiles of Culebra Island. U.S. Fish and Wildlife Service, Atlanta, Georgia. Contract 14-16-0008-2089. 28 pp.

Ocaso, A. 1987. Culebra's giant anole status determination study. Final report. Department of Natural Resources. San Juan, Puerto Rico.

Grant, C. 1931. A new species and notes upon the herpetology of the Puerto Rican region. J. Department of Agriculture, 15:235-242.

Grant, C. 1932. Reptileological notes from the Puerto Rican region. J. Department of Agriculture, 16:161-165.

U.S. Fish and Wildlife Service. 1992. Giant anole recovery plan. U.S. Fish and Wildlife Service, Atlanta, Georgia. 19 pp.

For More Information

Call the U.S. Fish and Wildlife Service, Caribbean Office at 787/851 7297 or write to: P.O. Box 491, Boquerón, Puerto Rico 00622



Fill in the missing words in the sentences below and then unscramble the highlighted letters to reveal the secret word.

1. The head of the Culebra **G**_____ Anole is generally more slender and elongated than that of the _____ **C_N** giant anole
2. The color of the Culebra Giant Anole can be described as grayish to ___ **WN**.
3. *Anolis roosevelti* is believed to eat fruits, small lizards, and **N_C_S**.
4. Interviews with _____ **N**__ of Culebra suggest that the anole may still exist.
5. This lizard has been found in areas like Mount **R_S**__.
6. Years ago, specimens were collected in **T_T_A**, St. John, and Vieques.
7. The scientific name of the Culebra Giant Anole is **A_I_OOS**_____.
8. TThe main cause of the disappearance of this species is **H_I**___ destruction.

Secret word: _____ (Another word for Anole)

Culebra National Wildlife Refuge and its Animal Ambassador: Sooty Tern

Other names: Sooty Tern, Wide-winged Tern, Ewa Ewa, Common Tern, Kaveka, Egg Bird, Whale Bird.
(*Onychoprion fuscatus*)

Length: 35 centimeters

Weight: 150 to 240 grams

Habitat: Tropical oceans around the world

Conservation status: Least concern

Diet: Fish, small squid

Appearance: Black back and head, white underside. Forked tail. Black legs and feet. Black patch on the beak.

Sooty Terns are shallow divers that catch their food just below the surface of the water. They are often seen gathering in areas where larger underwater predators drive prey to the surface.

These birds are highly social. Their pelagic activities (life at sea) are difficult to study, but when they come ashore during breeding season, they may form colonies of over one million individuals.

Sooty Terns can reach flight speeds of up to 40 kilometers per hour.

They also reach sexual maturity around six years of age. The breeding season depends on the specific nesting site; some nesting locations are used consistently for many years.

They spend most of their lives at sea and return to land only for breeding.

They arrive about two months before laying their eggs and often establish their nests in open areas on rocky or sandy ground. The chicks grow in small protected crevices or under vegetation and remain on the ground until they are ready to fly.

Sometimes, even while resting or sleeping on the ground, adult terns remain alert and in groups.

One of the largest Sooty Tern colonies is found on the Flamenco Peninsula, Culebra, Puerto Rico, within the Culebra National Wildlife Refuge.

Each season, 1 to 3 eggs are laid (usually 1). The incubation period, handled by both parents, lasts about one full month. When it gets too hot, the parents take turns shading the eggs with their bodies.

Once the chicks hatch, the parents bring back regurgitated food to feed them for the next 2 months, until they are ready to fly. After their first flight, the young birds stay in the colony for another 2 to 3 weeks; then the colony disperses. Sooty Terns live about 30 years in the wild.

Global estimates suggest the world population of Sooty Terns is over 21,000,000.

Sooty Tern nesting sites are vulnerable to rats and cats.

7 Amazing Facts About the Sooty Tern

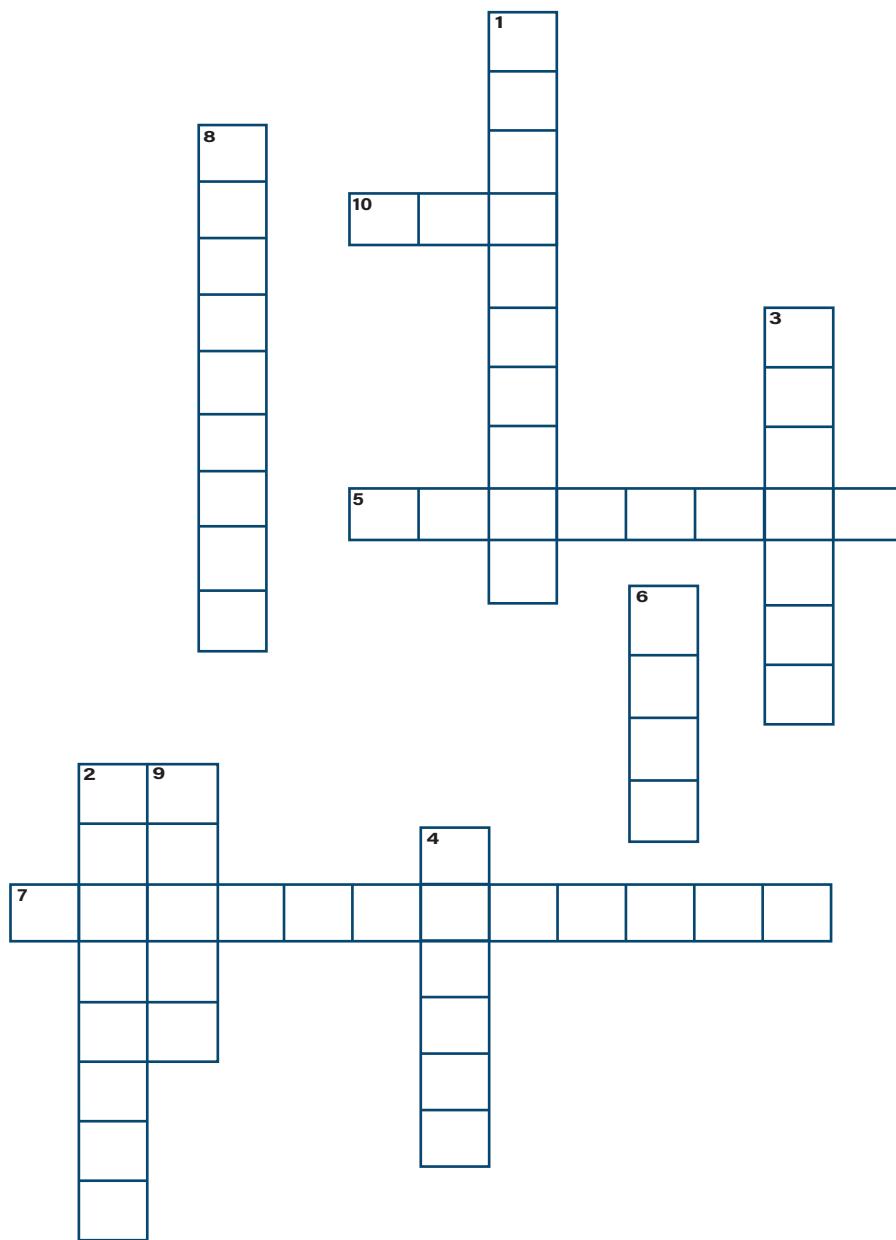
- 1.** The name “Wideawake Tern” comes from the endless noisy calls heard from a colony of birds.
- 2.** Sooty Terns spend most of their lives at sea. They can remain away from land (except for breeding) for up to 10 years.
- 3.** Sometimes, oil spills carry Sooty Terns all the way to shore.
- 4.** Sooty Terns sleep in short naps of 1 or 2 seconds while flying.
This is necessary because they don't float and have nowhere to land safely at sea to rest.
Sooty Tern feathers are not waterproof and can soak with water, which is why they spend most of their time constantly flying.
- 5.** Sooty Tern colonies are so noisy that they exceed OSHA noise limits (Occupational Safety and Health Administration, USA), which require workers exposed to such noise to wear hearing protection after just 30 minutes.

Information on the Sooty Tern is attributed to:

Sooty Tern. (n.d.). Oceanwide-Expeditions.com.

Retrieved July 29, 2024, from <https://oceanwide-expeditions.com/to-do/wildlife/sooty-tern-1>

Sooty Tern Crossword



Across

5. The type of habitat where the Sooty Tern lives
7. The level of concern for the conservation status of the Sooty Tern
10. Average number of eggs laid per season

Down

1. The feathers of the Sooty Tern are not
2. The season when the Sooty Tern returns to land
3. Life at sea for Sooty Terns
4. The shape of the Sooty Tern's tail
6. The Sooty Tern takes these 1–2 second while flying
8. Sooty Terns strut and bow to each other in this ritual
9. The color of the Sooty Tern's beak is

Foto:Dave Irving



Foto:Gary Stephenson



Foto:Marie-Josée D'Amour



Foto:dklaughman



Find 5 differences between the Sooty Tern (top 2 photos) and the Royal Tern (bottom 2 photos)!

1. _____
2. _____
3. _____
4. _____
5. _____

Leptocereus grantianus

Description

Leptocereus grantianus is a cactus endemic to Culebra Island, first discovered in 1932 by Mayor Chapman Grant. This cactus has few spines, can reach a height of up to 2 meters, and has a diameter of 3 to 5 cm. It is characterized by its growth habit of leaning on other shrubs for support. Its flowers are white or pale yellow and bloom solitary at the end of the branches.

Distribution

Culebra Island lies within the subtropical dry forest zone, with annual rainfall ranging between 600 mm and 1100 mm. Currently, four cactus populations are known to exist in the Melones sector and the Sardinera neighborhood.

Conservation Measures

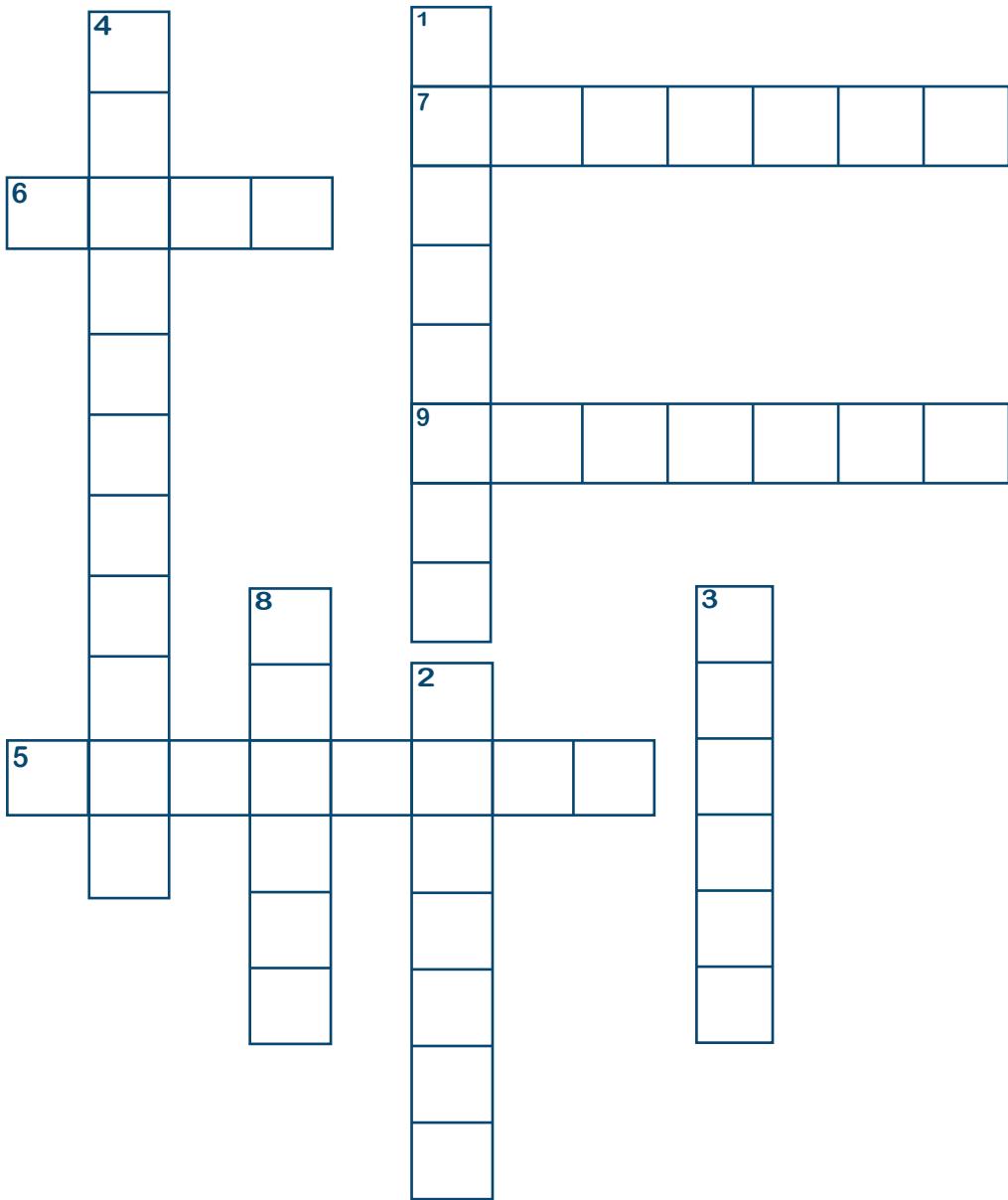
The USFWS (U.S. Fish and Wildlife Service) has been implementing recovery actions for this species. In 2003, 38 individuals were planted on private lands designated for conservation as part of a habitat restoration program. Currently, propagation projects are being carried out in nurseries.

These recovery efforts follow actions outlined in the species' recovery plan, in collaboration with the Ecological School of Culebra and with technical support from the Endangered Species Program, Coastal Program, and the Culebra National Wildlife Refuge.

Threats

L. grantianus was listed as an endangered species in 1993. Its main threats include coastal erosion, habitat modification due to tourism and residential development, and the presence of non-native and invasive species.

Leptocereus grantianus Crossword



Across

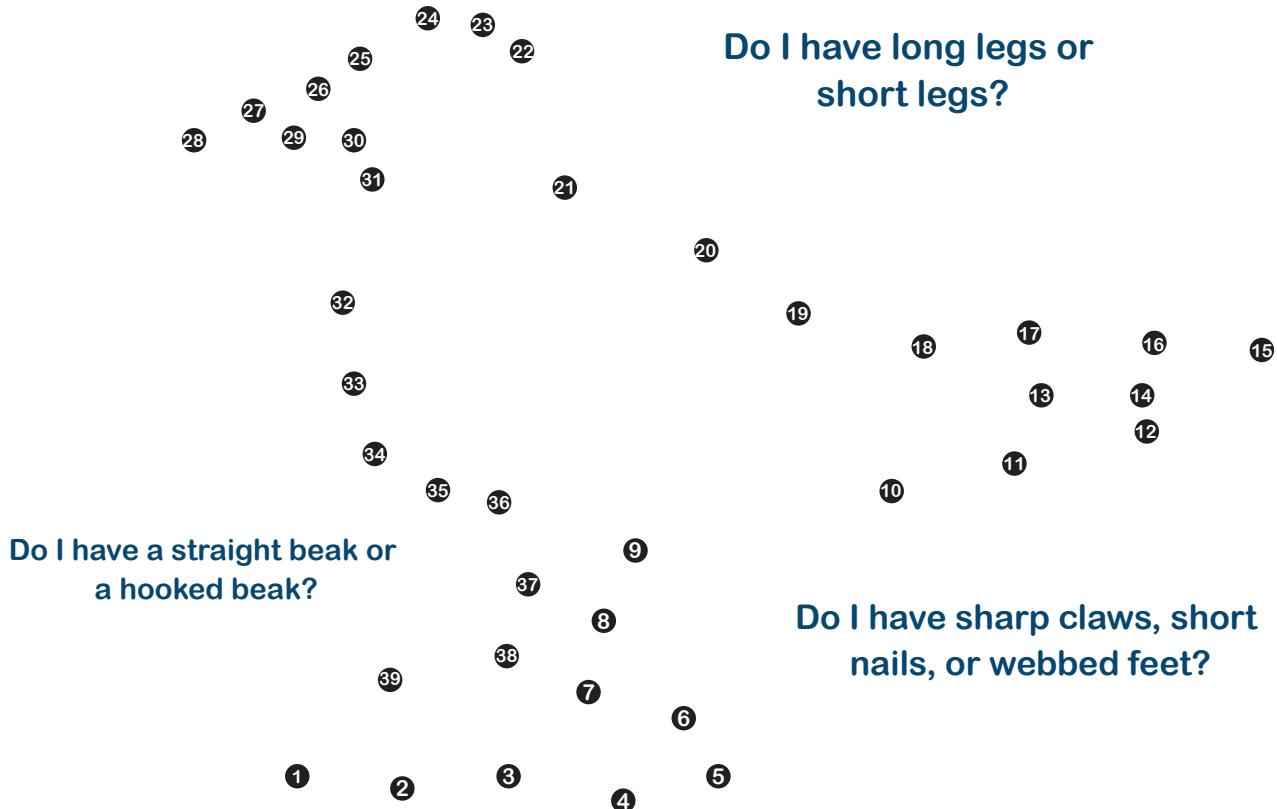
5. The flowers of this cactus are _____
6. The number of known populations of this cactus is _____
7. One of the main threats to this cactus is coastal _____
9. This cactus is _____ to Culebra

Down

1. The type of action USFWS is taking for this cactus is _____
2. Tourism and residential development are modifying its _____
3. This cactus is listed as a species in _____ of extinction
4. Types of projects are being carried out in nurseries _____
8. Compared to other cacti, this one has few _____

Activity 3

Connect the Dots



American Kestrel (*Falco sparverius*)

I'm a fierce hunter! I have sharp claws and excellent vision that help me catch small mammals, insects, and birds. I'm the smallest falcon in North America.



Wilson's Plover (*Charadrius wilsonia*)

I'm small but powerful! I have long legs for digging nests in the sand and chasing away intruders. I use my short, thick beak to catch insects and crabs.



Sooty Tern (*Onychoprion fuscatus*)

I'm a master of flight! I spend most of my life in the air and only land to nest. My sharp beak helps me catch fish and squid as I glide over the ocean.

**Use your senses—sight, hearing, smell, and touch.
Imagine how you can learn about the world around you.**

(Do NOT taste anything on the trail or path.)

When you arrive at the Culebra NWR or any open area where you're completing this Junior Ranger booklet:

Write down the first five (5) things you notice on the lines below.

I saw...

I heard...

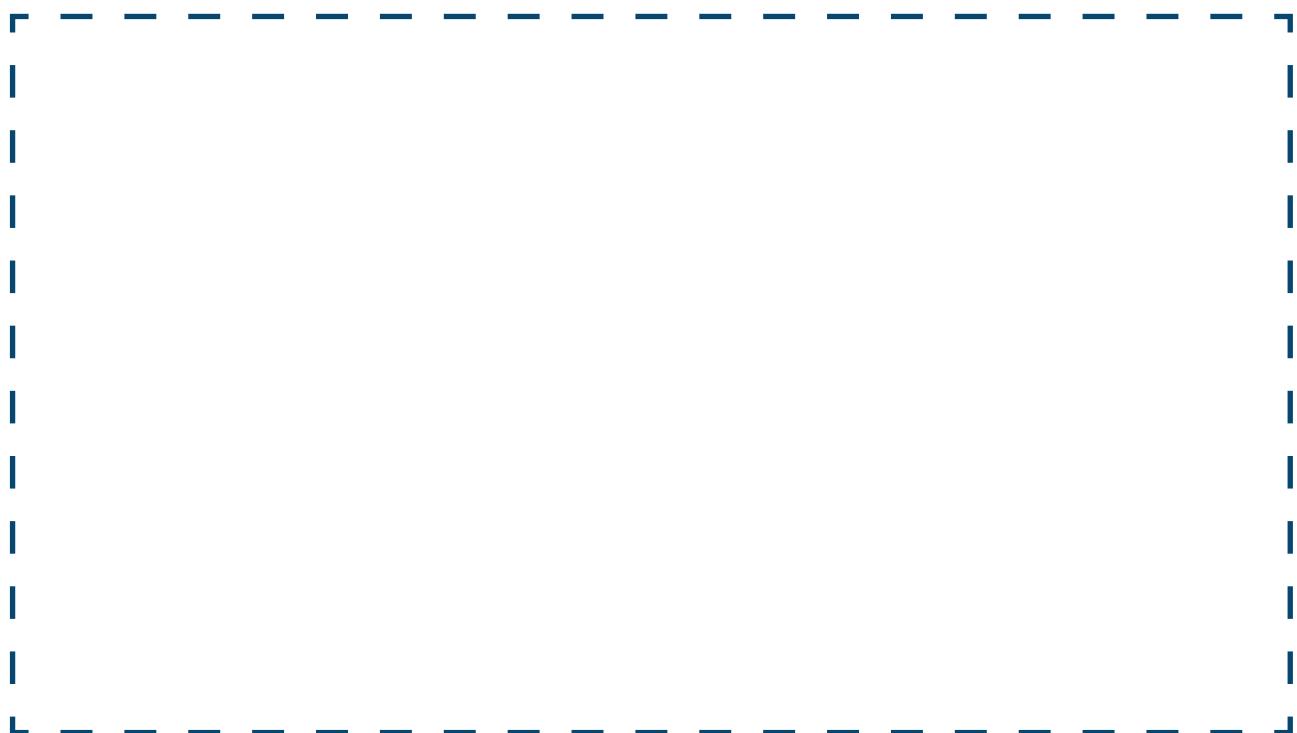
I smelled...

I felt...

I wish I could taste...

Close your eyes and count to 10.

Now open them and write or draw something new you hadn't noticed before.



A large, dashed rectangular frame occupies the lower half of the page, intended for children to write or draw their responses to the感官观察 questions above.

Peperomia wheeleri

Description

Peperomia wheeleri is a perennial herbaceous plant. This plant can reach a height of up to 3 feet and has small, oval, and fleshy leaves. Its flowers are white and tiny, growing in long, narrow clusters called spikes.

Distribution

P. wheeleri is found on Culebra Island and in the Quebradillas area. In Culebra, 3 wild populations are known to exist in the rocky forest of Mount Resaca and Flamenco neighborhood. In the Quebradillas area, only one population of this species is known, in a zone called "costilla."

The habitat of this species is dominated by large rocks up to 15 feet tall, where leaf litter accumulates, allowing the plant to grow among the rocks.

Conservation Measures

The U.S. Fish and Wildlife Service has been carrying out recovery actions for this species. In 2009, forty individuals were planted in two populations in the Guajataca Forest.

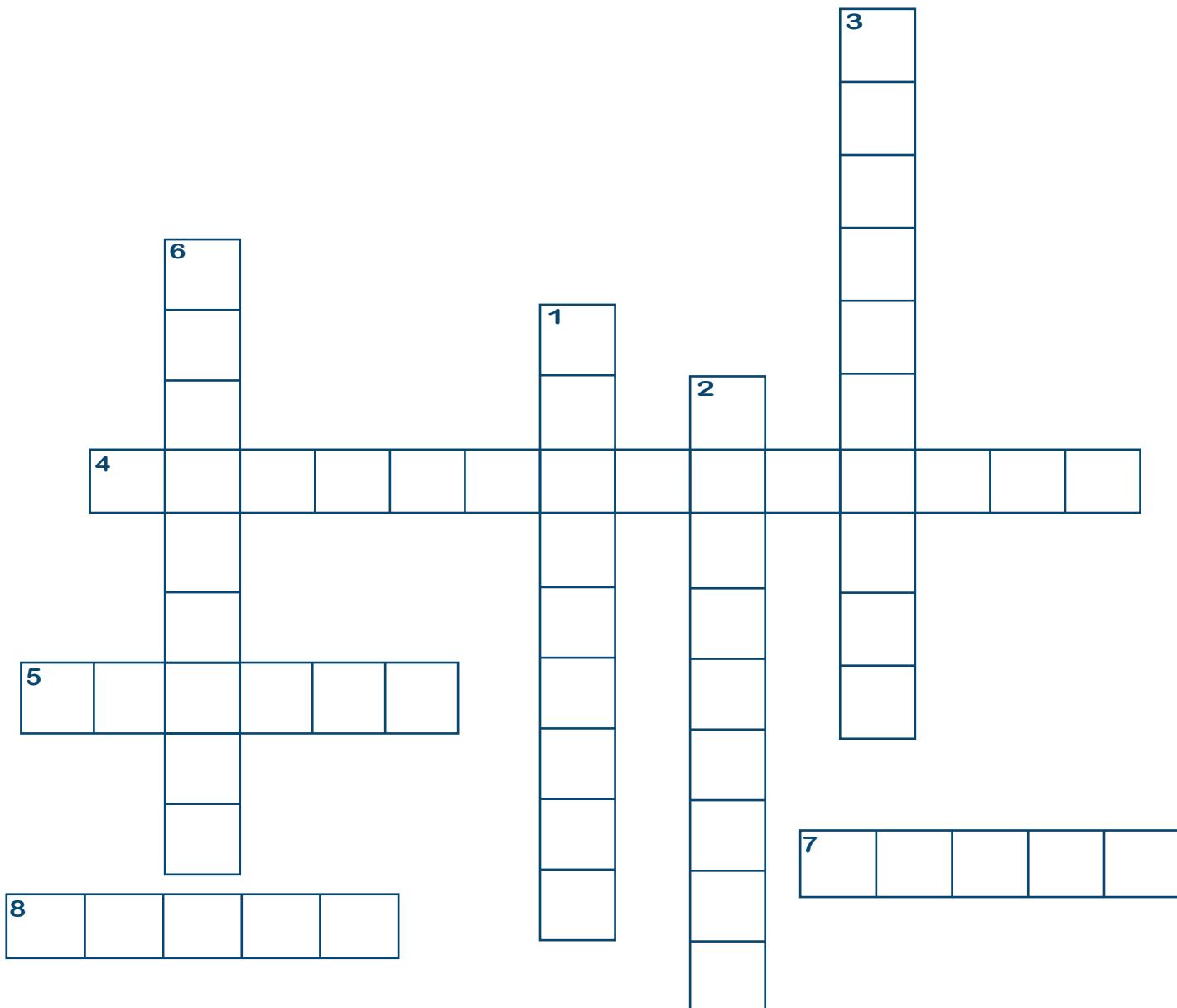
Currently, propagation projects are underway to support future reintroductions within the Culebra National Wildlife Refuge (NWR). These recovery efforts follow the species' recovery plan in collaboration with the Culebra Ecological School, with technical assistance from the Endangered Species Program, Coastal Program, and the Wildlife Partners Program.

Threats

In Culebra, most populations of *P. wheeleri* are protected within the Wildlife Refuge. Populations outside the refuge may be threatened by habitat modification, pests, disease, or human activity.

Tree felling in these areas can reduce the accumulation of leaf litter between the rocks, which is essential for the species' habitat and survival.

Peperomia wheeleri Crossword



Across

- Propagation projects for future _____ are being carried out in Culebra.
 - The flower arrangement of this plant grows in elongated clusters in the shape of _____.
 - The habitat of these species is defined by large _____.
 - The number of known populations of this plant in Culebra is _____.

Down

1. Most populations of this plant are _____ within the Culebra National Wildlife Refuge.
 2. In 2009, two populations of these species were planted in the forest of _____.
 3. The habitat of this species is defined by large rocks and where _____ accumulates.
 6. *Peperomia wheeleri* is a perennial herbaceous plant with _____ leaves.





NATIONAL WILDLIFE REFUGE SYSTEM

Certificate of Completion

This is to certify that



has successfully completed the Junior Ranger Program at Culebra National Wildlife Refuge, Culebra, Puerto Rico.



- I promise to leave only footprints and take only pictures at Culebra NWR.
- I will keep the Refuge clean by not leaving trash behind and will respect nature by not feeding wildlife or disturbing plants, animals, or rocks.
- I pledge to be curious, learn about the Refuge, and share what I learn with others.



Culebra NWR



