

A Science Service Feature

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~~THE WHY THE WEATHER ?~~

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HUMIDITY IN A HOT WAVE

During a recent hot wave a metropolitan newspaper that should have known better carried a statement that the humidity was highest, 83 "degrees", at eight in the morning. Though the air temperature in the afternoon went well over 90 the humidity dropped, and the implication was that, the humidity part of the hot wave moderated.

Our feeling of humidity in hot weather is not shown by the relative humidity observed by the Weather Bureau. That term relates simply to the vapor in the air as a percentage of the most that could be present at the current air temperature. A given amount of vapor will make a high relative humidity when the temperature is low and a low one when the temperature is high. You might have a fog one cool morning, with a relative humidity of 100 per cent. and on the afternoon of the same day a humidity of but 30 or 40 per cent. even with more vapor present.

A term, physiological relative humidity, has been invented to indicate the vapor present in percentage of saturation at body temperature. As we are "feeling" the humidity and have a fairly constant temperature this designation means something in our comfort. Physiological relative humidities below 25 per cent. are generally pleasant, for the body can readily eliminate excess heat by evaporation from lungs and skin. Physiological humidities of 50 per cent. or above are about the limit for human endurance, and, fortunately, seldom occur under natural conditions.

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