

# Threatened Ecological Communities in WA Present and Future

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# Southwest Western Australia is one the world's 34 biodiversity hotspots (IUCN World Scale Threatened)

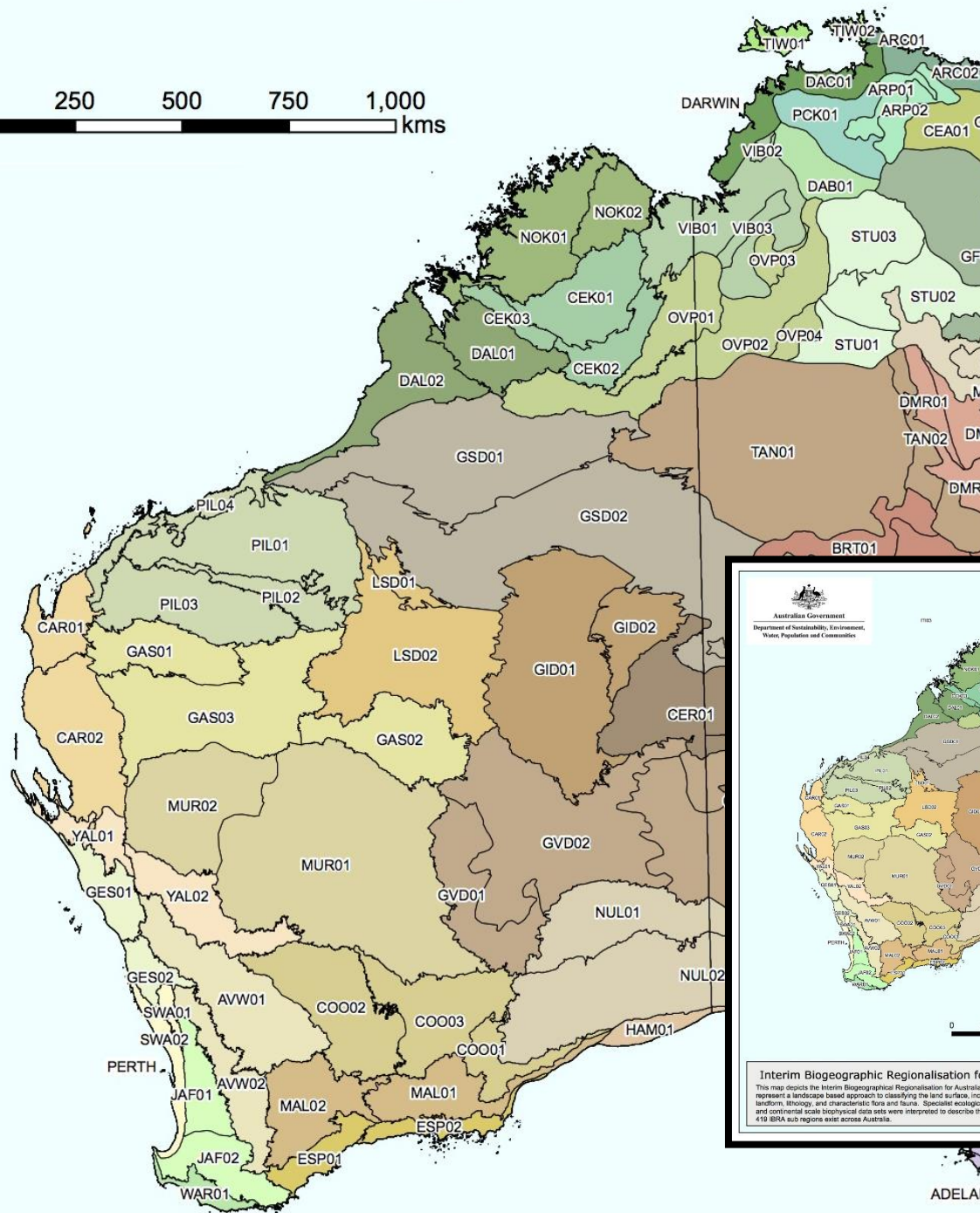
Source: <http://www.biodiversityhotspots.org>





# Federal TECs

- Must have “significant” impact to be referred
- Emphasis on offsets
- No staff in WA, onus on local agencies and community with no resources provided
- Only listed as TECs under EPBC Act
- FPAL list-Current Tuart Woodlands
- Anyone can nominate
- Scale, usually large



## ADELAIDE









## Lake Richmond:

location of two Threatened  
Ecological Communities

Sedgeland in Holocene Dune swales

Thrombolites

Both listed as Critically  
Endangered





**Muchea Limestones:**  
**Both State and Federal listed as Critically Endangered**



# WA

- Microbes to mammals
- Mappable
- 2019 all via Threatened Ecological Communities Advisory Committee (TECSAC)
- 2019 all will be listed via IUCN criteria
- WA has Priority Communities as well as TEC
- 2019 Legal listing TECs
- 2019 Community will be able to nominate



# WA Ecological Community Categories

## Threatened

- Presumed Totally Destroyed
- Critically Endangered
- Endangered
- Vulnerable

## Priority

- PEC 1
- 2
- 3
- 4
- 5

# WA Categories

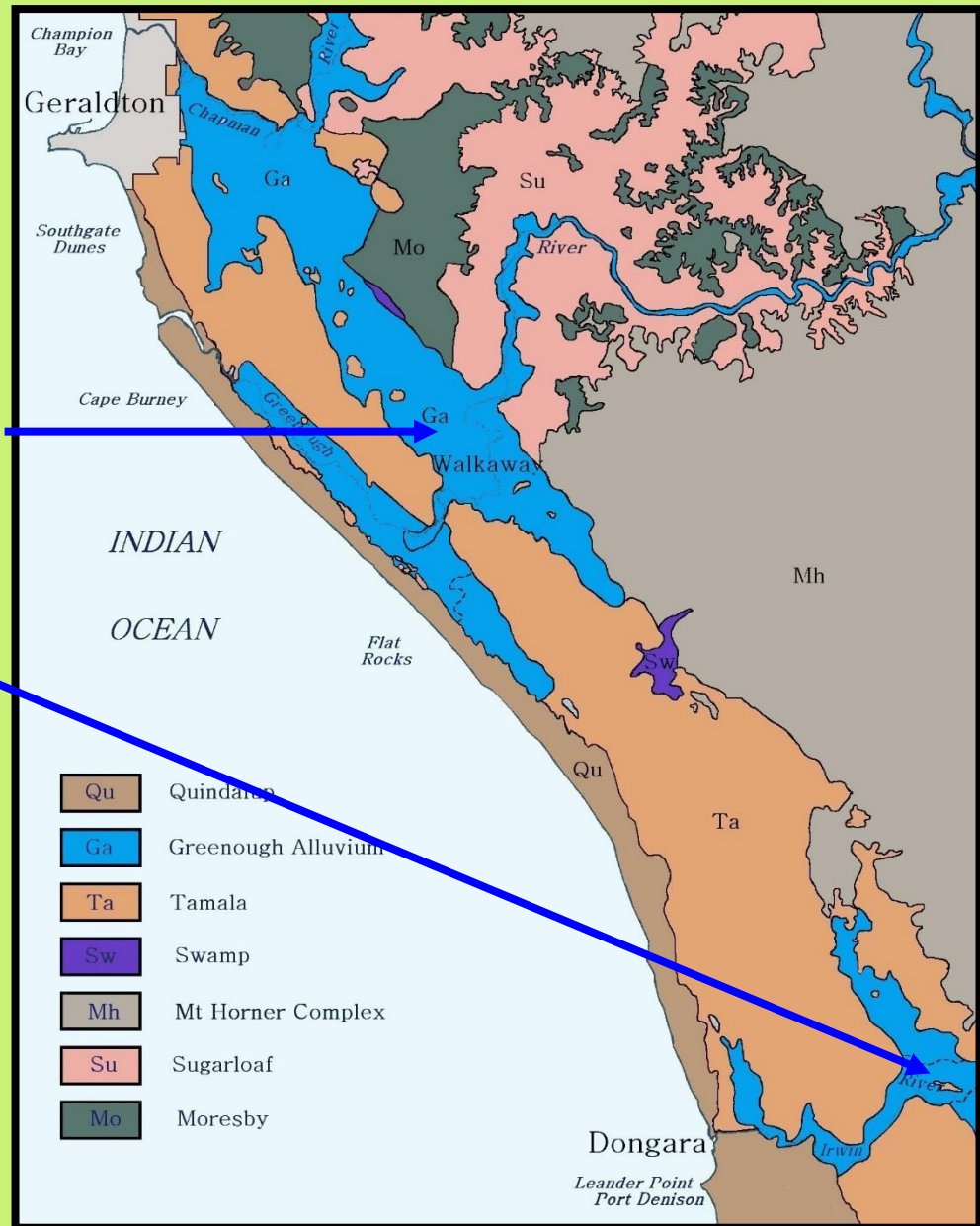
- TECs: 69 endorsed by Minister/31 listed under EPBC
- 21 Critically endangered
- 17 endangered
- 28 Vulnerable
- 3 Presumed Extinct
- 391 PECs

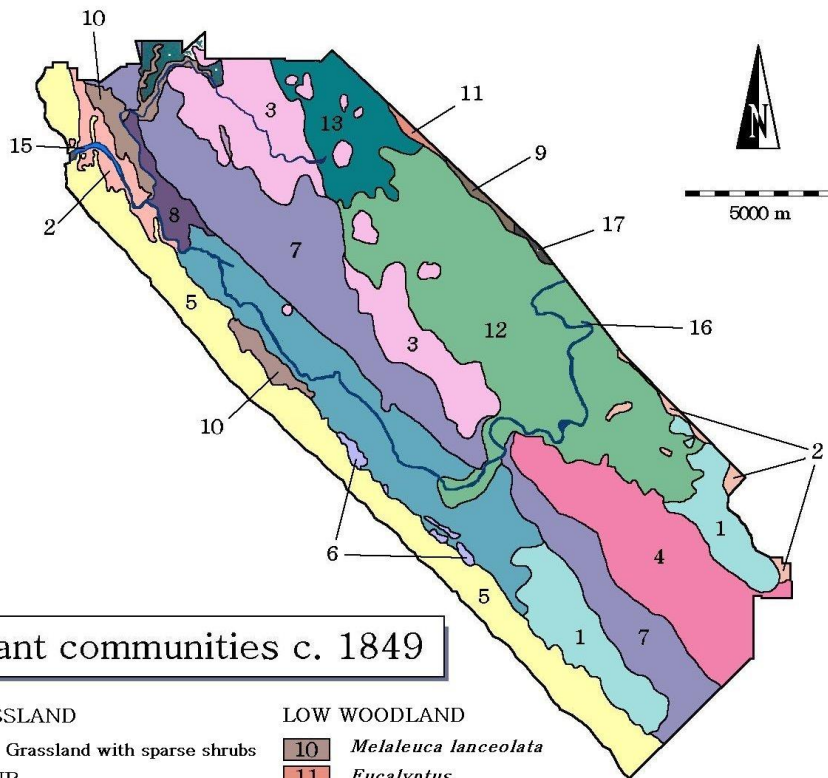


# Two Presumed Destroyed Ecological Communities

Greenough Flats Vegetation  
System

Irwin Vegetation System





### Plant communities c. 1849

#### GRASSLAND

1 Grassland with sparse shrubs

#### SCRUB

2 *Acacia* scrub with grass

3 *Acacia*-*Banksia*

4 *Banksia*-*Nuytsia*

5 Coastal dune scrub

#### THICKET

6 *Acacia rostelifera*

7 *Melaleuca*-*Acacia*

8 *Eucalyptus*-*Acacia*

#### OPEN LOW WOODLAND

9 *Eucalyptus*-*Acacia* over grass

#### LOW WOODLAND

10 *Melaleuca lanceolata*

11 *Eucalyptus*

#### SAVANNAH WOODLAND

12 *Eucalyptus loxophleba*-*Acacia*

13 *Eucalyptus*

14 *Acacia rostelifera*

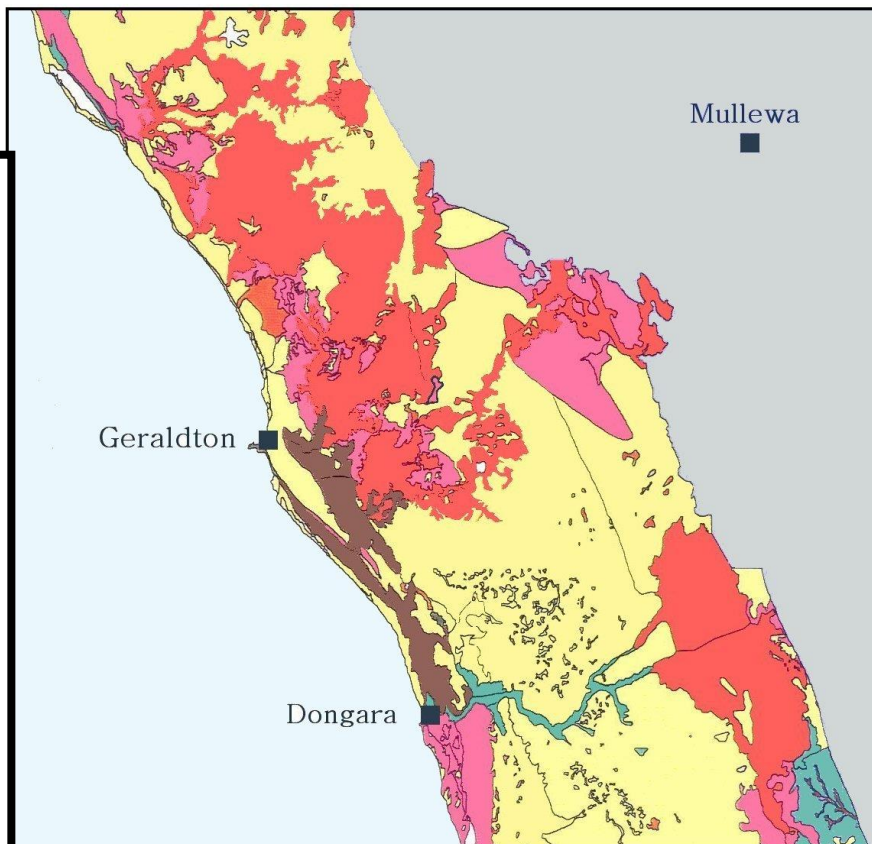
#### OTHER

15 Greenough River Estuary

16 Greenough River

17 Unknown/transient vegetation

Probable pre-European plant communities on the Greenough Flats c. 1849.



0 15 30  
Kilometres

- Shrubland
- Open shrubland/heath
- Woodland
- Open Woodland
- Forest

Composite map of plant communities mapped by Beard (1976) and Beard and Burns (1976) in the mid-west region of south-western Australia. The plant communities in the grey shaded area lie on the Yilgarn craton east of the Darling Fault within the Eremean province, and are not relevant to the present study.



# Wheatbelt Woodlands

EPBC Critically Endangered

versus

WA : P3 (iii)

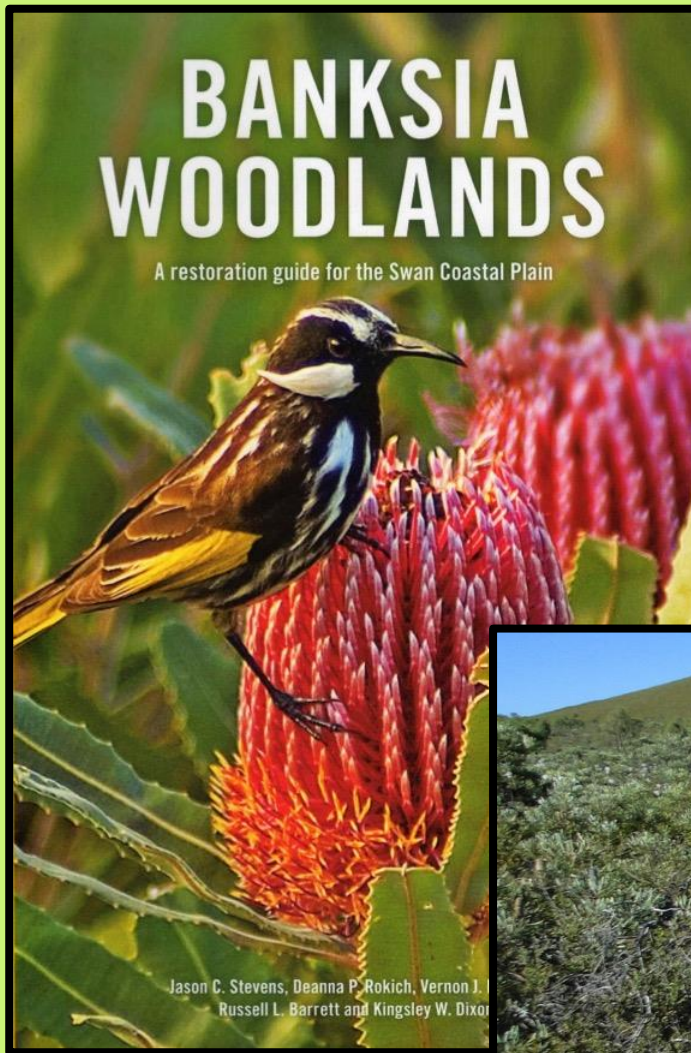


WA : over 55 types of Wheatbelt  
Woodlands, some are very reduced

A photograph of a woodland landscape. In the foreground, there is a dense layer of low-lying vegetation, including green shrubs and patches of yellow wildflowers. Several tall, slender trees with light-colored bark stand prominently. Some of these trees have dark, charred trunks, suggesting a history of fire. The background shows a continuation of the woodland with more trees and a slightly hazy sky.

Lowland Gimlet TEC at Cherry Tree Pool,  
(mapped as Salmon Gum)





## Banksia Woodlands of Swan Coastal Plain

EPBC: Endangered  
versus  
WA: P3 (iii)



# Features of WA Banksia Woodlands

- Low tree diversity (15 common species)
- Large Number understory species (616 species in 233 sites-20/22 FCT)
- High species diversity/site (30-90 species per 100m<sup>2</sup>)
- High beta diversity (Edaphic and Geographic)
- Few taxa in more than 75% of sites (37% @ 10 or more)
- Rarely recorded taxa common (45% @ 3 or less)
- 30% taxa have ecotypic variants
- Flora of WA Banksia woodlands highly endemic (86%) WA



Central *Banksia attenuata* - *Eucalyptus marginata*  
woodlands (FCT 28 )

EPBC Endangered

versus

WA P3 (i)







*Banksia attenuata* woodlands over species  
rich dense shrublands (FCT 20a)

EPBC Endangered  
WA Critically Endangered



# Further Information

- [www.dpaw.wa.gov.au/threatened](http://www.dpaw.wa.gov.au/threatened) species and communities/threatened ecological communities
- [www.environment.gov.au](http://www.environment.gov.au)

# MORE COMMITTEES

- Federal TSSC costs \$7500/day in sitting fees for each meeting (also \$7500/day for other time undertaken). Plus associated travel and accommodation costs.
- State TECSAC pays no fees costs 10 cut lunches and 20 cups coffee per meeting.



Thank You