

Trees deal with climate change better than expected

By Tatiana Schlossberg, New York Times

The bend-don't-break adaptability of trees extends to handling climate change, according to a new study that says forests may be able to deal with hotter temperatures and contribute less carbon dioxide to the atmosphere than scientists previously thought.

In addition to taking in carbon dioxide during photosynthesis, plants also release it through a process called respiration. Globally, plant respiration contributes six times as much carbon dioxide to the atmosphere as fossil fuel emissions, much of which is reabsorbed by plants, the oceans and other elements of nature. Until now, most scientists have thought that a warming planet would cause plants to release more carbon dioxide into the atmosphere, which in turn would cause more warming.

But in a study published Wednesday in *Nature*, scientists showed that plants were able to adapt their respiration to increases in temperature over long periods of time, releasing only 5 percent more carbon dioxide than they did under normal conditions.

Based on measurements of short-term temperature responses in this study and others, the scientists expected that the plants would increase their respiration by nearly five times that much.

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