

A Science Service Feature

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? WHY THE WEATHER ?

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"ECOCLIMATE"

It is hardly proper to say that a country of any considerable size has a "climate." It has, instead, several different "climates" in its different parts. With greater propriety we speak of the climate of a certain district - a county or a city, for example - even though there are always minor diversities of climatic conditions within such an area. Recently the Germans have introduced the useful conception of the "microclimate" in which a plant grows: i. e., the climate of a particular spot or small patch of ground. According to their terminology, this is distinguished from the general climate, or "macroclimate," of the region, as deduced from the standard observations taken at one or more meteorological stations.

Intermediate in its application between "macroclimate" and "microclimate" is the new term "ecoclimate," coined by a British entomologist, B.P. Uvarov, and used in his monumental treatise "Insects and Climate." This authority speaks of the "ecoclimate" of a particular marsh, forest, sand-dune, etc.; an important factor in determining the geographical distribution of insects. Illustrating how this differs from microclimate, he says:

"The ecoclimate of a forest does not give an exact idea as to the conditions of temperature and moisture to which a larva boring inside a tree is subjected, since these conditions obviously are very different in a tree exposed to the sunlight from those of a similar tree standing in dense shade. A study of the microclimate of the actual medium where the insect lives becomes therefore inevitable if we want to understand in all their details the conditions to which it is subjected. Thus, apart from the general climate of a locality, ecoclimates and microclimates should be studied. This idea has already been expressed by several ecologists."

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