

# Social & ecological benefits of incorporating bush tucker to restoration

## Assessing the Savannah Enrichment model

Sara Cavalcanti Marques, Murdoch University

### Context

**Restoration:** critical in halting biodiversity loss, but often lacks sociocultural considerations

**Bush tucker sector:** growing demand requires new cultivation models

*Opportunities on-Country, but gap in Indigenous involvement*

### Aims

Assess social & ecological benefits of the Savannah Enrichment model to gauge potential use as a tool for biocultural restoration

### What is Savannah Enrichment (SE) ?



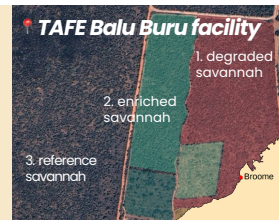
### Methods & study design

**Social component:** explore Indigenous perspectives on SE

- o TAFE course on SE tailored to West Kimberley Rangers
- o Yarning circles held with 2 Ranger groups
- o Reflexive thematic analysis

**Ecology component:** evaluate SE model

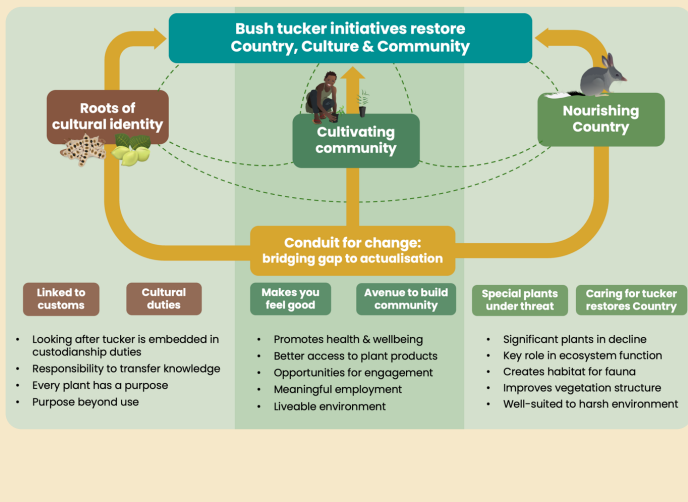
- o Plot-based vegetation surveys
- o 3 treatments x 3 replicates
- o Comparative statistical analysis



### Yarning circle findings

#### Meaningful sociocultural & ecological benefits

Rangers' perspectives on bush tucker in land stewardship



### Ecological monitoring findings

#### Enhanced vegetation composition and structure

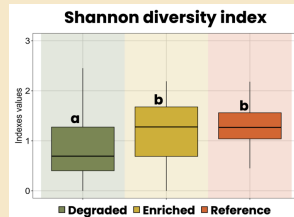


Figure 1. One-way ANOVA for Shannon diversity index across treatments significant ( $p < 0.001$ )

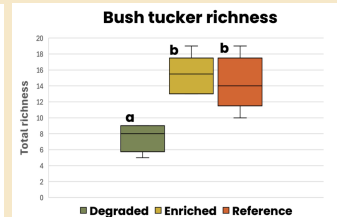


Figure 2. One-way ANOVA for tucker species richness across treatments significant ( $p < 0.002$ )

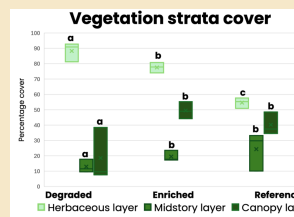


Figure 3. Two-way ANOVA for veg. strata cover across treatments significant ( $p < 0.005$ )

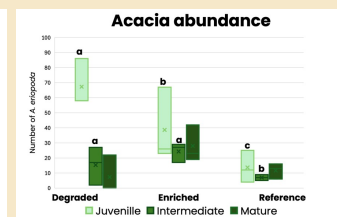


Figure 4. Two-way ANOVA for Acacia abundance across treatments significant ( $p < 0.005$ )

### Conclusions

- o Applying bush tucker lens to restoration may be an efficient way to maximise benefits for people and Country
- o Savannah Enrichment model shows potential to be adapted to suit different landscapes and goals
- o Further research needed on implications for biodiversity and carbon markets