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A Science Service Feature

? WHY THE WEATHER ?

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INVERSIONS OF TEMPERATURE

If you are too warm on a hill some evening just descend to the lowland where it is likely to be cooler. Most of the time the rule is, the higher the colder. But commonly at night the inverse of this condition is found in the lower few hundred feet of air. This is what meteorologists call an inversion of temperature.

Inversions are at times very striking. In autumn, lowland gardens usually get frosted first. Temperatures in cranberry bogs at this time of year often fall into the thirties while nearby towns report minima 10 or 20 degrees higher. A hill only 200 feet high frequently enjoys a southerly or westerly breeze of moderate temperature while the lowland dwellers around it shiver under the insidious creep of the cold damp lowland air. So sharply marked are the limits of the usual nocturnal lake of cold air that a verdant zone or "thermal belt" visible from a distance becomes marked in fall above the dead vegetation of the lowlands. Even a single tree on a hillside may have its lower leaves killed while the upper ones continue to live a few weeks longer. Gardens will bloom, grapes ripen, and people feel comfortable in this verdant or thermal zone for as much as a month after the lowlands and colder, windier highlands have passed into late fall.

(Tomorrow: Kites as Observatories)

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