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CRICKET THERMOMETERS

Prof. Edwin B. Frost, the distinguished astronomer, in a little article published two years ago, credits the snowy tree cricket (*Oecanthus niveus*) with being an excellent thermometer. He says he was surprised to find that the chirps of this insect in a given time varied according to temperature, and adds:

"By making counts on different nights and at varying temperatures, it was not difficult to derive a formula showing the relation between the temperature and the number of chirps per second. The formula that I found represents the temperature as derived from the chirps of crickets that inhabit northern Illinois or southern Wisconsin and is as follows: Count the number of chirps for exactly 13 seconds and add to it 42. The result will be the temperature at the point where the cricket is chirping. It will seldom differ by a degree from the reading of a good thermometer."

So much for Prof. Frost's discovery; but a number of other people have made discoveries about the relation between crickets' chirps and temperature, and they do not altogether agree. A formula was published in the Popular Science Monthly as far back as 1881; another was announced by Prof. Dolbear, of Tufts College, in the American Naturalist in 1897, and still another by C.A. and E.A. Bessey in the same journal in 1898. There have been several others.

In the Canadian Entomologist, 1907, Prof. A. Franklin Shull published results of his observations on this subject leading to the conclusion that, while there is a general agreement between temperature and the rate of chirping, it is not possible to express this agreement by any formula.

The general statement, however, holds good that the warmer the weather the faster the chirps.

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