Subject: : Paflyfish General Forum
Topic: : Fryin' up wild browns
Re: Fryin' up wild browns
Author: : PatrickC
Date: : 2013/5/1 15:59:39
URL:

Quote:

pcray1231 wrote:
Regarding the climate change thing, in a previous life (internship), I studied climate at a DOE lab. I'll try to sum it up like this.

Has the Earth warmed? Yes. It's undeniable fact.

How much has it warmed? Difficult to say. The slope is generally UP. But how much up depends greatly on how you average the sampling sites, baseline it with satellite data, etc. And how much correction you give for urban heat island effects and so forth at the sampling sites.

Hasn't it stayed steady in the last decade or so? By some accounts, yes. But when measuring changes in climate, you don't look at individual months, years, or even decades. That's just noise, i.e. weather and shorter term cycles/patterns. Both sides of the political debate are highly guilty of ignoring this, with deniers cherry picking data to discredit science, and alarmists cherry picking data to blame every major storm or warm season on global warming. There's a lot of data and noise. If you come in with a conclusion, you can find something to support it.

How much is human induced? Tough to say. Likely some. CO2 is a greenhouse gas. It has increased beyond natural cause explanations. Outside of other factors, it would cause the Earth to warm. But "outside other factors" is a false condition, CO2 and greenhouse warming doesn't exist in a vacuum. There are an infinite number of complex positive and negative feedback loops. A cooling effect can cause a warming effect and vice versa. As a simplistic example, if say, CO2 did increase temperatures via the greenhouse effect, this would cause:

A slowdown of the ocean conveyor currents - results in cooling at the poles, more warming at the equator.

Increased water vapor in the atmosphere from evaporation of seas - water vapor is a strong greenhouse gas, and would cause more warming. However, IF it condenses to form clouds, increased cloud cover has a strong cooling effect.

Decreased snow and ice cover - a warming effect.

Increased algae blooms in the seas - consumes CO2, pumps more oxygen into the atmosphere, pretty much as a counter to our influence on CO2 levels in the atmosphere.

Further, so we know CO2 has risen. Is it purely due to burning fossil fuels? How about deforestation, since trees consume CO2 and create oxygen and all?

How to weight all these things? Not enough data yet to draw any hard conclusions. Will take centuries to collect statistically significant data.

Best guess for the future? More warming. If you don't understand the current trend, you're best option is to predict it to keep happening.

This one of the better things you have written. Well said sir.