

29th March, 1962.

Dr. H.E. Paterson,
Hotel Vatel,
Curepipe,
Mauritius.

Dear Dr. Paterson,

Thank you for your letter of March 9th last. I had read the account of your work at Amani with great interest and had remarked that the two fresh-water strains from Muheza and Kisumu you used belonged to our two groups A and B, (our colonies were in fact obtained from Amani).

Our male hybrid sterility results from crosses in both directions, though we have found indications, that the "degree" of testis atrophy may be different in reciprocal crosses. We intend investigating this. There is certainly no question of feebleness in hybrids and in fact hybrid vigour is evident from what detailed observations have been made. No obvious departure from the normal sex-ratio is evident either. I think our strains, which are all fresh-water strains, are probably more closely-related than were your fresh-water and salt-water strains. I am now trying to get eggs of Melas from Liberia, and of salt-water tolerant gambiae from Amani, to try some crosses here in London.

We will certainly try measuring eggs of different strains from the two groups, as you suggest.

I have been looking through Miss Coronel's detailed figures on sector spot measurements and find considerable differences between strains within a group. In fact, some strains are much more easily distinguished from one another than are others. We have just identified a recently acquired gambiae strain from the Ivory Coast as belonging to group B from sector spot measurements and pupal spine characters, whereas from crossings it obviously belongs to group A. Therefore the morphological method may not always be reliable.

Since Miss Coronel left us we have been selecting for extremes of morphological differences between the two groups. In group A we have now selected a strain without any sector spot at all, while in group B we are nearing purity for a strain without an accessory sector spot. Thus we may finish up with four forms of fresh-water gambiae!

Yours sincerely,

G. Davidson.