

Photoperiod and size of testes of Eastern Meadowlarks.—From 25 January to 16 April 1966, testes were removed from 14 male Eastern Meadowlarks (*Sturnella magna*) from Forsyth County, North Carolina. Testes were placed in Bouin's fluid for 24 hours and then transferred to 70 per cent ethanol. At the end of the study period, volumes of the two testes were calculated and added to obtain testes volume of each bird (see A. Wolfson, *Condor*, 44: 251, 1942).

A sample correlation coefficient was computed to test the null hypothesis that no linear correlation existed between photoperiod and testes volume. A highly significant correlation coefficient of 0.9188 was obtained. Therefore, the null hypothesis was rejected, and the alternate hypothesis was accepted, which recognized a linear relationship between the two variables.

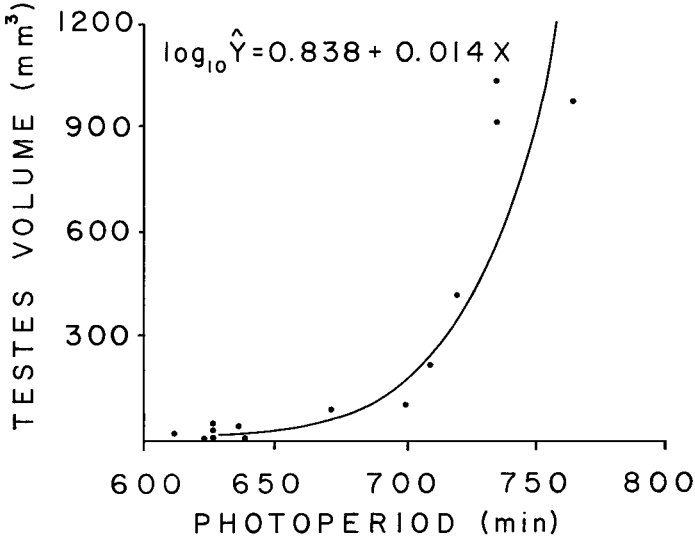


Figure 1. Curvilinear regression, on increasing daylength, of testes volume of Eastern Meadowlarks from Forsyth County, North Carolina, from January to April, 1966.

However, examination of the data suggested that the most important relationship between photoperiod and testes volume was probably curvilinear. Several procedures were tried to fit a least squares curve to the sample data. These included computing a quadratic equation and using several data transformations. The best fitting curve (Figure 1) was generated by a linear regression equation using data transformed with common logarithms. Of course, a new sample would be necessary to test the statistical significance of the apparent curvilinear association, since the hypothesis was suggested by these data.

Volume of testes of Eastern Meadowlarks was not related to body weight, heart weight, or total length of body.

A review of the literature revealed no previous report of photoperiodism and gonad size of Eastern Meadowlarks.—PHILIP H. DARST, *Department of Zoology and Entomology, Clemson University, Clemson, South Carolina*, and DALE HEIN, *Department of Biology, Wake Forest College, Winston-Salem, North Carolina*.