

28 June 1934.

Dear Ford,

I am hoping to hear from Hutt and Landauer on what they have done about hernia. Dunn's and Jull's paper, though it is in a frightful mangle, does confirm that hernia is the same as crest, for they evidently have linkage with dominant white, as confirmed by a later cross reported by Dunn and Landauer, and all the eight coloured birds in Dunn's and Jull's  $F_2$  are crested, judging from the back-cross, the expectation non-crested in this group would be 1.4 %, crested not hernia 20.6 % and hernia 78.0 %. The females, which <sup>are</sup> all that I can find scored at an early age, show among the coloured 80 % with hernia, so that the coloured birds behave exactly according to expectation.

The white birds on the other hand are a mixture of three classes, homozygous dominant white, heterozygous dominant white and recessives for the white brought in from Silky; and as far as I can make out these do not agree quantitatively, for the 68 white females scored early and the 54 whites scored for crest later. There are, in fact, not enough non-crested whites, and I think not enough whites with hernia either, but as there must, in any case, have been considerable elimination or suppression of hernia, as well as much elimination between the two scorings, one should not perhaps expect to be able to verify anything except the absence of a class,

which is verified in the coloured non-crested.

<sup>Any F<sub>2</sub> with</sup>  
The linkages of crested with Frizzle, reported by Suttle and Sipe, should also be interesting, as Frizzle can certainly be scored in all three phases simultaneously, so that any F<sub>2</sub> involving these genes should serve, like that of Davenport with Polish Comb, to confirm the relation of hernia with crest.

One of my hernia chicks has died, and there is at this age no bone above the fore part of the brain. The parietals are raised and pressed widely apart in a v. It will be interesting to see in older heads if bones are formed to any extent, like the dome of the Polish skull. My own data scarcely support the association of polydactyly in the same linkage group with Frizzle, hernia and dominant white, though being a back-cross of about 140, they are not enough to disprove loose linkage.

Yours sincerely,