

No. 572

A Science Service Feature

March 11

? WHY THE WEATHER ?

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FREQUENCY OF SEVERE WINTERS

We have had a severe winter, notwithstanding some striking periods of warm weather, such as that of early February. How often do such severe winters come, and how likely are they to occur in flocks? Unfortunately, our reliable temperature records extend back for but a relatively short period. Nevertheless some information can be obtained about bygone conditions from other sorts of observations. For instance, for southern Germany and Switzerland data concerning the freezing over of lakes and rivers are available extending as far back as 1400. In extremely severe winters for weeks at a time, all of the large lakes north of the Alpine divide were frozen over so thick that heavy wagons could cross. A European investigator has made a critical study of these reports and counted the number of severe winters in south-central Europe in the last five centuries. The 15th and 16th centuries each had 8 such winters, the 17th and 18th each six, and the 19th century only four. None occurred from 1900 to 1923. It would be wrong, however, to interpret this to mean that the climate is definitely moderating. Other groupings of about 100 years or more give the frequencies of severe winters as varying from 1 in 10 in the 15th and 16th centuries to 1 in 30 recently. From 1588 to 1680 a mild period also occurred, with only four severe winters in 92 years. The large number of mild winters and the small number of very cold winters in south-central Europe since 1800 indicates a kind of "climatic oscillation" of which the cause lies completely hidden.

(Tomorrow: Some Controls of Eastern Weather)

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