Supplementary Information

S1. Categorizing abstracts

The time evolution of number of papers and authors and category of papers is shown in Figure S1. Figure S1a shows that from 1991 to 2005, the number of annual papers increased by an average of 29 papers per year. From 2006 to 2011, the rate of increase was 201 papers per year. The largest category was Impacts (48.4%), followed by Mitigation (28.3%), Methods (16.7%) and Paleoclimate (6.6%). The percentage of Impacts papers increased (0.62 ± 0.24% per year), while the percentage of Methods papers fell (-0.56 ± 0.14% per year). The percentages of Mitigation and Paleoclimate papers showed no significant trend.

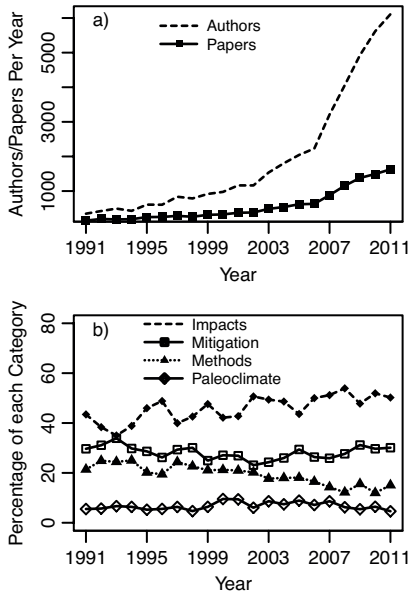

Figure S1. Annual number of a) papers and authors, b) percentages of categories Impacts, Mitigation, Methods and Paleoclimate.

Each abstract was categorized by two independent, anonymized raters. Initially, 27% of category ratings and 33% of endorsement ratings disagreed. Any potential impact from disagreements was mitigated by a process of justification of ratings in cases of disagreements and a final judgment by third parties. To further determine any potential impact of disagreement ratings, we calculated the degree of endorsement of the consensus for papers where initial ratings agreed (98.4%) and for papers where initial ratings disagreed (97.8%). There is little change in the consensus result whether the initial ratings agreed or disagreed.

S2. Survey of authors

Email addresses for corresponding authors began to be included in scientific papers on a more regular basis in the mid-1990s and became more and more readily-available in subsequent years. However, not all journals provide email addresses of the authors. In many of those cases, addresses could be found via the authors' listed affiliations or searching the internet. Email addresses were found for 60 to 70% of papers published between 1995 and 1999, 70 to >80% for papers published between 2000 and 2005, for

more than 90% in the years 2006 to 2008 and for all papers in the sample published in the years 2009 to 2011.

The country of each scientist was determined from the email address of scientists for whom email addresses were obtained. When the country selected by survey participants differed from the country derived from the email address, the survey country was used. Countries were determined for 8,536 scientists across 91 countries.

Table S1: Top 10 countries with most scientist representation.

Country	**Scientists**
USA	2,548
United Kingdom	546
Germany	404
Japan	379
Canada	325
France	280
Australia	273
China	251
Spain	151
Netherlands	143

Table S2: Number of papers and self-ratings per year.

Year	Number of papers per year	Number of self-ratings	Response rate
1991	145	16	11.0%
1992	193	19	9.8%
1993	180	22	12.2%
1994	188	27	14.4%
1995	248	29	11.7%
1996	252	24	9.5%
1997	283	31	11.0%

1998	256	33	12.9%
1999	313	38	12.1%
2000	325	57	17.5%
2001	372	54	14.5%
2002	381	56	14.7%
2003	486	80	16.5%
2004	539	85	15.8%
2005	619	96	15.5%
2006	630	105	16.7%
2007	881	173	19.6%
2008	1154	209	18.1%
2009	1379	301	21.8%
2010	1493	304	20.4%
2011	1627	383	23.5%

The text of the self-rating survey form provided to authors follows.

> *Please select from both drop downs below to rate your paper, specifying category and level of endorsement. You may also add any comments (e.g. - indicate if the paper was erroneously attributed to you). All papers must be rated in one sitting.*
>
> ***Category:*** *The first drop down indicates what category of research your paper covers. If your paper addresses more than one category, select the category that is the major focus:*
>
> 1 ***Impacts:*** *effects and impacts of climate change on the environment, ecosystems or humanity*
> 2 ***Methods:*** *focus on measurements and modeling methods, or basic climate science not included in the other categories.*
> 3 ***Mitigation:*** *research into lowering CO2 emissions or atmospheric CO2 levels*
> 4 ***Not Climate Related:*** *This includes social science research about people's views on climate*
> 5 ***Opinion:*** *Not peer-reviewed*
> 6 ***Paleoclimate:*** *examining climate during pre-industrial times*
>
> ***Endorsement:*** *The second drop down indicates the level of endorsement for the proposition that human activity (i.e., anthropogenic greenhouse gases) is causing global warming (e.g., the increase*

in temperature). Note: we are not asking about your personal opinion but whether each specific paper endorses or rejects (whether explicitly or implicitly) that humans cause global warming:

1. ***Explicit Endorsement with Quantification:*** *paper explicitly states that humans are causing most of global warming.*
2. ***Explicit Endorsement without Quantification:*** *paper explicitly states humans are causing global warming or refers to anthropogenic global warming/climate change as a given fact.*
3. ***Implicit Endorsement:*** *paper implies humans are causing global warming. E.g., research assumes greenhouse gases cause warming without explicitly stating humans are the cause.*
4. ***Neutral:*** *paper doesn't address or mention issue of what's causing global warming.*
5. ***Implicit Rejection:*** *paper implies humans have had a minimal impact on global warming without saying so explicitly. E.g., proposing a natural mechanism is the main cause of global warming.*
6. ***Explicit Rejection without Quantification:*** *paper explicitly minimizes or rejects that humans are causing global warming.*
7. ***Explicit Rejection with Quantification:*** *paper explicitly states that humans are causing less than half of global warming.*

S3. Journals

Table S3: Top 10 journals publishing 'global warming' or 'global climate change' papers from 1991 to 2011.

Journal	Total Papers (1991-2011)
Geophysical Research Letters	334
Global Change Biology	289
Climatic Change	284
Journal Of Climate	210
Energy Policy	189
Journal Of Geophysical Research-atmospheres	180
Proceedings Of The National Academy Of Sciences Of The United States Of America	170
Nature	130
International Journal Of Life Cycle Assessment	124
Climate Dynamics	108

A total of 55 journals published abstracts rejecting AGW (endorsement levels 5-7); 11 of these published more than one, with the greatest number (six) published by Geophysical Research Letters (Table S4).

Table S4: Journals publishing rejection abstracts.

Journals	**Number of rejection abstracts**
Geophysical Research Letters	6
Geomagnetism And Aeronomy	4
Doklady Earth Sciences	2
Energy Sources Part A-recovery Utilization And Environmental Effects	3
Journal Of Atmospheric And Solar-terrestrial Physics	3
Research & Exploration	3
Energy	2
Energy Policy	2
Global And Planetary Change	2
Kybernetes	2
Solar Physics	2
Ambio	1
Arabian Journal Of Geosciences	1
Astronomy & Geophysics	1
Atmospheric Environment	1
Bulletin Of The American Meteorological Society	1
Chinese Science Bulletin	1
Climate Research	1
Communications In Nonlinear Science And Numerical Simulation	1
Continental Shelf Research	1
Current Science	1
Ecological Modelling	1

Energy & Fuels	1
Energy Sources	1
Environmental Conservation	1
Environmental Geology	1
Environmental Pollution	1
Geochemistry International	1
Geographie Physique Et Quaternaire	1
Herald Of The Russian Academy Of Sciences	1
Houille Blanche-revue Internationale De L Eau	1
Hydrocarbon Processing	1
International Journal Of Modern Physics C	1
International Journal Of Physical Sciences	1
Ironmaking & Steelmaking	1
Izvestiya Atmospheric And Oceanic Physics	1
Journal Of Climate	1
Journal Of Engineering For Gas Turbines And Power-transactions Of The Asme	1
Journal Of Geophysical Research-atmospheres	1
Journal Of Geophysical Research-oceans	1
Journal Of Non-equilibrium Thermodynamics	1
Mathematical Geology	1
Meteorology And Atmospheric Physics	1
Oceanology	1
Ohio Journal Of Science	1
Pramana-journal Of Physics	1
Proceedings Of The Institution Of Civil Engineers-civil Engineering	1

Proceedings Of The Japan Academy Series B-physical And Biological Sciences	1
Proceedings Of The National Academy Of Sciences Of The United States Of America	1
Rendiconti Lincei-scienze Fisiche E Naturali	1
Renewable Energy	1
Science	1
Sola	
Theoretical And Applied Climatology	1
Zkg International	1

S4. Comparison with previous studies

Oreskes (2007) explains the reason for sampling 'global climate change' papers:

> *The analysis of the published literature presented here was done by sampling, using a keyword phrase that was intended to be fair, accurate, and neutral: ''global climate change'' (as opposed to, for example, ''global warming,'' which might be viewed as biased).*

Our analysis includes both 'global climate change' and 'global warming' papers over 21 years, making it possible to compare the level of consensus in each group. Considering only abstracts that either endorse or reject the consensus, we found the level of endorsement of the consensus for 'global climate change' papers was 99.3% (705 endorsement abstracts, 5 rejection abstracts) while the consensus for 'global warming' papers was 97.8% (3,300 endorsement abstracts, 74 rejections abstracts).

Schulte (2008) conducted an analysis of 539 'global climate change' abstracts from the Web of Science database over January 2004 to mid-February 2007. Table S5 shows a comparison between Schulte's results and our analysis over a similar period (including all of February 2007).

Table S5: Comparison of Schulte (2008) to our abstract analysis.

Level of Endorsement	**Schulte's Result**	**Abstract Ratings**
2. Explicitly endorses AGW	38	28
3. Implicitly endorses AGW	206	74
4. Neutral	264	402
5. Implicitly minimizes/rejects AGW	25	2
6. Explicitly minimizes/rejects AGW	6	0
Total	**539**	**506**

References

Oreskes N 2007 The scientific consensus on climate change: how do we know we're not wrong? *Climate Change: What It Means for Us, Our Children, and Our Grandchildren* MIT Press
Schulte K-M 2008 Scientific consensus on climate change? *Energy & Environment* 19 (2) 281-86