

# The Longevity and Mating Habits of *Dichromorpha viridis* Scud. (Orth.).

By PHIL RAU, St. Louis, Missouri.

During July and August, 1909, I had an opportunity to record the adult longevity and the mating habits of this Orthopteran species.\*

The adult hoppers, nineteen males and six females, were taken in my garden and confined in lamp-chimney breeders containing growing grass. The table shows that the females lived from 23 to 34 days (with one exception), while the males lived only from one to ten days, most of them living 3 or 4

TABLE I.

| SEX | LENGTH OF LIFE<br>IN DAYS | NO. OF INDIVIDUALS |
|-----|---------------------------|--------------------|
| ♀   | 34                        | 1                  |
| ♀   | 33                        | 1                  |
| ♀   | 29                        | 1                  |
| ♀   | 28                        | 1                  |
| ♀   | 23                        | 1                  |
| ♀   | 4                         | 1                  |
| ♂   | 1                         | 3                  |
| ♂   | 2                         | 2                  |
| ♂   | 3                         | 5                  |
| ♂   | 4                         | 5                  |
| ♂   | 6                         | 1                  |
| ♂   | 7                         | 1                  |
| ♂   | 8                         | 1                  |
| ♂   | 10                        | 1                  |

days. How old the insects were when captured is unknown, but since they were all taken within a few days, it is probable that all were of approximately the same age. Thus we see the significant difference in the length of life of the sexes. The short life of the males may be due to the conditions of confinement affecting the male and not the female, but it is more likely that the males are naturally short-lived since none were observed to take food; the females, however, were heavy feeders, often eating while in copulation. There was nothing in

\*Mr. A. N. Caudell kindly identified this insect.



the behavior of the males to indicate senescence due to old age. They always seemed active and mated readily, even remaining in copulo, in a number of instances, up to just a few hours before their death.

In the cages these insects were polygamous and polyandrous, a male mating many times with the same or other females, and a female mating often with one or many males.

TABLE II.

| ♀ No. | NO. OF<br>TIMES IN<br>COPULA | NO. OF<br>MALES<br>MATED | LENGTH OF<br>EACH COITION IN<br>HOURS | TOTAL TIME IN<br>HOURS SPENT IN<br>COPULA |
|-------|------------------------------|--------------------------|---------------------------------------|---|
| 1     | 3                            | 2                        | 7, 10, 6½                             | 23½                                       |
| 2     | 6                            | 2                        | 8, 5, 26½, 15, 6, 12                  | 72½                                       |
| 3     | 8                            | 3                        | 4, 8, 7, 15, 3, 30½, 7½, 9½           | 84½                                       |
| 4     | 7                            | 3                        | 10, 1, 13, 4½, 5, 8, 12               | 53½                                       |
| 5     | 5                            | 2                        | 11, 34, 6, 6, 12                      | 69  |
| 6     | 6                            | 1                        | 25, 6, 6                              | 37  |

Table II shows that these females during their lives mated from 3 to 8 times with from 1 to 3 males which were virgin or had already fertilized other females; that the duration of each coition varied from 1 to 34 hours; and that the total number of hours spent in mating by each female varied from 23½ hours to 84½ hours. In fact, the females mated whenever a male was available. In only one instance was an attempt made to oviposit. In this case the female spent several hours with her ovipositor buried in the earth, but an examination later showed that no eggs were deposited.

#### Corrections to Paper on Andean Muscoidea (Dipt.).

Mr. Walton has called my attention to two errors which have crept into my paper published in Pr. U. S. N. M., Vol. 43 (1912). They are:

Page 309, *Oestrogaster*, third line, should read "well developed palpi" instead of "no palpi." The palpi were both so closely appressed to the folds of the proboscis that they entirely escaped my observation at time of making description.

Page 333, *Dejeania andina*, sixth line, should read "Differs in having no black whatever on legs" instead of "no yellow whatever." This was a clerical error, as shown in context.—CHARLES H. T. TOWNSEND, Bureau of Entomology, U. S. Dept. Agric., Washington, D. C.



Rau, Philip. 1915. "The longevity and mating habits of *Dichromorpha viridis* Scud." *Entomological news, and proceedings of the Entomological Section of the Academy of Natural Sciences of Philadelphia* 26, 27–28.

**View This Item Online:** <https://www.biodiversitylibrary.org/item/20205>

**Permalink:** <https://www.biodiversitylibrary.org/partpdf/31657>

**Holding Institution**

Smithsonian Libraries and Archives

**Sponsored by**

Smithsonian

**Copyright & Reuse**

Copyright Status: NOT\_IN\_COPYRIGHT

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.