
*Student Name**Class*

Section 3 – Change in Ecosystems

3.1 Investigating the Distribution of Living Things in an Environment

1. Changes occur within ecosystems all the time. Natural disasters or human activity can change an ecosystem forever. The extinction of the Auk occurred around 1844. The cause was ...
 - A. a flood
 - B. a meteor
 - C. overhunting
 - D. forest-clearing

2. Scientists study ecosystems by counting all of the study species in a particular are. If there are too many to be counted individually, they estimate the number by using this method ...
 - A. abiotic sampling
 - B. biotic sampling
 - C. quadrant sampling
 - D. sectionalization

3. When students studied their schoolyard to identify what human impact had on the numbers of organisms they recorded their data in a table. Two places where they likely studied were the ...
 - A. climbing apparatus and parking lot
 - B. climbing apparatus and the tarmac
 - C. parking lot and the soccer field
 - D. tarmac and the nature garden

4. To identify the types of living things that they couldn't easily recognize, that lived in both these areas, the students used a ...
 - A. classification key
 - B. dictionary
 - C. thesaurus
 - D. textbook

5. The ideal size of a quadrant is the smallest size that contains the same number of species as would be contained in a ...
 - A. local marsh
 - B. larger one
 - C. small puddle
 - D. medium sized one

6. A long-term change to an ecosystem will likely occur as a result of this type of human impact ...
 - A. drought
 - B. flood
 - C. tsunami
 - D. clearing forests

3.2 Interactions and Changes Occur In Ecosystems

1. At one time, wetlands were not considered to be very important. Human activity in many countries destroyed the wetlands for farmland and housing. Another reason they were destroyed was a result of ...
 - A. overhunting
 - B. pollution
 - C. reforestation
 - D. tornadoes

2. The introduction of a new species to an area will likely negatively impact the native species in that. Scientists call this introduction of new species ...
 - A. bioinvasion
 - B. biodiversity
 - C. biohazardous
 - D. biomagnification

3. Purple loosestrife has taken over many wetland and marshy areas. Because this was first introduced from Europe, it is not considered to be ...
 - A. harmful
 - B. invasive
 - C. native
 - D. hazardous

4. The overabundance of European starlings causes problems in farmer's fields and hazards at airports. This introduced species competes with other birds, such as bluebirds, woodpeckers and flycatchers for ...
 - A. insecticides
 - B. nesting sites
 - C. migration patterns
 - D. predation

5. The problem with introducing species is that they usually take over the habitat and compete for food with native species. Canada's total number of invasive plant species is more than ...
 - A. 25%
 - B. 40%
 - C. 50%
 - D. 75%

6. A predator-prey relationship exists between organisms that hunt and are hunted for food. The interactions between the predators and their prey can affect ecosystems. If there are too many predators, the prey population will ...
 - A. increase
 - B. decrease
 - C. not be affected
 - D. be forced to leave

3.3 Succession: How Ecosystems Change over Time

1. **Succession** is a gradual process within an ecosystem in which some species replace other species. When a forest fire destroys a certain area, regeneration occurs. This is an example of ...
 - A. **micro-succession**
 - B. **eco-succession**
 - C. **primary succession**
 - D. **secondary succession**

2. A forested area has been cleared and redeveloped as prime agricultural land. This change to the forest ecosystem has resulted in ...
 - A. **an increase in the warbler population**
 - B. **a decrease in the warbler population**
 - C. **an decrease in the cowbird population**
 - D. **both bird populations decline**

3. The first living species to arrive in an area are usually alga and fungus. Together their mutual relationship is visible in their form they can be observed - lichen. Lichen grows on bare rock and is considered to be the ...
 - A. **invasive species**
 - B. **primary species**
 - C. **pioneer species**
 - D. **climax species**

4. When populations of many different species grow and relace one another within a particular area, a stable community of a diverse number of species that is not easily replaced by other communities will result. This is called a ...
 - A. **climate community**
 - B. **climax community**
 - C. **continuous community**
 - D. **competitive community**

5. Succession is different in different habitats. On sand dunes, species that usually succeed are the following ...
 - A. **grasses, shrubs and trees**
 - B. **mosses, fungi and grasses**
 - C. **ferns, bushes and trees**
 - D. **lichen, fungi and mosses**

6. All of the following are examples of secondary succession, **EXCEPT** a ...
 - A. **farmer's field**
 - B. **lava flow**
 - C. **vacant city lot**
 - D. **strip mine**