

How (un)biased is the new IPCC report AR6?

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Clintel Foundation
clintel.org

25. November 2022 / IKEK-15 / Braunsbedra



Prof. Guus Berkhout (TU Delft)



Marcel Crok

World Climate Declaration



See [Clintel.org](https://clintel.org)



World Climate Declaration



Es gibt keinen Klimanotstand



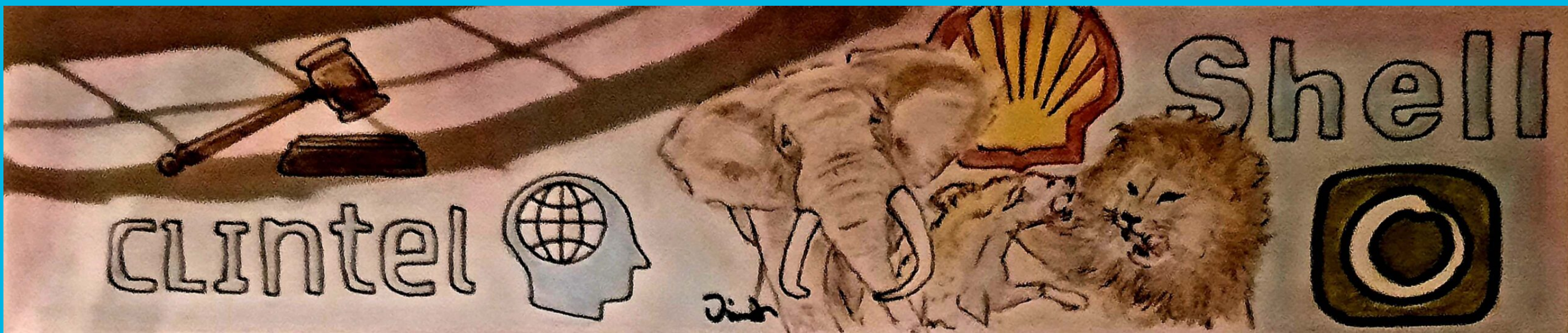
[Clintel.org/germany-wcd/](https://clintel.org/germany-wcd/)

Fritz Vahrenholt

Es gibt keinen Klimanotstand

- Klimaerwärmung hat anthropogene und natürliche Ursachen
- Erwärmung läuft langsamer ab als von Modellen vorhergesagt
- Klimapolitik fußt auf unausgereiften Modellen
- CO₂ stellt die Nahrungsgrundlage der Pflanzenwelt dar
- Extremwetter vom Klimawandel weitgehend unberührt
- Klimapolitik muss wissenschaftliche und ökonomische Realitäten anerkennen

Climate Case of the Century

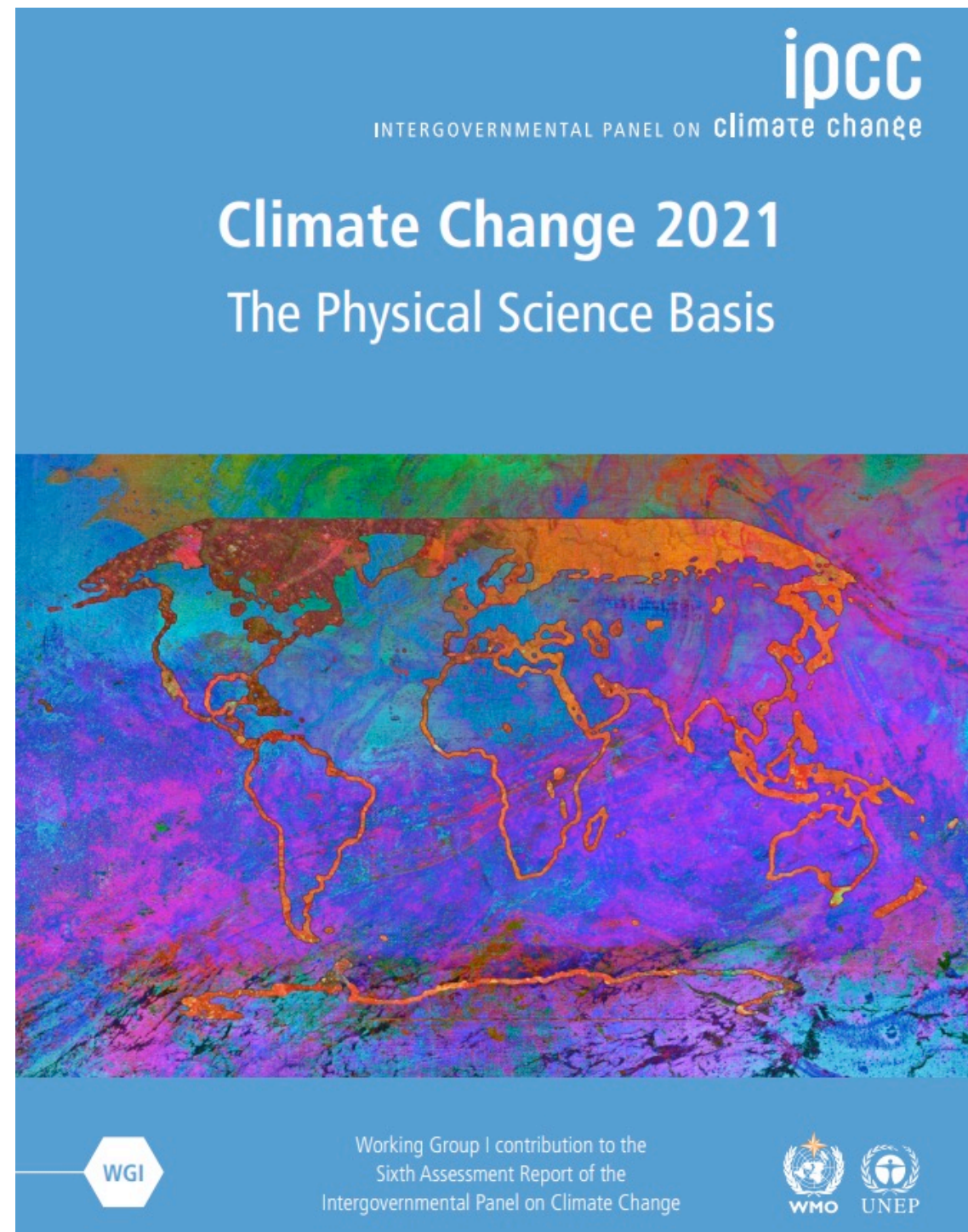


Clintel intervenes in the court case between
Shell and Friends of the Earth.

Please join!

Go to: climatecaseofthecentury.org

New IPCC report AR6



IPCC reports

ABOUT

Preparing Reports

The IPCC's reports are comprehensive and balanced assessments of the state of knowledge on topics related to climate change. There are different types of reports but all go through a rigorous process of scoping, drafting and review to ensure the highest quality.

Clintel analysis of AR6



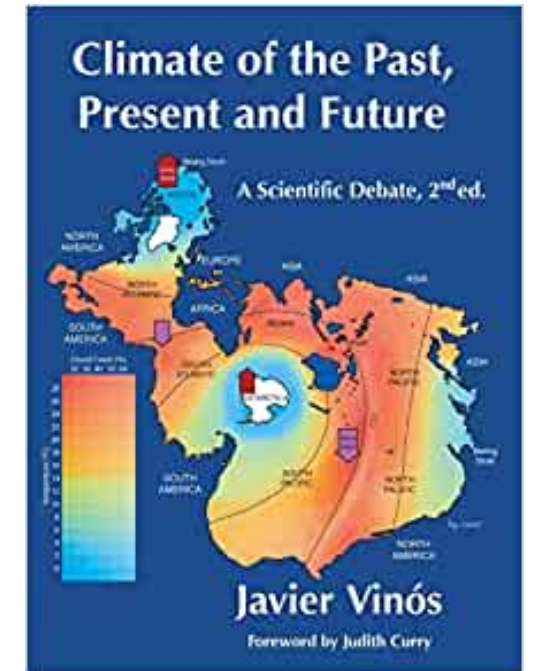
Ross McKittrick



Nicola Scafetta



Andy May



Javier Vinós



Fritz Vahrenholt

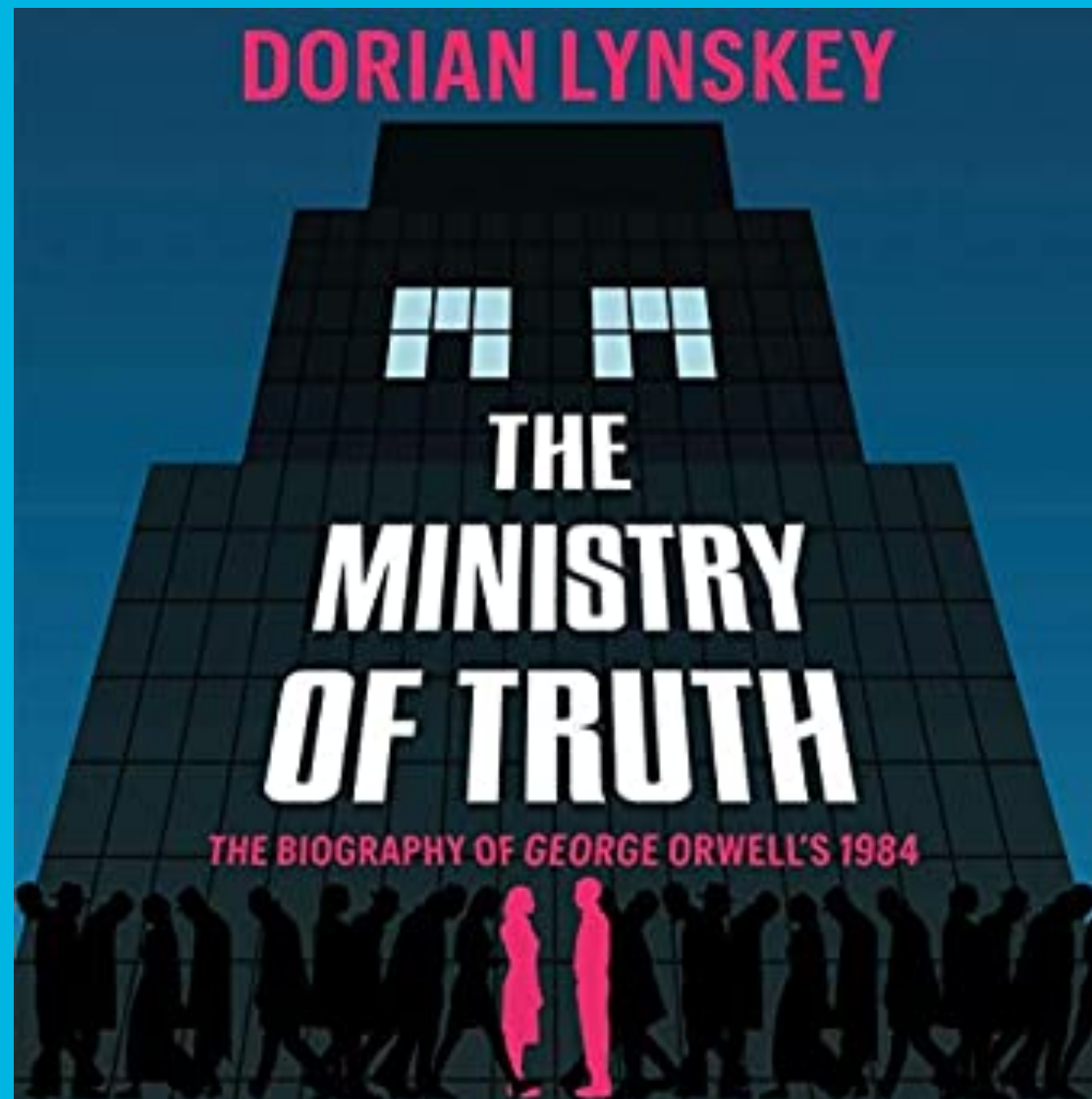


Kip Hansen



Ole Humlum

Trick #1: Rewrite history!



1984

War is Peace

Freedom is Slavery

Ignorance is Strength

– George Orwell, 1984

1984 IPCC Style

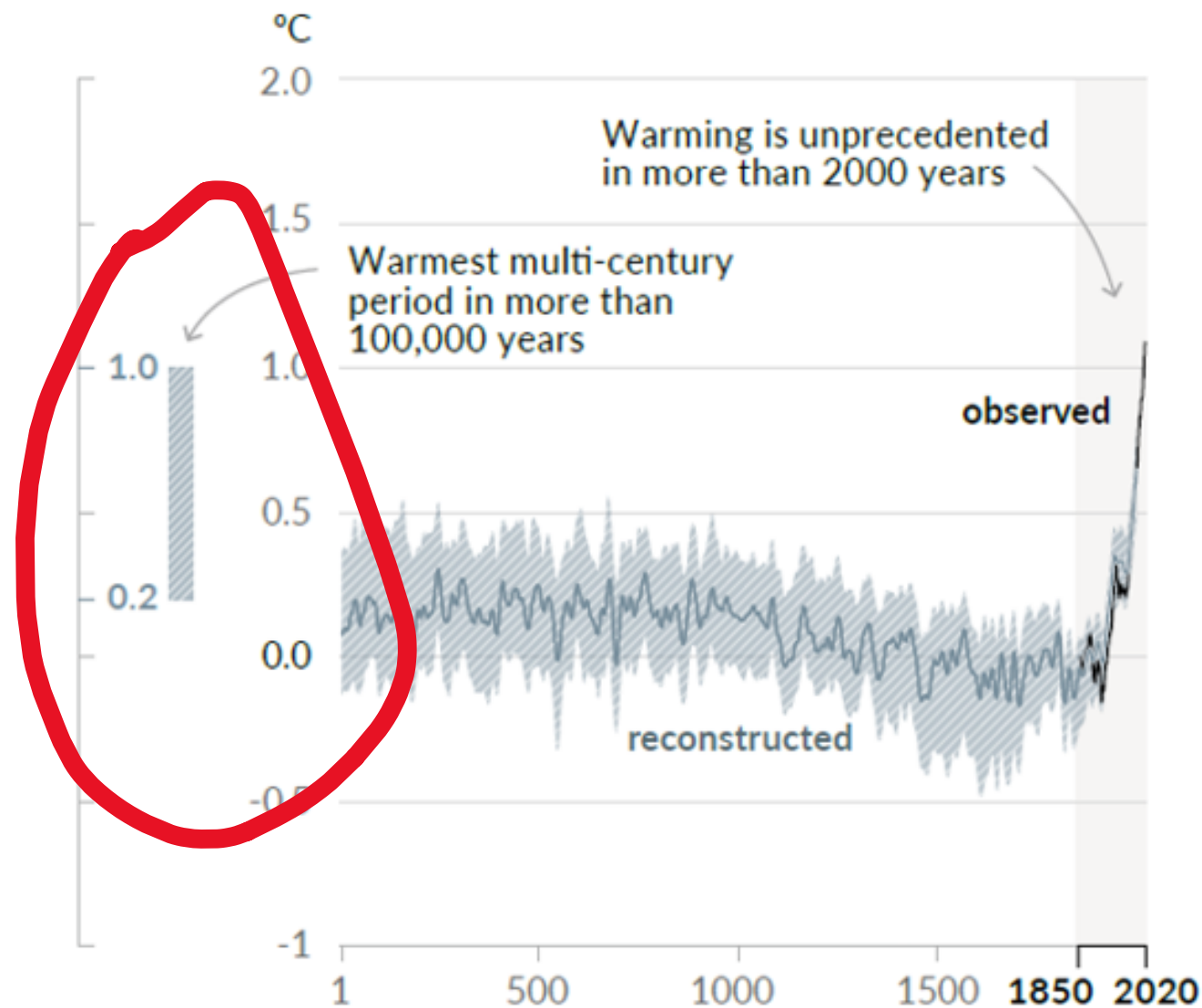
*** Warm is Cold**

*** Down is Up**

New hockey stick

Changes in global surface temperature relative to 1850-1900

a) Change in global surface temperature (decadal average)
as reconstructed (1-2000) and **observed** (1850-2020)



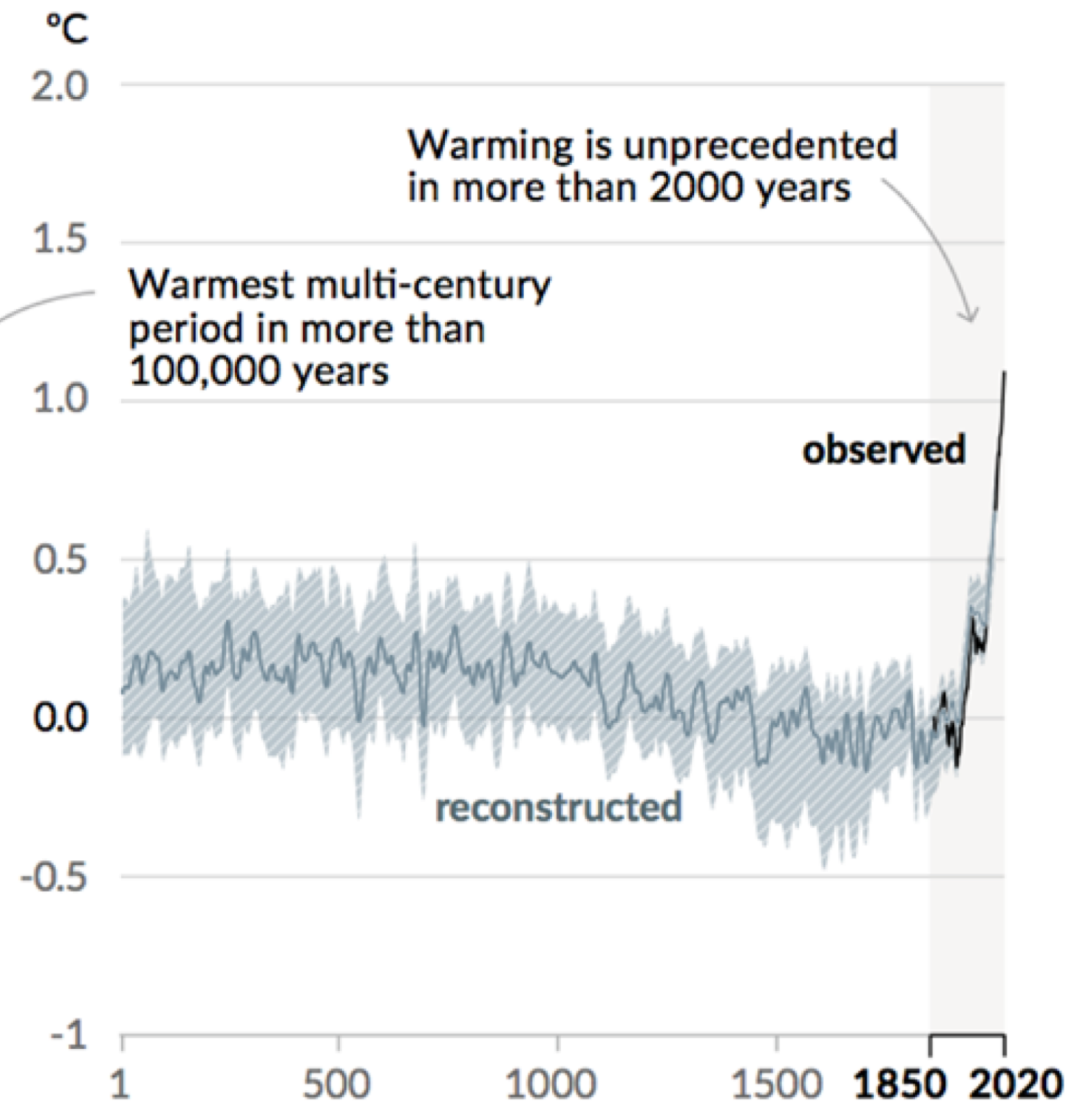
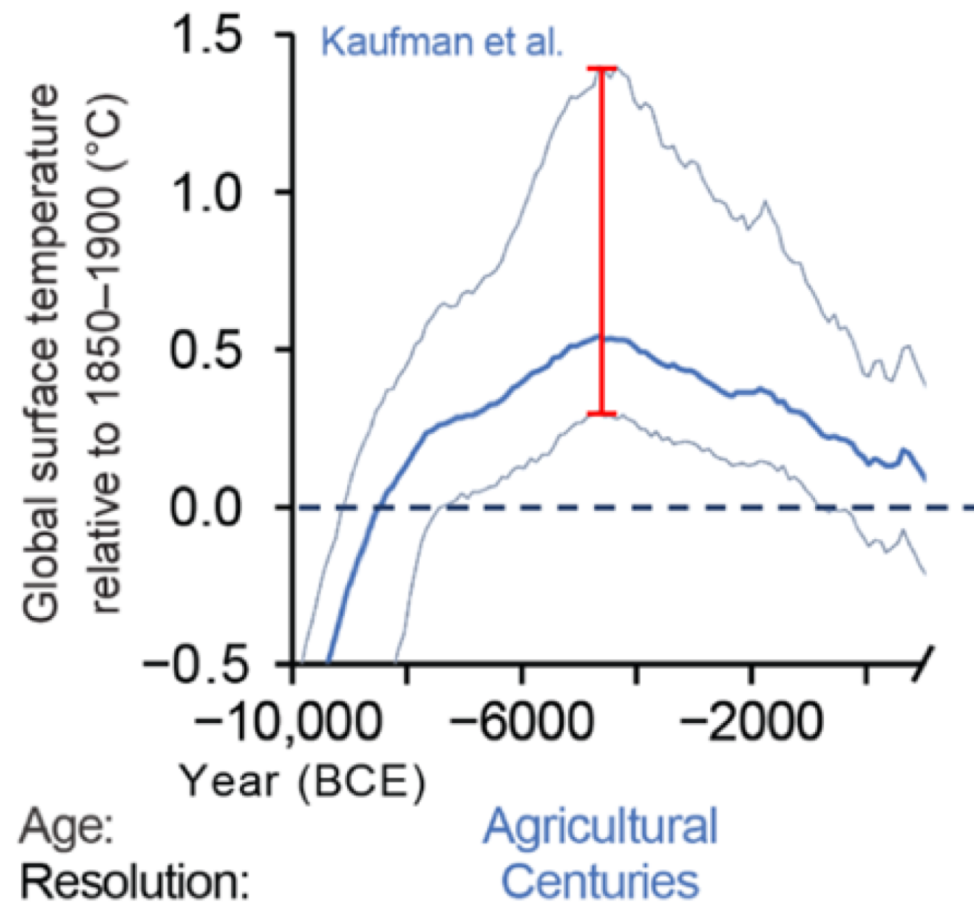
IPCC: unprecedented!

"global surface temperatures are more likely than not unprecedented in the past 125,000 years"

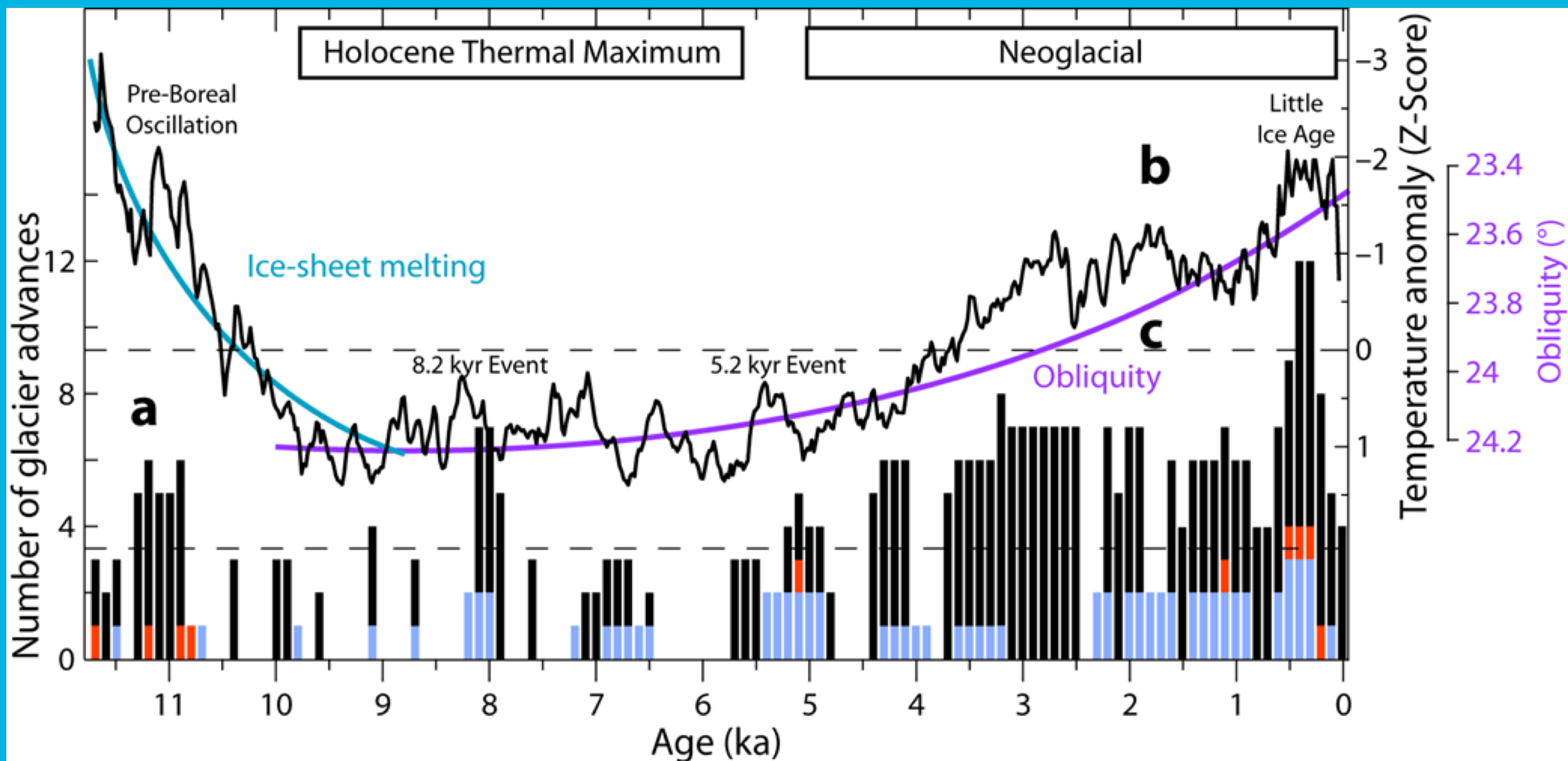
Unprecedented?

a) Change in global surface temperature (decadal average) as **reconstructed** (1-2000) and **observed** (1850-2020)

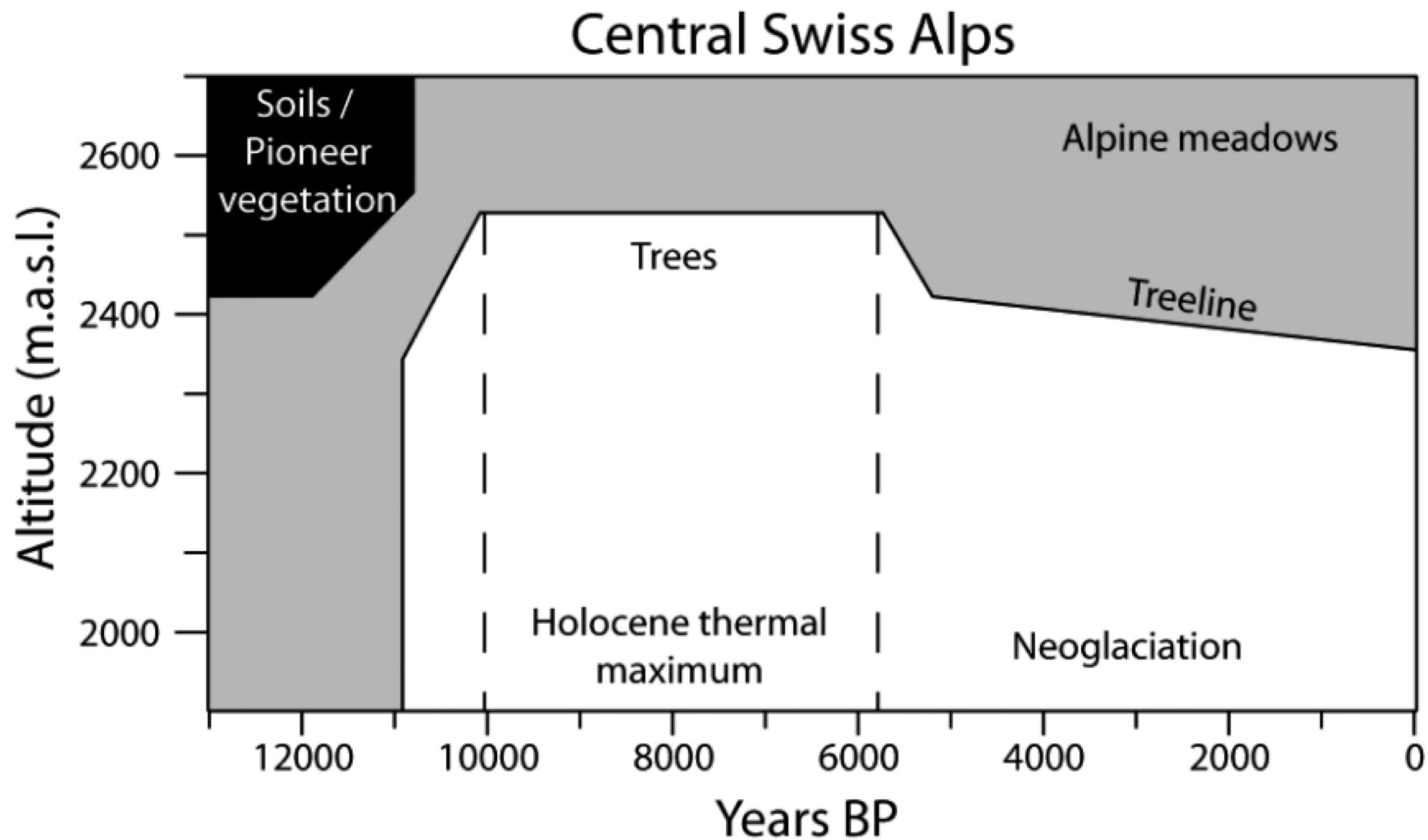
(a) Global surface temperatures are more likely than not unprecedented in the past 125,000 years



Is Milankovitch ruling?



Treeline



Javier Vinós:

“...that it is more likely than not that the past decade is warmer than any century during the past 12,000 years is an untenable claim.”

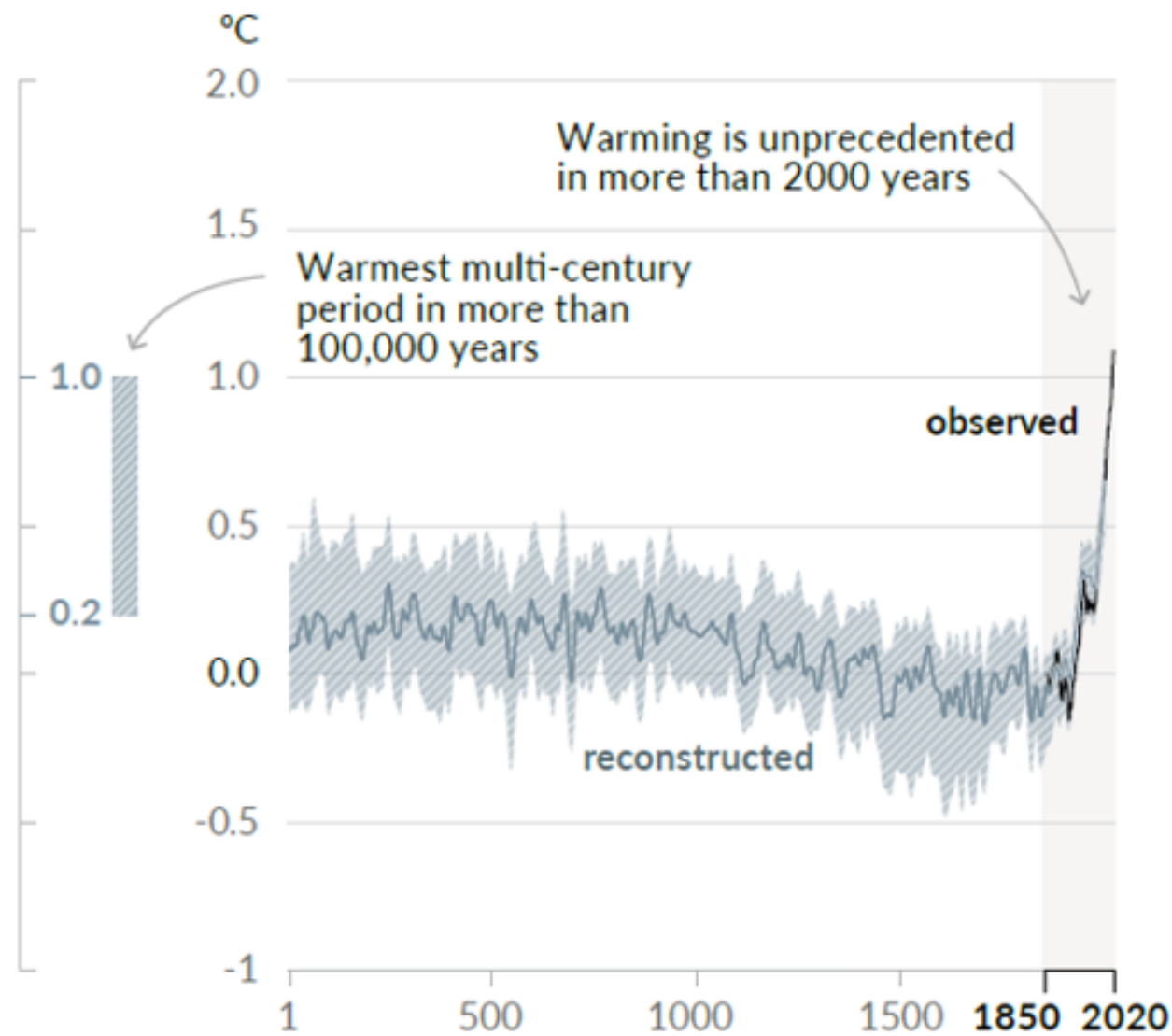
Javier Vinós:

“In conclusion, there is too much uncertainty in proxy reconstructions and instrumental temperature datasets to sustain with any degree of confidence that the present is warmer than the Holocene Thermal Maximum, and independent evidence from glacier and treeline changes supports the opposite assessment.”

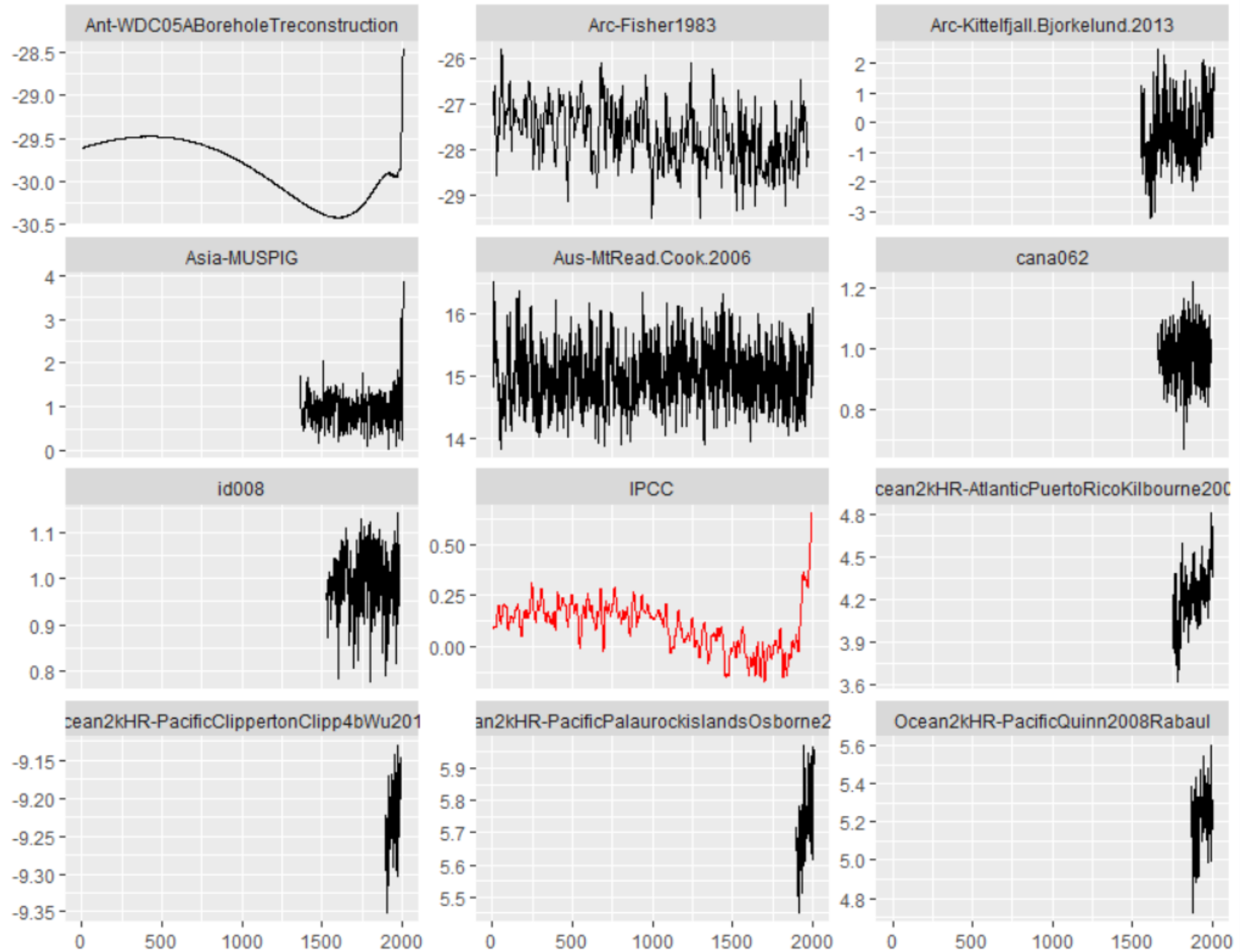
New hockey stick

Changes in global surface temperature relative to 1850-1900

a) Change in global surface temperature (decadal average)
as reconstructed (1-2000) and **observed** (1850-2020)

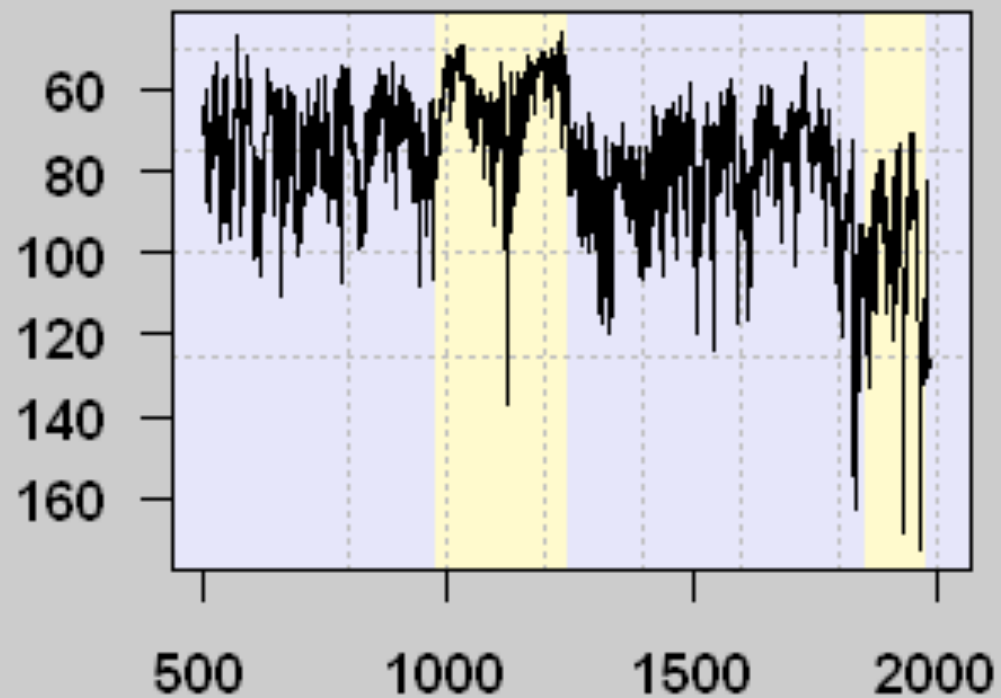


PAGES2019 Tree Rings Random Sample of Multi-Screened Proxies



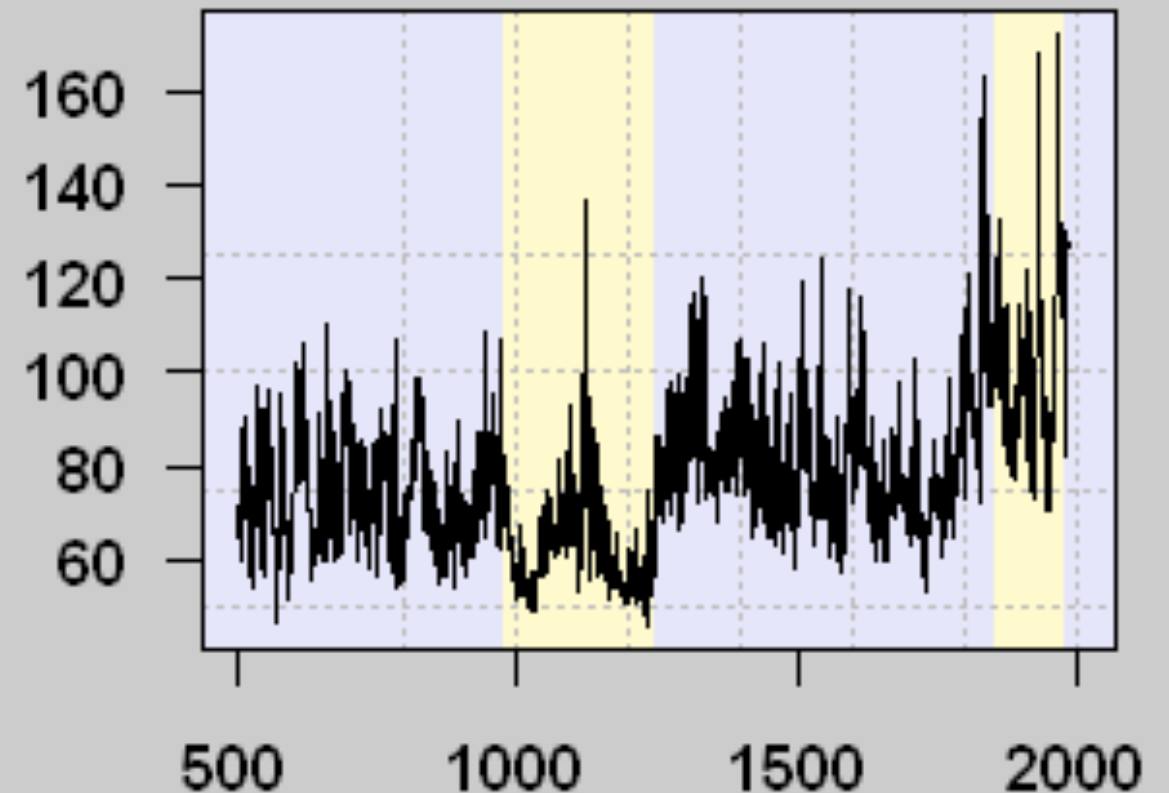
Tiljander proxies upside down

X-ray Density (inverted)



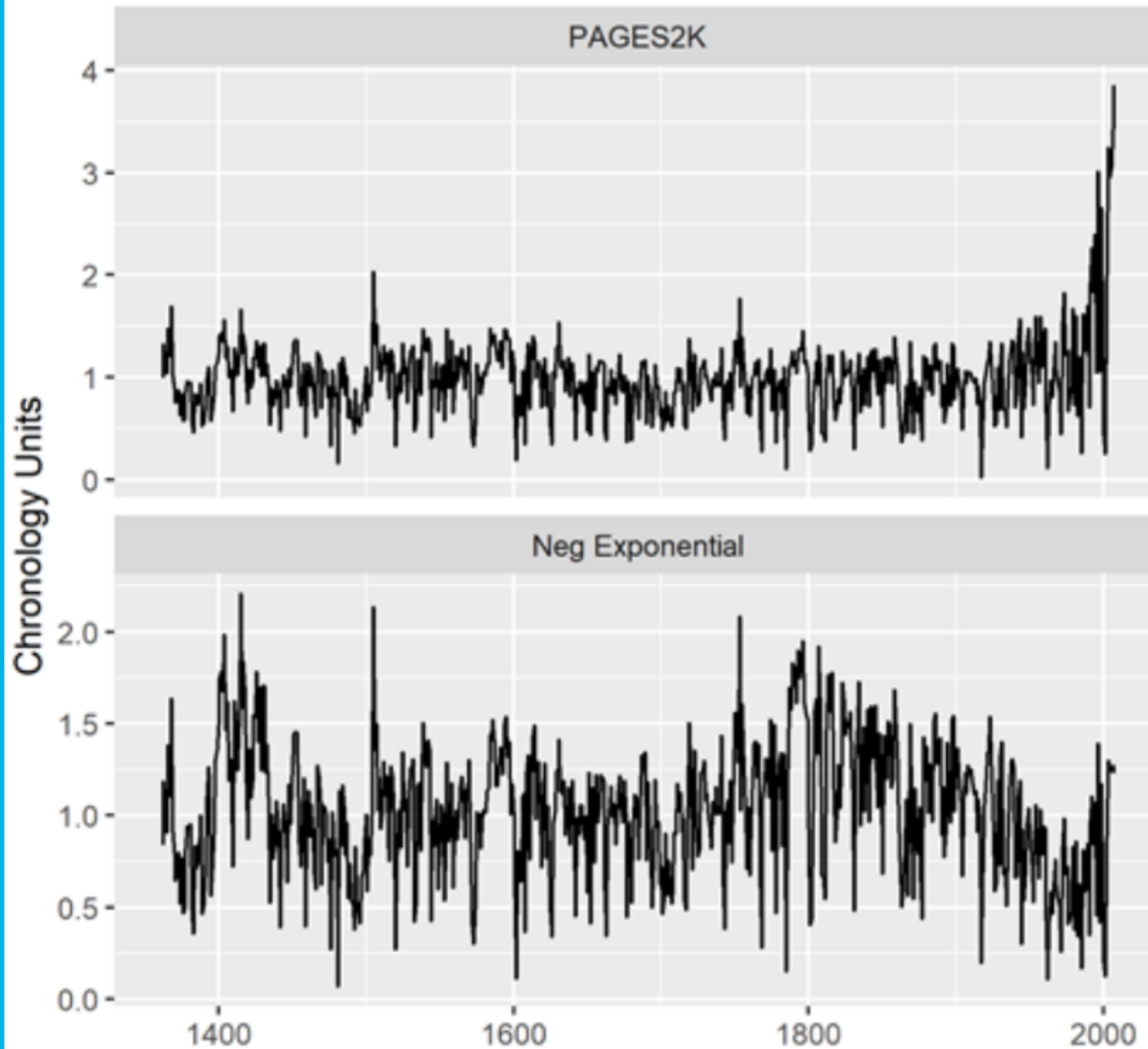
Tiljander 2003

1064. tiljander_2003_xraydenseave



Mann 2008

Chronology Comparison: PAKI033



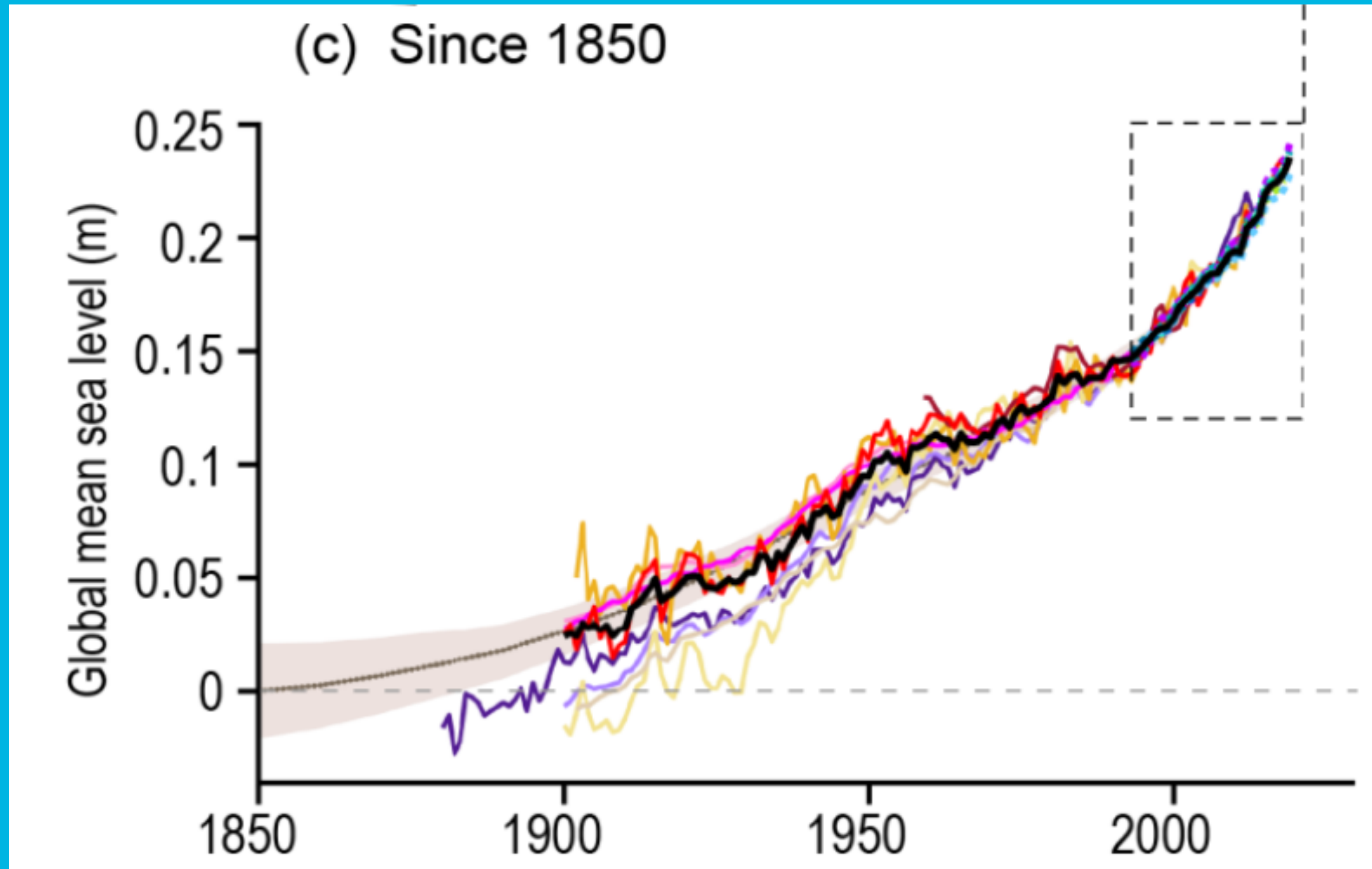
Stephen McIntyre about the new hockey stick

“If you thought Michael Mann’s hockey stick was bad, imagine a woke hockey stick by woke climate scientists. As the climate scientists say, it’s even worse than we thought.”

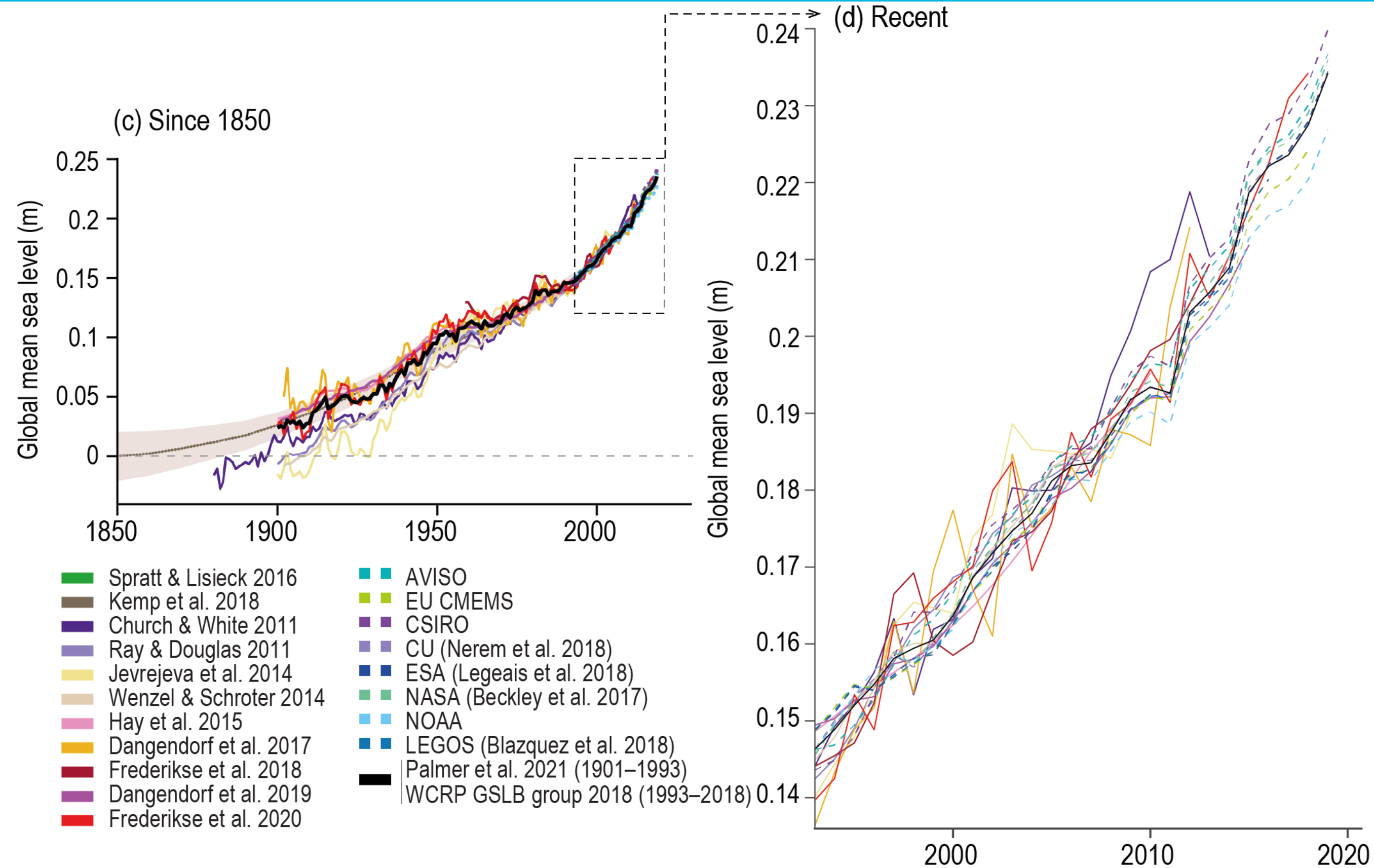
Trick #2:

Introduce new blended/hybrid datasets

Acceleration of sea level rise?



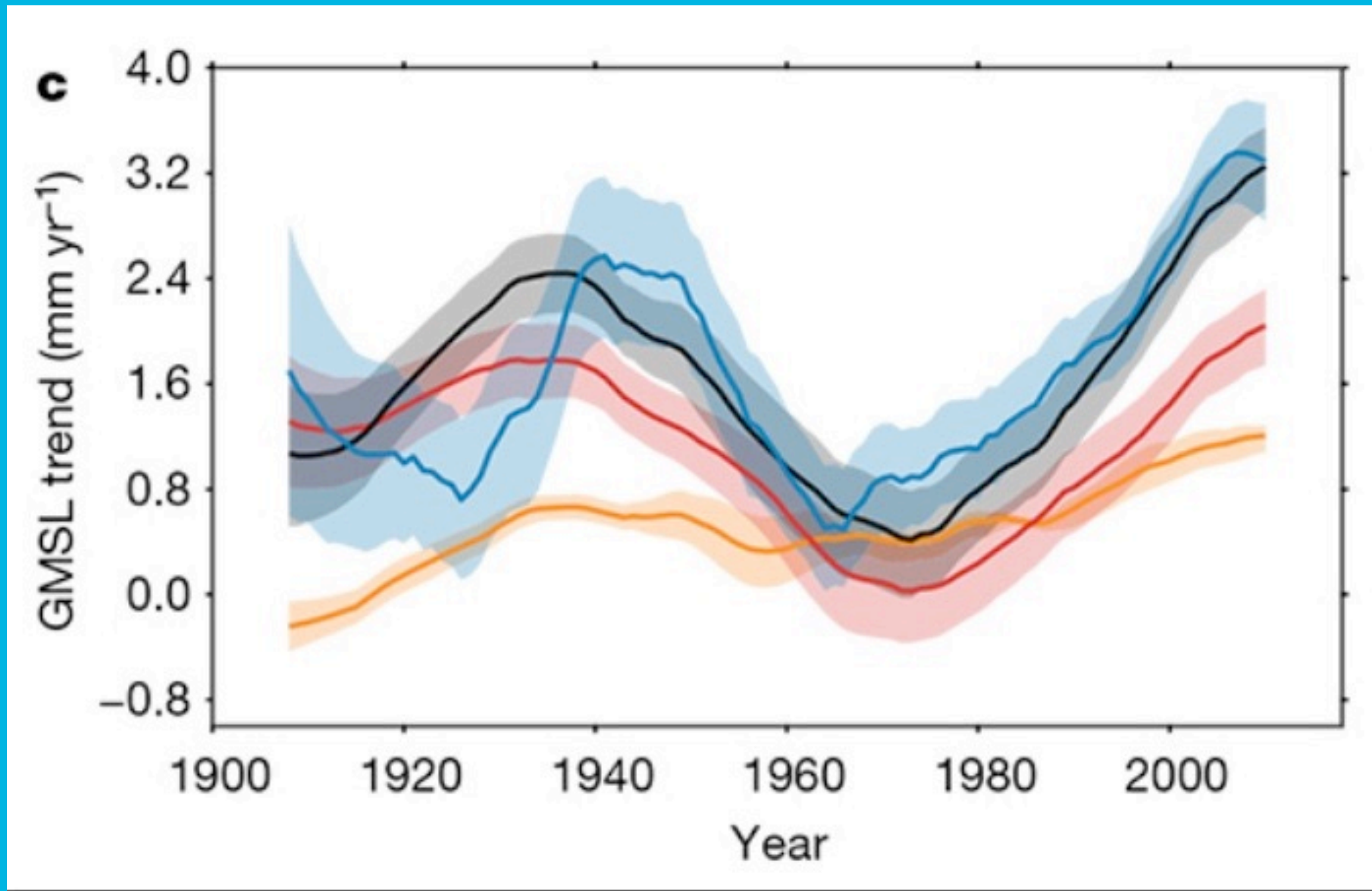
Acceleration of sea level rise?



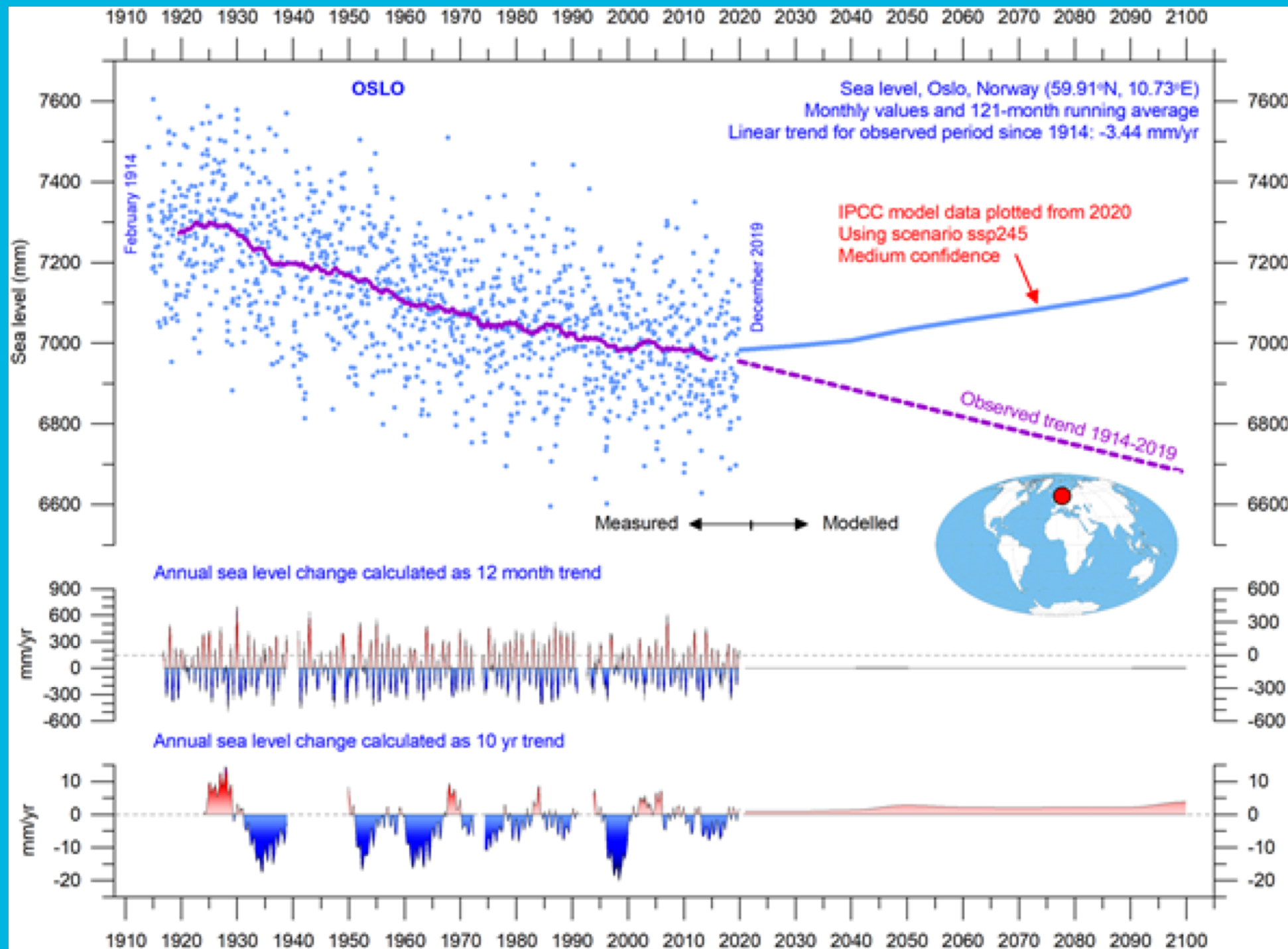
Acceleration of sea level rise?

*A.1.7 Global mean sea level increased by 0.20 [0.15 to 0.25] m between 1901 and 2018. The average rate of sea level rise was **1.3** [0.6 to 2.1] mm yr⁻¹ between 1901 and 1971, increasing to **1.9** [0.8 to 2.9] mm yr⁻¹ between 1971 and 2006, and further increasing to **3.7** [3.2 to 4.2] mm yr⁻¹ between 2006 and 2018 (high confidence).*

Rate of sea level rise



Ole Humlum: sea level jump?



Snow cover decline?

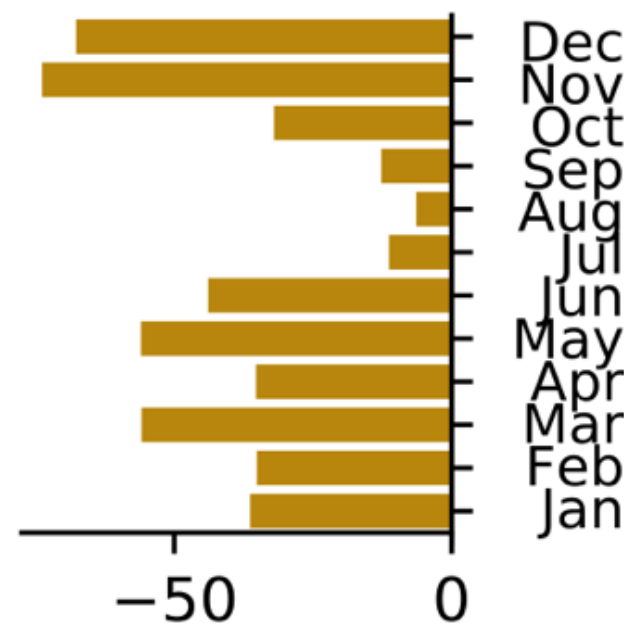


Snow cover decline?

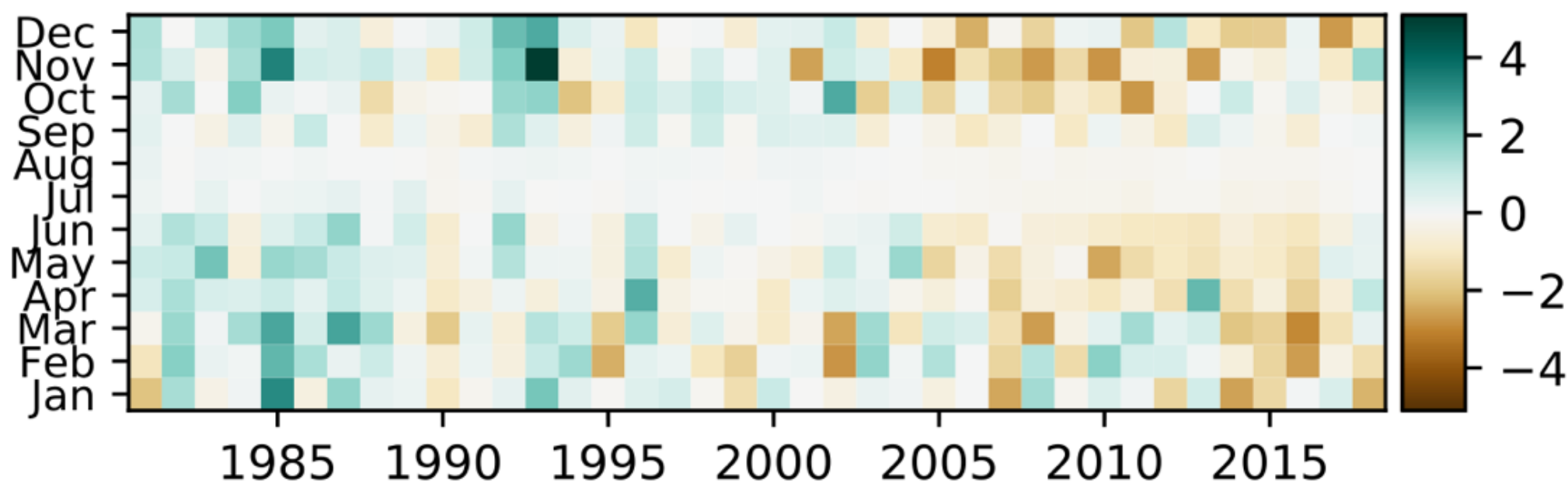
AR6:

Human influence very likely contributed to the decrease in Northern Hemisphere spring snow cover since 1950.

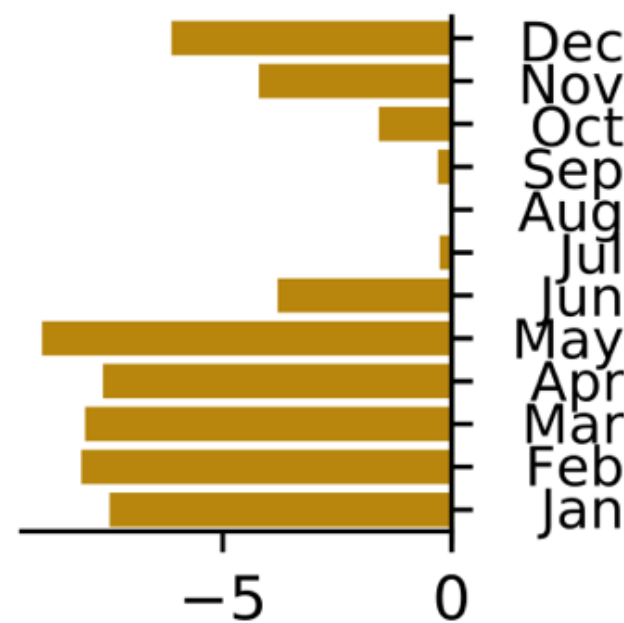
a) NH Snow Cover
Trend ($10^3 \text{ km}^2 \text{ yr}^{-1}$)



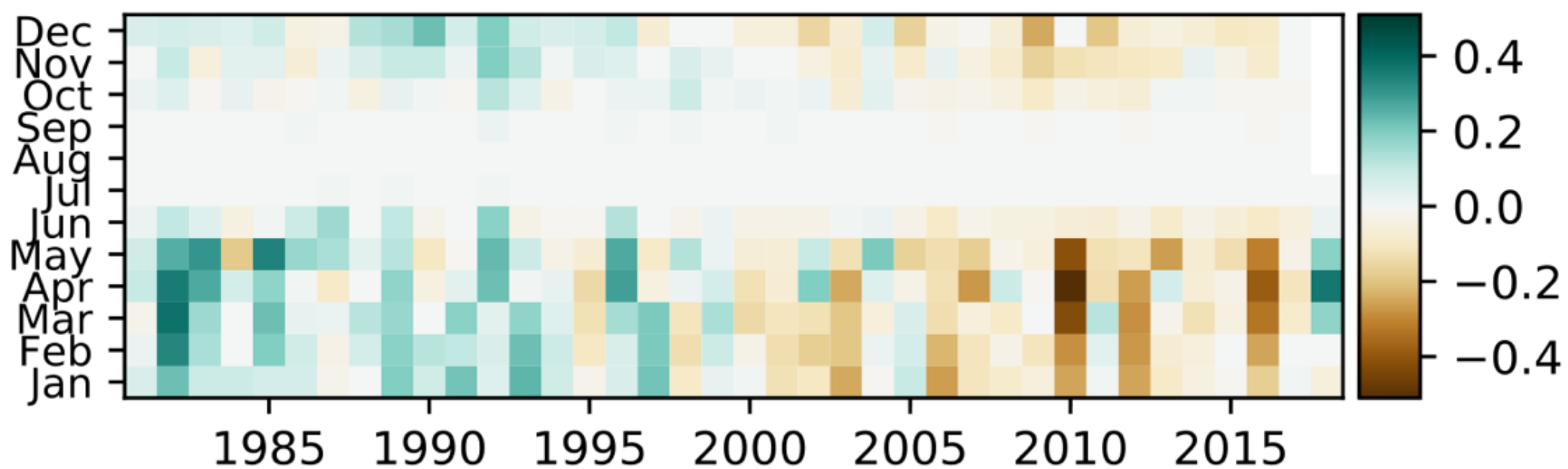
b) NH Snow Cover
Anomaly (10^6 km^2)



c) NH Snow Mass
Trend (Gt yr^{-1})

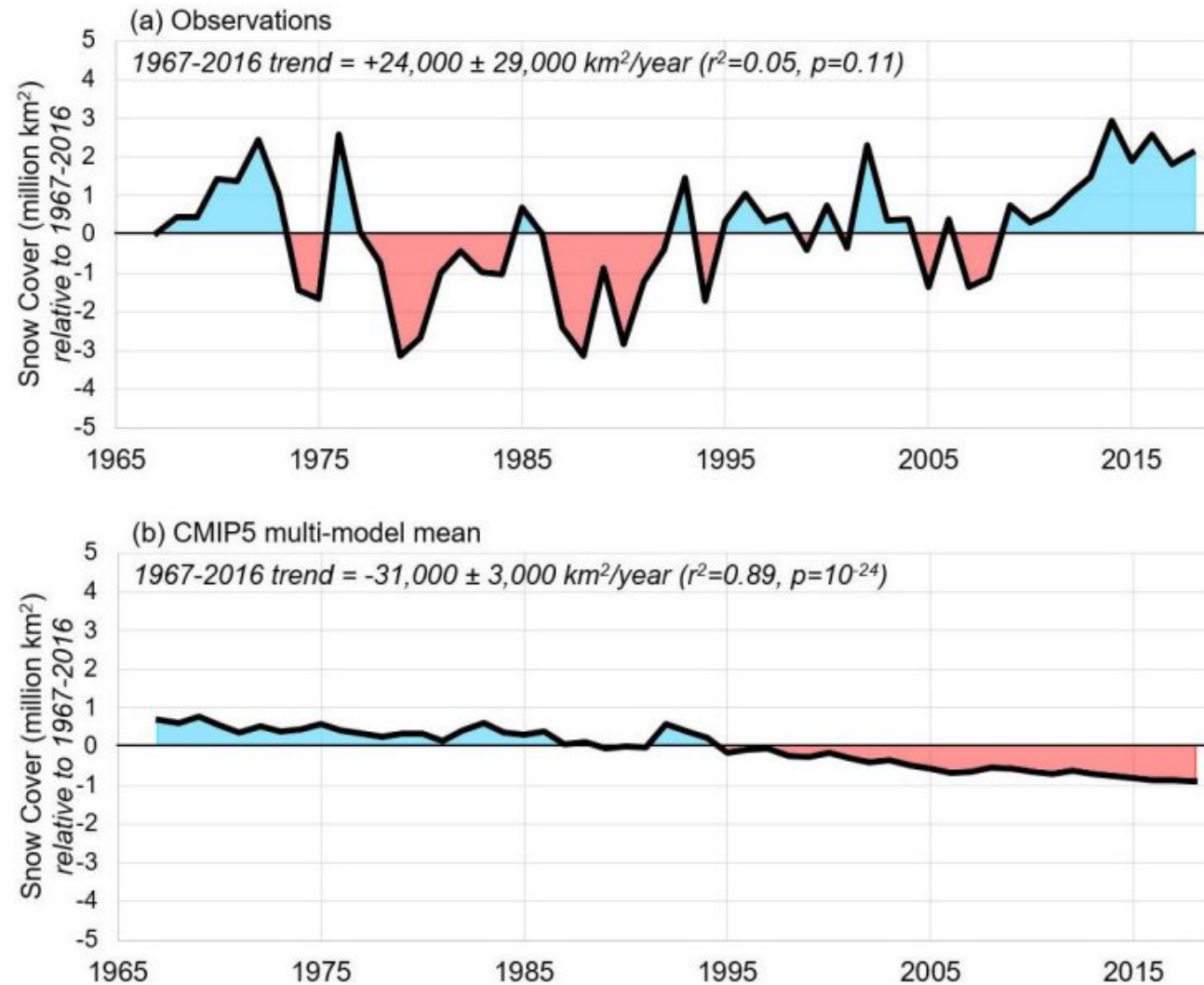


d) NH Snow Mass
Anomaly (10^3 Gt)

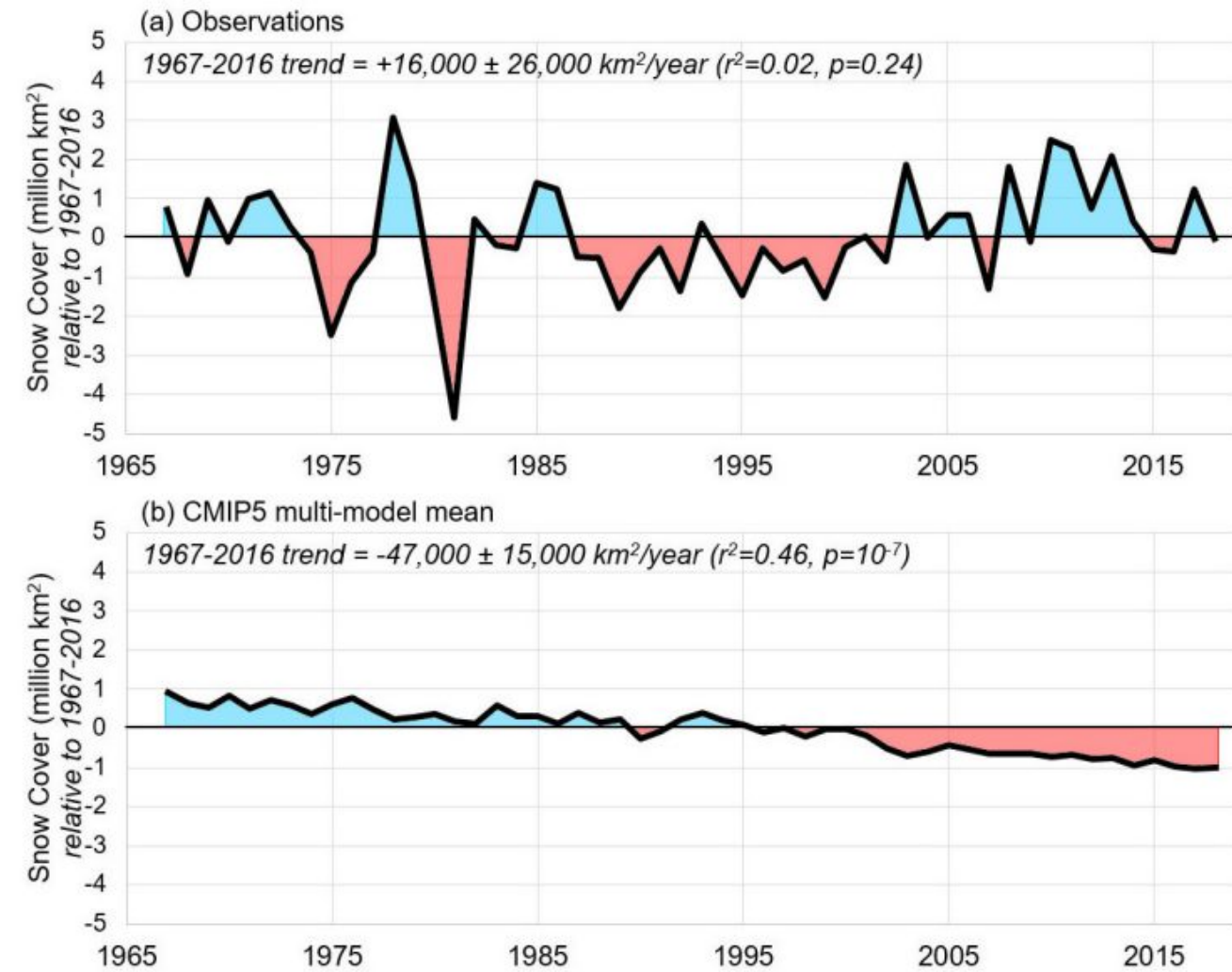


Snow cover decline?

Northern Hemisphere snow cover (Autumn/Fall, SON)



Northern Hemisphere snow cover (Winter, DJF)

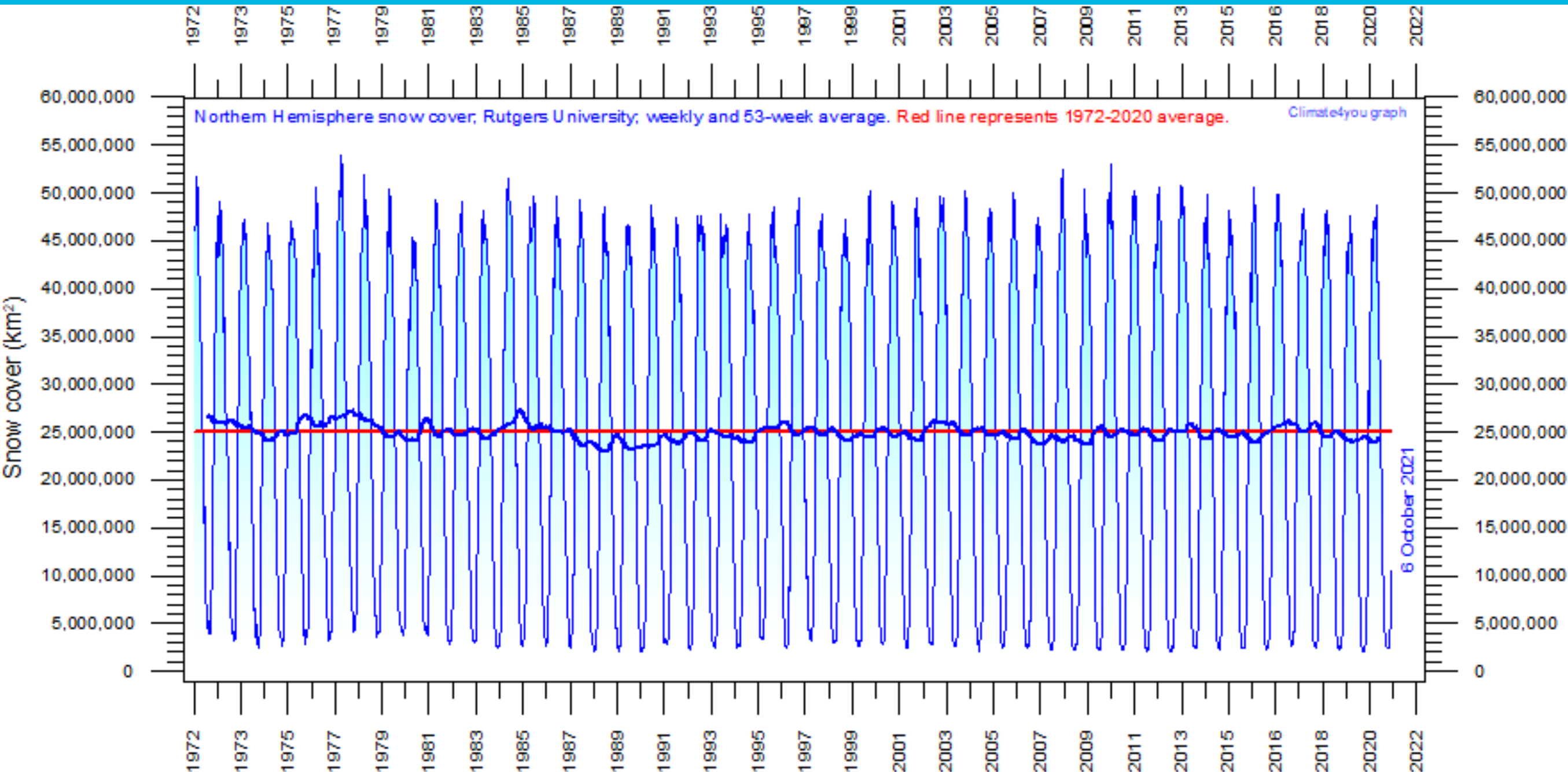


Did they mention Connolly et al?

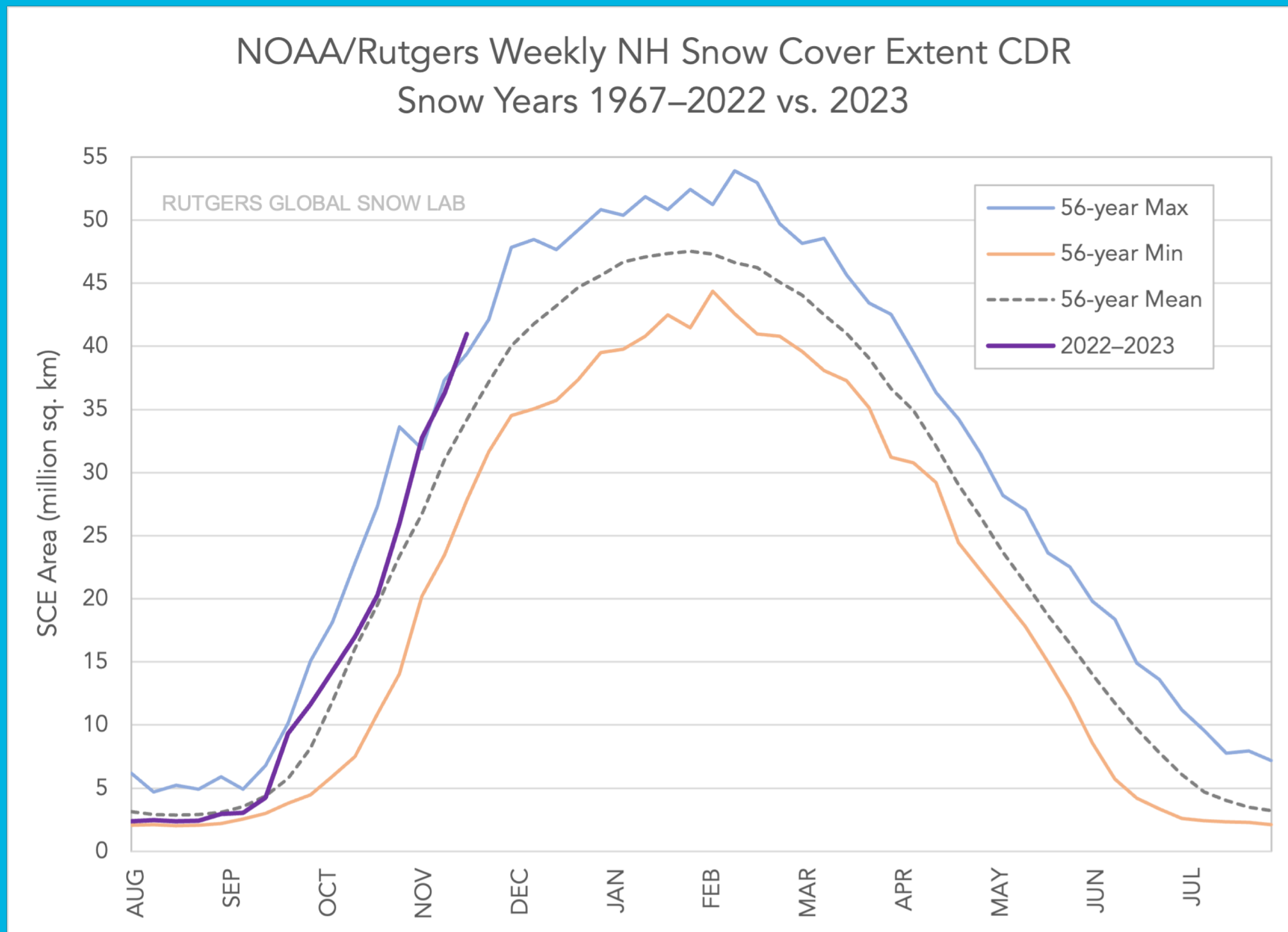
Yes!

“The greatest declines in SCE have occurred during boreal spring and summer, although the estimated magnitude is dataset dependent (Rupp et al., 2013; Estilow et al., 2015; Bokhorst et al., 2016; Thackeray et al., 2016; **Connolly et al., 2019**).”

Rutgers Snow Data



Current snow conditions



Trick #3:

Hiding the good news!



A SENSITIVE MATTER

HOW THE IPCC BURIED EVIDENCE
SHOWING GOOD NEWS ABOUT GLOBAL
WARMING

Nicholas Lewis and Marcel Crok

Foreword by Professor Judith Curry

The Global Warming Policy Foundation
GWPF Report 13 (Long Version)

New IPCC report in the media

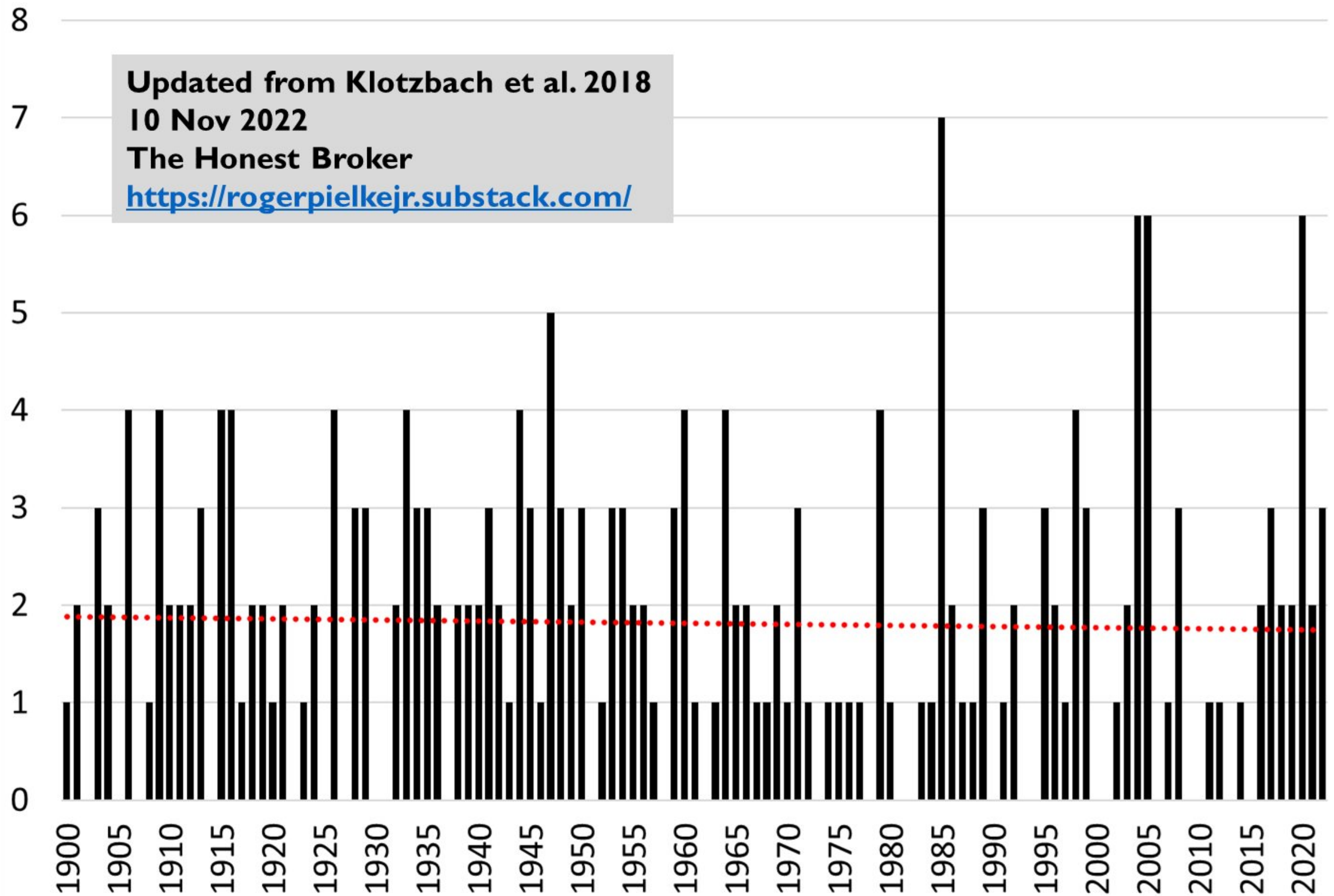


More extremes?

	Detection	Attribution
heat waves	yes	yes
heavy precipitation	yes	yes
flooding	no	no
meteorological drought	no	no
hydrological drought	no	no
ecological drought	yes	yes
agricultural drought	yes	yes
tropical cyclones	no	no
winter storms	no	no
thunderstorms	no	no
tornadoes	no	no
hail	no	no
lightning	no	no
extreme winds	no	no
fire weather	yes	yes

More extremes?

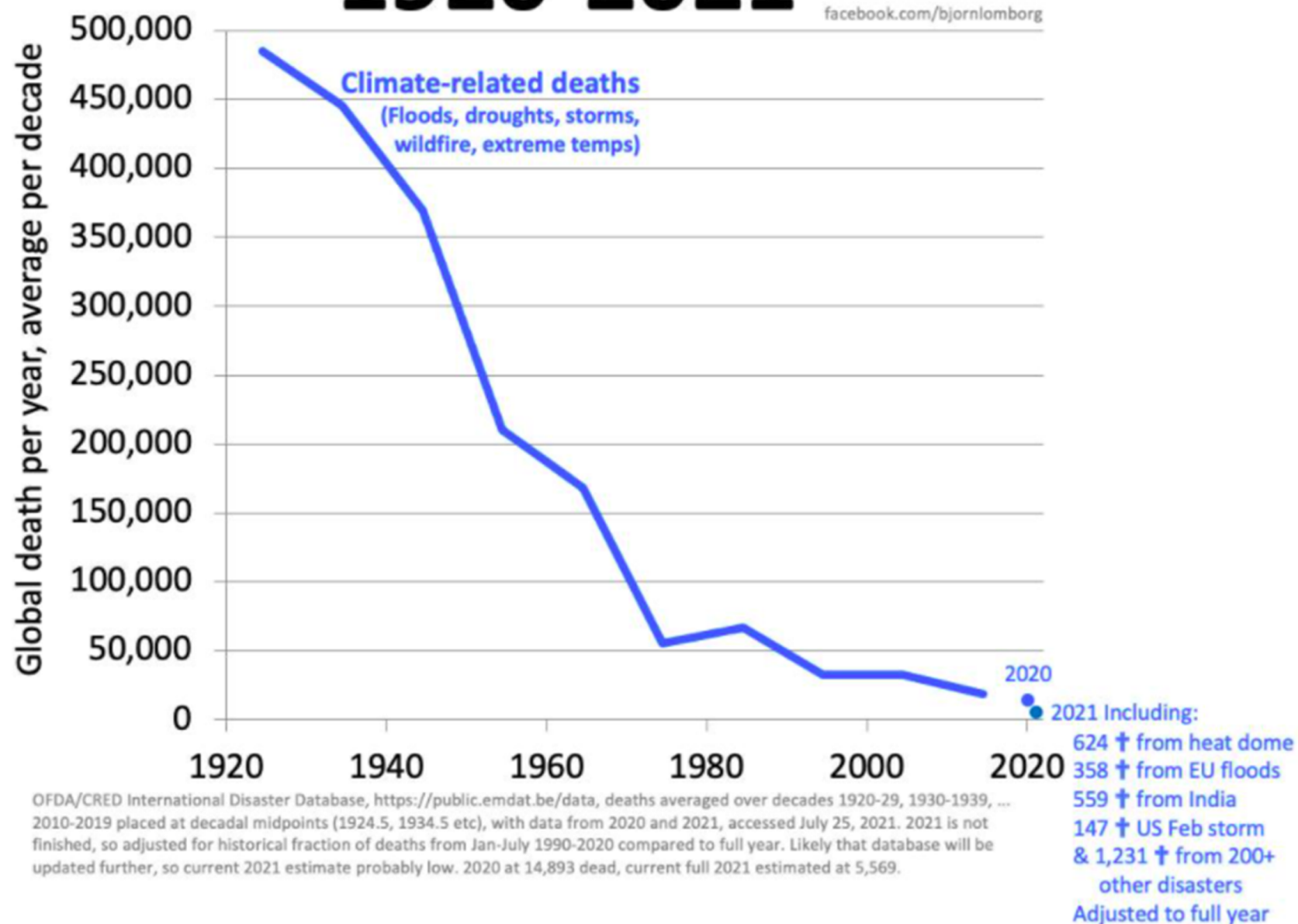
Continental US Landfalling Hurricanes: 1900-2022



The SPM about this good news

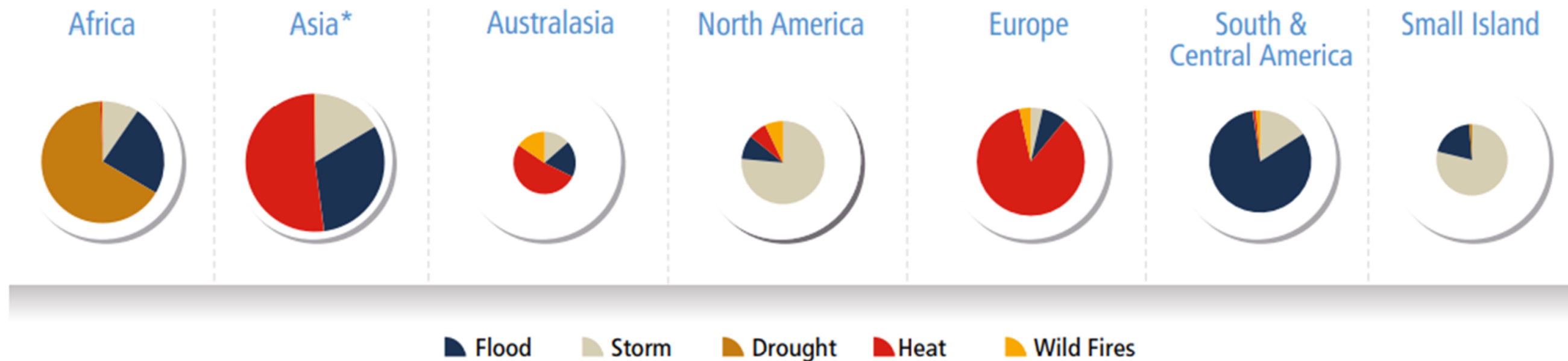
More good news

Climate-related Deaths 1920-2021



Did IPCC show this?

(c) Average mortality per hazard event per region between 2010 and 2020:



Average mortality per hazard event is indicated by size of pie charts. The slice of pie chart shows absolute number of deaths from a particular hazard

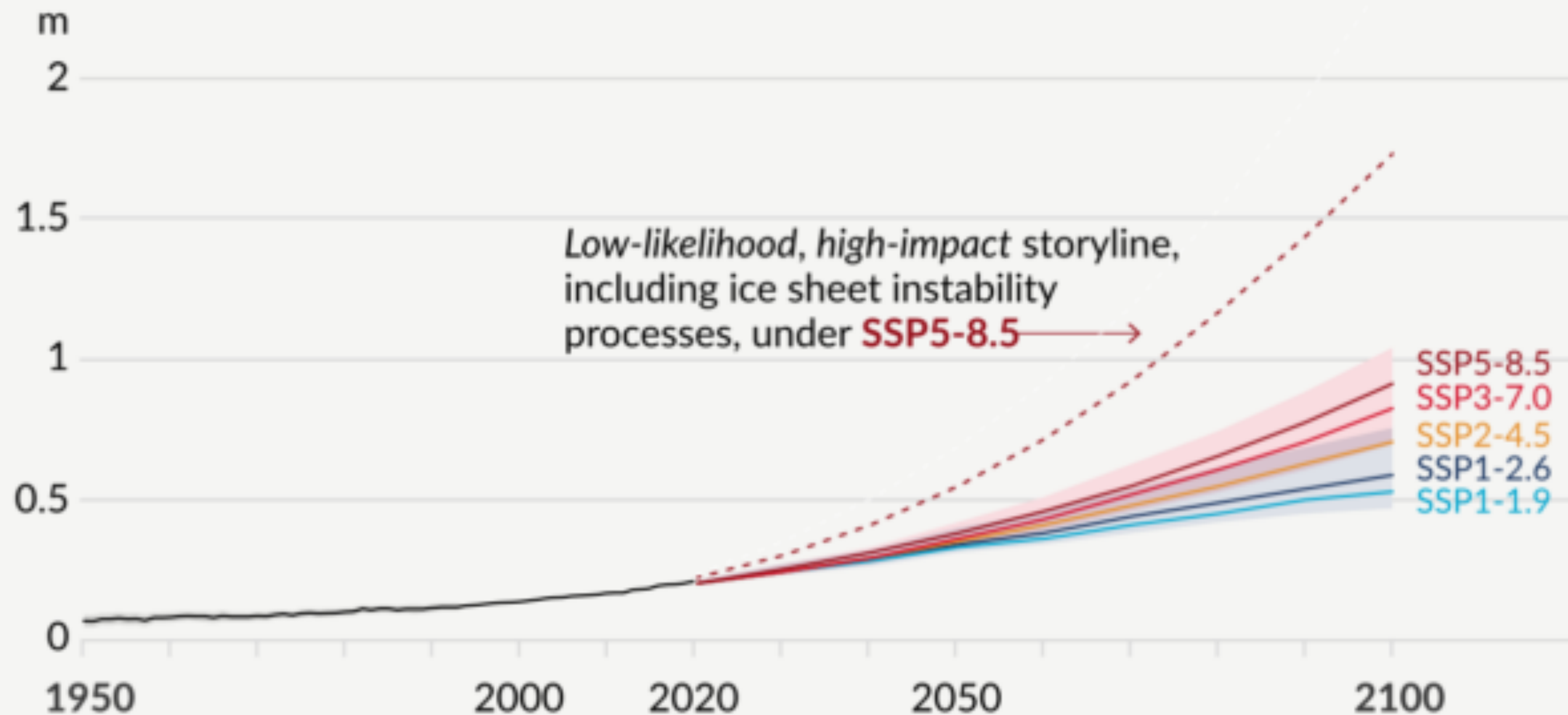
Trick #3:

Hiding the good news!

“Who controls the past
controls the future”
(Orwell, 1984)

Extreme scenarios

d) Global mean sea level change relative to 1900



How likely are the scenarios?

IPCC AR6 gives mixed messages on scenarios

48 1.6.1.4 *The likelihood of reference scenarios, scenario uncertainty and storylines*

49

50 In general, **no likelihood** is attached to the scenarios assessed in this Report. The use of different scenarios

51

But at the same time

14 uncertainties in underlying long-term projections of economic drivers (Christensen et al., 2018). However,

15 **the likelihood of high emission scenarios such as RCP8.5 or SSP5-8.5 is considered low in light of recent**

16 **developments in the energy sector (Hausfather and Peters, 2020a, 2020b). Studies that consider possible**

17 **future emission trends in the absence of additional climate policies, such as the recent IEA 2020 World**

18 **Energy Outlook 'stated policy' scenario (International Energy Agency, 2020), project approximately**

19 **constant fossil and industrial CO₂ emissions out to 2070, approximately in line with the medium RCP4.5,**

20 **RCP6.0 and SSP2-4.5 scenarios (Hausfather and Peters, 2020b) and the 2030 global emission levels that are**

21 **pledged as part of the Nationally Determined Contributions (NDCs) under the Paris Agreement (Section**

22 **1.2.2; (Fawcett et al., 2015; Rogelj et al., 2016; UNFCCC, 2016; IPCC, 2018). On the other hand, the default**

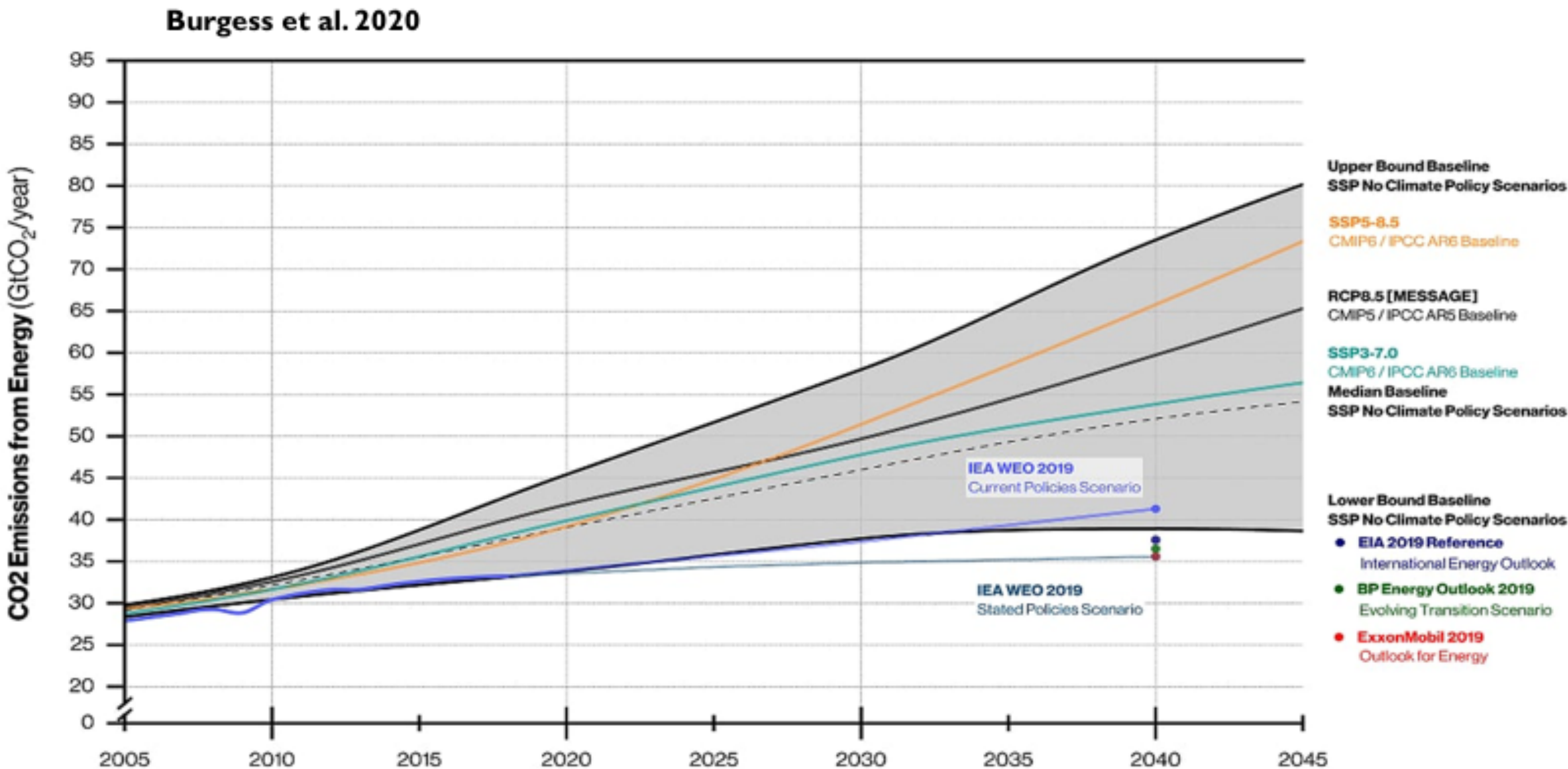


How often are they used?

SCENARIO	MENTIONS	PCT of MENTIONS
SSP5-8.5 & RCP8.5	1359	41.5%
SSP1-2.6 & RCP2.6	733	22.4%
SSP2-4.5 & RCP4.5	571	17.4%
SSP3-7.0	378	11.5%
SSP1-1.9	200	6.1%
RCP6.0	32	1.0%

Figure 4: mentions of different scenarios in the AR6 report. Source: Roger Pielke Jr.

How likely are the scenarios?



Coal use in 2100

Coal use in reality & in fiction

2020 = 151 EJ (exajoules) from ~6,600 power plants

2100 SSP5-8.5 = 888 EJ (requiring **~32,000**
additional power plants, >1 per day now til 2100)

2100 SSP3-7.0 = 543 EJ (requiring **~17,000**
additional power plants, >1 per 2 days now til 2100)

Trick #4:

Good old
cherry picking



Cherry picking

IPCC on Normalized US Hurricane Damage

Lesson: Subject matter experts can readily see when IPCC chooses to deviate from its mission to accurately assess the relevant literature



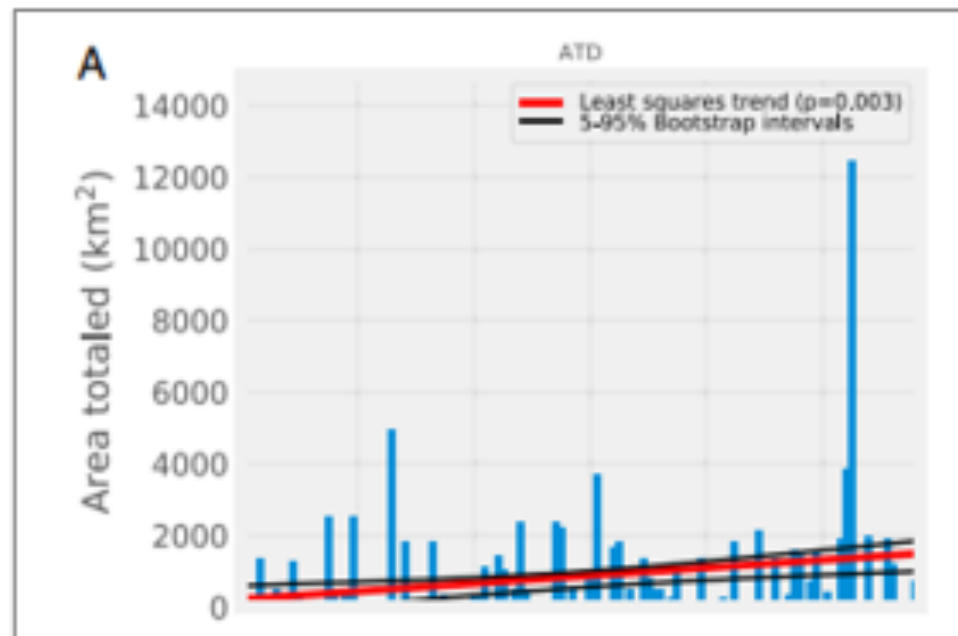
Study highlighted by IPCC (25 citations)

Normalized US hurricane damage estimates using area of total destruction, 1900–2018

A Grinsted, P Ditlevsen... - Proceedings of the ..., 2019 - National Acad Sciences

Hurricanes are the most destructive natural disasters in the United States. The record of economic damage from hurricanes shows a steep positive trend dominated by increases in ...

☆ 99 Cited by 25 Related articles All 12 versions



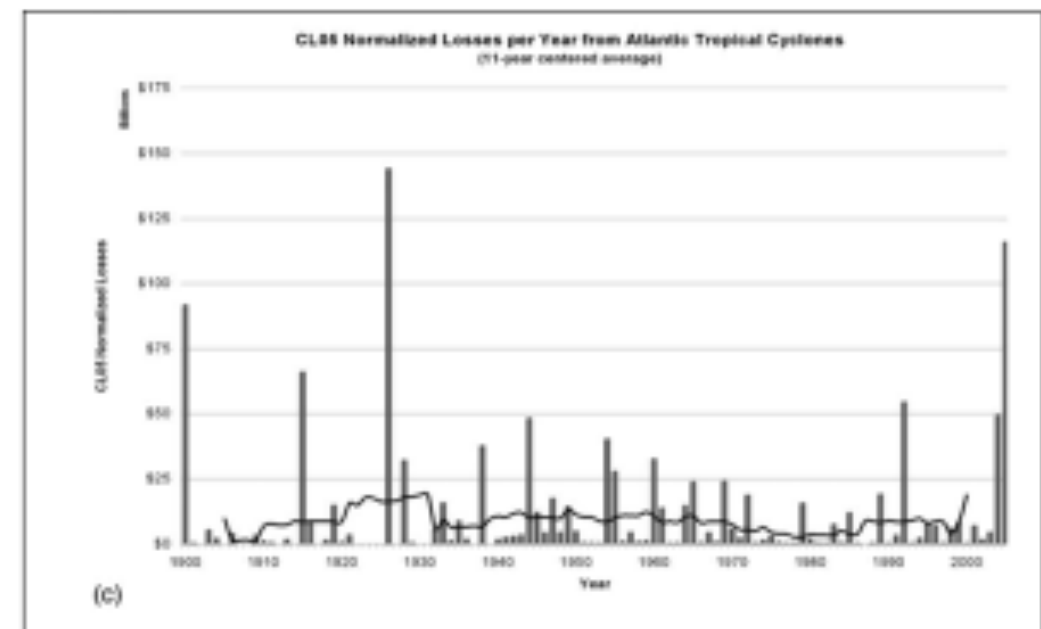
Study ignored by IPCC (1,216 citations)

Normalized hurricane damage in the United States: 1900–2005

RA Pielke Jr, J Gratz, CW Landsea, D Collins... - Natural Hazards ..., 2008 - ascelibrary.org

After more than two decades of relatively little Atlantic hurricane activity, the past decade saw heightened hurricane activity and more than 150 billion in damage in 2004 and 2005. This paper normalizes mainland US hurricane ...

☆ 99 Cited by 1216 Related articles All 59 versions



University of Colorado **Boulder**

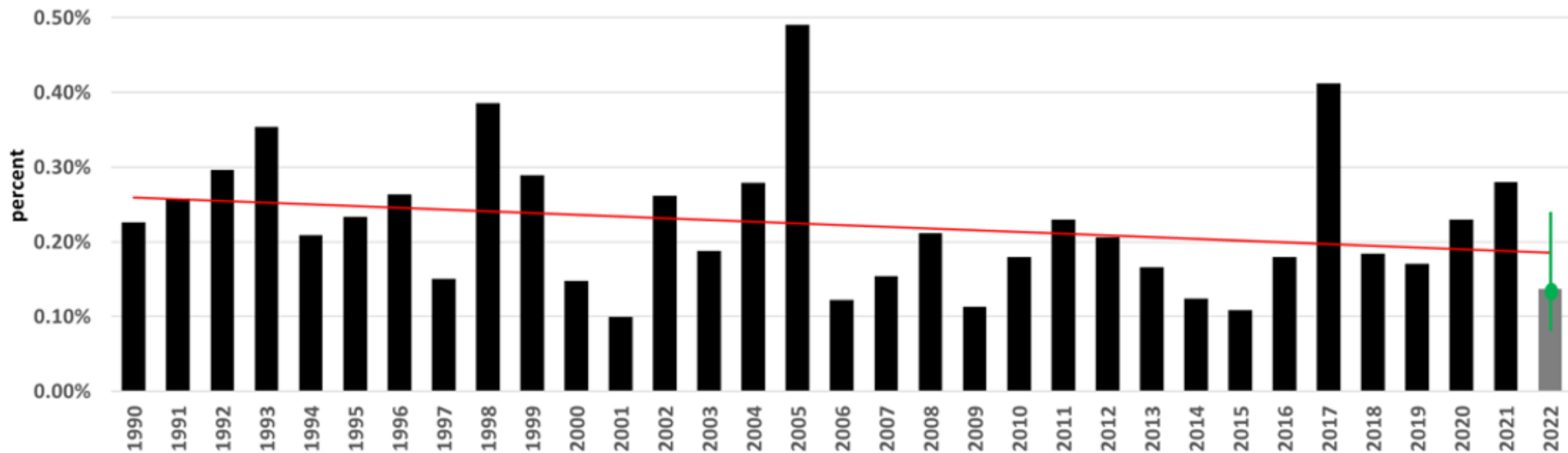
Table 1. Studies focused on specific phenomena and studies focused on particular regions.

Study (ordered by date of publication)	Phenomenon (region)	Detection claimed to be achieved?	Trend direction	Attribution claimed to be achieved?	Period (<i>italics</i> =<30 years)
Studies focused on specific phenomena					
Martínez (2020)	Tropical cyclones	No	n/a	No	1900–2018
Grinsted et al. (2019)	United States	Yes	Increase	Yes	1900–2018
Chen et al. (2018)	China	No	n/a	No	1983–2015
Ye and Fang (2018)	China	Yes	Decrease	No	<i>1985–2010</i>
Weinkle et al. (2018)	United States	No	n/a	No	1900–2017
Klotzbach et al. (2018)	United States	No	n/a	No	1900–2016
Fischer et al. (2015)	China	No	n/a	No	<i>1984–2013</i>
Estrada et al. (2015)	United States	Yes	Increase	No	1900–2005
Bouwer and Wouter Botzen (2011)	United States	No	n/a	No	1900–2005
Nordhaus (2010)	United States	Yes	Increase	No	1900–2005
Zhang et al. (2009)	China	No	n/a	No	<i>1983–2006</i>
Schmidt et al. (2009)	United States	No	n/a	No	1950–2005
Pielke et al. (2008)	United States	No	n/a	No	1900–2005
Pielke et al. (2003)	Latin America and Caribbean	No	n/a	No	1944–1999
Raghavan and Rajesh (2003)	India	No	n/a	No	<i>1977–1998</i>
Collins and Lowe (2001)	United States	No	n/a	No	1900–1999
Pielke and Landsea (1998)	United States	No	n/a	No	1926–1995
Floods					
Du et al. (2019)	China	Yes	Decrease	No	1990–2017
Paprotny et al. (2018)	Europe	No	n/a	No	1870–2016
Wei et al. (2018)	China	Yes	Decrease	No	<i>2000–2015</i>
Fang et al. (2018)	China (Yangtze River)	Yes	Decrease	No	<i>1998–2014</i>
Perez-Morales et al. (2018)	Spain	No	n/a	No	1975–2013
Stevens et al. (2016)	United Kingdom	No	n/a	No	1884–2013
Barredo et al. (2012)	Spain	No	n/a	No	1971–2008
Hilker et al. (2009)	Switzerland	No	n/a	No	1972–2007
Chang et al. (2009)	Korea	No	Increase	No	1971–2005
Barredo (2009)	Europe	No	n/a	No	1970–2006
Downton et al. (2005)	United States	Yes	Decrease	No	1926–2000
Fengqing et al. (2005)	China	No	n/a	No	1950–2001
Pielke and Downton (2000)	United States	No	n/a	No	1932–1997
Extratropical storms					
Andres and Badoux (2019)	Switzerland	No	n/a	No	1972–2016
Stucki et al. (2014)	Switzerland	No	n/a	No	1859–2011
Barredo (2010)	Europe	No	n/a	No	1970–2008
Tornadoes					
Simmons et al. (2013)	United States	No	n/a	No	1950–2011
Brooks and Doswell (2001)	United States	No	n/a	No	1890–1999
Boruff et al. (2003)	United States	No	n/a	No	1900–2000
Convective storms					
Sander et al. (2013)	United States	Yes	Increase	No	1970–2009
Wildfire					
Crompton et al. (2010)	Australia	No	n/a	No	1925–2009
Studies focused on particular regions					
Study	Region (location & phenomena)	Detection claimed to be achieved?	Trend direction	Attribution claimed to be achieved	Period
Choi et al. (2019)	Region				
Reyes and Elias (2019)	Korea (weather)	Yes	Decrease	No	1965–2015
McAneney et al. (2019)	United States (crop loss)	Yes	Mixed	No	<i>2001–2016</i>
Paul and Sharif (2018)	Australia (weather)	No	n/a	No	1966–2017
	Texas (hydro-meteorological)	No	n/a	No	1960–2016
Bahinipati and Venktachalam (2016)	India (weather)	No	n/a	No	1972–2009
Zhou et al. (2013)	China (natural disasters)	No	n/a	No	<i>1990–2011</i>
Crompton and McAneney (2008)	Australia (weather)	No	n/a	No	1967–2006
Choi and Fisher (2003)	United States (weather)	No	n/a	No	1951–1997
Pielke (2019)	World				
	All disasters & weather only	Yes	Decrease	No	<i>1990–2017</i>
Watts et al. (2019)	All disasters	No	n/a	No	<i>1990–2016</i>
Daniell et al. (2018)	Multi-hazard	Yes	Decrease	No	1950–2015
Mohleji and Pielke (2014)	All-weather related	No	n/a	No	<i>1980–2008</i>
Neumayer and Barthel (2011)	All-weather related	No	n/a	No	<i>1980–2008</i>
Visser et al. (2014)	All-weather related	No	n/a	No	1980–2010
Miller et al. (2008)	All-weather related	No	n/a	No	1950–2005

Disaster losses

Global Weather Losses as Percent of Global GDP: 1990-2022

Note: 2022 is estimated based on 1st half results



Sources:

Munich Re, World Bank, Aon

Updated from: Pielke 2019. Tracking progress on the economic costs of disasters under the indicators of the sustainable development goals. *Environmental Hazards* 18:1-6.

Note: 2022 is estimated based on IH 2022 results reported by Aon, adjusted based on (a) historical relationship of loss estimates of Aon to Munich Re & (b) relationship of IH to full year results. Green represents ~90% range of relationship of IH to full year losses.



THE HOUNDING OF
ROGER PIELKE JR

Donna Laframboise

A vertical rainbow flag graphic with six horizontal stripes of equal width: red, orange, yellow, green, blue, and purple.

**DIVERSE
INCLUSIVE
ACCEPTING
WELCOMING
SAFE SPACE
FOR EVERYONE**

Pielke and the IPCC

“I was nominated to participate in the SREX report as one of the most published and cited authors on disasters and climate change. I was not selected and a US government colleague told me that an IPCC official had told him that “Roger Pielke will never participate in the IPCC.” Not only did he say that, but it has been true.”

THE FROZEN CLIMATE VIEWS OF THE IPCC

An analysis of AR6

Edited by Marcel Crok, Andy May



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