

Welcome to the more recent past! We pick up on Monday in Davis's book from 2009, and I expect by the end of this book we'll be wondering how far we've come since Elton in 1958. But we'll leave that in the back of our minds for a few weeks and focus on chapter 2 for now: dispersal.

Stages vs. cycles:

Davis starts off by discussing the various stage-structured models of dispersal and the drawbacks of this sort of approach. He introduces the cyclical model shown in figure 2.1 What are your thoughts on this model? Does it address Davis's concerns about the more linear, stage-based models, or does it introduce issues of its own?

Propagule pressure:

Propagule pressure considers two major components: how many organisms move in a single dispersal event, and how often dispersal events occur. Davis mentions the quality of the arriving organisms at the very end of this section, seemingly as an afterthought. Do these three factors (giving the quality of the arrivals a fair stake in the discussion) matter equally in the establishment process, or does the balance shift depending on the species in question, the system it is being introduced into, what vector it was carried in by, how long the transport process took, etc. (this list could likely go on for some time)? How could an understanding of propagule pressure assist invasive species prevention and management plans?

Intentional introductions:

This is likely a loaded question, but quite simply: when should we consider it acceptable to introduce a species into a new area? Consider any "we" you would like (the scientific community, fish and game, pest management, agriculture, aquaculture, people who just enjoy to look at a variety of animals and plants, etc.). When do the desires of one group override those of another?

Carlton and Ruiz (2005):

Davis discusses two major studies that attempted to define frameworks for various types of dispersal methods. The first, by Carlton and Ruiz, identifies six elements that can be used to assist integrated vector management systems. What do you consider the strengths and weaknesses of the six elements? Would you also consider vector strength to be the "ultimate measure of invasions" that should "prioritize management targets", as Carlton and Ruiz did?

Hulme et al. (2008):

The second framework was established by Hulme et al. (2008), which took 31 different invasion types and classified them by three mechanisms of arrival, which became six pathways for invasion. They also propose regulation mechanisms for preventing invasive species from arriving, or assigning blame if they do. Do you prefer the regulatory procedures proposed by Carlton and Ruiz or Hulme et al.?