Great strides have been made over the past two decades in the field of invasion ecology. We now have a much better idea of why some species are better invaders than others, and what makes ecosystems open to invasion. Invasion ecology is now one of the most popular areas of ecology – witness for example the large numbers of invasion-related papers in top journals and the numerous papers and symposia devoted to invasions at big international conferences. Given the widely acknowledged threat posed by invasive species to biodiversity, scientific research on issues related to invasions is relatively well funded by national and international science foundations. But, is the “good science” that is being done helping us to deal with the problem? In a timely paper, Phil Hulme (2003; *Oryx* 37: 178-193) suggested that we are “winning the science battles, but losing the conservation war”. Other authors have also pointed to the mismatch between scientific research agendas on the topic of invasion ecology and the most urgent requirements of managers and legislators who need to deal with problems of invasive species “at the coal face”. It seems that crucial decisions are being taken without significant inputs from the growing body of literature on invasion ecology. Why should this be? What could and should be done to ensure a closer link between the science of invasion ecology and the needs of managers? This paper explores these issues using examples from several parts of the world. Special attention is given to the situation in South Africa where the recent “Biodiversity Act” has raised some interesting and important questions.

keywords: invasion ecology, legislation, management, prediction, terminology