



FIGURE 18.15. Clines in insecticide resistance alleles in the mosquito, *Culex pipiens*. Resistance alleles at both loci increase in the summer when insecticide is sprayed; over the winter the clines broaden out. The rate of gene flow during the summer was estimated as $\sigma^2 = 6.6$ km² per generation; during the autumn, it was higher, at 14.6 km² per generation. The selection coefficients favoring resistance alleles while insecticide was being sprayed were estimated as 0.33 and 0.19 for *Ace 1* and *Est 1*, whereas in unsprayed areas during summer, selection coefficients against them were 0.11 and 0.05, respectively.

18.15, redrawn from Lenormand T. et al., *Nature* **400**: 861–864, © 1999 Macmillan, www.nature.com