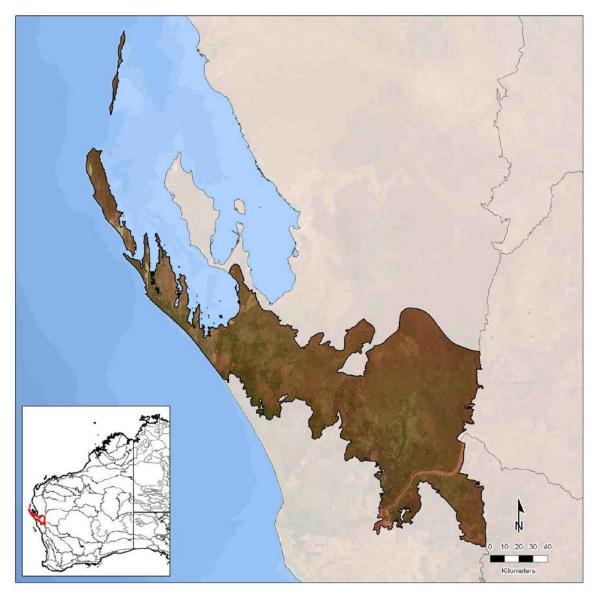
# Yalgoo 1 Sub-region



Statistics and maps produced by GIS Branch, Department of Parks and Wildlife (2014)

Information on the methods used to generate the statistics is available here.

Note: the analysis was undertaken in 2012 under the auspices of the Department of Environment and Conservation. Therefore the acronym of "DEC" is used in this document.

## PROFILE OF SUB-REGION

## Total area of sub-region (ha)

Size of sub-region in	Percentage of WA covered by	Percentage of sub-region	Percentage of sub-region covered by	Percentage of sub-region within DEC-managed
WA (ha)	sub-region (%)	within WA (%)	intact habitat* (%)	conservation reserves (IUCN Ia - IV) (%)
1,588,634	0.63	100	98.29	

\*Intact habitat includes remnant vegetation and additional intact habitats (wetlands) not mapped in the remnant vegetation dataset.

Please see the GIS Branch intranet site for the latest annual statistics in the following report:

DPaW-Managed and Other IUCN Terrestrial Lands by IBRA Sub-Regions Report. Statistic: Percentage of sub-region within DEC-managed conservation reserves (IUCN Ia – IV).

### Remnant vegetation

		Extent of veget		Extent of add habitats (we mapped in t vegetation	etlands) not he remnant	Total e	xtent
		(ha)	(%)	(ha)	(%)	(ha)	(%)
Native vegetation on DEC-managed lands	Conservation reserves (IUCN Ia - IV)	478,677	30.13	210	0.01	478,887	30.14
	DEC-managed lands proposed for conservation	282,077	17.76	406	0.03	282,483	17.78
	Conservation reserves (IUCN V & VI)	4,404	0.28	80	0.01	4,484	0.28
	Other DEC-managed lands	0	0.00	0	0.00	0	0.00
Native vegetation on other public lands		165,246	10.40	14	0.00	165,260	10.40
Native vegetation on leasehold lands		624,115	39.29	2	0.00	624,117	39.29
Native vegetation on freehold lands		6,185	0.39	8	0.00	6,193	0.39
Native vegetation with no tenure category assigned		91	0.01	0	0.00	91	0.01
Cleared areas		-	-	-	-	18,003	1.13
Unmapped islands*		-	-	-	-	9,114	0.57
Total		1,560,795	98	720	0	1,588,632	100

NB: some rounding errors may occur.

\* DEC regions may advise if these are to be included under additional intact habitat.

Please see the GIS Branch intranet site for the latest annual statistics in the following report:

• <u>Statewide Vegetation Statistics (Full report)</u>. Statistic: Extent of Remnant Vegetation including on DEC-managed lands.

#### Tenure

				Extent (ha)			Extent (%)		Num	ber of res	erves
			2002	2012	Change	2002	2012	Change	2002	2012	Change
DEC-managed	Conservation reserves (IUCN Ia - IV)		427,227	488,541	61,314	26.89	30.75	3.86	7	6	-1
lands	DEC-managed lands proposed for										
	conservation		138,319	283,441	145,122	8.71	17.84	9.13	1	5	4
	Conservation reserves (IUCN V & VI) <sup>1</sup>		4,489	4,487	-2	0.28	0.28	0.00	0	3	3
	State forest / timber reserves		0	0	0	0.00	0.00	0.00	0	0	0
	Other DEC-managed lands		<1	0	<1	0.00	0.00	0.00	3	0	-3
Other lands	Unallocated crown lands		159,106	159,924	818	10.02	10.07	0.05	-	-	-
	Other crown reserves		2,078	2,144	66	0.13	0.13	0.00	-	-	-
		Crown reserves vested in									
		Aboriginal Lands Trust*	-	0	-	-	0.00	-	-	-	-
	Pastoral leases^		829,462	622,843	-206,619	52.21	39.21	-13.00	-	-	-
		Pastoral leases held by									
		Aboriginal Lands Trust*	-	0	-	-	0.00	-	-	-	-
	Other leasehold lands <sup>^</sup>		0	7,094	7,094	0.00	0.45	0.45	-	-	-
		General purpose leases held by Aboriginal Lands Trust*	-	0	-	-	0.00	_	-	-	-
	Freehold lands		22,535	14,948	-7,587	1.42	0.94	-0.48	-	-	-
		Freehold lands held by Aboriginal Lands Trust*	-	0	-	-	0.00	-	-	-	-
	Commonwealth lands (defence)		0	0	0	0.00	0.00	0.00	-	-	-
	Other public lands (roads and water										
	bodies)		3,599	5,027	1,428	0.23	0.32	0.09	-	-	-
	No tenure category assigned <sup>†</sup>		1,818	185	-1,633	0.11	0.01	-0.10	-	-	-
Total			1,588,633	1,588,634	-	100	100	-	11	14	-

NB: some rounding errors may occur.

<sup>1</sup> The extents shown in this category include parts of marine reserves. This is due to misalignments of coastal boundaries between tenure and IBRA datasets.

\* Aboriginal Lands Trust data are only available for 2012. The extents shown are a subset of the category they sit below. These values should therefore not be summed since they are not mutually exclusive.

^ In 2002, there is not data to differentiate other leasehold lands. Therefore it is likely that the total extent shown for pastoral leases in 2002 includes both pastoral leases and other leasehold lands.

<sup>+</sup> The attributing of the state cadastral database has improved considerably over time. Therefore much of the land which had no tenure category assigned in 2002 will have been attributed and consequently distributed between other reporting categories in 2012. Much of this is expected to be distributed to the "Other public lands (roads and water bodies)" category, as road casings are progressively digitised and attributed, though increases in other categories is also possible as attributing improves.

Please see the GIS Branch intranet site for the latest annual statistics in the following report:

• DPaW-Managed and Other IUCN Terrestrial Lands by IBRA Sub-Regions Report. Statistic: DEC-managed lands (extent only).

## Mining and petroleum

		IBRA sub-region			DEC-managed conservation reserves (IUCN Ia - IV)			DEC-managed lands proposed for conservation			DEC-managed conservation reserves (IUCN V & VI)			Other DEC-managed lands				
		2001/02	2001/02 % of IBRA sub- region	2012	2012 % of IBRA sub- region	Change^	2001/02	2012	Change	2001/02	2012	Change	2001/02	2012	Change	2001/02	2012	Change
Number of	Prospecting	2	N/A	0	N/A	-2	0	0	0	0	0	0	0	0	0	0	0	0
mining (live)	Exploration	13	N/A	18	N/A	5	1	4	3	6	7	1	0	0	0	0	0	0
tenements	Mining	5	N/A	12	N/A	7	0	0	0	0	1	1	0	0	0	0	0	0
	Other	0	N/A	0	N/A	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of	Exploration	1	N/A	0	N/A	-1	1	0	-1	0	0	0	1	0	-1	0	0	0
petroleum (active) titles	Production	0	N/A	0	N/A	0	0	0	0	0	0	0	0	0	0	0	0	0
Land area (ha)	Mining (live) tenements	72,243	4.55	270,715	17.04	12.49	5,315	83,102	77,787	15,192	28,370	13,178	0	0	0	0	0	0
	Petroleum (active) titles	9,114	0.57	0	0.00	-0.57	9,077	0	-9,077	0	0	0	<1	0	<1	0	0	0
	Mining (live) tenements and petroleum (active) titles*	81,357	5.12	270,715	17.04	11.92	14,392	83,102	68,710	15,192	28,370	13,178	0	0	0	0	0	0

\*An area of land can have over it both a mining tenement and petroleum title. The combined total represents the land area which is covered by a mining tenement or petroleum title or both.

^For the Land Area "Change" is calculated as the difference in % coverage at the IBRA sub-region scale of the two year dates.

#### Current dominant land uses

		Extent (ha)			Extent (%)	
	1996/97	2005/06	Change	1996/97	2005/06	Change
Conservation	439,739	810,995	371,256	27.68	51.05	23.37
Pastoralism	925,928	647,619	-278,309	58.28	40.77	-17.51
Miscellaneous (non-intensive use)*	193,987	94,954	-99,033	12.21	5.98	-6.23
Agriculture (intensive use)	7,910	16,389	8,479	0.50	1.03	0.53
Water (man-made/man modified)	0	5,079	5,079	0.00	0.32	0.32
Urban	17	242	225	0.00	0.02	0.02
Mining	221	200	-21	0.01	0.01	0.00
Water (not classified)	7,885	29	-7,856	0.50	0.00	-0.50
Traditional indigenous use	0	0	0	0.00	0.00	0.00
Native forestry	0	0	0	0.00	0.00	0.00
Plantation forestry	0	0	0	0.00	0.00	0.00
No data	12,944	13,126	182	0.81	0.83	0.02
Total	1,588,631	1,588,633	-	100	100	-

NB: some rounding errors may occur.

\* Largely unmodified natural systems under various land uses. See detailed descriptions.

See the methods document available  $\underline{here}$  for definitions of the categories.

### Linear infrastructure

	Length (km)	Area of reporting region (ha)	Length per hectare (km/ha)
Roads (sub-region)	1,968	1,588,634	0.0012
Roads (Strategic Survey Roads in national parks,			
conservation parks and nature reserves)	152	488,541	0.0003
Railways (sub-region)	0	1,588,634	0.0000

### Complementary conservation initiatives to the formal conservation reserve system

		Extent (ha)			Extent (%)	
	2002	2012	Change	2002	2012	Change
Private conservation organisations' land	0	455	455	0.00	0.03	0.03
Nature Conservation covenants	0	0	0	0.00	0.00	0.00
Land for Wildlife properties	1,235	1,235	0	0.08	0.08	0.00
Combined total*	1,235	1,690	455	0.08	0.11	0.03

\* These conservation initiatives are not mutually exclusive. For example freehold land owned by a private conservation organisation may have a formal nature conservation covenant on its title. Therefore its area will be included in both category totals. The combined total represents the total extent of land which is covered by one or more initiative.

Please see the GIS Branch intranet site for the latest annual statistics in the following report:

• DPaW-Managed and Other IUCN Terrestrial Lands by IBRA Sub-Regions Report. Statistic: Nature conservation covenants.

#### Indigenous

			Extent (ha)		Extent (%)			
		2002	2012	Change	2002	2012	Change	
Native Title determinations	On DEC-managed lands	0	0	0	0.00	0.00	0.00	
	On all other lands	0	0	0	0.00	0.00	0.00	
Commonwealth Indigenous Protected Areas		0	0	0	0.00	0.00	0.00	

Please see the GIS Branch intranet site for the latest annual statistics in the following report:

• DPaW-Managed and Other IUCN Terrestrial Lands by IBRA Sub-Regions Report. Statistic: Commonwealth Indigenous Protected Areas.

### Climate projection 2030, 2050 and 2070

#### Projected climate change scenarios (OzClim)

ANNUAL	Pro	Projected (Average)			n Base Climate	e* (Average)	Chan	ge from Base Climate*	(range)					
	2030	2050	2070	2030	2050	2070	2030	2050	2070					
	High impact s	ligh impact scenario												
Minimum Temperature (degrees C)	16.09	17.49	19.14	1.30	2.71	4.36	1.10 - 1.47	2.29 - 3.05	3.68 - 4.90					
Maximum Temperature (degrees C)	29.51	31.08	32.91	1.45	3.02	4.85	1.16 - 1.66	2.44 - 3.45	3.92 - 5.55					
Precipitation (mm)	204.67	167.74	137.36	-47.95	-84.88	-115.25	-55.8037.90	-99.7067.00	-136.6091.10					
	Medium imp	act scenario												
Minimum Temperature (degrees C)	15.82	16.55	17.25	1.04	1.77	2.47	0.88 - 1.16	1.49 - 1.98	2.08 - 2.77					
Maximum Temperature (degrees C)	29.22	30.02	30.81	1.15	1.96	2.75	0.93 - 1.32	1.59 - 2.25	2.22 - 3.14					
Precipitation (mm)	213.17	191.15	173.24	-39.44	-61.48	-79.37	-45.8031.10	-71.8048.50	-93.1062.60					

\* Base Climate is 1990

The Global Climate Change Model (GCM) used in both scenarios is CSIRO Mk3.5 (CSIRO: CSIRO Mk3.5 on OzClim).

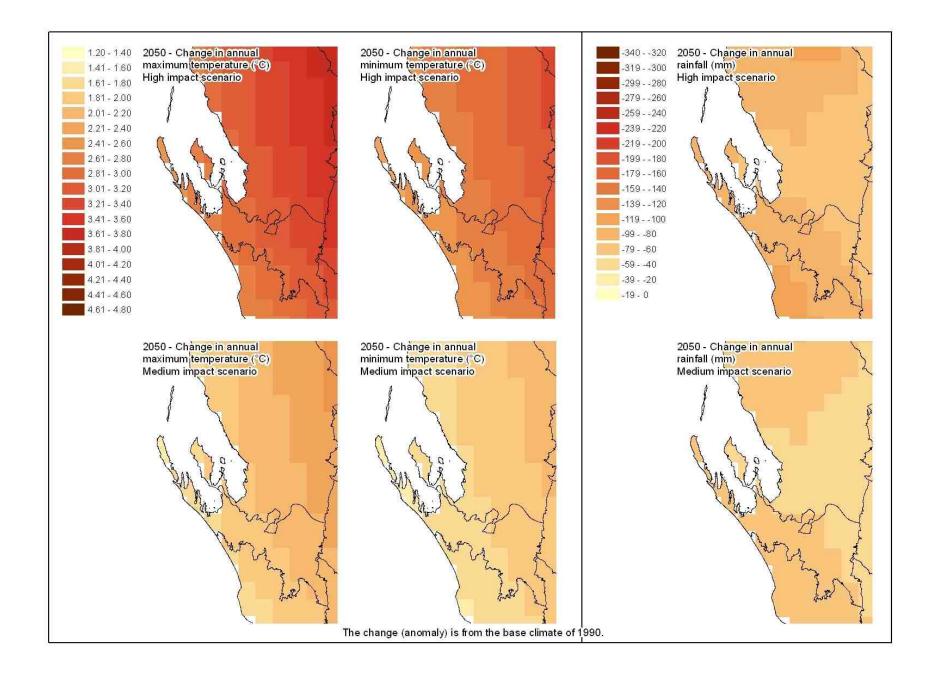
For more information see <a href="https://wiki.csiro.au/confluence/display/ozclim/Science#Science-CSIRO35">https://wiki.csiro.au/confluence/display/ozclim/Science#Science-CSIRO35</a>

#### Medium Impact Scenario:

- Emission Scenario: Medium CO<sub>2</sub> emissions, peaking around 2030 (SRES Marker Scenario A1B)
- *Climate Sensitivity (Rate of Global Warming):* Moderate rate of global warming corresponds to a global warming of 2.6°C for a doubling of CO2 from 280 ppm to 560 ppm.

High Impact Scenario:

- Emission Scenario: High CO2 emissions, increasing throughout the 21st century (SRES Marker Scenario A1FI)
- *Climate Sensitivity (Rate of Global Warming):* High rate of global warming corresponds to a global warming of 4.2°C for a doubling of CO2 from 280 ppm to 560 ppm.



# **BIODIVERSITY ASSETS**

### Native vegetation

Please see the GIS Branch intranet site for the latest annual statistics in the following report:

• <u>Statewide Vegetation Statistics (Full report)</u>. Statistic: All statistics except 'Currently remaining on other lands'.

Vegetation Association descriptions can be viewed here (worksheet "Veg Assoc Descriptions").

#### Dominant vegetation associations

Dominant vegetation associations are those which together occupied 85% of the sub-region at the time of European settlement (when sorted from largest to smallest).

	Percentage of	Pre-			Currer	ntly remaining on DE	C-managed land	ls (ha)	Currently re	maining on oth	er lands (ha)
Beard's veg assoc no.	veg assoc within sub- region (%)	European extent (ha)	Current extent (ha)	Percentage remaining (%)	IUCN Ia-IV	Proposed for conservation	IUCN V-VI	Non-IUCN	Public lands	Leasehold lands	Freehold lands
364	75.71	386,853	384,770	99.46	160,463	19,527	0	0	24,315	180,460	5
368	99.36	328,012	328,012	100.00	35,129	205,162	574	0	1,713	85,097	338
363	94.62	234,336	234,336	100.00	184,926	0	0	0	581	48,829	0
406	99.77	152,652	151,539	99.27	13,045	15,236	0	0	86,504	36,257	443
36	15.14	75,027	69,293	92.36	0	1,600	0	0	29,253	35,845	2,595
1099	85.75	45,245	45,186	99.87	44,819	0	159	0	141	0	67
248	98.44	36,740	36,740	100.00	0	0	0	0	101	36,385	253
1100	84.20	31,549	29,885	94.73	5,874	9,482	184	0	3,214	11,126	4
1423	97.77	27,780	27,750	99.89	0	0	542	0	1,255	25,952	0
405	93.61	23,975	23,718	98.93	0	0	0	0	1,047	22,377	293
17	28.93	22,167	22,167	100.00	0	2,027	459	0	207	19,474	0

#### Unique vegetation associations

Unique vegetation associations are those which were largely restricted to only one sub-region at the time of European settlement (i.e.  $\geq$  85% of the vegetation association falls within one sub-region).

	Percentage of	Pre-			Currer	ntly remaining on DE	C-managed land	ls (ha)	Currently remaining on other lands (ha)			
Beard's veg assoc no.	veg assoc within sub- region (%)	European extent (ha)	Current extent (ha)	Percentage remaining (%)	IUCN Ia-IV	Proposed for conservation	IUCN V-VI	Non-IUCN	Public lands	Leasehold lands	Freehold lands	
260	100.00	19,179	19,179	100.00	8,463	6,710	0	0	0	4,006	0	
384	100.00	3,959	3,959	100.00	0	0	0	0	3,869	0	72	
1102	100.00	3,651	3,651	100.00	0	0	0	0	26	3,625	0	
1107	100.00	717	717	100.00	0	0	0	0	0	717	0	
406	99.77	152,652	151,539	99.27	13,045	15,236	0	0	86,504	36,257	443	
368	99.36	328,012	328,012	100.00	35,129	205,162	574	0	1,713	85,097	338	
1104	99.34	12,953	12,841	99.14	0	0	1	0	25	12,813	0	
248	98.44	36,740	36,740	100.00	0	0	0	0	101	36,385	253	
1423	97.77	27,780	27,750	99.89	0	0	542	0	1,255	25,952	0	
1106	95.59	2,731	2,731	100.00	0	0	7	0	73	2,651	0	
363	94.62	234,336	234,336	100.00	184,926	0	0	0	581	48,829	0	
984	94.21	17,405	17,405	100.00	0	0	164	0	313	16,929	0	
405	93.61	23,975	23,718	98.93	0	0	0	0	1,047	22,377	293	
1099	85.75	45,245	45,186	99.87	44,819	0	159	0	141	0	67	

#### Rare vegetation associations

Rare vegetation associations are those which together occupied  $\leq$  1% of the state at the time of European settlement. The table below lists any rare vegetation associations which fall within this sub-region.

	Percentage of	Pre-			Currer	ntly remaining on DE	C-managed land	ls (ha)	Currently re	maining on othe	er lands (ha)
Beard's veg assoc no.	veg assoc within sub- region (%)	European extent (ha)	Current extent (ha)	Percentage remaining (%)	IUCN Ia-IV	Proposed for conservation	IUCN V-VI	Non-IUCN	Public lands	Leasehold lands	Freehold lands
1107	100.00	717	717	100.00	0	0	0	0	0	717	0
1550	37.18	866	3	0.35	3	0	0	0	0	0	0
1101	12.06	2,381	0	0.00	0	0	0	0	0	0	0
1106	95.59	2,731	2,731	100.00	0	0	7	0	73	2,651	0
1102	100.00	3,651	3,651	100.00	0	0	0	0	26	3,625	0
384	100.00	3,959	3,959	100.00	0	0	0	0	3,869	0	72
112	19.09	5,050	4,194	83.05	0	0	4	0	403	3,787	0
387	44.73	6,664	6,606	99.13	0	99	0	0	12	6,494	0
383	58.38	7,761	7,761	100.00	0	0	0	0	22	7,739	0
206	53.00	11,585	11,585	100.00	10,264	0	0	0	7	1,314	0
1104	99.34	12,953	12,841	99.14	0	0	1	0	25	12,813	0
984	94.21	17,405	17,405	100.00	0	0	164	0	313	16,929	0
260	100.00	19,179	19,179	100.00	8,463	6,710	0	0	0	4,006	0
405	93.61	23,975	23,718	98.93	0	0	0	0	1,047	22,377	293