

## Appendix eight: GRFVS plant communities

13. Sandplain: *Banksia prionotes* / *Acacia rostellifera* (Bp/Ar)

Sandplain *Banksia prionotes* / *Acacia rostellifera* shrublands and woodlands are the usual plant community of the sandplain soils. Characteristic species are *Banksia prionotes*, *Grevillea candelabroides*, *Melaleuca depressa*, *Hibbertia* spp., *Conostylis* spp. and the sedges and rushes. In degraded areas, this community is replaced with plant community 10 Near Coastal: *Acacia rostellifera* shrubland.

A variant of this community is a low heath, illustrated in Plate A8.13.6, which occurs on shallow soil within the sandplain. The species are the usual understorey of this plant community, but reduced in stature. Another uncommon variant is dominated by *Allocasuarina huegeliana*.

<b>Area in GRFVS:</b>	<b>% of GRFVS area:</b>	<b>Quadrats:</b>	GRV0822, 33, 34, 35, 36, 37, 38, 62, 65, 69, 70, 75, 76
754.39 ha	12.23	(13)	
<b>NVIS description:</b>	parse Shrubland, Sparse Vineland, Open Woodland, Open Shrubland, Shrubland		
<b>Keighery description:</b>	Low Open Woodland, Tall Open Shrubland, Low Woodland, Tall Shrubland		
<b>Muir description:</b>	Open Low Woodland B, Open Scrub, Scrub, Thicket		

The following common species were recorded:

<b>Trees:</b>	<i>Banksia prionotes</i>
<b>Tall shrubs:</b>	<i>Acacia rostellifera</i> , <i>Banksia attenuata</i> , <i>Banksia sessilis</i> var. <i>flabellifolia</i> , <i>Grevillea candelabroides</i>
<b>Mid shrubs:</b>	<i>Melaleuca depressa</i> , <i>Persoonia hexagona</i> , <i>Pimelea microcephala</i> subsp. <i>microcephala</i> , <i>Stylobasium spathulatum</i>
<b>Low shrubs:</b>	<i>Hibbertia crassifolia</i> , <i>Hibbertia hypericoides</i>
<b>Climbers:</b>	<i>Clematicissus angustissima</i> , <i>Dioscorea hastifolia</i>
<b>Sedges and rushes:</b>	<i>Desmocladus asper</i> , <i>Lepidobolus preissianus</i> , <i>Lepidosperma</i> spA2 Island Flat, <i>Lepidosperma tenue</i> , <i>Mesomelaena pseudostygia</i>
<b>Grasses:</b>	<i>Aristida holathera</i> var. <i>holathera</i> , <i>Austrostipa elegantissima</i> , * <i>Avena barbata</i> , * <i>Briza maxima</i> , * <i>Ehrharta longiflora</i> , * <i>Pentaschistis airoides</i> , * <i>Vulpia myuros</i>
<b>Herbs:</b>	<i>Acanthocarpus preissii</i> , <i>Caladenia flava</i> subsp. <i>maculata</i> , <i>Calandrinia corrigioloides</i> , <i>Conostylis prolifera</i> , <i>Conostylis stylidioides</i> , <i>Dianella revoluta</i> , * <i>Hypochaeris glabra</i> , <i>Podothea gnaphalioides</i> , <i>Trachymene cyanopetala</i> , <i>Trachymene ornata</i> , * <i>Ursinia anthemoides</i>

**Landform:** Flat or gentle, slope or plain, hilltop

This plant community occurs on the following soil subsystems:

- Tamala South 3 yellow Sandplain Phase soil subsystem: 221Ta\_3Ysp, level to undulating Sandplain. Yellow deep sand. Geology: lithified Pleistocene calcareous dune deposits with recent dunes.
- Tamala South 4 yellow deep sand Phase soil subsystem: 221Ta\_4Ty, gently undulating plain on the eastern side of the Tamala Limestone. Slopes 2-8%. Yellow deep sand. Geology: lithified Pleistocene calcareous dune deposits.
- Greenough 4 Bootenal well drained Phase soil subsystem: 221Ga\_4Bwd, level to very gently undulating prior alluvial depositional plain (1-3% slope). Red sandy and loamy duplex soils with brown deep sands. Geology: alluvium.

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**Surface rock:** None

**Soil:** Yellow or yellow grey sand, rarely grey sand

**% Cover leaf litter:** 10-100

**% Cover bare ground:** 0-35

**% Weed cover:** 1-60

**Notes:** Floristically this community is most similar to the plant community 14 Chapman River Reserve: *Acacia rostellifera* / *Melaleuca* spp., which occurs on the more rocky soils close to the Chapman River. Most of the Chapman River Reserve is occupied by plant community 13 *Banksia prionotes* / *Acacia rostellifera*, although frequent fire appears to have reduced the numbers of *B. prionotes* and there are large portions of the area where this characteristic species does not occur. Other characteristic species, listed above, indicate this plant communities' presence.

In degraded areas, this plant community is replaced by the less species rich plant community 10 Near Coastal: *Acacia rostellifera* shrubland, although there may be a few of the characteristic sandplain species remaining. The understorey species *Acanthocarpus preissii*, *Austrostipa elegantissima*, *Pimelea microcephala* subsp. *microcephala*, *Rhagodia* spp. and *Stylobasium spathulatum* are found in both plant communities 10 and 13, however where the other shrubs, sedges and herbs listed above remain, the vegetation would be assessed as being included in this plant community 13: *Banksia prionotes* / *Acacia rostellifera*. In degraded areas it is often difficult to determine which plant community applies, and often an area will grade between these.

*Banksia prionotes* appears to be in decline in the GRFVS area. It is suspected that this is due to recent prolonged drought and it being near the northern limit, and therefore the rainfall limit, of its distribution.



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Plate A8.13.1: Photo direction: SE  
Location: GRV0822, Oakajee  
Photographer: L. Atkins



Plate A8.13.2: Photo direction: SE  
Location: GRV0834, Waggrakine  
Photographer: L. Atkins



Plate A8.13.3: Photo direction: SE  
Location: GRV0837, Waggrakine  
Photographer: L. Atkins



Plate A8.13.4: Photo direction: SE  
Location: GRV0862, Narngulu  
Photographer: L. Atkins



Plate A8.13.5: Photo direction: SE  
Location: GRV0865, Glenfield  
Photographer: L. Atkins



Plate A8.13.6: Photo direction: S  
Location: 268938 E, 6811923 N, Karloo  
Photographer: J. Nelson

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14. Chapman River Reserve: *Acacia rostellifera* / *Melaleuca* spp. (Ar/Mspp)

Chapman River Reserve *Acacia rostellifera* / *Melaleuca* spp occurs on the slightly rocky (limestone) or shallow soils, illustrated in Plate A8.14.4, close to the Chapman River, within the Chapman River Reserve.

<b>Area in GRFVS:</b>	<b>% of GRFVS area:</b>	<b>Quadrats:</b>	GRV0877, 78, 79, 81
47.50 ha	0.77	(4)	

**NVIS description:** Sparse Shrubland, Open Shrubland

**Keighery description:** Tall Open Shrubland, Open Shrubland, Shrubland

**Muir description:** Low Open Scrub, Open Scrub, Scrub

The following common species were recorded:

Tall shrubs:	<i>Acacia rostellifera</i> , <i>Acacia saligna</i> , <i>Acacia scirpifolia</i> , <i>Grevillea argyrophylla</i> , <i>Melaleuca depressa</i> , <i>Melaleuca megacephala</i>		
Mid shrubs:	<i>Acacia spathulifolia</i> , <i>Allocasuarina campestris</i> , <i>Grevillea bitermata</i> , <i>Guichenotia ledifolia</i> , <i>Stylobasium spathulatum</i>		
Low shrubs:	<i>Comesperma scoparium</i> , <i>Hibbertia hypericoides</i> , <i>Phyllanthus calycinus</i>		
Climbers:	<i>Clematicissus angustissima</i> , <i>Dioscorea hastifolia</i> , <i>Thysanotus manglesianus</i>		
Sedges and rushes:	<i>Desmocladius asper</i>		
Grasses:	<i>Austrostipa compressa</i> , <i>Austrostipa elegantissima</i> , <i>Austrostipa macalpinei</i> , <i>*Bromus hordeaceus</i>		
Herbs:	<i>Acanthocarpus preissii</i> , <i>Calandrinia corrigioloides</i> , <i>Conostylis aculeata</i> subsp. <i>riphidion</i> , <i>Conostylis stylidioides</i> , <i>Crassula colorata</i> , <i>*Hypochaeris glabra</i>		
Landform:	Gentle or steep slope, flat ridge, riverbank		
Geology:	This plant community occurs on the Tamala soil system, in the following subsystems: <ul style="list-style-type: none"><li>Tamala South 4 yellow deep sand Phase soil subsystem: 221Ta_4Ty, gently undulating plain on the eastern side of the Tamala Limestone. Slopes 2-8%. Yellow deep sand. Geology: lithified Pleistocene calcareous dune deposits.</li><li>Tamala South 5 shallow sand Phase soil subsystem: 221Ta_5Ts, undulating to gently undulating relict dune crests with shallow sand and common limestone rock outcrop. Shallow red and brown sands. Geology: lithified Pleistocene calcareous dune deposits and recent calcareous sand.</li></ul>		
Surface rock:	None or <2% limestone, 10-20 cm fragments		
Soil:	Yellow grey and grey yellow sand		
% Cover leaf litter:	15-30	% Cover bare ground:	30-50
% Weed cover:	<2		



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**Notes:**

Most of the Chapman River Reserve, particularly on the western side of the river, is not this plant community, but is occupied by the Sandplain *Banksia prionotes* / *Acacia rostellifera* community. However a recent fire on the eastern side of Chapman River Reserve made interpretation of plant community communities difficult, and a larger area than has been mapped may actually be occupied by this community.

This community is most similar to the plant community 13 Sandplain: *Banksia prionotes* / *Acacia rostellifera*, but includes some elements of the limestone ridge *Melaleuca cardiophylla* (on the western side of Chapman River) and sandstone *Melaleuca* thicket plant communities (on the eastern side of the river).



Plate A8.14.1: Photo direction: SE  
Location: GRV0877,  
Chapman River Reserve  
Photographer: L. Atkins



Plate A8.14.2: Photo direction: SE  
Location: GRV0878,  
Chapman River Reserve  
Photographer: L. Atkins



Plate A8.14.3: Photo direction: SE  
Location: GRV0881,  
Chapman River Reserve  
Photographer: L. Atkins



Plate A8.14.4: Photo direction: SE  
Location: 269655 E, 6819985 N,  
Chapman River Reserve  
Photographer: J. Nelson