
**ASSESSMENT OF REHABILITATED MINING AREAS IN
1993, 2003, 2005, 2006 AND 2007 REHABILITATION AREAS
- ILUKA RESOURCES LIMITED -
ENEABBA OPERATIONS**

Prepared for:
Iluka Resources Ltd

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- A1: Definition of Rare and Priority Flora Species (Department of Environment and Conservation 2008a)
- A2: Definition of Threatened Flora Species (Department of Environment, Water, Heritage and the Arts 2008a)
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1. SUMMARY

Mattiske Consulting Pty Ltd was commissioned by Iluka Resources Ltd to determine the potential botanical issues on the 1993, 2003, 2005, 2006 and 2007 rehabilitation areas and to compare them with the criteria as defined by Iluka Resources Ltd and the control (un-mined areas).

A total of 455 taxa from 54 families and 174 genera have been recorded in the 1993, 2003, 2005, 2006 and 2007 rehabilitation blocks and the control areas. This total can be compared with the range of taxa recorded in the wider mining area. This total includes 786 taxa from 70 families and 243 genera.

The number of introduced species was relatively low, although at times the numbers and cover of these introduced species was variable and relatively high in younger rehabilitation areas and near nearby agricultural holdings.

A range of Rare and Priority Flora species were recorded during the monitoring. Six of these Rare and Priority species were recorded in the rehabilitation areas. The majority of the Priority species were recorded in the Control areas.

In summary, according to results of the 2007 assessment of the 1993, 2003, 2005, 2006 and 2007 rehabilitation areas, when only native species are considered;

- The species richness of 70 species per block criteria was met in 93HS, 05ES, 07AW and 07EW. Two of the control blocks were under the 70 species per block criteria (BTWD and WTHT) (Figure 2f) and several of the control blocks were similar to the criteria of 6 species/m² (Figure 3f).
- The species richness of 6 species per metre square criteria was not met in any of the transects as assessed,
- The plant density criteria was met for the following transects (based on density of native species):
 - 93HS-6;
 - 03AW-1, 03BS-1, 03CS-2, 03ES-2;
 - 05AS-2, 05BS-2, 05ES-3;
 - 06AS-1, 06AW-2, 06BW-5, 06BW-7, 06CW01;
 - 07AW-1, 07AW-2, 07AW-3, 07AW-4, 07AW-5, 07AW-6, 07FW-1, 07FW-2, 07FW-3.
 - Several of the control areas did not meet the 12 plants/m².
- The percentage alive foliage cover criteria was met for the following transects (based on native foliage cover):
 - 93HS-1, 93HS-2, 93HS-4, 93HS-6;
 - 05AS-2, 05CN-2, 05ES-1.
 - The criteria was met on the control sites (although only marginally in several sites. The criteria of “no more than 10% of the quadrats in any block are bare”, has been achieved.

Two of the control blocks were under the 70 species per block criteria (BTWD and WTHT). This finding is indicative of the need to review the criteria; although on average in the control areas the 70 species is met for the control blocks. The species richness for the control sites was met on all transects, although several were only just above the criteria of 6 species/m². The criteria as applied are not appropriate for the initial assessment as the plants are still seedlings and the cover of 32 % of native species cannot be achieved for several years; particularly if the rainfall conditions for initial establishment and maintained growth do not occur. The other aspect that needs addressing is the assessment procedure in terms of completion criteria. There is an issue on the degree of sampling in relation to the blocks and areas in relation to sign off with government agencies. In addition, more realistic criteria need to be developed for the site conditions.

In reviewing the progress of rehabilitation to date, several trends need further investigation, namely the relative occurrence of species in the respective areas in relation to location (proximity to agricultural areas) of the monitoring sites and also the specific site treatments. The variation in the relative proportion of native and introduced species alone indicates that there is substantial variation between transects and blocks. This investigation could not only suggest possible reasons for this variation, but would also assist in possible methods of optimising rehabilitation in the various areas.

2. BACKGROUND

Mattiske Consulting Pty Ltd was commissioned by Iluka Resources Ltd to determine the potential botanical issues on the 1993, 2003, 2005, 2006 and 2007 rehabilitation areas and to compare them with the criteria as defined by Iluka Resources Ltd and the control (un-mined areas).

The following rehabilitated blocks were assessed in the 2006 rehabilitation areas (Table 1).

Table 1: Rehabilitation Blocks Assessed at Iluka Resources Ltd, Eneabba Operations, 2007

Pit and Block	Transect Numbers
93HS	1, 2, 4, 6
03AS	2
03AW	1
03BS	1
03CS	2
03DS	3
05AS	2
05BS	2
05CN	2
05DS	2
05ES	1, 2, 3
06AS	1
06AW	2
06BW	1, 3, 5, 6, 7
06CW	1
07AN	1
07AW	1, 2, 3, 4, 5, 6
07EN	1
07EW	1, 2, 3, 4, 5, 6
07FW	1, 2, 3

The number of transects was determined by the size of the respective rehabilitation pits.

The Iluka Resources Ltd environmental rehabilitation-monitoring program is designed to fulfil the company's obligations under the Mineral Sands Eneabba Agreement (1987). These obligations require the company to carry out a continuous monitoring program to ascertain the effectiveness of the current methods of vegetation rehabilitation.

The agreement allows the Minister to set conditions outlining the specific rehabilitation requirements. Issues relating to rehabilitation are dealt with by the Mineral Sands Agreement Rehabilitation Coordinating Committee. Through this process, the existing Completion Criteria were developed in 1985 (Environmental Management and Research Consultants, 1996).

These criteria are as follows;

Species Richness:	A mean of 6 species per square metre and a minimum of 70 species in blocks larger than 10 hectares.
Plant Density:	A mean of 12 plants per square metre with not more than 10% bare quadrats in each block.
Foliage Cover:	Total Community Projective Cover of 32% or more, excluding <i>Acacia blakelyi</i> .

The rehabilitation process at Iluka Resources, Eneabba Operations begins with replacement of soil and topsoil from stored stockpiles, enabling germination from the original seed bank. Mulch sourced from areas in the mine path is then applied at a rate of one hectare of cut mulch for one hectare of rehabilitation ground. Finally, the appropriate seed mix is then applied.

Seed mixes are sourced from vegetation in surrounding native areas. In recent years new mixes are being developed annually in an attempt to constantly improve the potential of the vegetation rehabilitation project. Three different seed mixes are now formulated (Heath/Woodland, Dunal and Wetland) and the applicable mix is applied to rehabilitation areas according to the native vegetation type that was present prior to mining.

The Eneabba, Iluka Resources Ltd mine is located within the Irwin Botanical District which experiences a dry warm Mediterranean climate with annual winter precipitation levels of 300 – 500mm and 7 – 8 dry months per year (Beard, 1990).

3. OBJECTIVES

The general objective of the project was to describe and define the botanical values of the rehabilitated areas and control communities and to assess the rehabilitation performance at the Iluka Resources Ltd, Mineral Sands Mine, Eneabba. The specific objectives of the flora and vegetation assessment of the rehabilitation areas were to:

- collect and identify the vascular plant species present in the survey areas and review the conservation status of them by reference to current literature and current listings by the Department of Environment and Conservation (2008a) and plant collections held at the State Herbarium;
- on the 1993, 2003, 2005, 2006 and 2007 rehabilitation areas and to compare them with the criteria as defined by Iluka Resources Ltd and the control (un-mined areas);
-
- carry out analysis of historical data to assess the progress of comparable rehabilitation blocks, and
- submit a report to summarise the findings.

4. METHODS

Rehabilitation was assessed within transects in selected blocks of the 1993, 2003, 2005, 2006 and 2007 rehabilitation areas (Table 1).

Vegetation was assessed within 1m x 1m quadrats occurring in contiguous pairs along transects. Each pair is spaced 4m apart along a 40m long transect. There are therefore 20 quadrats in each transect. There were three transects surveyed in each rehabilitation and control block.

Data collected from each 1m x 1m quadrat was as follows:

- Species identification of each plant present.
- The number of alive and dead individuals of each species that were rooted within the quadrat.
- The percentage foliage cover of each species both alive and dead (including species rooted outside the quadrat with overhanging foliage).
- The amount in centimetres, of plant foliage line intercept within the quadrat ("line" being measuring tape extended for the length of the transect, which runs for 100cm up the centre of each quadrat).
- The amount in centimetres of bare ground line intercept.

Data was analysed to determine the level of achievement of the completion criteria:

Species Richness: A mean of 6 species per square metre and a minimum of 70 species in blocks larger than 10 hectares.

Plant Density: A mean of 12 plants per square metre with not more than 10% bare quadrats in each block.

Cover: Total Community Projective Cover of 32% or more, excluding *Acacia blakelyi*.

4.1 Flora

Data was collected from each quadrat and pit in October/November 2007. Plant specimens were systematically collected when positive identification was not possible. All plant specimens collected during the field survey were dried and fumigated, then identified via comparison with pressed specimens housed at the Western Australian Herbarium and using published identification keys for Western Australian Flora. Nomenclature of the species recorded follows the Florabase standards (Department of Environment and Conservation (2008a)).

5. RESULTS AND DISCUSSION

5.1 Flora

A total of 455 taxa from 54 families and 174 genera have been recorded in the 1993, 2003, 2005, 2006 and 2007 rehabilitation blocks and the control areas (Appendix B). This total can be compared with the range of taxa recorded in the wider mining area. The range of species recorded in the respective rehabilitation years and the control areas are summarized in Figure 1.

The number of introduced species was relatively low, although at times the numbers and cover of these introduced species was variable and relatively high in younger rehabilitation areas and near nearby agricultural holdings.

The total of 455 taxa is comparable to the previously recorded 786 taxa from 70 families and 243 genera in the Eneabba area.

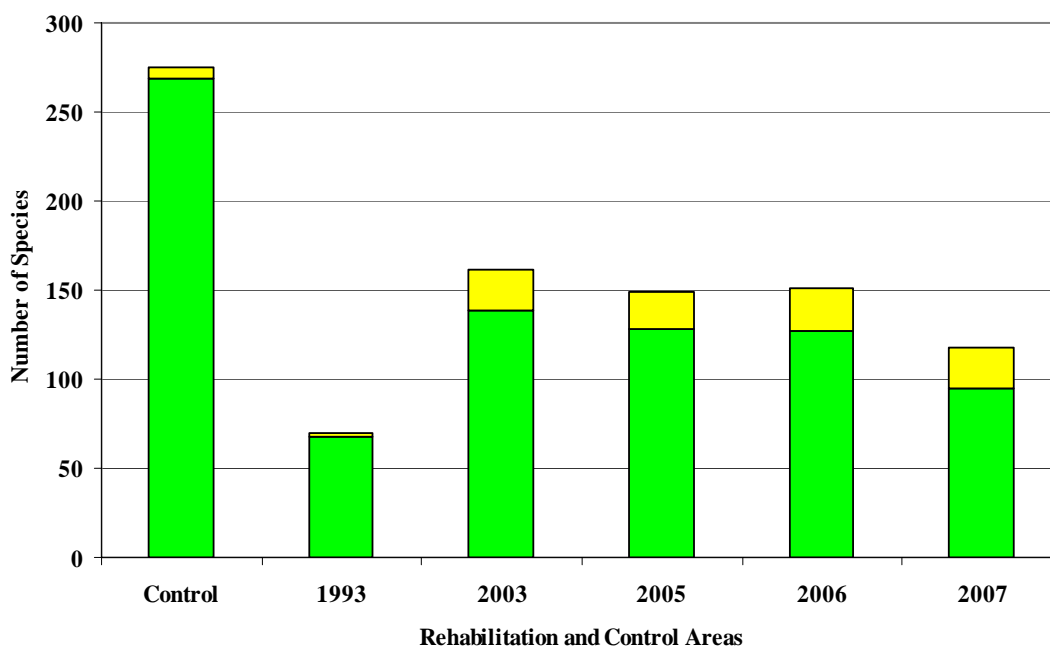


Figure 1: Range of Species in Rehabilitation and Control Areas, 2007

5.2 Conservation Status of the Flora

One Declared Rare Flora species pursuant to Subsection 2 of Section 23F of the Wildlife Conservation Act (1950) and listed by the Department of Environment and Conservation (2008a) was recorded in the 2007 assessment and a total of 15 Priority flora species were recorded in the 2007 assessment (Table 2). Six of these Rare and Priority species were recorded in the rehabilitation areas.

Table 2: Location of Declared Rare and Priority Species within Rehabilitation and Control Areas, Iluka Resources Ltd, Eneabba Operations, 2007

Priority Species	Cons. Code	Block Location of Species	Location – GDA94
<i>Banksia ?serratuloides</i>	R	06AS-1	332893:6692976
<i>Calectasia palustris</i>	P1	LWSH-1 WTHT-3	332729:6695834 327100:6694081
<i>Hemiandra</i> sp. Eneabba (H.Demarz 3687)	P1	BXWD-2	331169:6693783
<i>Eremaea acutifolia</i>	P2	BXWD-1 MXHT-3	331160:6693730 333785:6686242
<i>Hypocalymma gardneri</i>	P2	BXWD-2 LTHT-3 LTHT-5 LWSH-1 MXHT-1 MXHT-3 MXHT-5	331169:6693783 336341:6690881 338296:6690914 332729:6695834 333737:6686366 333785:6686242 333702:6686275
<i>Schoenus griffianus</i>	P2	03ES-2 05BS-2 07AW-6 07FW-3 MXHT-3 MXHT-5	332176:6688800 332842:6691534 328801:6690120 327724:6690273 333785:6686242 333702:6686275
<i>Thryptomene</i> sp. Eneabba (R.J.Cranfield 8433)	P2	93HS-2 03ES-3 05AS-2 06AS-1 BTWD-1	332134:6688622 332154:6688937 333447:6689043 332893:6692976 333785:6686242
<i>Verticordia argentea</i>	P2	93HS-2 03AS-2 03CS-2	332134:6688622 333646:6691527 332382:690703
<i>Banksia tortifolia</i>	P3	BXWD-1	331160:6693730
<i>Calytrix superba</i>	P3	BXWD-2 LTHT-3 LTHT-5 LWSH-1 LWSH-2 MXHT-3	331169:6693783 336341:6690881 338296:6690914 332729:6695834 332708:6695790 333785:6686242
<i>Desmocladius elongatus</i>	P3	BXWD-2 LTHT-3 LTHT-5 LWSH-1	331169:6693783 336341:6690881 338296:6690914 332729:6695834
<i>Isopogon tridens</i>	P3	BXWD-1 BXWD-2 LWSH-2	331160:6693730 331169:6693783 332708:6695790
<i>Verticordia muelleriana</i> subsp. <i>muelleriana</i>	P3	BTWD-1	333785:6686242
<i>Georgeantha hexandra</i>	P4	MXHT-1 MXHT-3 MXHT-5	333737:6686366 333785:6686242 333702:6686275
<i>Stachystemon axillaris</i>	P4	06BW-4 BTWD-3	332893:6692976 333785:6686242
<i>Verticordia aurea</i>	P4	93HS-1 03ES-2	332143:6688633 332176:6688800

5.3 Species Richness

Results for species richness for native and introduced (weed) species in the 1993, 2003, 2005, 2006 and 2007 rehabilitation blocks and the control areas are summarized in Figures 2a to 2f.

The species richness of 70 species per block criteria was met in 93HS, 05ES, 07AW and 07EW (Figures 2a to 2e).

The species richness of 6 species per metre square criteria was not met in any of the rehabilitation transects as assessed (Figures 3a to 3e).

Two of the control blocks were under the 70 species per block criteria (BTWD and WTHT) (Figure 2f) and several of the control blocks were similar to the criteria of 6 species/m² (Figure 3f).

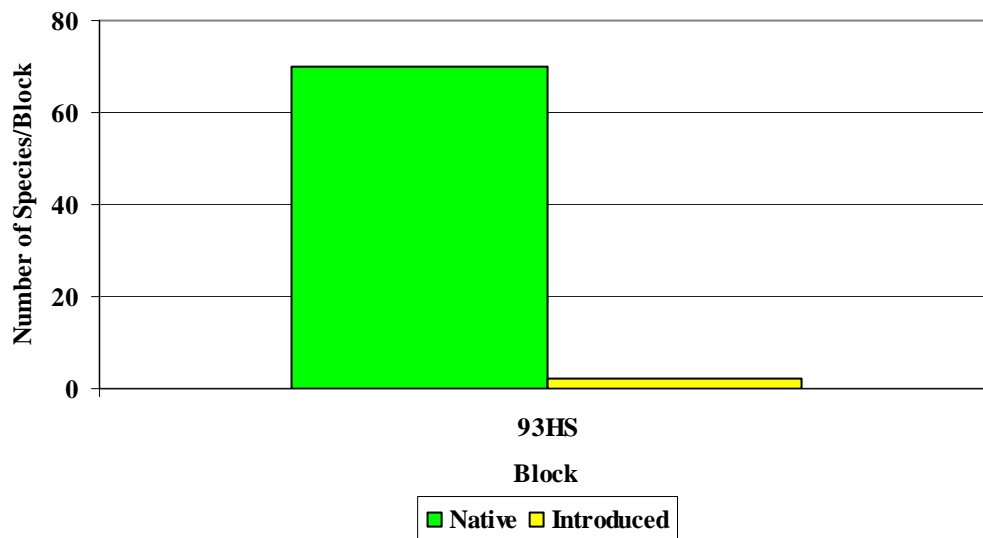


Figure 2a: Species Richness (Mean Number of Species/m²) within 1993 Rehabilitation Areas

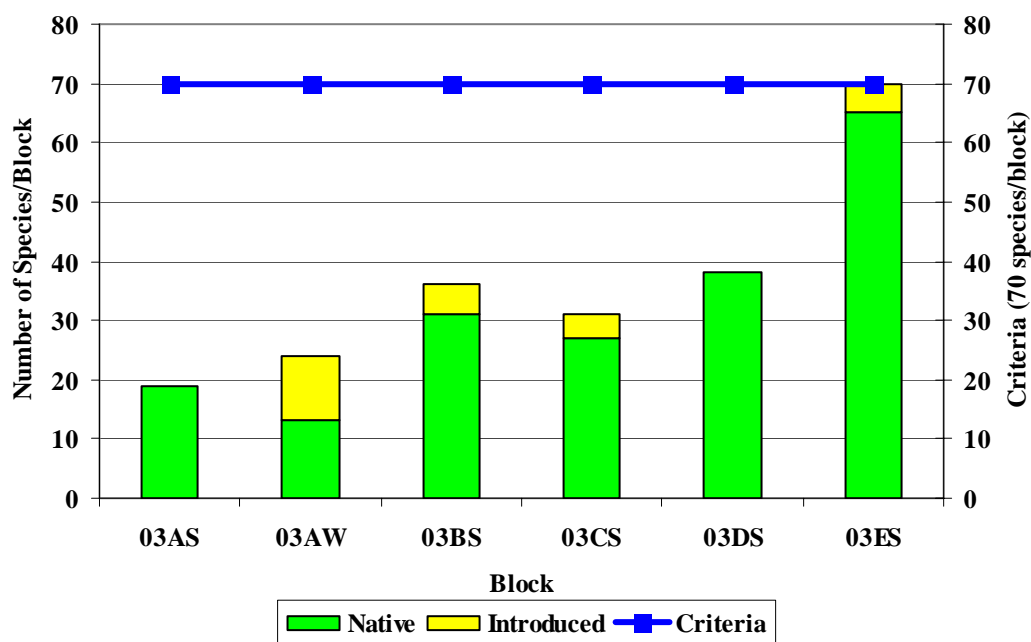


Figure 2b: Species Richness (Mean Number of Species/m²) within 2003 Rehabilitation Areas

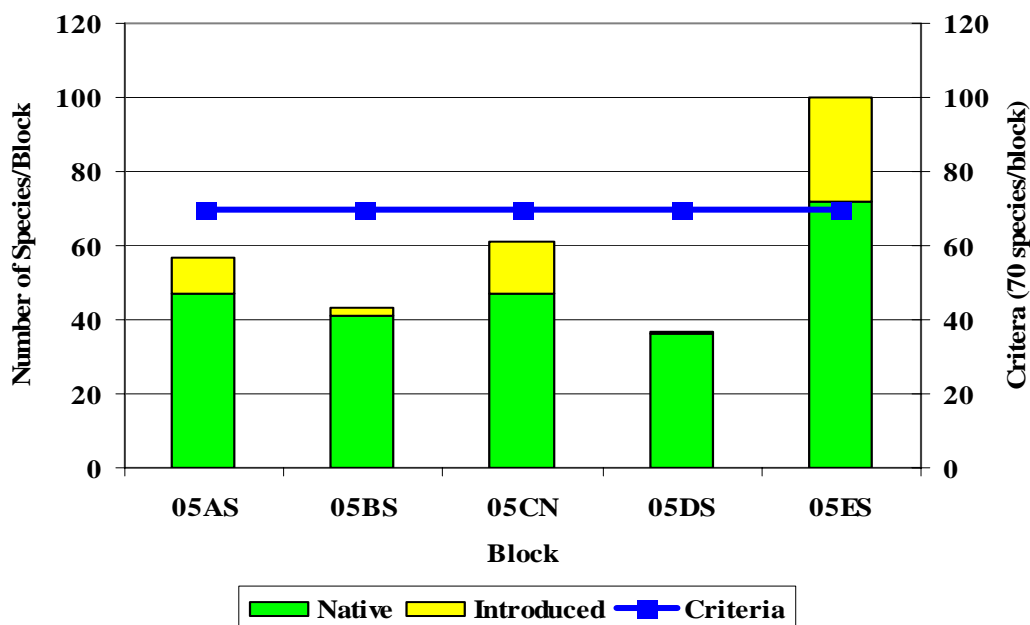


Figure 2c: Species Richness (Mean Number of Species/m²) within 2005 Rehabilitation Areas

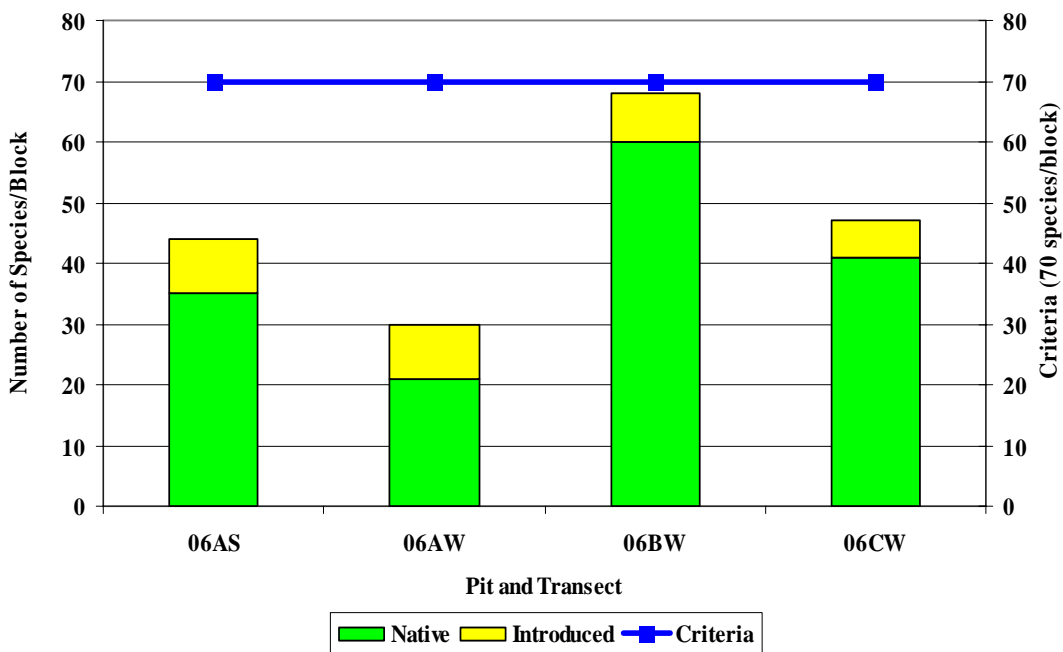


Figure 2d: Species Richness (Mean Number of Species/m²) within 2006 Rehabilitation Areas

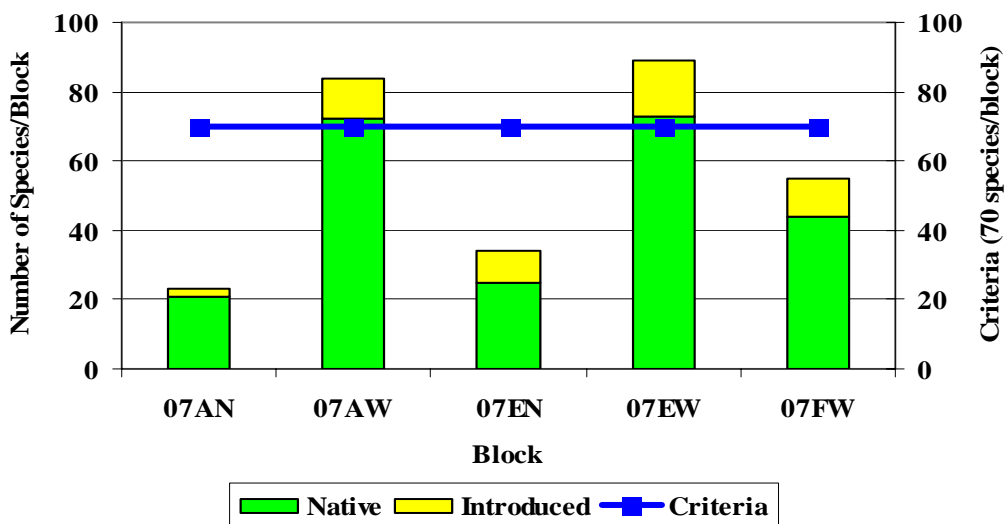


Figure 2e: Species Richness (Mean Number of Species/m²) within 2007 Rehabilitation Areas

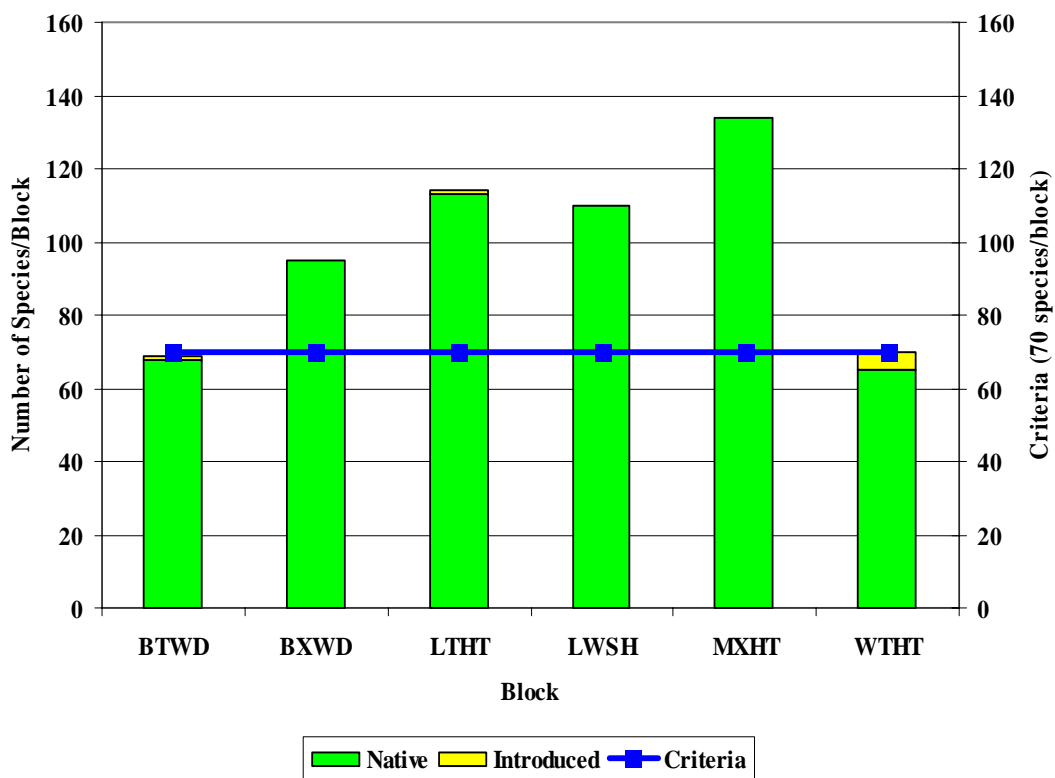


Figure 2f: Species Richness (Mean Number of Species/m²) within the Control Areas

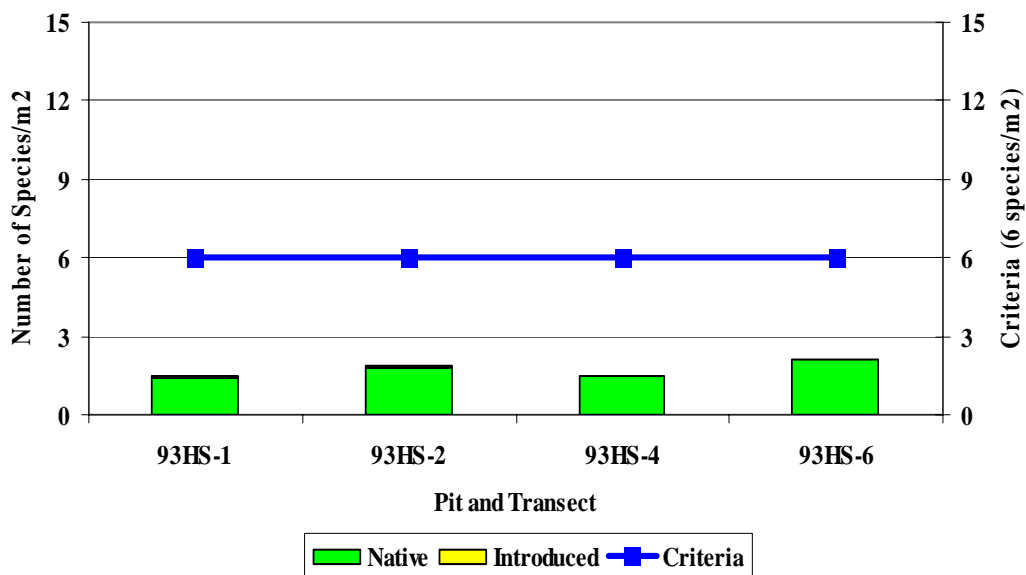


Figure 3a: Species Richness (Mean Number of Species/m²) within 1993 Rehabilitation Pit Transects

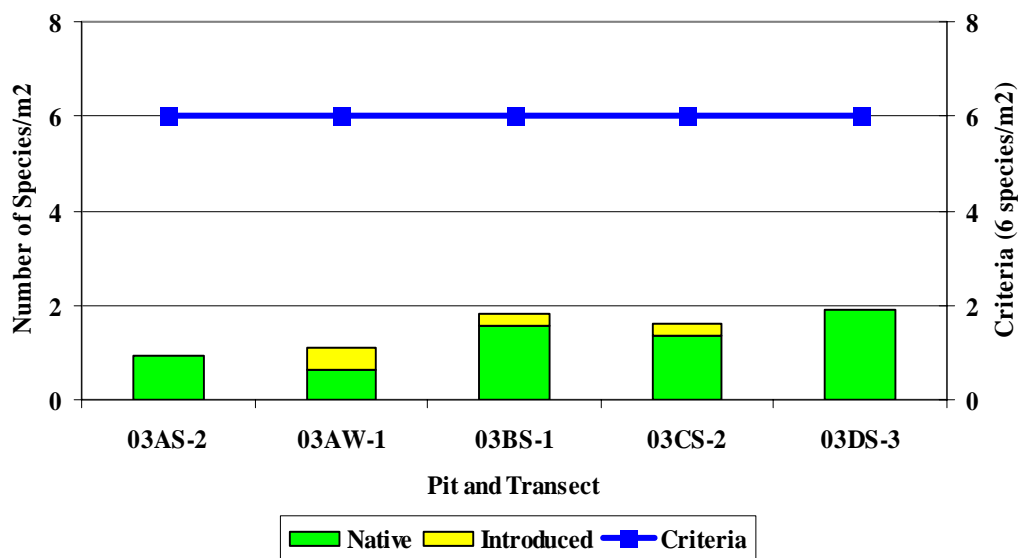


Figure 3b: Species Richness (Mean Number of Species/m²) within 2003 Rehabilitation Pit Transects

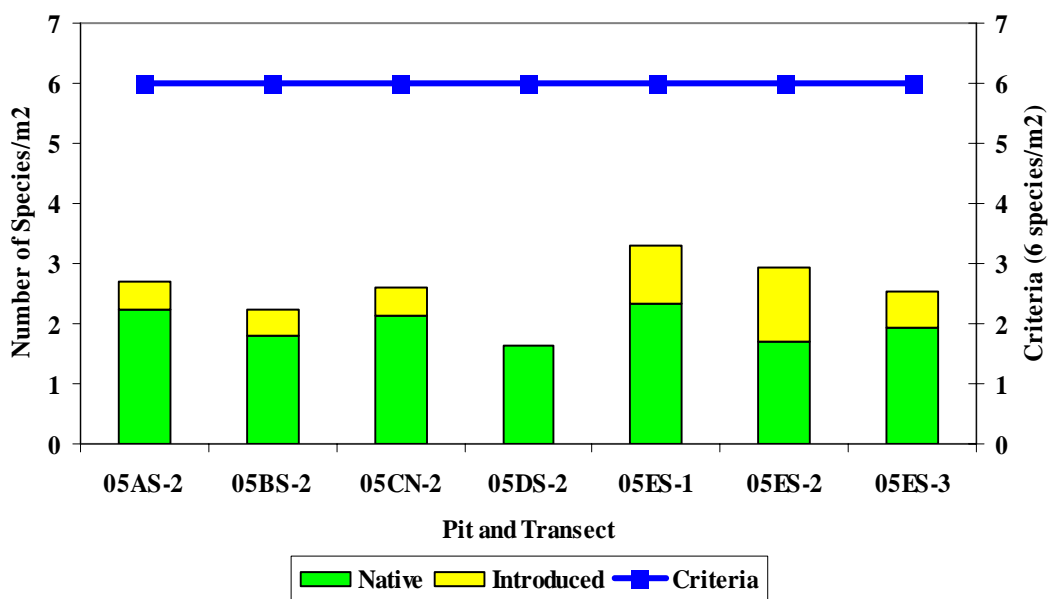


Figure 3c: Species Richness (Mean Number of Species/m²) within 2005 Rehabilitation Pit Transects

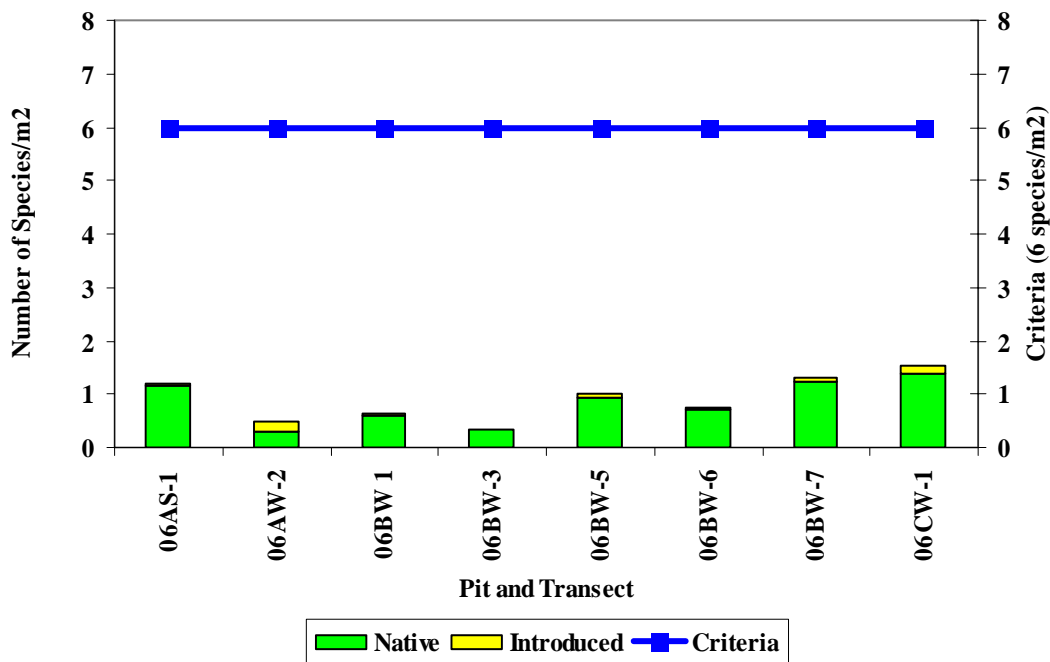


Figure 3c: Species Richness (Mean Number of Species/m²) within 2006 Rehabilitation Pit Transects

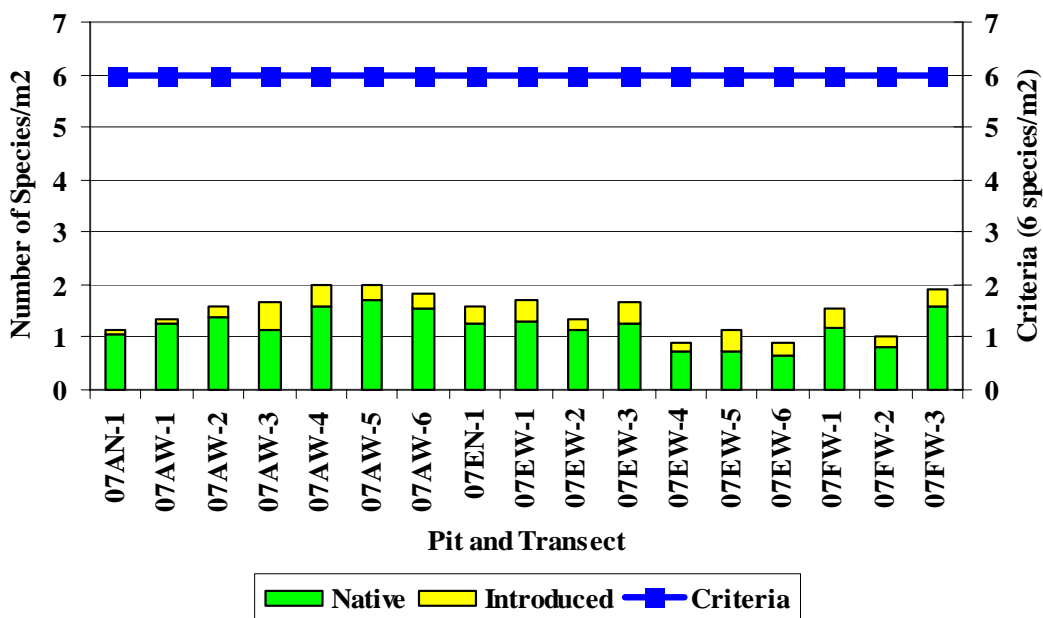


Figure 3e: Species Richness (Mean Number of Species/m²) within 2007 Rehabilitation Pit Transects

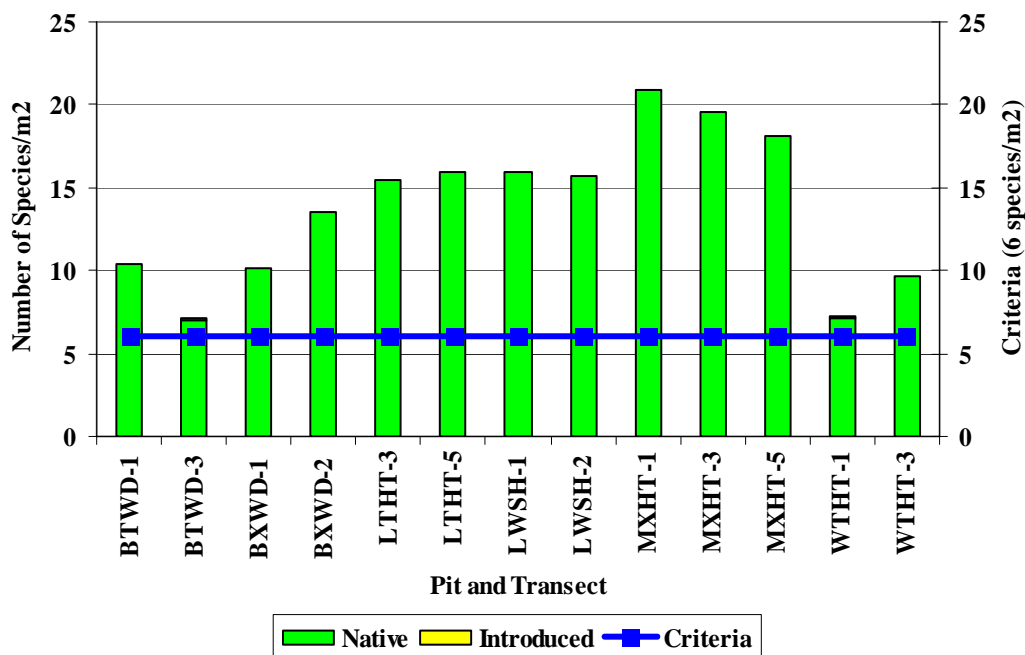


Figure 3f: Species Richness (Mean Number of Species/m²) within the Control Areas

5.4 Plant Density

The results for the plant density for native and introduced (weed) species in the 1993, 2003, 2005, 2006 and 2007 rehabilitation blocks and the control areas are summarized in Figures 4a to 4f (with *Acacia blakelyi*) and 5a to 5f (without *Acacia blakelyi*).

The plant density criteria were met for the following transects (based on density of native species):

- 93HS-6;
- 03AW-1, 03BS-1, 03CS-2, 03ES-2;
- 05AS-2, 05BS-2, 05ES-3;
- 06AS-1, 06AW-2, 06BW-5, 06BW-7, 06CW01;
- 07AW-1, 07AW-2, 07AW-3, 07AW-4, 07AW-5, 07AW-6, 07FW-1, 07FW-2, 07FW-3.
- Several of the control areas did not meet the 12 plants/m² (Figures 4f and 5f)

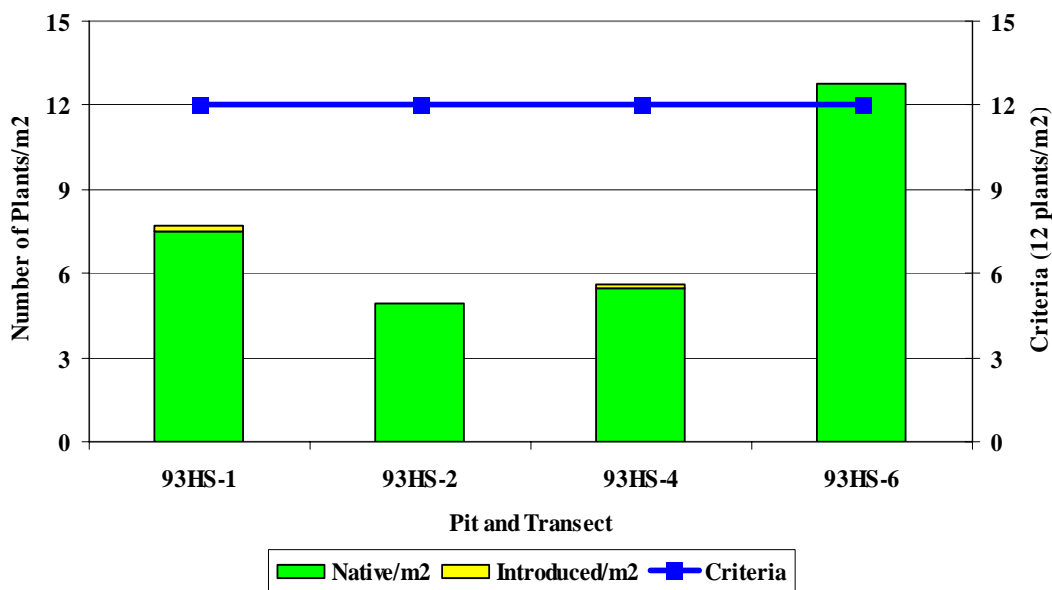


Figure 4a: Plant Density of All Plants (Alive and Dead) (Mean No. Plants/m²) within each 1993 Rehabilitation Area – with *Acacia blakelyi*

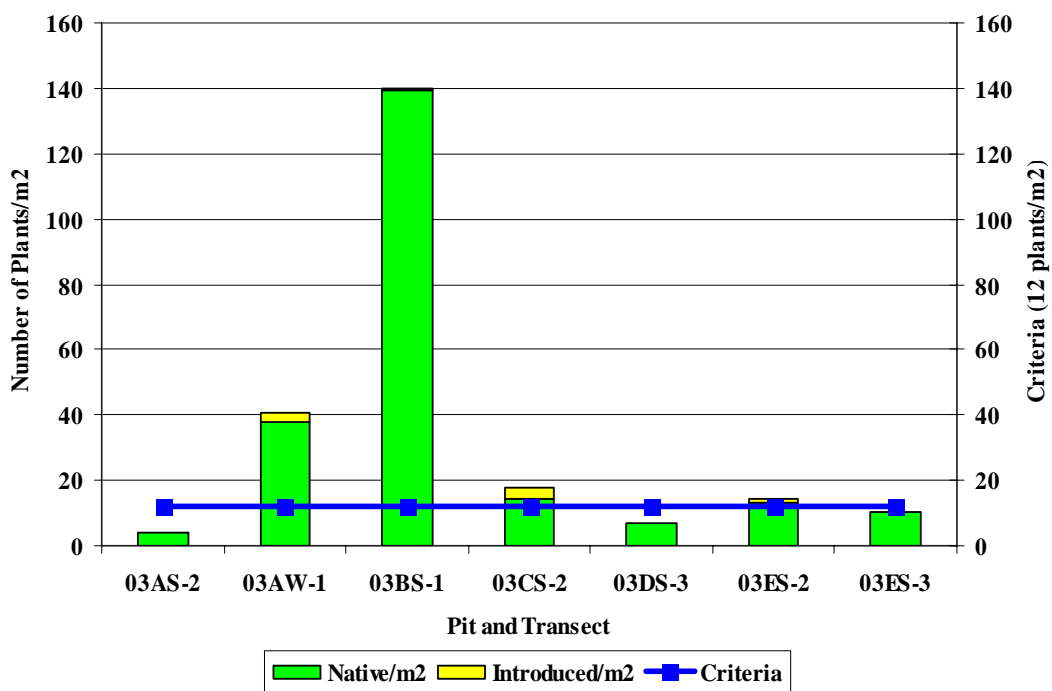


Figure 4b: Plant Density of All Plants (Alive and Dead) (Mean No. Plants/m²) within each 2003 Rehabilitation Area – with *Acacia blakelyi*

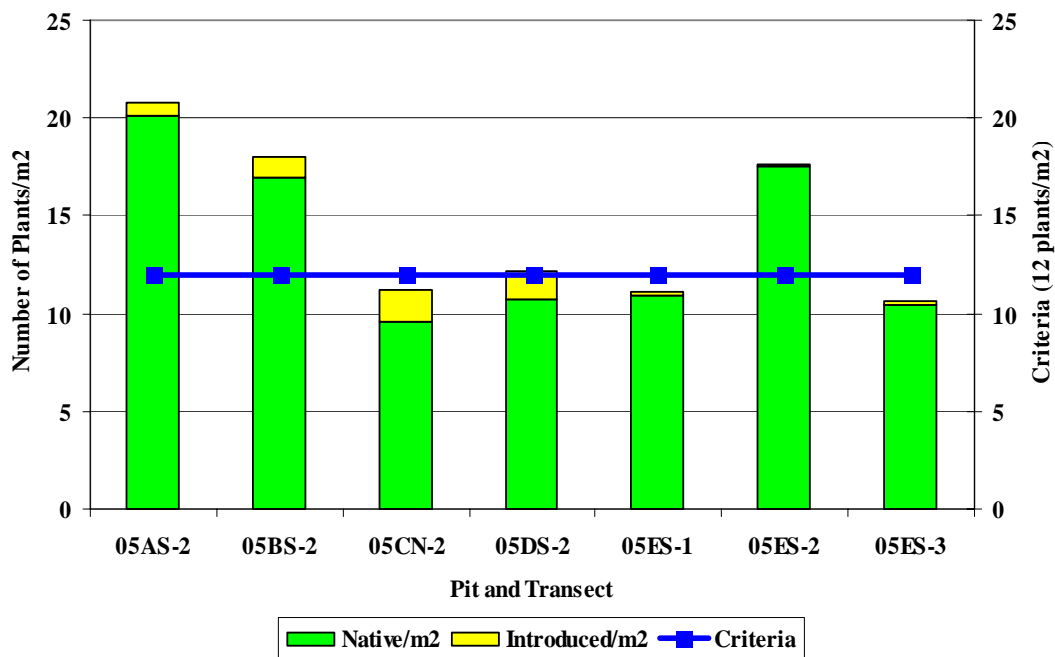


Figure 4c: Plant Density of All Plants (Alive and Dead) (Mean No. Plants/m²) within each 2005 Rehabilitation Area – with *Acacia blakelyi*

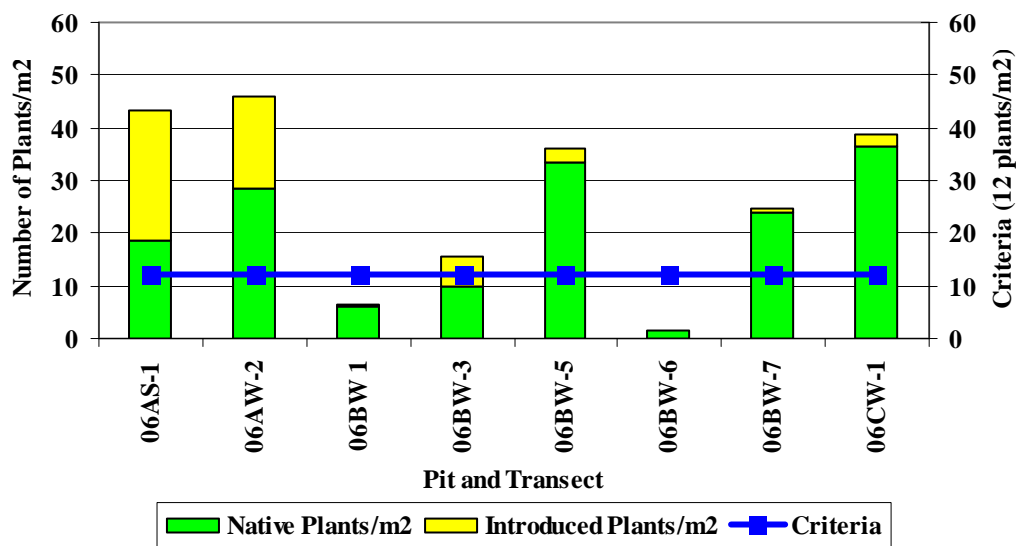


Figure 4d: Plant Density of All Plants (Alive and Dead) (Mean No. Plants/m²) within each 2006 Rehabilitation Area – with *Acacia blakelyi*

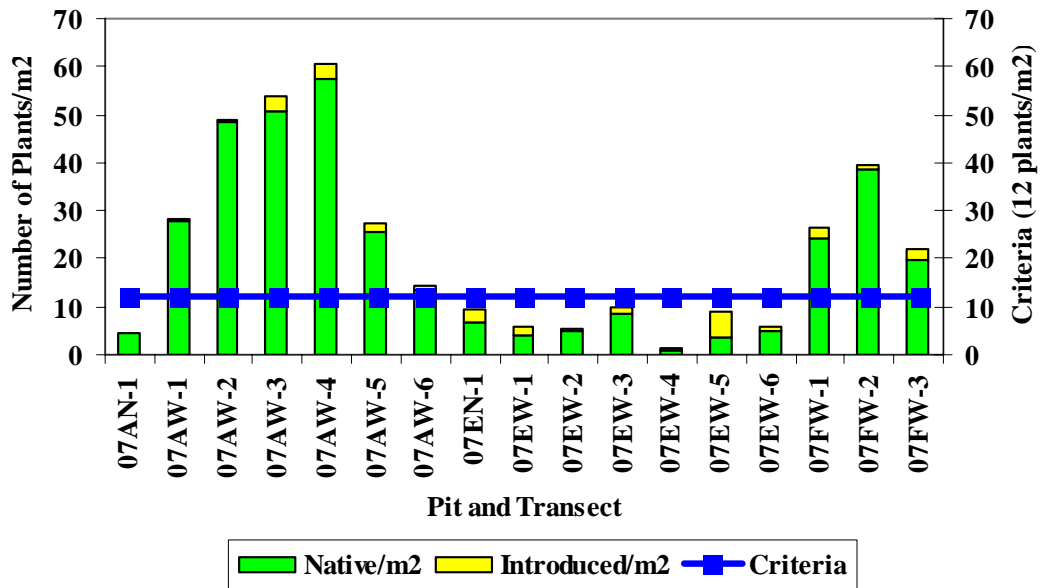


Figure 4e: Plant Density of All Plants (Alive and Dead) (Mean No. Plants/m²) within each 2007 Rehabilitation Area – with *Acacia blakelyi*

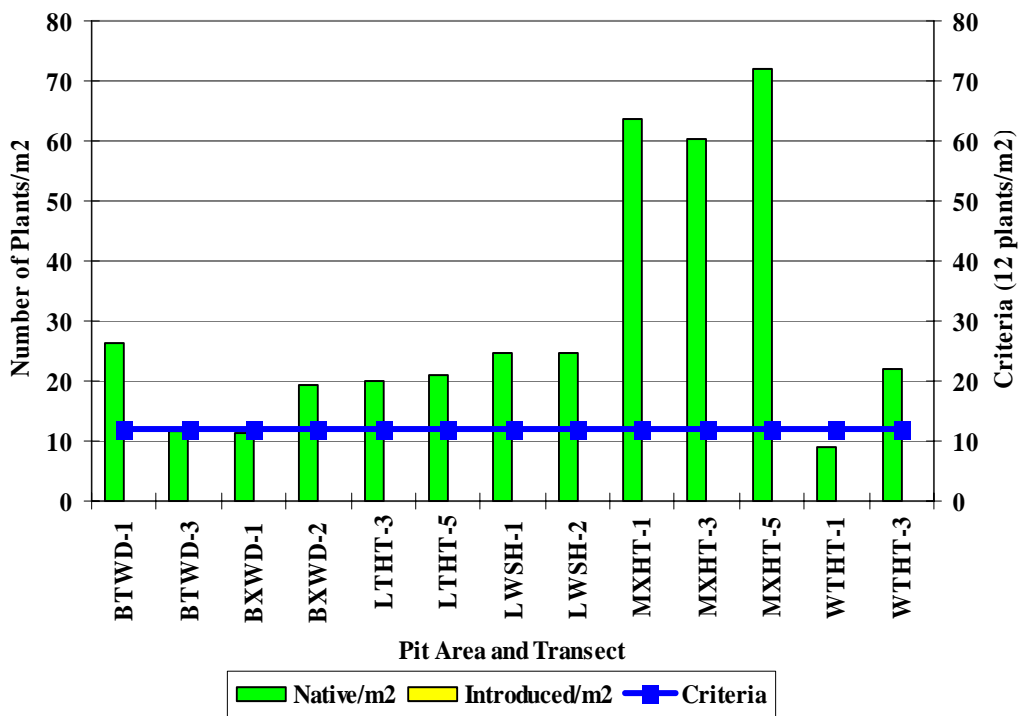


Figure 4f: Plant Density of All Plants (Alive and Dead) (Mean No. Plants/m²) within Control Areas – with *Acacia blakelyi*

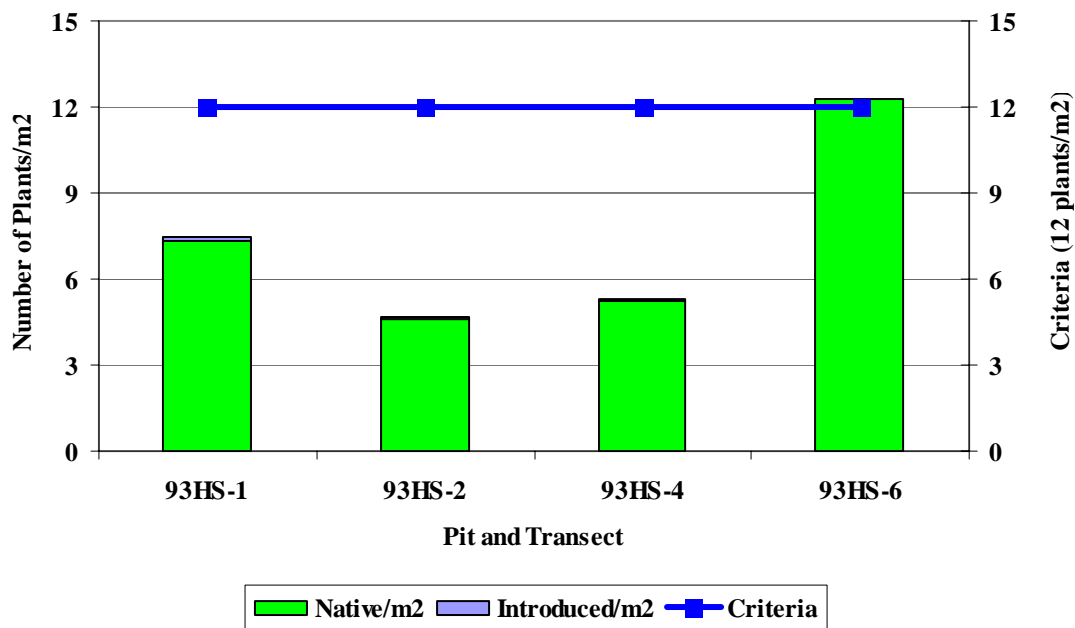


Figure 5a: Plant Density of All Plants (Alive only) (Mean No. Plants/m²) within each 1993 Rehabilitation Area – without *Acacia blakelyi*

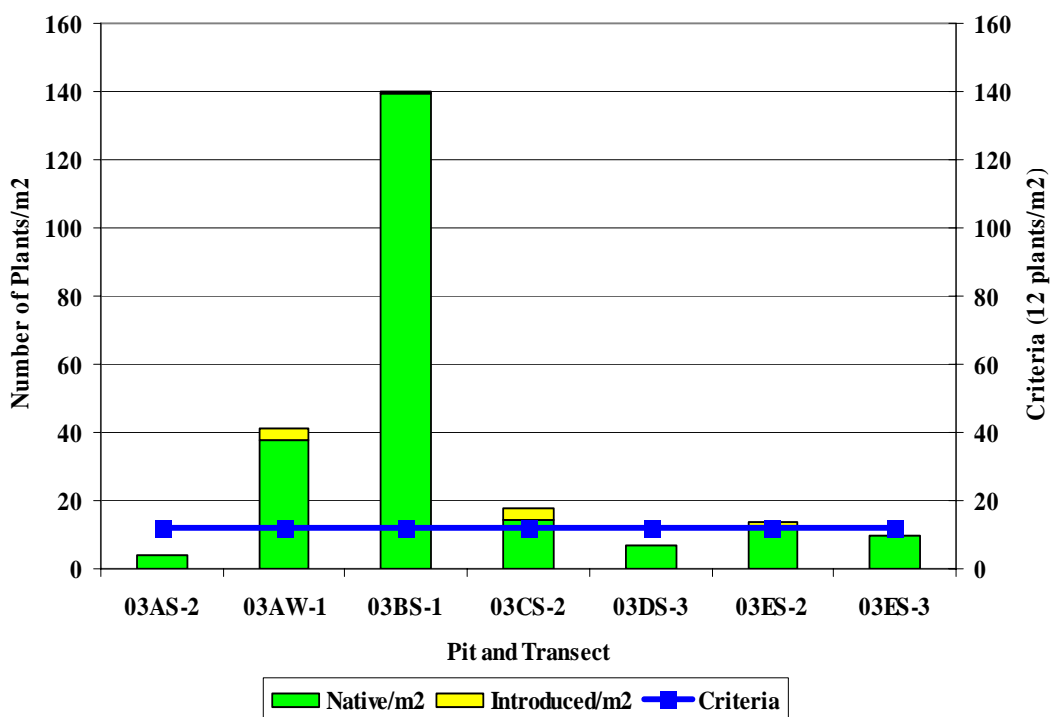


Figure 5b: Plant Density of All Plants (Alive only) (Mean No. Plants/m²) within each 2003 Rehabilitation Area – without *Acacia blakelyi*

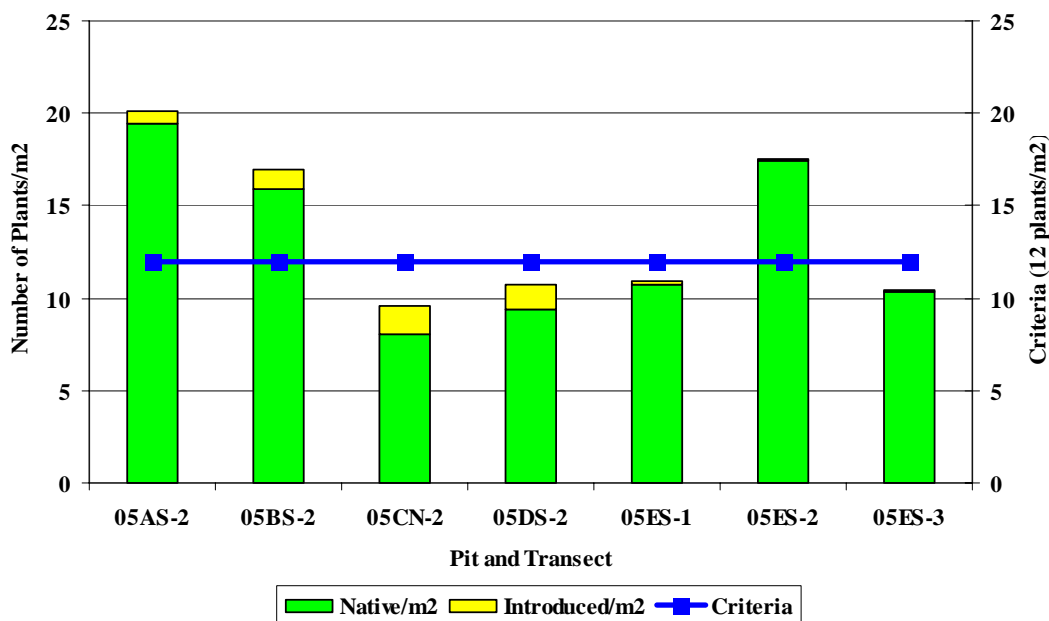


Figure 5c: Plant Density of All Plants (Alive only) (Mean No. Plants/m²) within each 2005 Rehabilitation Area – without *Acacia blakelyi*

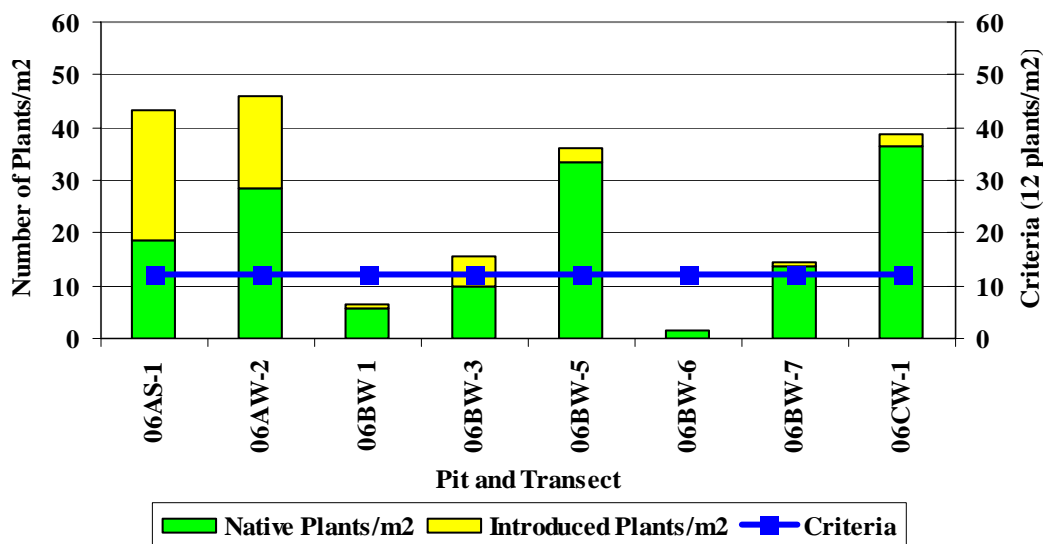


Figure 5d: Plant Density of All Plants (Alive only) (Mean No. Plants/m²) within each 2006 Rehabilitation Area – without *Acacia blakelyi*

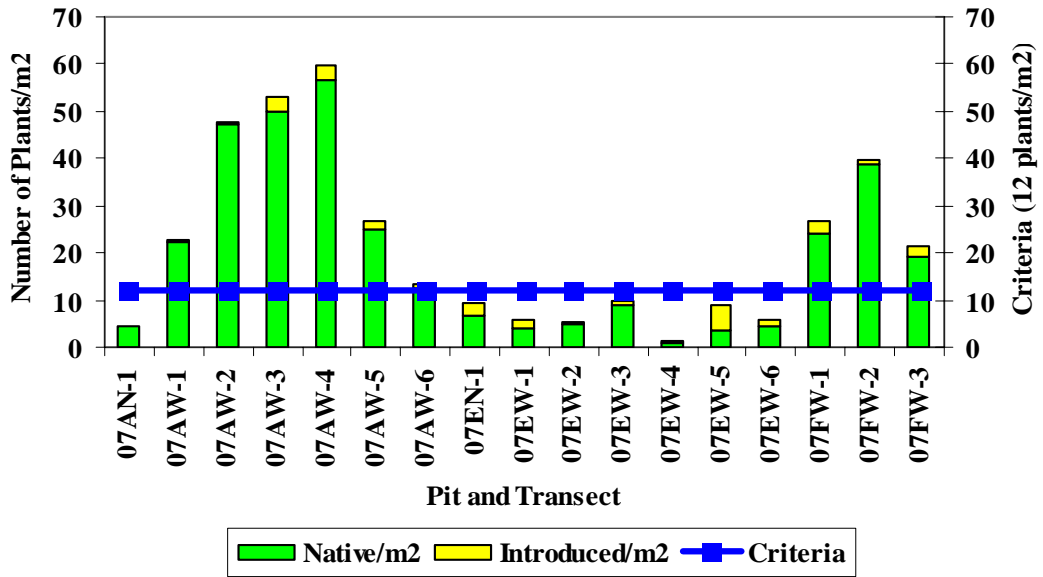


Figure 5e: Plant Density of All Plants (Alive only) (Mean No. Plants/m²) within each 2007 Rehabilitation Area – without *Acacia blakelyi*

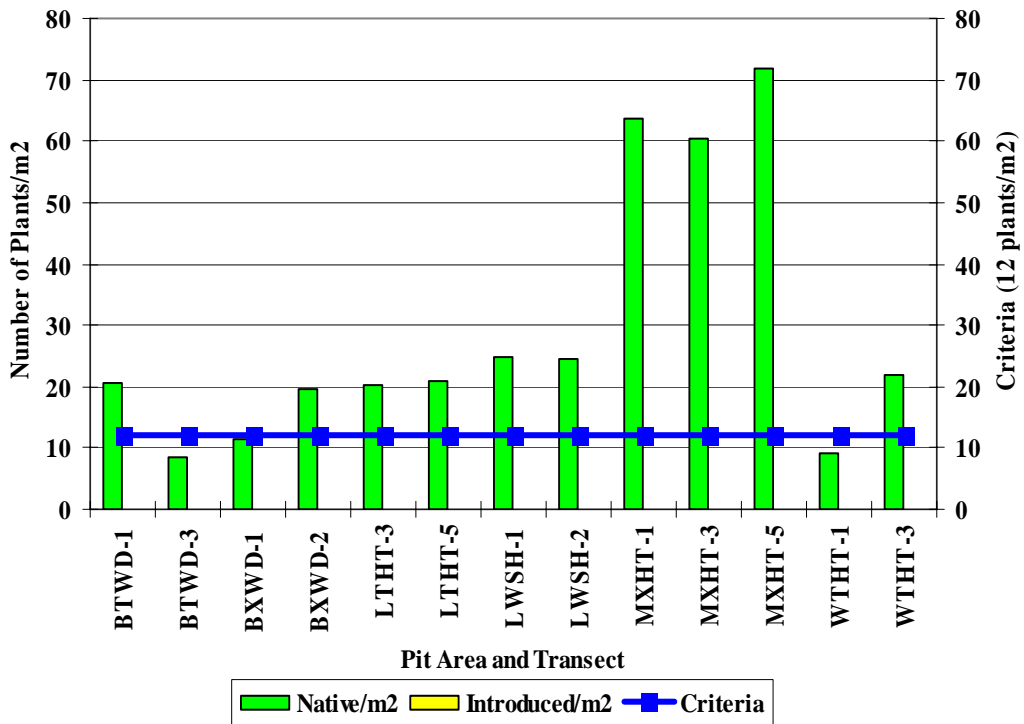


Figure 5f: Plant Density of All Plants (Alive only) (Mean No. Plants/m²) within Control Areas – without *Acacia blakelyi*

The other criteria relating to the number of bare quadrats. Most quadrats had more than 2 species per quadrat. Therefore the criteria of “no more than 10% of the quadrats in any block are bare”, has been achieved.

5.5 Foliage Cover

Results for percentage alive foliage cover for native and introduced (weed) species in the 1993, 2003, 2005, 2006 and 2007 rehabilitation blocks and the control areas are summarized in Figures 6a to 6f and 7a to 7f (including and excluding *Acacia blakelyi* respectively). The percentage alive foliage cover criteria were met for the following transects (based on native foliage cover):

- 93HS-1, 93HS-2, 93HS-4, 93HS-6;
- 05AS-2, 05CN-2, 05ES-1.
- The criteria was met on the control sites (although only marginally in several sites), Figure 6f and 7f).

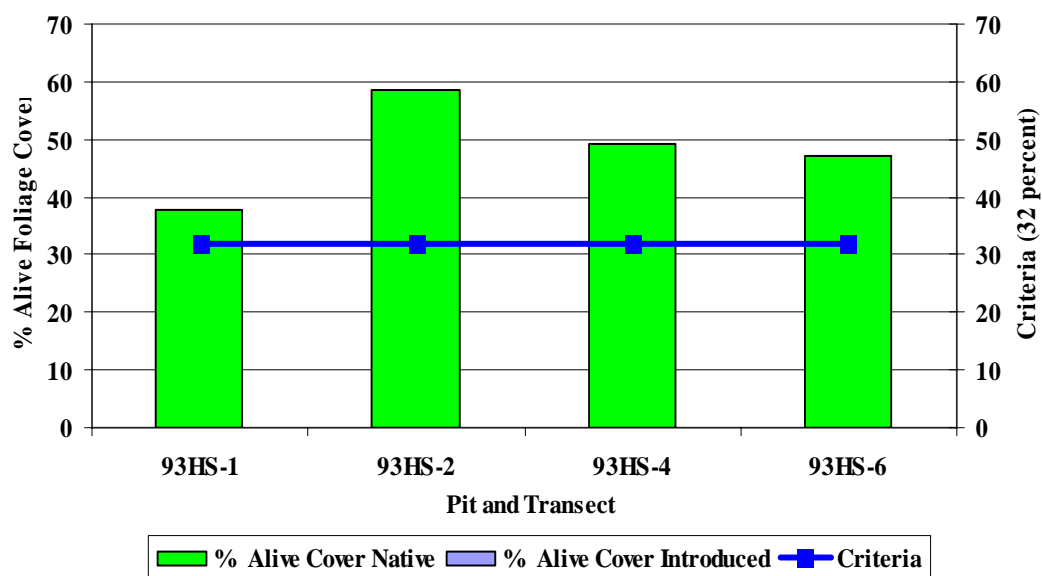


Figure 6a: Percentage Alive Foliage Cover (Mean Percentage Cover) within 1993 Rehabilitation Areas - with *Acacia blakelyi*

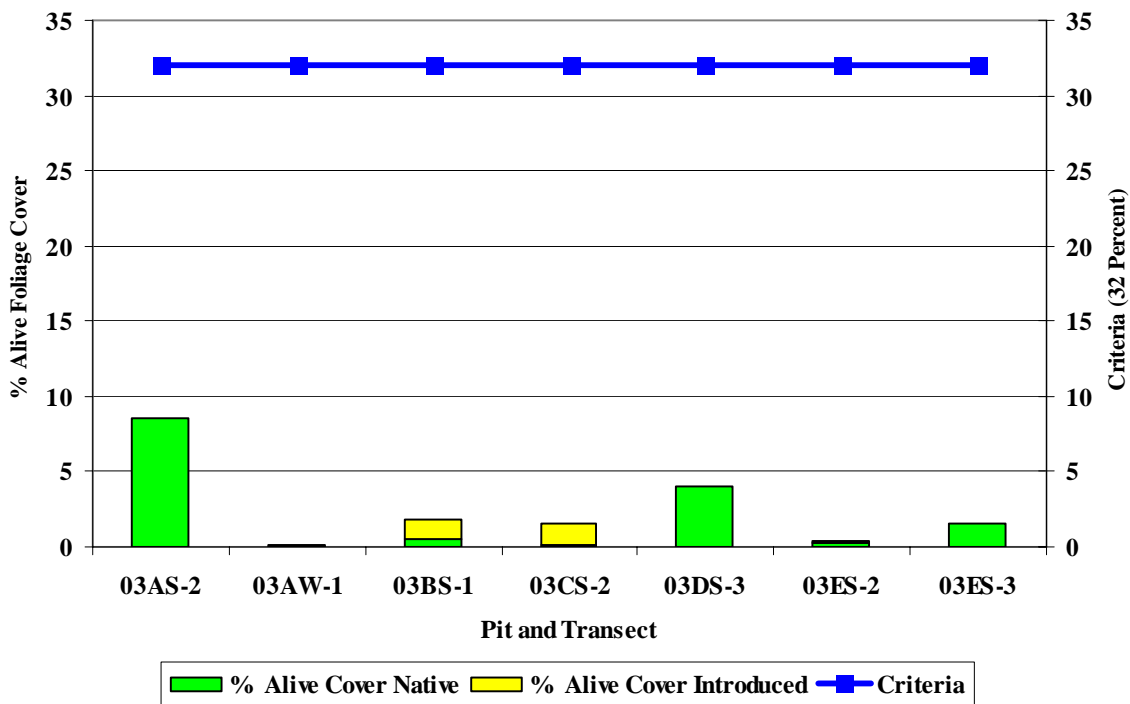


Figure 6b: Percentage Alive Foliage Cover (Mean Percentage Cover) within 2003 Rehabilitation Areas - with *Acacia blakelyi*

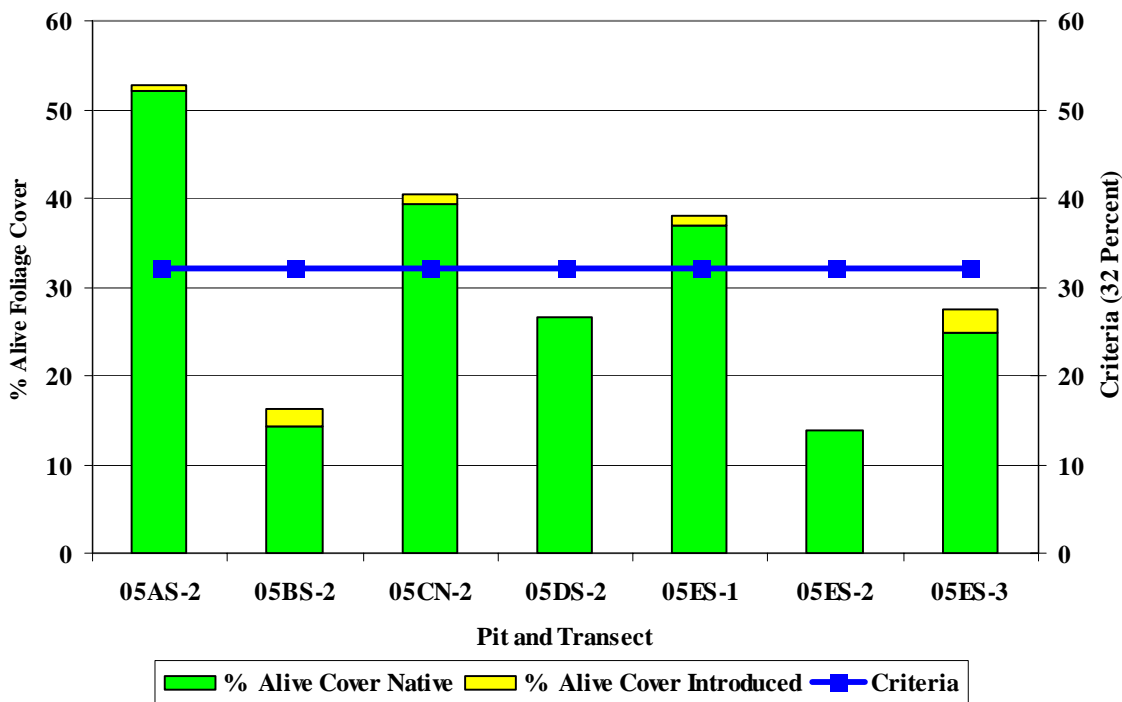


Figure 6c: Percentage Alive Foliage Cover (Mean Percentage Cover) within 2005 Rehabilitation Areas - with *Acacia blakelyi*

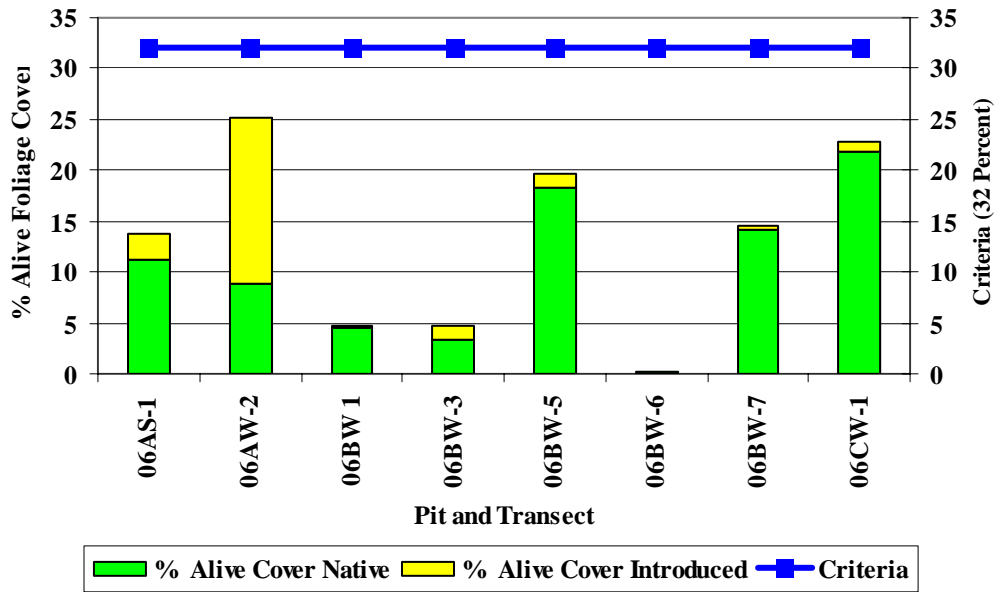


Figure 6d: Percentage Alive Foliage Cover (Mean Percentage Cover) within 2006 Rehabilitation Areas - with *Acacia blakelyi*

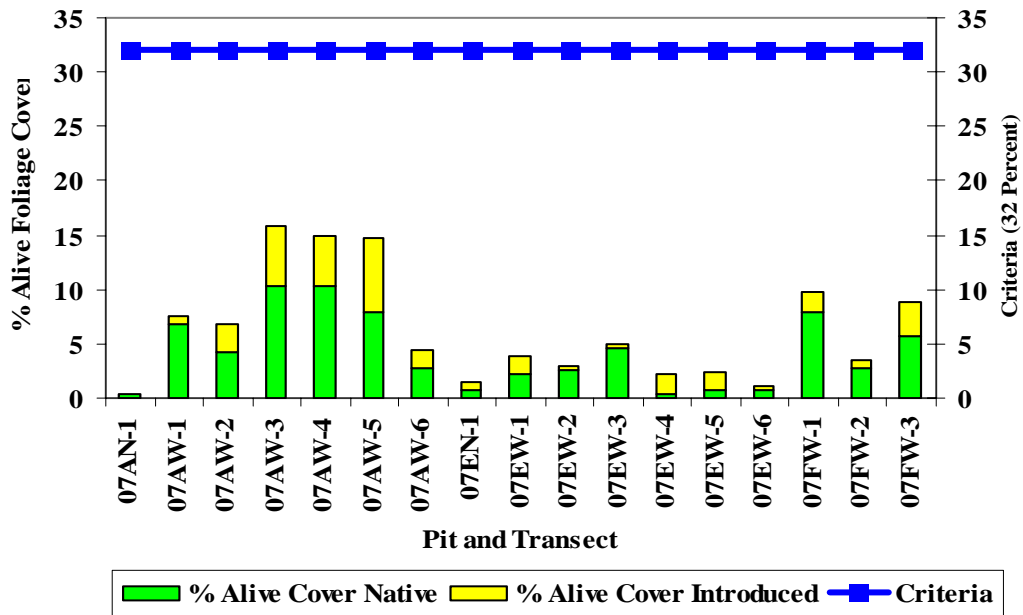


Figure 6e: Percentage Alive Foliage Cover (Mean Percentage Cover) within 2007 Rehabilitation Areas - with *Acacia blakelyi*

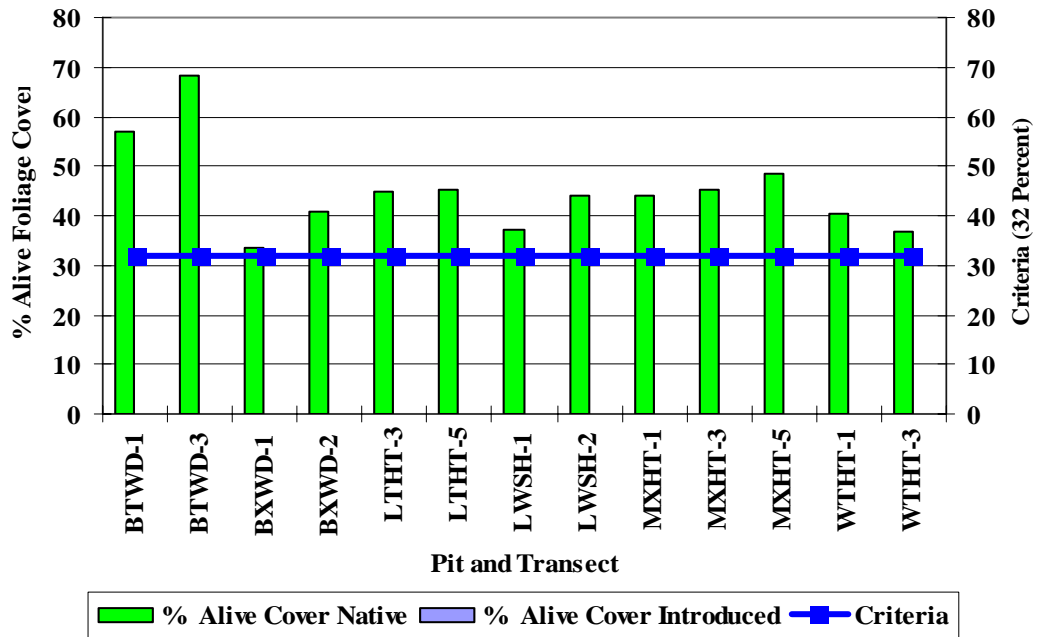


Figure 6f: Percentage Alive Foliage Cover (Mean Percentage Cover) within Control Areas - with *Acacia blakelyi*

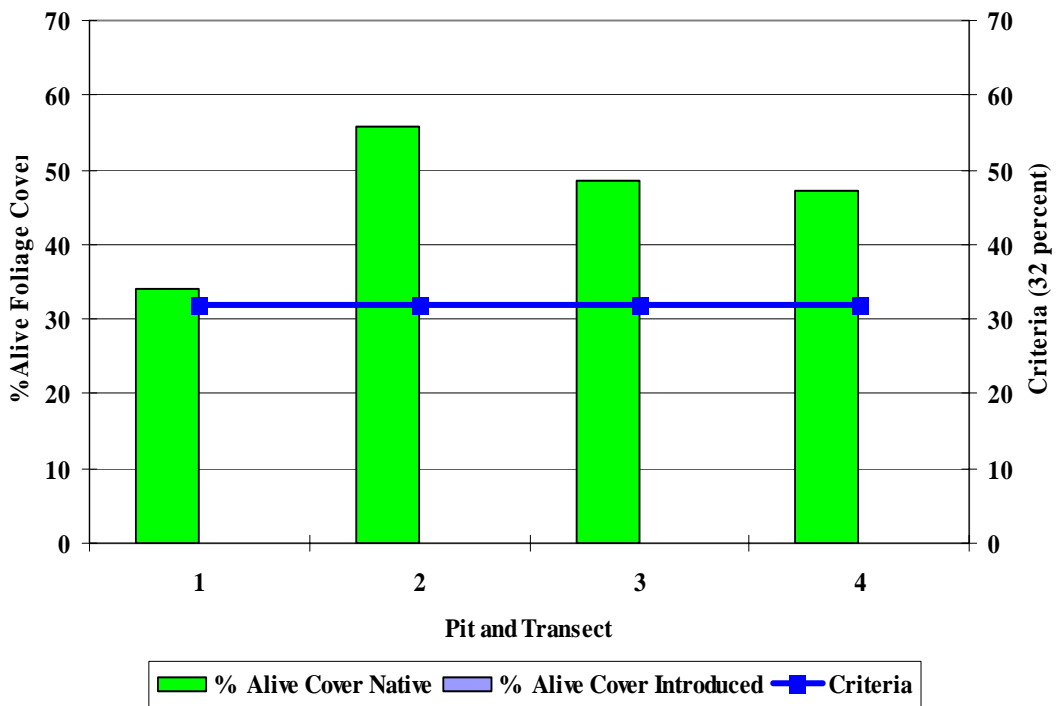


Figure 7a: Percentage Alive Foliage Cover (Mean Percentage Cover) within 1993 Rehabilitation Areas - without *Acacia blakelyi*

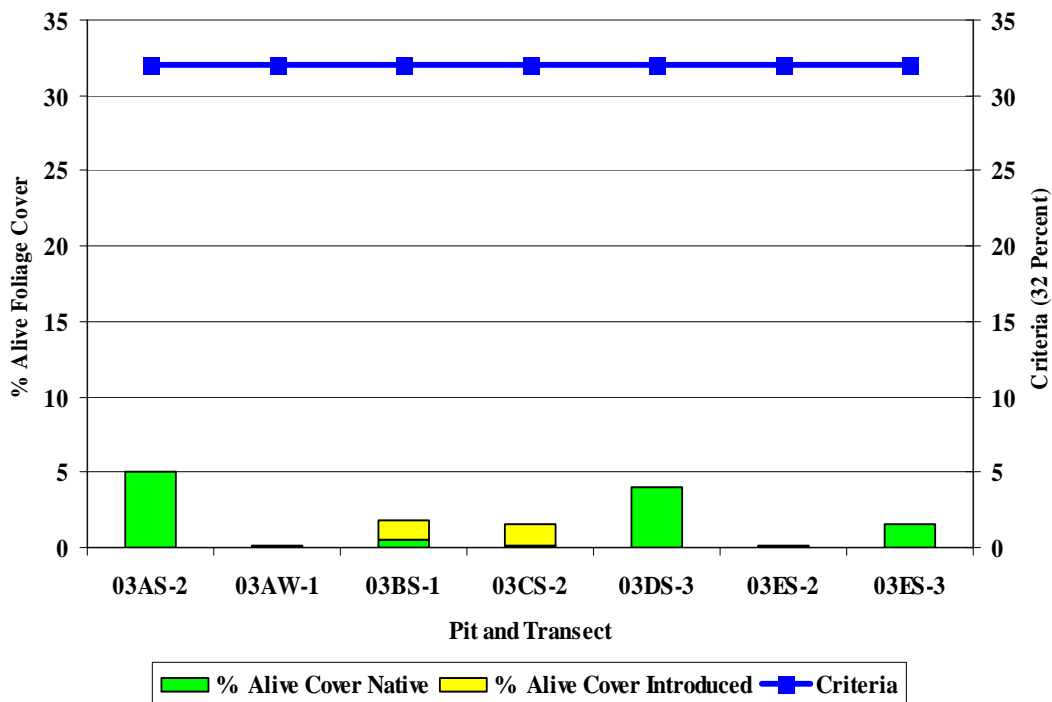


Figure 7b: Percentage Alive Foliage Cover (Mean Percentage Cover) within 2003 Rehabilitation Areas - without *Acacia blakelyi*

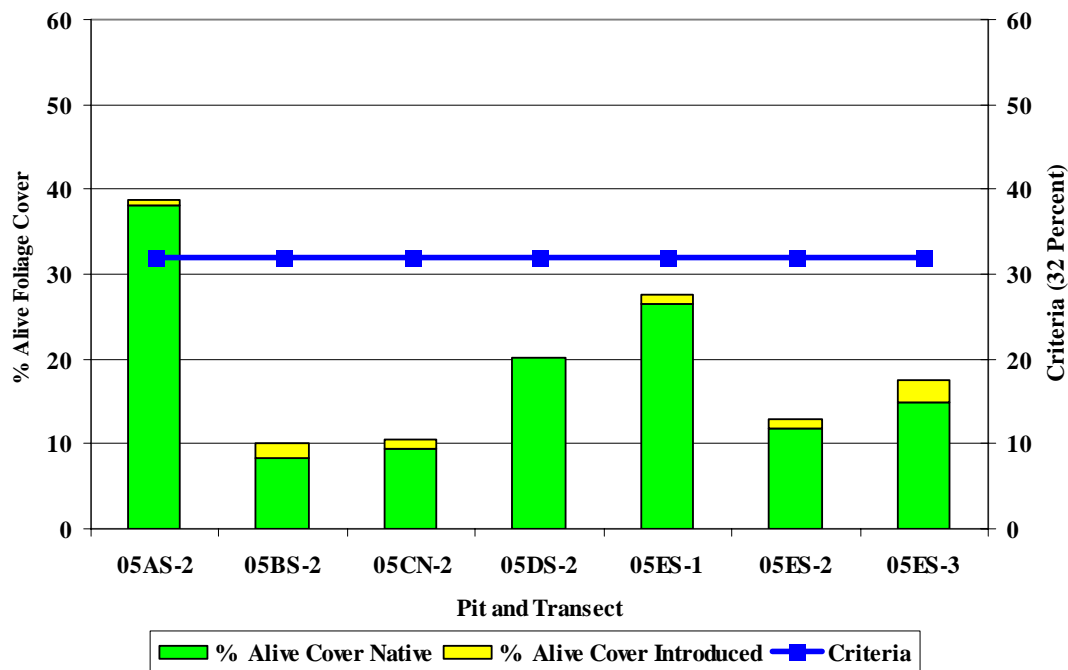


Figure 7c: Percentage Alive Foliage Cover (Mean Percentage Cover) within 2005 Rehabilitation Areas - without *Acacia blakelyi*

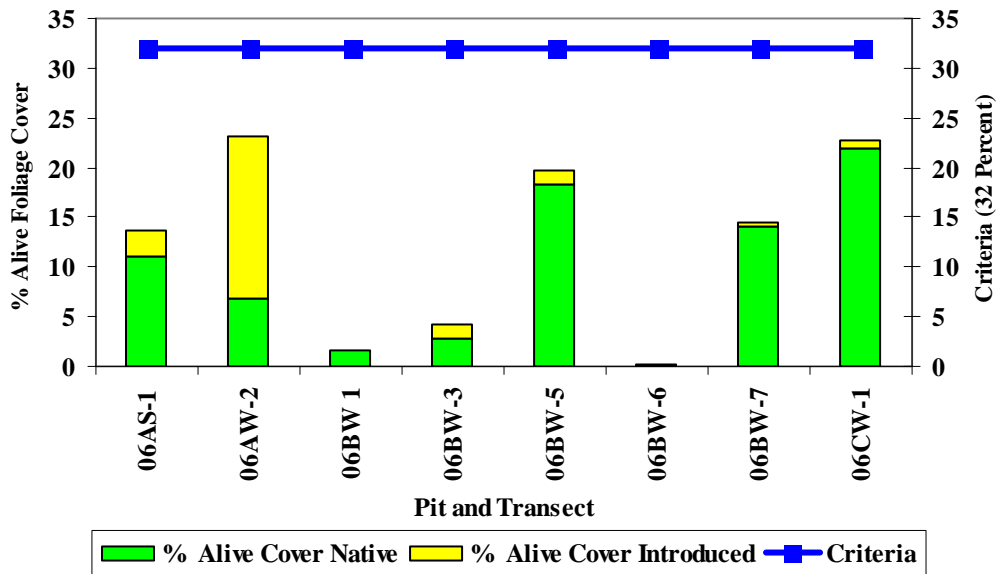


Figure 7d: Percentage Alive Foliage Cover (Mean Percentage Cover) within 2006 Rehabilitation Areas - without *Acacia blakelyi*

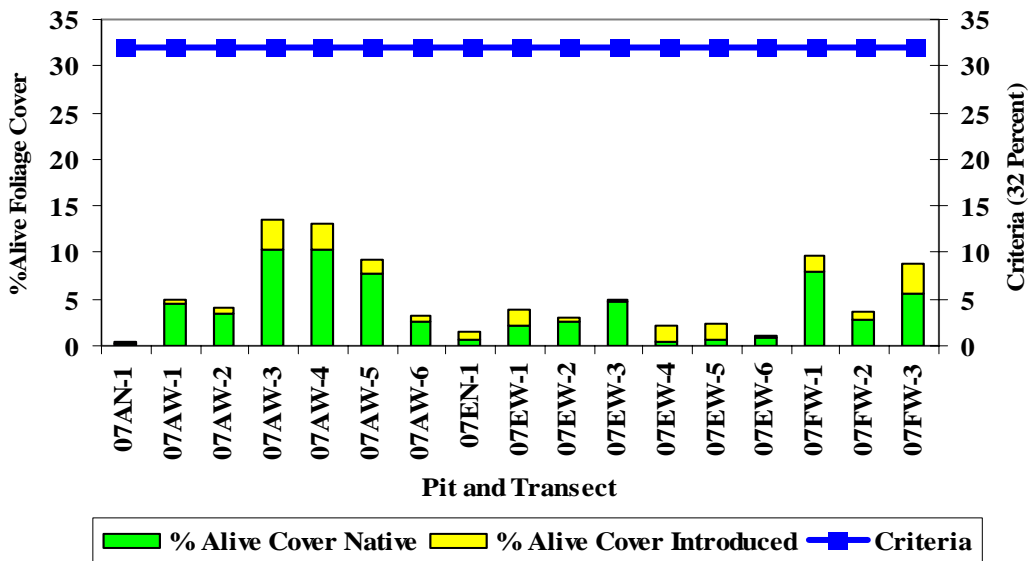


Figure 7e: Percentage Alive Foliage Cover (Mean Percentage Cover) within 2007 Rehabilitation Areas - without *Acacia blakelyi*

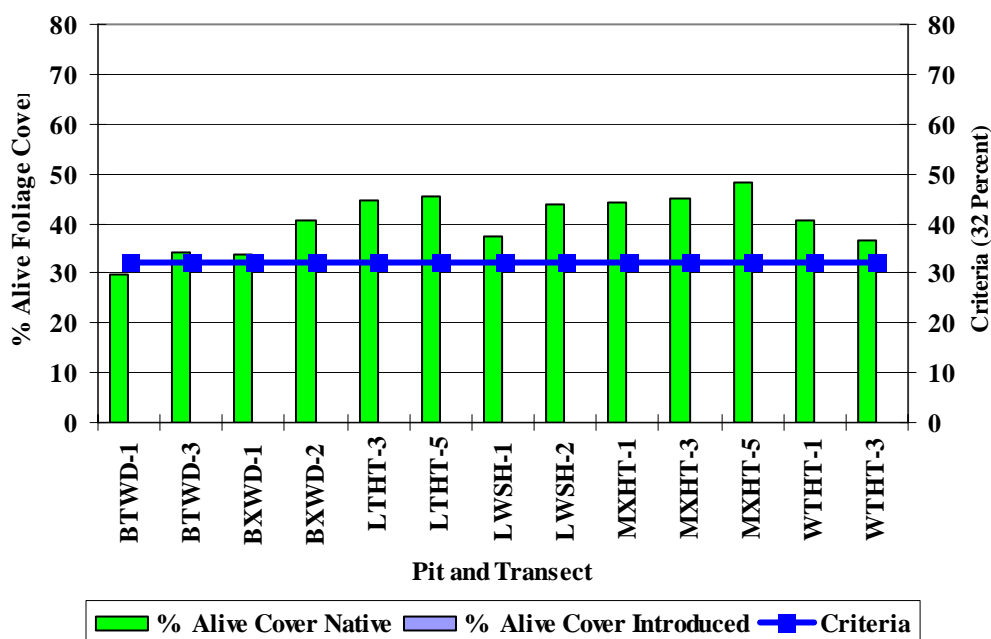


Figure 7f: Percentage Alive Foliage Cover (Mean Percentage Cover) within Control Areas - without *Acacia blakelyi*

5.6 Summary of Achievement of Criteria

In summary, according to results of the 2007 assessment of the 1993, 2003, 2005, 2006 and 2007 rehabilitation areas, when only native species are considered;

- The species richness of 70 species per block criteria was met in 93HS, 05ES, 07AW and 07EW. Two of the control blocks were under the 70 species per block criteria (BTWD and WTHT) (Figure 2f) and several of the control blocks were similar to the criteria of 6 species/m² (Figure 3f).
- The species richness of 6 species per metre square criteria was not met in any of the transects as assessed,
- The plant density criteria was met for the following transects (based on density of native species):
 - 93HS-6;
 - 03AW-1, 03BS-1, 03CS-2, 03ES-2;
 - 05AS-2, 05BS-2, 05ES-3;
 - 06AS-1, 06AW-2, 06BW-5, 06BW-7, 06CW01;
 - 07AW-1, 07AW-2, 07AW-3, 07AW-4, 07AW-5, 07AW-6, 07FW-1, 07FW-2, 07FW-3.
- Several of the control areas did not meet the 12 plants/m².
- The percentage alive foliage cover criteria was met for the following transects (based on native foliage cover):
 - 93HS-1, 93HS-2, 93HS-4, 93HS-6;
 - 05AS-2, 05CN-2, 05ES-1.
- The criteria was met on the control sites (although only marginally in several sites. The criteria of “no more than 10% of the quadrats in any block are bare”, has been achieved.

6. RECOMMENDATIONS

In most rehabilitation areas there are three critical phases in assessing the progress of revegetation on disturbed areas, firstly the initial establishment phase (first two years) which often can determine success or failure of the rehabilitation program, secondly the phase when the plants that have established on the rehabilitation areas start to compete and succession patterns develop and thirdly the phase when the operators wish to obtain sign off that the established system is sustainable and self-sufficient. To assist in optimizing these three phases, it is recommended that:

1. The initial site preparation treatments of all rehabilitation sites are documented, the fire regimes in control areas are documented and the seeding mixes for the respective sites are documented.
2. A revised vegetation-monitoring program should be developed in consultation with the site environmental staff so that the investigations into the various critical phases are investigated. This revised program should also include areas that may have required re-treatment.
3. Ongoing monitoring of all rehabilitation areas should be continued to allow continued study of the development of rehabilitation areas with age and a review of the timing of the assessment and the completion criteria.
4. The high number of weed species in younger rehabilitation areas continues to be reduced in future rehabilitation.
5. Contrary to previous recommendations, assessment of control plots should be maintained each year, in light of unexpected declines in recent years.
6. A review of the criteria for assessment and completion criteria, as it relates to rehabilitation at Iluka Resources Ltd, Eneabba Operations, is carried out as soon as possible.

7. LIST OF PARTICIPANTS

The following personnel of Matiske Consulting Pty Ltd were involved with this project:

Principal Ecologist: Dr E Matiske

Ecologists: Mr T Sleight
Ms F Smith
Mr S Reiffer
Ms S Robinson
Ms F Chandler

8. ACKNOWLEDGMENTS

The author would like to thank the environmental staff of Iluka Resources Ltd, Eneabba Operations, Mineral Sand Mine, for their assistance with this project.

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**APPENDIX B: COMPARISON OF DIFFERENT VASCULAR PLANT SPECIES IN REHABILITATION
AREAS AND CONTROL SITES**

Note - * denotes introduced species and P1, P2, P3 and P4 denote Priority Flora Species (DEC 2008a)

R - denotes Rare Flora (DEC 2008a)

Family	Species	1993	2003	2005	2006	2007	Control
CUPRESSACEAE	<i>Actinostrobus acuminatus</i>	1					
POACEAE	* <i>Agrostis capillaris</i>		1	1			
	* <i>Aira caryophylla</i>		1	1	1	1	
	<i>Amphipogon caricinus</i>					1	
	<i>Amphipogon</i> sp.						1
	<i>Amphipogon turbinatus</i>	1				1	1
	<i>Austrodanthonia caespitosa</i>			1	1	1	
	<i>Austrostipa elegantissima</i>		1	1	1	1	
	<i>Austrostipa hemipogon</i>		1		1		
	<i>Austrostipa macalpinei</i>		1	1	1	1	
	<i>Austrostipa</i> sp.		1				1
	<i>Austrostipa tenuifolia</i>		1				
	<i>Austrostipa trichophylla</i>					1	
	* <i>Avena fatua</i>		1		1		
	* <i>Avena</i> sp.				1		
	* <i>Briza maxima</i>			1			
	* <i>Briza minor</i>						1
	* <i>Ehrharta calycina</i>		1		1	1	
	* <i>Ehrharta longiflora</i>		1		1		
	* <i>Eragrostis curvula</i>				1		
	* <i>Hordeum leporinum</i>				1		
	* <i>Lolium perenne</i>		1		1	1	
	* <i>Lolium</i> sp.			1			
	<i>Neurachne alopecuroidea</i>		1	1	1		1
	<i>Panicum</i> sp.				1		
	* <i>Parapholis incurva</i>					1	
	* <i>Pentaschistis airoides</i>				1	1	
	* <i>Polypogon monspeliensis</i>				1	1	
	* <i>Vulpia muralis</i>			1	1		
	* <i>Vulpia myuros</i>	1	1				
	* <i>Vulpia myuros</i> var. <i>myuros</i>		1	1			1
	* <i>Vulpia</i> sp.		1	1		1	
	Poaceae sp.	1	1	1	1	1	1
	Poaceae sp.1				1		
	Poaceae sp.2				1		
CYPERACEAE	<i>Cautis dioica</i>			1	1		1
	<i>Cyathochaeta avenacea</i>				1		1
	<i>Isolepis cernua</i> var. <i>setiformis</i>		1		1	1	1
	* <i>Isolepis marginata</i>		1	1		1	
	<i>Lepidosperma leptostachyum</i>						1
	<i>Lepidosperma</i> sp.						1
	<i>Lepidosperma squamatum</i>						1
	<i>Lepidosperma tenue</i>						1
	<i>Mesomelaena pseudostygia</i>				1		1
	<i>Mesomelaena</i> sp.		1				
	<i>Mesomelaena tetragona</i>						1
	<i>Schoenoplectus subulatus</i>						1
	<i>Schoenus</i> aff. <i>latitans</i>						1
	<i>Schoenus brevisetis</i>						1
	<i>Schoenus curvifolius</i>						1
	<i>Schoenus griffinianus</i> (P2)		1	1		1	1
	<i>Schoenus hexandrus</i>						1
	<i>Schoenus humilis</i>			1			
	<i>Schoenus latitans</i>						1
	<i>Schoenus nanus</i>			1			
	<i>Schoenus pedicellatus</i>		1				

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R - denotes Rare Flora (DEC 2008a)

Family	Species	1993	2003	2005	2006	2007	Control
CYPERACEAE	<i>Schoenus pleiostemoneus</i>						1
(continued)	<i>Schoenus</i> sp.		1			1	1
	<i>Schoenus unispiculatus</i>		1				1
	<i>Tetraria octandra</i>						1
	Cyperaceae sp.		1	1	1	1	1
RESTIONACEAE	<i>Alexgeorgea nitens</i>		1	1	1	1	1
	<i>Chordifex sinuosus</i>	1					1
	<i>Desmocladus asper</i>	1					1
	<i>Desmocladus elongatus</i> (P3)						1
	<i>Desmocladus flexuosus</i>			1			1
	<i>Desmocladus semiplanus</i>				1		1
	<i>Harperia lateriflora</i>						1
	<i>Lepidobolus chaetocephalus</i>	1	1				1
	<i>Lepidobolus</i> sp.	1				1	1
	<i>Lyginia barbata</i>	1	1	1	1	1	1
	<i>Meeboldina cana</i>						1
	<i>Meeboldina</i> sp.	1					1
	Restionaceae sp.		1	1	1	1	
ECDEIOCOLEACEAE	<i>Ecdiocollea monostachya</i>	1	1	1	1		1
	<i>Georgeantha hexandra</i> (P4)						1
CENTROLEPIDACEAE	<i>Centrolepis mutica</i>			1			
	<i>Centrolepis pilosa</i>		1	1	1	1	
	<i>Centrolepis polygyna</i>		1	1	1	1	1
PHILYDRACEAE	<i>Philydrella pygmaea</i>						1
JUNCAEAE	* <i>Juncus bufonius</i>			1			
DASYPOGONACEAE	<i>Calectasia grandiflora</i>		1				
	<i>Calectasia narragara</i>						1
	<i>Calectasia palustris</i> (P1)						1
	<i>Dasyogon</i> sp.				1	1	
	<i>Lomandra collina</i>						1
	<i>Lomandra hermaphrodita</i>						1
	<i>Lomandra micrantha</i> subsp. <i>micrantha</i>			1			1
	<i>Lomandra preissii</i>						1
	<i>Lomandra sericea</i>						1
	<i>Lomandra sonderi</i>						1
	<i>Lomandra suaveolens</i>						1
	<i>Lomandra</i> sp.	1	1	1	1	1	1
XANTHORRHOEACEAE	<i>Xanthorrhoea drummondii</i>						1
	<i>Xanthorrhoea gracilis</i>						1
	<i>Xanthorrhoea preissii</i>						1
ANTHERICACEAE	<i>Arnocrinum preissii</i>		1	1			1
	<i>Johnsonia pubescens</i>				1		1
	<i>Laxmannia sessiliflora</i>		1				
	<i>Thysanotus fastigiatus</i>						1
	<i>Thysanotus manglesianus</i>		1	1		1	1
	<i>Thysanotus multiflorus</i>			1			
	<i>Thysanotus spiniger</i>		1			1	1
	<i>Thysanotus tenellus</i>						1
	<i>Thysanotus thyrsoides</i>		1				1
	<i>Thysanotus triandrus</i>			1	1		

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Note - * denotes introduced species and P1, P2, P3 and P4 denote Priority Flora Species (DEC 2008a)

R - denotes Rare Flora (DEC 2008a)

Family	Species	1993	2003	2005	2006	2007	Control
ANTHERICACEAE	<i>Thysanotus</i> sp.		1	1	1		1
(continued)	<i>Tricoryne elatior</i>			1			1
	<i>Laxmannia sessiliflora</i> subsp. <i>drummondii</i>		1	1	1	1	1
	<i>Laxmannia sessiliflora</i> subsp. <i>sessiliflora</i>						1
	<i>Laxmannia squarrosa</i>			1		1	
	<i>Laxmannia</i> sp.			1		1	1
COLCHICACEAE	<i>Burchardia congesta</i>						1
BORYACEAE	<i>Borya sphaerocephala</i>						1
HAEMODORACEAE	<i>Anigozanthos humilis</i>	1	1				
	<i>Anigozanthos manglesii</i>		1		1	1	1
	<i>Anigozanthos</i> sp.		1	1	1	1	
	<i>Conostylis aculeata</i>		1			1	
	<i>Conostylis aculeata</i> subsp. <i>breviflora</i>				1		1
	<i>Conostylis aurea</i>						1
	<i>Conostylis candicans</i> subsp. <i>procumbens</i>						1
	<i>Conostylis canteriata</i>						1
	<i>Conostylis crassinervia</i> subsp. <i>absens</i>	1					1
	<i>Conostylis dielsii</i> subsp. <i>dielsii</i>						1
	<i>Conostylis neocymosa</i>	1	1	1			1
	<i>Conostylis serrulata</i>						1
	<i>Conostylis teretifolia</i> subsp. <i>teretifolia</i>			1	1		1
	<i>Conostylis</i> sp.	1	1	1	1	1	1
	<i>Conostylis</i> sp.2						1
	<i>Haemodorum laxum</i>				1		1
	<i>Phlebocarya filifolia</i>				1		
	<i>Tribonanthes australis</i>						1
	Haemodoraceae sp.			1		1	
IRIDACEAE	<i>Patersonia occidentalis</i>		1				
CASUARINACEAE	<i>Allocasuarina huegeliana</i>			1			
	<i>Allocasuarina humilis</i>	1		1		1	1
	<i>Allocasuarina microstachya</i>				1		1
	<i>Allocasuarina</i> sp.			1	1	1	1
PROTEACEAE	<i>Adenanthos cygnorum</i> subsp. <i>cygnorum</i>	1	1	1	1	1	1
	<i>Adenanthos drummondii</i>						1
	<i>Adenanthos</i> sp.			1			
	<i>Banksia attenuata</i>	1					1
	<i>Banksia bipinnatifida</i>						1
	<i>Banksia candolleana</i>		1	1	1		1
	<i>Banksia carlinoides</i>			1	1		1
	<i>Banksia dallanneyi</i>						1
	<i>Banksia dallanneyi</i> var. <i>dallanneyi</i>		1				
	<i>Banksia dallanneyi</i> subsp. <i>media</i>						1
	<i>Banksia dryandroides</i>		1				
	<i>Banksia glaucifolia</i>			1			
	<i>Banksia hookeriana</i>	1	1		1	1	1
	<i>Banksia kippistiana</i>						1
	<i>Banksia lanata</i>						1
	<i>Banksia leptophylla</i>						1
	<i>Banksia prionotes</i>		1				
	<i>Banksia ?serratuloides</i> (R)				1		
	<i>Banksia sessilis</i>	1		1		1	
	<i>Banksia shuttleworthiana</i>		1	1	1		1

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R - denotes Rare Flora (DEC 2008a)

Family	Species	1993	2003	2005	2006	2007	Control
PROTEACEAE	<i>Banksia sphaerocarpa</i> var. <i>sphaerocarpa</i>	1	1	1	1	1	1
(continued)	<i>Banksia squarrosa</i>					1	
	<i>Banksia tortifolia</i> (P3)						1
	<i>Banksia tridentata</i>			1		1	1
	<i>Banksia vestita</i>						1
	<i>Banksia</i> sp.		1	1	1	1	1
	<i>Conospermum crassinervium</i>		1				
	<i>Conospermum triplinervium</i>	1	1	1	1	1	1
	<i>Conospermum unilaterale</i>		1	1			1
	<i>Grevillea eriostachya</i>		1				1
	<i>Grevillea polybotrya</i>				1		
	<i>Grevillea synapheae</i>						1
	<i>Grevillea</i> sp.		1		1		
	<i>Hakea auriculata</i>			1			1
	<i>Hakea candolleana</i>						1
	<i>Hakea conchifolia</i>						1
	<i>Hakea costata</i>	1					1
	<i>Hakea eneabba</i>				1		
	<i>Hakea gilbertii</i>						1
	<i>Hakea incrassata</i>		1				1
	<i>Hakea lissocarpha</i>				1		
	<i>Hakea preissii</i>		1		1		
	<i>Hakea prostrata</i>		1				
	<i>Hakea ruscifolia</i>					1	
	<i>Hakea smilacifolia</i>						1
	<i>Hakea stenocarpa</i>						1
	<i>Hakea</i> sp.		1	1	1		1
	<i>Isopogon tridens</i> (P3)						1
	<i>Lambertia multiflora</i> var. <i>multiflora</i>		1	1	1	1	1
	<i>Petrophile brevifolia</i>	1	1	1	1	1	1
	<i>Petrophile chrysantha</i>						1
	<i>Petrophile drummondii</i>	1	1	1		1	1
	<i>Petrophile linearis</i>				1	1	1
	<i>Petrophile macrostachya</i>	1	1		1		1
	<i>Petrophile shuttleworthiana</i>						1
	<i>Petrophile</i> sp.			1	1	1	1
	<i>Petrophile striata</i>		1				
	<i>Stirlingia latifolia</i>	1	1				1
	<i>Synaphea petiolaris</i>						1
	<i>Synaphea polymorpha</i>						1
	<i>Synaphea</i> sp.				1		1
	<i>Xylomelum angustifolium</i>	1				1	1
	Proteaceae sp.			1	1	1	
CHENOPODIACEAE	<i>Halosarcia indica</i> subsp. <i>bidens</i>					1	
AMARANTHACEAE	<i>Ptilotus manglesii</i>						1
	<i>Ptilotus polystachyus</i>			1	1	1	1
GYROSTEMONACEAE	<i>Gyrostemon subnudus</i>		1				
	<i>Tersonia cyathiflora</i>		1				
AIZOACEAE	<i>Macarthuria australis</i>		1	1	1		1
	* <i>Carpobrotus edulis</i>		1	1		1	
	<i>Carpobrotus modestus</i>				1		
	* <i>Carpobrotus</i> sp.		1				

**APPENDIX B: COMPARISON OF DIFFERENT VASCULAR PLANT SPECIES IN REHABILITATION
AREAS AND CONTROL SITES**

Note - * denotes introduced species and P1, P2, P3 and P4 denote Priority Flora Species (DEC 2008a)

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Family	Species	1993	2003	2005	2006	2007	Control
PORTULACACEAE	<i>Calandrinia brevipedata</i>		1				
	<i>Calandrinia corrigioloides</i>			1			
	<i>Calandrinia polypetala</i>				1	1	
	<i>Calandrinia</i> sp. Kenwick (G.J. Keighery 10905)				1	1	
CARYOPHYLLACEAE *	<i>Petrorhagia dubia</i>						1
	* <i>Spergularia marina</i>					1	
	Caryophyllaceae sp.				1		
LAURACEAE	<i>Cassytha flava</i>						1
	<i>Cassytha</i> sp.	1	1	1		1	1
BRASSICACEAE	* <i>Brassica tournefortii</i>		1	1	1	1	
DROSERACEAE	<i>Drosera bulbosa</i>	1					
	<i>Drosera eneabba</i>	1	1				1
	<i>Drosera leucoblata</i>						1
	<i>Drosera menziesii</i>						1
	<i>Drosera menziesii</i> subsp. <i>menziesii</i>						1
	<i>Drosera miniata</i>		1				
	<i>Drosera paleacea</i>						1
	<i>Drosera porrecta</i>						1
	<i>Drosera</i> sp.		1				1
	<i>Drosera</i> sp. (climbing)						1
CRASSULACEAE	<i>Crassula colorata</i>	1	1	1	1		1
	<i>Crassula colorata</i> var. <i>colorata</i>		1	1			
ROSACEAE	* <i>Acaena echinata</i>				1		
MIMOSACEAE	<i>Acacia alata</i> var. <i>biglandulosa</i>			1			
	<i>Acacia auronitens</i>						1
	<i>Acacia barbinervis</i>				1		
	<i>Acacia blakelyi</i>	1	1	1	1	1	1
	<i>Acacia lasiocarpa</i> var. <i>lasiocarpa</i>		1				
	<i>Acacia lasiocarpa</i> var. <i>sedifolia</i>		1	1			
	<i>Acacia pulchella</i>	1	1	1	1		1
<i>Acacia</i> sp.		1	1		1		
PAPILIONACEAE	<i>Daviesia decurrens</i>				1		
	<i>Daviesia divaricata</i>	1					1
	<i>Daviesia hakeoides</i>				1		
	<i>Daviesia longifolia</i>	1					
	<i>Daviesia nudiflora</i> subsp. <i>nudiflora</i>	1		1		1	1
	<i>Daviesia pedunculata</i>						1
	<i>Daviesia physodes</i>					1	1
	<i>Daviesia podophylla</i>				1		
	<i>Daviesia rhombifolia</i>			1	1		
	<i>Daviesia</i> aff. <i>spinosissima</i>			1			
	<i>Daviesia triflora</i>				1		1
	<i>Daviesia</i> sp.			1	1		1
	<i>Gastrolobium calycinum</i>				1		
	<i>Gastrolobium plicatum</i>			1			1
	<i>Gastrolobium spinosum</i>			1			
	<i>Gompholobium shuttleworthii</i>				1		1
	<i>Gompholobium tomentosum</i>	1	1	1	1	1	1
<i>Gompholobium</i> sp.				1	1		
<i>Hovea stricta</i>				1			

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PAPILIONACEAE	<i>Isotropis cuneifolia</i> subsp. <i>cuneifolia</i>		1	1			1
(continued)	<i>Isotropis juncea</i>			1			
	<i>Isotropis</i> sp.					1	
	<i>Jacksonia floribunda</i>	1	1	1	1	1	1
	<i>Jacksonia furcellata</i>		1		1		1
	<i>Jacksonia lehmannii</i>						1
	<i>Jacksonia ramulosa</i> (ms)					1	
	<i>Jacksonia sternbergiana</i>				1		
	<i>Jacksonia</i> sp.			1			
	<i>Kennedia prostrata</i>			1		1	
	* <i>Lupinus cosentinii</i>					1	
	* <i>Ornithopus compressus</i>			1		1	
	<i>Sphaerolobium gracile</i>		1		1	1	1
	<i>Sphaerolobium linophyllum</i>				1		
	<i>Sphaerolobium</i> sp.			1			
	* <i>Trifolium arvense</i>			1	1		
	* <i>Trifolium hirtum</i>		1	1			
	<i>Viminaria juncea</i>			1			
	Papilionaceae sp.			1	1	1	
GERANIACEAE	* <i>Erodium botrys</i>		1	1	1	1	
	* <i>Erodium</i> sp.		1	1			
RUTACEAE	<i>Boronia ramosa</i>		1	1			
	<i>Boronia ramosa</i> subsp. <i>anethifolia</i>	1	1		1		1
	<i>Boronia</i> sp.			1	1		
	<i>Philotheca spicata</i>		1		1		
POLYGALACEAE	<i>Comesperma acerosum</i>						1
	<i>Comesperma drummondii</i>						1
EUPHORBIACEAE	<i>Monotaxis grandiflora</i> var. <i>grandiflora</i>						1
	<i>Stachystemon axillaris</i> (P4)				1		1
STACKHOUSIACEAE	<i>Stackhousia monogyna</i>		1				
SAPINDACEAE	Sapindaceae sp.		1				
STERCULIACEAE	<i>Lasiopetalum drummondii</i>						1
	<i>Thomasia</i> sp.				1		
DILLENACEAE	<i>Hibbertia crassifolia</i>	1	1		1	1	1
	<i>Hibbertia furfuracea</i>	1					1
	<i>Hibbertia</i> aff. <i>furfuracea</i>	1	1				1
	<i>Hibbertia glomerosa</i> var. <i>glomerosa</i>						1
	<i>Hibbertia racemosa</i>						1
	<i>Hibbertia subvaginata</i>	1	1	1	1	1	1
	<i>Hibbertia</i> sp.		1	1	1	1	
THYMELAEACEAE	<i>Pimelea sulphurea</i>						1
	<i>Pimelea</i> sp.						1
MYRTACEAE	<i>Baeckea grandiflora</i>						1
	<i>Beaufortia aestiva</i>				1		1
	<i>Beaufortia elegans</i>	1	1	1			1
	<i>Beaufortia purpurea</i>		1	1	1		1
	<i>Beaufortia</i> sp.		1			1	1
	<i>Calothamnus blepharospermus</i>		1	1			

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MYRTACEAE	<i>Calothamnus longissimus</i>			1	1		
(continued)	<i>Calothamnus quadrifidus</i>		1		1	1	
	<i>Calothamnus sanguineus</i>		1	1			1
	<i>Calothamnus torulosus</i>						1
	<i>Calothamnus</i> sp.		1	1	1	1	1
	<i>Calytrix angulata</i>		1	1			1
	<i>Calytrix depressa</i>						1
	<i>Calytrix flavescens</i>						1
	<i>Calytrix superba</i> (P3)						1
	<i>Calytrix</i> sp.						1
	<i>Conothamnus trinervis</i>				1		1
	<i>Darwinia neildiana</i>		1				1
	<i>Darwinia sanguinea</i>						1
	<i>Darwinia speciosa</i>						1
	<i>Eremaea acutifolia</i> (P2)						1
	<i>Eremaea asterocarpa</i>				1		
	<i>Eremaea beaufortoides</i>	1	1	1	1	1	1
	<i>Eremaea beaufortoides</i> var. <i>lachnosanthe</i>			1			
	<i>Eremaea beaufortoides</i> var. <i>microphylla</i>						1
	<i>Eremaea ebracteata</i> var. <i>ebracteata</i>						1
	<i>Eremaea violacea</i>	1	1				1
	<i>Eremaea</i> sp.		1	1	1	1	1
	<i>Eucalyptus macrocarpa</i>		1				
	<i>Eucalyptus pleurocarpa</i>		1				1
	<i>Eucalyptus tottiana</i>	1	1				1
	<i>Eucalyptus</i> sp.	1	1	1	1	1	1
	<i>Hypocalymma gardneri</i> (P2)						1
	<i>Leptospermum erubescens</i>		1				1
	<i>Leptospermum spinescens</i>						1
	<i>Melaleuca ciliosa</i>		1				1
	<i>Melaleuca lateriflora</i> subsp. <i>acutifolia</i>		1				
	<i>Melaleuca leuropoma</i>		1	1	1		1
	<i>Melaleuca radula</i>				1		
	<i>Melaleuca ryeae</i>		1	1			
	<i>Melaleuca seriata</i>		1				1
	<i>Melaleuca systema</i>	1	1				1
	<i>Melaleuca trichophylla</i>		1	1	1	1	1
	<i>Melaleuca zonalis</i>						1
	<i>Melaleuca</i> sp.		1	1	1		1
	<i>Melaleuca</i> sp.1		1	1		1	
	<i>Melaleuca</i> sp.2			1		1	
	<i>Pileanthus filifolius</i>						1
	<i>Regelia ciliata</i>	1	1	1			1
	<i>Scholtzia involucrata</i>		1	1		1	1
	<i>Scholtzia laxiflora</i>	1					1
	<i>Scholtzia parviflora</i>						1
	<i>Scholtzia</i> sp.						1
	<i>Thryptomene</i> sp. <i>Eneabba</i> (R.J. Cranfield 84)	1	1	1	1		1
	<i>Verticordia argentea</i> (P2)		1				
	<i>Verticordia aurea</i> (P4)		1				
	<i>Verticordia densiflora</i> var. <i>densiflora</i>				1		1
	<i>Verticordia grandis</i>		1				1
	<i>Verticordia monadelpha</i> var. <i>monadelpha</i>				1		
	<i>Verticordia muelleriana</i>		1			1	
	<i>Verticordia muelleriana</i> subsp. <i>muelleriana</i> (P3)						1
	<i>Verticordia nitens</i>	1	1	1	1	1	1
	<i>Verticordia nobilis</i>					1	
	<i>Verticordia pennigera</i>						1

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MYRTACEAE	<i>Verticordia serrata</i> var. <i>ciliata</i>						1
(continued)	<i>Verticordia</i> sp.	1	1	1	1	1	1
	<i>Verticordia</i> sp.1			1			
	<i>Verticordia</i> sp.2			1			
	Myrtaceae sp.	1	1	1	1		1
	Myrtaceae sp.1			1		1	
	Myrtaceae sp.2			1	1	1	
APIACEAE	<i>Daucus glochidiatus</i>				1		
	<i>Platysace xerophila</i>						1
	<i>Trachymene pilosa</i>	1	1	1	1	1	1
	<i>Xanthosia huegelii</i>			1		1	1
	<i>Xanthosia</i> sp.			1			
EPACRIDACEAE	<i>Andersonia heterophylla</i>	1					
	<i>Andersonia lehmanniana</i>						1
	<i>Andersonia</i> sp.						1
	<i>Astroloma glaucescens</i>			1			1
	<i>Astroloma microdonta</i>						1
	<i>Astroloma pallidum</i>						1
	<i>Astroloma ?pallidum</i>		1				
	<i>Astroloma serratifolium</i>						1
	<i>Astroloma stomarrhena</i>						1
	<i>Astroloma xerophyllum</i>	1	1	1			1
	<i>Leucopogon conostephioides</i>	1					1
	<i>Leucopogon</i> sp.	1	1		1		1
	<i>Leucopogon</i> sp. South Eneabba (E.A. Griffin 8027)						1
	Epacridaceae sp.		1	1		1	1
	Epacridaceae sp.2						1
	Epacridaceae sp.3						1
PRIMULACEAE	* <i>Anagallis arvensis</i>		1		1	1	
GENTIANACEAE	<i>Villarsia capitata</i>			1			
BORAGINACEAE	* <i>Echium plantagineum</i>					1	
LAMIACEAE	<i>Hemiandra</i> sp. Eneabba (H. Demarz 3687) (P1)						1
	<i>Lachnostachys eriobotrya</i>	1					1
SOLANACEAE	* <i>Solanum nigrum</i>				1		
SCROPHULARIACEAE	* <i>Parentucellia latifolia</i>				1		1
	* <i>Zaluzianskya divaricata</i>		1				
OROBANCHACEAE	* <i>Orobanche minor</i>				1		
RUBIACEAE	<i>Opercularia apiciflora</i>						1
	<i>Opercularia spermacoea</i>						1
	<i>Opercularia vaginata</i>						1
	<i>Opercularia</i> sp.		1				
CAMPANULACEAE	* <i>Wahlenbergia capensis</i>	1	1	1	1	1	

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GOODENIACEAE	<i>Dampiera linearis</i>						1
	<i>Dampiera oligophylla</i>	1					1
	<i>Dampiera spicigera</i>						1
	<i>Dampiera teres</i>						1
	<i>Dampiera</i> sp.					1	
	<i>Goodenia coerulea</i>	1				1	1
	<i>Goodenia micrantha</i>						1
	<i>Lechenaultia floribunda</i>				1		
	<i>Lechenaultia stenosepala</i>						1
	<i>Lechenaultia</i> sp.				1		
	<i>Lobelia heterophylla</i>						1
	<i>Lobelia</i> sp.						1
	<i>Scaevola lanceolata</i>						1
	<i>Scaevola phlebopetala</i>				1		1
	<i>Scaevola repens</i> var. <i>repens</i>				1		
	<i>Scaevola</i> sp.					1	
	<i>Verreauxia reinwardtii</i>		1	1			1
	Goodeniaceae sp.			1			
	STYLIDIACEAE	<i>Levenhookia dubia</i>		1			
<i>Levenhookia pusilla</i>				1		1	
<i>Levenhookia stipitata</i>		1	1	1		1	1
<i>Stylidium adpressum</i>							1
<i>Stylidium calcaratum</i>							1
<i>Stylidium crossocephalum</i>		1	1		1		1
<i>Stylidium dichotomum</i>							1
<i>Stylidium repens</i>			1				1
<i>Stylidium rigidulum</i>			1				1
<i>Stylidium</i> sp.			1				1
ASTERACEAE	<i>Angianthus</i> sp.						1
	* <i>Arctotheca calendula</i>		1	1	1	1	
	* <i>Cotula coronopifolia</i>					1	
	* <i>Dittrichia graveolens</i>				1	1	
	<i>Gnephosis angianthoides</i>						1
	<i>Gnephosis tenuissima</i>			1			1
	<i>Gnephosis</i> sp.					1	
	<i>Hyalosperma cotula</i>					1	
	* <i>Hypochoeris glabra</i>		1	1	1	1	1
	* <i>Hypochoeris radicata</i>					1	
	<i>Podotheca angustifolia</i>			1	1		
	<i>Podotheca gnaphalioides</i>	1	1	1	1	1	
	<i>Podotheca</i> sp.				1		
	<i>Podotheca</i> sp.2				1		
	<i>Quinetia urvillei</i>						1
	<i>Siloxerus humifusus</i>						1
	* <i>Ursinia anthemoides</i>		1	1	1	1	1
* <i>Vellereophyton dealbatum</i>			1				
Asteraceae sp.	1		1	1	1		