

Ireland. June 24. 30

My dear Fisher

I have been reading your book in a somewhat desultory manner, not carefully enough to make it the basis for writing any thing on the subject. I have had some little jobs to do which have taken up my rather small available energy. I should like to try to put in as plain language as I can what I feel as to the value of your work in showing how Mendelism is capable of putting the lid onto the theory of natural selection. I don't want to write about any minor criticisms, and if such occur to me I shall write straight to you. Someday you will have a second edition, and the notes you now make will then be very useful. But you are not to trouble to say whether my remarks are helpful.

Here is one criticism. Page 138. line 15. "... the dates of the breeding ... could only be stabilized if"
My ending would be "if there was a period of the year at which breeding would produce a maximum number of offspring who would survive till the next breeding season". The effect of the seasons on births and deaths would, I believe, produce such a result, more especially if selection had resulted in a definitely limited number of offspring being normally produced. It would at first sight appear that the beauty of males would be harmful up to the period of this optimum date, because it would tend to make them

have first choice and thus breed too early. After the optimum date, beauty would be helpful in making them breed as soon as possible. And it might seem that these two influences would cancel each other. But selection would result in both sexes not wishing to breed before the optimum date, and in such circumstances the beauty of the male would do no harm ^{before the date}; whilst after the optimum date, when the desire for breeding had commenced, the beauty of the male would be beneficial ^{by hastening breeding}. It seems to me that beauty can be explained thus more or less in the way in which my father suggested. Monogamous drakes, which have no period of eclipse, must not be tempted to mate before the proper time, in spite of their fine clothing. What you say in the next para. is, I think, certainly true, but might make the optimum date a little earlier, I think. I wonder if this is all to the point!!

You have, I think, not put in your interesting speculations as to the utilitarian origin of the beauty or antics of males. Possibly it is beside the point.

I have just got yours of 21st in answer to my last. Thanks for information. But you must not take so much trouble in answering me.

Yours sincerely
Llewellyn Darrow.