

Invasive Species

Next Generation Science Standards:

- 2-LS4-1 Make observations of plants and animals to compare the diversity of life in different habitats.

Hawai'i Content and Performance Standards III:

- SC.K.1.2 Ask questions about the world around them.
- SS.K.5.2 Demonstrate ways to improve the quality of life in own school or community.
- SS.2.3.1 Describe ways in which specific government agencies are responsible for environmental issues and concerns.
- SS.2.7.4 Analyze and demonstrate ways to protect and preserve the local environment.
- SC.2.8.2 Identify the limited supply of natural resources and how they can be extended through conservation, reuse, and recycling.

Description:

This activity will introduce students to some of the invasive species that pose a threat to native species in Haleakalā National Park. Students will learn how to identify different invasive species and will create an invasive species poster to share with their classmates.

Duration: 45 minutes

Objectives: At the end of this lesson, the students will be able to:

- Determine an organism's job in its habitat and describe how it depends on other organisms.
- Understand the difference between native and non-native species.
- Determine how Haleakalā National Park protects special native habitats and how the students can help protect them too.

Background:

Invasive species can be plants, animals, insects, or microorganisms, such as bacteria, fungi, and diseases. Invasive species affect every habitat in the Hawaiian Islands, from the regions deep underwater to the summit of the tallest mountains. Biologists consider invasive species the number one threat to native Hawaiian habitats. Currently, invasive species in Hawai'i are managed by a number of state, federal, and private agencies. Organizations such as the National Park Service, the U.S. Department of Agriculture, the Hawai'i Department of Land and Natural Resources, The Nature Conservancy, and the invasive species committees and watershed partnerships on each island make it their mission to prevent harmful alien species from spreading throughout the Islands.

Vocabulary:

Invasive species: Non-native species that compete with native species for valuable space and food in their habitat.

Native: Plants and animals that got to Hawai'i by themselves, without the help of people.

Non-native: Plants and animals that are brought to an area by people, either on purpose or accidentally.

Materials Needed:

Invasive Species List (included)

Poster Paper

Coloring supplies

Procedure:

Step 1: Introduction

- Review definitions of native and non-native.
 - Native = Plants and animals that got to Hawai'i by themselves, without the help of people.
 - Non-native = Plants and animals that are brought to an area by people, either on purpose or accidentally.
- Define Invasive species = Non-native species that compete with native species for valuable homes and food in their habitats.
- Show students the Invasive Species List using ELMO or make copies and pass the list out.
- Discuss the different types of invasive species found on the cards.

Step 2: Create a Poster

Students will create an invasive species poster about one of the species on the list. Their posters should include the following:

- The name of the invasive species.
- A hand drawn picture of the invasive species.
- Where the invasive species was originally from.
- How it is a danger to our native species and their habitats.
- What we can do and whom should we contact if we see this "criminal".

Step 3: Share Posters and Journal activity

Share posters and discuss the negative impact invasive species have on native species and their habitats. Journal the following questions:

- What would happen to the native species of Haleakalā National Park if it got invaded by any of these invasive species?
- How does Haleakalā National Park protect native species from them?
- What could you do to help stop the spread of invasive species on Maui?

INVASIVE SPECIES LIST

If you see this species, call the Pest Hotline: 643-PEST

Coqui Frog: Small, nocturnal (night-active) frog about the size of a quarter.

- Native to Puerto Rico.
- Dangers = There are no natural predators or competitors to keep populations in check. They eat huge quantities of native insects, removing them from forest floor to treetops. Without insects, plants won't be pollinated.

If you see this species, call the Pest Hotline: 643-PEST



Miconia: Fast growing large tree grows up to 50 ft tall.

- Native to South and Central America.
- Dangers = shades out native plants and completely takes over. Forms an "umbrella" over the other plants, not letting them drink water. One tree can make 3 million sand-grained sized seeds a couple times a year! Easily spread by birds & the mud on our boots!

If you see this species, call the Pest Hotline: 643-PEST



Little Fire Ant: As long as a penny is thick.

- Native to Central and South America.
- Dangers = Delivers a painful sting when disturbed. Welts can last for weeks. Infests farms and bee hives. They nest in trees and are easily blown out of them. Infests homes, beds, furniture and food. They can cause blindness in pets.

If you see this species, call the Pest Hotline: 643-PEST



Vespula Wasp: Western Yellowjacket.

- Native to regions of North America.
- Dangers = the sting can be very painful. People can be allergic to wasp stings. Can sting multiple times. They eat native insects. Without insects, plants won't be pollinated.

If you see this species, call the Pest Hotline: 643-PEST

