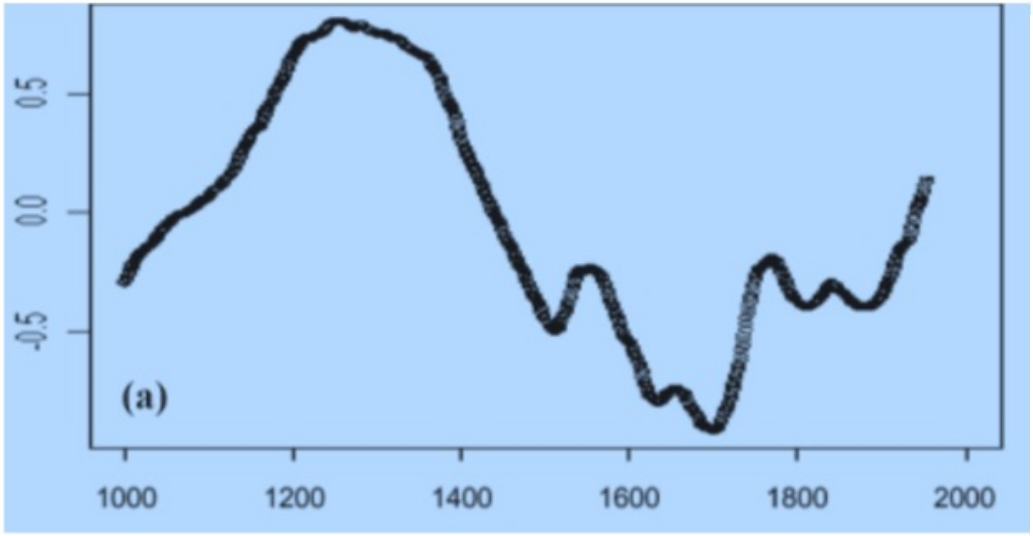
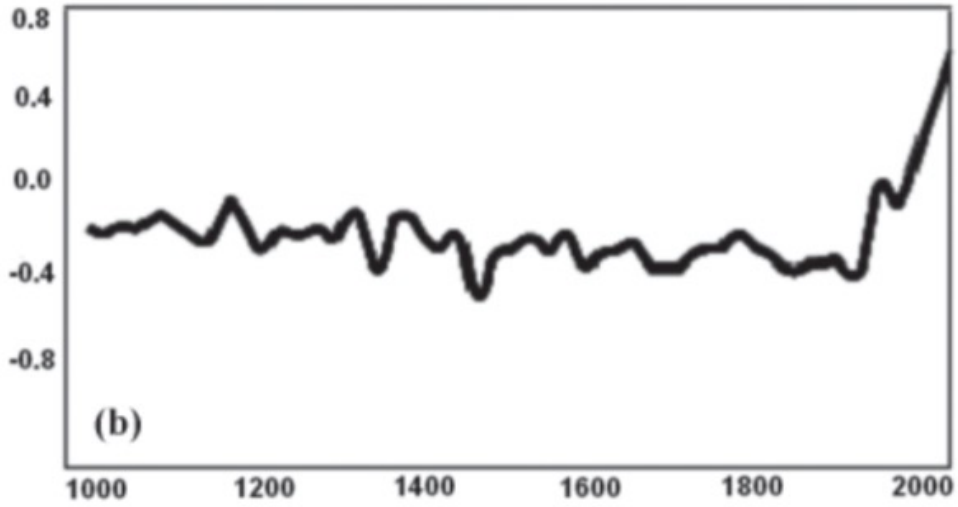
Comment on IPCC graph



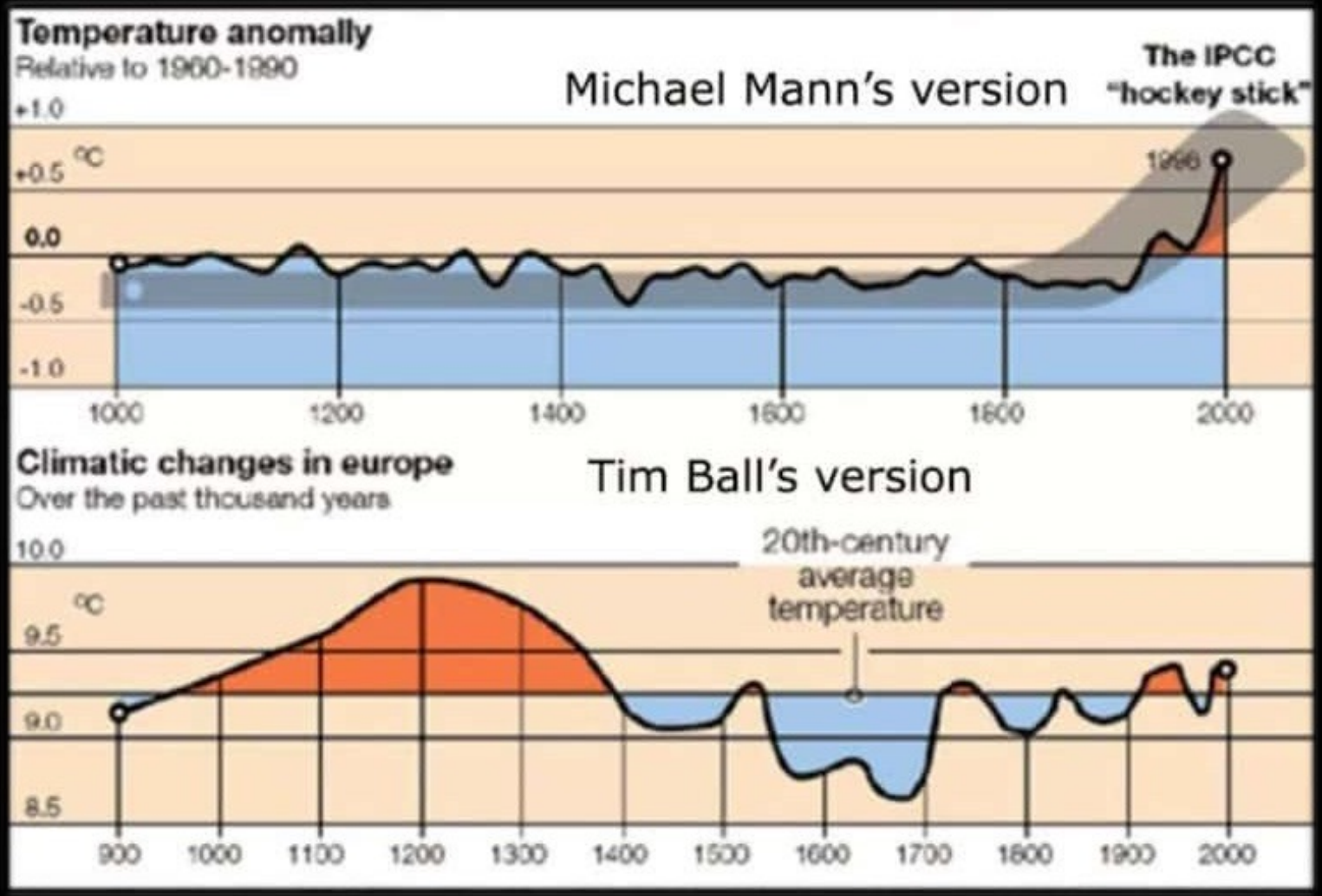


Trends in global temperatures according to the IPCC report of 1990 (a) and 2001 (b). The graph (b) is known as the Mann's hockey stick (MANN et alii, 1998). Note the power of MWP and LIA according to curve (a) and their substantial loss in the curve (b)t

Michale Mann

Tim Ball

Battle of the graphs: Mann versus Ball



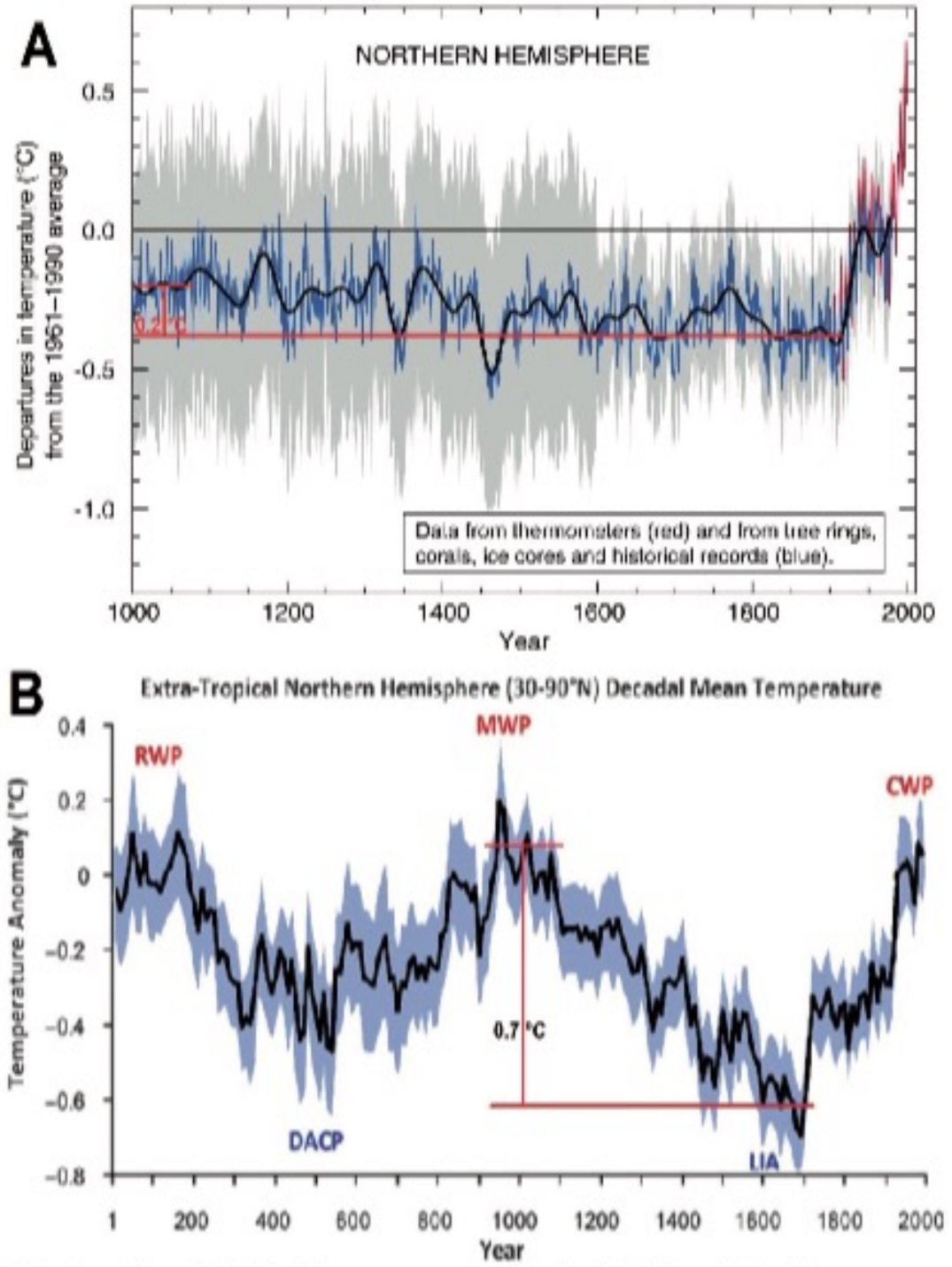
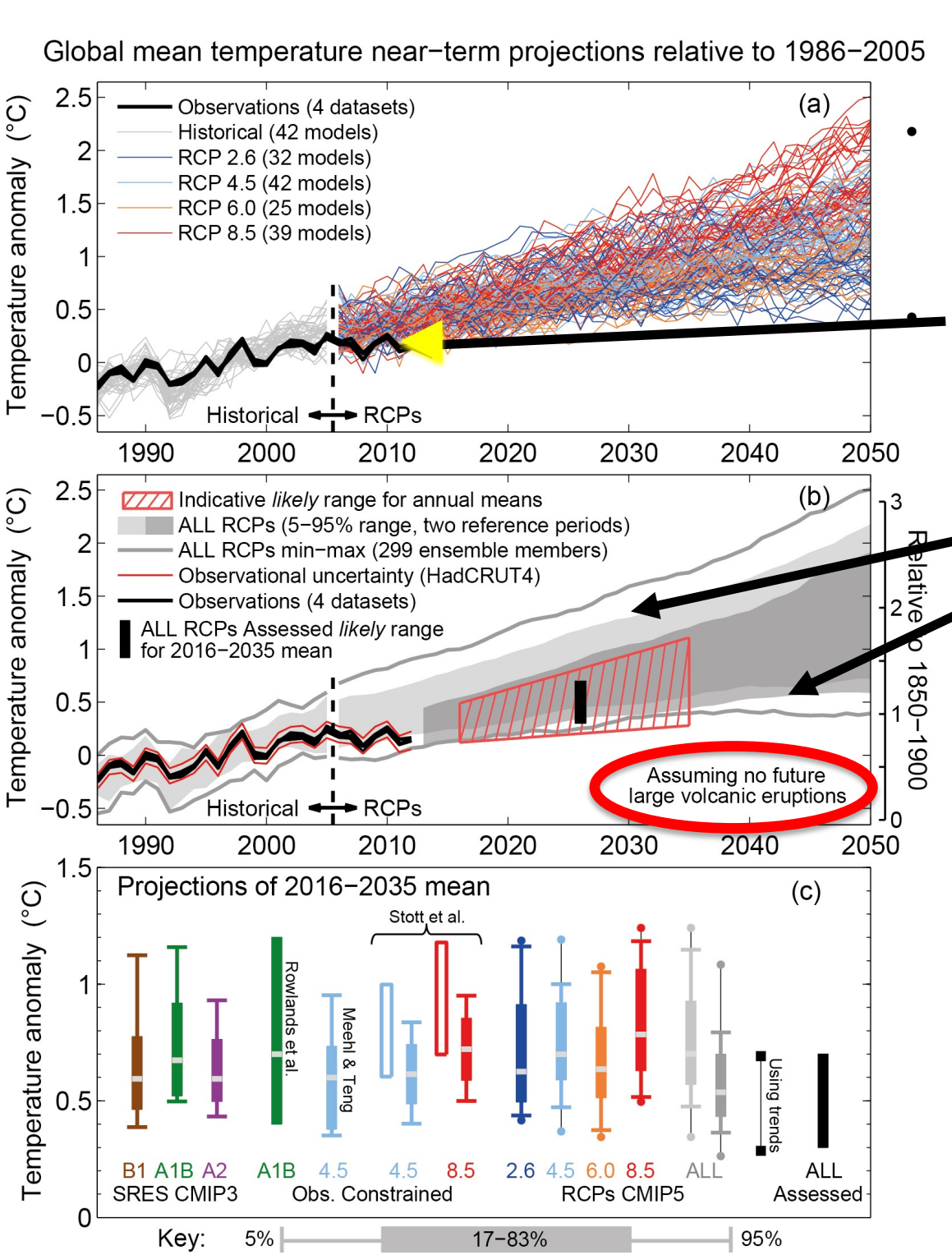


Fig. 8 - Comparison between [A] the Hockey Stick temperature reconstruction developed around 2000 (Mann et al., 1999) and [B] a recent temperature reconstruction of the Northern Hemisphere showing a much larger natural variability (Loehle, 2010). Note the different amplitudes of the cooling (0.2°C versus 0.7°C) between the Medieval Warm Period (MWP) and the Little Ice Age (LIA).

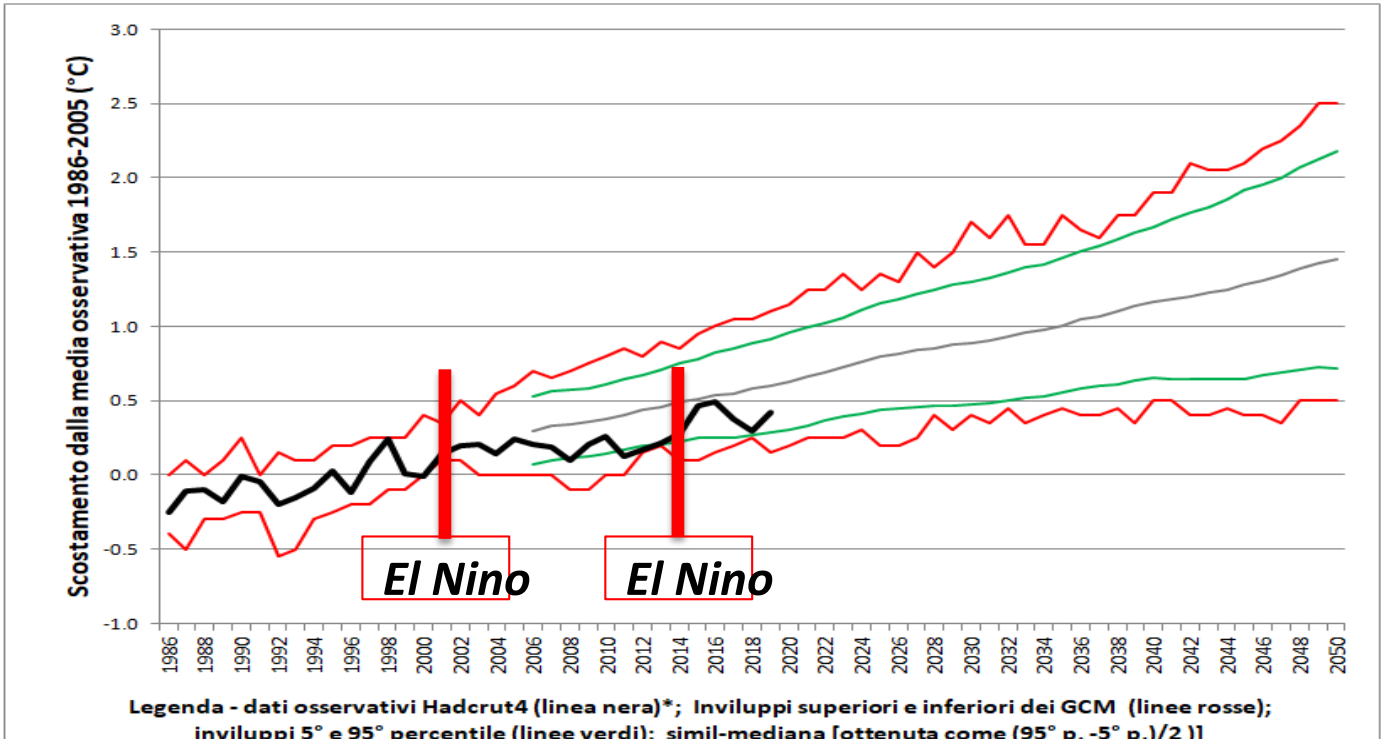
fig. 11.25a Report IPCC AR5 (WG1)

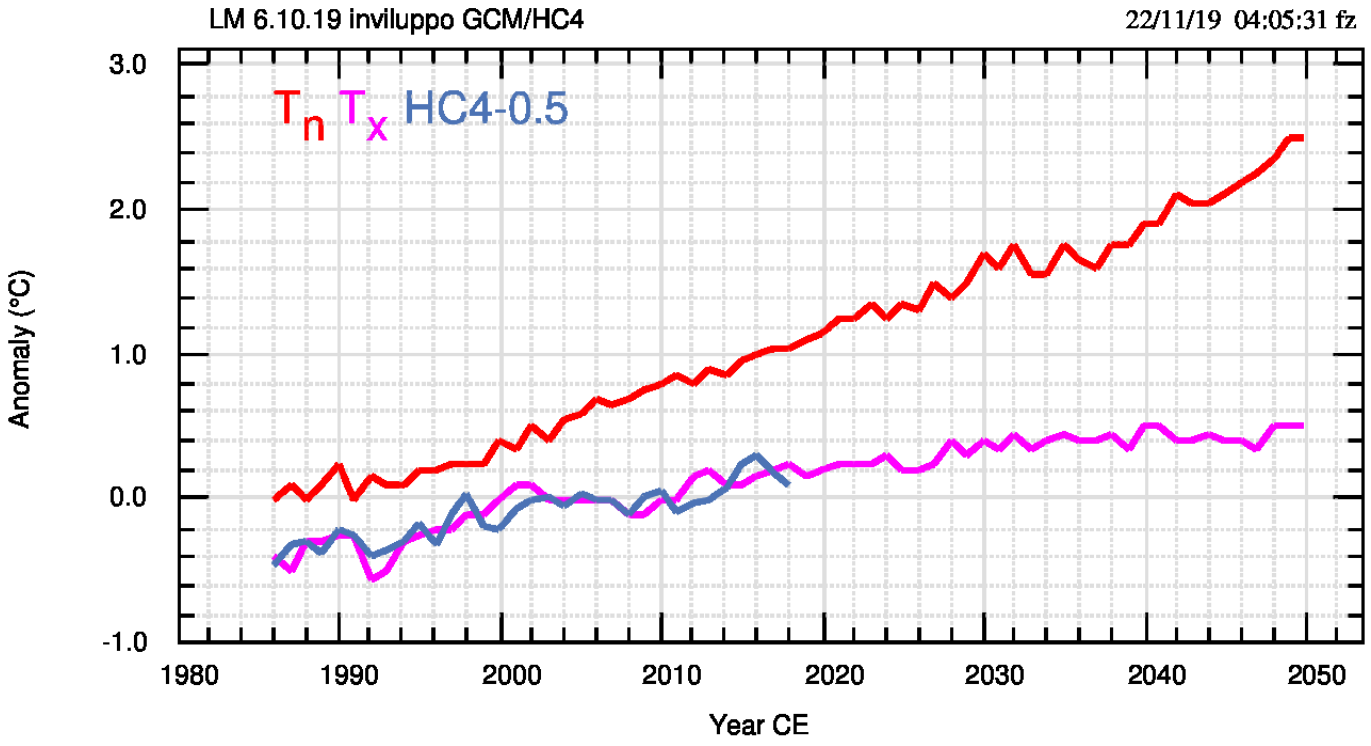


- **Representative Concentration Pathway** (**RCP**) is a greenhouse gas concentration (not emissions) trajectory adopted by the IPCC.
- HadCrut4 (Hadley Center/Climate Research Unit

95 percentile

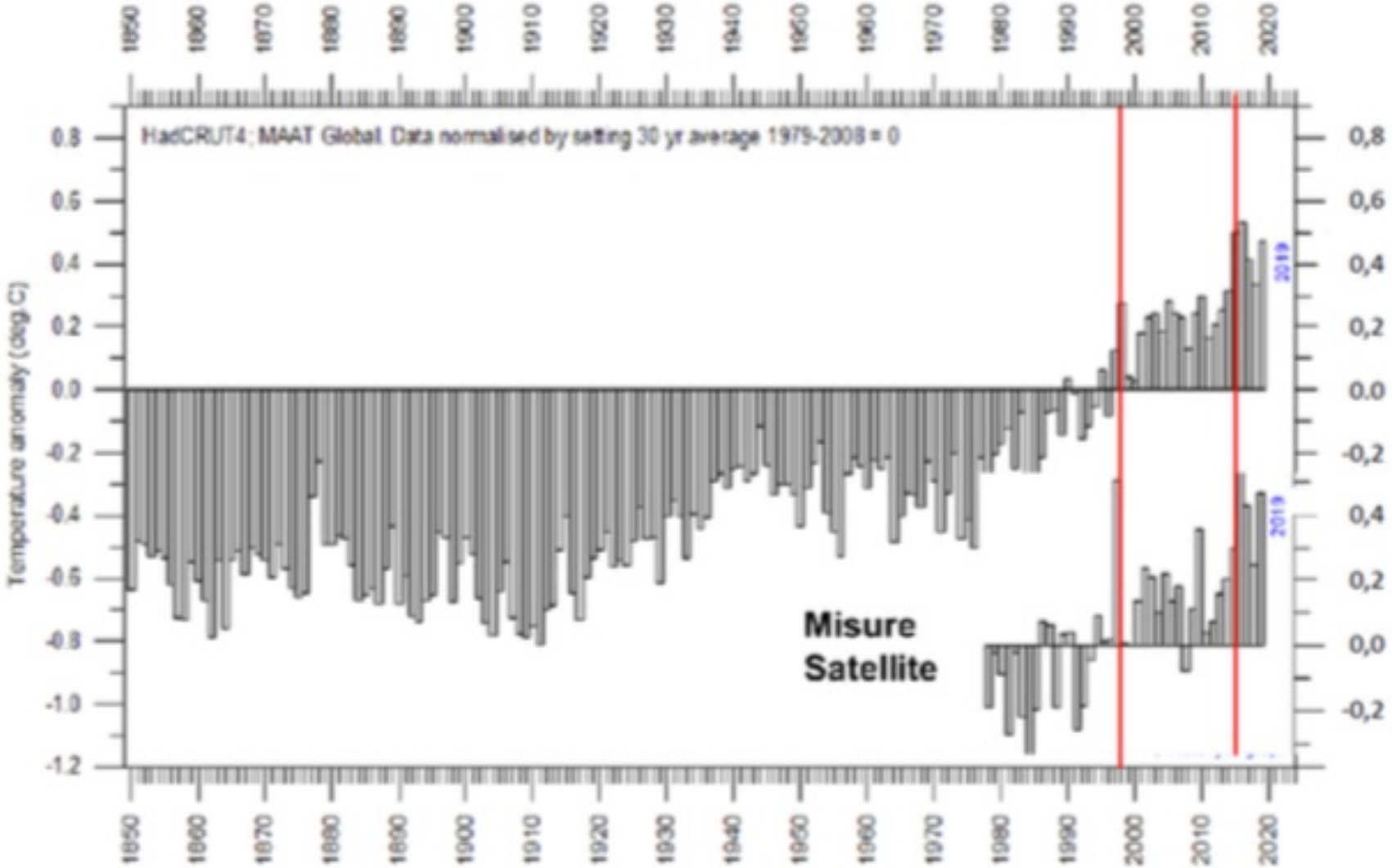
5 percentile



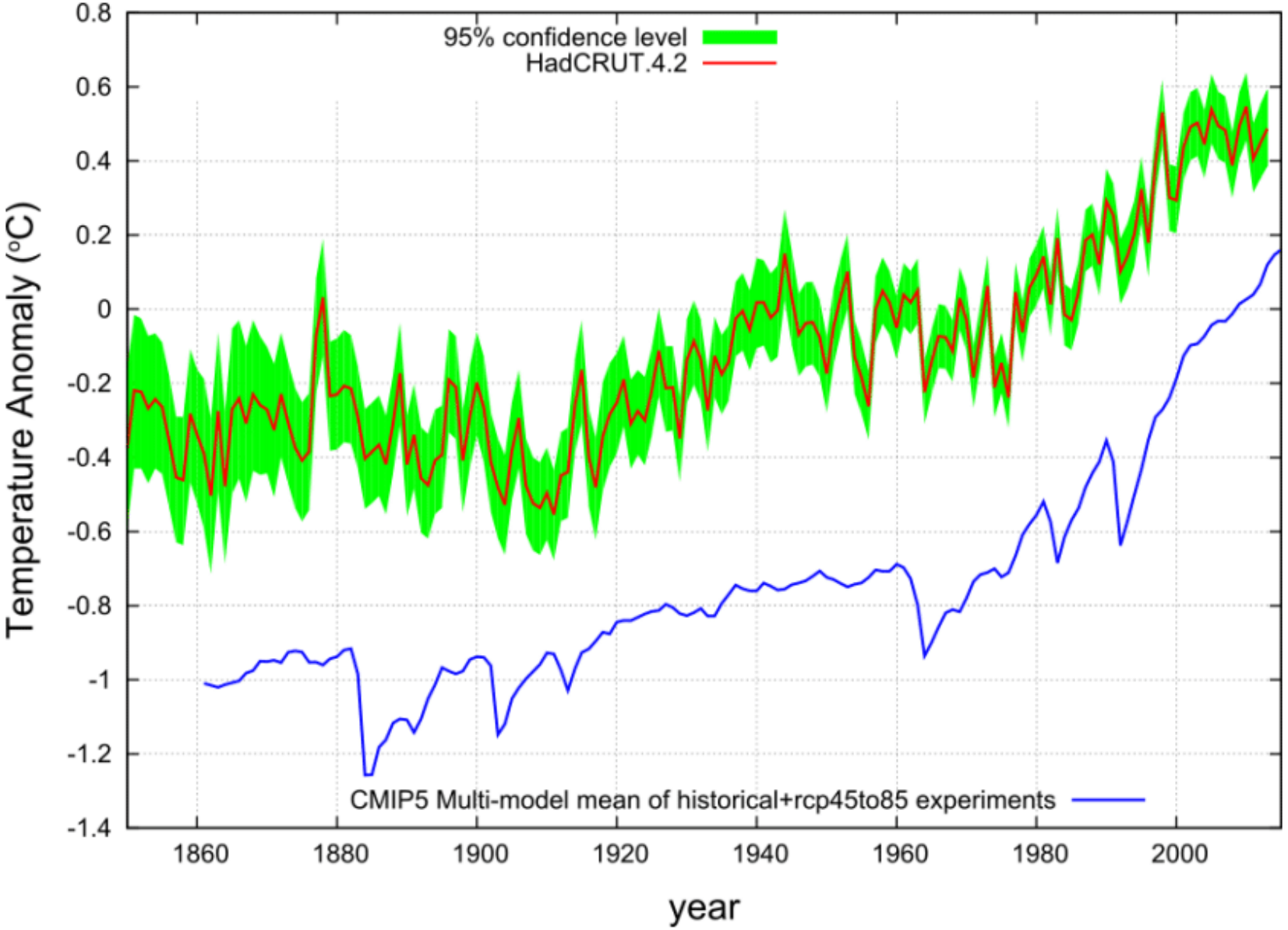


Lower 0.2°

Pink line fit blu line


HadCRUT4: MAAT Global. Data normalised by setting 30 yr average 1975-2008 = 0
Temperature anomaly (deg.C)
Misure
Satellite
2019
2019
1850
1860
1870
1880
1890
1900
1910
1920
1930
1940
1950
1960
1970
1980
1990
2000
2010
2020
0.8
0.6
0.4
0.2
0.0
-0.2
-0.4
-0.6
-0.8
-1.0
-1.2
0,8
0,6
0,4
0,2
0,0
-0,2
0,4
0,2
0,0
-0,2

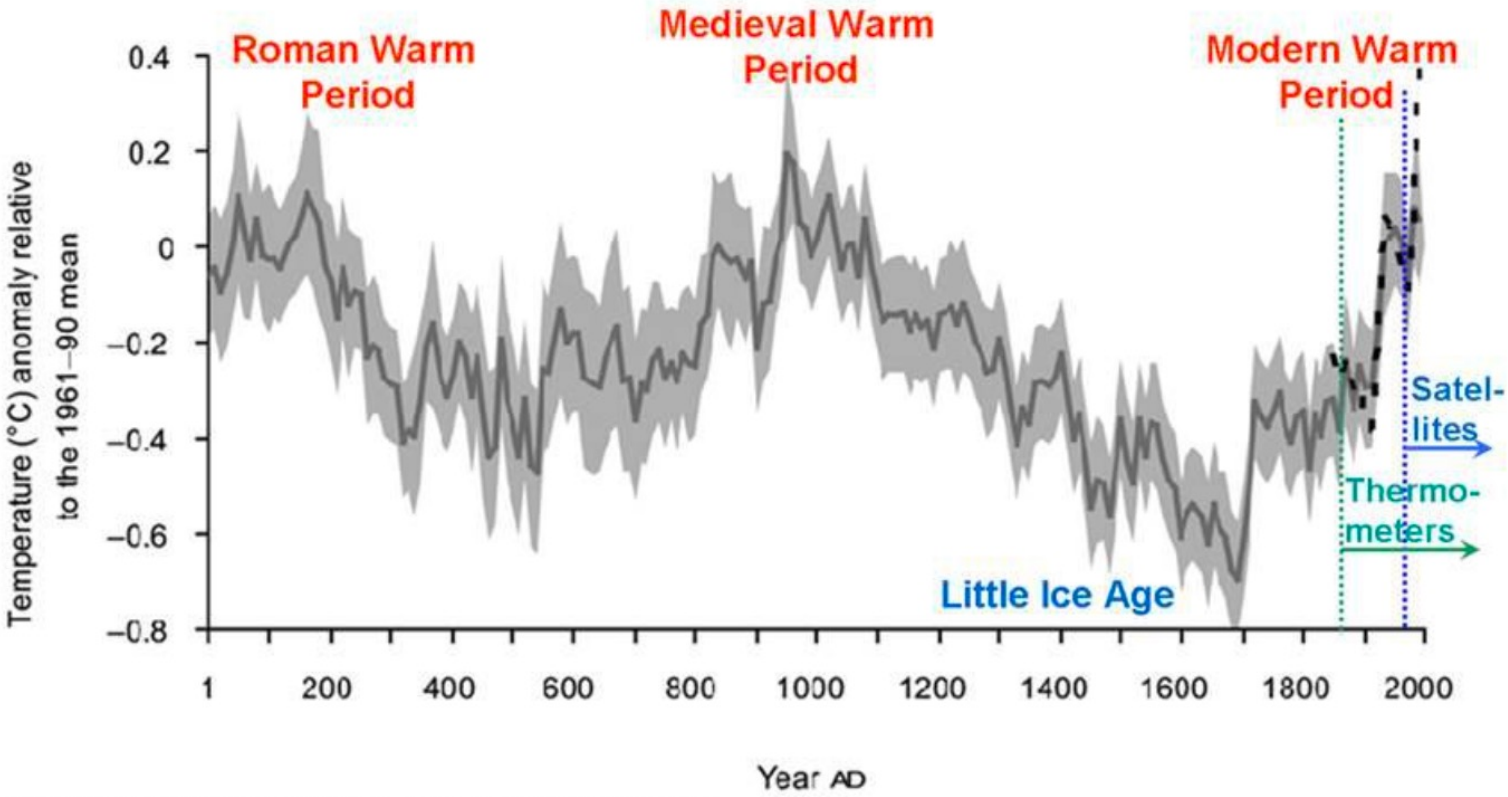
- Each model uses different parameters.
- Lower the value of **Representative Concentration Pathway**: (lower concentration) better the adherence between data and model
- Models point their attention on GHG CO_2
- Critical issues



Model by Scafetta: solar activity

Nearly Every Century Experiences Global Warming or Cooling

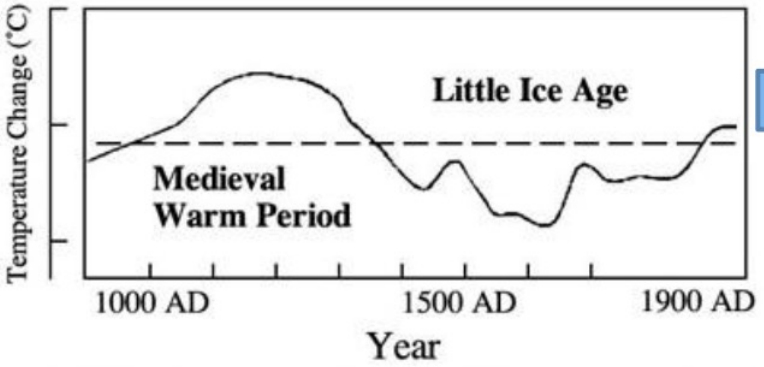
Temperature Reconstruction* for N. Hemisphere, 1 - 2000 AD
Shows Modern Warm Period Not Exceptional



*Ljungqvist, F.C. 2010. A new reconstruction of temperature variability in the extra-tropical Northern Hemisphere during the last two millennia. Geografiska Annaler: Physical Geography, Vol. 92 A(3), pp. 339-351, September 2010. DOI: 10.1111/j.1468-0459.2010.00399.x

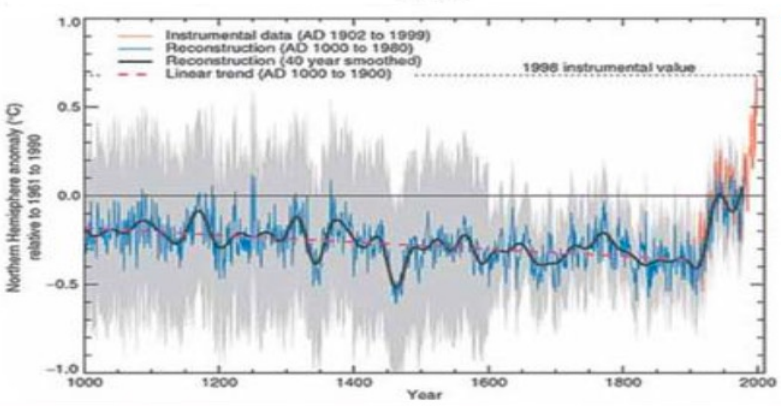
Scafetta: dal Medieval Warm Period al Current Warm period, il clima europeo e la circolazione atmopsferica oceanica Milano 13 maggio 2019

Are the IPCC climate models still validated?



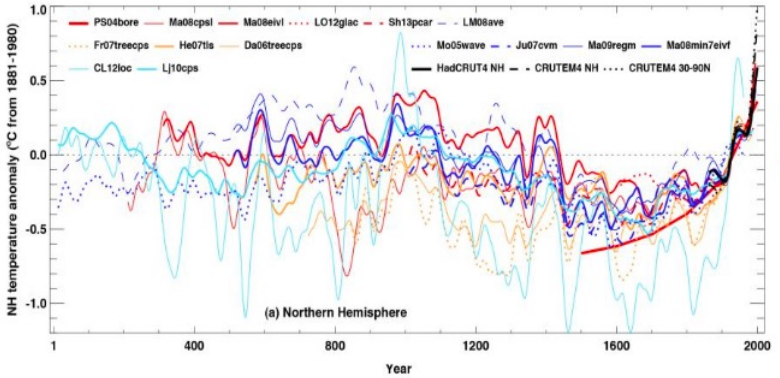
IPCC 1991

The natural variability is large; CO_2 records do not explain it; The sun is the main driver.



IPCC 2001

The natural variability is small (0.2 °C); Only CO_2 explains the warming since 1900; The IPCC climate models are claimed to have been validated & used for future climate scenarios.

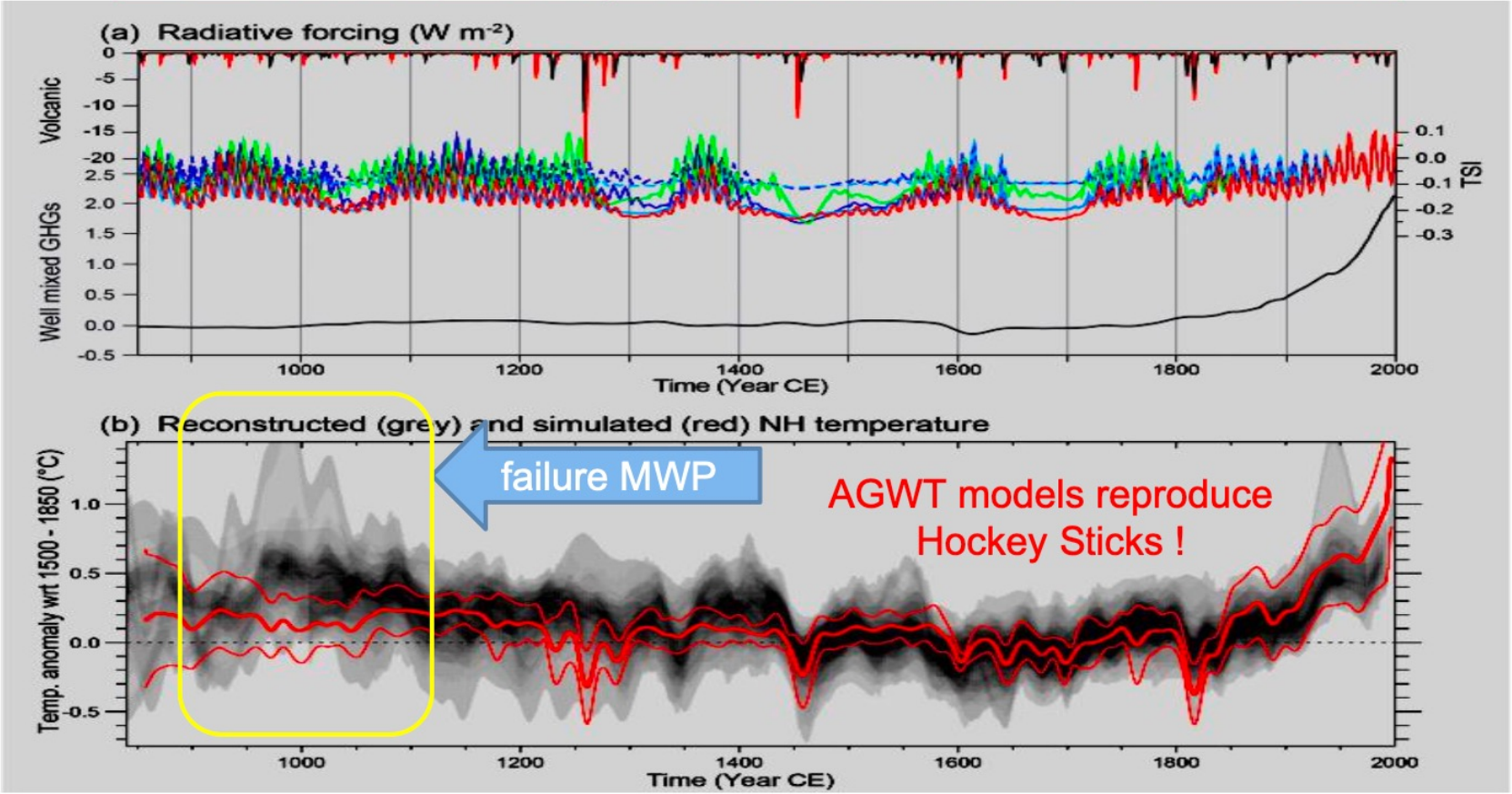


IPCC 2013

The natural variability is large (0.6-1.5 °C); The Sun, not the CO_2 records explains it.

Scafetta: dal Medieval Warm Period al Current Warm period, il clima europeo e la circolazione atmopsferica oceanica Milano 13 maggio 2019

In the IPCC 2013
The last-millennium GCM simulations and reconstructions diverge
The models do not reproduce the Medieval Warm Period

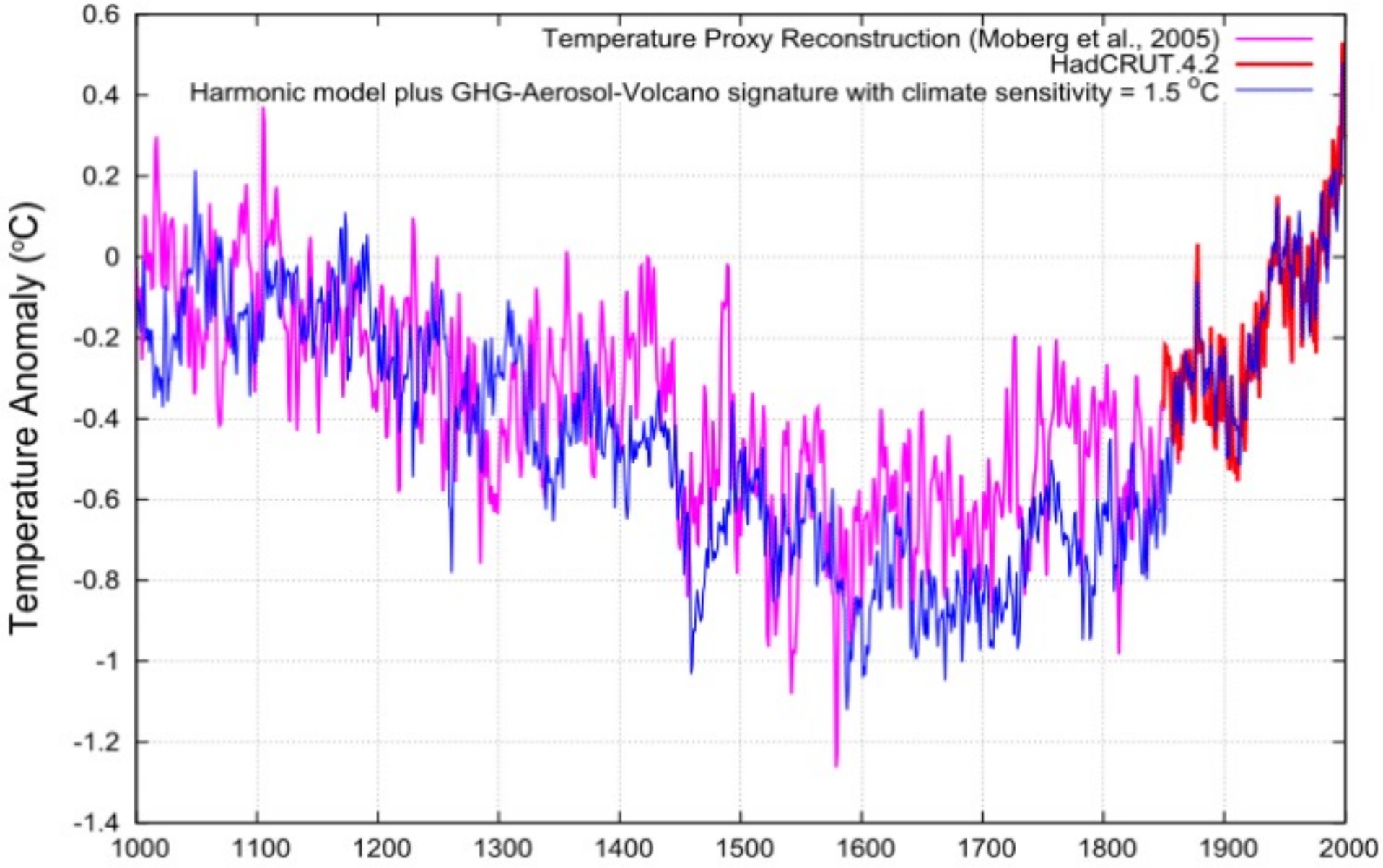


Box TS.5, Figure 1 -

(a) 850–2000 PMIP3/CMIP5 radiative forcing due to volcanic, solar and well-mixed green- house gases.

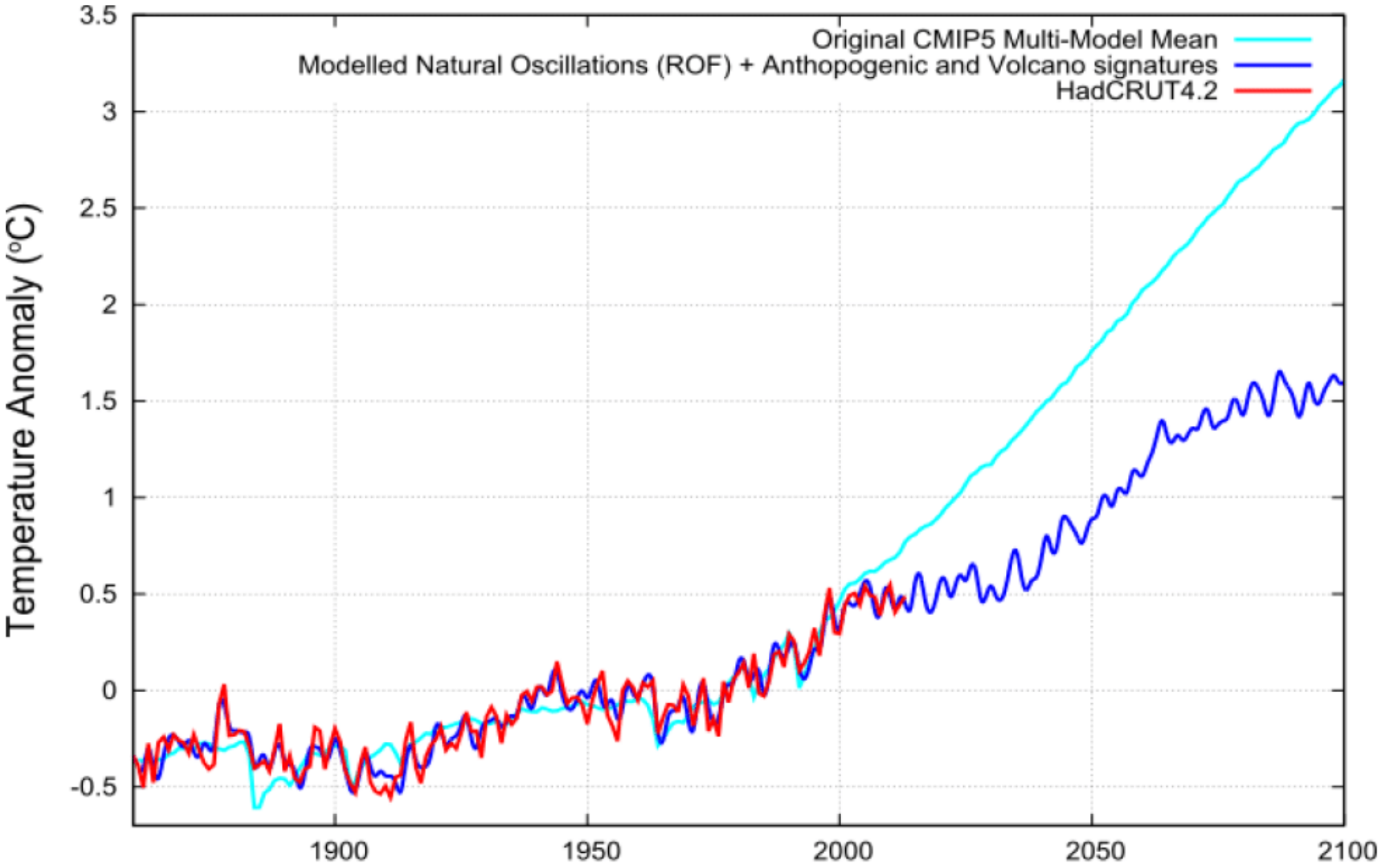
(b) 850–2000 PMIP3/CMIP5 simulated (red) and reconstructed (shading) Northern Hemisphere (NH) temperature changes.

Scafetta: dal Medieval Warm Period al Current Warm period, il clima europeo e la circolazione atmopsferica oceanica Milano 13 maggio 2019



HARMONIC MODEL PLUS GHG AEROSOL VOLCANO

TEMPERATURE PROXY RCONSTRUCTION MOBERG ET AL 2005



HARMONIC MODEL PLUS GHG AEROSOL VOLCANO + ANTRHROPOGENIC

TEMPERATURE PROXY RCONSTRUCTION MOBERG ET AL 2005

ORIGINAL CM1P5 MULTI MODEL

Temperature oscillation in last 850000

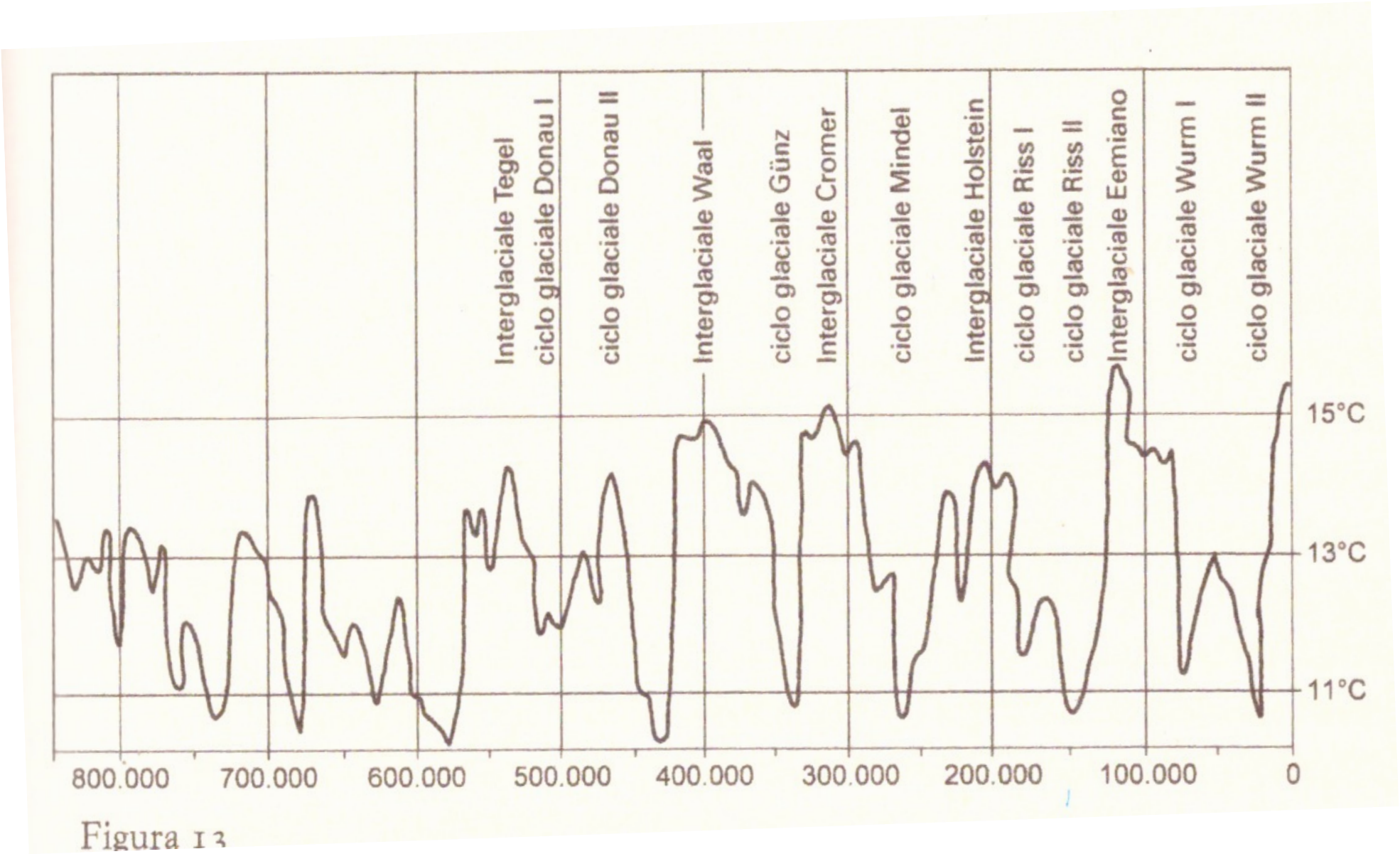
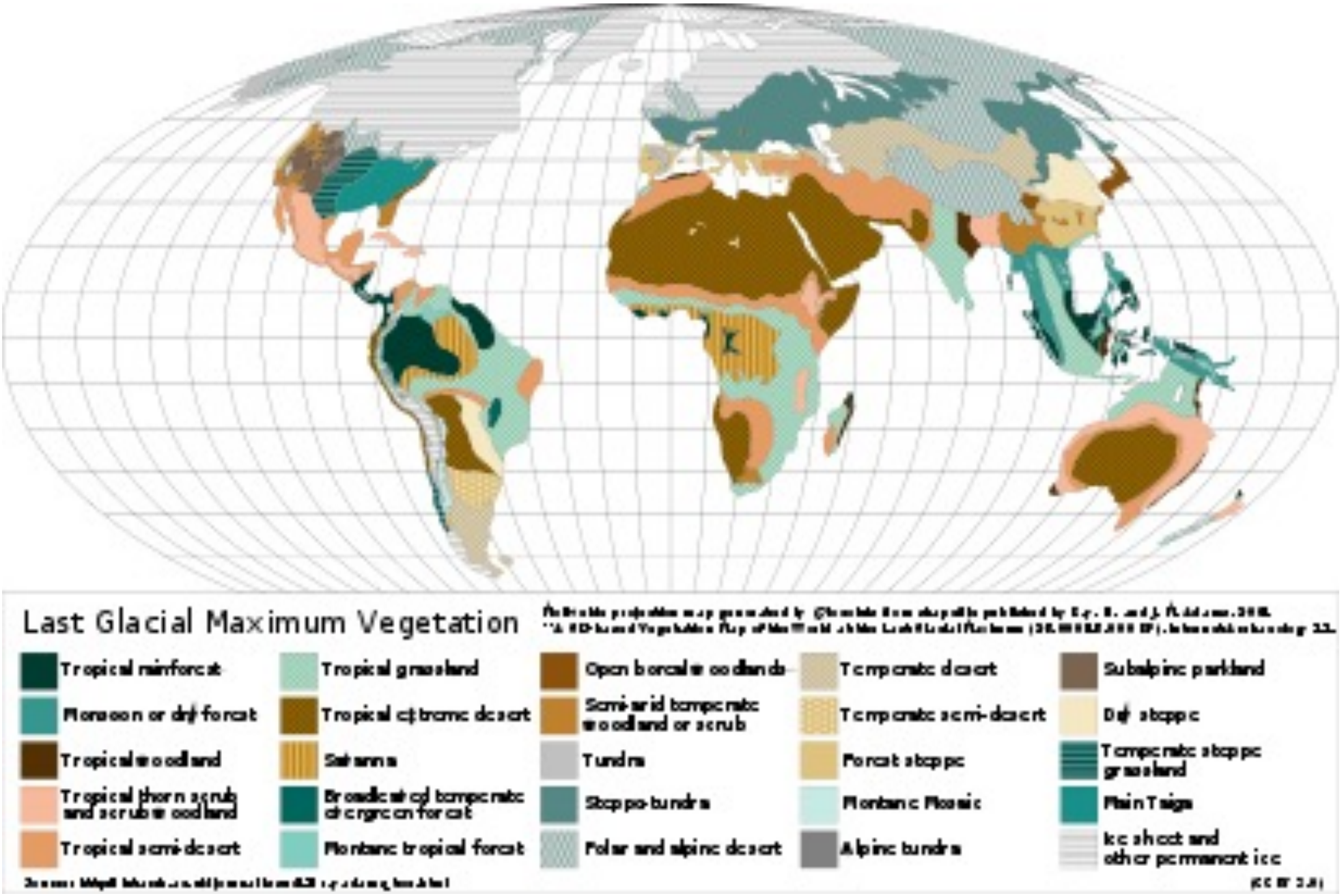


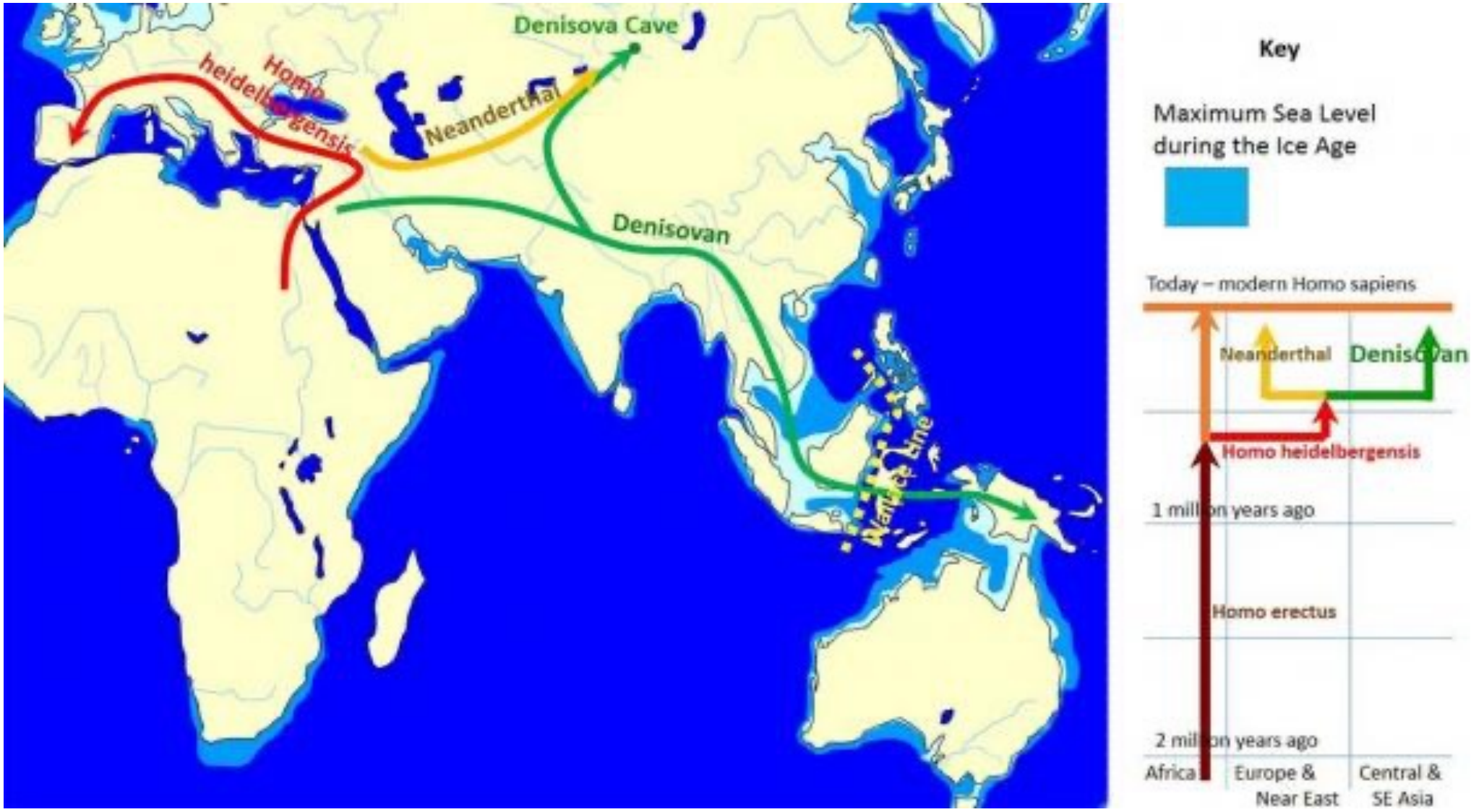
Figura 13

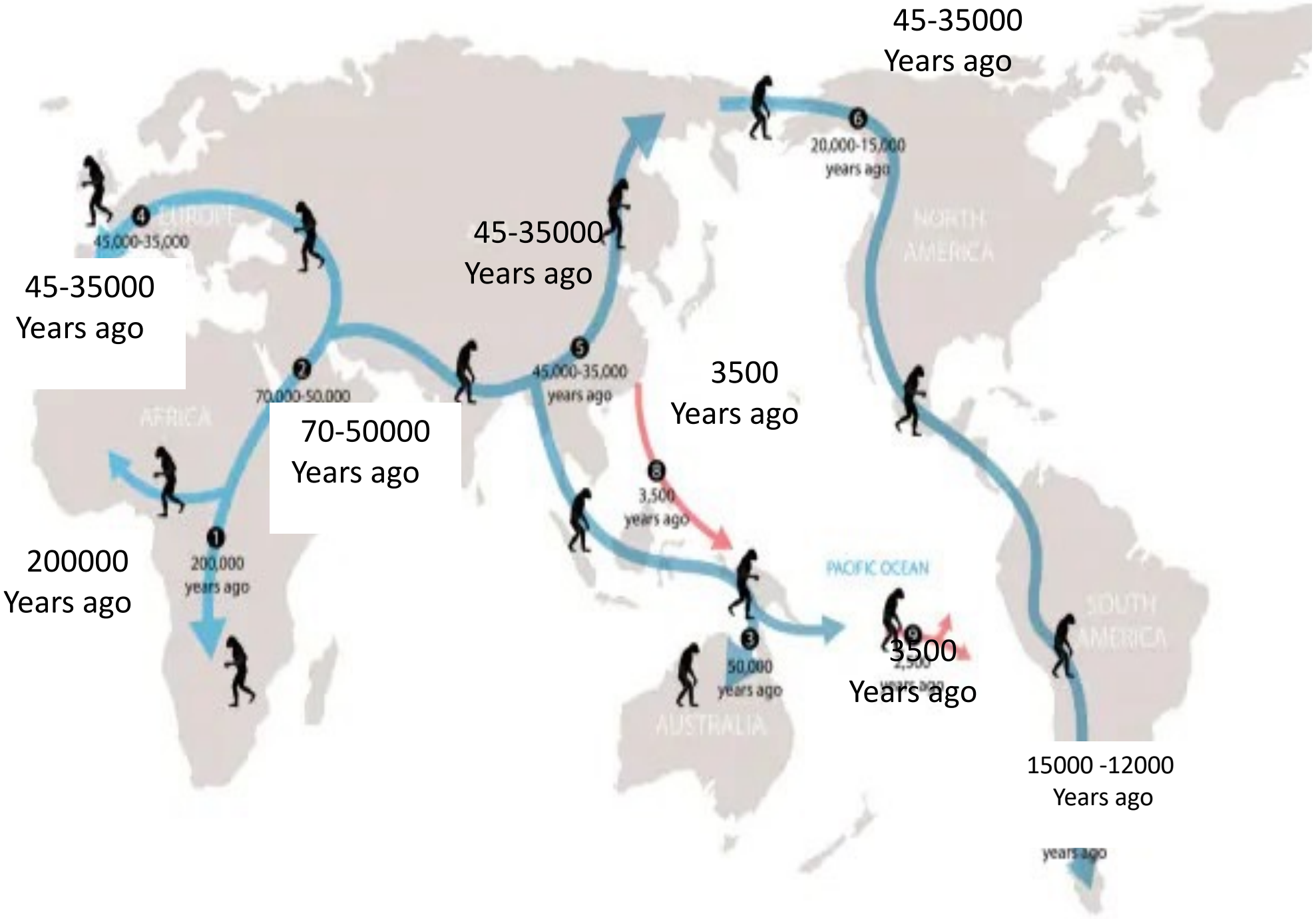
Historical names of the "four major" glacials in four regions				
Region	Glacial 1	Glacial 2	Glacial 3	Glacial 4
Alps	Günz	Mindel	Riss	Würm
North Europe	Eburonian	Elsterian	Saalian	Weichselian
British Isles	Beestonian	Anglian	Wolstonian	Devensian
Midwest U.S.	Nebraskan	Kansan	Illinoian	Wisconsinan

Extension ice cap and glaciers


Last Glacial Maximum Vegetation
Tropical rainforest
Tropical grassland
Open boreal/temperate woodlands
Temperate desert
Subalpine parkland
Monsoon or dry forest
Tropical xerophytic desert
Semi-arid temperate woodland or scrub
Temperate semi-desert
Dry steppe
Tropical woodland
Savannas
Tundra
Forest steppe
Temperate steppe grassland
Tropical thorn scrub and scrub woodland
Broadleaved/boreal temperate evergreen forest
Steppe-tundra
Montane Mosaic
Plain Taiga
Tropical semi-desert
Montane tropical forest
Polar and alpine desert
Alpine tundra
Ice sheet and other permanent ice

Wurm


Denisova Cave
Homo heidelbergensis
Neanderthal
Denisovan
Wallace Line
Key
Maximum Sea Level during the Ice Age
Today – modern Homo sapiens
Neanderthal
Denisovan
Homo heidelbergensis
1 million years ago
Homo erectus
2 million years ago
Africa
Europe & Near East
Central & SE Asia


45-35000
Years ago
45-35000
Years ago
45-35000
Years ago
70-50000
Years ago
3500
Years ago
200000
Years ago
3500
Years ago
15000 -12000
Years ago
4
45,000-35,000
2
70,000-50,000
5
45,000-35,000
years ago
6
20,000-15,000
years ago
8
3,500
years ago
1
200,000
years ago
3
50,000
years ago
9
EUROPE
NORTH AMERICA
AFRICA
PACIFIC OCEAN
SOUTH AMERICA
AUSTRALIA

http://www.climatemonitor.it/?p=56337

CO_2 effects, impacts

Solubility of gas in water depends on temperature.

37.000 GIGA TONS

T ↑ CO_2 ↑ T ↓ CO_2 ↓

VARIATIONS OF $C0_2$ FOLLOW temperature

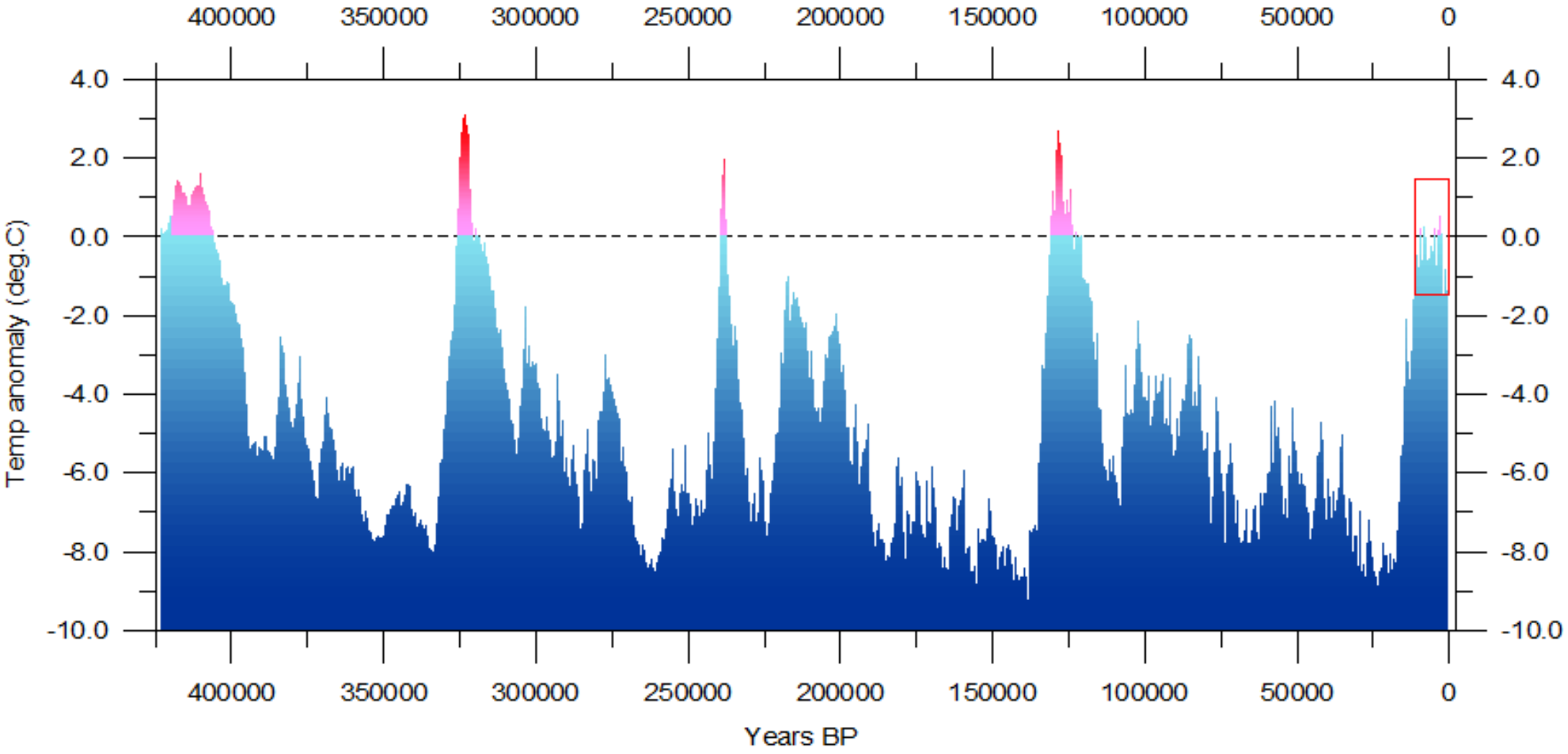


Figura 2: Temperature da 400mila anni fa ad oggi [Humlum (2020) fig. 2]

Gros production of food

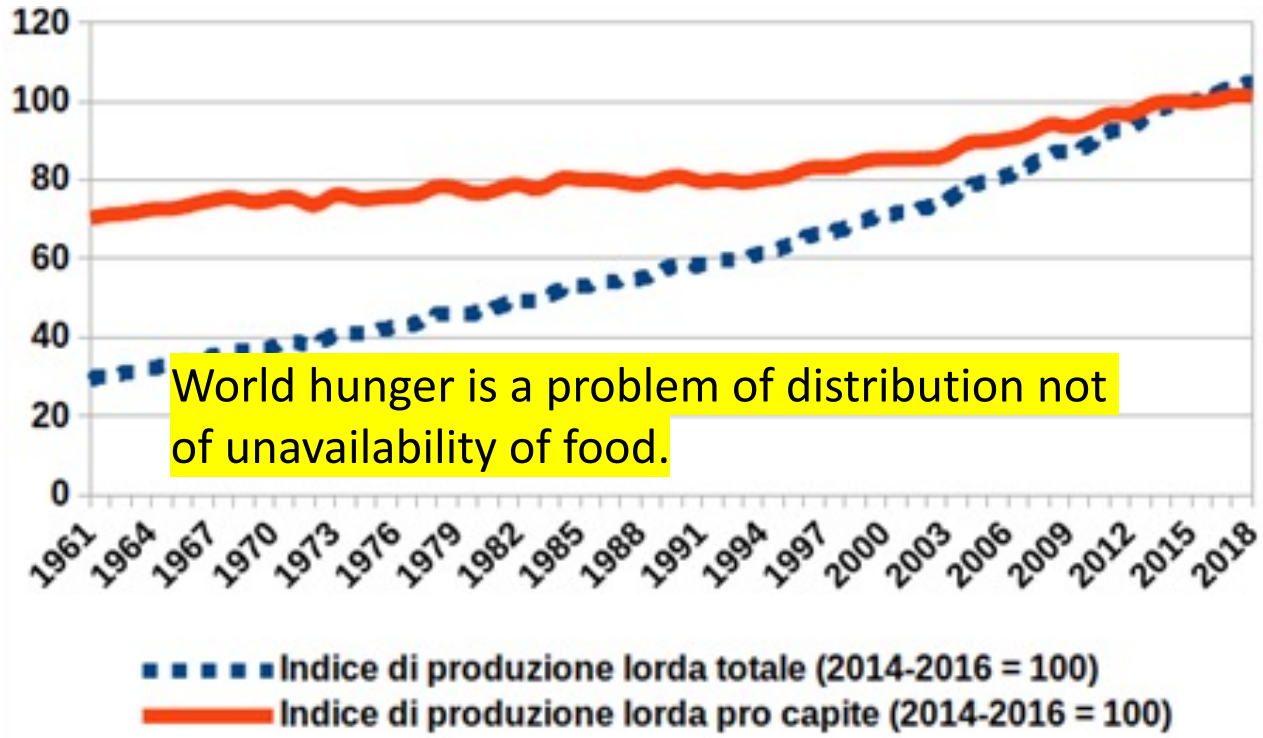
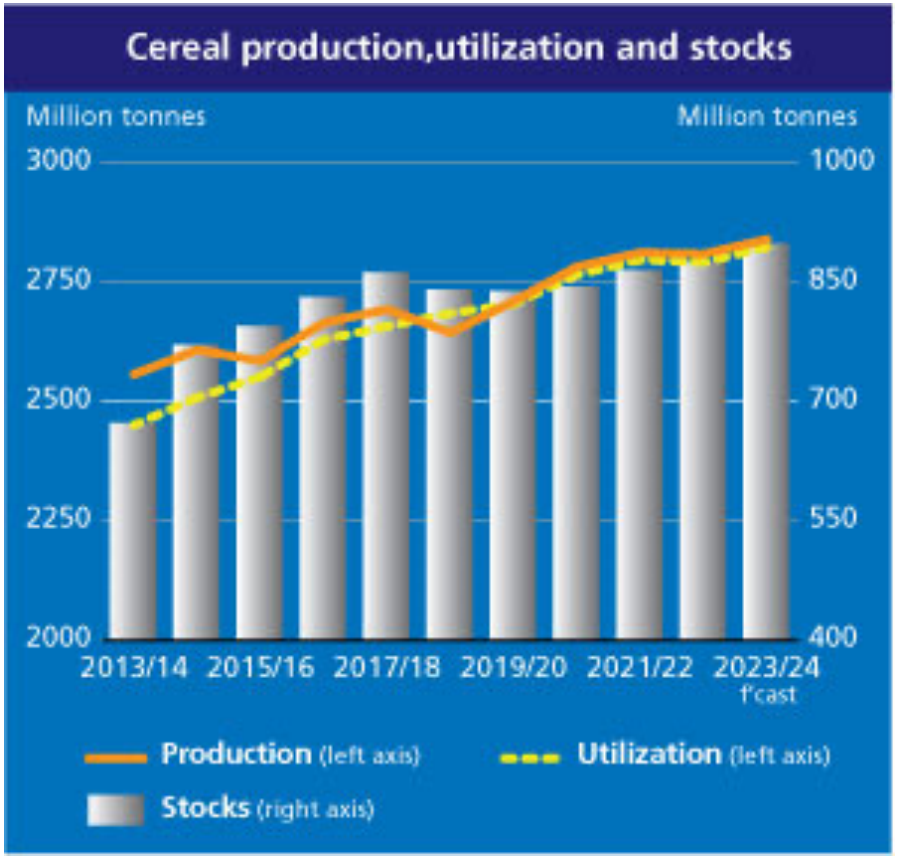


Figura 5: Grafico dalla serie “FAO” selezionando come REGION world, ELEMENTS all, ITEMS Agricolture (PIN)+(Total) e YEARS all

https://www.fao.org/worldfoodsituation/csdb/en/



World cereal market

	2019/20	2020/21	2021/22	2022/23 estimate	2023/24 forecast Previous (2 Feb 2024)	2023/24 forecast Current (8 Mar 2024)
	million tonnes					
Production1/	2 710.1	2 782.3	2 811.7	2 809.1	2 836.2	**2 839.5**
Supply2/	3 548.1	3 619.0	3 654.2	3 672.2	3 708.6	**3 712.4**
Utilization	2 704.5	2 765.5	2 796.8	2 791.8	2 821.7	**2 823.1**
Trade3/	440.0	482.2	482.4	476.6	479.9	**483.0**
Ending Stocks4/	836.7	842.6	863.1	872.9	895.4	**896.9**
	percent					
World stock-to-use ratio	30.3	30.1	30.9	30.9	31.1	**31.1**
Major exporters' stock-to-disappearance ratio5/	18.7	18.4	19.3	20.9	21.7	**21.8**

World wheat market

	2019/20	2020/21	2021/22	2022/23 estimate	2023/24 forecast Previous (2 Feb 2024)	2023/24 forecast Current (8 Mar 2024)
	million tonnes					
Production1/	759.6	775.5	779.2	805.6	788.5	**787.3**
Supply2/	1 035.6	1 063.0	1 075.7	1 104.9	1 111.6	**1 110.4**
Utilization	746.3	761.1	773.9	779.2	794.3	**793.3**
Trade3/	183.8	189.4	196.1	199.9	197.4	**197.5**
Ending Stocks4/	287.6	296.5	299.4	323.2	319.7	**318.9**
	percent					
World stock-to-use ratio	37.8	38.3	38.4	40.7	40.0	**39.9**
Major exporters' stock-to-disappearance ratio5/	15.6	15.4	16.4	20.9	20.1	**20.4**

World coarse grain market

	2019/20	2020/21	2021/22	2022/23 estimate	2023/24 forecast Previous (2 Feb 2024)	2023/24 forecast Current (8 Mar 2024)
	million tonnes					
Production1/	1 447.0	1 488.7	1 506.2	1 479.5	1 523.1	**1 526.0**
Supply2/	1 821.9	1 849.8	1 857.5	1 846.5	1 875.7	**1 879.4**
Utilization	1 457.2	1 494.2	1 499.6	1 487.7	1 505.2	**1 506.1**
Trade3/	210.3	240.7	230.0	223.8	231.0	**234.1**
Ending Stocks4/	361.1	351.2	367.0	353.4	376.9	**379.3**
	percent					
World stock-to-use ratio	24.2	23.4	24.7	23.5	24.3	**24.4**
Major exporters' stock-to-disappearance ratio5/	14.3	11.5	13.1	12.4	14.1	**14.2**

World rice market

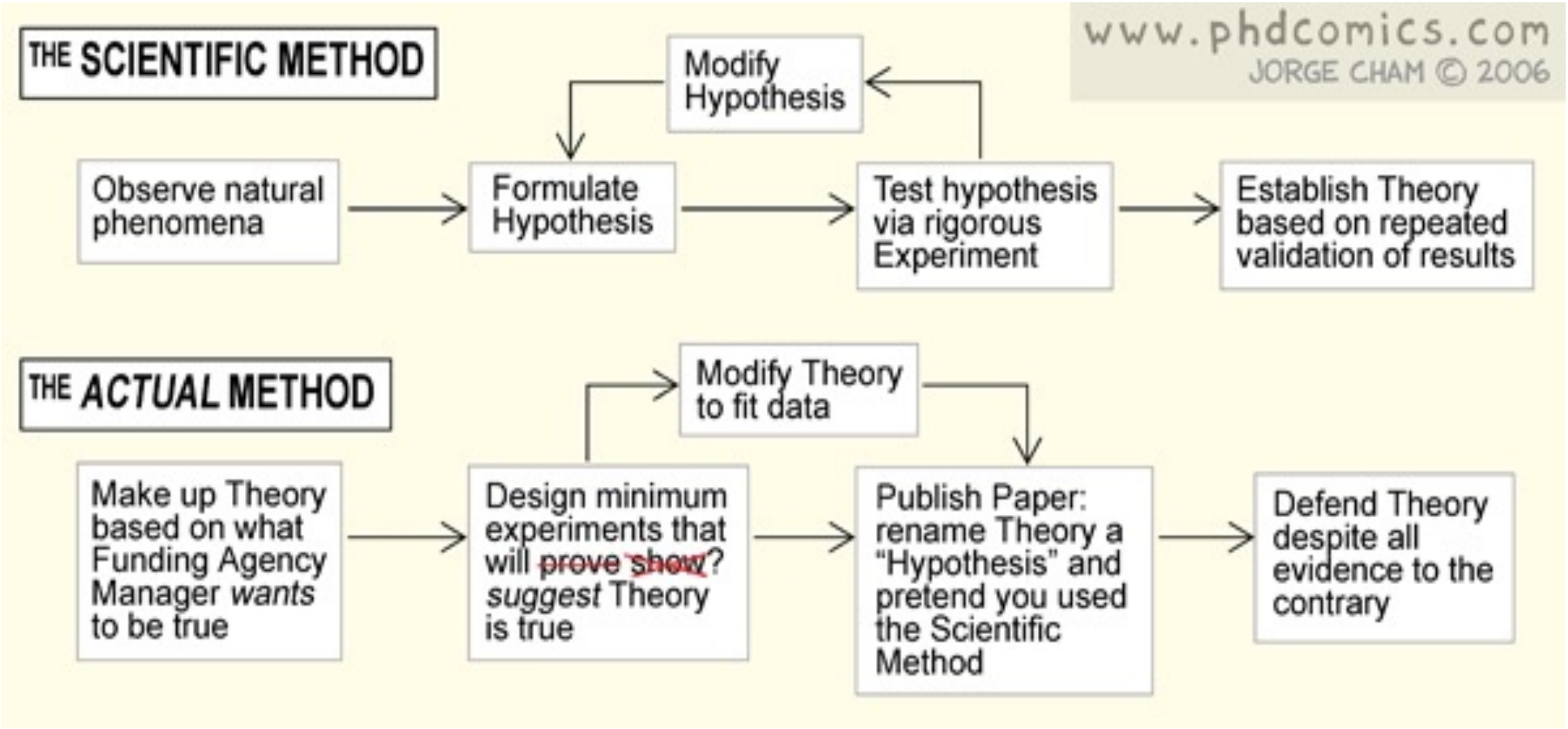
	2019/20	2020/21	2021/22	2022/23 estimate	2023/24 forecast Previous (2 Feb 2024)	2023/24 forecast Current (8 Mar 2024)
	million tonnes					
Production1/	503.5	518.1	526.2	524.0	524.6	**526.2**
Supply2/	690.6	706.1	721.1	720.7	721.3	**722.5**
Utilization	501.0	510.2	523.3	524.9	522.2	**523.7**
Trade3/	45.9	52.0	56.3	52.8	51.5	**51.4**
Ending Stocks4/	188.0	194.9	196.8	196.3	198.8	**198.7**
	percent					
World stock-to-use ratio	36.9	37.2	37.5	37.5	37.7	**37.6**
Major exporters' stock-to-disappearance ratio5/	26.1	28.5	28.4	29.3	31.0	**30.7**

the increase of CO_2 determines carbonic fertilization and explains [1] the 30% [2] increase in green mass observed by satellites. [6], [3] in Europe alone, forests increased by 90,000 km2 between 1990 and 2015! [8]

1 Zhu, 2016. Zhu, Z., Piao, S., Myneni, R. et al. Greening of the Earth and its drivers. Nature Clim Change 6, 791–795, 2016.

2 Campbell, 2017. Campbell, J., Berry, J., Seibt, U. et al. Large historical growth in global terrestrial gross primary production. Nature 544, 84–87 (2017). https://doi.org/10.1038/nature22030

3 Haverd, V; Smith, B; Canadell, J. G.; Cuntz, M; Mikaloff-Fletcher, S; Farquhar, G.; Woodgate, W; Briggs, Peter R.; Trudinger, Cathy M.: Higher than expected CO2 fertilization inferred from leaf to global observations, Global Change Biology, V 26, Innue 4 dell'Aprile 2020, p. 2390-2402


THE SCIENTIFIC METHOD
Modify Hypothesis
Observe natural phenomena
Formulate Hypothesis
Test hypothesis via rigorous Experiment
Establish Theory based on repeated validation of results
www.phdcomics.com
JORGE CHAM © 2006
THE ACTUAL METHOD
Modify Theory to fit data
Make up Theory based on what Funding Agency Manager wants to be true
Design minimum experiments that will prove show? suggest Theory is true
Publish Paper: rename Theory a "Hypothesis" and pretend you used the Scientific Method
Defend Theory despite all evidence to the contrary


ICE AGE IS ENDING...
...MUST BE OUR FAULT.

A study case

RETRACTED ARTICLE: A critical assessment of extreme events trends in times of global warming

Regular Article | Open access | Published: 13 January 2022

Volume 137, article number 112, (2022) Cite this article

Download PDF

You have full access to this open access article

The European Physical Journal Plus

Aims and scope →

Submit manuscript →

Gianluca Alimonti, Luigi Mariani, Franco Prodi & Renato Angelo Ricci

125k Accesses 40 Citations 1897 Altmetric 136 Mentions Explore all metrics →

This article was retracted on 23 August 2023

This article has been updated

Use our pre-submission checklist →

Avoid common mistakes on your manuscript.

Part of a collection:
Focus Point on the Interplay between Climate and Energy Policies

Sections | Figures | References

Abstract

(2022) 137:112, https://doi.org/10.1140/epjp/s13360-021-02243-9 riteniamo che

ditors-in-Chief have retracted this article. Concerns were raised regarding
ion of the data, the analysis and the resulting conclusions of the article. Th
nvited to submit an addendum to the article, but post publication review o
rns with the article and the submitted addendum concluded that the adden
itable for publication and that the conclusions of the article were not suppo
ble evidence or data provided by the authors. In light of these concerns and
itcome of the post publication review, the Editors-in-Chief no longer have
results and conclusions reported in this article.

uthors disagree with this retraction.

- Michael Mann was scathing and personal in his comments:
- “another example of scientists from totally unrelated fields coming in and naively applying inappropriate methods to data they don’t understand. Either the consensus of the world’s climate experts that climate change is causing a very clear increase in many types of weather extremes is wrong, or a couple of nuclear physics dudes in Italy are wrong.”

Tipo di impatto del clima	Categoria di impatto del clima	Giudizio espresso nel nostro articolo	Rilevabilità scostamenti significativi dalla norma		
			Già osservata	Di qui al 2050 (quantomeno con RCP 8.5)	Fra 2050 e 2100 (quantomeno con RCP 8.5)
Caldo e freddo	Temperatura media aria	Aumento			
	Ondate di caldo	Aumento			
	Ondate di freddo	X			
	Gelate	X			
Umido e asciutto	Precipitazioni medie	Aumento[1]			
	Alluvioni fluviali	Stazionarie			
	Precipitazioni estreme	Stazionarie[2]			
	Frane	X			
	Aridità	X			
	Siccità idrologica	Stazionaria			
	Siccità agricola ed ecologica	Stazionaria			
	Condizioni favorevoli a incendi boschivi	X			
Vento	Vento medio	X			
	Tempeste di vento	X			
	Tornado	Stazionari[3]	X	X	X
	Cicloni tropicali	Stazionari			
	Tempeste di sabbia e polvere	X			

	Elevata confidenza nella diminuzione
	Media confidenza nella diminuzione
	Elevata confidenza nell'aumento
	Media confidenza nell'aumento
	Bassa confidenza nella direzione del cambiamento
X	Giudizi non presenti nel nostro articolo o nella in tabella 12.12 di IPCC AR6

[1] A livello globale
[2] Nella maggior parte delle stazioni
[3] Su serie storiche USA

Neve e ghiaccio	Neve, coperture glaciali terrestri	X			
	Permafrost	X			
	Ghiacci marini, lacustri e fluviali	X			
	Nevicate estreme	X			
	Grandine	X			
	Valanghe	X			
Processi costieri	Livello relativo del mare	X			
	Alluvioni costiere	X			
	Erosione costiera	X			
Oceano aperto	Temperatura media oceano	X			
	Ondate di caldo marine	X			
	Acidità oceano	X			
	Salinità oceano	X			
	Ossigeno disciolto	X			
Altro	Condizioni favorevoli all'inquinamento	X			
	CO2 alla superficie	X			
	Radiazione alla superficie	X			
	Rese globali delle grandi colture	Aumento	X	X	X

	Elevata confidenza nella diminuzione
	Media confidenza nella diminuzione
	Elevata confidenza nell'aumento
	Media confidenza nell'aumento
	Bassa confidenza nella direzione del cambiamento
X	Giudizi non presenti nel nostro articolo o nella in tabella 12.12 di IPCC AR6

[1] A livello globale
[2] Nella maggior parte delle stazioni
[3] Su serie storiche USA

- ” Also, some media outlets have recently adopted and promoted terms and phrases stronger than the more neutral ‘climate change’ and ‘global warming’, including ‘climate crisis’, ‘global heating’, and ‘climate emergency’. Google searches on those terms, and on ‘climate action’, increased 20-fold in 2019, when large social movements such as School Strikes for Climate gained worldwide attention” [p. 173].”