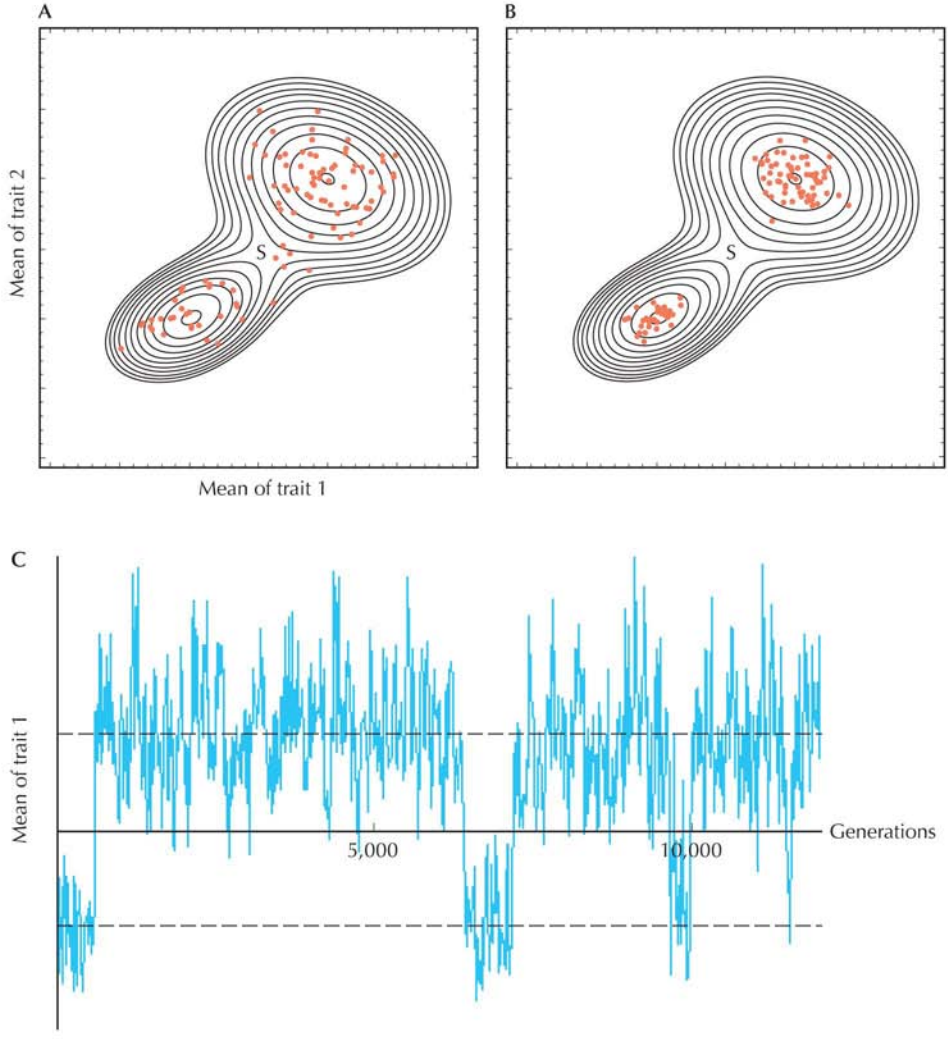

FIGURE 18.7. Under a balance between random drift and selection, populations will be scattered across the adaptive landscape in a distribution proportional to $\bar{W}^{2N_e}$. The contours show the mean fitness of a population plotted against the means of two quantitative traits. The traits are under **disruptive selection**, so that there are two adaptive peaks; genetic variance is assumed to be constant. *S* marks the saddle between the two peaks. Contours are plotted at $\bar{W}$ = 0.91, 0.92, ..., 0.99, 1. (*A*) Populations of N_e = 25 are subject to strong random drift and so are scattered widely across the adaptive landscape. (*B*) In larger populations, with N_e = 100, selection is stronger than drift, and populations are clustered around the adaptive peaks. (*C*) A simulation of the time course of change in the first trait (*x*-axis in *A*,*B*) for N_e = 100. *Dashed lines* show the positions of the two adaptive peaks.