

Speaking Scientifically

Are ecological disturbances good or bad?

It depends.

The situation you read about on Guam is an example of a **disturbance** of an ecosystem. A **disturbance** is when something happens that messes up the normal way an ecosystem functions. We tend to think that **disturbances** are bad, and in the case of the snakes on Guam, it does indeed look like a difficult situation that is causing serious problems.

But in other cases, ecosystems depend on **disturbances** to maintain their health. Let's consider forest fires. In California, redwood trees don't get killed by forest fires. In fact, the tiny cones on the tree (like pine cones) drop their seeds during fires because that's the best time for the seeds to sprout into new trees. When a fire clears away all the dense underbrush, seeds have a much better chance of growing into trees. Only then does sunlight shine all the way to the forest floor.

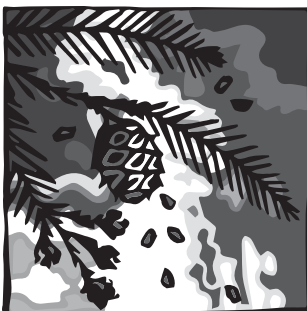
The entire ecosystem depends on fire. Pretty amazing. The illustrations below are like a timeline of a fire. Try to complete the captions to explain how fire benefits the redwood tree and its ecosystem.



On a ridge about a kilometer away from a redwood grove, lightning strikes the dry grass and



The fire spreads to



The tiny redwood cones react to the heat of the fire and



Since the forest floor is cleared of brush,
