BIOLOGY

🔶 TEKS 3A, 12F

What Can Be Done About Invasive Species?

It's hard to imagine that an inch-long shellfish could cause millions of dollars of trouble each year. However, the zebra mussel does just that. Zebra mussels were carried to the Great Lakes in the 1980s from Eastern Europe. As adults, these mussels attach to almost any hard surface. Zebra mussels have been reported in 29 states, spread by recreational boaters who unknowingly carry them attached to their boats. These mussels clog water pipes that supply power plants and water treatment facilities. They also upset aquatic food webs, filtering so much plankton from the water that some native fishes and shellfish starve.

The Viewpoints

Invasive Species Should Be Destroyed A number of groups contend that invasive species such as zebra mussels and red imported fire ants should be removed completely. Some engineers are developing robotic submarines that can remove zebra mussels from pipes. Some chemists are testing chemicals for the potential to destroy the mussels or disrupt their life cycle. Texans are encouraged to kill any red imported fire ants that they find, if they can confidently distinguish them from red native fire ants.

Invasive Species Management Should Focus on Control and Prevention Some groups argue that efforts to destroy invasive species offer only temporary control and could introduce new problems, such as new invasive species, to an ecosystem. Invasive populations bounce back and removal efforts are incredibly expensive. Many scientists believe that there is no way to remove established invasive species. Instead, they want to concentrate on controlling the growth of populations and on preventing the spread of invasive species to new areas.

Focus on Texas

The zebra mussel is only one of dozens of invasive species plaguing Texas today. The red imported fire ant is currently more destructive. It destroys crops, attacks and kills the young of native wildlife, including native mammals and birds. It even kills red native fire ants. Its most dangerous and expensive habit though, is its unexplained attraction to electrical equipment. Swarms of these ants have caused large electrical outages in Texas and elsewhere in the United States.

Scientists are planning a more focused attack against the red imported fire ants by importing a parasitic fly from the ants' native South America. The fly lays its egg on a red imported fire ant. When the egg hatches, the larva crawls through the ant, eating the internal organs. When it reaches the head, the ant's head falls off, and the larva crawls out.

Research and Decide

1. Analyze the Viewpoints How would you recommend controlling the growth of that ant population? What problems would you anticipate in control efforts? Support your opinion with facts from the text, this feature, and your research.

2. Research Read more about the Fire Ant Project at the University of Texas at Austin. Focus on information about the parasite-host relationship between the ants and flies in the Research link and on the frequently asked questions (FAQ) link. Describe the specific nature of the parasitism between the phorid flies and the fire ants.

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