

INVASIVE SPECIES FOLLOW ALONG WORKSHEET- UPPER LEVEL

Complete this worksheet during the lesson.

1. Explain the differences between a native, non-native, and invasive species:

2. Give four examples on how a non-native/invasive species can be introduced to a new area:

3. Which is NOT a way that increases the chances of a species becoming invasive?
 - a. New species has predators in the new area
 - b. Reproduce quickly, frequently, and/or with large clutch sizes
 - c. Have defense or predatory mechanisms native species don't have defenses for
 - d. Can eat a wide variety of prey in the area

4. What are three ways in which invasive species are damaging?

5. Answer the following questions about the **Lionfish**:
 - a. Where is it native:
 - b. How was it introduced:
 - c. How do they harm the new ecosystem:
 - d. What are we doing about them:

6. Answer the following questions about the **Burmese Python**:

- a. Where is it native:
- b. How was it introduced:
- c. How do they harm the new ecosystem:
- d. What are we doing about them:

7. Answer the following questions about the **Cane Toad**:

- a. Where is it native:
- b. How was it introduced:
- c. How do they harm the new ecosystem:
- d. What are we doing about them:

8. Answer the following questions about the **Green Iguana**:

- a. Where is it native:
- b. How was it introduced:
- c. How do they harm the new ecosystem:
- d. What are we doing about them:

9. What is a way we are working to systemically prevent invasive species?

INVASIVE SPECIES FOLLOW ALONG WORKSHEET- UPPER LEVEL **ANSWERS**

Complete this worksheet during the lesson.

1. Explain the differences between a native, non-native, and invasive species:

- Native- Plants and animals that originated and live in an area without any human intervention
- Non-native- Species that have been introduced to a place outside their natural range, but do not cause harm to the new ecosystem or species within it
- Invasive- A non-native species that causes harm to the environment, economy, or human, animal, or plant health

2. Give four examples on how a non-native/invasive species can be introduced to a new area:

- Natural occurrences like hurricanes, floods, currents
- Climate change- expanding range of animals, make ecosystems more susceptible to invasives
- Accidental release- attached and transported to boats/fishing equipment, ballast water/cargo, escapees, construction projects
- Intentional release- live bait, breeding, pest control, releasing pets

3. Which is NOT a way that increases the chances of a species becoming invasive?

- a. New species has predators in the new area
- b. Reproduce quickly, frequently, and/or with large clutch sizes
- c. Have defense or predatory mechanisms native species don't have defenses for
- d. Can eat a wide variety of prey in the area

4. What are three ways in which invasive species are damaging?

- outcompete native organisms for resources like space, food, water, light
- decreasing biodiversity
- destroy food chains
- change the habitat
- spread disease
- economic/tourism impacts

5. Answer the following questions about the **Lionfish**:

a. Where is it native: **Indo-Pacific and Red Sea** b. How was it introduced: **pet trade**

c. How do they harm the new ecosystem:

- significantly decrease native prey populations (decrease biodiversity)
- venomous spines unique defense/no natural predators

d. What are we doing about them:

Lionfish derbys, eat lionfish, report sightings, specialized traps

6. Answer the following questions about the **Burmese Python**:

a. Where is it native: **SE Asia** b. How was it introduced: **pet trade**

c. How do they harm the new ecosystem:

decrease biodiversity- greatly decreased native mammal populations, eat endangered species

d. What are we doing about them:

Hunting, contractor removals, python patrol training, pet amnesty program

7. Answer the following questions about the **Cane Toad**:

a. Where is it native: **South/Central America** b. How was it introduced: **intentional release**

c. How do they harm the new ecosystem:

- **decrease biodiversity- eat a wide variety of vegetation, insects, and animals**
- **bufotoxin unique defense/no natural predators**
- **potentially compete with native species**

d. What are we doing about them:

humane killing, pet amnesty program, remove eggs from ponds, remove places where they can hide

8. Answer the following questions about the **Green Iguana**:

a. Where is it native: **Caribbean, South/Central America** b. How was it introduced: **cargo, pet release**

c. How do they harm the new ecosystem:

- **damage gardens, landscaping, crops, sidewalks, seawalls, and foundations**
- **can cause power outages**
- **consume host plants endangered butterflies rely on**
- **can transmit salmonella**

d. What are we doing about them:

Humane killing, deterrent measures like reflective items, wind chimes, fill holes, remove/fence off attracting plants, wrap trees, exotic pet amnesty program, eating

9. What is a way we are working to systemically prevent invasive species?

Studying newly found exotic species and thier effects on commerically important fish species, establish ballast water research and standards, using partnerships to monitor and mitigate invasive species, set up channels for people to report sightings