

One Hundred Years of Temperature

By Olle Lundblad

Our excellent weather bureau in Sweden, the SMHI is providing us what seems to be one of the best temperature records of the last century. Not only does it cover nearly all Scandinavian territory but has also other virtues such as measurements taken twice a day at all stations and noted with one decimal point. The readings are available free of charge at SMHI.

The reason for using these figures to investigate trends is they are not adjusted or corrected in any way, so the result should be close to the real truth. Checking the whole of Scandinavia would be too much work and we have limited ourselves to 23 stations which we know personally, covering Sweden from south of Malmö to Karesuando, way up north between Finland and Norway. The measurement period is the last century between 1900 and 1999. The annual mean of all stations have been added and divided by 23, forming the mean value for each year.

5 years are then put together divided by five forming a 5-year mean for the country. The result can be seen in figure 1 where each bar represents 5 years times 23 stations (totalling nearly 1.68 M readings) degrees C.

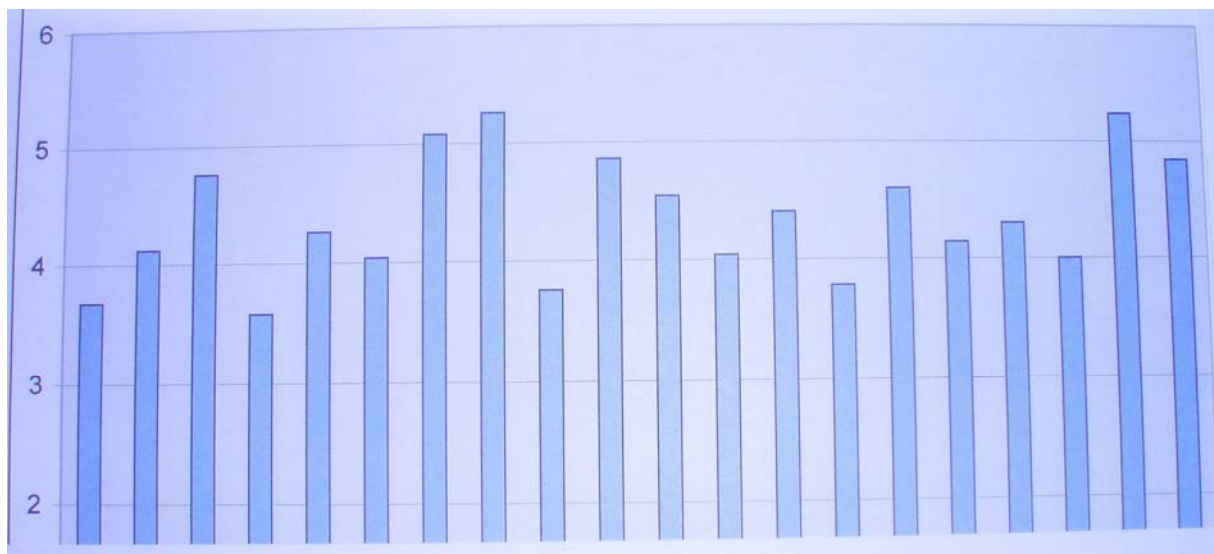


Figure 1
One hundred years of temp measurement. Each bar represents 5-year mean value for all 23 stations together.

The result varies considerably as can be expected. Sweden is a country with varying climatic conditions. Really interesting it is to find that the overall mean value 1900 – 1949 is 4.34 C and the same value for 1950 - 1999 is 4.39 C. So the difference is only 0.05 C.

The conclusion is quite clear: There has been no measurable temp increase during the last century here in Sweden.