


Trausti Jónsson

How about your temperature-trend preferences? 😊

NMM 31 2018-06-19

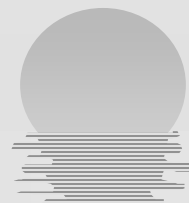
Reykjavík June 2018



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Trends have no prognostic value

[Processes which influence them might, however]

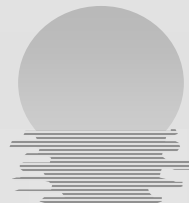


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There are about 220 years of temperature measurements in Iceland

A considerable warming has occurred [$1,8^{\circ}\text{C}$] with an overall trend of about **$0,8^{\circ}\text{C}/\text{century}$**

The warming has, however, not been steady – far from it



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There are large differences in
the trend magnitude –
dependent on the choice of
reference period

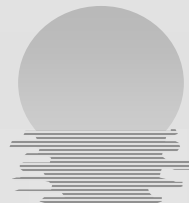


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How has the trend changed?

How long must a period be so
the trend becomes
“meaningful”?

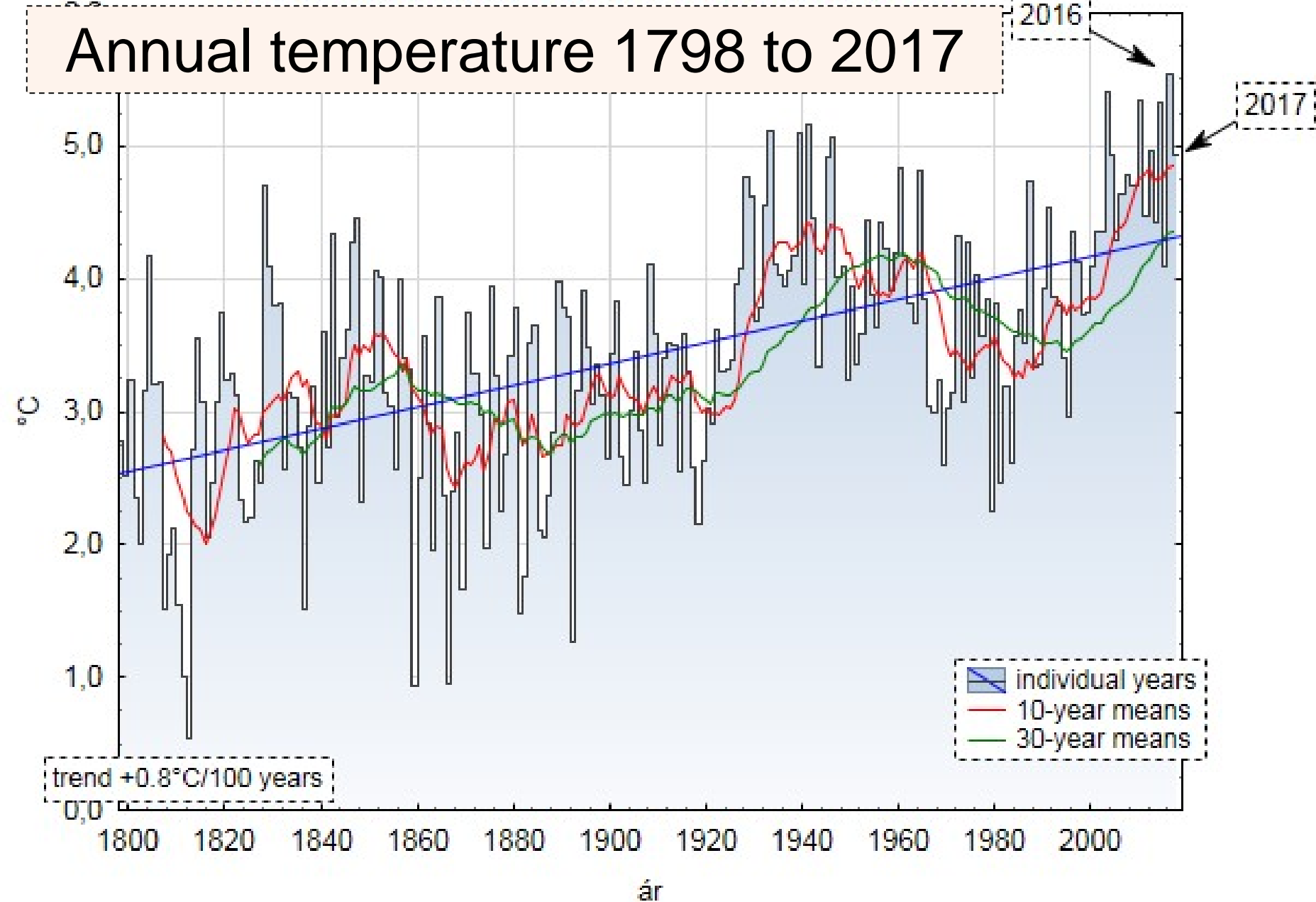
Is **a** recent “acceleration”
without precedents?



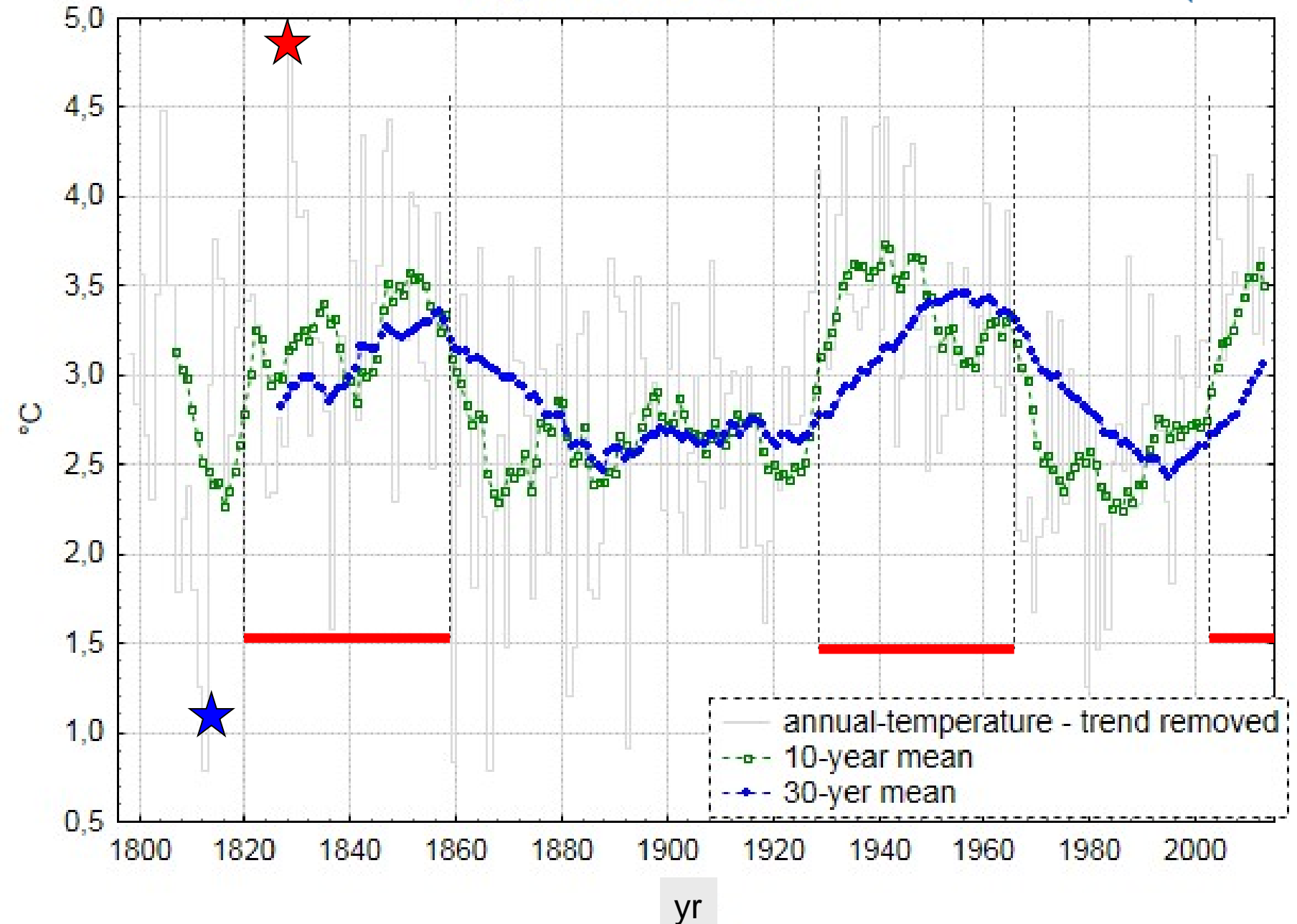
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Annual temperature in Stykkishólmur 1798 to 2017

Annual temperature 1798 to 2017



Stykkishólmur annual temperature long-term trend removed



diff: 19. og 20. cen. $0,76^{\circ}\text{C}$

annual range – not detrended $5,0^{\circ}\text{C}$

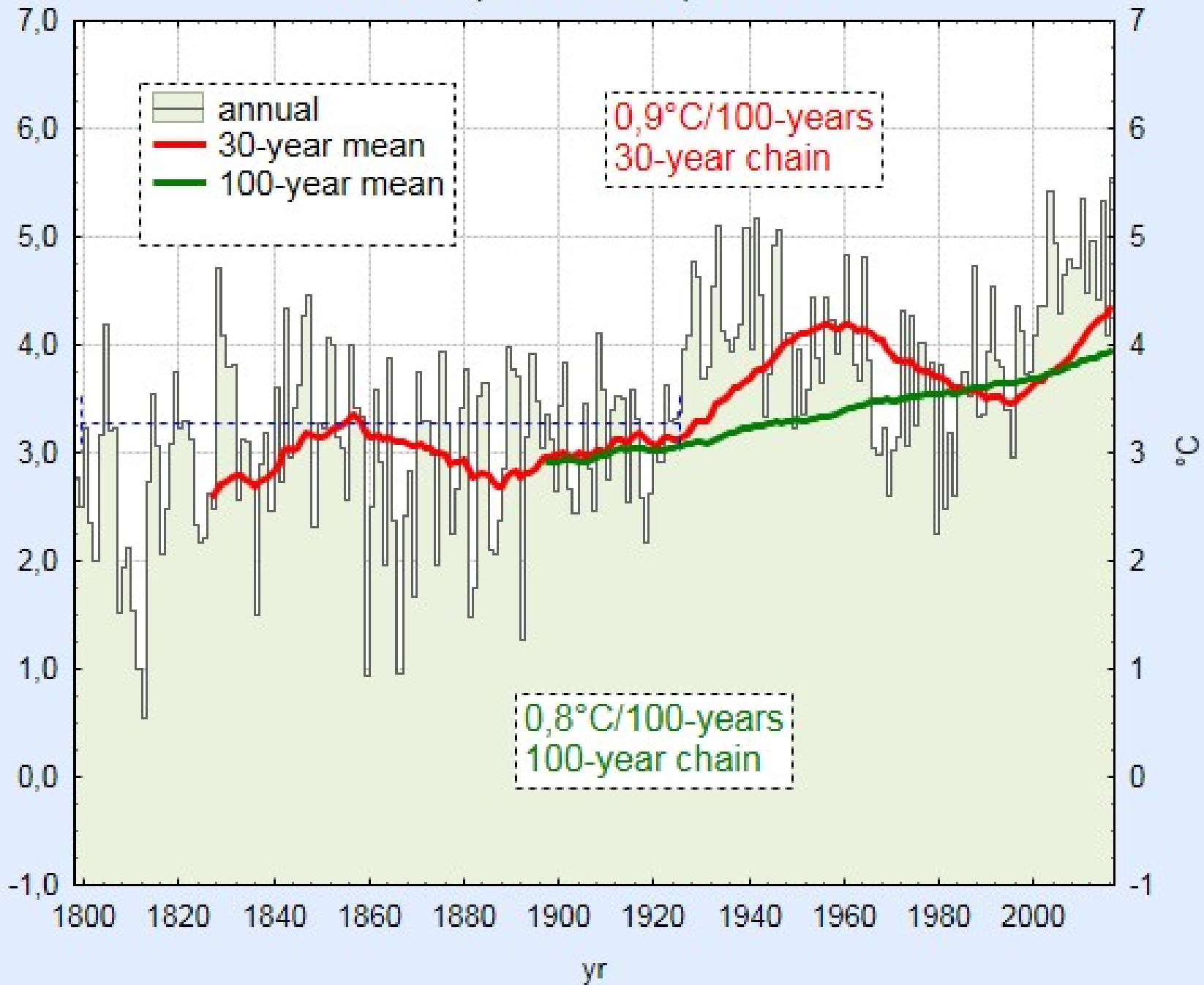
annual range – detrended $4,0^{\circ}\text{C}$

decadal range $1,5^{\circ}\text{C}$

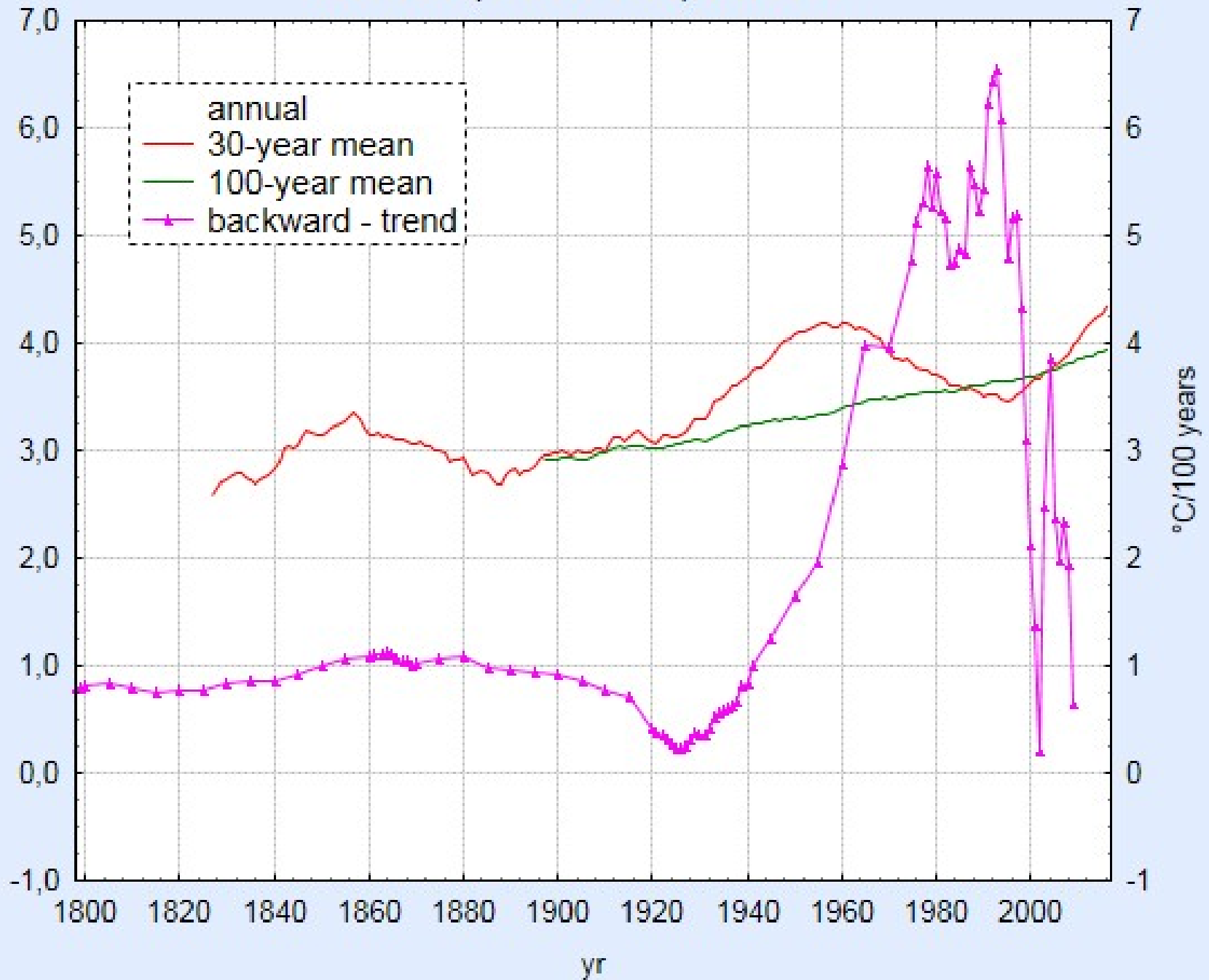
30-yr range $1,0^{\circ}\text{C}$

100-yr range $1,0^{\circ}\text{C}$?

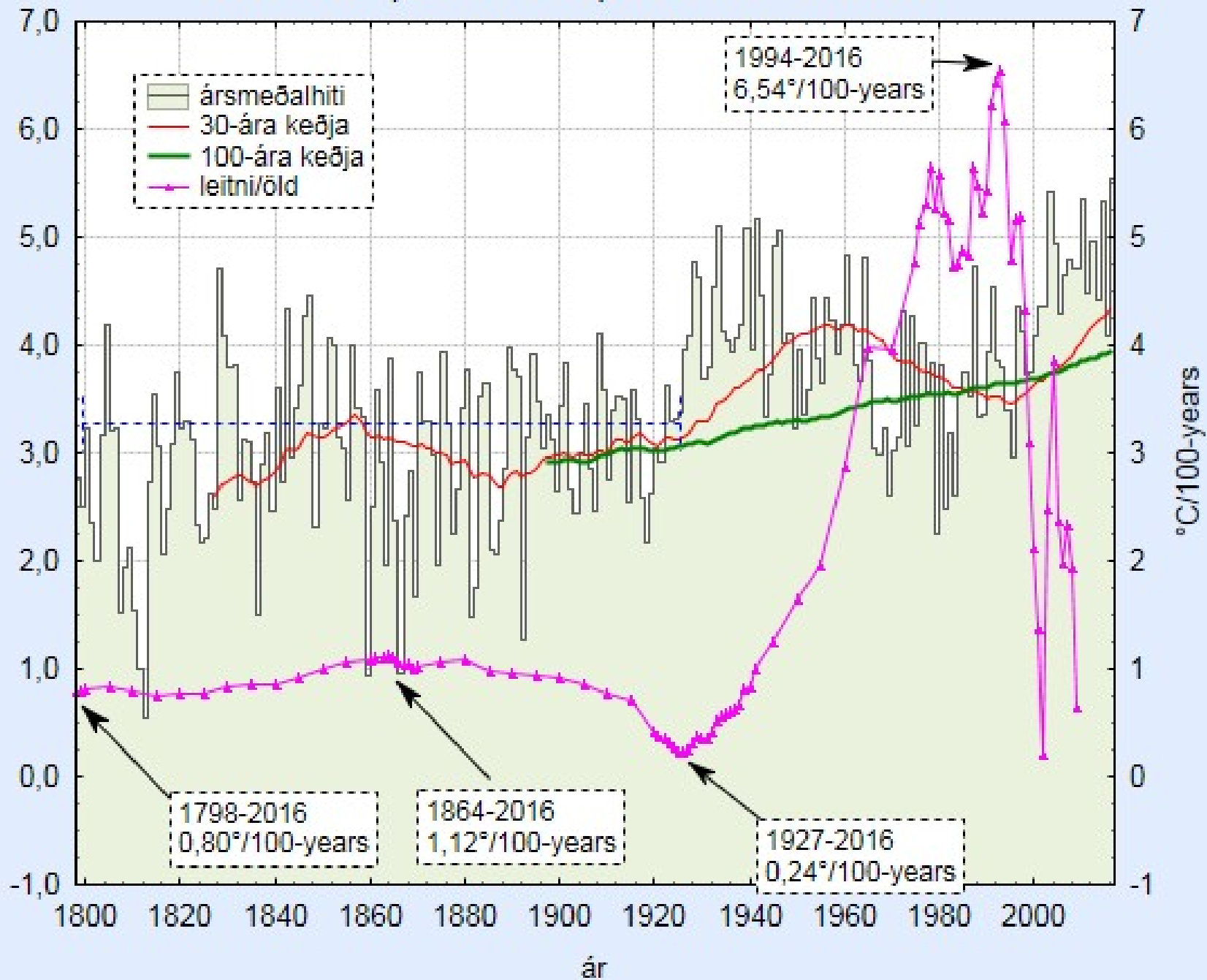
Annual temperature in Stykkishólmur



Annual temperature in Stykkishólmur



Annual temperature in Stykkishólmur - and trend



1798 – 2016: 0,8°C/century (219yr)

1864 – 2016: 1,1°C/century (153yr)

1927 – 2016: 0,2°C/century (90 yr)

1994 – 2016: 6,4°C/century (23 yr)

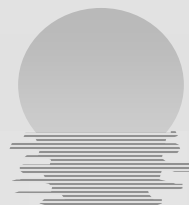
2003 – 2016: 0,2°C/century (13 yr)

1987 – 2016: 4,8°C/century (30 yr)

Has a 30-yr trend of a similar magnitude been encountered before?

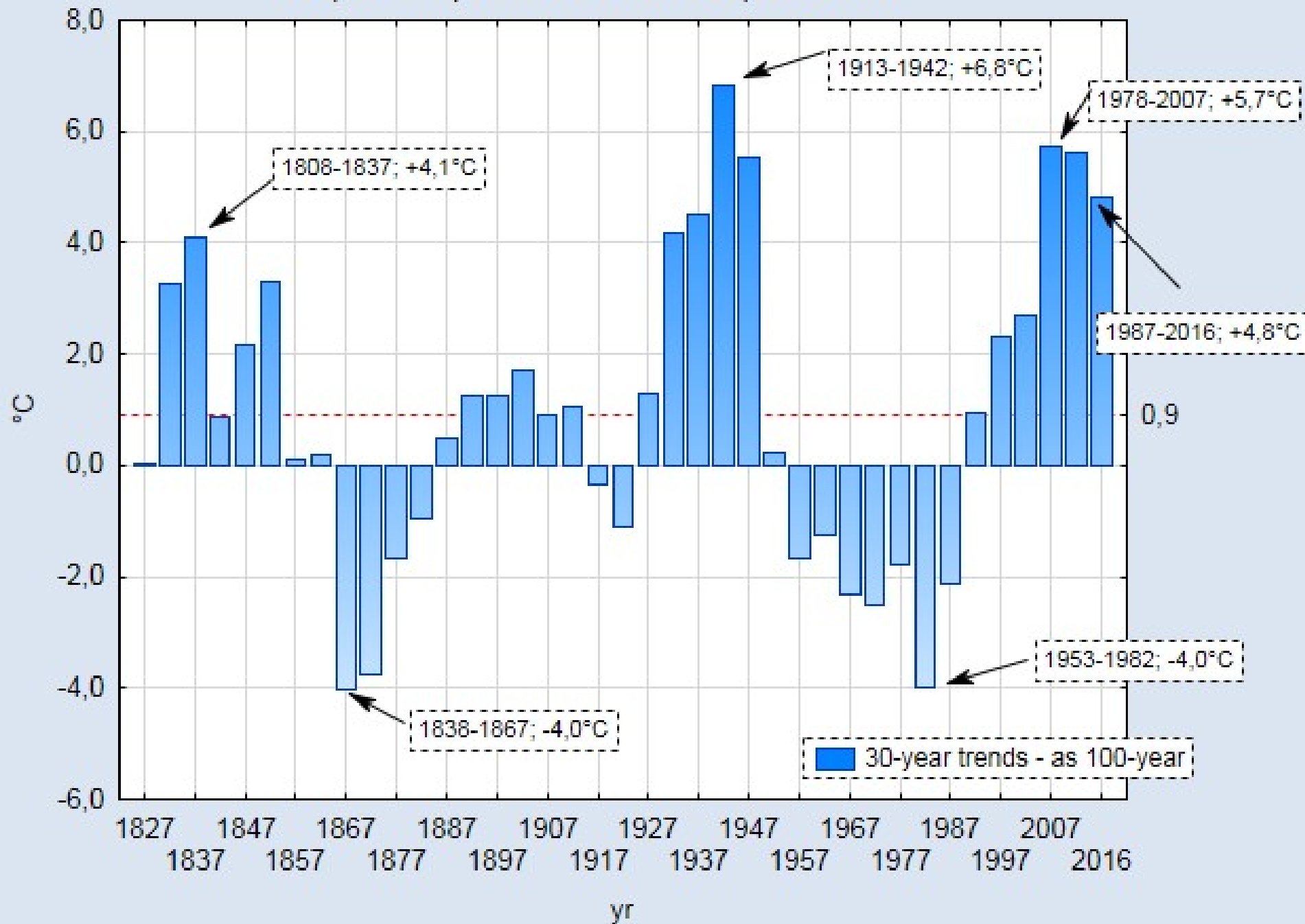
1987 – 2016: 4,8°C/century (30 yr)

Has a 30-yr trend of a similar magnitude been encountered before?

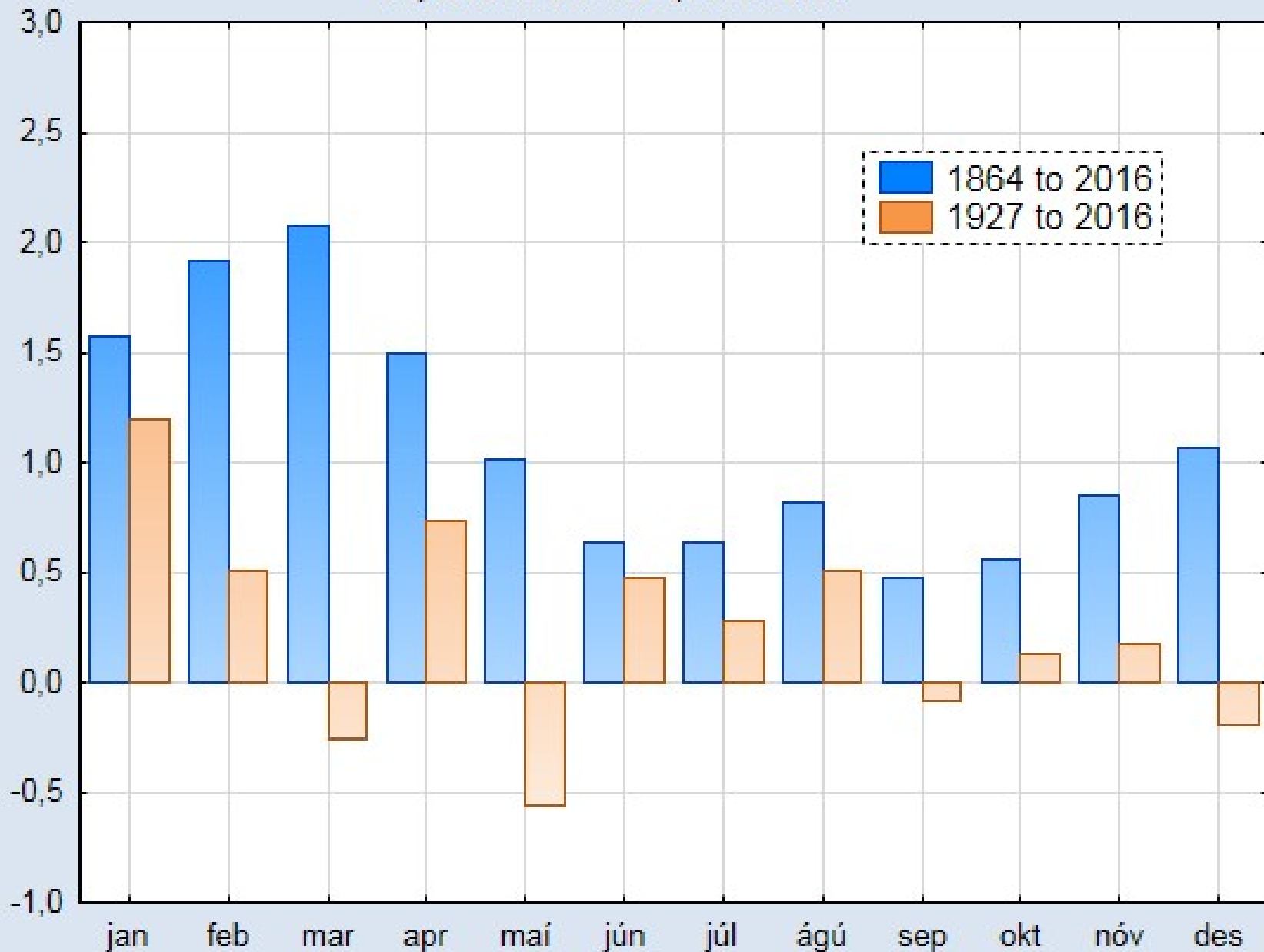


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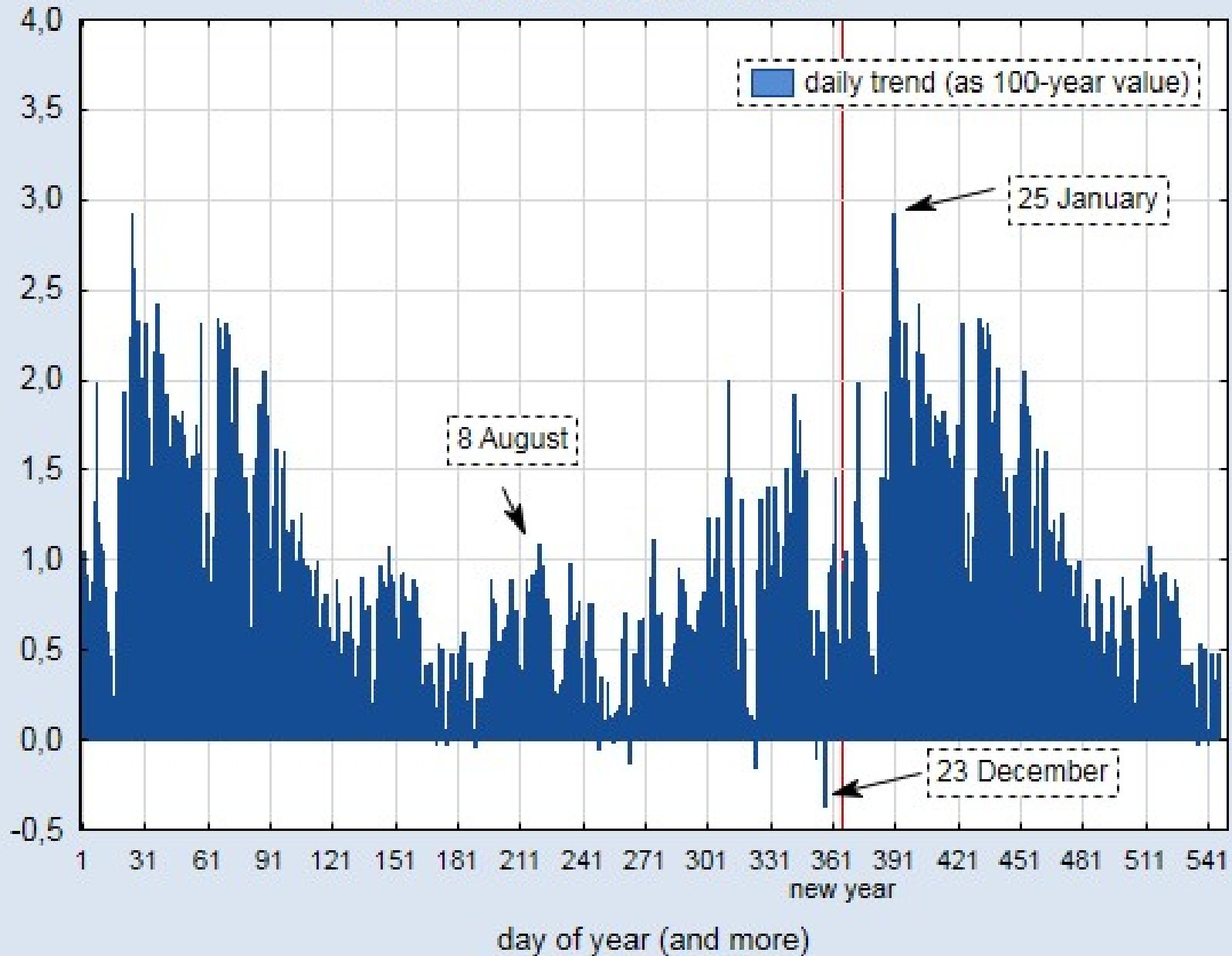
30-year temperature trends in Stykkishólmur



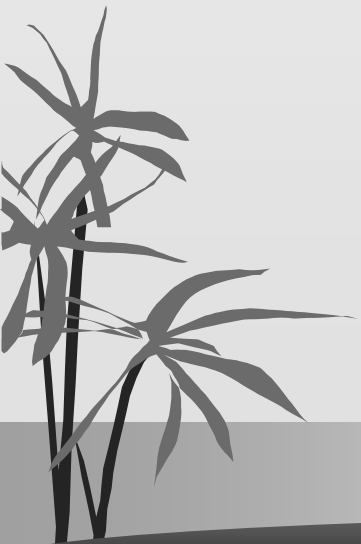
Stykkishólmur - monthly temperature trends
over two selected periods
expressed as 100-year trends



Temperature trends in Stykkishólmur
calendar days 1846 to 2016
expressed as 100-year values

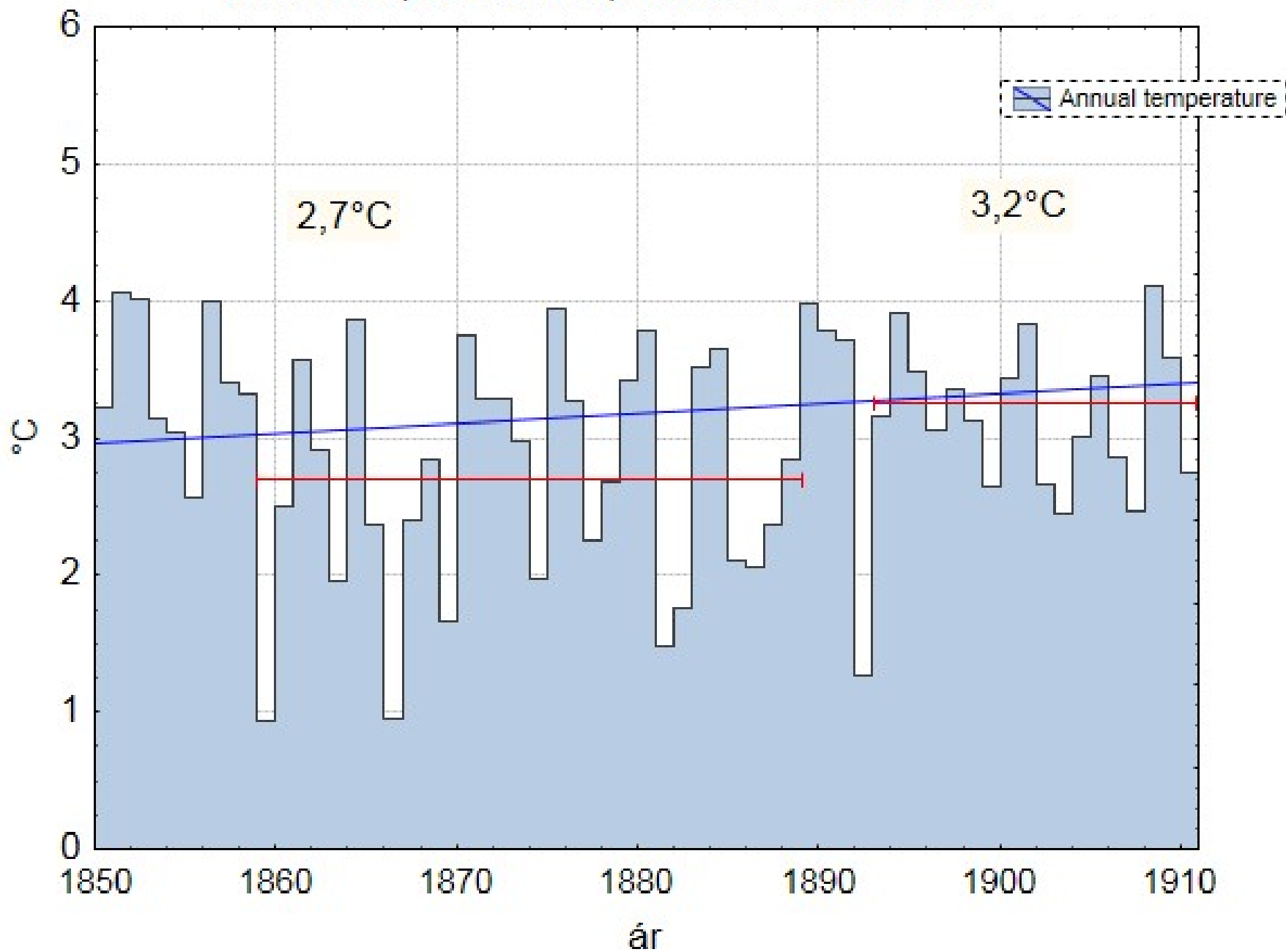


Ah! – The end



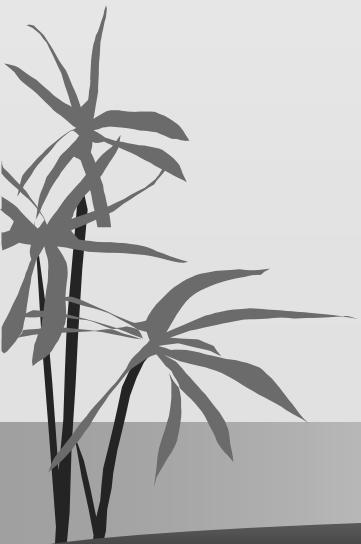
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Annual temperature in Stykkishólmur 1850 to 1911

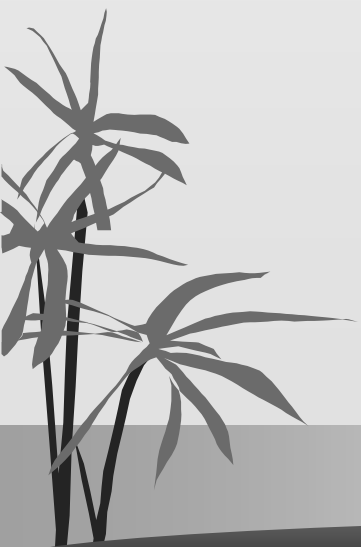


28.4.2016

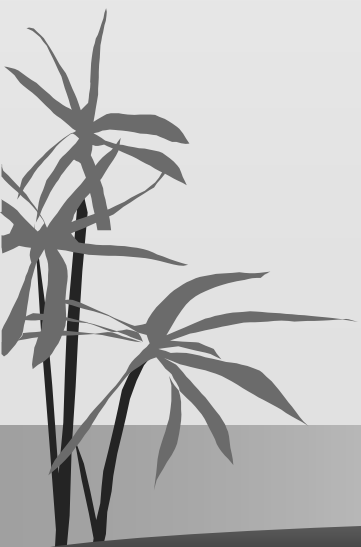
1.5.2016



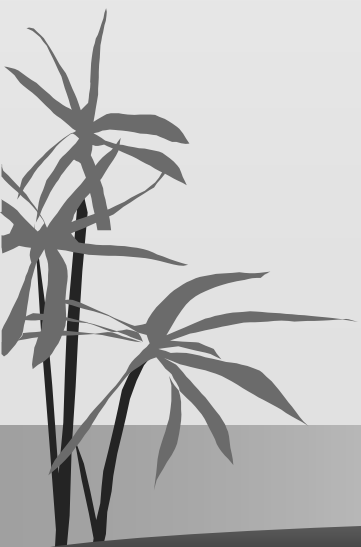
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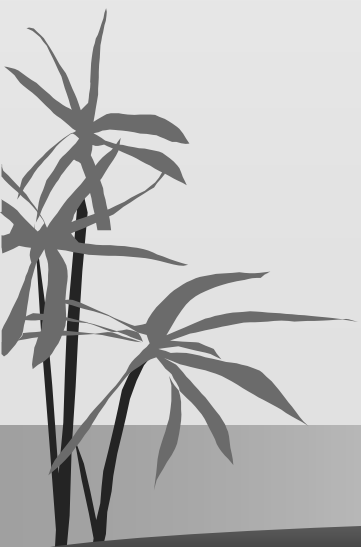
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