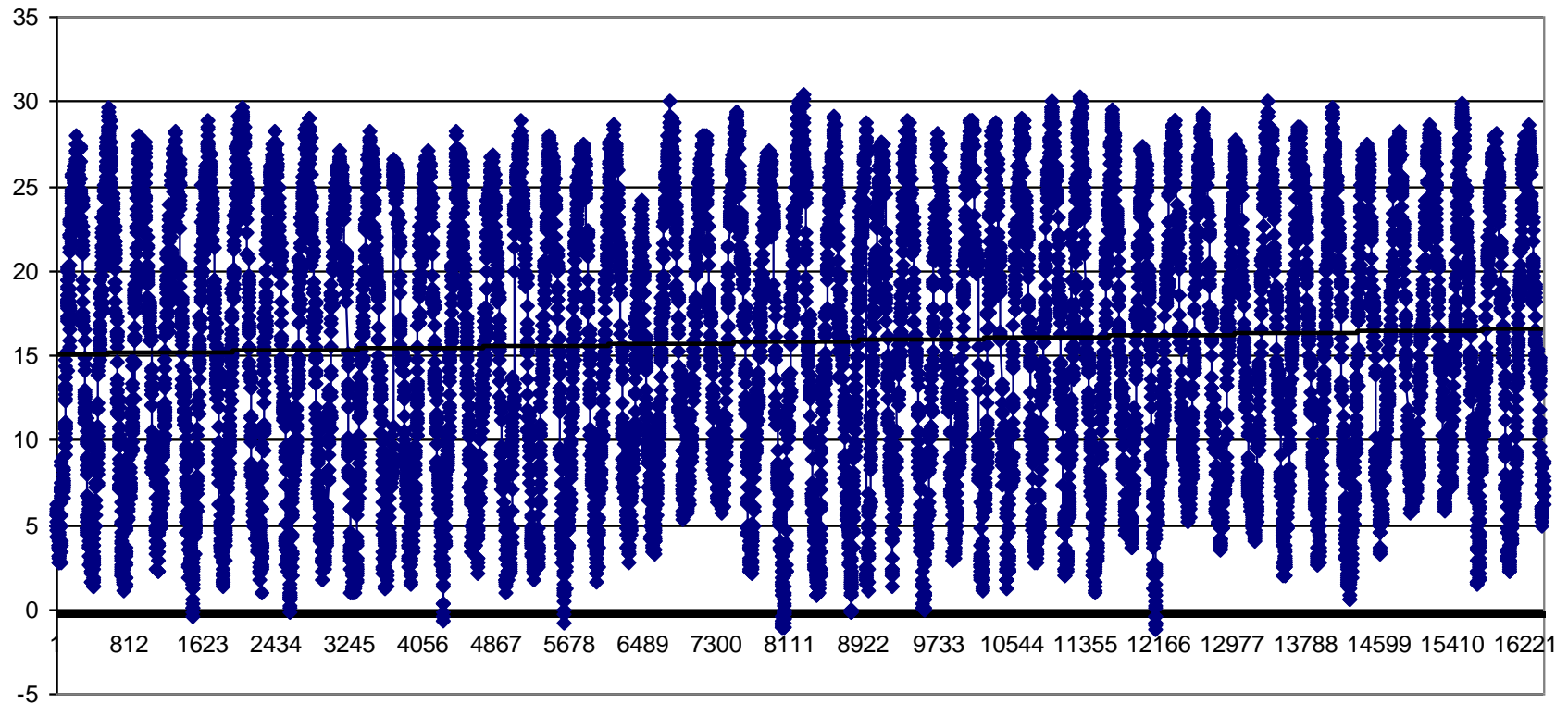


Evidence of a long-term warming trend in Chesapeake Bay, Virginia.

Daily Means, 1954 - 2002

$$y = 9E-05x + 15.01$$
$$R^2 = 0.0028$$

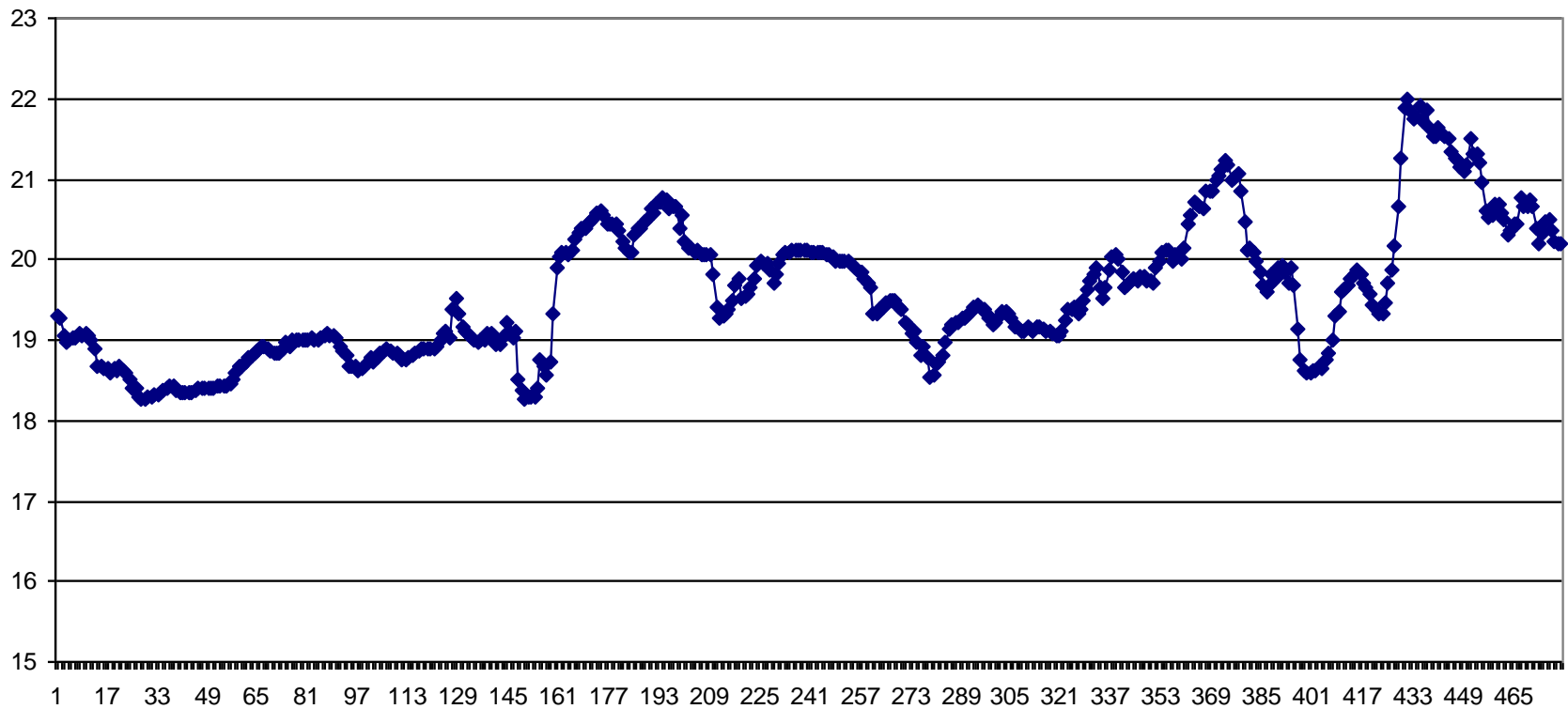


W.C. Coles, T.C. Mosca III, and Y.K. Flores



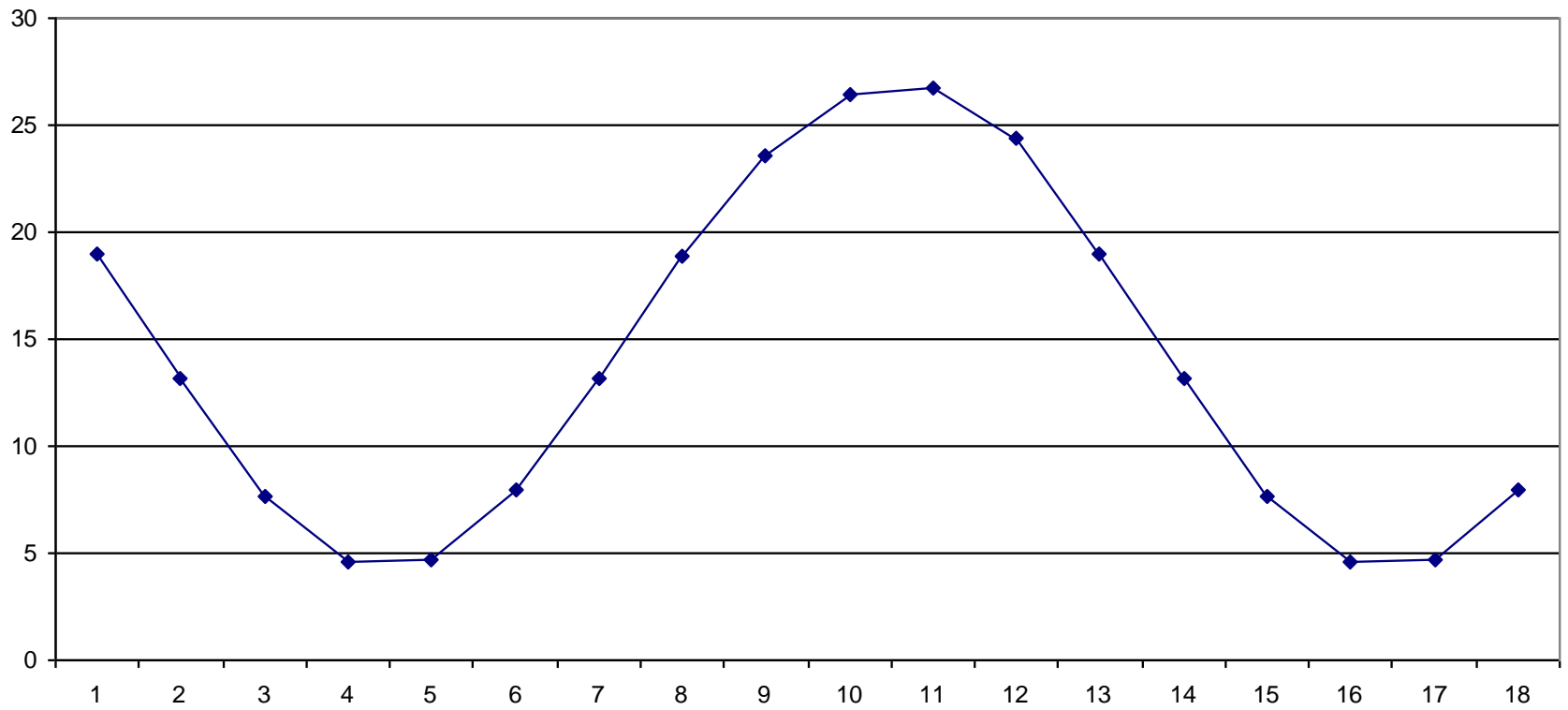
A short sequence of observations just to show the nature of the data

May 10 - May 11, Raw Observations

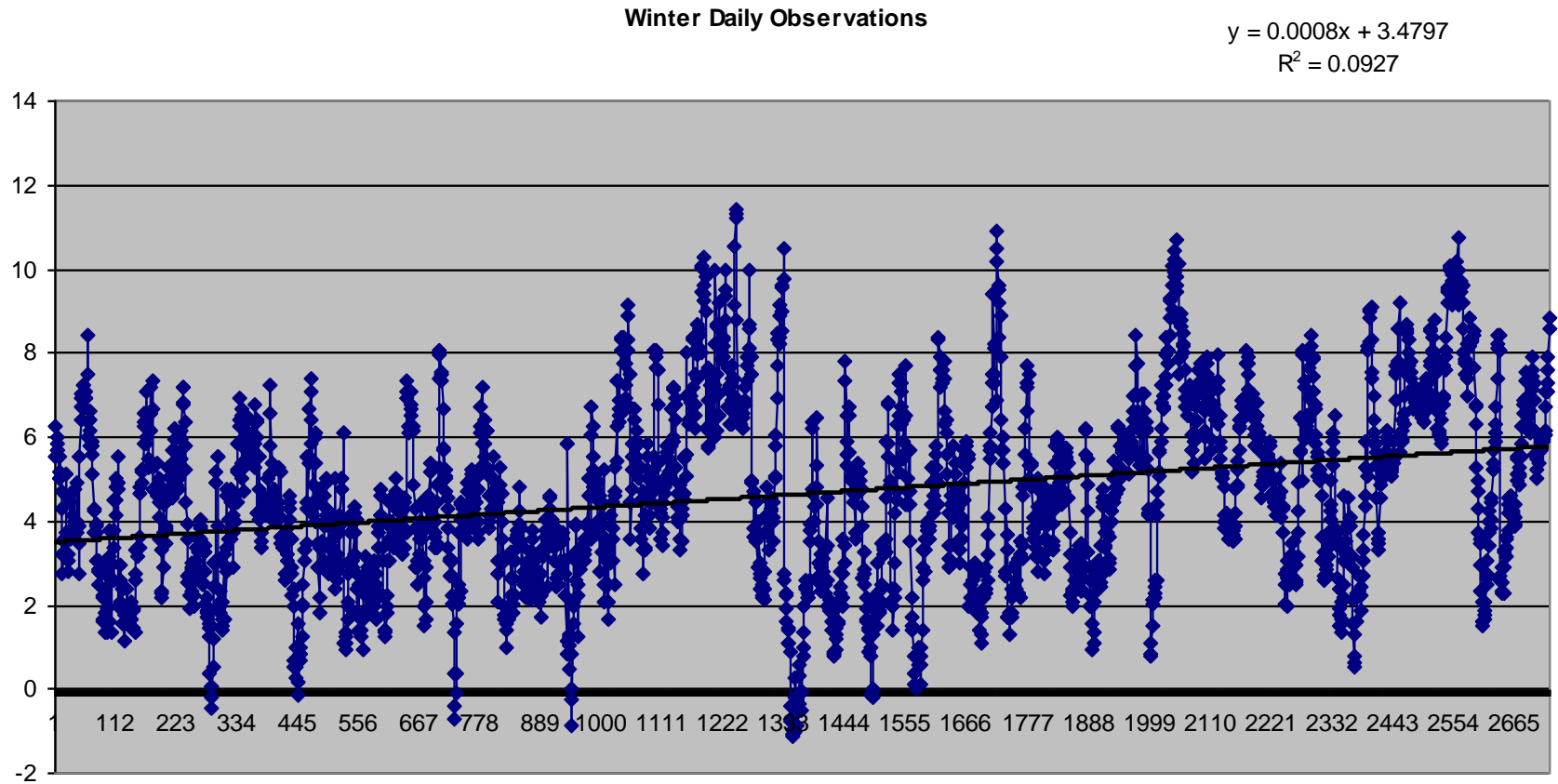


The four seasons

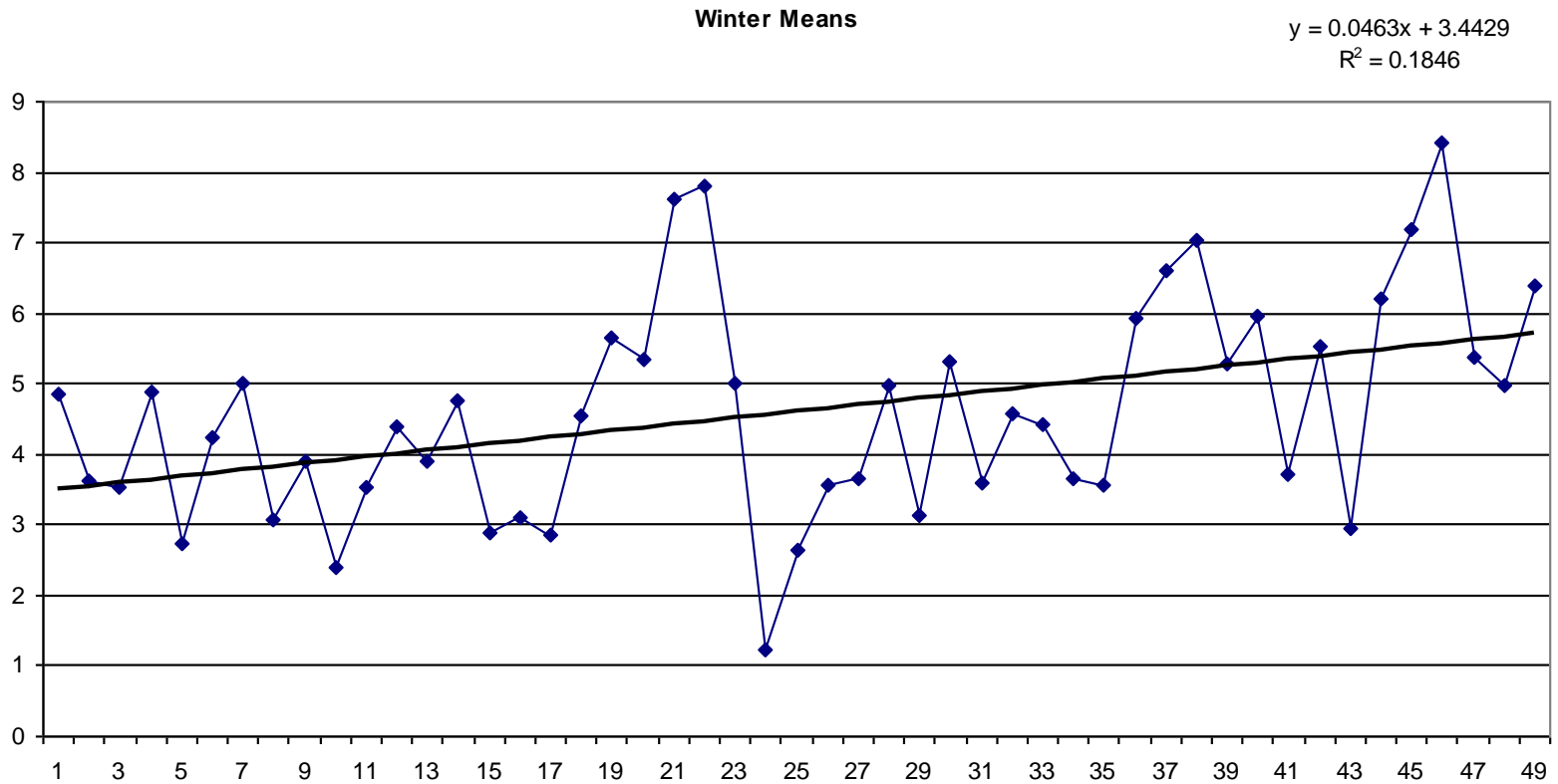
Long-Term Monthly Means



The long-term trends seemed most obvious in the winter and summer



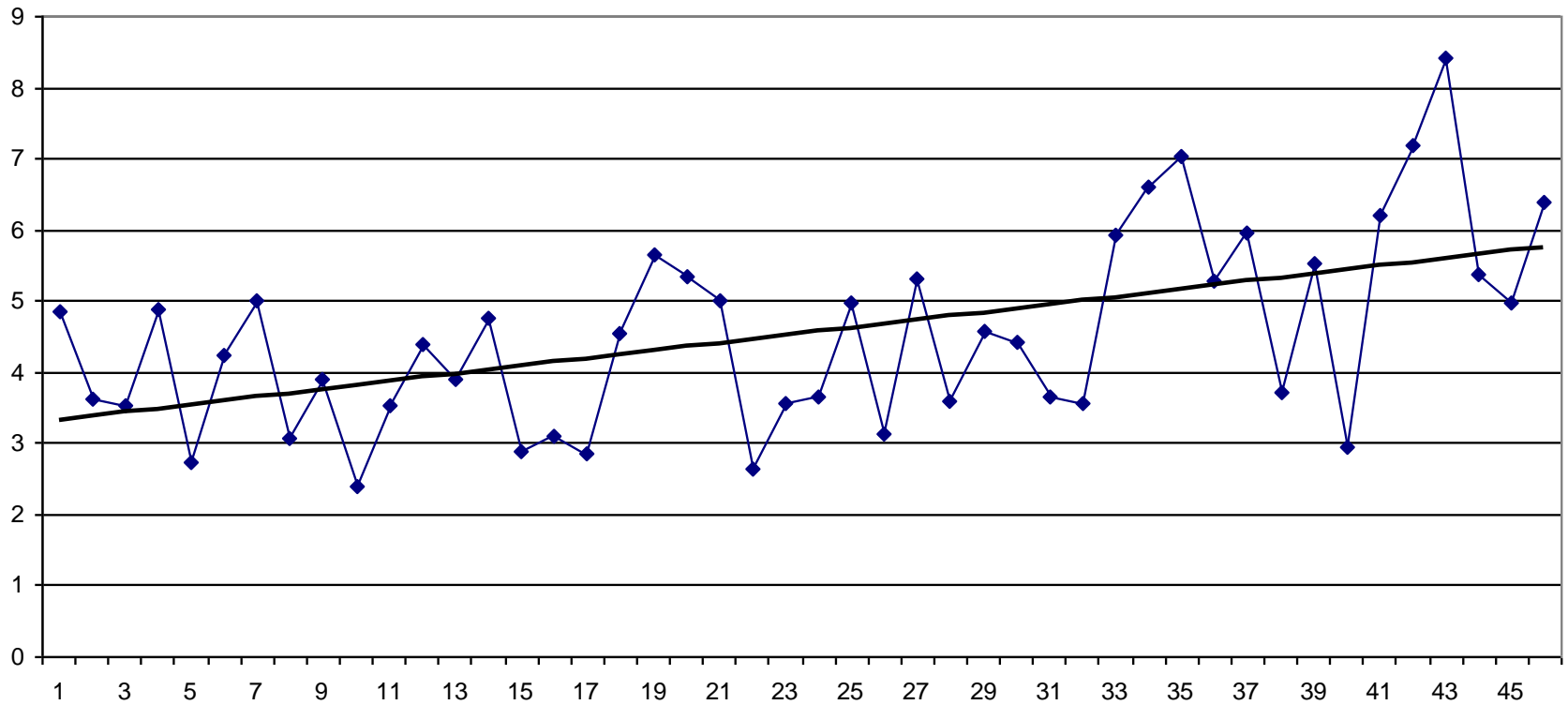
The annual means show the trend



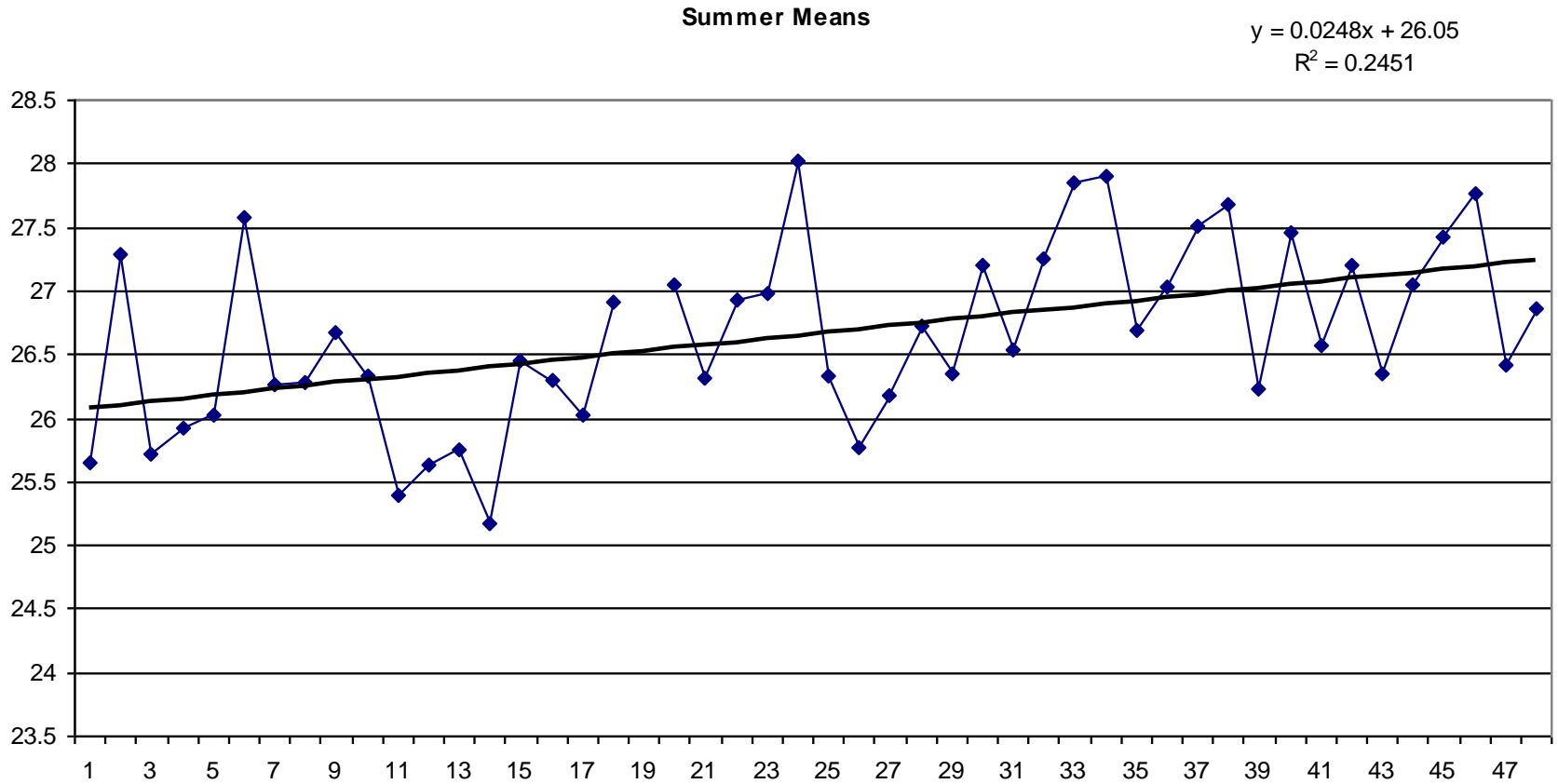
The winter means are especially revealing without two outliers

Winter Means, Extremes Deleted

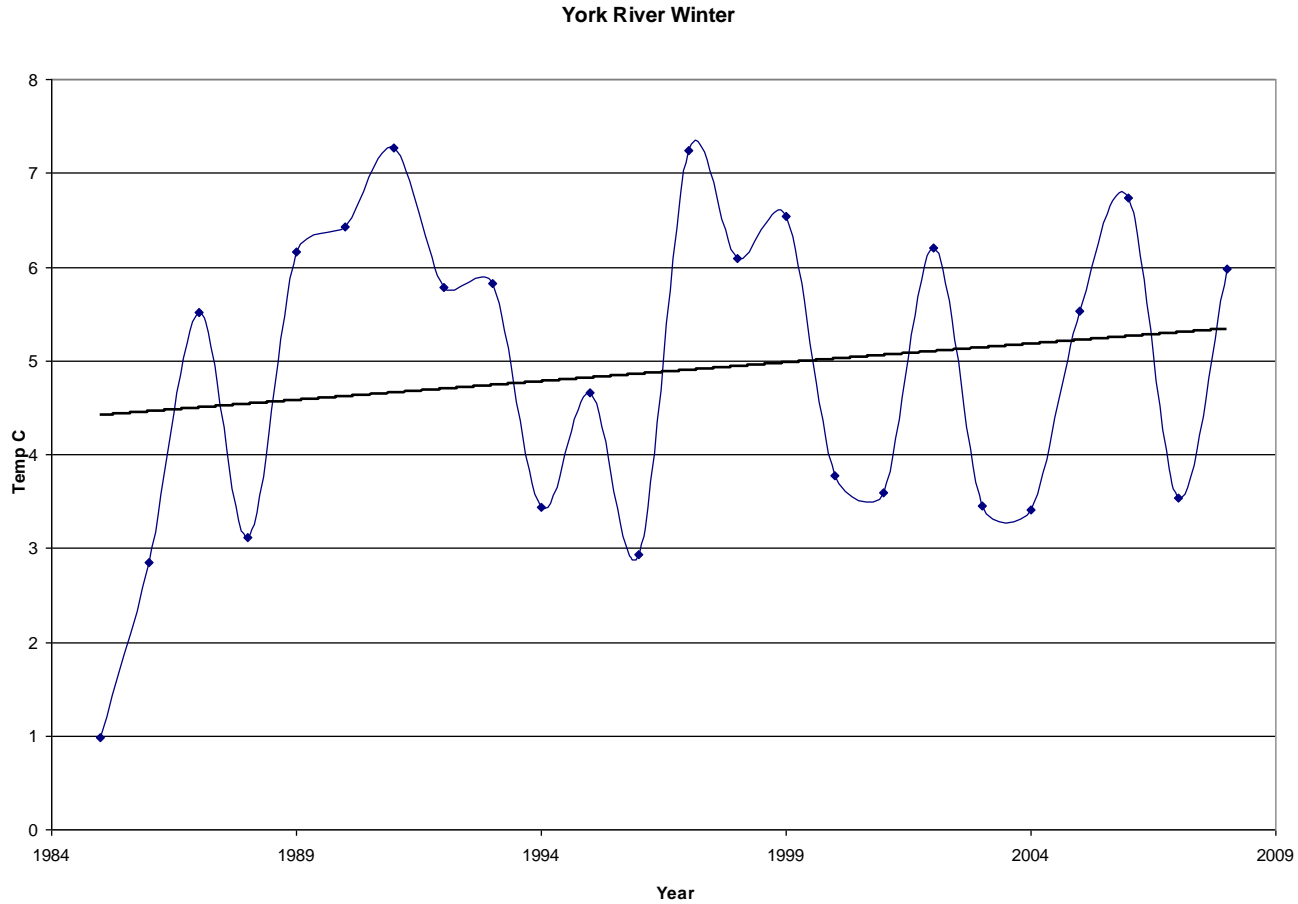
$$y = 0.0541x + 3.2679$$
$$R^2 = 0.2856$$



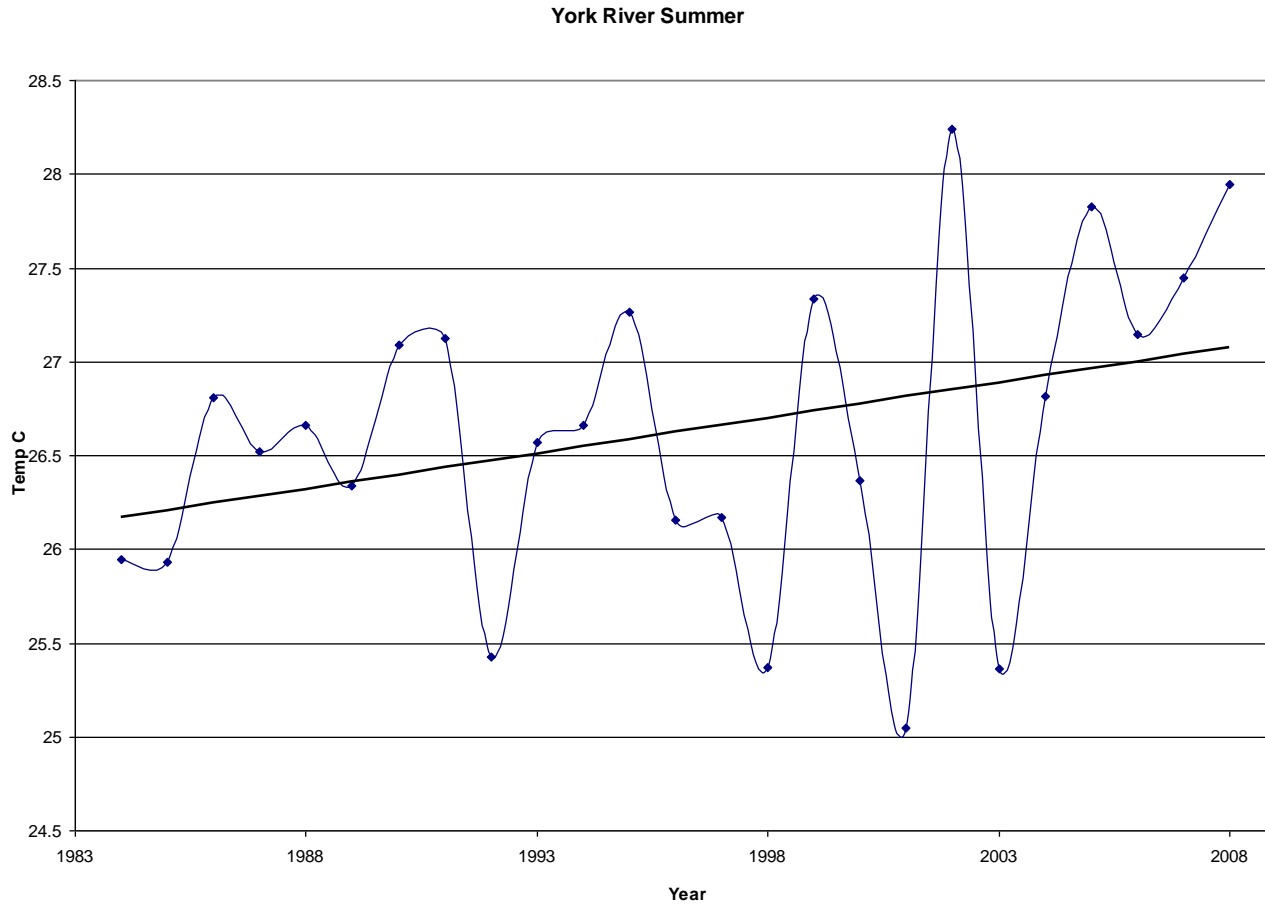
The summer means are consistent with the winter trend



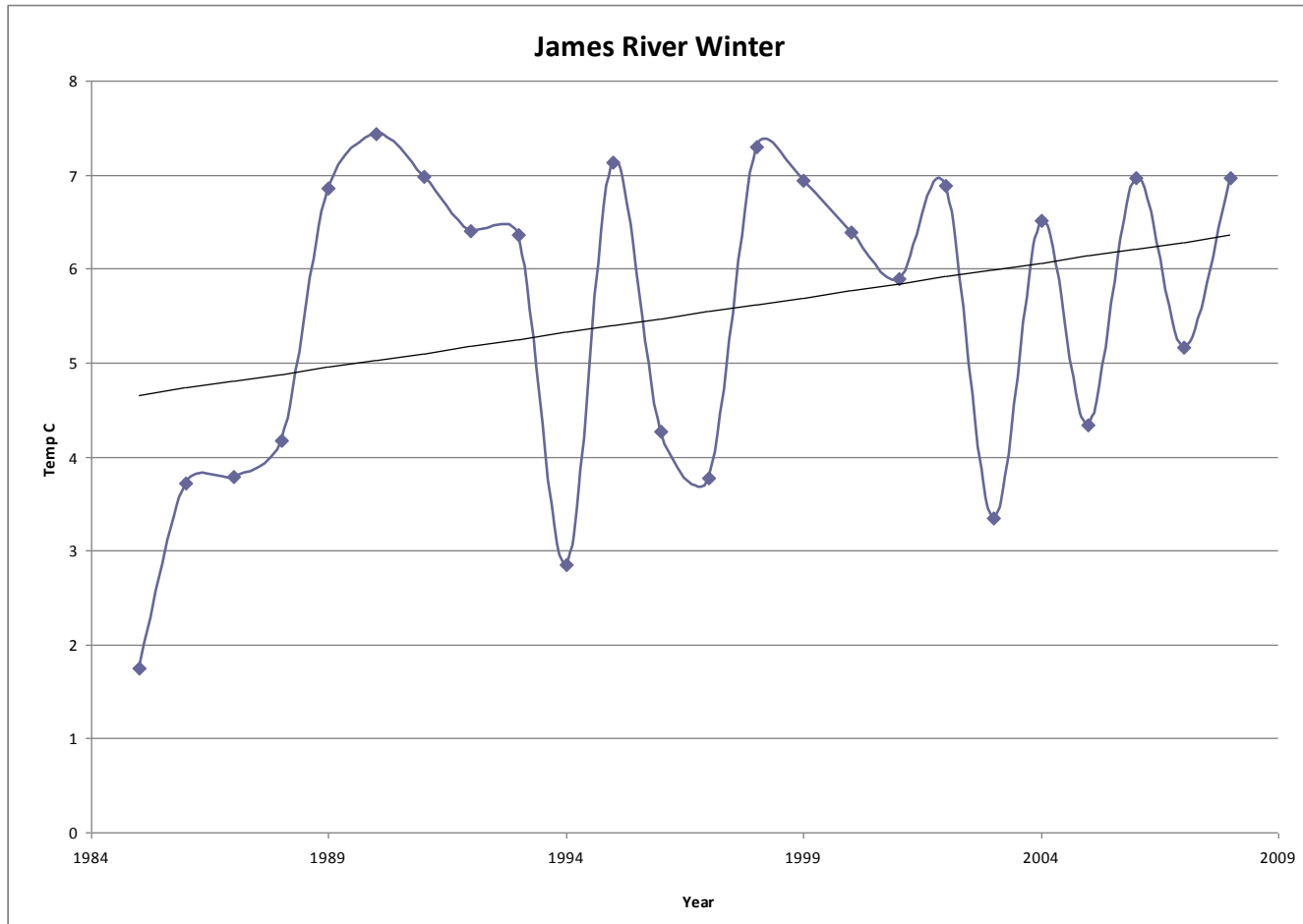
More recent data show that the trend continues,



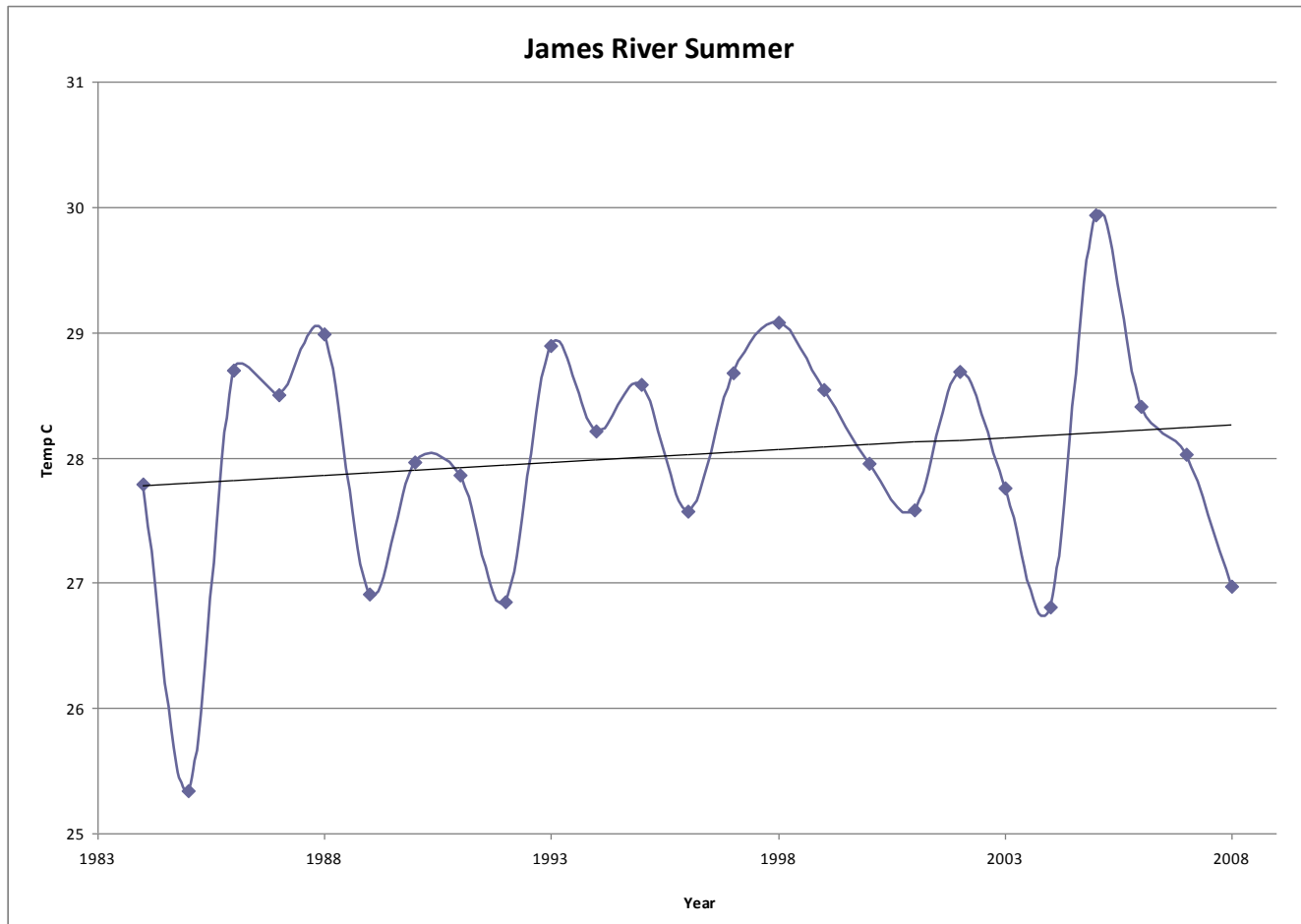
in both summer and winter.



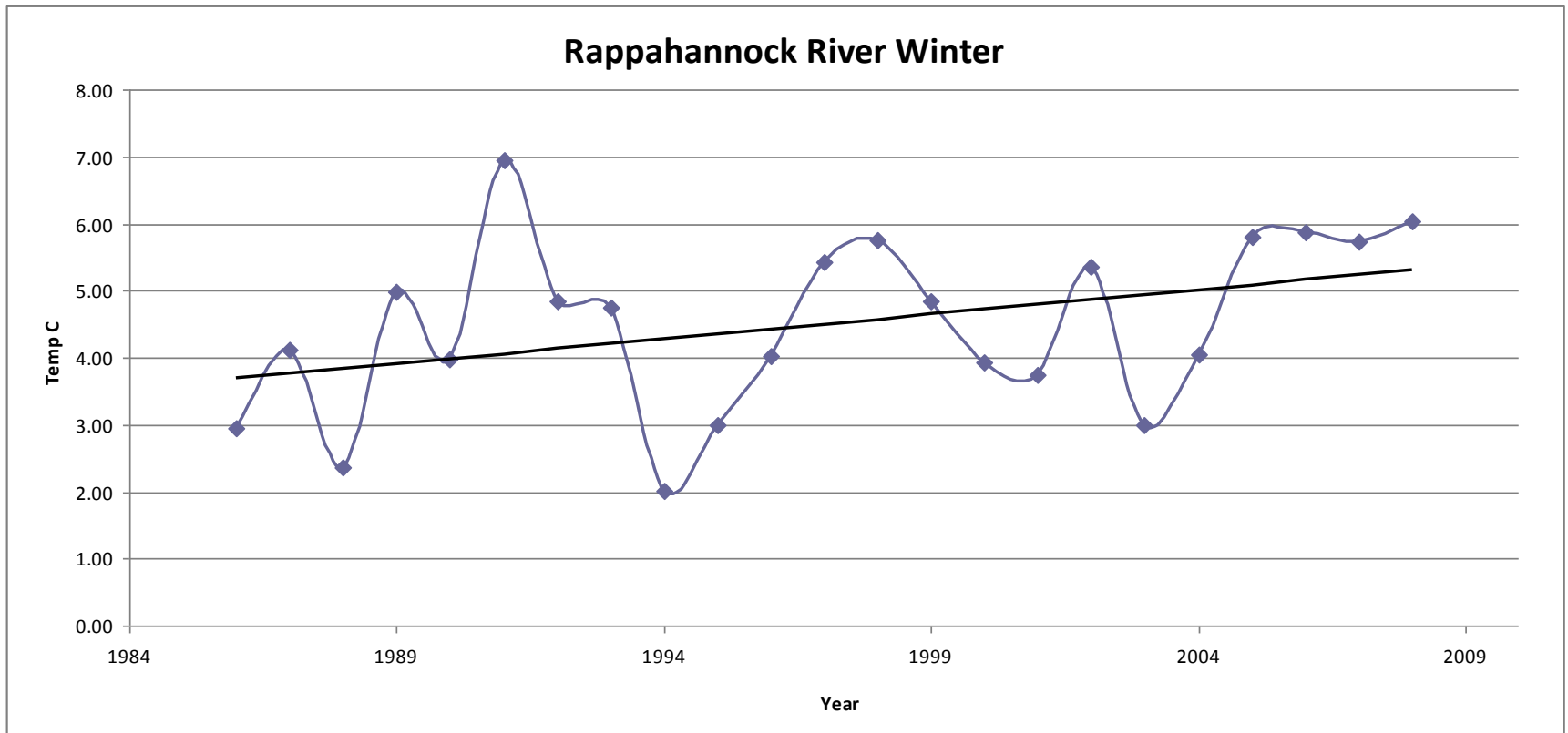
Other rivers follow the trend,



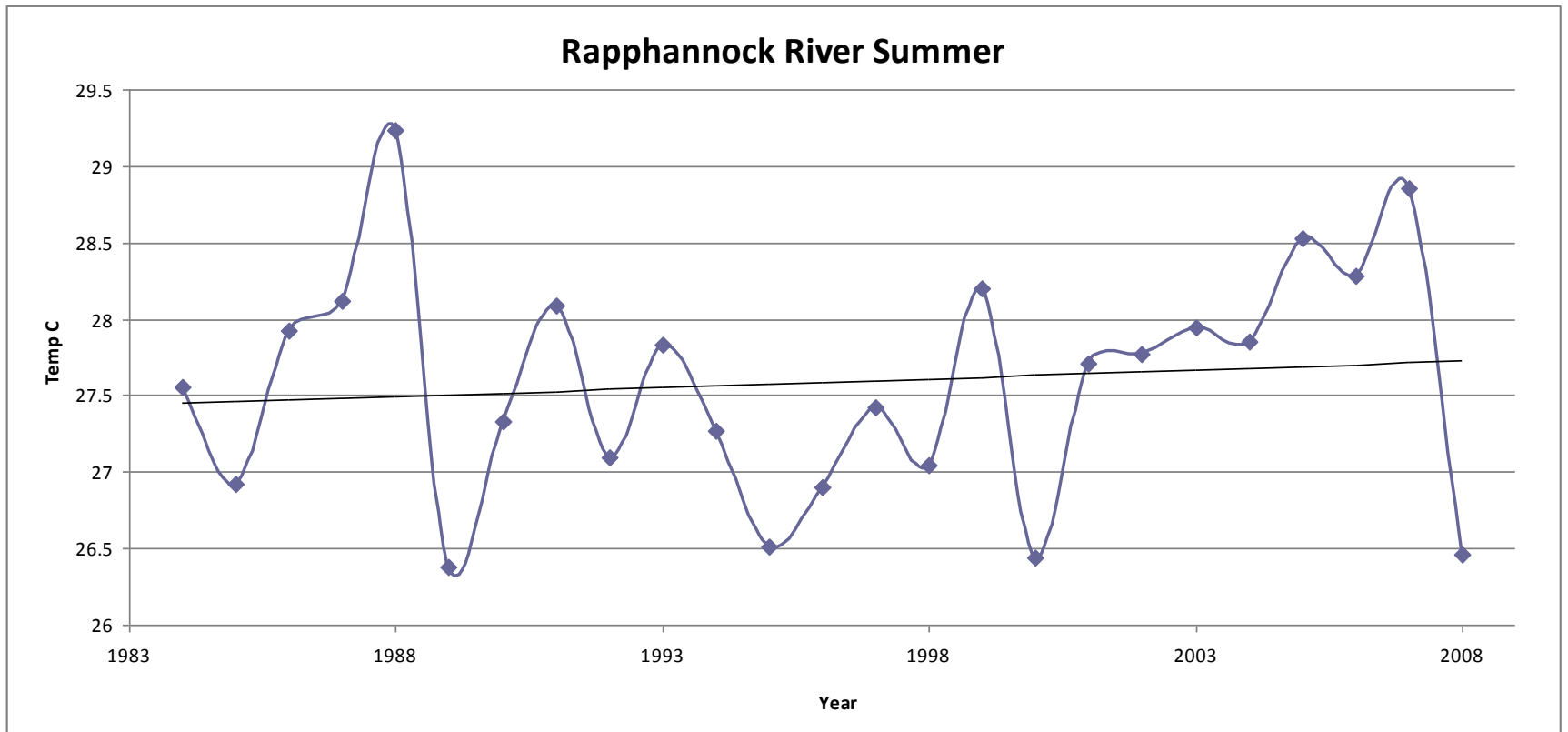
in both summer and winter.



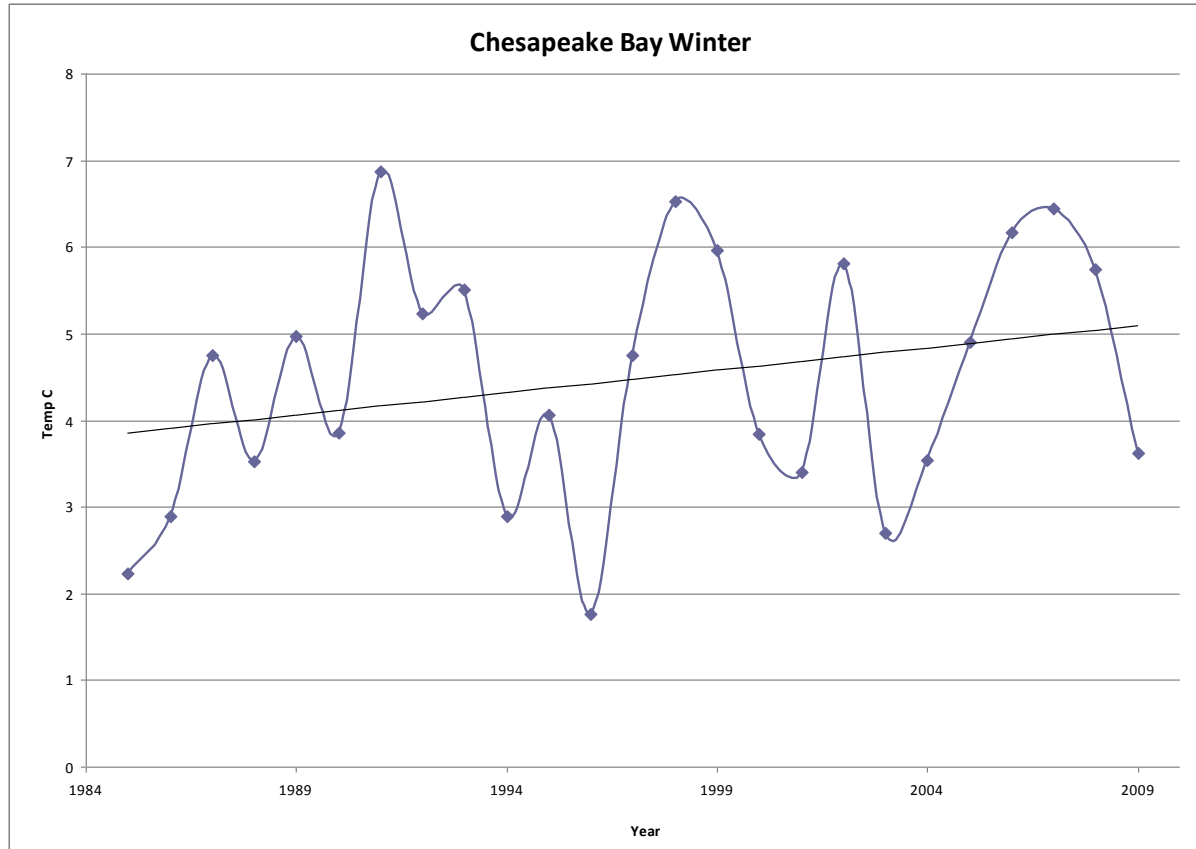
The Rappahannock is the third major river in Virginia,



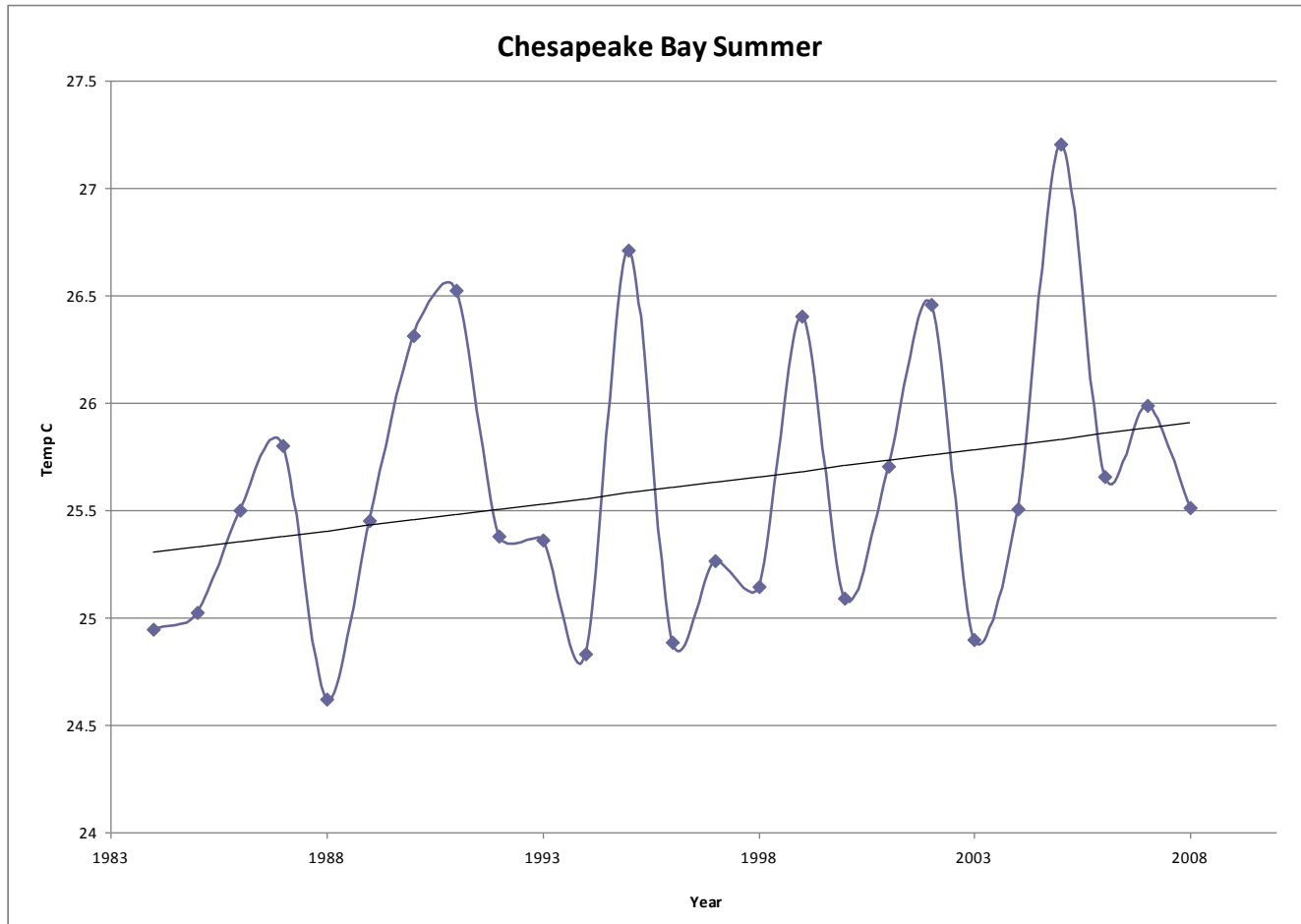
and by now we know what to expect.



The Chesapeake Bay stations,



with no surprises.



Acknowledgements

- We thank Virginia Institute of Marine Science, Old Dominion University, and the Virginia Department of Environmental Quality for data.