

The role of soil bacterial mutualisms in legume invasion in California



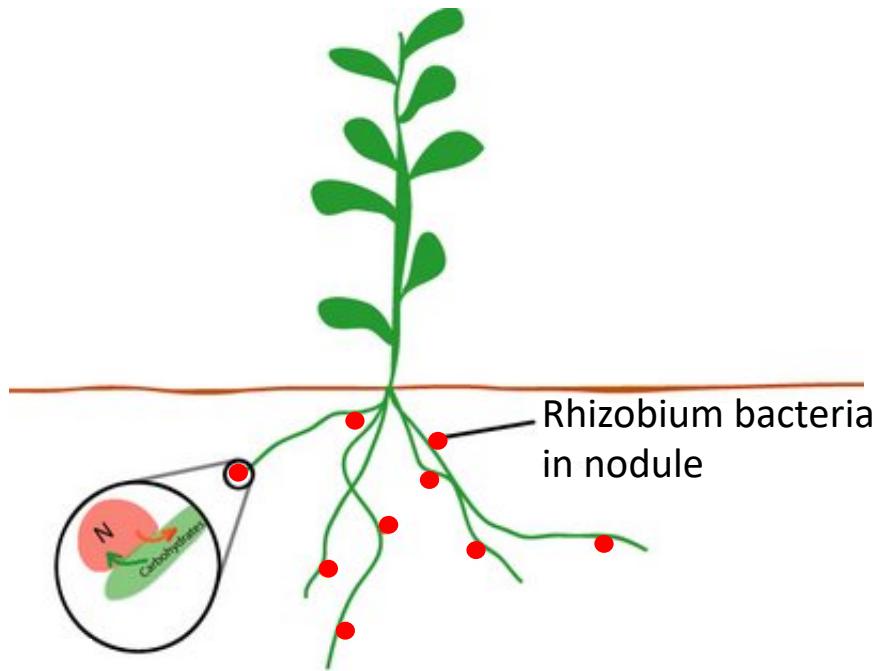
Metha Klock^{1,2}, Kyle E. Harms², Peter H. Thrall³, and Luke G. Barrett³

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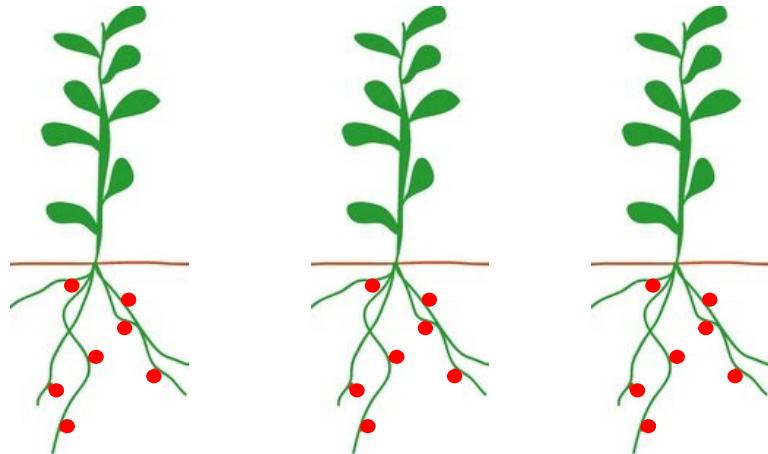
²Department of Biological Sciences, Louisiana State University, Baton Rouge, LA

³CSIRO Agriculture Flagship, Canberra, Australia

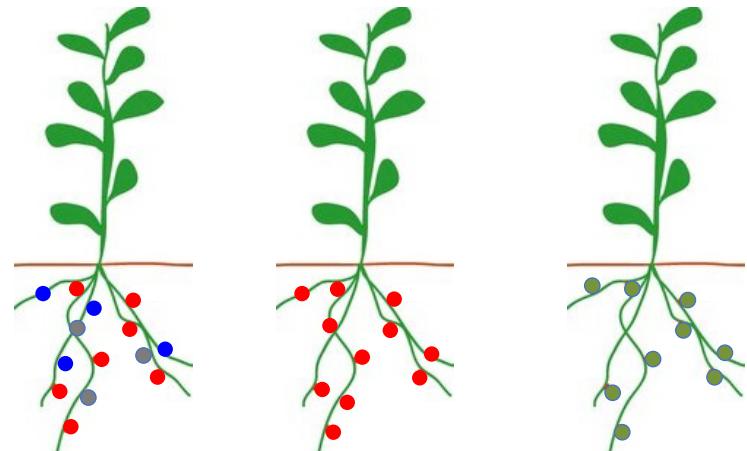
Host promiscuity in legume-rhizobia symbiosis



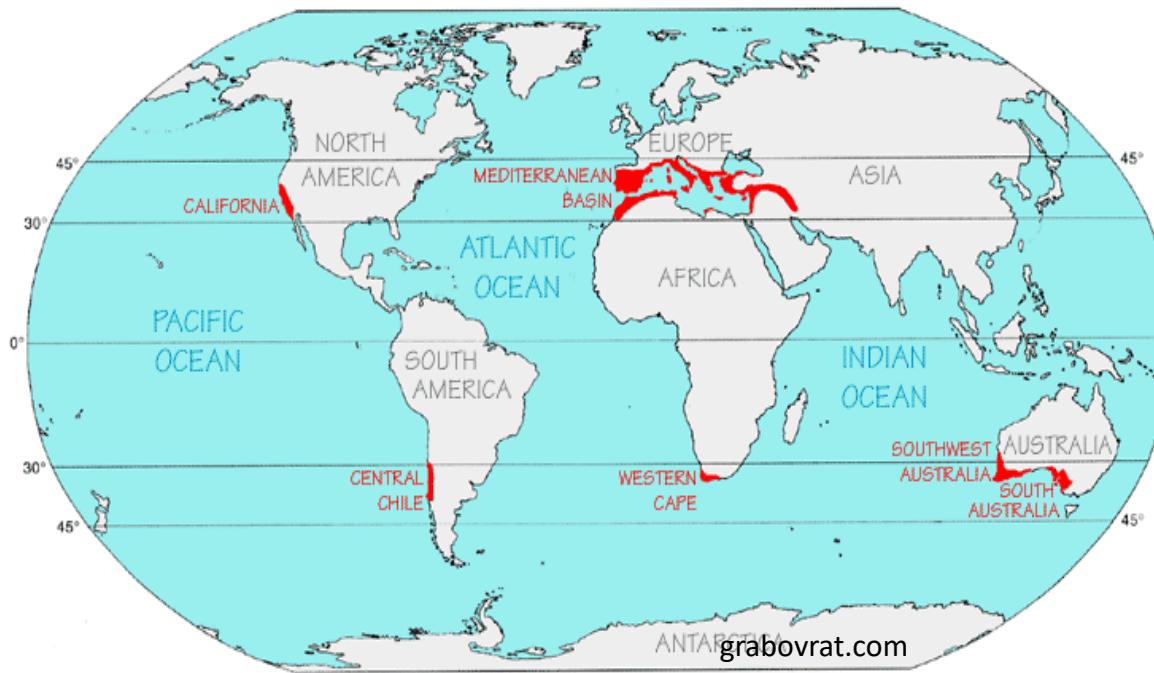
Specific hosts



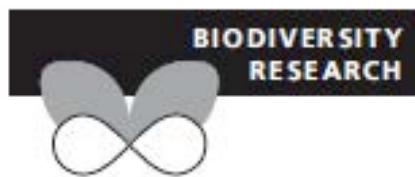
Promiscuous hosts



Acacias are globally invasive



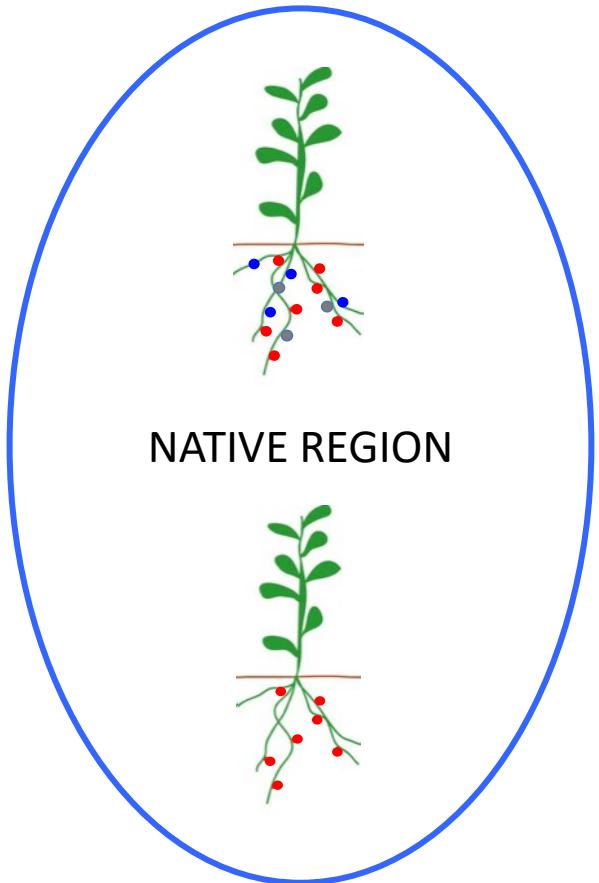
Diversity and Distributions, (Diversity Distrib.) (2015) 21, 1193–1203



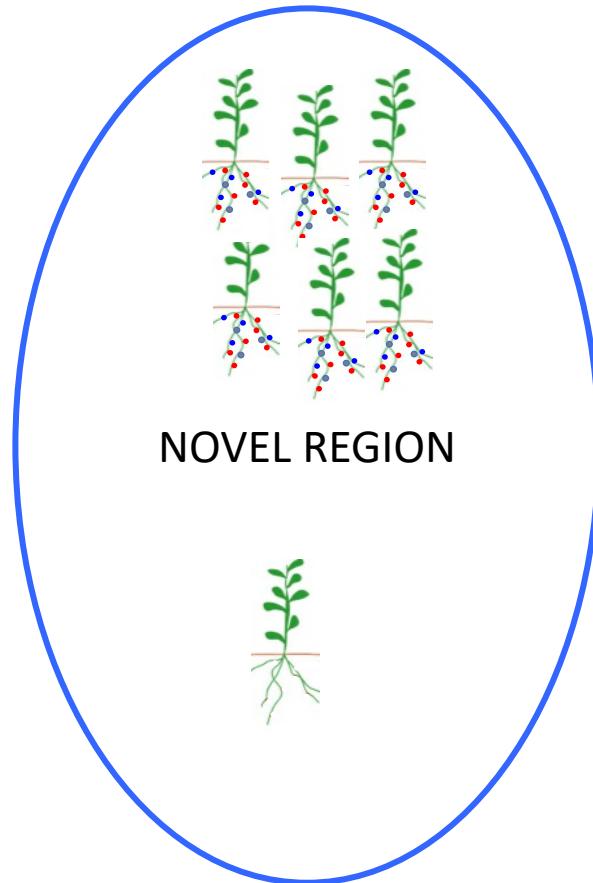
Host promiscuity in symbiont associations can influence exotic legume establishment and colonization of novel ranges

Metha M. Klock^{1*}, Luke G. Barrett², Peter H. Thrall² and Kyle E. Harms¹

Host promiscuity and invasiveness



NATIVE REGION

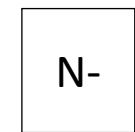
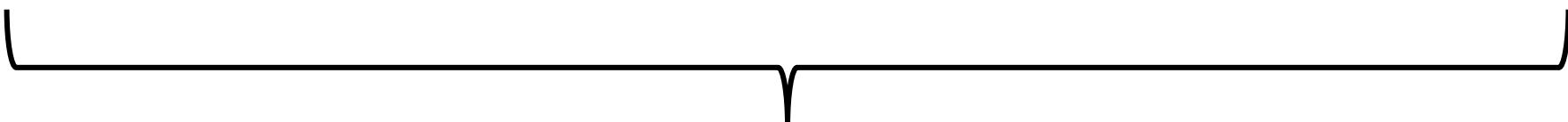


NOVEL REGION

Invasive

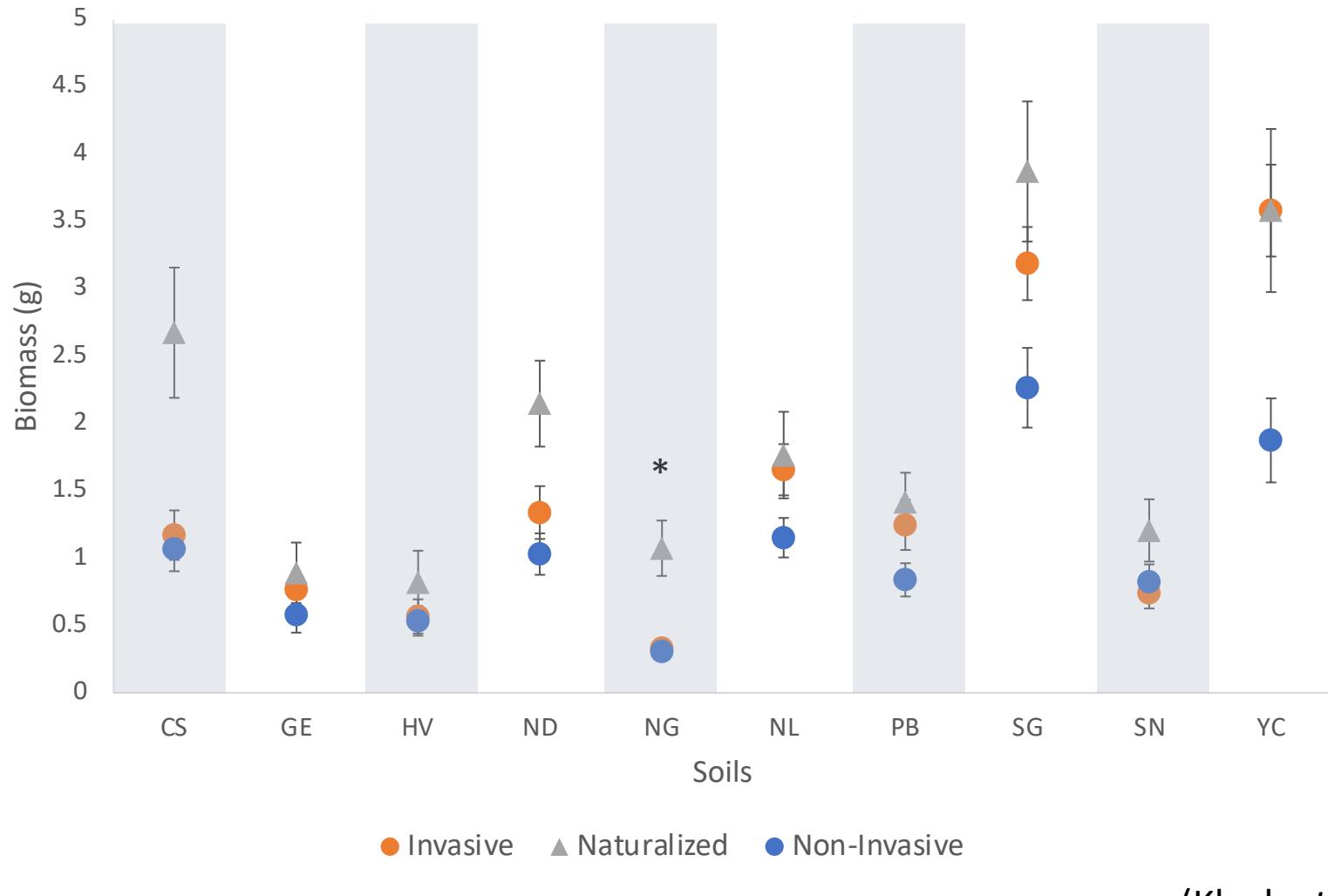
Naturalized

Non-Invasive



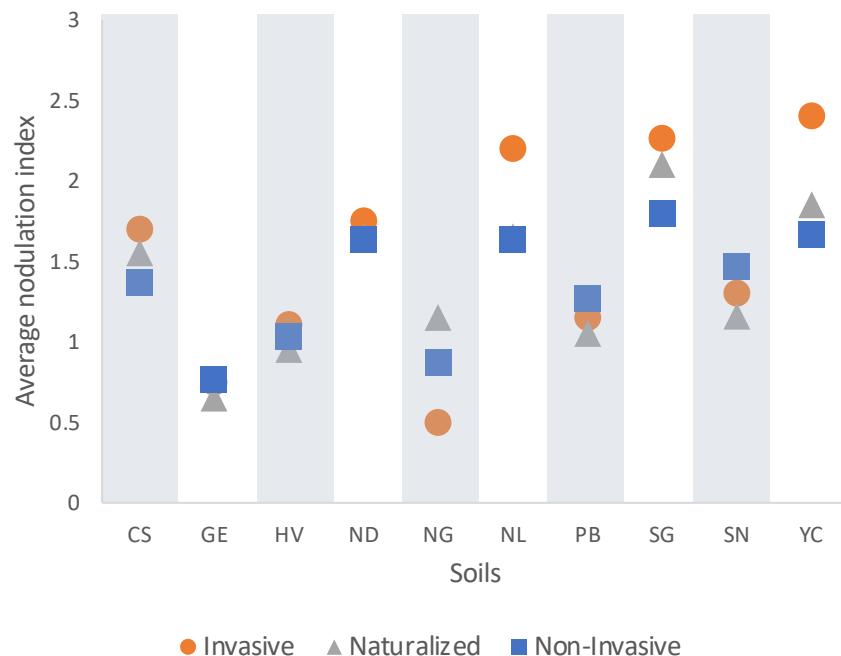


Aboveground biomass - Australia soils

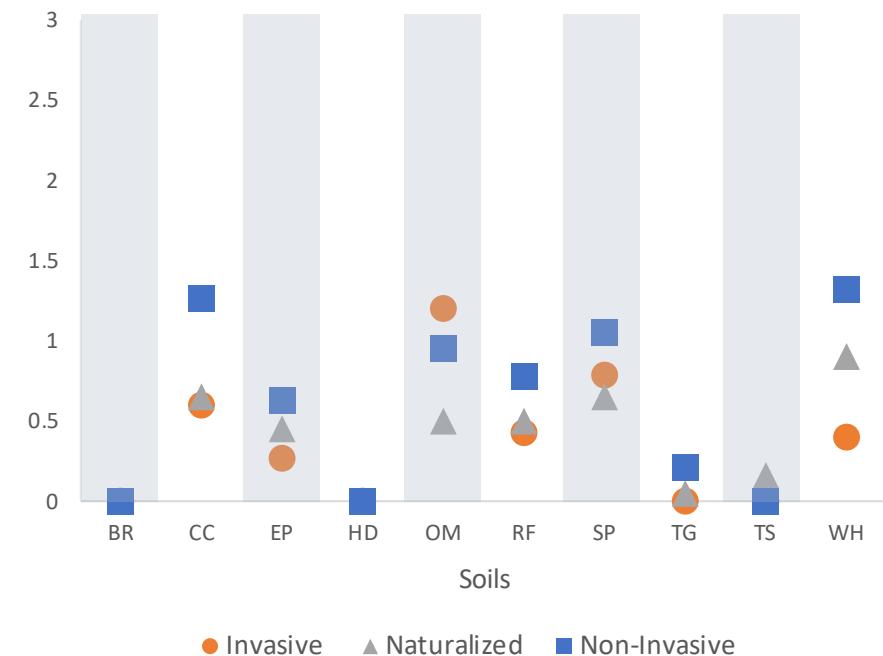


Nodulation index

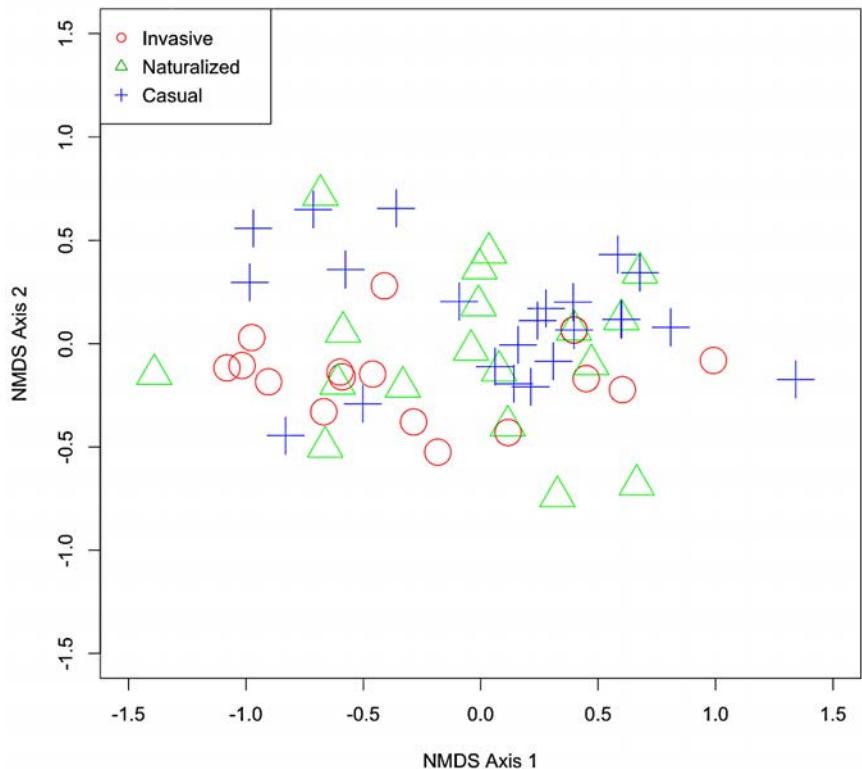
Native Australian Soils



Non-Native Californian Soils

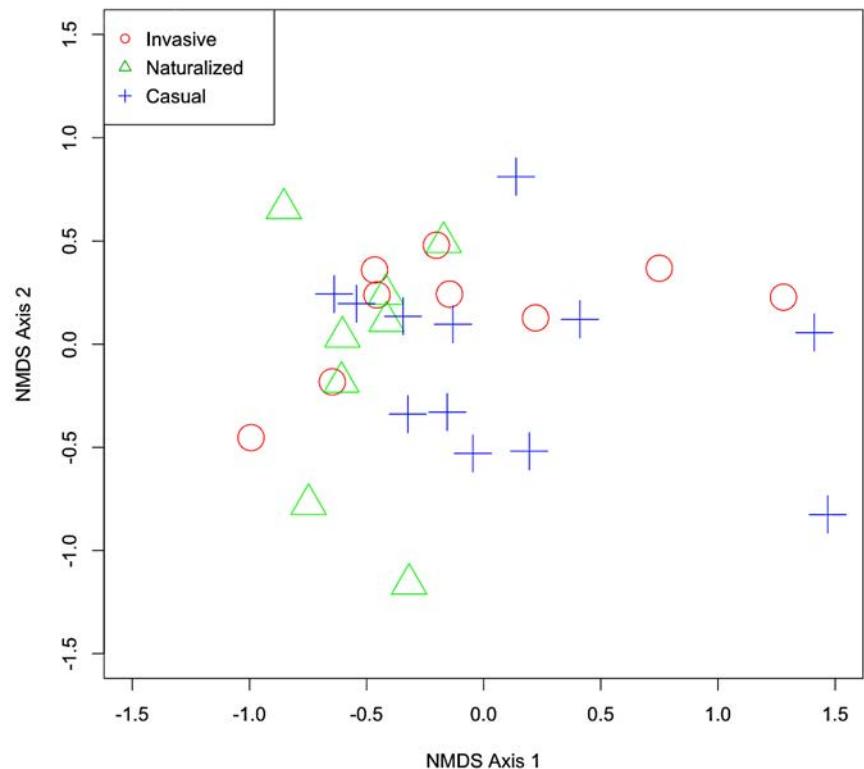


Native Australian soils



Rhizobial community composition:
(ADONIS, $R = 0.08$, $P = 0.024$)
Rhizobial richness: ($F = 1.287$, $P = 0.284$)

Non-Native Californian soils



Rhizobial community composition:
(ADONIS, $R = 0.08$, $P = 0.21$)
Rhizobial richness: ($F = 1.224$, $P = 0.31$)

Implications for acacia invasion



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