

## LESSON PLAN: MARIANAS LEAST WANTED SPECIES

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Adapted from <http://www.indianastandardsresources.org/lesson.asp?ID=297> by Mary Garvilles

### Lesson overview:

**Objectives:** Students will be able to understand and explain the impact of introduction of non-native species into island ecosystems, and to describe the impacts of several invasive species in the Mariana Islands.

**Time/duration:** Multiple Days

### Materials:

- Research materials on invasive species
- Materials to make tri-fold pamphlets,
- Worksheet – “Mariana’s Least Wanted” – 1/student

**Background:** Teachers should read up on invasive species in the Marianas. Here are some websites:

- [www.invasivespecies.gov](http://www.invasivespecies.gov)
- [www.guampedia.com](http://www.guampedia.com)
- Resource for information on invasive insects:  
<http://guaminsects.net/anr/category/category/invasive-species>
- Invasive plants on Rota: <http://www.hear.org/pier/reports/rreport.htm>

### Lesson procedure:

- 1) Day 1: Introduce the concept
  - a) Show and identify a picture or sample of *Coccinia grandis* (ivy or scarlet gourd) to the class.
  - b) Explain the difference between native, alien/non-native, and invasive.
  - c) Describe the impacts of *Coccinia grandis*. The vines climb over trees and form such dense cover that the forest underneath is completely shaded out and destroyed.
  - d) Explain that many native species have become endangered or have gone into extinction due to the invasion of nonnative species.
  - e) Discuss how humans are the primary means of species introduction.
- 2) Day 1: Group activity- creating a pamphlet on an invasive species.
  - a) Have groups of students choose an organism from the list of Mariana’s Least Wanted and create a tri-fold informational pamphlet on the organism.
  - b) The purpose of the pamphlet is to inform the public about the nonnative species found in the U.S. and the negative impact they cause to their environments. By being informed about nonnative species, it is possible for individuals to prevent some of these organisms from invading other areas (e.g., plane or shipping companies or owners can make sure to check their plane or cargo to prevent the spread of Brown tree snake).
- 3) Day 2: Presentations: Have each group distribute copies of their pamphlet to the class and have them explain the information in the pamphlet to fellow students.
  - a) Aid students in circulating the pamphlets throughout the community.
- 4) Day 2: Questions for review: At the conclusion of the activity, have students answer these questions in their journal, to be passed in and graded.
  - a) Why is it important to inform the public about the harm of exotic species to the environment?

- b) What is the significance of the introduction of exotic species into the environment? What are the positive and negative effects?

**Evaluation:** Grade each student's pamphlet and journal entry.