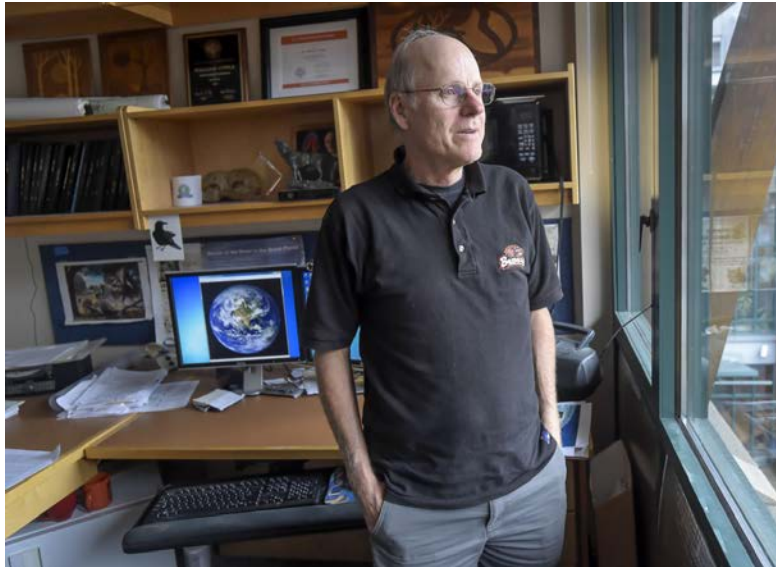


# 'Time is running out'

- BENNETT HALL Corvallis Gazette-Times



- Andy Cripe, Gazette-Times

In November of 1992, more than 1,500 scientists put their signatures on an extraordinary document titled “World Scientists’ Warning to Humanity,” imploring global leaders to save the planet from environmental disaster.

Now, 25 years later, more than 15,000 scientists have signed an updated version of that historic plea, saying "time is running out."

“World Scientists’ Warning to Humanity: A Second Notice,” published today in the international journal BioScience, charts the progress — or lack thereof — on the issues highlighted in the original document and renews the call for urgent action.

Lead author William J. Ripple, a distinguished professor of ecology at Oregon State University, said he was astounded by the level of support he and his seven co-authors received for their manuscript.

“I initially sent it out to 40 of my colleagues,” he recalled. “After 24 hours there were 600 scientists who signed it. Within two days, there were 1,200. ... There were so many people signing that our website crashed a couple of times.”

By the time the paper was ready for publication, the authors had received the endorsement of 15,364 fellow scientists from 184 countries.

The original “Warning,” published by the Union of Concerned Scientists, was a sort of environmental distress signal that began with this chilling statement: “Human beings and the natural world are on a collision course.”

It went on to lay out a number of alarming trends, including a growing hole in the atmospheric ozone layer, depletion and pollution of freshwater resources, overfishing in the ocean, widespread deforestation, crashing wildlife populations, increasing greenhouse gas emissions, rising global temperatures and soaring human population levels.

“A great change in our stewardship of the earth and the life on it is required,” the authors declared, “if vast human misery is to be avoided and our global home on this planet is not to be irretrievably mutilated.”

As the manifesto’s 25th anniversary approached, Ripple and his co-authors examined the available data to determine whether any progress had been made on key global environmental issues since 1992. By most measures, they concluded, humanity gets a failing grade.

“Especially troubling is the current trajectory of potentially catastrophic climate change” from burning fossil fuels and other human-caused factors, the article states. It also calls attention to a drastic loss of biodiversity that the authors call a “mass extinction event.”

Charts included with the paper chronicle a number of other disturbing developments over the past quarter-century, including a 28.9 percent reduction in the abundance of all vertebrate wildlife, a 62.1 percent increase in carbon dioxide emissions, a 167.6 percent increase in global average temperatures and a 35.5 percent rise in the global population — an increase of 2 billion people.

On the plus side, the researchers note a number of positive trends.

Perhaps the biggest environmental success story of the past 25 years has been the significant recovery of the ozone layer since the 1987 Montreal Protocol sharply curtailed the use of damaging chlorofluorocarbons, or CFCs, in aerosol sprays and other applications.

Other encouraging signs include reductions in extreme poverty and hunger, a slowdown in deforestation in some parts of the world, the rapid growth of the renewable energy sector and a sharp drop in birth rates in certain regions as women and girls obtain greater access to education.

Nevertheless, the authors conclude, urgent measures are required to avert disaster. They call on the scientific community, the media and ordinary citizens to pressure their governments to “take immediate action as a moral imperative to current and future generations of human and other life.”

They also call for change at the individual level, asking people to voluntarily have fewer children and consume fewer resources, from fossil fuels to meat.

“Humanity is now being given a second notice, as illustrated by these alarming trends,” the scientists warn. “We are jeopardizing our future by not reining in our intense but geographically and demographically uneven material consumption and by not perceiving continued rapid population growth as a primary driver behind many ecological and even societal threats.”

While it’s unusual for academics to speak out so strongly, Ripple said he and his colleagues couldn’t stand idly by while cascading global environmental crises continued to worsen.

“I’m feeling more concerned all the time. I wanted to write this because I think it’s important for scientists to reach out and show some leadership on global issues,” he said.

“If we don’t take an active part, who will? Should we just rely on the politicians to do it?”

Ripple’s co-authors on the BioScience paper were Christopher Wolf and Thomas M. Newsome of Oregon State University; Mauro Galetti of Universidade Estadual Paulista in Brazil; Mohammed Alamgir of the University of Chittagong in Bangladesh; Eileen Crist of Virginia Tech; Mahmoud I. Mahmoud of Nigeria’s National Oil Spill Detection and Response Agency; and William F. Laurance of James Cook University in Australia.

The authors created a new organization, the Alliance of World Scientists, as a platform for promoting their ideas. They continue to collect endorsements from fellow scientists for their "Second Notice" paper at the organization's website, <http://scientists.forestry.oregonstate.edu/>.