

A Science Service Feature

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? WHY THE WEATHER ?

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SCOTCH MIST

Scotch mist is something betwixt a fog and a drizzle; a rain in which the drops are very small and fall slowly. It is especially common on mountainous regions and got its name from its prevalence in the Scottish Highlands.

Many years ago Sir Oliver Lodge suggested that this kind of precipitation in the Highlands is explained by the fact that the air there is exceptionally clear and pure because of frequent rains. He thought that such air contains few nuclei for the condensation of moisture; hence the water vapor present, instead of forming a vast number of minute cloud particles, would form a relatively small number of droplets big enough to fall at once as rain.

A better explanation appears to be this: A moist warm wind blowing against a cold mountain will shed a large part of its moisture in the form of ordinary rain on the windward slope. The wind is forced up over the mountain and tends to have a downward movement on the opposite slope. Here we should expect Scotch mist, because there is no upcurrent to keep very small drops from falling. Hence the precipitation consists largely of such drops.

The same kind of misting rain is characteristic of Dartmoor and the other uplands of the Devon-Cornwall peninsula, where it is known as "mizzle."

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