

CONSERVATION AND THE 800 LB. GORILLA

When I started out teaching conservation biology over 20 years ago, it was customary to present to the class a list of threats to biodiversity: habitat loss and fragmentation, invasive species, over-harvest, and pollution. It was also customary to mention global warming, along with the qualification that we didn't have much information on its effects on life on Earth, but we expected they could be serious. Without good information, this threat was something we effectively ignored.

In the intervening years, the situation has changed dramatically. Research on climate change has provided an increasingly precise—and ominous—picture of its effects on the diversity of life on Earth. The most recent and comprehensive analysis, appearing in the journal *Science* in 2015, predicts that our current climate trajectory could result in extinction for one sixth of the world's species. While habitat loss remains the greatest current threat to species, climate change is on course to dwarf habitat loss and all other threats to life on the planet in the near future.

Despite the immense body of scientific evidence, most of our society remains unaware of the effects of climate change on other forms of life. Most information about climate change focuses on direct effects to humans. Little emphasis is given to its effects on other species and ecosystems. This is terribly shortsighted, as our own survival is ultimately dependent on them. The unraveling of natural systems that our current trajectory is likely to produce would severely compromise human civilization itself.

Similarly, insufficient attention has been paid to the acidification of our oceans, caused by the vast quantities of carbon dioxide we are adding to the atmosphere. This threat to marine life is unprecedented in human history. And if it is unchecked, humans will suffer along with the marine life on which we depend.

This situation must be a top concern of everyone who cares about life on Earth. For this reason, I am very excited about PBI's new Climate and Ocean Acidification Initiative: pacificbio.org/about/climate.html. This initiative signals a shift in our work to directly address the 800 lb. gorilla in the conservation room.

We are intensifying our research, education, and outreach to engage with critical aspects of climate change and ocean acidification and their effects on life on Earth to help fill the knowledge and awareness gap.

It is easy to be overwhelmed by this huge challenge, but unlike other threats to biodiversity, this is a threat that we can all do something about, wherever we are. Reducing greenhouse gas emissions will reduce harmful effects in ecosystems around the world. Policies that we push our lawmakers to adopt will have positive effects on all life on Earth. And by supporting PBI in its climate and ocean initiative, we can make real progress on the most important conservation issue of our time.

Please consider supporting PBI in this effort.



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