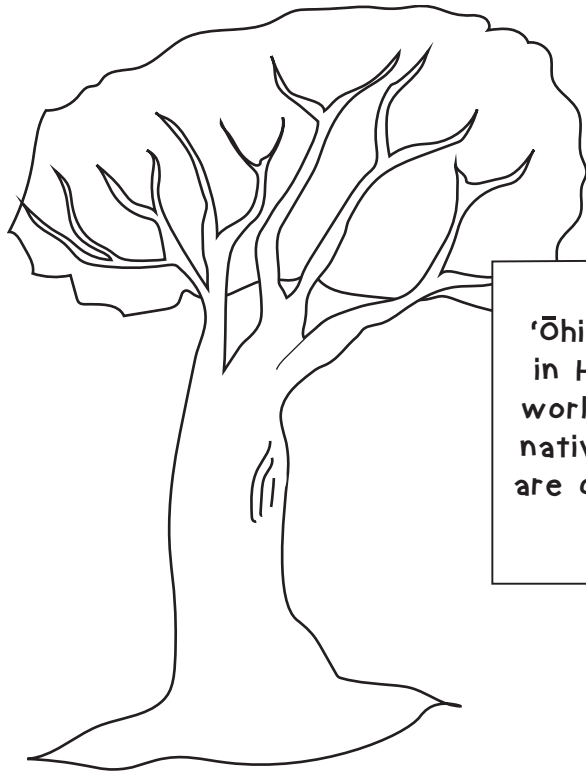


'Ōhi'a FOR OUR FUTURE



Let's LEARN about 'Ōhi'a

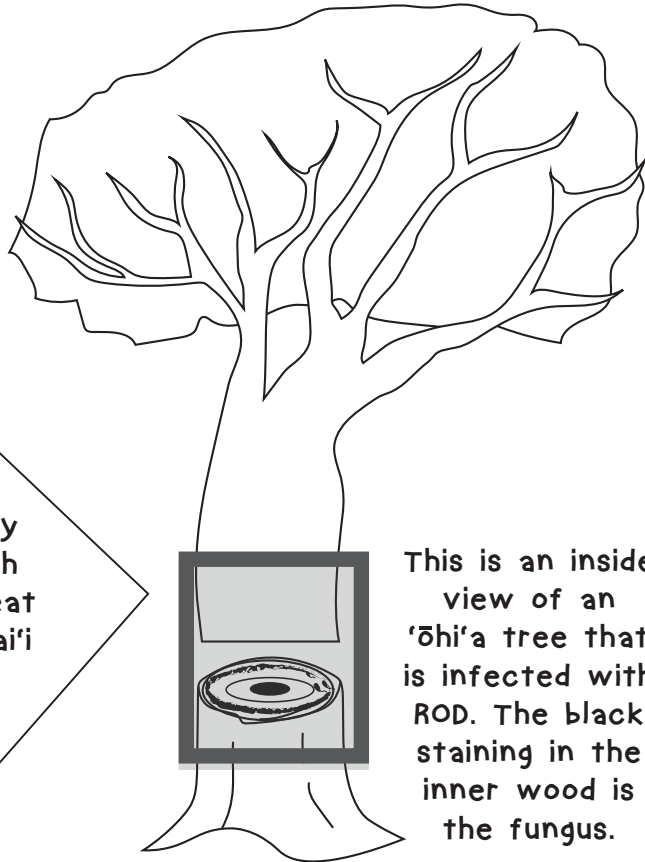
WHAT IS 'ŌHI'A ?



'Ōhi'a is a native tree that is found in Hawai'i and no where else in the world! It is the backbone of Hawai'i's native forests and watersheds which are our source of fresh water on the islands.

WHAT IS HAPPENING TO 'ŌHI'A?

'Ōhi'a is being infected by a deadly fungus known as Rapid 'Ōhi'a Death or ROD. This Fungus has killed a great number of 'Ōhi'a trees across Hawai'i island.



This is an inside view of an 'Ōhi'a tree that is infected with ROD. The black staining in the inner wood is the fungus.

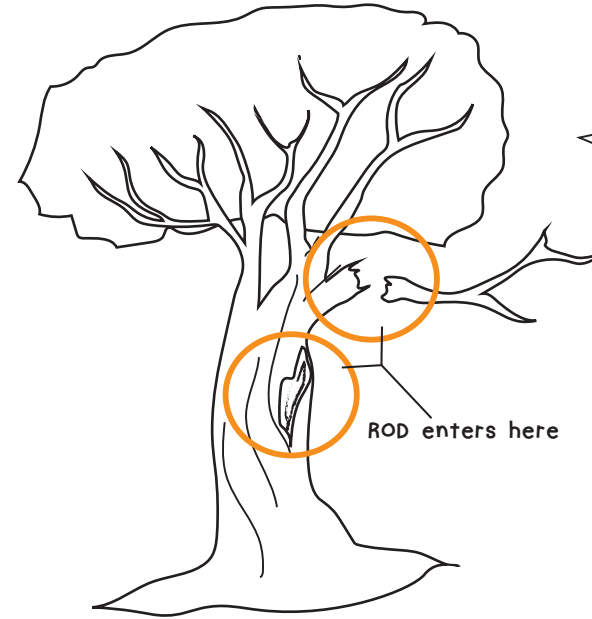
Hi! My name is Ethan 'Iwi and I love to sip the sweet nectar from 'Ōhi'a lehua flowers. My favorite thing to do is to help 'Ōhi'a trees make new seeds by moving pollen from one flower to another. This is called pollination. I love to watch our healthy forest grow!



To help prevent the spread of Rapid 'Ōhi'a Death you can assist an adult in spraying your bike tires, boots, and gear with 70% rubbing alcohol before and after each adventure through an 'Ōhi'a forest.

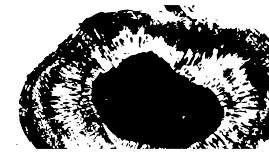


HOW DOES ROD KILL 'ŌHI'A ?



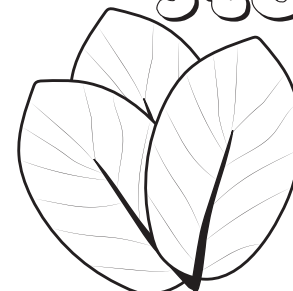
When a tree is wounded the fungus enters the tree. The fungus starts to grow into the part of the tree that transports water from roots up to its shoots; this area is called the sapwood. The fungus eventually grows through the entire sapwood stopping the tree from moving enough water up to survive. When the tree doesn't have enough water, we observe the signs of Rapid 'Ōhi'a Death and the tree eventually dies.

SIGNS OF RAPID 'ŌHI'A DEATH



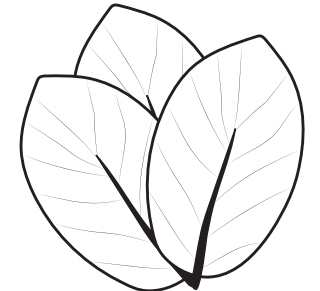
← This is the inner wood of an 'Ōhi'a tree. This area is also known as the cross section.

STAINING



YELLOWING

The leaves of 'Ōhi'a trees that appear healthy turn yellowish or brown within days to weeks.



BROWNING

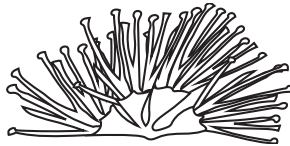
THE 3 WAYS PLANTS GET TO HAWAII

Draw a line to match how each plant seed came to Hawai'i.

1. Small and light seeds may float on wind currents to Hawai'i.

2. Seeds with the ability to float can be carried on strong waves and ocean currents to Hawai'i.

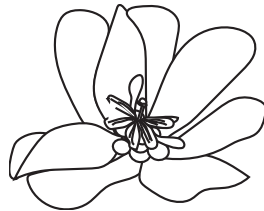
3. Seeds that are sticky or have hooks may catch a ride on the wings of a bird flying to Hawai'i.



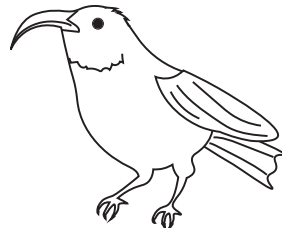
'Ōhi'a Lehua have Small seeds



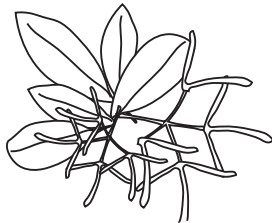
Waves



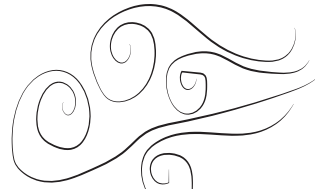
Naupaka have Buoyant seeds



Birds



Pāpala kēpau have Sticky seeds



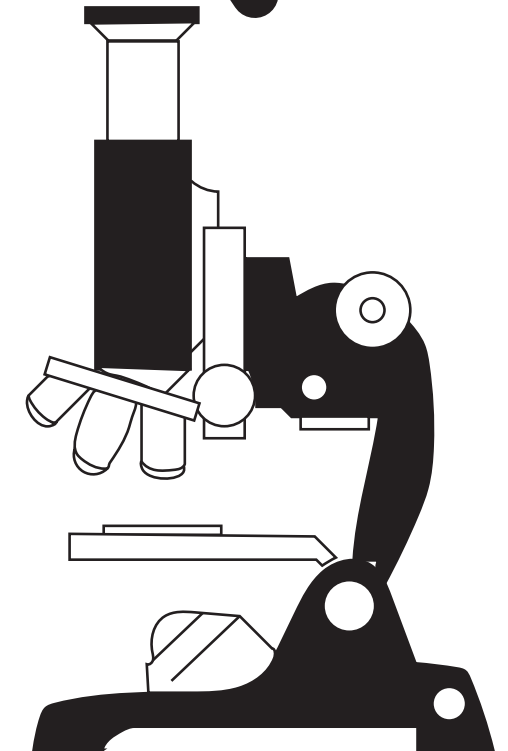
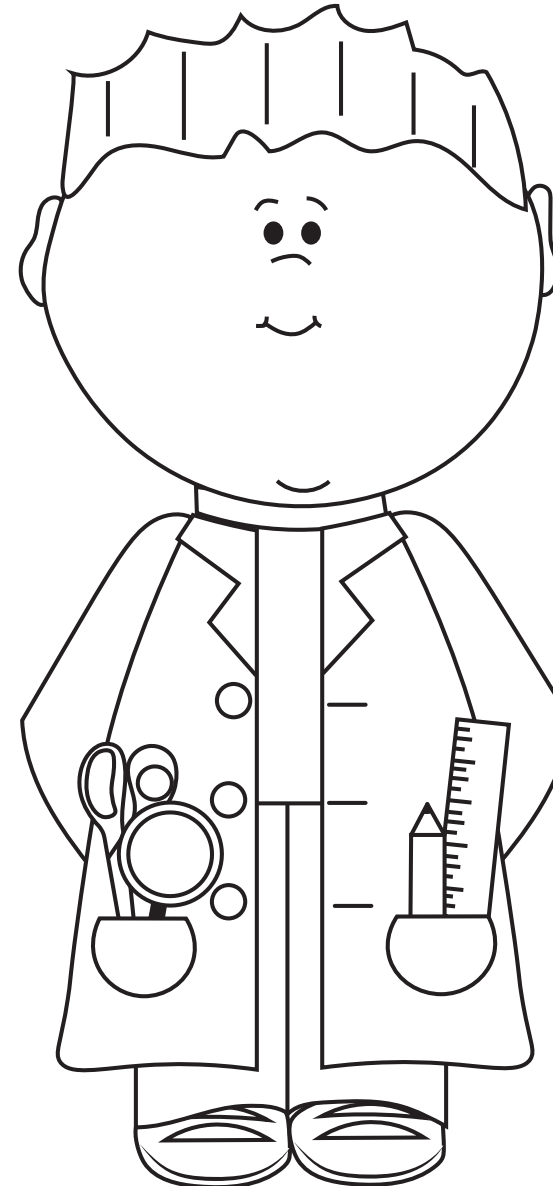
Wind

Did you know that many of Hawai'i's native flowering plants came from seeds that hitched rides with birds? While sticky or barbed seeds attach to their feathers, other seeds travel in mud caked on a bird's feet or cross the ocean in the stomachs of birds.

Key: 'Ōhi'a Lehua = Wind, Naupaka = Waves, Pāpala kēpau = Birds

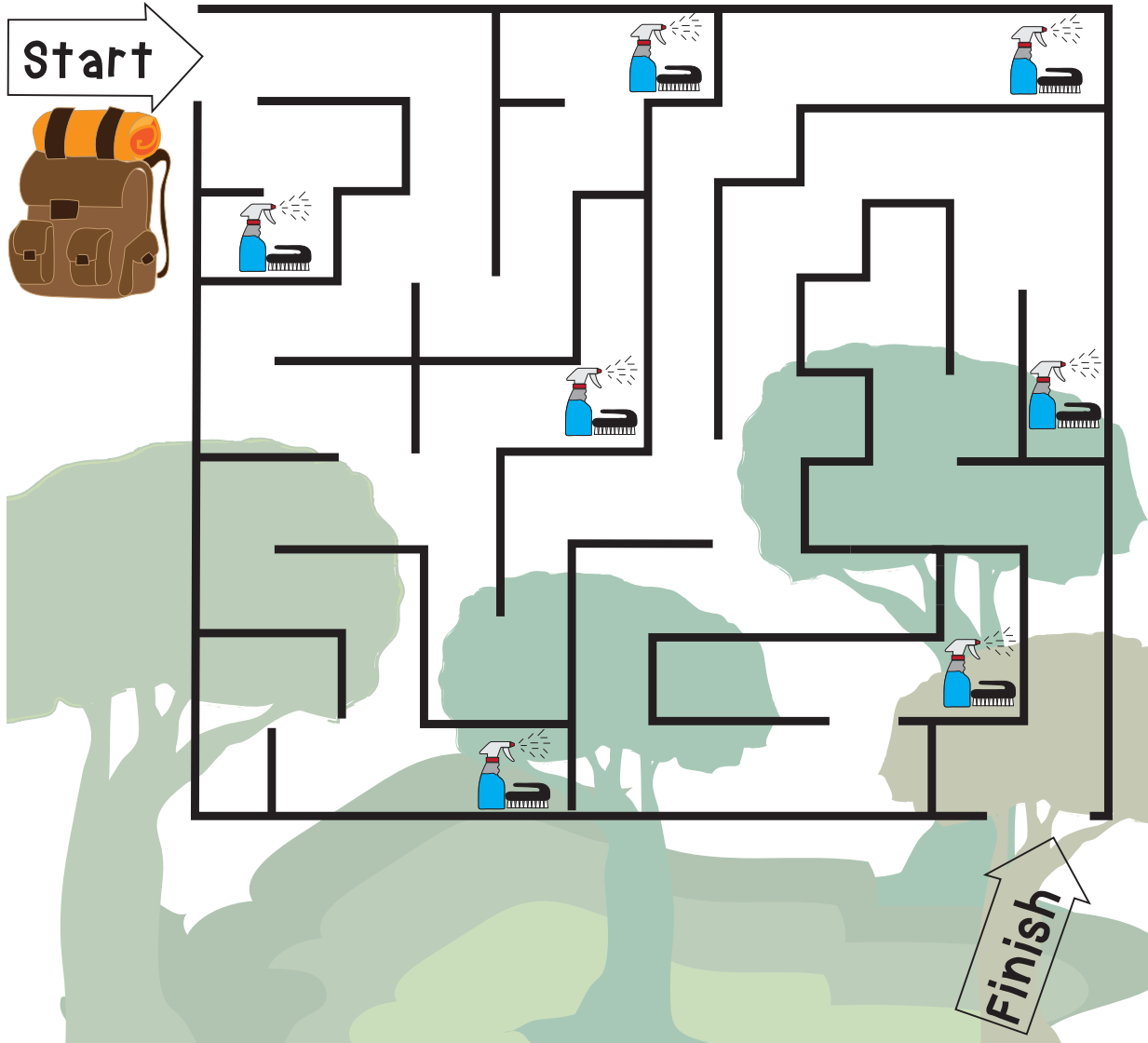
HELP A SCIENTIST

To help scientists with Rapid 'Ōhi'a Death research you can keep an eye out for any 'Ōhi'a that have signs of ROD. You learned three different signs in the beginning of your book. Do you remember the signs of ROD?



Key: Rod Signs = Yellowing, Browning, Staining

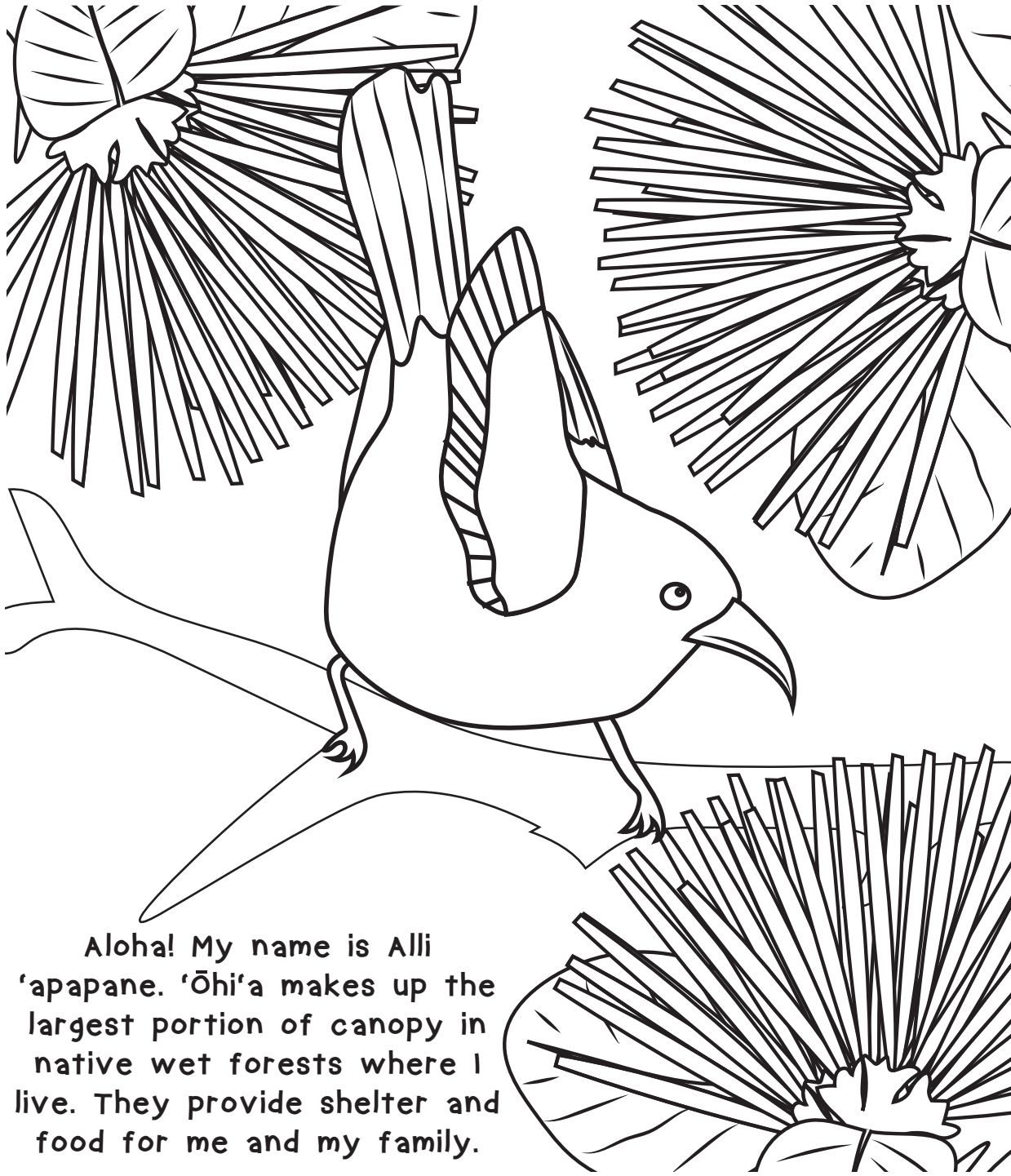
Can you help the hiker find the best route through the forest? Be careful, dead-end paths are infected with ROD. Help the hiker find the path that is ROD free. Remember to disinfect her boots with 70 percent rubbing alcohol if she takes the wrong path.



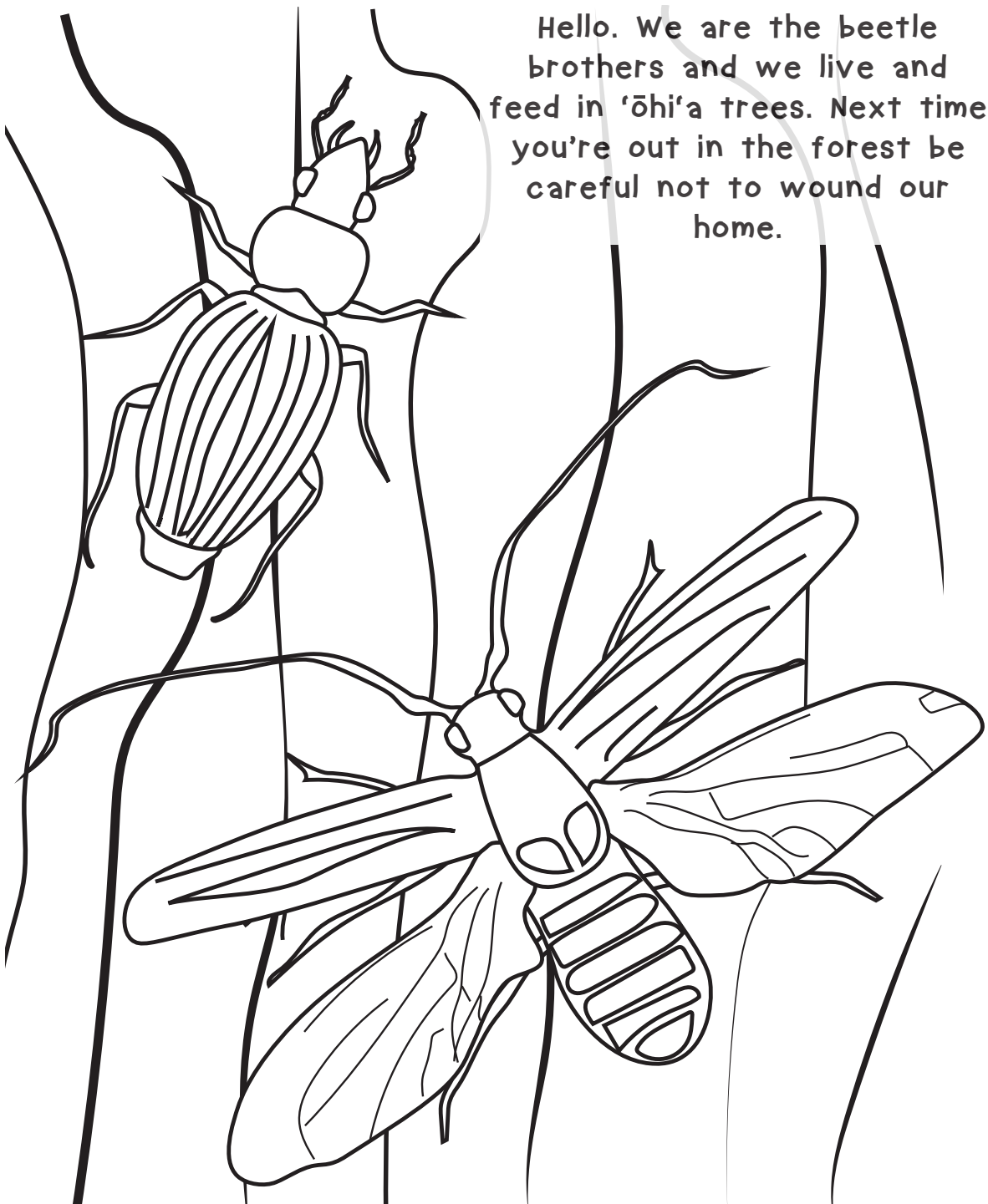
FINISH DRAWING THE FACE OF THE HULA DANCER



This hula dancer chooses to use other plants instead of 'ōhi'a to adorn herself and her ipu. Using alternative plants helps to prevent the spread of the Rapid 'Ōhi'a Death disease from one place to another.



Aloha! My name is Alli 'apapane. 'Ōhi'a makes up the largest portion of canopy in native wet forests where I live. They provide shelter and food for me and my family.



Hello. We are the beetle brothers and we live and feed in 'ōhi'a trees. Next time you're out in the forest be careful not to wound our home.



Connect the dots to help Pete Partulina make his shell! Pete loves to eat specific fungi off of the 'ōhi'a tree's leaves.



MEMORY GAME

The rules for playing "Memory"

1. Cut out cards along dotted lines.
2. Mix up the cards and lay them in rows, face down.
3. 1-2 players. Each player picks two cards to turn over.
4. If the two cards match, keep them. If they don't match, flip them back over.
5. The game is over when all the cards have been matched.
6. The player with the most matches wins

-Try to memorize what is on each card and where those cards are. Lets learn more about 'ōhi'a!

ALL ABOUT OHIA

'Ōhi'a is found and grows naturally in the Hawaiian Islands and no where else in the world. They are an important source of food and shelter for many native birds, insects, snails, and spiders.

'Ōhi'a are deeply woven into Hawaiian Culture through symbology in mo'olelo (stories), mele (songs), and 'oli (chants). 'Ōhi'a serve as the sacred kinolau (physical manifestations) of multiple Hawaiian deities.

