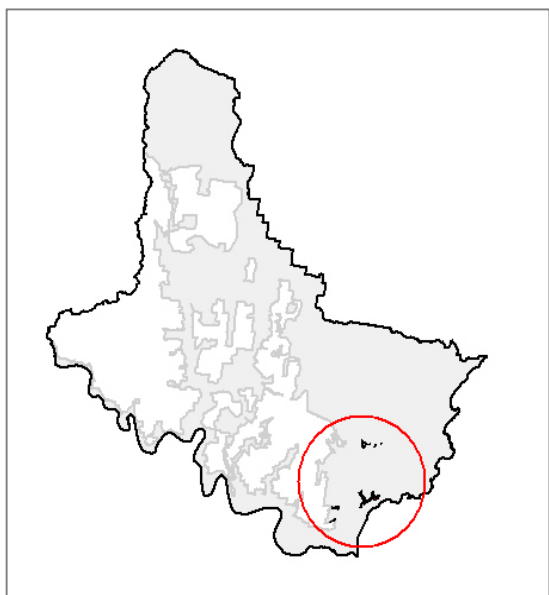


Wagstaff Spotted Gum Forest

Coastal Foothills Spotted Gum – Ironbark Forest

Unit E15b
REMS Unit 15



General Description:

Wagstaff Spotted Gum - Ironbark Forest occurs only on the Narrabeen Sandstone ridgelines around Wagstaff and Pretty Beach, with disjunct locations across the entrance to Brisbane Water at Mount Ettalong, and within Brisbane Water at Mount Pleasant, Saratoga. This sub-community has strong similarities to the Pittwater Spotted Gum Forest currently listed as an EEC, which occurs approximately 5km to the south across Broken Bay in Pittwater LGA. Dominant species in the Wagstaff Spotted Gum – Ironbark Forest include *Corymbia maculata*, *Eucalyptus paniculata* subsp. *paniculata*, and *Corymbia gummifera* in the canopy, while the understorey is dominated by species such as *Pultenaea flexilis*, *Acacia ulicifolia*, *Macrozamia communis*, *Pteridium esculentum*, *Themeda australis*, *Lomandra confertifolia* subsp. *pallida*, and *Entolasia stricta*. Higher rocky ridges receiving on-shore winds support *Angophora costata* and *Eucalyptus umbra* as the dominant components. In more sheltered locations, *Eucalyptus botryoides* and *Angophora floribunda* occur. Both of these latter variations appear to be included in the determination for the Pittwater Spotted Gum Forest EEC.

Known Floristic/ Structural Variations:

- Type variant (mapped as E15bi) – tall forest dominated by *Corymbia maculata* and *Eucalyptus paniculata* subsp. *paniculata* occurs over a sparse to moderate understorey of shrubs and a well developed grass layer.
- Rocky ridgetop variant (mapped as E15bii) – on higher rocky ridges, *Corymbia maculata* and *Eucalyptus paniculata* subsp. *paniculata* are replaced by *Angophora costata* and *Eucalyptus umbra*, together with *Banksia integrifolia* and *Xanthorrhoea arborea* in the understorey.
- Bangalay-Apple variant (mapped as E15biii) – at Saratoga, sheltered areas occurring among rocky sandstone boulders support an open forest of *Eucalyptus botryoides* and *Angophora floribunda*. While potentially indicative of a distinct community, this area has been included as a variant of the Wagstaff Spotted Gum Forest.
- Footslopes variant (mapped as E15biv) – on exposed westerly footslopes adjacent to Broken Bay, in the Wagstaff to Lobster Beach area, *Eucalyptus umbra*, *Angophora costata*, *Eucalyptus botryoides* and *Allocasuarina torulosa* dominate (D.Kelly, pers. comm.). Further survey is required to ascertain the relationship of this variant with other documented variations.

Distribution:

Within Gosford LGA – restricted to the ridgelines and slopes around Wagstaff and Pretty Beach, and also at Mount Ettalong and Mount Pleasant.

Within LHCC Region – NPWS (2000) have mapped 16939ha in their Coastal Foothills Spotted Gum-Ironbark Forest (Unit 15) as remaining in the region.

Examples Within Gosford LGA

- Foot track to Half Tide Rocks, Wagstaff (variants a & b)
- Mt Ettalong lookout, Pearl Beach (variant a)
- Mt Pleasant, Saratoga (variants a & c)

Extent: *Extant* - 116.99 ha

Relationship to Other Communities:

Wagstaff Spotted Gum - Ironbark Forest is the only vegetation type supporting *Corymbia maculata* and *Eucalyptus paniculata* occurring on coastal headlands at the entrance of Brisbane Water/ Broken Bay. Other communities dominated by Spotted Gum and Ironbark species tend to support more mesic species in their understorey's, as they are located inland from on-shore winds.

Equivalent Vegetation Types:

- Benson 1981 (Mangrove Creek): n/a
- Benson & Fallding 1981 (Brisbane Water) (?) Low open-forest (Unit 5)
- Benson 1986 (Gosf-Lake Mac): (?) Open-Forest (Unit 9g)
- Clarke & Benson 1986 (Dharug): n/a
- Strom 1986 (Bouddi Peninsula): Open forest (Unit 4.3.2) & Woodland (Unit 4.5)
- Clarke & Benson 1987 (Mt White/ Mt Olive): n/a
- McRae 1990 (Bouddi Peninsula): *included in Woodland/ low woodland on ridges, slopes & gullies (Unit 1.5)*
- Binns 1996 (SF MFD): n/a
- Payne 1997 (Cockle Bay/ Bouddi): Woodland/ low woodland on ridges, slopes & gullies (Unit 1.5)
- Bell 1998 (Popran NP): n/a
- Bell 2002 (Wyong LGA): n/a

Significant Species:

- Undescribed species – *none recorded*
- Threatened (TSC Act) – *none recorded*
- Rare (ROTAP) – *none recorded*

Community Conservation Status:

Reserve Representation - part of this vegetation type is conserved within Bouddi and Brisbane Water NPs.

TSC Act (1995) Status - forms part of the *Pittwater Spotted Gum Forest* EEC.

Mapping Reliability & Included Units:

High Resolution Area – this vegetation type has been mapped from aerial photographic interpretation and ground truthing.

Low Resolution Area – may be expected within the low resolution area on coastal headlands at the head of the Hawkesbury River.

Vegetation Structure:

Stratum	Mean height (m)	Min height (m)	Max height (m)	Mean cover (%)	Sdev	n
Emergent						
Tallest	16.50	4.00	25.00	32	5.8	3

Wagstaff Spotted Gum Forest – E15b

Middle 1	7.00	1.00	12.00	14	9.8	3
Middle 2	1.75	1.00	2.50	65		1
Middle 3						
Lowest	0.40	0.10	1.00	32	29.7	3

Key Diagnostic Species [based on 3 plots]:

Life Form	Species	Community		All others		Fidelity
		c/a	Freq.	c/a	Freq.	
Tree	<i>Corymbia maculata</i>	4	67%	2	2%	positive
	<i>Eucalyptus paniculata</i> subsp. <i>paniculata</i>	3	67%	3	9%	positive
	<i>Angophora costata</i>	4	33%	2	31%	uninformative
	<i>Allocasuarina torulosa</i>	2	33%	2	27%	uninformative
	<i>Corymbia gummifera</i>	2	33%	2	30%	uninformative
	<i>Eucalyptus umbra</i>	1	33%	2	10%	uninformative
	<i>Ficus rubiginosa</i>	1	33%	1	3%	uninformative
Small tree	<i>Allocasuarina littoralis</i>	3	67%	1	14%	positive
Shrub	<i>Macrozamia communis</i>	3	100%	2	11%	positive
	<i>Acacia ulicifolia</i>	2	100%	1	23%	positive
	<i>Pultenaea flexilis</i>	4	67%	1	11%	positive
	<i>Banksia integrifolia</i> subsp. <i>integrifolia</i>	2	67%	1	7%	positive
	<i>Rapanea variabilis</i>	2	67%	1	15%	positive
	<i>Xanthorrhoea arborea</i>	2	67%	2	7%	positive
	<i>Persoonia linearis</i>	1	67%	1	26%	uninformative
	<i>Platysace lanceolata</i>	3	33%	1	16%	uninformative
	<i>Persoonia levis</i>	2	33%	1	34%	uninformative
	<i>Acacia implexa</i>	2	33%	1	4%	uninformative
	<i>Acacia longifolia</i>	1	33%	2	11%	uninformative
	<i>Astrotricha floccosa</i>	1	33%	1	5%	uninformative
	<i>Breynia oblongifolia</i>	1	33%	1	33%	uninformative
	<i>Hakea salicifolia</i>	1	33%	1	1%	uninformative
	<i>Notelaea longifolia</i>	1	33%	1	16%	uninformative
	<i>Platysace linearifolia</i>	1	33%	2	32%	uninformative
	<i>Pultenaea elliptica</i>	1	33%	2	10%	uninformative
Herb	<i>Wikstroemia indica</i>	1	33%	0	0%	unique
	<i>Actinotus helianthi</i>	2	33%	1	7%	uninformative
	<i>Phyllanthus hirtellus</i>	2	33%	1	18%	uninformative
	<i>Hibbertia diffusa</i>	1	33%	2	4%	uninformative
	<i>Pratia purpurascens</i>	1	33%	2	21%	uninformative
	<i>Pseuderanthemum variabile</i>	1	33%	2	16%	uninformative
Grass	<i>Themeda australis</i>	3	67%	2	24%	positive
	<i>Entolasia stricta</i>	2	100%	2	53%	constant
	<i>Aristida vagans</i>	2	33%	1	5%	uninformative
	<i>Austrodanthonia tenuior</i>	1	33%	2	0%	uninformative
	<i>Digitaria ramularis</i>	1	33%	2	3%	uninformative
	<i>Eragrostis brownii</i>	1	33%	1	3%	uninformative
	<i>Panicum simile</i>	1	33%	1	5%	uninformative
Graminoid	<i>Lomandra confertifolia</i>	2	100%	2	3%	positive
	<i>Lomandra glauca</i>	2	67%	2	18%	positive
	<i>Lomandra longifolia</i>	1	100%	2	44%	negative
	<i>Dianella caerulea</i>	1	100%	1	50%	uninformative
	<i>Dianella revoluta</i> var <i>revoluta</i>	1	100%	1	5%	uninformative
	<i>Lomandra filiformis</i>	1	33%	1	9%	uninformative
Ground fern	<i>Pteridium esculentum</i>	2	100%	2	42%	constant
Climber	<i>Billardiera scandens</i>	2	67%	1	29%	positive
	<i>Eustrephus latifolius</i>	1	67%	1	24%	uninformative
	<i>Hardenbergia violacea</i>	1	67%	1	10%	uninformative
	<i>Cassytha glabella</i> forma <i>glabella</i>	2	33%	1	14%	uninformative
	<i>Pandorea pandorana</i> subsp. <i>pandorana</i>	2	33%	1	24%	uninformative
	<i>Cassytha pubescens</i>	1	33%	1	8%	uninformative
	<i>Cayratia clematidea</i>	1	33%	1	6%	uninformative