

Science 10 1.12 Roles in Ecosystems

An ecological niche is an organism's role in the ecosystem or habitat and interactions it has.

Two animals may live in the same habitat and have the same feeding but be in different niches.

Ex 1: Red Tailed Hawk and Owl
 Occupy the same space (Old Park) but the hawk hunts daytime; the owl nighttime.

Ex 2: General Species of Warblers
 These 5 species are active daytimes but eat seeds from a different part of a tree.

Competition for Niche occurs when non native species invades a region
 (invasive species)

Ex 1: Quagga
 once only in South America but when S. A. I. A. found 5 mill years ago it moved into N. A.

Ex 2: Asian Elephant
 Brought into North America and has taken over the habitat of Hoopoe Bats.

Ex 3: Zebra Mussel Brought to Great Lakes in bilge water from the Black Sea & Caspian Sea.

Pro:
 1) They filter the water and have helped clean the Great Lakes.
 2) Provide food for birds (ducks, geese)

Con:
 1) Disrupted shellfish market
 2) Block water intake pipes
 3) Compete with the native freshwater
 4) Algal Blooms (cyanobacteria)
 5) Bioaccumulation
 Pollution that the Zebra mussel catches will concentrate up the food chain
 e.g. zooplankton → Salmon → Pet Fish
pollutants concentrate

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