

Read the following article and answer the questions.

## Alien Invasion!

They are black. They are **spiny**. Thousands lie in wait on the Hudson's beaches. Be careful there; the sharp spines will stab your feet. In summer, these so-called "devil's heads" transform into a green mat that spreads over shallow waters.

These hard nuts are seeds of the water chestnut, an **alien** plant from Europe and Asia. People brought it to Schenectady in 1884. It escaped to the Mohawk River and reached the Hudson **estuary** in the 1930s. Now it grows in quiet shallows throughout the freshwater part of the estuary.

Water chestnut leaves float on the surface. Its stems reach down to the bottom. Where many plants grow together, their leaves and stems form tangled mats covering the water. Small boats find it difficult to move through these mats.



Because the water chestnut's leaves block sunlight, other plants cannot grow underneath the floating mats - it's too dark. In this way the water chestnut has invaded habitats used by water plants **native** to the Hudson and **displaced** them.

Like other green plants, water chestnut produces **oxygen** by **photosynthesis**. However, its leaves release oxygen into the air, not into the water. Since other plants can't grow in the darkness below the leaves, river water beneath large mats of water chestnut often lacks oxygen. Fish can't survive there.



This **invasive** plant does have some good qualities. Many different **invertebrate** creatures (insects, crustaceans, and worms, for example) live on water chestnut, and there are lots of them. Fish hang out at the edge of the water chestnut mats, gobbling down creatures that wander or are washed out.



*The scud (a crustacean) lives on water chestnut*

It is too late to **repel** this invader. It has become - for better or worse - a **permanent** part of the Hudson River estuary community.

1. This article is **mostly about**
  - a. aliens from outer space.
  - b. an invasive plant.
  - c. animals that live in water chestnut mats.
  - d. the dangers of water chestnut seeds.
  
2. What does it mean to be an **alien species**?
  - a. one that damages the environment.
  - b. one that lives in Europe or Asia.
  - c. one that is invasive.
  - d. One that grows in a place where it didn't live until people brought it there.
  
3. Water chestnut is an **invasive** species because
  - a. it displaces native plants that grow in shallow waters of the Hudson.
  - b. the spines of the water chestnut seed can stab people's feet.
  - c. it comes from Europe and Asia.
  - d. its leaves float on the surface of the water.
  
4. According to the article, which of these statements are true?
  - a. It is dark beneath thick mats of water chestnut leaves. \_\_\_\_\_
  - b. Many insects, crustaceans, and worms live on water chestnut. \_\_\_\_\_
  - c. Water chestnut is found in salt water. \_\_\_\_\_
  - d. "Devil's heads" are the seeds of the water chestnut plant. \_\_\_\_\_



*Water chestnut mats can make boating and swimming difficult. People sometimes remove the plants by hand or using machines.*