

A tool to assess knowledge and risk level of Exotic Perennial Grass invasion in NSW native communities

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Summary Exotic Perennial Grasses, or EPGs, have negative impacts and pose significant risks to native species and ecosystems. Native grasslands and open woodland communities are particularly susceptible to invasion, with the impact of EPGs more frequently framed in an agricultural context. A risk assessment tool specific to functionally similar EPGs was developed to rank EPGs and identify knowledge gaps. In conjunction with field surveys of 139 sites across nine grassy communities we identified levels of invasion and tested the usefulness of the risk assessment tool. Five widespread invaders were particularly established in all regions and communities. Invasion by pasture grasses was the most significant threat to grassy communities. Species with higher risk rankings

were recorded in more sites although a few grasses were more invasive than their ranking predicted. Our study found higher levels of invasion were associated with species that were ranked more invasive, with evidence this ranking could be used to influence management priorities in native communities. Our findings indicate that management of exotic perennial grasses in grassy communities should be undertaken at the community level although there are some species that are important invaders in the whole landscape. The risk assessment tool has the potential to become an important tool for aid in management.

Keywords Exotic Perennial Grasses, management, invasion, threatened communities