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? WHY THE WEATHER ?

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EVAPORATION MAKES HEAT ENDURABLE

Summer trappers over dry trails carry canteens with them, summer campers pitch their tents always with a view to water. Yet many insects and small mammals manage to live all summer in deserts with no apparent source of drinking water. Rain is most infrequent, springs and streams dry up in the hottest weather. Insects may get water from dew or from plant juices. Even fragments of plants apparently dry, as in hay, contain 50 to 60 per cent. of water. Moreover, such dry fragments will absorb moisture from the air whenever the relative humidity rises to more than 70 per cent. This happens in most deserts at night, because of the great cooling of the air. These minute amounts of water help insects to withstand the tremendous heat of the bare ground in deserts. A live grasshopper on a hot surface is cooler than a dead one and cooler than the surface because of the water it evaporates and loses in respiration. Perspiration and respiration play a still greater part in our heat regulating mechanism, the degree of heat which is endurable depends largely upon the rate at which water can be evaporated from our bodies.

(Tomorrow: How Raindrops Form)

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