

Finding Reliable Information, Part 3

The previous two parts of this series discussed [the peer review system](#), and [incompetent or deceptive practices in writing about science](#). In part three, we will examine another blog post that addresses the same topic as the one in part two, but with more thorough citation, and more sound conclusions.

[This blog post](#) makes the case that the current global warming event is too rapid for adaptation to be possible for many species, and will, if it continues at the current rate, result in major ecological damage.

After mentioning the role of CO₂ in the atmosphere, the author addresses the claim that the current change is nothing new in recent history. The case for relevance is that if we've had changes like this in the recent past, clearly plants and animals can survive them just fine. Two graphs are provided in contradiction to that assertion. One shows temperature and CO₂ levels over the last 20,000 years, and the other over the last 650,000 years. The second graph checks out ok - it's from the U.S. EPA, and has a full citation list to the original research. The references seem to check out ok, and the EPA has a pretty good record of being honest about data used.

The first graph, which goes back 20,000 years, has links to data from the same sources as the EPA data, but the Mauna Loa link doesn't work, so we can't follow any farther with what's provided. If you check out the full [Mauna Loa record on NOAA's website](#), it corroborates the graph provided and the claims made.

So the point that the current CO₂ levels are unprecedented in at least the last 650,000 years stands. Furthermore, the author links to an article on Science Daily, a science reporting website, that discusses research indicating that the current CO₂ levels are unprecedented in the last 15,000,000 years, further emphasizing that current species have not encountered anything like the current warming event.

In the next section, the author attributes a series of droughts and floods around the world to climate change, without, to be fair, providing too much support for the connection between climate change and the events. The latter part of this section goes into more direct impacts on various plants and animals all around the world that have been tied to climate change. The links all work, and they say what the author says they do.

Moving on to climate events of the past, the author starts by pointing out that the research discussed on HotAir, which we discussed in part two of this series, indicates a boom in diversity in the Amazon region during the period known as the "Paleocene-Eocene Thermal Maximum" came at the same time as a mass extinction event. The source for the extinction event is Wikipedia, which is not the best source in general, but is acceptable for information that is well known and beyond dispute.

Reference is then made to the Permian-Triassic extinction, with a link to Science Daily and a reference back to another post on the same blog, and then finally a link to an article from the journal "Coral Reefs" indicating that the five mass extinction events in the history of life on earth have coincided with increases in ocean acidity, generally driven by changes in the carbon cycle. The blog post asserts that all five have been associated with rapid rises in CO₂ levels, and while not explicitly stated in the abstract, the implication is there. When oceanic acidity rises, usually it is because of a rise in atmospheric CO₂.

The closing statement does include one claim - that we're in the middle of a mass extinction caused by human activity unrelated to climate - without supporting evidence, but that has no real impact on the overall point of the article.

Overall, the post, while not picture-perfect, does a good job of making a case, and providing reliable support for that case. The links work, the data agree with the author, and there aren't any attempts to infer conclusions other than the ones we are led to by the sources provided.