

## **Persistence and Spread**

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Discussion topics:

Daehler (2003) concluded in his study that invasives performed better under disturbance regimes and an abundance of resources. This implies that invasive species are at a disadvantage if resources are limited. Was this finding a surprise?

Davis suggests that invasion pinning, which is “the process by which range expansion is stopped due to the Allee effect”, is an important factor that may explain the pulsing nature of invasions. This seems like an awfully simplistic view of dispersal especially when, earlier, Davis says that spread rates of species may be associated more with the occurrence of rare long-distance dispersal events.

Can decreased genetic diversity also cause an increase in invasion success?

Range expansion is a characteristic of invasive species. However, in this chapter Davis argues that taxon cycling is a phenomenon for most species, even invasive ones. The implication is that invasion is a natural process. Consider, if these species are in a cyclical process then the ecological processes will correct itself through a negative feedback loop. My question is: if we are in the middle of large-scale taxon-cycling invasions, does our (collectively human) temporal presence inherently skew our perception of invasive species?

Niche conservatism is an issue when creating species distribution models. Do these models still provide insight into a species' future distribution? Is there a way to not only add dispersal dynamics, as Davis suggests, but also incorporate phenotypic plasticity (perhaps using genetic diversity as a proxy) into these distribution models?