

## Less warming than expected?

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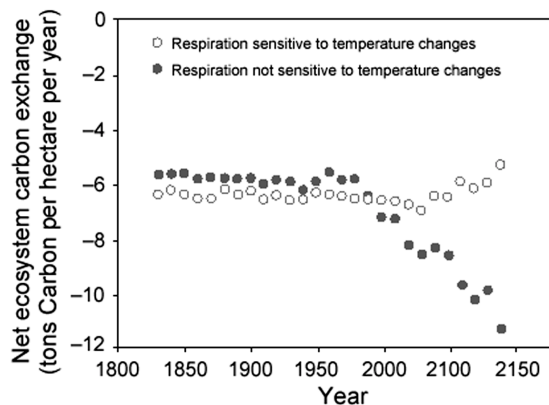
*According to British scientists, “Global warming is occurring faster than expected.” These findings have been refuted.*

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In *Cicerone* 6/00, the article “Faster warming than expected” (not translated to English) is based on another article “Acceleration of global warming due to carbon-cycle feedbacks in a coupled climate model” in *Nature*. This article has been refuted in the same journal (see references).

Cox et al. at the Hadley Centre made the following assumption in their climate models: CO<sub>2</sub> production from bacteria increases exponentially with an increase in temperature. Thus the Hadley Centre makes plants look like the largest climate threat humankind has ever faced. But fortunately, when you put garbage into a computer, you get garbage out. The two articles mentioned above demonstrate with crystal clarity that CO<sub>2</sub> production from bacteria does not vary in accordance with temperature, and thus the entire premise behind the Hadley Centre’s model collapses. In one sweep, plants go from being a climate threat to being a factor that strongly counteracts global warming, which is more in line with conventional wisdom about plants and CO<sub>2</sub> fertilization. (See figure.)

The reason that CO<sub>2</sub> production from bacteria does not increase exponentially is, as is



the case with so many other biological systems, that there are other limiting factors (nutrients). Traditional laboratory experiments have been short in their duration, which means that the bacteria are not given the chance to encounter these other limiting factors. In periods that last months, years, or decades, however, these limitations will manifest and CO<sub>2</sub> production will remain the same.

Incidentally, this is not the first time – and will hardly be the last time – that dubious model results have received undue media attention. It is symptomatic of climate modellers that they shoot from the hip. In this

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particular case, the issue would have been quite clear if they had looked at paleoclimatic data. Six thousand years ago it was considerably warmer on the Earth than it is now. This was when the interglacial period was at its warmest, which provides an excellent opportunity to test the hypothesis on exponential CO<sub>2</sub> production. If the assumption is correct, the CO<sub>2</sub> levels 6000 years ago should have reached their peak during the entire interglacial period, with the exception of the 200 years after the industrial revolution. But is this the case? No! On the contrary, the CO<sub>2</sub> levels were at their LOWEST during this period. Since that time, the temperature has gradually decreased and the levels of CO<sub>2</sub> have increased. It does not improve the case that several million years ago the temperature on Earth was 5–8 degrees warmer than it is today, analogous with the results from the Hadley Centre's model – and then the global CO<sub>2</sub> level was exceptionally low, around 200 ppm! This should have set off alarms with the Hadley scientists. Their results just do not correspond with reality!

**References:**

- Giardina, C. P. and M.G. Ryan. 2000. Evidence that decomposition rates of organic carbon in the mineral soil do not vary with temperature. *Nature*, 404: 858–861.
- Grace, J. and M. Rayment. 2000. Respiration in the balance. *Nature*, 404: 819–820.

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*Translated from the Norwegian*