

Radham College,
Oxford.

March 21st: 1930.

Dear Fisher,

I read your paper with the greatest pleasure and interest. It seems to me a contribution of the first importance to Evolutionary Genetics. I trust you will publish this far at once, and not wait for additional facts. It may be some time before sufficient data accumulates to carry the matter definitely further.

I have been through it most carefully, and I must say it hangs together extremely well. I have no real criticisms, and indeed very little to add

or suggest.

Quite the most fascinating possibility is the opportunity of estimating the magnitude of a bionomic advantage in nature - very good!

On p. 20 is a long sentence which would perhaps gain in value if divided up. It concerns the point that beneficial mutations need not always have been of advantage.

Would not this process of the conversion of a mutation to a more favorable type be hastened by the fact that so many species have periodic fluctuations in numbers (I expect you know the work of Elton and others on this

subject)? These may be regular (like the 4 year cycle in mice) or more irregular, as in many insects. The difference in numbers between max. and min. is commonly very great.

Now a disadvantageous mutation occurring when the numbers are going up, would have an unusual chance of spreading through the species (for of course increase in numbers = mitigation of selective intensity). Thus at such times recurrent disadvantageous (or neutral) mutations would have an unusual chance of spreading into different gene-complexes, with which they may act in a new and perhaps favourable manner.

p. 25. A point occurs to me which
concerns not polymorphism but recurrent
disadvantageous mutation; it might however be of
interest. It might perhaps be worth studying
how species ^{in which} it has evidently become an
advantage for the heterozygote to resemble the
recessive. As in some of the cases where
previously rare melanism has almost
superseded the original type in industrial areas,
there is I believe some evidence that the heterozygotes
are changing in character.

I am afraid these points have been
rather off the mark, but I am greatly obliged
to you for letting me see the paper.

Yours sincerely,
L. B. Ford