The Land Manager's Monitoring Guide

Indicator: Native plant richness

Metadata recording sheet

Key element	Metadata	
Short description of the contents of the dataset.		Eg. Change in native plant richness at "specified property"
Name of the land manager or business responsible for the dataset.		see note 1
Brief assessment of reliability of the information in the dataset.		
Brief history of the source and processing steps used to produce the dataset.		
Maintenance and update frequency of the dataset.		
What location or area does the data relate to.		Property or other location details and/or GPS Eastings and Northings

Monitoring area data

Area number/name	Location	Position in landscape	Orientation	Length and width of plot (m)

Note 1: Select which method you have decided to use
level 1 - low, medium or high reliability of plant identification;
level 2 - low, medium or high reliability of plant identification; GIS/GPS location

Area number/name: Eg.Back paddock P1 - plot 1
Location: Level 1 - location of monitoring area on property Level 2 - GPS coordinates (GDA94)
Position in landscape: Examples: Crest; Valley; Mid-slope; Ridge
Orientation: Examples N - North - 0, S - South - 180, NNE - North North East - 22.5

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Example of metadata recording sheet for monitoring area data

Area number/name	Location	Position in landscape	Orientation	Length and width of plot (m)
Top paddock - P1	Centroid - Q1.3 - 27.30691S 152.30499E	Ridge	N - North 0	100m
Big gully - P2	Centroid – Q2.3 - 27.30692S 152.30495E	Riparian zone	S - South 180	100m
Flat patch - P3	Still to get GPS	Floodplain	NNE - North North East 22.5	100m
Shelter belt – P4	Centroid – Q4.3 - 27.30692S 152.30489E	Midslope	NNE - North North East 22.5	100m

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Field recording sheet for Level 1 monitoring

Date		Monitoring area name or number	

Item number	Local or common name	Scientific name	Recorder and/or identifier	confidence
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

Total number of species		Notes	

Your level of confidence or accuracy of identification
low – able to pick the difference between species, only know common name, reasons to doubt identification.
medium – reasonably confident of identification, know scientific name, confirmed from plant identification books.
high - very confident – know scientific name & what may be confused with,
confirmed by your or other person's experience or training or Herbarium.

Notes - Climate - drought, wet season etc; Recent management activity

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Field recording sheet for Level 2 monitoring

Date		Monitoring area name or number		Notes	

Item	Local or common name	Scientific name	Recorder or identifier	Confidence and notes	Plant form	Tally of each species	Plant totals	Abundance	
								Class	Relative
1									#DIV/0!
2									#DIV/0!
3									#DIV/0!
4									#DIV/0!
5									#DIV/0!
6									#DIV/0!
7									#DIV/0!
8									#DIV/0!
9									#DIV/0!
10									#DIV/0!
11									#DIV/0!
12									#DIV/0!
13									#DIV/0!
14									#DIV/0!
15									#DIV/0!
16									#DIV/0!
17									#DIV/0!
18									#DIV/0!
19									#DIV/0!
20									#DIV/0!

Tree total		**Total plant count**	0
Shrub total			
Grass total			
Forb total			
Other total			
Species total	0		

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low – able to pick the difference between species, only know common name, reasons to doubt identification.
medium – reasonably confident of identification, know scientific name, confirmed from plant identification books.
high - very confident – know scientific name & what may be confused with,
confirmed by your or other person's experience or training or Herbarium.

Plant form - Tree, Shrub, Grass, Forbs, Other
Field tally - approximate number of plants observed ~~𝍸~~ 𝍸 I I I = 8 plants record total in next column
Plant totals - Totals from tally column
Abundance Class

Abundant – many always present
Common – always a few present
Uncommon – only a few individuals or only 2-3 patches
Rare – only one specimen found

Abundance Relative percentage of **total plant count**
Notes - Climate - drought, wet season etc; Recent management activity

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Example of field recording sheet for Level 2 monitoring

Date	20/07/2005	Monitoring area name or number	P1	Notes	17 & 18 sent to Qld Herbarium

Item	Local or common name	Scientific name	Recorder or identifier	Confidence and notes	Plant form	Tally of each species	Plant totals	Abundance Class	Abundance Relative
1	Blue gum	*Eucalyptus tereticornis*	Jane H	H	T	𝍸 𝍸 𝍸 𝍸 𝍸 IIII	29	A	11%
2	Brisbane wattle	*Acacia fimbriata*	Jane H	H	S	𝍸 𝍸 𝍸 III	18	A	7%
3	Black wattle	*Acacia falcata*	Jane H	H	S	IIIII	4	C	2%
4	Tea tree	*Leptospermum petersonnii*	Jane H	H	S	𝍸 𝍸 𝍸 𝍸 𝍸 I	21	A	8%
5	Kangaroo grass	*Themedia triandra*	Jane H	H	G	𝍸 IIIII	9	C	3%
6	Queensland Blue-grass	*Dichanthium sericeum*	Jane H	H	G	𝍸 III	8	C	3%
7	Paddock Lovegrass	*Eragrostis leptostachya*	Jane H	H	G	𝍸 𝍸 𝍸 𝍸 𝍸 III	23	A	9%
8	Barbed wire	*Cymbopogon refractus*	Jane H	H	G	𝍸 𝍸 𝍸 𝍸 𝍸 IIII	24	A	9%
9	Gum top box	*Eucalyptus mollucana*	Jane H	H	T	𝍸 𝍸 𝍸 IIII	19	A	7%
10	Narrow leaf ironbark	*Eucalyptus crebra*	Jane H	H	T	IIII	4	C	2%
11	Brisbane laurel	*Pittosporum revolutum*	Jane H	H	S	𝍸 𝍸 𝍸 IIII	19	A	7%
12	Davesia	*Davesia squarosa*	Jane H	H	S	𝍸 𝍸 IIII	14	A	5%
13	May	*Baekea virgata*	Jane H	H	S	𝍸 𝍸 IIII	14	A	5%
14	Swamp Tea-tree	*Melaleuca irbyana*	Jane H	H	S	𝍸 𝍸 IIII	14	A	5%
15	Mattrush	*Lomandra longifolia*	Jane H	H	O	IIII	4	U	2%
16	Sago Flower	*Ozothamnus diosmifolius*	Jane H	H	F	𝍸 IIII	9	C	3%
17	Forb 1		Jane H	L	F	𝍸 𝍸 III	13	U?	5%
18	Forb 2		Jane H	L	F	𝍸 𝍸 𝍸 IIII	19	U?	7%
19									0%
20									0%

Tree total	3	**Total plant count**	265
Shrub total	7	Note: cells coloured yellow contain formulars that will automatically calculate the totals.	
Grass total	4		
Forb total	3		
Other total	1		
Species total	18		

Your level of confidence or accuracy of identification

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- **medium** – reasonably confident of identification, know scientific name, confirmed from plant identification books.
- **high** - very confident – know scientific name & what may be confused with, confirmed by your or other person's experience or training or Herbarium.

Plant form - Tree, Shrub, Grass, Forbs, Other

Field tally - approximate number of plants observed 𝍸 I I I = 8 plants record total in next column

Plant totals - Totals from tally column

Abundance Class

- **Abundant** – many always present
- **Common** – always a few present
- **Uncommon** – only a few individuals or only 2-3 patches
- **Rare** – only one specimen found

Abundance Relative percentage of **total plant count**

Notes - Climate - drought, wet season etc; Recent management activity

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Spreadsheet for Level 1 & 2 monitoring

Monitoring area name or number	

				Date										
Item	**Local or common name**	**Scientific name**	**Plant form**	**Notes**	**Plant Totals**	**Plant Totals**	**Plant Totals**	**Plant Totals**	**Plant Totals**	**Plant Totals**	**Plant Totals**	**Plant Totals**	**Plant Totals**	**Plant Totals**
1														
2														
3														
4														
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14														
15														
16														
17														
18														
19														
20														

Add more species here

Trees										
Shrubs										
Grasses										
Forbs										
Other										
Total number of species	0	0	0	0	0	0	0	0	0	0

Note: cells coloured yellow contain formulars that will automatically calculate the totals.

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Example spreadsheet for Level 1 & 2 monitoring

Monitoring area name or number	P1

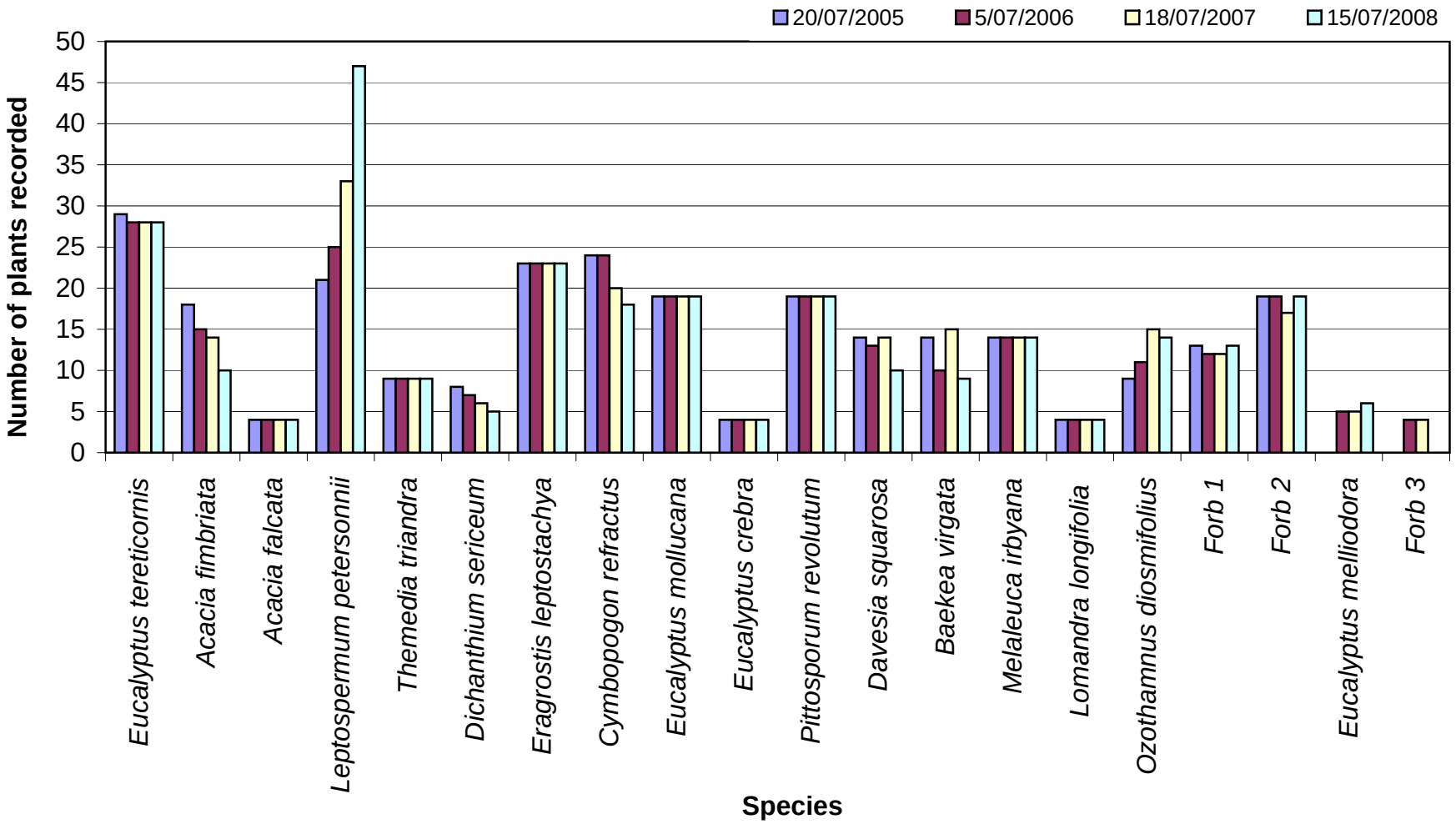
				Date	20/07/2005	5/07/2006	18/07/2007	15/07/2008
Item	**Local or common name**	**Scientific name**	**Plant form**	**Notes**	**Plant Totals**	**Plant Totals**	**Plant Totals**	**Plant Totals**
1	Blue gum	*Eucalyptus tereticornis*	T		29	28	28	28
2	Brisbane wattle	*Acacia fimbriata*	S		18	15	14	10
3	Black wattle	*Acacia falcata*	S		4	4	4	4
4	Tea tree	*Leptospermum petersonnii*	S		21	25	33	47
5	Kangaroo grass	*Themedia triandra*	G		9	9	9	9
6	Queensland Blue-grass	*Dichanthium sericeum*	G		8	7	6	5
7	Paddock Lovegrass	*Eragrostis leptostachya*	G		23	23	23	23
8	Barbed wire	*Cymbopogon refractus*	G		24	24	20	18
9	Gum top box	*Eucalyptus mollucana*	T		19	19	19	19
10	Narrow leaf ironbark	*Eucalyptus crebra*	T		4	4	4	4
11	Brisbane laurel	*Pittosporum revolutum*	S		19	19	19	19
12	Davesia	*Davesia squarosa*	S		14	13	14	10
13	May	*Baekea virgata*	S		14	10	15	9
14	Swamp Tea-tree	*Melaleuca irbyana*	S		14	14	14	14
15	Mattrush	*Lomandra longifolia*	O		4	4	4	4
16	Sago Flower	*Ozothamnus diosmifolius*	F		9	11	15	14
17	Forb 1	Forb 1	F		13	12	12	13
18	Forb 2	Forb 2	F		19	19	17	19
19	Yellow Box	*Eucalyptus melliodora*	T			5	5	6
20	Forb 3	Forb 3	F	55m		4	4	0

Add more species here

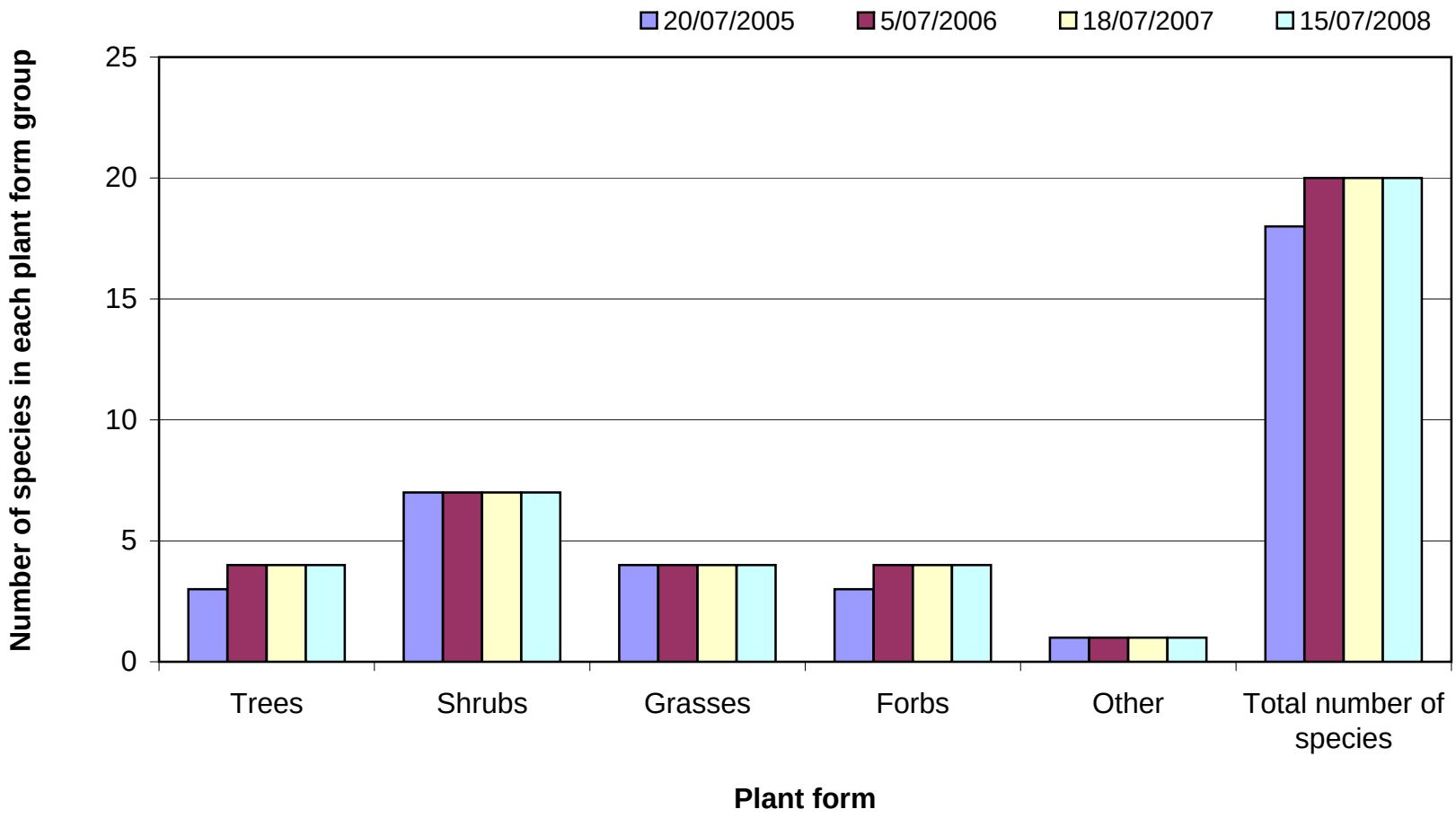
Trees	3	4	4	4
Shrubs	7	7	7	7
Grasses	4	4	4	4
Forbs	3	4	4	4
Other	1	1	1	1
Total number of species	18	20	20	20

Note: cells coloured yellow contain formulars that will automatically calculate the totals.

Example of data showing a change in native plant richness over time (individual species)



Example of data showing a change in native plant richness over time (plant forms)



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