

In the 1950s *Torreya taxifolia*, a type of evergreen tree once very common in the state of Florida, started to die out. No one is sure exactly what caused the decline, but chances are good that if nothing is done, *Torreya* will soon become extinct. Experts are considering three ways to address the decline of *Torreya*. The first option is to reestablish *Torreya* in the same location in which it thrived for thousands of years. *Torreya* used to be found in abundance in the northern part of Florida, which has a specific microclimate. A microclimate exists when weather conditions inside a relatively small area differ from the region of which that area is a part. Northern Florida's microclimate is very favorable to *Torreya*'s growth. This microclimate is wetter and cooler than the surrounding region's relatively dry, warm climate. Scientists have been working to plant *Torreya* seeds in the coolest, dampest areas of the microclimate. The second option is to move *Torreya* to an entirely different location, far from its Florida microclimate. *Torreya* seeds and saplings have been successfully planted and grown in forests further north, where the temperature is significantly cooler. Some scientists believe that *Torreya* probably thrived in areas much further north in the distant past, so by relocating it now, in a process known as assisted migration, humans would simply be helping *Torreya* return to an environment that is more suited to its survival. The third option is to preserve *Torreya* in research centers. Seeds and saplings can be moved from the wild and preserved in a closely monitored environment where it will be easier for scientists both to protect the species and to conduct research on *Torreya*. This research can then be used to ensure the continued survival of the species.

Now listen to part of a lecture on the topic you just read about. You've just read about three ways to save *Torreya taxifolia*. Unfortunately, none of these three options provides a satisfactory solution. About the first solution, reestablishing *Torreya* in the same location. That's unlikely to be successful because of what's happening to the coolest, dampest areas within *Torreya*'s microclimate. These areas are being strongly affected by changes in the climate of the larger region. This could be because global warming has contributed to an increase in overall temperatures in the region or because wetlands throughout Florida have been drained. Either way, many areas across the region are becoming drier. So it's unlikely that *Torreya* would have the conditions it needs to survive anywhere within its original Florida microclimate. Now, about the second solution, relocating *Torreya* far from where it currently grows. Well, let's look at what happened when humans helped another tree, the black locust tree, move north to a new environment. When they did this, the black locust tree spread so quickly that it killed off many plants and trees in the new environment—and some of these plants and trees were themselves already in danger of becoming extinct. So assisted migration can have unpredicted outcomes for the new environment. Third, research centers are probably not a solution either. That's because the population of *Torreya* trees that can be kept in the centers will probably not be able to resist diseases. For a population of trees to survive a disease, it needs to be relatively large and it needs to be genetically diverse. Tree populations in the wild usually satisfy those criteria. But research centers would simply not have enough capacity to keep a large and diverse population of *Torreya* trees, so trees in such centers will not be capable of surviving diseases in the long term.

Summarize the points made in the lecture, being sure to explain how they cast

doubt on the specific solutions presented in the reading passage.

Do you agree or disagree with the following statement? Students are more influenced by their teachers than by their friends. Use specific reasons and examples to support your answer.