

From Douglas V. Hoyt, Kenneth H. Schatten ?year? “The role of the sun in climate change”
 (I have this book at home, bought a long time ago)

Other info/sources:

- Tapping et al – influenza pandemics since 1730
- ?? Bubonic plague 1955-1995 in ?Kazikstan? gerbil populations
- Malaria, cholera, etc but seemingly not smallpox
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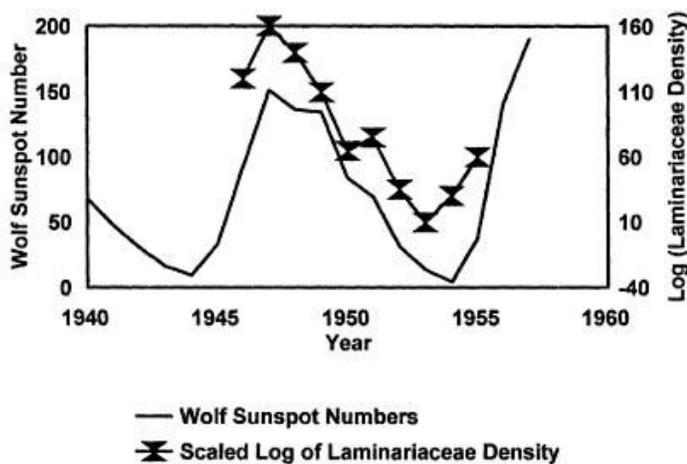
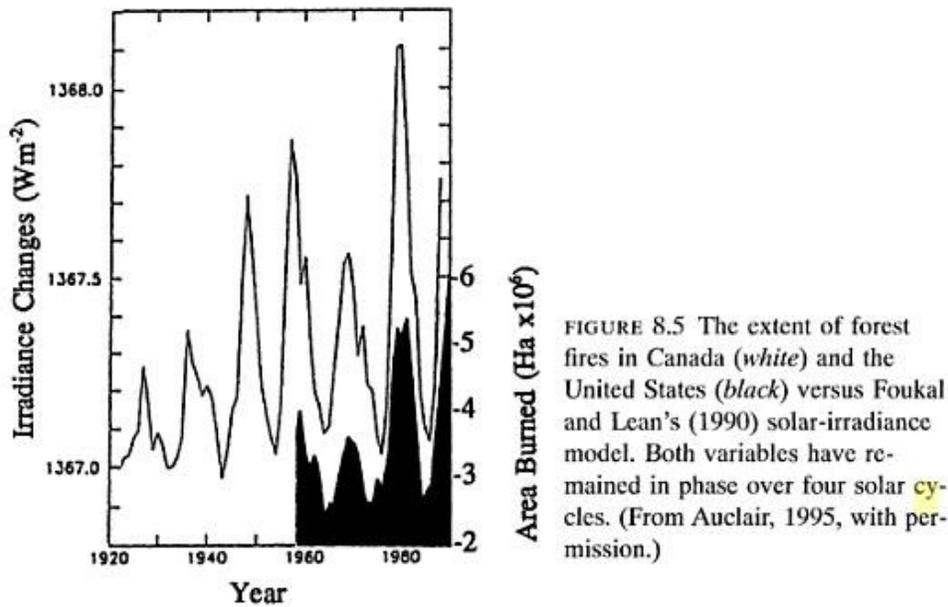


FIGURE 8.4 The mass density of Laminariaceae off Scotland and sunspot numbers for 10 years. The seaweed density seems to follow solar activity closely, but the data record is too short to be conclusive. (Adapted from Walker, 1956.)

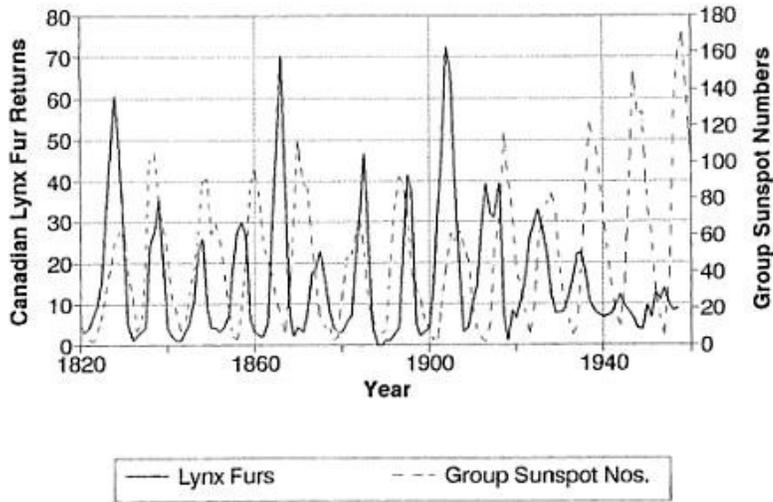


FIGURE 8.3 A plot of the Group Sunspot Numbers and Canadian lynx fur returns from 1820 to 1957 (lynx data from Keith, 1963). The two curves drift in and out of phase because they have different cycle lengths. Data after 1918 are from the MacKenzie River valley, scaled to match the Canadian totals.

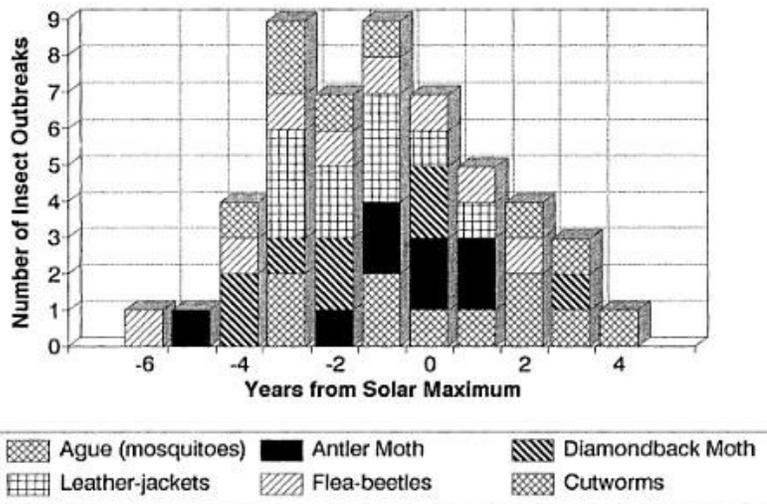


FIGURE 8.2 The frequency of British insect population outbreaks as a function of time relative to the sunspot maximum. Six British species are used (data from MacLagen, 1940). Note that the population outbreaks occur before sunspot maximum,

Just like the tent caterpillars in New Jersey.

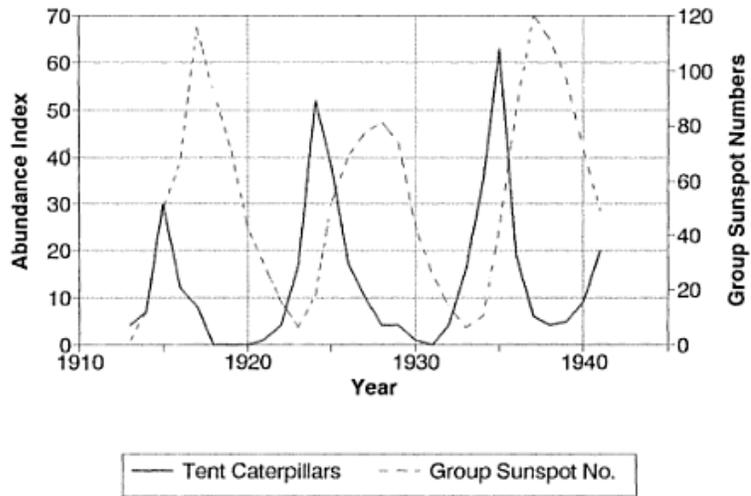


FIGURE 8.1 An index of tent caterpillar populations in New Jersey, measured by Headlee and plotted along with sunspot numbers. As with other insects, an 11-year cycle is apparent, but it is 2 years ahead of the solar activity. The out-of-phase relationship could be caused by some time constant in the biological system, or it could be that the sun tends to become brighter before solar activity peaks, such as is seen in the 1979–80 satellite measurements. (Adapted from Clayton, 1943.)

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