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? WHY THE WEATHER ?

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CRICKETS AS THERMOMETERS

There is a well known correspondence between the temperature and the rate of a cricket's chirps. Farmers have noticed that on nights when crickets are heard chirping rapidly as late as 10 p.m. frost very rarely occurs. The accuracy of the variation of the rate with the temperature is surprising. One observer, B.E. Holmes in New Haven, Conn., made a series of 20 records from which he drew the formula that the air temperature in degrees Fahrenheit equals 40 plus $23/100$ of the number of chirps per minute. In nineteen cases out of the twenty this formula gave an air temperature within one degree of that actually shown by the thermometer. The case that failed to conform was a count made on the only rainy evening. Ten observations at Worcester, Mass., in late summer and early fall confirm this relation. In every case the temperature computed from the rate of chirps according to the formula fell within two degrees of the actual temperature, and in eight cases within one degree. In these ten observations the temperature ranged from 52 degrees Fahrenheit to 75 degrees Fahrenheit, and the rate of chirps from 56 to 155 per minute. One warm evening a cricket in a place where the temperature was about 72 degrees chirped at a rate of 140 a minute, while at the same time one where the temperature was about 75 chirped 155.

(Tomorrow: The High Atmosphere)

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