March 6, 1942

Dear Dr Milne,

Thanks for your letter. I am sure nothing but good could come of a paper from you on the tick counts from a biological standpoint.

I think the negative binomial is likely to be increasingly used for these and analogous studies, but with interpretation different in different cases. You open an interesting question in respect to the validity of comparisons based on the means. Other things being equal, the mean is certainly an efficient statistic for this distribution, though, if the lots compared differ also in the parameter k, it clearly does not, by itself, give the complete comparison. Pending further knowledge, there is certainly nothing to prevent one supplementing comparisons based on means with additional comparisons using, e.g., square root, or the logarithm of the tick number. If it were found that these often showed significant differences where the arithmetic mean did not, this would be sufficient evidence in favour of their use, without further mathematical investigations, which seem at present rather obscure.

Yours sincerely,