

18 June 1934.

Dear Lumley,

Thanks for your letter. I am sorry your potential employers were so misguided. Of your statistical points: -

1) I think your method of calculating s^2 is correct, and this gives the variance among observations taken in the same area and the same calendar months and, of course, the variance of the mean of k such observations, taken independently, must as you suggest be $\frac{s^2}{k}$, but if you are comparing July salinity with August salinity the comparison will only be good if July and August are proportionately represented in different years, and I suppose they are not. Consequently, you have to bring in some sort of correction for years, of which the simplest seems to be to allow one additive constant for each year coming into the record. This will not affect your estimate s^2 or the estimated variance of a mean, but will affect the mean of which it is the estimated variance.

I think you are perfectly right about (ii). Your third question is not quite clear to me, because I don't clearly know what is meant by abnormal. Do come and see me whenever you like.

Yours sincerely,