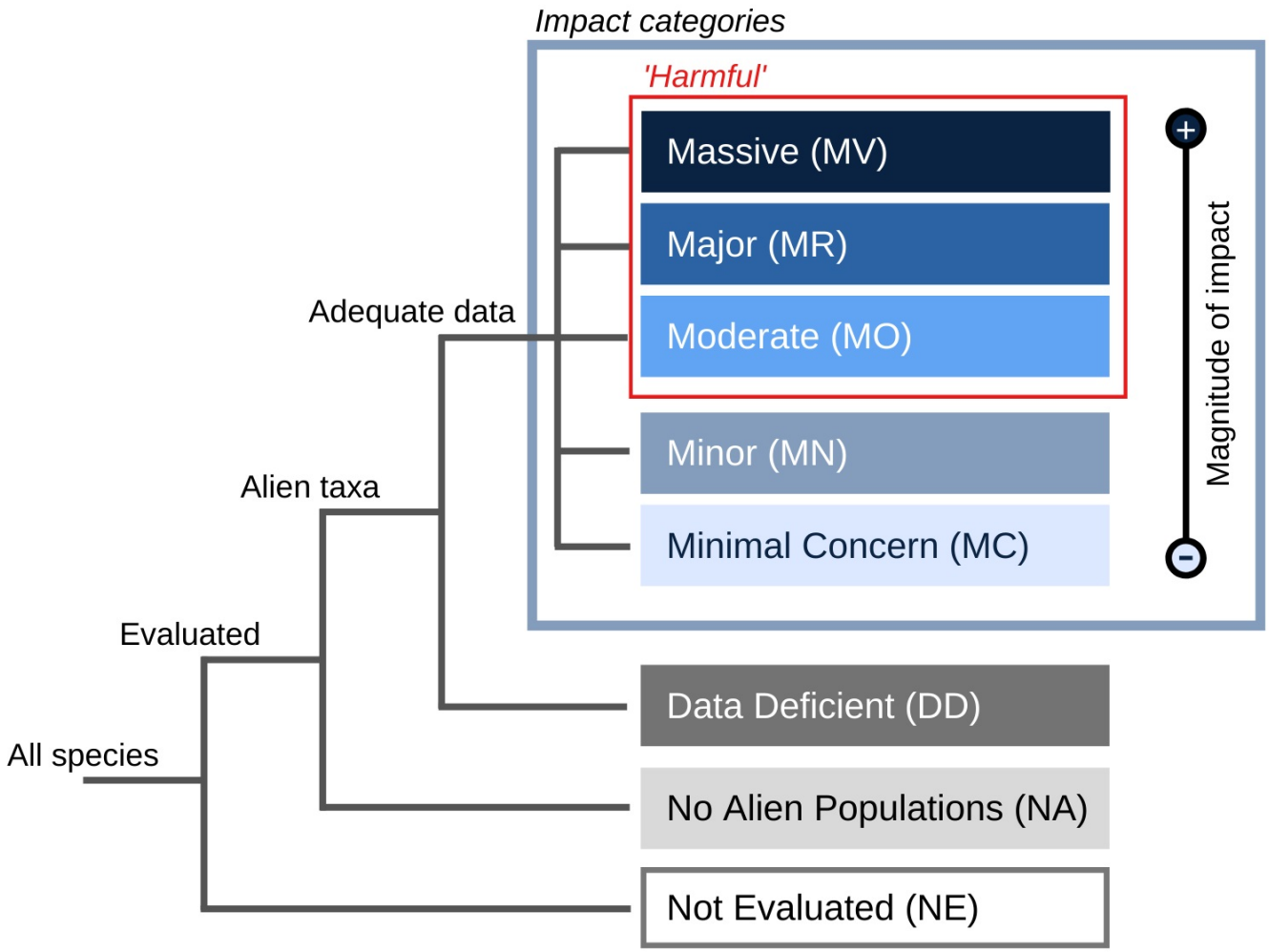
MR (Major)Acacia mearnsii

Date assessed	2020-09-27
Year published	2023
Eicat category	MR (Major)
Justification for EICAT assessment	A. mearnsii caused a decline in grass species diversity and richness, but it returned after restoration took place (Vundla, 2018). A. mearnsii invasion reduced bacterial diversity (Slabbert et al., 2014). Native species diversity is lower in A. mearsnii invaded regions, possibly due to it allelopathic effects (Tassin et al., 2009). A. mearnsii invaded regions showed lower invertebrate species richness and diversity than uninvaded regions (Samways et al., 1996). A. mearnsii invaded soils generally had lower rhizobial diversity and was more homogenous compared to uninvaded soils (Le Roux et al., 2018). Native plant species richness decreased on all slopes invaded by A. mearnsii and soil became more acidic and nutrient rich (van der Waal, 2009). Soil moisture content was higher in invaded soils and diversity indices were higher in cleared and atural sites than in invaded sites (Ruwanza and Tshililo, 2019). A. mearnsii invaded sites had significantly lower species richness and taxonomic distinctiveness than cleared and uninvaded sites (Samways and Sharratt, 2010).
Confidence rating	Low
Mechanism(s) of maximum impact	Chemical impact on ecosystems; Poisoning/ toxicity; Competition; Structural Impact on ecosystem; Physical Impact on ecosystem
Countries of most severe impact	South Africa; Mascarene Archipelago
Description of impact	Impact categories ranged from minimal concern to major. A. mearnsii physically changed the natural environment through reducing the native species diversity and richness. A. mearnsii outcompeted natives and natives declined. A. mearnsii has chemical impacts by changing the soil properties of the natural ecosystem. A. mearnsii has poisoning/toxic impact through its allelopathic effect on other plants, which suppresses their growth. A. mearnsii has structural impacts through changes in native communities, such as arthropod community composition.
Assessor	Cally Jansen
Contributors	
Reviewers	EICAT authority
Recommended citation	Cally Jansen. (2025). *Acacia mearnsii* . IUCN Environmental Impact Classification for Alien Taxa (EICAT).


Impact categories
'Harmful'
Massive (MV)
Major (MR)
Moderate (MO)
Minor (MN)
Minimal Concern (MC)
Magnitude of impact
Adequate data
Alien taxa
Evaluated
All species
Data Deficient (DD)
No Alien Populations (NA)
Not Evaluated (NE)