

Tree mortality rates skyrocket in the Western U.S.

By Joanna Bernstein
STAFF WRITER

Recent studies conducted by geologists and environmental scientists have shown that due to rapidly rising temperatures, and more frequent and longer lasting droughts, trees in the western United States are dying at unprecedented rates.

According to the study, the droughts and temperatures blamed for the increased tree mortality are symptoms of climate change.

Climate change is largely due to the overabundance of carbon dioxide emitted into the atmosphere by the burning of fossil fuels.

Carbon dioxide traps heat that hovers above the earth in our atmosphere, thereby warming the planet. Trees and other forms of plant life that populate the earth possess the ability to sequester, or store, carbon and in turn cool our atmosphere.

"Summers are getting longer," said Nathan Stephenson of the United States Geological Survey to The New York Times. "(In turn,) trees are under more

drought stress."

As temperatures rise and trees undergo more drought stress, struggling to stay alive, they sequester increasingly lower amounts of carbon. In short, a dying tree sequesters less carbon than a healthy tree, and a dead tree sequesters no carbon at all.

According to The New York Times, the higher mortality rates have held regardless of tree size or type or elevation at which the tree grew. Additionally, the fact that birth rates have remained unchanged among the nearly 60,000 pines, firs, and hemlock trees from the Pacific Northwestern United States indicates that forests are losing trees faster than they are replacing them.

"This study adds to the growing body of research demonstrating the effects of global warming on ecosystems around the world," said Angela Moore, co-coordinator of the Guilford's environmental studies program. "Additionally, this study points out that ecosystem impacts from global warming are a much larger issue than just the loss of polar habitats: it is affecting the woods and wetlands

in our own backyards."

While scientists cannot yet confirm that the rising temperatures and droughts (and in turn the rising tree mortality rates) are completely due to global warming, more and more scientists from myriad fields of research point to global warming as the perpetrator.

"We see the regional warming as

could begin to die off if they lose their habitats.

Many animal species provide ecosystem services, or aid the environmental in undergoing natural processes benefiting both human and plant/animal life that humans alone are incapable of performing.

The loss of forest cover does more than stunt the environment's

environmental advocates are worrying about the physical warming of our planet and how that warming will affect other in tact environments, member of the on-campus environmental group Forevergreen. Alyzza Callahan is apprehensive about the fate of the land that has already begun to disappear.

"With the death of trees, there are ramifications beyond the initial carbon off-put," said Callahan, a junior peace and conflict studies major. "What's going to happen to the land where those trees are now? Is it just going to be developed and produce even more carbon and other toxins?"

Callahan added that the potential for such development to yield increased toxic emissions fuels our already environmentally destructive consumer culture.

Whether or not tree mortality rates in other parts of the world will begin to skyrocket as they have in the western U.S. remains to be seen. The Department of Agriculture claims that as temperatures rise, so will the size and number of fires and insect infestations in forests worldwide—both of which can accelerate the death of trees.

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part of a much larger shift globally," said University of Washington Professor of Ecosystem Analysis Jerry Franklin to The New York Times.

In addition to losing forest cover as a result of drought and rising temperatures, an immeasurable amount of animal species

ability to mitigate climate change by sequestering carbon.

"Frankly, I find it terrifying that these things that are so big and such a massive part of life out there are disappearing are not being replenished," said junior sociology major Casey Thomas.

While many concerned envi-

Higher tuition, dropping endowments signs of struggling higher education system

By Liz Farquhar
STAFF WRITER

The cost for higher education in the United States has become increasingly expensive every year.

For state institutions, the amount of money allotted to them is changing with the downturn in the economy. For private institutions that rely on endowments and tuition for the majority of their budget, the recent economic crisis has really hit home.

Across the country, universities and colleges have been dealing with deficits in their budgets. Private universities are also suffering with their endowments. Duke University has seen a 19 percent loss in endowment already. State schools are also suffering, except for three states.

According to the Chronicle of Higher Education, the governors of Maryland, Oregon, and Missouri are planning to leave state spending for higher education alone and make cuts in other areas instead.

The New York Times reported that some universities tried to justify the increase in tuition by saying that they weren't able to fully operate on the amount of money that was currently coming in.

This holds true if the university relies on enrollment for most of their revenue, like Guilford.

"Eighty percent of the revenue for Guilford is based on tuition," said Vice President for Finance and Administration

Gerald Boothby.

In North Carolina, the initial projection was a four percent budget cut for the next fiscal year; that estimation has increased to a seven percent cut to remain permanently.

If this goes into effect, that would mean that at UNC Chapel Hill alone there would be a loss of 121 faculty, 86 staff, and 282 undergraduate courses, according to the News & Observer.

NC State has begun figuring the cuts they will have to make and some professors offered to cut their own salaries or even teach for free as a way to help the cause.

At Guilford, the budget committee has had to make decisions on which areas are best to make cuts in without affecting students' educations.

Dean of Students Aaron Fetrow said, "Operations are the first place to cut, then people, but people are the last thing that you want to remove."

The many budget cuts that are being made across the country are affecting every aspect of state accounting and, with the large deficits, both public universities and private institutions are going to suffer huge losses.

"If things get more severe then (education) could be affected, but everyone has the same philosophy we do here," Boothby said. "All universities share the same generic goal of students first and it's a balancing act, but everyone will do the best with what they have."

