May 23rd 1948.

My dear Ron,

I have been away for three days inspecting a colony of Melittaea aurinia in which a big fluctuation in numbers is apparently taking place, so the letters of Friday and Saturday have had to await my return today (Sunday).

First, I think the method of presentation of the census data (revised hereafter) is most clear and helpful. I am sure it would be excellent to set them out in this way.

I am interested to see that you are using different death-rates for the two sexes, and this must surely be in accord with reality. The two sexes are indeed different populations, with different habits and times of emergence from the pupa (the &').
on the average appear to differ) so that they have a different ecology. There is indeed very reason for thinking the two sexes may have different lengths of life.

The calculations show that among the DD outnumber the FF and that the F numbers rose rapidly. This is fully in accord with observation and general expectation. As you say, the estimates for DD for the last two days must be heavily in excess of the facts. Indeed it depends upon a single recapture, so that the error involved must be very great.

The only partial points which need raising are these:

Area I DD for the 23rd.

You give 5 masks recaptured, which accords with my data. These are as follows:
<table>
<thead>
<tr>
<th>Date</th>
<th>Sex</th>
<th>Marks per Specimen</th>
<th>Date of previous capture</th>
</tr>
</thead>
<tbody>
<tr>
<td>23\text{st}</td>
<td>B</td>
<td>1</td>
<td>22\text{nd}</td>
</tr>
<tr>
<td>&quot;</td>
<td>B</td>
<td>1</td>
<td>22\text{nd}</td>
</tr>
<tr>
<td>&quot;</td>
<td>B</td>
<td>1</td>
<td>19\text{th}</td>
</tr>
<tr>
<td>&quot;</td>
<td>B</td>
<td>2</td>
<td>19\text{th} &amp; 22\text{nd}</td>
</tr>
</tbody>
</table>

It seems to give for total age of marks caught 11, but you have 9 for this entry. I wonder if I have set down the data correctly here.

The only other points relate to the days on which two samples were taken (28\text{th} & 29\text{th}). I have set these data out more fully on a separate sheet, to make them clearer.

The results accord perfectly with your columns 4, 5, & 6. Yet they do not quite seem to fit your column 2. I see this works strictly as indicated new marks released. Thus on the 22\text{nd} (0\text{th}) 41 unmarked were caught of which 40 were released, while 3 previously marked (often body marked)
you can add to your stock of calculations (especially) as

The catch (and released). This starts from figure 43. However, on 29th morning (from 28 A)

28th and caught 26 released (after having been marked) while I previously marked six caught. This makes 27 new marks (against from 28).

You will see there are other similar corrections for these two days (28th and 29th only) and for column 2 only. I am afraid I did not put one well. That had happened in regard to these days on which morning and afternoon samples was caught. I think this will be clear from the sheet of figure I now send.

So I think the calculations are splendid, and exactly what was needed. And thank you, my dear Ron, for all your work and advice.

Yours truly,

Henry