

## Weeds in Natural Systems (WINS): Weighing up the importance of different invasion mechanisms

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**Summary** There is some confusion about how weeds ‘win’ in natural systems and replace native species and a range of mechanisms are often vaguely assumed. Do seedling plants kill native adults through some allelopathic mechanism? Or is seedling competition for nutrients or light the most important mechanism? This talk investigates a number of examples of research that investigate the mechanism behind invasion for a range of species to highlight what we know and what we really don’t know.

This talk will precede a symposium on weeds in natural systems. The actual mechanisms of why weeds establish in an environment are often assumed and only

occasionally tested. Yet this understanding may well provide important information that leads to appropriate management options. A plethora of hypotheses (e.g. enemy release, allelopathy, resource competition) have been put forward and some evidence has been collected globally for some weeds. In this symposium, we will develop a conceptual framework and gather the evidence together for Australasian weeds to assess what we currently know about the different ways that species ‘win’ space in natural landscapes.

**Keywords** Natural systems, competition, invasion mechanisms.