

Nonindigenous Species: Aliens on Earth



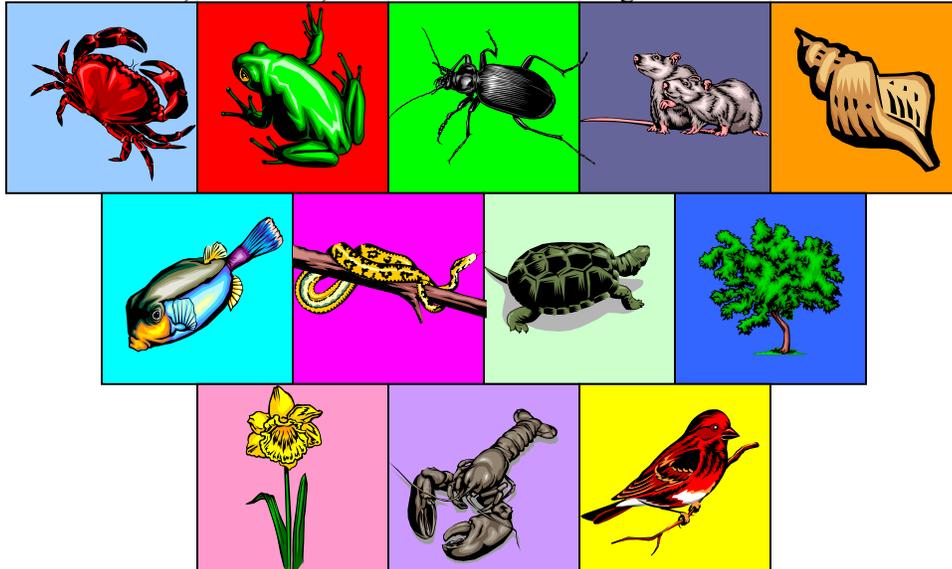
What are nonindigenous species?

Nonindigenous species are **organisms** (both plants and animals) that do not exist naturally in a particular area. For example, a turtle from South America is **native** to that country because that is where it occurs naturally, but if that same turtle was brought into the United States and released it would then be nonindigenous to the United States. Nonindigenous species are also sometimes called **non-native** or **invasive**.



What types of living organisms are nonindigenous?

All types of organisms can be nonindigenous, from tiny unicellular organisms to very large mammals. The most familiar organisms are usually plants, algae, fishes, mammals, birds, reptiles, amphibians, insects and many types of **invertebrates**. Nonindigenous species include terrestrial, freshwater, **estuarine** and marine organisms.



What are the impacts of nonindigenous species?

Native **biodiversity** is **declining** mainly because of **habitat** loss; however, nonindigenous **species** are the next important factor causing this decrease. When a nonindigenous species is introduced to a new area it **competes** with the native plants or animals for food, water, nutrients and space and can eventually drive the original species out of its habitat. If this happens entire **communities** are affected and habitats are **changed**. Let's look at an example: Every summer you and your friends like to go swimming in your favorite spot in the lake and last summer you noticed this new plant in the water (a nonindigenous species) and you really did not pay it any attention. Well, this summer you go to that same spot at the lake and it is now covered with this plant and that is all you can see. The lake looks different, all of the native plants are gone because they have been outcompeted and maybe some of the fish and aquatic invertebrates are no longer easily found because their numbers have declined because of this new plant. You see, a nonindigenous species introduced to a new area, like your favorite lake acts like a domino effect.

More and more species fall because of this one new species, just as dominoes fall if you knock over one!



Why should you care about nonindigenous species?

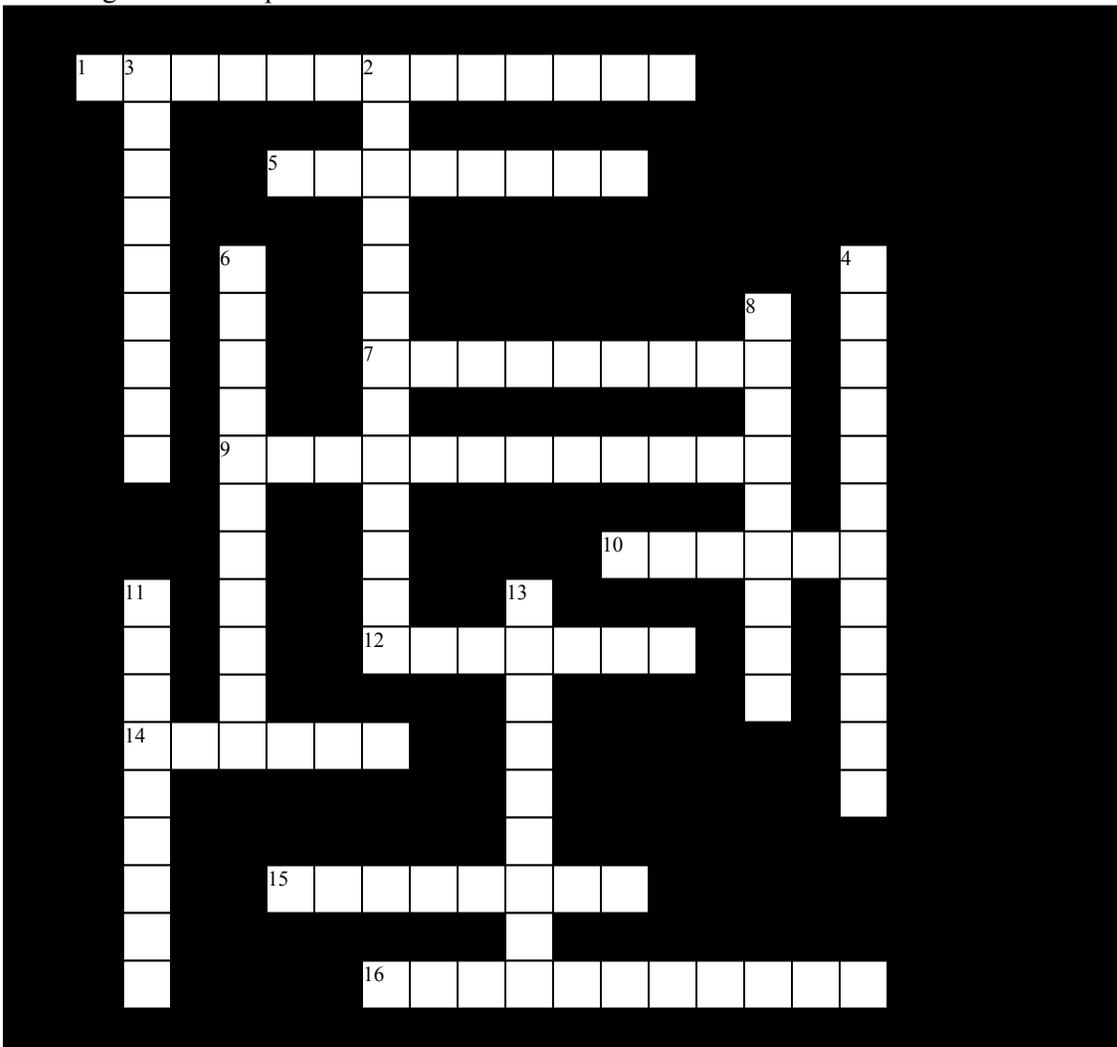
Humans are the main reason species become introduced to new areas and this may be an accident or on purpose. We want to keep our native plant and animal populations healthy so that we have well-balanced **ecosystems** and a healthy **environment**. **Invasive** species (nonindigenous species that are extremely aggressive and cause many problems) can cost our government lots of money to control. **Recreational** activities, such as, swimming, boating and fishing sometimes are no longer possible because of nonindigenous species. You see nonindigenous species can affect everyone!



What can you do to help?

You can educate yourself and your family and friends about nonindigenous species and why we should all care! You can join community groups that help gather these species in their communities! If you have pets, like turtles, frogs, fish, or even water garden or aquarium plants, please don't release them into the wild!

Crossword Puzzle: Use the bold-faced words throughout this fact sheet as answers to the following clues to the puzzle.





Crossword clues:

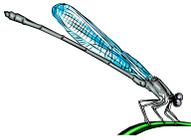
Across

1. a species that is introduced to a new area
5. aggressive, causing major problems
7. where freshwater and saltwater meet
9. hobby, something done for fun
10. to make different; habitats can be _____
12. similar individuals that are able to reproduce
14. originally from a particular area
15. try to get something
16. a group of different populations in an area

Down

2. animals without a backbone
3. a living thing
4. number of plant and animal species in an area
6. surroundings, including living and nonliving factors
8. decreasing in numbers
11. the opposite of native, not from an area
13. communities of organisms and their environments that function together

*Answers to clues are listed on the back of this page.



Nonindigenous species and environmental education
web sites:

<http://cars.er.usgs.gov/Education/index.html>

<http://cars.er.usgs.gov/outreach/>

http://interactive2.usgs.gov/learningweb/explorer/topic_eco_links.asp

<http://educators.fws.gov/students.html>

<http://www.nwf.org/kids/>

<http://www.dep.state.fl.us/secretary/kids/default.htm>

Answers to crossword puzzle:

1. nonindigenous
2. invertebrates
3. organisms
4. biodiversity
5. invasive
6. environment
7. estuarine
8. declining
9. recreational
10. habitat
11. nonnative
12. species
13. ecosystem
14. native
15. competes
16. communities