PLANTS OF CAPE ARID NATIONAL PARK AND NUYTSLAND NATURE RESERVE — A NEW AUSTRALIAN BIODIVERSITY HOTSPOT

Greg and Bronwen Keighery

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GREG KEIGHERY and BRONWEN KEIGHERY

Greg Keighery–Wildflower Society of WA (Inc), Research Associate, Western Australian Herbarium, Department of Biodiversity, Conservation and Attractions, Locked Bag 104, Bentley Delivery Centre, Western Australia, 6983.

Bronwen Keighery–Wildflower Society of WA (Inc), Research Associate, Western Australian Herbarium, Agonis Botanical Consultants, 224 Hamersley Road, Subiaco, 6008.

Corresponding author: greg.keighery@icloud.com

Design: Bronwen Keighery
Photos: Bronwen Keighery unless noted otherwise.

Cover: Mt Ragged. Photo Jiri Lochman

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SUMMARY

Cape Arid National Park has a flora of 1466 vascular plant taxa. When the flora of the adjoining Nuytsland Nature Reserve (747) is included it brings the total to 1613 taxa. This combined area contains at least 928 taxa at their eastern range margins (57% of the known flora), 20 highly disjunct populations and a centre of endemism (14 taxa) on the Russell Range. Based on the vascular flora alone this area deserves recognition as a National Biodiversity Hotspot (number 16 in Australia).

PART 1: LOCATION, LANDFORMS AND VEGETATION

Introduction

During the 1980's the then Department of Conservation and Land Management and the Western Australian Museum undertook a series of biological surveys stretching from Cape Arid National Park and the entire Nullarbor (Figures 1, 2 & 3). These Western Australian Nullarbor sites and sites from the South Australian Biological Survey Group were largely published as part of the Nullarbor Survey (McKenzie and Robinson 1987).

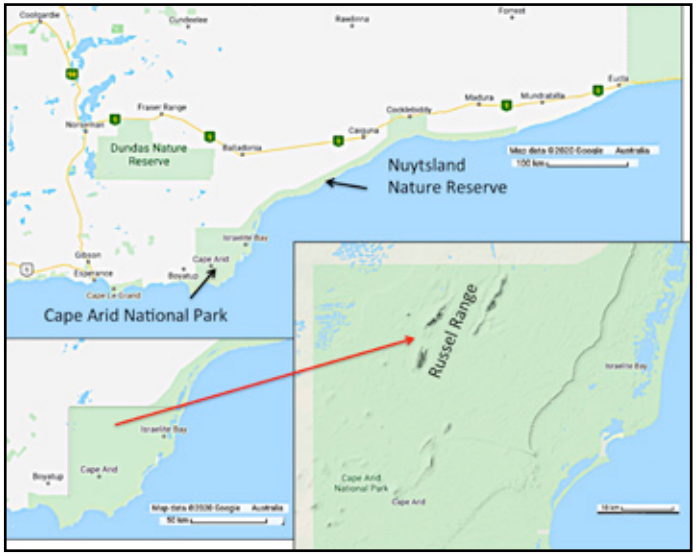


Figure 1: Locations of Dundas and Nuytsland Nature Reserves and Cape Arid National Park. Red arrow top map indicates the extent of the Nullarbor in Western and South Australia.

Subsequent surveys were undertaken from near Eucla, Eucla National Park (area around Eucla, Figure 1), Eyre, Toolinna Cove and Israelite Bay in Nuytsland Nature Reserve (McKenzie, et al. 1989, Figure 3, 4, 5). Areas of Cape Arid were surveyed in 1985 as part of a plan for combating Dieback Disease (Brandis et al. 1985). A report on the Eucla National Park has been published (Keighery 2010) and it is not included in this study)

A general biological survey from 1986-1988 of Cape Arid National Park led by A.H. Burbidge was undertaken for the proposed management plan for Cape Arid National Park.

These surveys have generally not been published, but were archived as data sets when identifications were completed. These data were used to inform management in the reserves and this study.

The Study Area– Cape Arid National Park and Nuytsland Nature Reserve

Cape Arid National Park (hereafter Cape Arid) and Nuytsland Nature Reserve (hereafter Nuytsland) are very large conservation reserves located on the coast east of Esperance (Figures 1 & 2). Records of vascular plant data present in these reserves have been updated by the authors during a series of visits over the past twenty years. These were presented in summary for the management plan of Esperance Coastal Reserves (DPaW, 2016). The data are presented here in more detail to illustrate the very high conservation and biodiversity significance of these two large reserves. Nomenclature follows Florabase, unless noted (Western Australian Herbarium, 1998–last accessed December 2023).

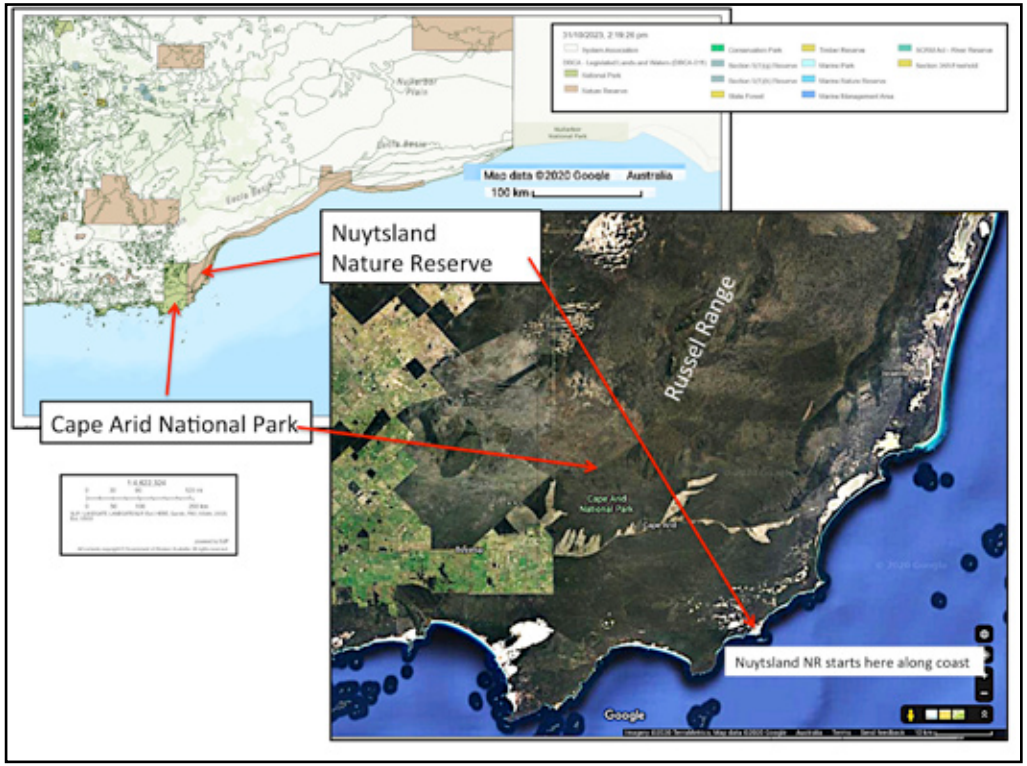


Figure 2: Locations of Dundas and Nuytsland Nature Reserves and Cape Arid National Park and remnant native vegeation in the area of Cape Arid National Park.

Cape Arid (Figures 1 to 5) is the last very large conservation reserve in the South Coast Region to have its vascular flora fully documented. The floras of the Stirling Ranges (Keighery, 1993) and Fitzgerald River National Parks (Aplin and Newbey 1979) having been completed many years before.

Dundas Nature Reserve on the northern margin of the Region has had a general biological survey undertaken as part of the Eastern Goldfields survey (Hall & McKenzie, 1993), but the flora remains to be fully documented.

While preparing this report it became apparent that the biodiversity and biogeographical significance of the Cape Arid area has not been recognised either at a national or international level. Part 1 and Part 2 present the flora information and related statistics. To maintain the flow of the text the annotated flora list is at the end of the document (Appendix 1, pages 30 to 89). Part 3 uses this information to outline how the diversity and distribution of flora of this region shows that the region deserves national and international recognition as a biodiversity hotspot. Part 4 describes the features of this biodiversity hotspot.

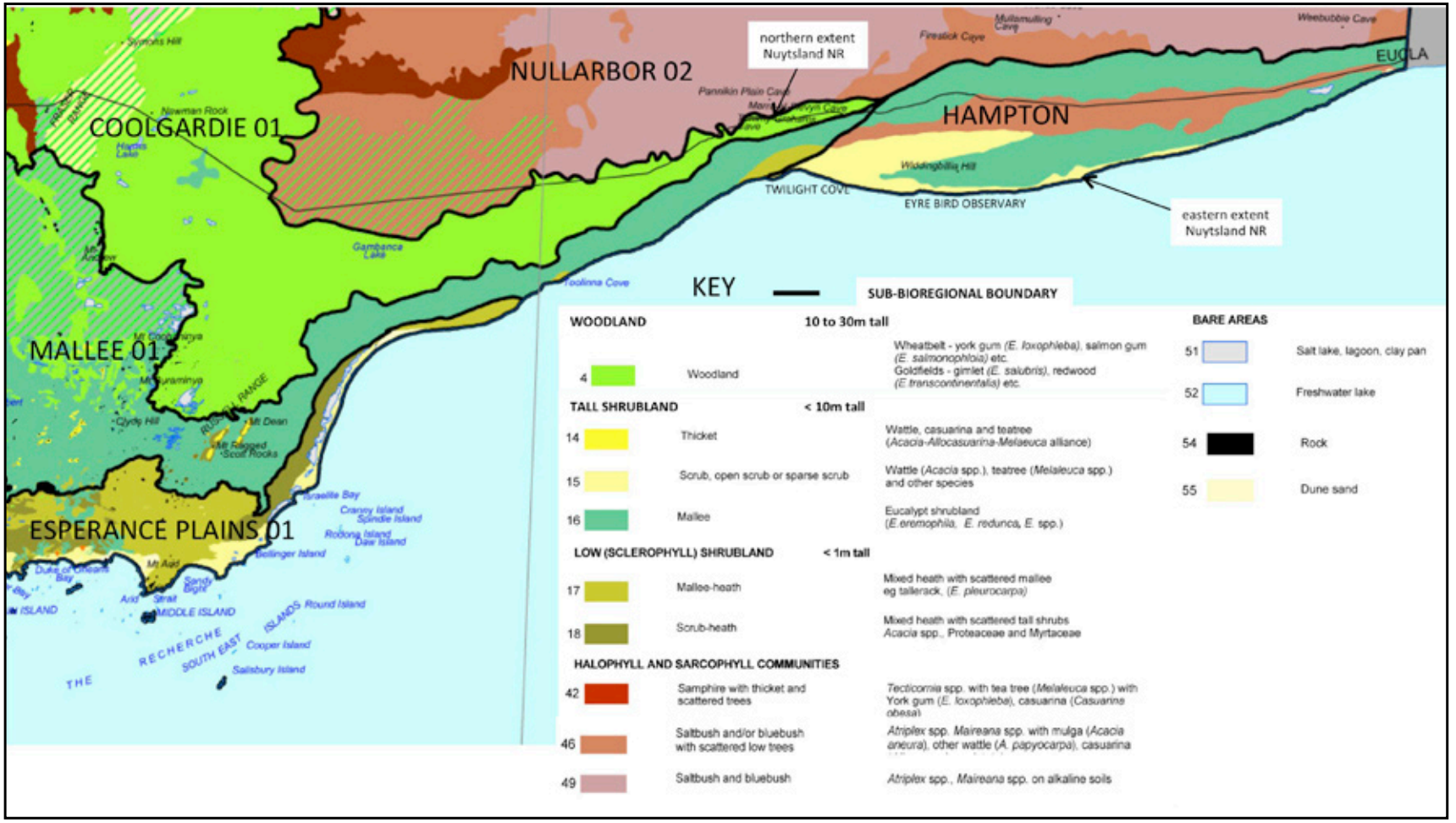


Figure 3: Bioregions, sub-bioregions and vegetation of the study area and adjacent areas. Part of the map found in Beard, JS, Beeston Gr, Harvey JM, Shepherd DP (2013) the vegetation of Western Australia at the 1: 3 000 000 scale Explanatory Memoir Second Edition. In: *Conservation Science of Western Australia–Vol 9*.

General Location and Landforms

The two reserves occupy an elongated section of the southern Western Australian coastline and hinterland (Figures 1 to 5). While the moderating effect of the ocean means that the entire study area has a Mediterranean climate, it varies through:

- Warm Mediterranean near the coast, where annual rainfall exceeds 600 mm;
- Dry Warm Mediterranean inland; and
- Desert Mediterranean further inland where annual rainfall is less than 250 mm.

As a consequence of their size–Nuytsland at 62,530 ha, and Cape Arid at 279,400 ha, and geographical extent, the combined reserves cover many biogeographic, geomorphic and vegetation units.

Vegetation information is available at 1: 250,000 and smaller scales, ranging through biogeographic units, land systems, natural regions, vegetation systems and vegetation units (Figure 5).

There are four sub-biogeographic regions in the study area (Figure 3), these are the:

- Esperance Plains 01 (both reserves);
- Mallee 01 (both reserves);
- Coolgardie 01 (margins both reserves); and
- Hampton (Nuytsland only).

The Nullarbor 02 is north of the study area and beyond the boundaries of this study.

Since these are sub-biogeographic regions are largely equivalent to, and have resently replaced Beard's Botanical Regions (1975), both are referenced when describing the broad vegetation units.

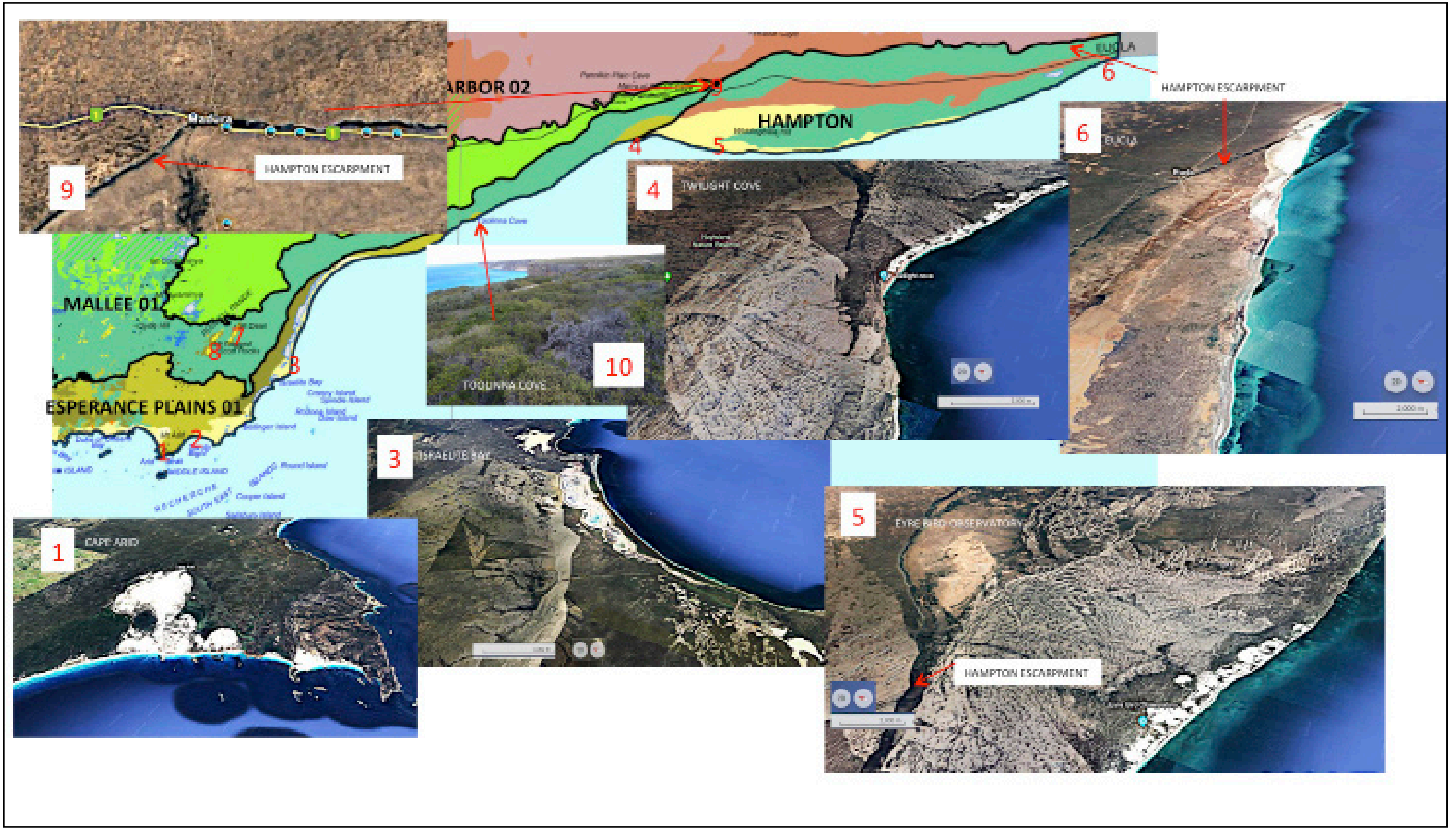


Figure 4 : Major landforms and locations in the study area–units in blue are in this figure, others in Figure 5.
1) Cape Arid area–dominated by granite of Cape Arid and Mt Arid. **2) Weamajumbuk Wetland** see Fig 5. **3) Israelite Bay**–the flat Israelite Plain with its string of coastal salt lakes typifies this part of the Esperance Plains. **4) Twilight Cove**–this patch of sand is dominated by mallee and scrub-heath. **5) Eyre Bird Observatory**–located on the Roe Plains, the Hampton Escarpment defines the area of the Roe Plains. **6) Eucla**–Eucla is near the eastern end of the Hampton Escarpment and is outside the study area, there is a relatively small reserve in WA at Eucla that connects to a large South Australian reserve. **7) East Russel Range** see Fig 5. **8) Mount Ragged** see Fig 5. **9) Hampton Escarpment at Madura** (outside the study area) **10) Toolinna Cove**. Photos Google Earth December 2023.

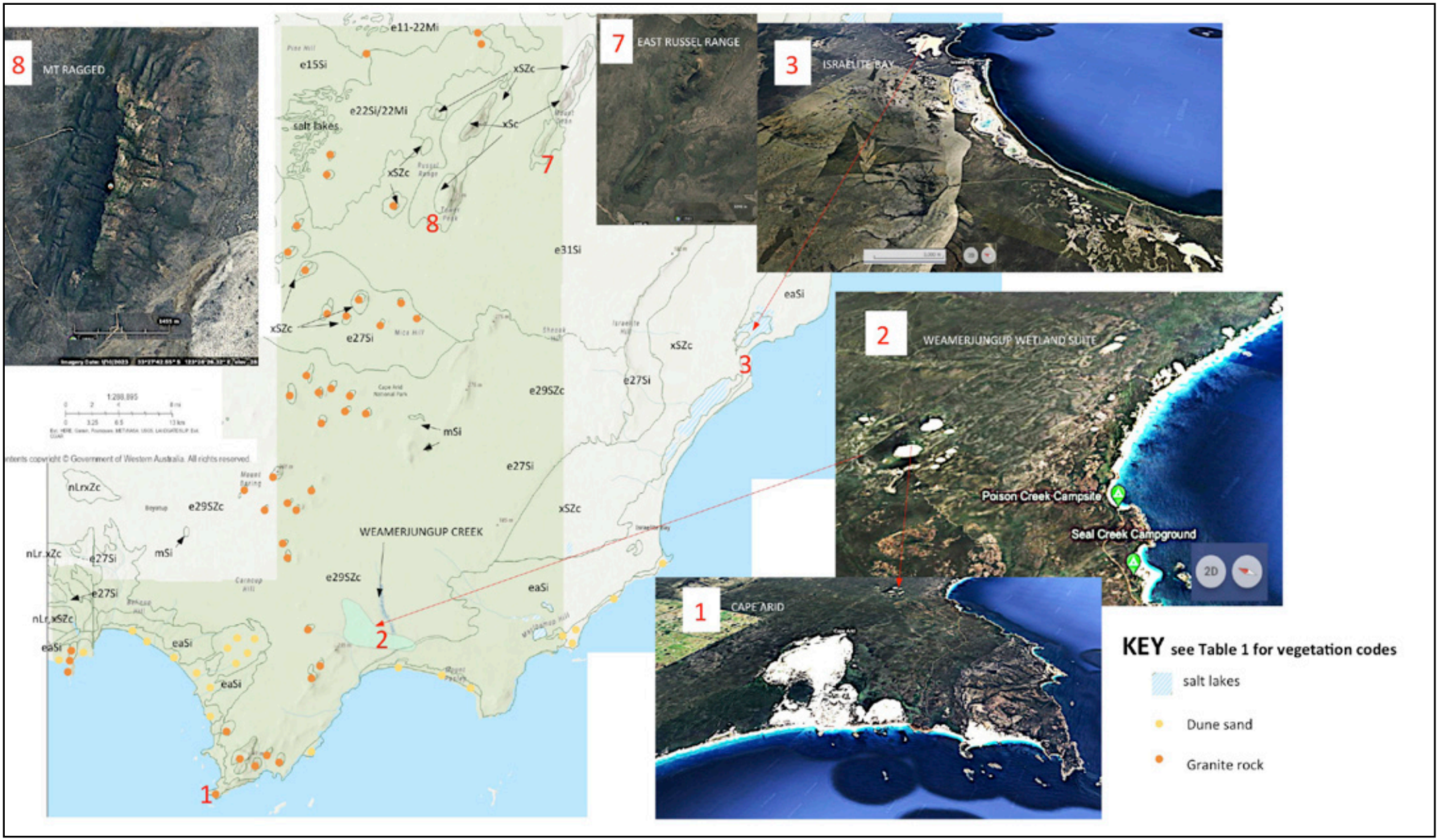


Figure 5: Major landforms, locations and mapped vegetation in Cape Arid/southern Nuytsland–units in blue are in this figure, others in Figure 4 and Table 1 lists vegetation codes. **1) Cape Arid area**–dominated by granite of Cape Arid and Mt Arid. **2) Weamerjunguk Wetland–**this area has a core area of Conservation Category wetland (DBCA-18). **3) Israelite Bay**–the flat Israelite Plain with its string of coastal salt lakes typifies this part of the Esperance Plains. **4) Twilight Cove** see Fig 4. **5) Eyre Bird Observatory** see Fig 4. **6) Eucla** see Fig 4. **7) East Russel Range**–these quartzite hills support rare plant communities and species. **8) Mount Ragged**–the tallest peak in the Russel Range. **10) Toolinna Cove** see Fig 4. Photos Google Earth December 2023.

Vegetation of Cape Arid and Nuytsland

Natural Regions

Five major geomorphic based land systems are present in the study area region (Table 1, after Beard et al. 2013, page 10). These large scale (above a scale of 1:250, 000) units are based largely on geomorphology, climate and soils and were established for land use maps. They are used by Beard (1975) normally at an intermediate scale below his Botanical Regions, now biogeographic regions (Figures 3, 4, 5 and Table 1). At this scale some are almost equivalent, such as the Esperance Plains.

Table 1: Summary of Bioregions and Beard System and vegetation types in and adjacent to the study area.

- Column 1: IBRA sub-bioregions/Beard Systems
  IBRA CODES–COOL=Coolgardie 01, MAL=Mallee 01, ESP=Esperance Plains 01, HAM=Hampton, NULL=Nullarbor
- Column 2: Vegetation with mapped codes from Figure 5 in brackets below.
  Beards's codes Species codes–e=eucalypt followed by the species code number/s see Column 4 (for example *E. oleosa* (e22 in Figure 5), a=Wattle/Acacia; Structure code–capital letter and lower case letter
- Column 3: Summary vegetation structure (Beard)
- Column 4: Description of vegetation structure and key plant species

IBRA/Beard System	Veg Type (Beard code)	Vegetation Structure	FLORA **Bold** summary followed by edited detail
COOL: Nanambinia - Coolgardie	4/482 (e11-22Mi)	Woodland other	**Sclerophyll woodland *E. flocktoniae* (e11 in Figure 5), *E. oleosa* (e22 in Figure 5)** Wheatbelt; York gum (*Eucalyptus loxophleba)*, salmon gum **(** *E. salmonophloia,* e8 in Figure 5) etc. Goldfields gimlet (*E. salubris)*, redwood (*E. oleosa*) etc.
MAL: Nanambinia - Mallee	16/515 (e29SZc)	Mallee	**Mallee heath *E. incrassata* (e29 in Figure 5).** Eucalypt shrubland *Eucalyptus eremophila* (e15 in Figure 5), *E. redunca* complex (e25 in Figure 5), *E.* spp
MAL: Nanambinia - Mallee	16/515 (e30Si)	Mallee	**Blue mallee *E. socialis* (e30 in Figure 5).** Eucalypt shrubland *Eucalyptus eremophila* (e15 in Figure 5), *E. redunca* complex (e27 in Figure 5), *E.* spp.
MAL: Nanambinia - Mallee	16/516	Mallee	**Mixed mallee *E. redunca* (e27 in Figure 5) and *E. uncinata.*** Eucalypt shrubland *Eucalyptus eremophila*, *E. redunca* complex, *E.* spp
MAL: Cooper	16/514 (e31Si)	Mallee	**White mallee *E. cooperiana* (e31 in Figure 5).** Eucalypt shrubland *Eucalyptus eremophila*, *E. redunca* complex, *E.* spp.
MAL: Cooper	16/516V (e27Si)	Mallee	**Eucalypt shrubland *Eucalyptus eremophila* (e15 in Figure 5), *E. redunca* complex (e27 in Figure 5), *E.* spp**
MAL: Cooper	16/924 (e11/22Mi)	Woodland	**Woodland on Nullabor limestone *E. oleosa* (e22 in Figure 5)-*floctoniae* (e11 in Figure 5).** Eucalypt shrubland *Eucalyptus eremophila, E. redunca* complex, *E.* spp.
MAL: Cooper	16/519 (e15Si)	Mallee	**Mixed mallee** *E. eremophila* **(e15 in Figure 5)**-*oleosa* **(e11 in Figure 5)**
MAL: Cooper	14/510 (xSc)	Thicket	**Mixed thicket** Wattle, casuarina and teatree acacia-allocasuarina-melaleuca alliance.
MAL: Culver	17/479	Mallee-heath	**Mixed heath with scattered mallee.** For example tallerack *Eucalyptus pleurocarpa* (was *E. tetragona*, **e26 in Figure 5).**
MAL: Culver	18/48	Scrub-heath	**Scrub heath Mixed Proteaceae Myrtacea**e. Mixed heath with scattered tall shrubs *Acacia* spp., PROTEACEAE and MYRTACEAE.

IBRA/Beard System	Veg Type (Beard code)	Vegetation Structure	FLORA **Bold** summary followed by edited detail
MAL: Cooper	18/4,048 (xSZc)	Scrub-heath	**Scrub heath Mixed Proteaceae Myrtacea**e. Mixed heath with scattered tall shrubs *Acacia* spp., PROTEACEAE and MYRTACEAE.
MALL: Culver	55/129	Dune Sand	
MAL: Russell Range	18/4,048 (xSZc)	Scrub-heath	**Scrub heath Mixed Proteaceae Myrtacea**e. Mixed heath with scattered tall shrubs *Acacia* spp., PROTEACEAE and MYRTACEAE.
MAL: Russell Range	14/510 (xSc)	Thicket	**Mixed thicket on Russell Range Calothamnus– *Banksia (Dryandra)* community** Wattle, casuarina and teatree acacia-allocasuarina-melaleuca alliance
ESP: Esperance Plains	15 (mSi)	Scrub, open scrub or sparse scrub	**Teatree scrub.** *Melaleuca cuticularis,*Wattle, teatree & other species Acacia spp. Melaleuca spp.
ESP: Esperance Plains	18 (nLr.SZc)	Scrub-heath	**Heath with scattered trees.** Mixed heath with scattered tall shrubs *Acacia* spp., PROTEACEAE and MYRTACEAE.
ESP: Fanny Cove	15 (eaSi)	Scrub, open scrub or sparse scrub	**Coastal scrub on drift sand *E. angulosa–Acacia* species association.** Coastal scrub on drift sand *E. angulosa–Acacia* species association
ESP: Fanny Cove	51	Salt lake, lagoon, clay pan	
ESP: Fanny Cove	18 (xSZc)	Scrub-heath	**Scrub heath Mixed Proteaceae Myrtaceae.** Mixed heath with scattered tall shrubs *Acacia* spp., PROTEACEAE and MYRTACEAE.
ESP:Fanny Cove	55 (Yellow dot)	Dune sand	
ESP: Fanny Cove	15 (eaSi)	Scrub, open scrub or sparse scrub	**Coastal dune scrub. *E. angulosa, Acacia cyclops* & spp.** Wattle (a in Figure 5), teatree & other species *Acacia* spp. *Melaleuca* spp.
ESP: Fanny Cove	16 (e27Si)	Mallee	**Mixed mallee *E. redunca* complex (e27, Figure 5) and *E. uncinata.*** Eucalypt shrubland *Eucalyptus eremophila, E. redunca* complex, *E.* spp
HAM: Roe Plain	15/42 (eaSi)	Scrub, open scrub or sparse scrub	**Wattle, teatree & other species *Acacia* spp. *Melaleuca* spp**
HAM: Hampton Tableland	16/515	Mallee	**Mixed mallee *E. redunca* complex (e27, Figure 5) and *E. uncinata.*** Eucalypt shrubland *Eucalyptus eremophila, E. redunca, E.* spp
HAM: Roe Plain	16/1515	Mallee	**Mixed mallee *E. redunca* complex (e27, Figure 5) and *E. uncinata.*** Eucalypt shrubland *Eucalyptus eremophila, E. redunca, E.* spp
HAM: Roe Plain	46/122	Saltbush and/or bluebush with scattered low trees	**Mulga, other wattle, casuarina *Atriplex* spp. *Maireana* spp.** With *Acacia aneura, A. papyrocarpa, Allocasuarina cristata.*
HAM: Roe Plain	49/460	Saltbush and bluebush	***Atriplex* spp. *Maireana* spp. communities on alkaline soils.**
HAM: Roe Plain	51/125	Salt lake, lagoon, clay pan	
HAM: Roe Plain	55/129	Dune sand	
NULL: Bunda Plain	49/460	Saltbush and bluebush	***Atriplex* spp. *Maireana* spp. communities on alkaline soils.**
NULL: Bunda Plateau	46/122	Saltbush and/or bluebush with scattered low trees	**Mulga, other wattle, casuarina *Atriplex* spp. *Maireana* spp.** With A*cacia aneura, A. papyrocarpa, Allocasuarina cristata.*

Vegetation Systems

The plant communities of the area and reserves have been mapped at the small scales of 1:250,000 (Beard, 1973) and 1,000,000 (Beard, 1975 & 1981). Below these scales Beard has combined the 16 major vegetation types mapped into vegetation systems which have similar soils, climate and vegetation types.

From west to east these are the–Esperance, Cooper, Russell Range, Fanny's Cove, Culver, and Nanambinia systems. The Roe Plains were part of the Nullabor but were separated as the Hampton bioregion when the bioregions were defined. All of these systems are only present in large scale conservation areas in the study area. The Culver, Fanny's Cove and Russell Range Systems are only protected in these reserves. A brief description of each of these vegetation systems at the 1:250,000 scale follows.

Photo 1: Esperance Plains in Cape Arid. *Banksia (Dryandra) falcata* is emergent from the heath. Marie Lochman.

Esperance System–*Esperance Plains 01* (Photo 1 and Figures 3, 4 & 5)

The Esperance Plains are tertiary sediments with emergent granite and metamorphosed sandstone hills mantled with sands and laterite (Photo 1).

The most common vegetation is Scrub Heath dominated by *Banksia speciosa* and *Lambertia inermis* on deeper sands, with Mallee Shrublands of *Eucalyptus pleurocarpa* and *E. angulosa* often with patches of *Banksia* on shallow sands over ironstone. Largely in near coastal areas of above 600 mm annual rainfall is Heath with scattered emergent *Nuytsia* that extends marginally into the western side of Cape Arid. Scattered through this system are numerous: fresh water wetlands and small rivers that have an over-storey of *Eucalyptus occidentalis* (Yate) or *Melaleuca preissiana*; and granite domes, the largest being Mount Arid. The Yate, and *Melaleuca* forest and woodlands and Granite Rocks are at their eastern margins in Cape Arid.

Fanny's Cove System–

Esperance Plains 01 *(Photo 2, Figures 3, 4 & 5)*

This coastal system is the largest system in the study area and is mapped mostly on deep quaternary sands. This system is dominated by scrub, Mallee scrub, coastal scrub, scrub heath, saline shrublands around salt lakes, and succulent shrublands around estuaries. On the eastern margin is the Wylie Escarpment dominated by mallee, which is the southern end of the Nullarbor Cliffs, which range from 100 metres high in the north to sea level near Cape Paisley. Wetlands in this system may be dominated by *Banksia occidentalis* and thickets of *Eucalyptus platypus* occur between coastal dunes. The large saline lakes on the Israelite Coastal Plain apparently differ in floristics from those of the Cooper System in Cape Arid. The Israelite Plain and most of the Mardabilla Plain are within this system.

Photo 2: *Banksia occidentalis* in a wet shrubland

Photo 3: A dune on the cliffs above Twilight Cove.

Culver System–

Mallee 01 *(Photo 3, Figures 3, 4 & 5)*

A continuation of the Fanny's Cove System, it comprises four disjunct series of sand-hills on the cliffs of the Bight. Point Culver and Toolinna Cove have an open Mallee of *Eucalyptus angulosa*/*E. cooperana*/ *E. diversifolia* over abundant Proteaceae especially *Banksia epica*, *Banksia media* and *Adenanthos forrestii*. The other two sandhills are 30 km SW Point Dover and at Twilight Cove with similar Eucalypts but lack most Proteaceae.

Photo 4: Greg Keighery on the Hampton Escarpment looking over the Roe Plains, August 2017. Vegetation is recovering from a large fire in the summer of 2016. The dunes at Eyre can be seen on the horizon

Roe Plain–*Hampton* *(originally part of the Nullabor. Photo 4,5 Figures 3, 4 & 5)*

The Roe Plains are mantled by deep Pleistocene siliceous sands and are dominated by *Eucalyptus* and *Melaleuca* species. The Hampton Escarpment defines the boundary between the Nullarbor and the Roe Plains.

Cooper System –*Mallee 01* *(Photo 6, Figures 3, 4 & 5)*

This system lies in the northern section of Cape Arid, and within this is the Russell Range System (below). The Cooper is the southern margin of the Nullarbor Plain, composed of limestone with *Eucalyptus cooperana* mallee.

Photo 6: *Banksia (Dryandra) falcata* emerging from lower the dense shrub, herb and sedge understorey. Marie Lochman.

Russell Range System– *Mallee 01* *(Photo 7, Figures 3, 4 & 5)*

The Russel Range is essentially quartzite hills ranging up to 592 metres at Mount Ragged. Lower slopes are dominated by *Banksia* dominated heaths (scrub heath in Beard), with the upper a unique thicket vegetation. Both of these are confined to Cape Arid.

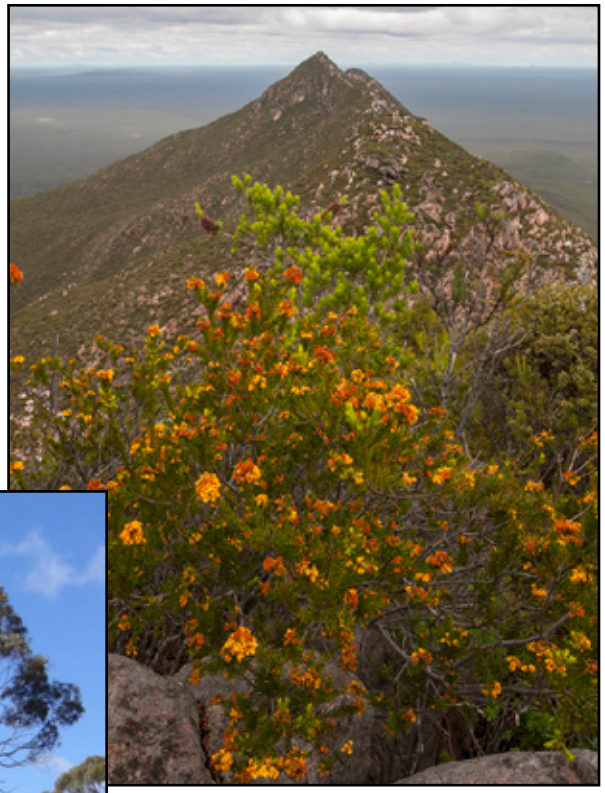


Photo 7: Mt Ragged with a *Dillwynia pungens* shrub in the foreground. Jiri Lochman

Photo 8: *Eucalyptus oleosa* woodlands.

Nanambinia System– Coolgardie 01 and Mallee 01 *(Photo 8, Figures 3, 4 & 5)*

Also on the northern eastern section of Cape Arid adjoining the Cooper System to the east is the Nanambinia System, another portion of the southern margin of the Nullarbor Plain. Vegetation is again largely *Eucalyptus oleosa* woodlands (Photo 8) with scattered emergent granite outcrops, ranging down to low open heaths of *Melaleuca* and low mixed shrubs along the edges of the Nullarbor Cliffs. A similar vegetation type in structure occurs in South Australia on the Nullarbor Cliffs (Oppermann, 1999 & Parsons, 1979). A floristic comparison between these occurrences would prove very illuminating, as data is available for both States. This vegetation system is largely in pastoral lands and extends into Nuytsland Nature Reserve.

Photo 9: A *Banksia speciosa* dominated Scrub Heath, Esperance Plains. Marie Lochman

Vegetation Units

Extent of Vegetation Systems and Types

As outlined above Beard combined in 16 major vegetation types (Table 1, Photo 9 example *Banksia* Scrub Heath) mapped into vegetation systems which have similar soils, climate and vegetation types (Figure 3 and Table 1, Beard, 1975 & 1981). The Culver and Russell Range Systems of Beard (1973) are entirely confined to these reserves. Of the vegetation types mapped at a 1:250,000 scale Cape Arid and the adjacent areas of Nuytsland: seven or 43% types are entirely confined to the Parks; 14 or 87% of the 16 are confined to the south coast of Western Australia and terminate in the study area. Even at this large scale the biogeographic significance of the area is immediately obvious.

Floristics

Detailed floristic studies of the entire study area have not been undertaken and many plant communities present are still poorly documented. The data that has been collected has not been analysed in a regional context, except for the areas of Nuytsland adjacent to the Nullarbor, which were detailed in Keighery et al. (1987). This study showed that the Roe Plains with siliceous sands dominated by *Eucalyptus* and *Melaleuca* species were highly differentiated from the calcareous shrublands and Mallee woodlands of the Nullarbor Plain. These studies were central to determining that the Roe Plains are a separate Biogeographic Region from the Nullarbor.

At a more detailed level, the *Melaleuca lanceolata* woodlands

Photo 10: *Melaleuca lanceolata* tree at the base of the Hampton Escarpment.

Photo 11: *Melaleuca lanceolata* woodlands understorey.

at the base of the Hampton Escarpment are currently greatly threatened by the apparent increase in fire frequency occurring on the Roe Plains (Photos 10, 11). These woodlands were proposed by the federal Department of Environment as part of a nationally threatened community stretching from Victoria to Tamala Station in Western Australia. Preliminary analysis of available floristic data showed the Roe Plain woodlands were distinctive from all others in Western Australia.

The study by Barrett (1996) of the ranges of the south coast (Stirlings, Fitzgerald and Russell Range) has demonstrated that these are floristically very different from each other.

The isolated sand patch at Toolinna Cove dominated by *Banksia epica* (Photos 12 & 13), although relatively species poor averaging 13 species per 100 square metres was shown by unpublished floristic data of the senior author to be very different from the Mallee shrublands of the Roe Plains and those around Israelite Bay.

There are many communities that would be recognised at larger scale mapping. The considerable diversity of land systems, vegetation systems, vegetation communities (both structural and floristic) at large to small scales are of national significance.

Photo 13 &14: *Banksia epica* grows as a mallee on the Toolinna Cove (Fig 4) sands (13); and a cone with many follicules (14).

PART 2: FLORA

Information Sources

All known sight and herbarium records were checked to compile the list. There are some old herbarium records which are placed in Cape Arid National Park which are not verified, e.g. *Acacia bracteolata*–a collection labelled 'Mount Ragged to Queen VictoriaSpring' is given the latitude and longitude of Mount Ragged, which is very disjunct from the known range of this species. These older unverified collections are not included in the checklist.

Photo 14 & 15: *Dillwynia pungens* flowers above and shrub below. Fabaceae is the largest family in the study area. This species ends its range to the east in Cape Arid. Jiri Lochman.

Total Flora

Cape Arid and Nuytsland (Figures 1 to 5) have a combined vascular flora of over 1612 taxa. Cape Arid containing 1466 taxa and Nuytsland with 747 (Appendix 1, page 30 to 89). In the case of Cape Arid this is estimated to be 85-90% of the flora of Cape Arid. With further survey a further 150-200 species would be recorded. Nuytsland is a long narrow remote reserve with relatively poor access and there is little doubt that the known flora will substantially increase with more effort, probably by 300-400 species. Most of these could be expected in the southern portion and are probably already recorded for Cape Arid.

Flora and Plant Communities

As the study area is so large, and contains so many different vegetation systems/types a series of major landscape/soils/vegetation units were identified for the listing the flora. These relate to the Beard vegetation types but are not mapped. At this scale, there are 15 major landscape/soils/vegetation units (Table 2) and one unit for the disturbed areas (roadsides, gravel/sand pits, old settlements, camping grounds etc). This grouping defines the flora of these units. These are useful to help explain the causes of the features of the vascular flora that we are discussing in this paper. These are in Column 5 in Appendix 1 and also listed in Table 2, numbered from 1 to 16. Units 15 and 16 are mostly weeds (15) or show no clear pattern (16).

Table 2: Flora is listed in 15 major habitats (landscape/soils/vegetation units).

Unit number	Description	Relationship to bioregional boundaries
1.	Coastal sands and dune	Coastal in Esperance Plains, Mallee, Hampton
2.	Estuarine	Coastal saline wetlands in Esperance Plains
3.	Saline lakes/gypsum claypans	Saline wetlands in Esperance Plains, Mallee
4.	Mallee	Esperance Plains, Mallee
5.	Calcareous plains and clays	Mallee
6.	*Banksia* woodland	Esperance Plains
7.	Lateritic Heath	Esperance Plains
8.	Sandstone/quartzite Heath	Russel Range in Mallee
9.	Granite	Western and coastal areas Cape Arid in Esperance Plains, Mallee
10.	Eucalypt woodlands	Mallee, Nullarbor (edges)
11.	Sandy soils	Patches throughout, mainly in Esperance Plain and Hampton
12.	Fresh claypans	Fresh water perched wetlands Cape Arid in Esperance Plains
13.	Riverine/fresh water swamps	Fresh water channel wetlands and groundwater basin wetlands in Esperance Plains
14.	Shallow limestone	Cliffs in Hampton and Mallee
15.	Disturbed sites	Patches throughout,
16.	Miscellaneous soils/landform	Patches throughout,

Family Diversity

The major families in Cape Arid and Nuytsland after on the basis of the number of taxa are: Myrtaceae 168; Fabaceae 162 (11 weeds); Asteraceae 123 (23 weeds), Orchidaceae 99; Proteaceae 91; Poaceae 76 (34 weeds); Cyperaceae 76 (1 weed); Ericaceae 57, Chenopodiaceae 47 (1 weed); and Goodeniaceae 42. Some smaller families are the Rutaceae 27, Asparagaceae 24 (1 weed) and Stylidiaceae (24).

Even at this level these major components of the flora demonstrate the major trends of the area. The largest families reflect the dominant plant families of the South West Botanical Province (Southwest): shrub taxa from the Ericaceae, Fabaceae, Myrtaceae, Proteaceae, and Rutaceae; Some smaller families are perennial long-lived herbs from the Cyperaceae, Asparagaceae, Orchidaceae and Stylidiaceae. These families are species diverse in higher rainfall areas of the Southwest.

The large numbers of taxa in the families Asteraceae, Chenopodiaceae, Fabaceae, Goodeniaceae and Poaceae also reflect the major families of the semi-arid Coolgardie Bioregion and the adjacent arid Nullarbor (Keighery et al., 1987). Many of these taxa found from these families are annuals or short-lived perennials, few are long lived shrubs (Keighery et al. 1987).

Genus Diversity

The largest genera present in the parks are: *Eucalyptus* 59; *Acacia* 53; *Melaleuca* 39; *Hakea* 25; *Caladenia* 24; *Leucopogon* 23; *Goodenia* 22; *Pterostylis* 21; *Stylidium* 20 and *Daviesia* 13. This diversity reflects the diversity of their families, as discussed above.

Conservation Status of the Flora.

The reserves contain 38 conservation state listed taxa, of which 34 are priority flora (2 Priority 1, 21 Priority 2, 28 Priority 3 and 10 Priority 4). Priority taxa are essentially these are species which are restricted in range, or lack adequate conservation data to indicate if they should be listed as threatened or not. These are reviewed regularly and continually updated on Florabase (Western Australian Herbarium,1998-). The number of priority taxa and the large number of poorly known species (41) yet to be named indicates the poor knowledge of much of the area's flora.

Photos 16 & 17: *Grevillea pauciflora* subsp.*saxatilis* is endemic to the Russel Range. Plant above and opening flowers left. Marie Lochman.

Four species in the study area are legally protected as Threatened Flora– *Anigozanthos bicolor* subsp. *minor*, *Boronia clavata* subsp. *grandiflora*, *Eremophila denticulata* subsp. *trisulcata* and *Myoporum velutinum*. Threatened Flora are updated annually.

Phytophthora Dieback disease is recorded and is spreading in the study area (Brandis et al. 1985). Given the very large number of *Phytophthora* susceptible species (including many priority flora) and communities present in the southern portion of the study area there is an urgent need for further study to determine the best adaptive management for the area. Climate change and increasing fire frequencies are additional major risks to the species and communities.

Weeds

The combined reserves have 149 species of naturalised plants recorded within their boundaries. These are mostly from disturbed areas (Table 1, Column 7,unit 15). Many of these species are localised around old settlements such as Israelite Bay, Eyre and Thomas River Homestead. Examples include *Agave americana*, *Oxalis bowiei*, and *Conium maculatum*. It is doubtful that these weeds will ever pose a major threat to these parks.

There are several serious weeds well established in both parks including *Asparagus asparagoides* and *Freesia* hybrids. The weeds of the eastern portion of Nuytsland Nature Reserve are also the major weeds of the Nullarbor (Keighery, 2010).

Photos 18, 19 & 20: *Asparagus asparagoides* around an abandoned homestead (18 above, 19 left) and alongside a water point (20, below).

PART 3: BIOGEOGRAPHICAL SIGNIFICANCE

Plant Community Richness

The study area contains many vegetation types. As noted previously, several of these, are confined to the parks or are only conserved in the parks. Numerous vegetation types end their mapped extent in the southern portion of the study area. There are at least two federally listed threatened ecological communities present–Samphire marshlands and Proteaceae dominated heathlands (Department of Climate Change Environment Energy and Water, 2023, b). Preliminary examination of available floristic data suggests that numerous localised floristic community types are present in the Parks (see Barrett, 1996).

Species Richness

Cape Arid contains 1471 taxa of vascular plants (Part 2 and Appendix 1). Despite being at the lower end of the rainfall zones of the Esperance Sandplain Bioregion this is a substantial vascular flora. The vascular flora is comparable to other large national parks of south Western Australia (Table 3).

Table 3: Vascular Flora of other major National Parks of Southwest

Column 1 National Parks
Column 2 Total taxa (natives and weeds)
Column 3 Endemic taxa (approximate)
Column 4 Source, mostly G. Keighery unpublished data
Column 5 Published taxa records (all updated in Column 2)

Note–Kalbarri and Mount Lesueur additional lands have been purchased and these numbers will increase, the Waychinicup survey is in progress, and Fitzgerald figures based Florabase for the expanded area 329, 000 hectares compared to 250,000 hectares used in Aplin & Newbey (1979)

National Park	Total Taxa	Endemic taxa	Source	Published taxa records
Kalbarri	1271		Keighery	1080, Keighery et. al., 2000
Mount Lesueur	1171	27	Keighery	
Leeuwin -Naturaliste	1029	6	Keighery et al., 2011	
Stirling Ranges	1578	87	Keighery	1500, Keighery 1993
Waychinicup	1347	5	Keighery	
Fitzgerald	1748	75	Keighery	1107, Aplin & Newbey 1979
Cape Arid/ Nuytsland	1467	26	Keighery & Keighery	

The Stirling Range (1578 taxa) and Fitzgerald River National Parks (1748 taxa) are in the same biogeographic region ((Department of Climate Change, Energy, Envronment & Water, 2023, a). Currently available quadrat data also shows that the Kwongan shrublands of these parks are slightly more shrub rich, having more species packed into a unit area. This probably reflects their higher rainfall.

Based on current data, it appears that Cape Arid National Park is substantially richer than Kalbarri (Table 3), and perhaps Mount Lesueur of the northern sandplains (although note the current Lesueur National Park is substantially smaller than all other major Southwest conservation areas). The northern sandplains are generally listed as a major biodiversity node for the Kwongan. This appears equally true for Cape Arid. Thus, it is a park of considerable species diversity and easily ranks as a major biodiversity centre.

Photos 21 & 22: *Hakea pandanicarpa* subsp *pandanicarpa* in Cape Arid. This species extends into Nuytsland and is here at eastern extent. Jiri Lochman.

Biotic Changeover

The parks have a very large number of range ends within their boundaries: 593 in Cape Arid and another 335 recorded in the adjacent portion of Nuytsland. Totalling 928 taxa, which is approximately 57% of the known vascular flora of the study area. Virtually all of these records are of Southwest species at the eastern margin of their ranges (Appendix 1).

Of these 1131 taxa, there is a concentration in the landscape/soils/vegetation units used in Table 1, Column 7: 2 Estuarine; 6 Banksia woodlands, 7 Lateritic heaths, 8 Sandstone/quartzite heaths, 9 Granite, 11 Sandy soils, 12 Freshwater clay-pans; and 13 Riverine. These are all at their eastern extent in the study area.

This is a very large number and percentage of total flora compared to other areas for which this change over is recognised as a feature. For example:

- Kalbarri National Park with 304 of 1271 taxa or 25% of the recorded flora (Keighery unpub. data); and
- Shark Bay World Heritage Area with 145 of 673 taxa or 30% of the recorded flora (Keighery 1990).

In both of the areas these Southwest species are at their northern range margins. These regions have the number of range ends, that is biotic turn over, as a major feature of their biodiversity values. The species change over in the Shark Bay area is one of the World Heritage values of the region (Gibson et al. 2000). The study area contains the largest biotic change-over of vascular plants recorded in the Southwest.

Disjunct populations

Photos 23: *Hakea erecta.* Michael Morcombe.

Another major feature of Cape Arid is the number of disjunctions present (Tables 4 & 5).

There are 20 taxa have populations in Cape Arid that are disjunct from Albany to Cape Arid or Esperance. This is probably caused by the lack of large granite surfaces east of Albany until Cape Le Grande.

Another major disjunction of 27 taxa is from the Fitzgerald area to Mount Ragged (Table 5). As in the previous examples this is due to a disjunction in similar habitats, the metamorphosed sandstone ranges of the Barrens and Russell Ranges. The only other known area with a significant number of west-east disjunctions is the Whicher Scarp (SE of Busselton) with six large distance disjunctions from the Albany area recorded as a feature of the flora (Keighery et al., 2008).

Such a large number of wide area disjunctions are potentially a unique feature of the area.

Table 3. Major disjunct populations of 20 vascular plants in Cape Arid.

Taxon	Disjunction (between named places)
Acacia robiniae	Albany - Cape Arid
Acacia saligna subsp. *pruinescens*	Albany – Esperance
Boronia clavata	Albany-Cape Arid
Daviesia inflata	Albany - Toolina Cove
Euphrasia collina subsp. *tetragona*	Albany-Esperance-Cape Arid
Goodenia quadrilocularis	Albany-Esperance-Cape Arid
Grevillea tripartita subsp. *macrostylis*	Hopetoun - Point Culver
Hakea erecta (Photo 23, above)	Wheatbelt to Ravensthorpe - Mt Ragged
H. pycnoneura	Northern sandplains - Mt Ragged
H. scoparia subsp. *scoparia*	Wheatbelt - Mt Ragged
H. tuberculata	Scott River-Albany-Cape Arid
Haloragis acutangula	Margaret River-Albany-Cape Arid
Leucopogon interruptus	Albany-Esperance-Cape Arid
Leucopogon oppositifolius	Albany-Cape Arid
Loxocarya cinerea	Albany - Cape Arid
Pimelea hspida	Cape Riche to Cape Arid
Platysace commutata	Albany-Mt Ragged
Platysace haplosciadia	Whicher Range, Hamelin Bay to Esperance
Thelymitra flexuosa:	Albany-Condinup-Cape Arid
Trithuria austinensis	Lake Muir-Cape Arid

Table 4: Minor disjunct populations of 24 vascular plants within the Ravensthorpe/Bremer Bay-Esperance area (25 with original species in *Leptomeria axillaris*).

Taxon	Disjunction (between named places)
Acacia biflora	Bremer Bay – Esperance
Acacia empiloclada	Ravensthorpe - Cape Arid
Acacia pinguiculosa subsp. *pinguiculosa*	Ravensthorpe-Cape Arid
Acacia sp. Cape Arid (AS Weston 8164)	Ravensthorpe - Mt Ragged
Adenanthos oreophilus	Fitzgerald -Mt Ragged
Anigozanthos gabrielae	Stirling Range - Cape Arid
Banksia armata subsp. *ignicida*	Cape Riche - Esperance-Cape Arid
Banksia falcata	Bremer Bay - Cape Arid
Billardiera speciosa	Hopetoun - Esperance-Cape Arid
Boronia penicillata	Fitzgerald - Cape Arid
Caladenia marginata	Cape Riche – Esperance
Cyanicula sericea	Bremer Bay - Cape Arid
Desmocladus austrinus	Bremer Bay - Cape Arid
Dodonaea hexandra	Hopetoun - Cape Arid
Eucalyptus lehmannii subsp. *lehmannii* (Photo 26)	Bremer Bay – Esperance
Gompholobium venustum (Photo 24, below)	Hopetoun - Cape Arid
Hemiphora exserta	Fitzgerald -cape Arid
Labichea lanceolata ssubsp. *lanceolata*	Collie - Mount Ragged
Leptomeria axillaris	Fitzgerald - Cape Le Grande - Cape Arid (previously 2 species, *L. axillaris* Cape Le Grande - Cape Arid and *L. obovata* Fitzgerald -Cape Riche)
Lepyrodia hermaphrodita	Esperance - Cape Arid (Thomas River)
Olearia revoluta	Kalbarri/Morawa (Cape Riche) - Point Malcolm
Poa porphyroclados	Bremer Bay - Cape Arid
Poranthera huegelii	Bremer Bay – Esperance
Microlaena stipoides	Bremer Bay - Cape Arid
Taxandria conspicua subsp. *abrupta*	Fitzgerald - Mt Ragged
Thryptomene saxicola	Bremer Bay – Esperance

Photo 25: *Darwinia* sp. Mt Ragged. Marie Lochman

Centre of Endemism

Three centres of vascular plant endemism (Table 5) can be recognised in the study area.

The Russell Range, which includes Mount Ragged, the most accessible peak, with 14 endemics. These metamorphosed sandstones are a similar age and geology to the peaks of the Fitzgerald River and the Stirling Ranges, which also house a series of local endemics.

Table 5: The three centres of endemic vascular plants

- Column 1– Nullarbor Cliffs–Toolinna Sandpatch (6 taxa): An elongated area from Eyre to Toolinna on the western portion of the Baxter Cliffs (within the Nuytsland NR, Figure 4), with six endemics documented. Most of these are recently collected and described.

Column 2–'Cape Arid' (6 taxa):The general area of Cape Arid National Park/Nuytsland Nature Reserve contains at least six endemics. These are from a range of habitats and geomorphologies.

- Column 3–Russell Range (14 taxa, within Cape Arid NP)

Nullarbor Cliffs - Toolinna Sandpatch (Figure 4)	'Cape Arid'	Russell Range (Figure 5)
Adenanthos eyrei	*Caesia viscida*	*Banksia prolata* var. *archeos*, Mt Ragged
Anemocarpa calcicola	*Darwinia* sp. Mt Baring	*Beaufortia raggedensis*, Mt Ragged
Banksia epica	*Kennedia beckxiana*	*Beyeria simplex*, Mt Ragged
Eriochilus dilatatus subsp. *orientalis*	*Leucopgon bossiaea*	*Darwinia* sp., Mt Ragged (Photo 26)
Opercularia loganioides (Photo 28)	?*Myriocephalus biflorus*	*Daviesia grossa*, Mt Ragged
Stenopetalum saxitale (Photo 29)	*Myriophyllum* sp. Mt Arid (Sweetman 6767)	*Eucalyptus quadrans*, Mt Ragged
		Gastrolobium pycnostachyum, Mt Ragged, Diamonds, Mt Esmond (Photos 30, 31)
		Gastrolobium tergiversum, Mt Ragged
		Grevillea pauciflora subsp. *saxatilis*, Russell Range (Photo page 20)
		Hakea scoparia subsp. *trycherica*, Mt Ragged
		Lepidosperma sp., Mt Ragged
		Melaleuca pentagona var. *raggedensis*, Russell Range
		Chorilaena rudis subsp. *linearis*, Mt Ragged
		Scaevola brookeana, Mt Ragged

Photo 26 (above): Toolinna Sandpatch.

Photo 27 (left): *Opercularia loganioides* plant.

Photo 28 (left): *Stenopetalum saxitale* plant.

Photo 29 (below): *Gastrolobium pycnostachyum* plant. Marie Lochman.

Photo 30: *Gastrolobium pycnostachyum* flowers. Jiri Lochman.

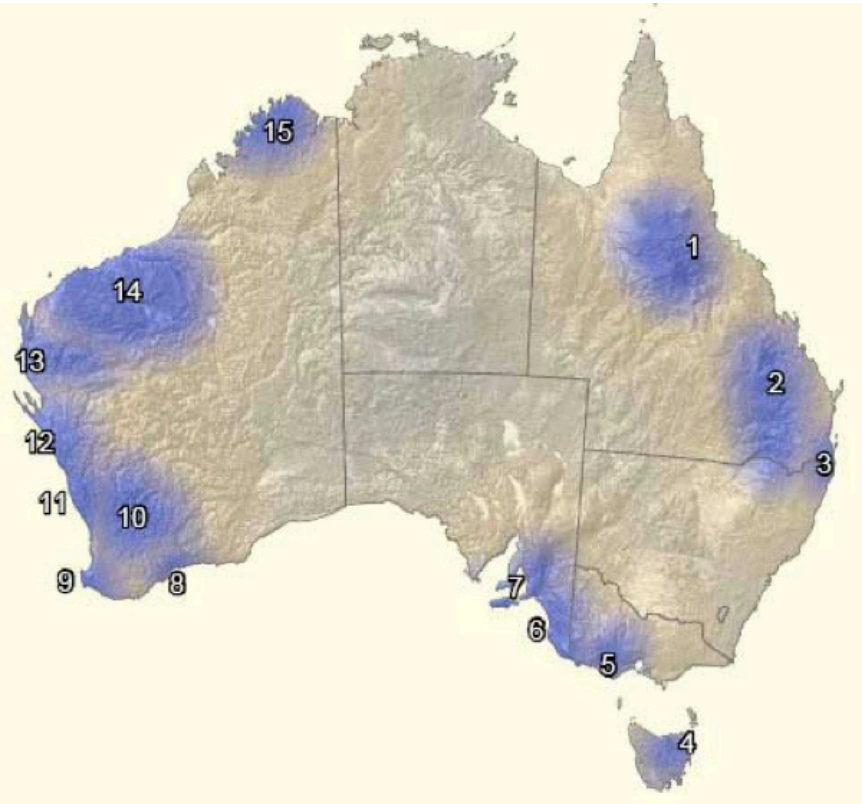


Figure 6: Australia's 15 National Biodiversity Hotspots

- 1. Einasleigh and Desert Uplands (Queensland)
- 2. Brigalow North and South (Queensland and New South Wales)
- 3. Border Ranges North and South (Queensland and New South Wales)
- 4. Midlands of Tasmania
- 5. Victorian Volcanic Plain
- 6. South Australia's South-East/ Victoria's South-West
- 7. Mt Lofty/Kangaroo Island (South Australia)
- 8. Fitzgerald River Ravensthorpe (Western Australia)
- 9. Busselton Augusta (Western Australia)
- 10. Central and Eastern Avon Wheatbelt (Western Australia)
- 11. Mount Lesueur-Eneabba (Western Australia)
- 12. Geraldton to Shark Bay sand plains (Western Australia)
- 13. Carnarvon Basin (Western Australia)
- 14. Hamersley-Pilbara (Western Australia)
- 15. North Kimberley (Western Australia)
- **16. Cape Arid National Park and adjacent Nuytsland Nature Reserve (Western Australia)**

PART 4: A NATIONAL BIODIVERSITY HOTSPOT

The entire Southwest of Western Australia is an internationally recognised biodiversity hotspot

The Australian Government has compiled a national biodiversity hotspot list (Figure 6 after Figure 3, Department of Agriculture, Water and Environment, 2003). These areas have been defined in a variety of ways (Brundrett et al., 2003 and Hammer at al., 2018). However both authors found that the Western Australian list is in need of systematic revision. Essentially those listed are defined either/or as centres of plant and/or animal diversity, endemism, possessing refugial areas or demonstrating evolutionary events (disjunct species, local centres of endemism and/or local distinct forms).

The listing advice states that these areas should support natural ecosystems that are largely intact, with a high diversity of local endemics and with a high level of threat. This includes land clearing, salinity, disease, feral animals and fire. The Cape Arid/southern Nuytsland area fits the majority of these threats (disease, weeds, fire, feral animals, climate change).

The Cape Arid/Nuytsland area supports a diverse range of natural ecosystems even at very large scales. More detailed floristic studies will confirm and uncover a wide range of localised vegetation units confined to the area. No doubt completion/publication of the vertebrate faunal surveys that have been undertaken will support this call. Cape Arid is the remaining stronghold of the Ground Parrot, a critically endangered endemic bird threatened by feral animals, fire and climate change. A brief check of the Western Australian Museum invertebrate data suggests that numerous short-range endemics are located in the Parks and a targeted faunal survey would be very useful in supporting this nomination.

Based on the outstanding richness of the vascular flora (most endemic to the Southwest), the very large numbers of species at their range ends and the nodes of local endemic species alongside the threats the Cape Arid/Nuytsland area easily meets the criteria and should be recognised as a national biodiversity hotspot on the vascular flora.

Currently there is sufficient flora and vegetation features for another "hotspot", number 16 in Australia, in the area of Cape Arid National Park and the adjacent Nuytsland Nature Reserve. A case could be made to extend the area to include all of the Nuytsland Nature Reserve to include the endemics of the Nullarbor Cliffs and the Toolinna sandpatch.




APPENDIX 1: FLORA LIST

A photo bar leads each **even** page. The bar contains 4 images (numbered from 1 to 4 from left to right) that are found on each spread. The name of the plant depicted is annnotaed with the relevant number, that is 1 to 4, PHOTO 1 is *Carpobrotus modestus*.

Key to columns

Column 1 Scientific names in Families in alpha order, followed by scientific names
Column 2/3 Codes: + = present; E, W or S = type range end; e = endemic
Column 2 Cape Arid National Park:
Column 3 Nuytsland Nature Reserve, range end E or W
Column 4 Conservation Code
Column 5 Habitat (major landform/soil)

1.	Coastal sands and dune	**5.**	Calcareous plains and clays	**9.**	Granite	**13.**	Riverine/fresh water swamps
2.	Estuarine	**6.**	Banksia woodland	**10.**	Eucalypt woodlands	**14.**	Shallow limestone
3.	Saline lakes/gypsum claypans	**7.**	Lateritic Heath	**11.**	Sandy soils	**15.**	Disturbed sites
4.	Mallee	**8.**	Sandstone/quartzite Heath	**12.**	Fresh claypans	**16.**	Miscellaneous soils/landform

–

Scientific name	Arid	Nuyts	Cons Code	Habitat
Adiantaceae				
Annogramma leptophylla	+			14
Agavaceae				
* *Agave americanum*		+		11
Aizoaceae				
* *Carpobrotus aequilaterus*	+	+		1
Carpobrotus modestus **(PHOTO 1)**	+	+		4
Carpobrotus virescens	+	+		1
* *Cleretrum papulosum*	+	+		4

Scientific name	Arid	Nuyts	Cons Code	Habitat
Dysphyma crassifolium **subsp.** *clavellatum*	+	+		1, 3
Gunniopsis calcarea **(PHOTO 2)**	+	+		4
Gunniopsis glabra	E			4,5
Gunniopsis quadrifida	+	+		4
* *Mesembryanthemum crystallinum*	+	+		1,2
* *Mesembryanthemum nodiflorum*	+	+		4
Tetragonia implexicoma **(PHOTO 3)**	+	+		1
Tetragonia diptera	+	+		3
Tetragonia tetragonoides	+	+		9
Alliaceae				
* *Nothoscordum gracile*	+			15
Alismataceae				
Damasonium minus	+			9
Amaranthaceae				
Alternanthera denticulata **var.** *denticulata*	+			13
* *Amaranthus albus*	+			13
Ptilotus drummondii **var.** *drummondii*	+	E		9
Ptilotus humilis **(PHOTO 4)**	+	+		9, 13
Ptilotus stirlingii **subsp.** *australis*	E			4
Ptilotus obovatus		+		4
Ptilotus seminudus	+			9, 13
Ptilotus spathulatus		+		10
Ptilotus symonii	?E			10
Anarthriaceae				
Anarthria gracilis **(PHOTO 5)**	+			11
Anarthria humilis	+	E		7,9,11
Anarthria laevis	+	E		11,13
Anarthria prolifera	+	E		1,11
Anarthria scabra	E			11
Lyginia imberbis	+	E		11




Scientific name	Arid	Nuyts	Cons Code	Habitat
Apiaceae				
Actinotus glomeratus	E			7
Apium annuum	+	+		2
Apium prostratum	E			2
* *Bupleurum semicompositum*	+	+		5,10
Centella asiatica	+			2
* *Conium maculatum*	+			13
Daucus glochidiatus	+	+		16
Platysace compressa **(PHOTO 1)**	+	E		1, 9
Platysace effusa	+	E		11, 7
Platysace haplosciadia	E			9
Platysace trachymenioides	+	+		7
Xanthosia collina	E			7
Xanthosia huegelii	+	E		16
Xanthosia tasmanica	+	+		16
Apocynaceae				
Alyxia buxifolia (PHOTO 2)	+	+		1,14
Araceae				
Lemna disperma	+			13
Aralaceae				
Hydrocotyle alata	E			9
Hydrocotyle callicarpa	+	+		16
Hydrocotyle tuberculata (was “decipiens” (GK 463))	E			9
Hydrocotyle diantha	+	+		16
Hydrocotyle hispidula	E			9

Scientific name	Arid	Nuyts	Cons Code	Habitat
Hydrocotyle medicaginoides	+	+		3
Hydrocotyle intertexta	+	+		16
Hydrocotyle rugulosa	E			9
Trachymene anisocarpa var. *trichocarpa*	E			9
Trachymene cyanopetala	+	+		9
Trachymene ornata	+	+		4
Trachymene pilosa (PHOTO 3)	+	+		16
Asparagaceae				
* *Asparagus asparagoides* (PHOTO page 21)	+			13
Chamaescilla corymbosa var. *corymbosa*	E			9
Laxmannia brachyphylla	E			7,11
Laxmannia minor	E			9
Laxmannia omnifertilis	E			7
Laxmannia ramosa subsp. *deflexa*	E			9
Laxmannia paleacea	E			7
Lomandra collina	+	+		4,7
Lomandra effusa	+	+		4,10
Lomandra hastilis	+	+		7
Lomandra mucronata	E			4
Lomandra micrantha subsp. *teretifolia*	+			7
Lomandra nigricans	+	+		7
Lomandra rigida	E			9
Thysanotus baueri		+		4
Thysanotus brachyantherus	?E			9,13
Thysanotus dichotomus	E			7
Thysanotus manglesianus (PHOTO 4)	+	+		9
Thysanotus nudicaulis	E			4
Thysanotus parviflorus	E			9
Thysanotus patersonii	+	+		16
Thysanotus pauciflorus	E			9
Thysanotus sparteus	E			4
Thysanotus triandrus	+	+		4,9




Scientific name	Arid	Nuyts	Cons Code	Habitat
Asphodelaceae				
* *Asphodelus fistulosus*	+	+		15
Bulbine semibarbata	+	+		9
Aspleniaceae				
Aspelinum aethiopicum **(PHOTO 1)**	+			9
Aspelinum flabellifolium	+			9
Aspelinum trichomanes	+	+		9,14
Pleurosorus rutifolius	+	+		9,14
Asteraceae				
Actinobole uliginosa	+			16
Actites megalocarpus	+	+		1
Amenocarpa calcicola		e		14
Angianthus conocephalus	+			14
Angianthus cunninghamii	+	+		1
Angianthus preissianus	+	+		2,9
Angianthus pygmaeus	E			9
* *Arctotheca calendula*	+	+		16
* *Arctotheca populifolia*	+	+		1
Argentipallium niveum	+	+		4
Argentipallium tephrodes	E			9
Asteridea archeri	E			9
Asteridea asteroides **(PHOTO 2)**	E			7
Asteridea athrixioides	+	E		4
Asteridea nivea	+	+		16
Balladonia multiceps	+			9
Blennospora drummondii	+	+		5

Scientific name	Arid	Nuyts	Cons Code	Habitat
Brachyscome ciliaris	+	+		16
Brachyscome eyerensis	E			9
Brachyscome gonocarpa	E			9
Brachyscome iberidiifolia	+	+		9
Brachyscome linearloba		+		14
Brachyscome perpusilla	E			9
Calotis hispidula	+	+		4,10
* ***Carduus pycnocephalus***	+			9,15
* ***Carthamus lanatus***	+			10,15
* ***Centaurea melitensis***	+	+		9,15
Centipedia crateriformis **subsp. *compacta***	+			13
* ***Carthamus lanatus***	+			15
Ceratogyne obionoides	+			10
Chthonocephalus pseudevax	+			12
Chthonocephalus multiceps	S		2	9
* ***Cirsium vulgare***	+	+		9,15
Cotula australis	+			9
* ***Cotula bipinnata***	+			9,15
Cotula coronopifolia	+			2,13
Cotula cotuloides	+	+		2
Cratystylis conocephala		+		4,5
* ***Dittrichia graveolens***	+	+		5,15
Elachanthus pusillus		+		5,9
Eremophyllum tenellum		+		4
* ***Erigeron bonariensis***	+	+		13
* ***Erigeron sumatrensis***	+			13
Euchiton sphaericus	+	+		16
Gnaphalium indutum	+	+		16
Gnephosis drummondii	+			9,13
Gnephosis tenuissima	+			9
Helichrysum leucopsidum **(PHOTO 3)**	+	+		4,10
Hyalochlamys globifera	+			9
Hyalosperma demissum (PHOTO 4)	E			16
* *Hypochaeris glabra*	+	+		16




Scientific name	Arid	Nuyts	Cons Code	Habitat
Isoetopsis graminifolia	+	+		4,10
Ixiolaena viscosa	+	+		1,13
* *Lactuca serriola*	+			15
Lagenophora huegelii (PHOTO 1)	E			6
* *Leontodon saxatilis*	+			11
Leptorhynchos scaber	+	E		1, 11
Leucophyta brownii	+			1
Millotia major	+			3.9
Millotia tenuifolia var. *tenuifolia*	E			7,9,11
Minuria cunninghamii		+		5
Minuria leptophylla		E		4,5
* *Monoculus monstrosus*	+			10,15
Myriocephalus biflorus	e		2	12
Myriocephalus occidentalis (PHOTO 2)	E			9,12
Myriocephalus oldfieldii	E			9
Olearia ciliata	E			1, 8
Olearia axillaris	+	+		1,8
Olearia dampieri subsp. *eremicola*	+	+		10
Olearia exiguifolia	+	+		4,10, 11
Olearia laciniifolia	E			4,5
Olearia lepidophylla	+	+		4
Olearia muelleri	+	+		4,5,10
Olearia muricata	E			7,9
Olearia picridifolia	W	E		4,5
Olearia ramosissima		+		4,5
Olearia revoluta	E			11
* *Oligocarpus calendulaceus*		+		5
Ozothamnus blackallii	+			5
Ozothamnus lepidophyllus	E			3

Scientific name	Arid	Nuyts	Cons Code	Habitat
Picris angustifolius subsp. *angustifolius* (PHOTO 3)	E			9
Podolepis rugata (was *canescens*)	+	+		
Podotheca angustifolia	+	+		6,7,9,14
Pogonolepis muelleriana	+			5
Pogonolepis stricta	E			2
Pseudognaphalium luteo-album	+	+		16
Pterochaeta paniculata	E			6
Quinetia urvillei	E			9,11
* *Reichardia tingitana*		+		1,6
Rhodanthe citrina	E			4,9,10
Rhodanthe cholorocephala subsp. *rosea*		+		10
Rhodanthe floribunda		+		5
Rhodanthe nullarborensis		+		5
Rhodanthe manglesii	+			9
Rhodanthe pygmaea	+	+		4,9,10
Rhodanthe spicata	+			9
Siemssenia capillaris (was *Podolepis*)	+			4,10
Senecio glossanthus	+	+		4,9,10
Senecio lacustrinus	+	+		5,9, 11,14
Senecio multicaulis subsp. *multicaulis*	E			6,9
Senecio picridoides	E			9
Senecio pinnatifolius var. *pinnatifolius*	+	+		4,9, 10
Senecio pinnatifolius var. *maritimus*	+	+		1,2,6
Senecio quadridentatus	+	E		6,11
Senecio spanomerus		+		14
Siloxerus filifolius	E			9,13
Siloxerus humifusus (PHOTO 4)	E			6,11
Siloxerus multiflorus	+			9
* *Soliva sessilis*	+			15
* *Sonchus asper*	+			13
Sonchus hydrophilus	+			2
* *Sonchus oleraceus*	+	+		16
Triptilodiscus pygmaeus	E			9
* *Urospermum picroides*	+	+		11




Scientific name	Arid	Nuyts	Cons Code	Habitat
* *Ursinia anthemoides*	+			6
* *Vellereophyton dealbatum*	+			2,13
Vittadinia australasica	+			4,9
Vittadinia dissecta	+	+		5,12
Vittadinia gracilis	+	+		10
Vittadinia nullarborensis		+		4,5
Waitzia acuminata	+			9,10,
Waitzia suaeveolens var. *suaeveolens*	+	+		8,10
Waitzia suaeveolens var. *flava*	+			4,10
Boraginaceae				
Cynoglossum australe (PHOTO 1)	+			11
* *Echium plantagineum*	+			15
Halgania anagalloides var *southern* (AE Orchard 1 609)	+			4,6
Halgania andromedifolia	+	+		4,6
Halgania cyanea var cyanea	E			5,11
Halgania integerrima	E			9
Halgania lavandulacea	+	E		4
Halgania sericifolia	+			11
Heliotropium asperrimum	+	+		14
Heliotropium curassavicum	+	+		2
Myosotis australis subsp. australis	+			11
Omphalolappula concava		+		14
Plagiobotrys australasicus	E			9
Boryaceae				
Borya constricta **(PHOTO 2)**	+	E		9
Borya nitida	E			9

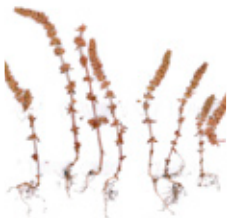
Scientific name	Arid	Nuyts	Cons Code	Habitat
Brassicaceae				
* *Brassica tournefortii*	+	+		11
* *Cakile maritima*	+	+		1
* *Carrichterra annua*		+		5
* *Diplotaxis muralis*	+			15
* *Heliophila pusilla*	+			11
* *Hornungia procumbens*	+			1,14
* *Lepidium africanum*	+			15
* *Lepidium pseudoruderale*		+		14
Lepidium rotundum	+	+		3,5,9, 10
Menkea australis (PHOTO 3)		+		5,14
Microlepidium pilulosum	+	+		5,14
Phlegmatospermum eremaeum		+		5
* *Raphanus raphanistrum*	+	+		15
* *Sisymbrium erysimoides*		+		11
* *Sisymbrium irio*		+		11
* *Sisymbrium orientale*	+	+		11,14
Stenopetalum lineare var. *lineare*		+		14
Stenopetalum saxitale (PHOTO page 27)		e		14
Campanulaceae				
Isotoma scapigera	+			9,12
Lobelia anceps	+	+		1,2
Lobelia archeri	E			6
Lobelia cleistogamoides	E			9
Lobelia gibbosa	E			11
Lobelia heterophylla subsp. *heterophylla* **(PHOTO 4)**	+			10,13
Lobelia rariflora	+			11
Lobelia rhombifolia	E			11
* *Monopsis debilis*	+			13
* *Wahlenbergia capensis*	+			11
Wahlenbergia cappilaris	+	+		9,11
Wahlenbergia gracilenta	+	+		9,11
Wahlenbergia preissii	+			9




Scientific name	Arid	Nuyts	Cons Code	Habitat
Caryophyllaceae				
* *Cerastium glomeratum*	+	+		9,11,15
* *Corrigiola littoralis*	+			2
* *Petrorhagia dubia*	+			11,15
* *Polycarpon tetraphyllum*	+			15
* *Sagina apetala*	+	+		2
* *Sagina maritima*	+	+		2
* *Silene gallica* var. *gallica*	+			9,15
* *Silene gallica* var. *quiquevulnera*	+			15
* *Silene nocturna*	+	+		11
* *Spergula diandra*	+	+		15
* *Spergula rubra*	+			2
Stellaria filiformis	+			10,12
* *Stellaria pallida*	+			15
Casuarinaceae				
Allocasuarina acuraria	E			11
Allocasuarina campestris	E			11
Allocasuarina helmsii	+	+		11
Allocasuarina huegeliana	+	E		9
Allocasuarina humilis	+	E		11
Allocasuarina lehmanniana subsp. *ecarinata*	+	E		5
Allocasuarina microstachya	E			9
Allocasuarina scleroclada	+	E		9,14
Allocasuarina thuyoides	+	E		11
Allocasuarina trichodon (PHOTO 1)	E			9
Celastraceae				

Scientific name	Arid	Nuyts	Cons Code	Habitat
Stackhousia pubescens	+	E		9, 11
Stackhousia sp. Thick Sepals (AE Orchard 1547)	+	E		11
Stackhousia scoparia	+	E		
Tripterococcus brunonis (PHOTO 2)	+	E		11
Centrolepidaceae				
Aphelia brizula	E			9
Aphelia nutans (PHOTO 3)	E			9
Aphelia sp. Albany (B. Briggs 596)	E			13
Centrolepis aristata	E			9,12
Centrolepis drummondiana	E			11
Centrolepis cephaloformis subsp. *cephaloformis*	+	+		5,9
Centrolepis glabra	E			12
Centrolepis humillima	+	E		3,5
Centrolepis pilosa	+	E		11
Centrolepis polygyna	+	+		5,12
Centrolepis strigosa subsp. *strigosa*	E			9
Chenopodiaceae				
Atriplex acutibractea subsp. *acutibractea*	+	+		4,5
Atriplex acutibractea subsp. *karoniensis*		+		4,5
Atriplex cinerea	+	+		1,3,5
Atriplex exilifolia		+		3,5
Atriplex isatidea	+	+		1
Atriplex lindleyi subsp. *inflata* (PHOTO 4)	E			4,5
Atriplex nummularia subsp. *spathulata*		+		1
Atriplex paludosa subsp. *cordata*	+	+		14
* *Atriplex prostrata*	+			2
Atriplex vesicaria		+		1
* *Chenopodium album*	+			15
Chenopdium curvispicatum		+		14
Chenopdium desertorum subsp. *desertorum*		+		11
* *Chenopodium murale*	+			15
Dysphania cristatum	+			9



Scientific name	Arid	Nuyts	Cons Code	Habitat
Dysphania melanocarpum forma *melanocarpum*		+		5
Enchylaena tomentosa var. *tomentosa*	+	+		16
Eriochiton sclerolaenoides		+		5,11
Maireana erioclada		+		5
Maireana lobiflora		+		5.14
Maireana oppositifolia	+	+		4,5
Maireana radiata		+		4,5
Maireana sedifolia		+		4,5
Maireana trichoptera (PHOTO 1)		+		14
Maireana turbinata		+		5,14
Rhagodia baccata (PHOTO 2)	E			9
Rhagodia crassifolia	+	+		1,3,14
Rhagodia preissii subsp. *preissii*	+	+		1,2,5,14
Rhagodia ulicina		+		14
Salicornia blackiana (was *Sarcocornia*)	+	+		1,2,3
Salicornia quinqueflora (was *Sarcocornia*)	+			2
Salsola australis	+	+		1
Sclerolaena brevifolia	+	+		4,5,14
Sclerolaena diacantha		+		5
Sclerolaena obliquicuspis		+		5,14
Sclerolaena patenticuspis		+		5,14
Sclerolaena uniflora		+		1,5,14
Sueada australis	+	+		9
Tecticornia disarticulata		+		11,14
Tecticornia halocnemoides	+	+		2,5,14
Tecticornia indica subsp. *bidens*	+	+		2,3
Tecticornia lepidosperma		+		3,5
Tecticornia moniliformis		?E		3,5

Scientific name	Arid	Nuyts	Cons Code	Habitat
Tecticornia pergranulata subsp. *pergranulata*	E			2
Tecticornia pterygosperma subsp. *pterygosperma*	+	+		5,14
Tecticornia syncarpa	+	E		1,2,3
Threlkeldia diffusa	+	+		1,2,3
Colchicaceae				
Wurmbea cernua	E			9
Wurmbea sinora	+	+		3,14
Wurmbea tenella	+	+		9,14
Convolvulaceae				
Convolvulus angustissimus subsp. *angustissimus*		+		5,14
Convolvulus remotus	+	+		5,7, 14
* *Cuscuta planifolia* (was *Epithymum*)	+			1
Dichondra repens	+	+		1,9, 14
Wilsonia backhousei	+			1
Wilsonia humilis (PHOTO 3)		+		3,14
Wilsonia rotundifolia	+			9
Crassulaceae				
* *Crassula alata*	+			15
Crassula closiana	E			1,9, 13
Crassula colligata subsp. *lamprosperma*	+	+		16
Crassula colorata var. *acuminata*	+			11
Crassula colorata var. *colorata* (PHOTO 4)	+			9
* *Crassula decumbens*	+			15
Crassula exserta	+	+		16
Crassula extrorsa	+			9,11
* *Crassula natans* var. *minus*	+			9
Crassula tetramera	+			8
Cupressaceae				
Callitris canescens	E			11
Callitris drummondii	E			5




Scientific name	Arid	Nuyts	Cons Code	Habitat
Callitris preissii	+	+		16
Callitris roei	E			5
Cyperaceae				
Ammothryon grandiflorus (was *Schoenus*)	+			1,6
Carex inversa	E			13
Carex thecata	E			11,14
Caustis dioica	E			6,7
Chorizandra enodis	E			12
Cyathochaeta equitans	E			6
* *Cyperus tenellus*	+			9
Eleocharis acuta	E			13
Eleocharis pusilla	+			9
Ficinia marginata (was *Isolepis*)	+			11
Ficinia nodosa	+	+		1
Gahnia ancistrophylla	+	E		9,11
Gahnia aristata	E			9,14
Gahnia decomposita (PHOTO 1)	E			13
Gahnia deusta		E		1,11
Gahnia sp. South West (Wilson & Frank 9266)	+	E		1,11,14
Gahnia sp. L (K. Newbey 7888)	E			11,14
Gahnia trifida	+	E		3,13
Isolepis australienis	+			13
Isolepis cernua var. *cernua*	+	E		2,9,13
Isolepis congrua	E			9
Isolepis cyperoides	E			13
Isolepis producta	E			9
Isolepis stellata	E			11,13

Scientific name	Arid	Nuyts	Cons Code	Habitat
Lepidosperma carphoides	+	E		13
Lepidosperma drummondii	+	E		9,11
Lepidosperma fairallianum	E			9
Lepidosperma fimbriatum	E			7
Lepidosperma gladiatum (PHOTO 2)	+	+		1
Lepidosperma gracile	E			9
Lepidosperma leptostachyum	E			7,13
Lepidosperma resinosum	E			9
Lepidosperma rigidulum	E			4,9
Lepidosperma sanguioletum	+	?E		11
Lepidosperma squamatum	E			4,6,7
Lepidosperma tenue	E			4,6,7
Lepidosperma sp. Mount Burdett (Burgman 3287)	E			8
Lepidosperma sp. Saltbush Hill (K, Newbey 4118)	E			6,7
Lepidosperma sp. Z (PG Wilson 10177)	E			4
Lepidosperma sp. Mount Ragged (K. Newbey 1858)	e			8
Merelotia microcarpa (was *Tetraria*)	E			8
Madaerina acuta (was Baumea)	E			13
Madaerina arthrophylla (was *Baumea*)	+			13
Madaerina juncea (was *Baumea*)	+	E		3,13
Madaerina preissii (was *Baumea*)	E			13
Mesomelaena graciliceps	E			6
Mesomelaena stygia subsp. *stygia* (PHOTO 3)	+	E		11
Mesomelaena tetragona (PHOTO 4)	E			6,13
Netrostylis sp. Mount Madden (Turley 40/87, was T etraria)	+	E		11, 14
Schoenus benthamii	E			9,12
Schoenus brevisetis	E			6
Schoenus caespititicus	+	E		11
Schoenus curvifolius	+			6
Schoenus golbifer	+			11
Schoenus humilis	+			11,12
Schoenus laevigatus	E			9



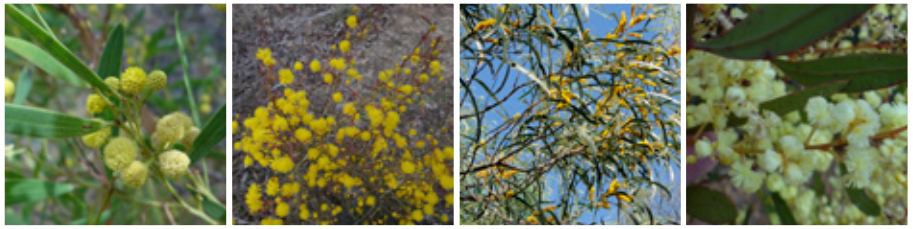

Scientific name	Arid	Nuyts	Cons Code	Habitat
Schoenus lanatus	+	E		1,14
Schoenus nanus	E			8,9
Schoenus nitens	+	E		2
Schoenus obtusifolius	E			6,7
Schoenus odontocarpus	E			6,7
Schoenus pleiostemoneus	E			6,7,14
Schoenus plumosus	E			13
Schoenus racemosus	+	+		5,8
Schoenus sculptus	E			9
Schoenus sesquispiculus	E			
Schoenus subbarbatus	E			6.7
Schoenus subfasicularis	E			11
Schoenus subflavus subsp. *subflavus*	E			7,11
Schoenus subflavus subsp. hispid culms (K.Newbey 8278)	+	E		7,11
Schoenus subflavus subsp. long leaves (K.Wilson 2 865)	E			7,9
Schoenus submicrostachyus	E			13
Schoenus sp. Broad Sheath (K.Newbey 2633)	E			7,9
Trichostularia aphylla	E			11
Trichostularia compressa	E			7
Trichostularia newbeyi (was sp. Hopetoun (Bennett 646))	E			11
Dasypogonaceae				
Calectasia jubilaea	E			7

Scientific name	Arid	Nuyts	Cons Code	Habitat
Dennstaedtiaceae				
Pteridium esculentum (PHOTO 1)	+			13
Dilleniaceae				
Hibbertia acerosa (PHOTO 2)	E			7
Hibbertia andrewsiana	E			7
Hibbertia cueniformis (PHOTO 3)	E			1
Hibbertia graciliceps	+	E		9,11
Hibbertia hamata	E			4,9
Hibbertia inclusa	E			7,12
Hibbertia psilocarpa	E			9
Hibberia pungens	+	+		4,5, 11
Hibbertia racemosa	+	E		6,7
Hibbertia lineata (was *recurvifolia*)	E			4
Hibbertia rostellata	+	E		11
Hibbertia rupicola	E			16
Hibbertia ulicifolia	E			4
Hibbertia verrucosa	E			5
Droseraceae				
Drosera australis	+	E		16??
Drosera drummondii (was *menziesii* subsp. *penicillaris*)	+	E		11
Drosera glanduligera	E			16
Drosera huegelii	E			6,7
Drosera intricata	E			7,9
Drosera leucoblasta	+			10
Drosera menziesii (was *subsp. menziesii*) (PHOTO 4)	E			6,9
Drosera moorei	E			9
Drosera neesii subsp. *neesii*	E			9
Drosera ramellosa	+			3
Drosera scirpoides	E			8
Drosera sp branched styles (S Coffee 193) (was *macrantha* subsp. *macrantha*)	+	E		16
Drosera subhirtella	E			9




Scientific name	Arid	Nuyts	Cons Code	Habitat
Drosera trichocaulis (was *paleacea*)	E			7,11
Drosera zonaria	E			6
Drosera trichocaulis (was *paleacea*)	E			7,11
Ericaceae (Epacridaceae)				
Acrotriche cordata	+	+		1,14
Acrotriche sp. Israelite Bay (Hislop/Hort 2630)	+	+		5
Acrotriche patula		+		14
Acrotriche ramiflora	+	+		14
Andersonia caerulea	E			11
Andersonia micrantha	E			6,7
Andersonia macranthera	+	E		11
Andersonia parvifolia (PHOTO 1)	+	E		6,9
Andersonia sprengeloides	+	E		11
Andersonia sp. Kulin (J. Powell 2588)	+	E		11
Brachyloma geissoloma subsp. *geissoloma*	+	E		16
Brachyloma geissoloma subsp. *ovatum*	E			16
Brachyloma mogan	E			7
Conostephium drummondii	+	E		11
Conostephium papillosum	+	E		11
Dielsiodoxa oligarrhenoides	+	E		7
Dielsiodoxa propullans	E			11
Leucopogon apiculatus	E			7
Leucopogon assimilis	E			6,7,11
Leucopogon bossiaea		e	2	11
Leucopogon carinatus	E			7
Leucopogon compactus	E		4	11
Leucopogon fimbriatus	E			11

Scientific name	Arid	Nuyts	Cons Code	Habitat
Leucopogon interruptus	E			9
Leucopogon obtusatus	E			7
Leucopogon multiflorus	E			1,9
Leucopogon oppositifolius	E			9
Leucopogon obovatus subsp. *obovatus*	+	E		1,9
Leucopogon obovatus subsp. *revolutus*	E			9
Leucopogon remotus	+	E		9
Leucopogon parviflorus	E			1
Leucopogon rigidus	E			9
Leucopogon rotundifolius	E			11
Leucopogon woodsii	E			7
Leucopogon sp. Cape arid (Paxman 50)	+		2	6,8, 11
Leucopogon sp. Coujinup (Burgmann 1085)	+	E		7,11
Leucopogon sp. Kau Rock (Burgmann 1126)	+	E		9,11
Leucopogon sp. Mt Heywood (M Burgman 1211) (was *brevicuspis*)	+	E		11
Leucopogon sp. Newdegate (Hislop 3585)	E			11
Leucopogon sp. Israelite Bay (GF Craig 2558)	+	E		
Lissanthe pleurandroides	E			11
Lissanthe rubicunda	E			11
Lysinema cilatum (PHOTO 2)	E			9
Lysinema pentapeltum	+	E		11
Needhamiella pumilio (PHOTO 3)	+	+		11
Oligarrhena micrantha (PHOTO 4)	+	E		13
Styphelia breviflora (was *Leucopogon*)	E			11
Styphelia discolor (was *Astroloma ciliatum*)	E			8,9
Styphelia epacridis (was *Astroloma*)	+	E		16
Styphelia compacta	E			6
Styphelia crassifolia (was *Leucopogon*)	E			11
Styphelia cuneifolia (was *Leucopogon*)	+	E		7,8,9
Styphelia exserta	+	E		14
Styphelia hainesii	+	+		11,14
Styphelia intertexta	E			11,14
Styphelia prostrata	E			7
Styphelia tecta (was *Astroloma tectum*)	E			11

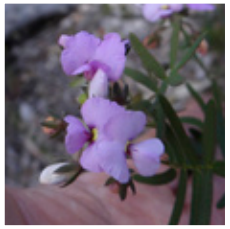


Scientific name	Arid	Nuyts	Cons Code	Habitat
Euphorbiaceae				
Adriana quadripartita	+	+		11
Beyeria latifolia	E			9
Beyeria lechenaultii	+	+		5,14
Beyeria simplex	e			8
Beyeria sulcata	+			10
Beyeria viscosa	E			1
Euphorbia drummondii	+	+		11,15
* *Euphorbia maculata*	+			1,15
Euphorbia multifaria		+		5
* *Euphorbia paralias*	+	+		1
* *Euphorbia peplus*	+			13,15
Euphorbia verrucitesta		+		5
Monotaxis paxii	+	E		11
Ricinocarpus megalocarpus	E			9
* *Ricinus communis*	+	+		13,15
Stachystemon brachyphyllus	E			3,11
Stachystemon brevifolius	E			8,11
Stachystemon polyandrus	E			11
Stachystemon vinosus	E			9
Stachystemon virgatus	E			11
Fabaceae				
Acacia aemula susbp. *aemula*	E			9
Acacia anceps	+	+		1,14
Acacia biflora	E			9
Acacia bracteolata	+	E		10
Acacia camptoclada	E			10

Scientific name	Arid	Nuyts	Cons Code	Habitat
Acacia carnulosa	+			4,9
Acacia cochlearis	+	+		1,2
Acacia coniniana	+	E		9
Acacia crassiuscula	E			3,9
Acacia crassuloides	E			10
Acacia crispula	E			1,9
Acacia cupularis	+	+		4,5
Acacia cyclops (PHOTO 1)	+	+		1,11
Acacia delphina	E			4
Acacia dempsteri	+			3,9
Acacia diaphana	+			5
Acacia empiloclada	E			3
Acacia erinacia (PHOTO 2)	+	+		5,10
Acacia euthyphylla	E			5
Acacia evenulosa	+			1
Acacia excentrica	+	+		1
Acacia glaucoptera	+	E		5
Acacia gonophylla	+	E		1,2,3
Acacia hakeoides	+	+		5
Acacia lachnophylla	+			5
Acacia lasiocalyx (PHOTO 3)	E			9
Acacia latipes subsp. *latipes*	E			8,9
Acacia merralii	+	+		4,5, 10
Acacia mutabilis subsp. *angustifolia*	+	+		5
Acacia mutabilis subsp. *mutabilis*	+	E		3,14
Acacia myrtifolia (PHOTO 4)	+	E		9
Acacia nigricans	+	E		1,9
Acacia nitidula	E			9
Acacia nivea	E			3,9
Acacia oswaldii		+		5
Acacia pachyphylla	+	E		16
Acacia papyrocarpa		+		5
Acacia pravifolia	+	+		8
Acacia pinguiculosa	+	E		9

Scientific name	Arid	Nuyts	Cons Code	Habitat
Acacia pritzeliana	E			4,9
Acacia pulchella var. *goadbeyi*	E			6,7
Acacia resinosa	+			4
Acacia robiniae	E			9
Acacia rostellifera	+	E		1
Acacia saligna subsp. wheatbelt (Maslin 8602) (was *pruinescens*)	E			9
Acacia sorophylla	E			10
Acacia subcaerulea	+	E		9,11
Acacia sulcata subsp. *platyphylla*	+	+		4,9, 14
Acacia triptycha	+	E		4,9, 14
Acacia varia var parviflora	E			4,9
Acacia verriculum	+	E		9,14
Acacia sp. P176 (Maslin 5831)	E			9
Acacia sp. Cape Arid (Weston 8164)	e			8
Aotus sp. Esperance (P.G. Wilson 7904)	E			11
Bossiaea dentata (PHOTO 1)	E			8,9, 13
Bossiaea leptacantha	+	+		3,11
Bossiaea praetissima	E			9
Bossiaea preissii	+	E		11,14
Bossiaea simulata	+		2	3
Bossiaea walkeri (PHOTO 2)	+	+		3,9, 14
Callistachys lanceolata (south coast variant)	E			13
Chorizema aciculare	+	E		11
Chorizema illicifolium	E			9
Chorizema nervosum	+	E		8
Chorizema obtusifolium	+	E		7,11
Daviesia apiculata	+	E		4,11

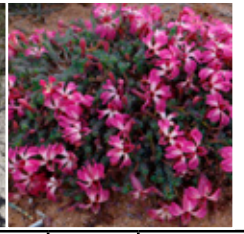
Scientific name	Arid	Nuyts	Cons Code	Habitat
Daviesia aphylla (was *benthamii* subsp. *acanthoclona*)	+	+		5,10
Daviesia argillacea	E			5
Daviesia dilatata	E			7,11
Daviesia divaricata (PHOTO 3)	E			7
Daviesia grossa	e			8
Daviesia incrassata subsp. *incrassata*	E		1	7
Daviesia incrassata subsp. *reversifolia*		E		
Daviesia inflata		E		4,5
Daviesia lancifolia	E			8
Daviesia major	+	E		6,7
Daviesia retrorsa	+	+		11,14
Daviesia teteretifolia	+	E		11
Dillwynia acerosa	+			5
Dillwynia sp. mallee (Archer 1709959) (was *divaricata*)	E			4,7
Dillwynia pungens (PHOTO pages 14, 19)	E			8,9
Dillwynia uncinta	+	E		3,4
* *Dipogon lignosus*		+		15
Eutaxia empetrifolia	E			7
Eutaxia inuncta	E			7,9
Eutaxia lutea	E			7,11
Eutaxia major	E			9
Eutaxia myrtifolia	E			9
Eutaxia parvifolia	E			9
Gastrolobium discolor	+			9
Gastrolobium bilobum	E			9
Gastrolobium latifolium	E			9
Gastrolobium muscaceum	+	E		11
Gastrolobium parviflorum (PHOTO 4)	+	+		16
Gastrolobium pycnostachyum (PHOTO page 27)	e			8
Gastrolobium tergiversum	e			8
Glycine peratosa	+			9
Glycine rubiginosa		+		5
Gompholobium baxteri	+	E		11

Scientific name	Arid	Nuyts	Cons Code	Habitat
Gompholobium confertum (PHOTO 1)	E			7,11,13
Gompholobium cyaninum	E			7,11
Gompholobium knightianum (PHOTO 2)	+	E		11
Gompholobium marginatum	E			7
Gompholobium polymorphum	E			7,9
Gompholobium scabrum	+	E		11,13
Gompholobium venustum (PHOTO page 25)	E			8,9
Gompholobium viscidulum	E			7
Goodia medicaginea	E			9
Hovea pungens	E			7
Hovea trisperma	E			6
Indigofera australis	+			9
Isotropis cuneifolia	+	E		7,9,13
Isotropis drummondii	+			9
Jacksonia capitata	+	E		11
Jacksonia condensata	+	E		7,11
Jacksonia spinosa	E			1,7,11
Jacksonia venosa	+	E		11
Jacksonia viscosa	E			7,9,11
Kennedia beckxiana	e			8
Kennedia coccinea subsp. *esotera*	+	E		4,10
Kennedia nigricans	E			1,9
Kennedia prostrata (PHOTO 3)	E			6,9
Labichea lanceolata subsp. *lanceolata*	E			9
Labichea lanceolata subsp.*brevifolia*	+	E		4
* *Lotus angustissimus*	+			15
Lotus cruentus		+		5
* *Medicago minima*	+	+		13,15
* *Medicago polymorpha*	+	+		15

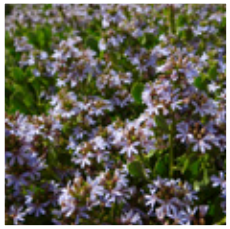
Scientific name	Arid	Nuyts	Cons Code	Habitat
* *Melilotus indicus*	+			15
Mirbelia granitica	+			9
Mirbelia microphylla	+			9,10
* *Ornithopus compressus*	+			9,15
Paraserianthes lophantha subsp. *lopantha*	+			9
Pultenaea elachista	+	+		5,14
Pultenaea ericifolia	E			7,9
Pultenaea heterochila	+	+		11,14
Pultenaea indira subsp. *indira*	E			11
Pultenaea purpurea	+			3,4,9
Pultenaea rotundifolia	E			9
Pultenaea spinulosa	E			11
Pultenaea strobilifera	E			9,11
Pultenaea verruculosa	E			11
Senna artemisoides subsp. *filifolia*	+	+		16
Senna artemisoides subsp. *artemisoides*		+		5
Senna artemisoides subsp. *coriacea*		+		11
Senna glutinosa subsp. *chatelainiana*	+			9
Senna sp. Pallinup River (J.W. Green 4847)	+	+		5,14
Sphaerolobium daviesioides	+	+		7,9, 11
Sphaerolobium drummondii (PHOTO 4)	E			7
Sphaerolobium linophyllum	E			6
Swainsona affinis		+		5
Swainsona campestris		+		5
Swainsona colutoides	+			4,5
Templetonia battii	+			3,10
Templetonia retusa	+	+		1,14
Templetonia rossii	+	E		11,14
* *Trifolium angustifolium*	+			9
* *Trifolium arvense*	+			15
* *Trifolium campestre* var. *campestre*	+	+		13
* *Trifolium glomeratum*	+			15
* *Trifolium subterraneum*	+			15
Viminaria juncea	+			13



Scientific name	Arid	Nuyts	Cons Code	Habitat
Frankeniaceae				
Frankenia densa	+	+		5,14
Frankenia desertorum	+			5
Frankenia interioris		+		5
Frankenia sessilis	+			12
Frankenia tetrapetala	+			2
Gentianaceae				
* *Centaurium erythraea*	+	+		14,15
* *Centaurium tenriflorum*	+			1
Schenkia australis	+	+		16
Sebea ovata	E			9,12
Geraniaceae				
* *Erodium botrys*	+			9
* *Erodium cicutarium*	+	+		4,5, 15
Erodium carolinianum		+		5
Erodium crinitum	+			9
Erodium cygnorum subsp. *cygnorum*	+			9,10
Geranium retrosum	E			9
Geranium solanderi	E			6,7
Pelargonium australe	E			9
* *Pelargonium capitatum*	+			1,15
Pelargonium drummondii	+	E		1,9
Pelargonium littorale (PHOTO 1)	+	E		1,2,4
Goodeniaceae				
Anthotium humile	E			12

Scientific name	Arid	Nuyts	Cons Code	Habitat
Coopernookia polygalacea (PHOTO2)	E			4
Coopernookia strophiolata	+	+		11,14
Dampiera fasiculata	E			11
Dampiera lavandulacea	+	E		16
Dampiera loranthifolia	E			11
Dampiera parvifolia	+	E		11
Dampiera sacculata	+	E		7
Goodenia arguta (was *Velleia*)	+	+		11,14
Goodenia affinis	+	E		5,11
Goodenia berardiana	+			9
Goodenia concinna	+	+		5,9, 11
Goodenia cycnopotamica (was *Velleia*)	+			9
Goodenia decurvisa	+	+		9,11
Goodenia exigua	E			3
Goodenia incana (PHOTO 3)	E			4,5,11
Goodenia krauseana	+			9
Goodenia laevis subsp. *laevis*	+		3	4
Goodenia micrantha	E			9,12
Goodenia pinnatifida	+	+		9,14
Goodenia pterigosperma	+	E		7,11
Goodenia quadrilocularis	E			9
Goodenia pulchella subsp. wheatbelt (Hutt & Sage 795)	E			9
Goodenia quasilibera	+			3
Goodenia scapigera ***subsp.*** *scapigera*	+	E		16
Goodenia trinervis ***(was*** *Velleia)*	E			6,9, 12
Goodenia varia		+	2	14
Goodenia viscida		+	2	9,12
Lechenaultia formosa (PHOTO 4)	+	E		11
Lechenaultia papillata	E			8
Lechenaultia tubiflora	E			11
Scaevola archeriana	E			11
Scaevola argentea	+			3
Scaevola brookeana	e			8
Scaevola bursariifolia	+	E		5,11




Scientific name	Arid	Nuyts	Cons Code	Habitat
Scaevola crassifolia (PHOTO 1)	+	E		1
Scaevola cueniformis	+	E		7,11
Scaevola globulifera	E			9,11
Scaevola myrtifolia	+	+		5,11,14
Scaevola spinescens	+	+		16
Scaevola sp. Mt Ragged (M Goods GG004)	e			5
Scaevola thesoides subsp. *filifolia*	+	E		11
Gyrostemonaceae				
Cypselocarpus haloragoides	E			6,11
Gyrostemon racemigera	+			4,5
Gyrostemon sheathii	+	E		1
Haemodoraceae				
Anigozanthos bicolor subsp. *minor*	E		T	11
Anigozanthos rufus (PHOTO 2)	+	E		11
Conostylis bealiana	E			7
Conostylis phathyrantha	+	E		11,13
Conostylis seorsiflora subsp. *seorsiflora*	E			7,11
Conostylis setigera subsp. *setigera*	E			7,11
Haemodorum discolor	E			11
Haemodorum brevisepalum	E			11
Haemodorum spicata	E			11
Tribonanthes violacea (PHOTO 3)	E			9
Haloragaceae				
Glischrocaryon angustifolium	+	E		11
Glischrocaryon aureum	+	+		9,11
Glischrocaryon flavescens	+	+		5,9, 14

Scientific name	Arid	Nuyts	Cons Code	Habitat
Gonocarpus nodulosus	E			9
Gonocarpus pycnostachyus	E			7
Gonocarpus scordioides	E			4,9
Haloragis acutangula	+			1,2
Haloragis digyna	E			1,14
Haloragis dura	+			5,14
Haloragis hamata	+			5,14
Haloragodendron racemosum	+			9
Mriophyllum balladoniense	+			9
Mriophyllum petraeum	E		4	9
Myriophyllum sp. Mt. Arid (Sweetman 6767)	e			9
Mriophyllum tillaeoides	E			9,13
Hemerocallidaceae				
Agrostocrimum scabrum subsp. *scabrum*	E			7,9
Caesia occidentalis	E			13
Caesia viscida	e			6,7
Chaemaescilla corymbosa	E			11
Corynotheca panda	+	E		11
Dianella brevicaulis	+	E		5,14
Dianella revoluta var. *divaricata*	+	+		5,11
Johnsonia acaulis (PHOTO 4)	E			11
Stawellia gymnocephala	E			11
Stypandra glauca	+	+		9,14
Tricoryne elatior	+	+		11
Tricoryne eyereana	+	E		7,11
Tricoryne tenella	+	+		11,14
Hydatellaceae				
Trithuria bibracteata	E			12
Trithuria austensis	E			9




Scientific name	Arid	Nuyts	Cons Code	Habitat
Hydrocharitaceae				
Ottelia ovalifolia subsp. *ovalifolia* (PHOTO 1)	+			9
Hypericaceae				
Hypericum gramineum	+			9
Hypericum japonicum	+			9
Hypoxidaceae				
Pauridia glabella var. *glabella*	+	+		9,14
Pauridia occidentalis	+	E		14
Pauridia vaginata var. *vaginata*	E			9
Iridaceae				
* *Freesia hybrid*	+	+		15
* *Moraea setifolia* (PHOTO 2)	+			3,4
Orthrosanthus multiflorus	+	+		11,13
Patersonia juncea	+	E		4
Patersonia lanata var. *lanata*	+	E		7,11
Patersonia occidentalis var. *occidentalis* (PHOTO 3)	+	E		6,11
Patersonia maxwellii	+	E		11,13
* *Romulea rosea* var. *australis*	+			15
* *Romulea rosea* var. *rosea*	+			9
Isoetaceae				
Isoetes australis	+			9
Isoetes muelleri	+			9

Scientific name	Arid	Nuyts	Cons Code	Habitat
Juncaceae				
Juncus bufonius	+	+		9,13
* *Juncus capitatus*	+			9
Juncus kraussii **subsp.** *australiensis*	+	+		1,2
Juncus pallidus	+			13
Juncaginceae				
Cycnogeton lineare	+			13
Cycnogeton sp.Condingup (R. Davies 10877)	E			9
Triglochin centrocarpa				
Triglochin isingiana	+	+		16
Triglochin longicarpa (PHOTO 4)	+			9
Triglochin minutissima	+	+		3,13
Triglochin mucronata	+			3,12,13
Triglochin nana	+	+		5,12,14
Triglochin sp. A (G. Keighery 2477)	+			3,9, 12
Triglochin striata	+			2,13
Triglochin trichophora	+			14
Lamiaceae				
Hemigenia teretiuscula	E			11
Hemiphora exserta	E			11
Mentha satureioides	+			9
Microcorys barbata	+	E		11
Microcorys glabra	E			4,7,11
Microcorys purpurea	E			9
Microcorys subcanescens	+	E		4,11
Microcorys virgata	E			7,11
Prostanthera baxteri	E			7,9,11
Prostanthera serpyllifolia subsp. *microphylla*	+			7,9,11
Tercrium sp. Balladonia (Newbey 7380)		+		5
* *Salvia verbenaca*	+	+		5,14
* *Stachys arvensis*	+			15
Westringia dampieri	+	+		1,5



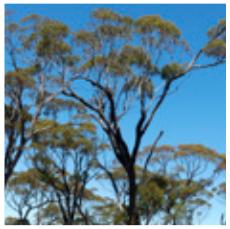

Scientific name	Arid	Nuyts	Cons Code	Habitat
Westringia rigida (PHOTO 1)	+	+		14
Lauraceae				
Cassytha glabella forma *casuarina*	E			1
Cassytha glabella forma *dispar*	+	+		1,4,7,11
Cassytha melantha	+	+		4
Cassytha pomiformis	+	E		7,11
Cassytha racemosa var. *racemosa*	+			6,10
Cassytha racemosa var. *pilosa*	+	E		6,10
Lentibulariaceae				
Utricularia inaequalis	E			13
Utricularia menziesii (PHOTO 2)	E			9,13
Utricularia tenella	E			9
Linaceae				
Linum marginale	+	E		5,11
Loganiaceae				
Logania buxifolia (PHOTO 3)	+	E		9,11,14
Logania fasiculata	E			11,14
Logania micrantha	E			11,14
Logania stenophylla	+	+		4,11,14
Logania vaginalis	E			1,9
Orianthera callosa	E			11
Orianthera campanulata	+	E		16
Orianthera seryllifolia subsp. *angustifolia*	E			9,11
Phyllangium divergens	+	E		9,11

Scientific name	Arid	Nuyts	Cons Code	Habitat
Phyllangium paradoxum	E			11,13
Phyllangium sulcatum	E			9
Loranthaceae				
Amyema melaleucae	+	+		4
Amyema miquelii	+	+		10
Nuytsia floribunda	+	E		11
Lythraceae				
* *Lythrum hyssopifolium*	+			13
Macarthuriaceae				
Macarthuria apetala	E			11
Malvaceae				
Alogyne hakeifolia (PHOTO 4)	+	+		5,14
Alyogyne sp. South Coast (AS George 289)	E			4
Androcalva crispa	E			9
Androcalva cuneata	E			4
Commersonia craurophylla	+			4,9
Commersonia corniculata	E			9
Commersonia parviflorum	E			11
Guichenotia ledifolia	+	E		5,14
Lasiopetalum compactum	+	E		7,9
Lasiopetalum discolor	+	E		1,11,14
Lasiopetalum indutum	+	E		11
Lasiopetalum maxwellii	E		2	9
Lasiopetalum quinquenervum	E			9
Lasiopetalum rosmarinifolium	+	E		11
Lasiopetalum sp. Mt. Ragged (THE Aplin 4349)	+	E		9,11
Lawrencia glomerata		+		11
Lawrencia spicata	+	+		2,3
Lawrencia squamata	+	+		3,14
* *Malva parviflora*	+			13




Scientific name	Arid	Nuyts	Cons Code	Habitat
Malva weimanniana	+	+		9,14
Radyera farragei		+		11
Sida hookeriana	E			4,9
Thomasia angustifolia	+	E		9,11
Thomasia cognata	E			14
Thomasia macrocalyx	+	E		11
Thomasia microphylla	E			7
Thomasia petalocalyx	+	+		7,9.11
Marsileaceae				
Marsilea drummondii	+			9
Menyanthaceae				
Ornduffia parnassifolia	E			9,12
Montiaceae				
Calandrinia brevipedata	+	+		11
Calandrinia calyptrata	E			9,11
Calandrinia corrigioloides	+	E		11
Calandrinia eremaea (PHOTO 1)	+	+		3
Calandrinia granulifera	+	E		7,11
Calandrinia sp. Gypsum (Obems & Hancock F010/14)	+			12
Calandrinia sp. Kenwick (Keighery 10905)	E			9,12
* *Portulaca oleracea*	+	+		15
Myrtaceae				
Agonis baxteri	+	E		11,13
Apectospermum spinescens	+	E		4,7,11

Scientific name	Arid	Nuyts	Cons Code	Habitat
Astartea asteroiodes	E			13
Astartea eobalta	E		2	9
Astus tetragonus	+	E		9
Austus wittweri	+	E		8,14
Austrobaeckea fasiculifolia	E			9,11
Austrobaeckea latens	E			7,11
Austrobaeckea uncinella	+	E		11,13
Baeckea crassifolia	+			
Baeckea latens	E			8,11
Baeckea sp. Esperance (A Gunness 2435)	+	E		11
Beaufortia empetrifolia	+	E		11
Beaufortia micrantha	+			7
Beaufortia raggadensis	e		2	8
Beaufortia schaueri (PHOTO 2)	+	E		7
Callistemon phoenicus	+			9,11
Calothamnus gracilis	+	E		11
Calothamnus quadrifidus subsp. *quadrifidus*	+	E		16
Calothamnus villosus	E			8,9
Calytrix decandra	+	E		9,11
Calytrix depressa	+			7
Calytrix hirta	E			9
Calytrix leschenaultii	+	E		7,11
Calytrix tetragona (PHOTO 3)	+	+		11,14
Chamelaucium axillare	+	E		11
Chamelaucium cilatum	+	E		16
Chamelaucium megalopetalum	+	E		7,11
Conothamnus aureus	+	E		7
Cyathostemon ambiguus	+	E		7,11
Cyathostemon blackettii	+	E		11
Darwinia diosmoides	+	E		5,9
Darwinia vestita (PHOTO 4)	+	E		7,11
Darwinia sp. Mount Baring (Newbey 9775)	e			9
Darwinia sp. Mount Ragged (S. Barrett 663) (PHOTO page 26)	e		2	8
Ericomyrtus serpyllifolia	+			9

Scientific name	Arid	Nuyts	Cons Code	Habitat
Eucalyptus angulosa	+	+		11
Eucalyptus angustissima	+	E		3
Eucalyptus annettae	+	E		11,14
Eucalyptus aspratilis	+			9
Eucalyptus brachycalyx	+	+		5,11
Eucalyptus calcarena		+		14
Eucalyptus conglobata subsp. *conglobata*	+	+		5,14
Eucalyptus connexa	+	E		5,10
Eucalyptus cooperiana	+	E		14
Eucalyptus cornuta (PHOTO 1)	E			9
Eucalyptus discreta	+	E		5,14
Eucalyptus diversifolia subsp. *hesperia*		W		11,14
Eucalyptus doratoxylon	E			5,9
Eucalyptus eremophila	+	E		16
Eucalyptus extensa	E			4
Eucalyptus extrica	+	E		14
Eucalyptus flocktoniae subsp. *flocktoniae*	+	+		5,11,14
Eucalyptus flocktoniae subsp.*hebes*	+	E		5,14
Eucalyptus fraseri subsp. *fraseri*	+			9,10
Eucalyptus fraseri subsp. *melanobasis*	+			10
Eucalyptus gracilis	+	+		5,11,14
Eucalyptus incrassata	+	+		1,11
Eucalyptus laevis		E		14
Eucalyptus lehmanii subsp. *lehmanii*	E			7,8,9
Eucalyptus lehmanii subsp. *parallela*	E			9
Eucalyptus leptocalyx subsp. *leptocalyx*	+	E		7
Eucalyptus leptocalyx subsp. *petilpes*		E		11
Eucalyptus ligulata subsp. *ligulata*	E		4	9

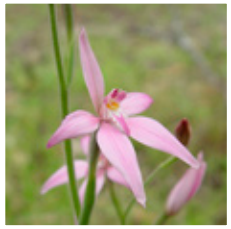
Scientific name	Arid	Nuyts	Cons Code	Habitat
Eucalyptus littorea	+	E	2	3
Eucalyptus luculenta	+	E	2	4,5,9
Eucalyptus melanoxylon (PHOTO 2)		+		5
Eucalyptus micranthera	+	E		7,11
Eucalyptus noactites	E			13
Eucalyptus occidentalis	E			13
Eucalyptus oleosa subsp. *ampliata*	+	+		5,14
Eucalyptus oleosa subsp. *cylindroidea*	+			5,14
Eucalyptus optima	E			5
Eucalyptus ovularis	+			5
Eucalyptus phenax	+	E		5,11
Eucalyptus platycorys	+			11
Eucalyptus quadrans	e			3,5
Eucalyptus redunca	E			4,7
Eucalyptus rigidula		E		11
Eucalyptus rugosa	+	+		5,14
Eucalyptus scyphocalyx	+	E		11
Eucalyptus semiglobosa	+	E	3	11,14
Eucalyptus sporadica	E			13
Eucalyptus sweedmaniana	E		2	7
Eucalyptus tenera	+			5,7,11
Eucalyptus terebra	+			5
Eucalyptus tetraptera (PHOTO 3)	E			7,9,11
Eucalyptus tumida	+	E		5,11
Eucalyptus uncinata	+	E		1,11
Eucalyptus urna	+	E		5
Eucalyptus utilis	+	E		2,11
Eucalyptus valens	+	E		5
Eucalyptus varia subsp. *varia*	E			11,13
Eucalyptus x *erythrandra*	E			8,9
Eucalyptus yalatensis (PHOTO 4)		W		14
Euromyrtus maidenii		E		11,14
Hypocalymma asperum	E			11




Scientific name	Arid	Nuyts	Cons Code	Habitat
Kunzea acuminata	e			9
Kunzea affinis	+	E		9,13
Kunzea baxteri	+	E		9
Kunzea preissiana	E			7,11
Leptospermopsis incana	E			9
Leptospermopsis maxwellii	+	E		7,9,11
Leptospermum oligandra	E			7,9
Leptospermopsis sp. Peak Charles (Newbey 5243)	E			8,9
Melaleuca acuminata subsp. *acuminata*	E			5
Melaleuca brevifolia	+	E		3,4,5
Melaleuca calcicola	+	E		5,14
Melaleuca calycina	E			7,13
Melaleuca cucculata	+	E		4,5
Melaleuca cuticularis (PHOTO 1)	+	E		2
Melaleuca elliptica	+	E		9,11,14
Melaleuca fulgens subsp. *fulgens*	E			9
Melaleuca glaberrima	E			7,9
Melaleuca globifera	E			9
Melaleuca halmaturorum		E		14
Melaleuca incana subsp. *tenella*	E			13
Melaleuca lanceolata (PHOTOS 2, page 18)	+	+		11,14
Melaleuca microphylla	E			9,13
Melaleuca nesophila	E			11
Melaleuca pauperiflora subsp. *pauperiflora*	+			5
Melaleuca pentagona var. *latifolia* (PHOTO 3)	+	E		7,11
Melaleuca pentagona var. *raggedensis*	e			8
Melaleuca plumea	E			3,11
Melaleuca pulchella	+	E		11

Scientific name	Arid	Nuyts	Cons Code	Habitat
Melaleuca quadrifaria	+	+		5
Melaleuca rigidifolia	E			8
Melaleuca scabra	+	E		7,11
Melaleuca societatis	E			4
Melaleuca striata	+	E		7,11
Melaleuca strobophylla		+		5
Melaleuca rigidifolia	E			8
Melaleuca subalaris	+			3,5
Melaleuca suberosa	+	E		11,14
Melaleuca subfalcata	E			7
Melaleuca thapsina	+			13
Melaleuca thymoides	+	E		11
Melaleuca thyoides	+	E		3
Melaleuca tuberculata var. *macrophylla*	E			11
Melaleuca tuberculata var. *tuberculata*	E			7
Melaleuca uncinata	E			3,7, 11
Melaleuca undulata	+	E		5,9
Melaleuca viminea subsp. *viminea* (PHOTO 4)	+	E		2,13
Melaleuca viminea subsp. *appressa*	E			9
Micromyrtus elobata subsp. *elobata*	E			3,11
Micromyrtus erichsenii		E		11
Micromyrtus imbricata	+	E		9,11
Oxymyrrhine gracilis	+	E		9,11
Phymatocarpus maxwellii	+	E		11,13
Regelia inops	E			13
Rinzia dimorphantha	E			7
Rinzia icosandra	+	E		8,14
Taxandria callistachys	E			13
Taxandria conspicua subsp. *abrupta*	E			8
Taxandria marginata	E			7,9
Taxandria spathulata	+	E		16
Tetrapora preissiana	E			9
Thryptomene australis subsp. *brachyandra*	E			9
Thryptomene saxicola	E			9

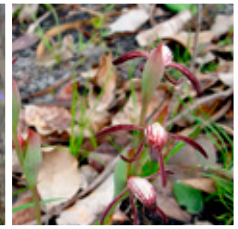


Scientific name	Arid	Nuyts	Cons Code	Habitat
Verticordia brownii	E			11
Verticordia eriocephala (PHOTO 1)	+	E		7,11
Verticordia inclusa	E			7
Verticordia minutiflora	+	E		9
Verticordia plumosa var. *plumosa*	E			9
Verticordia plumosa var. *grandiflora*	E			9
Verticordia sieberi var. *sieberi*	+	E		11
Verticordia verticordina	E		3	9
Verticordia vincella	E			7,11
Nitrariaceae				
Nitraria billardieri	+	+		1,14
Olacaceae				
Olax benthamiana (PHOTO 2)	E			11,14
Olax phyllanthi	+	E		11
Onagraceae				
Epilobium billardiereanum subsp. *billardiereanum*	+			13
* *Oenothera stricta* subsp. *stricta*	+			15
Ophioglossaceae				
Ophioglossum lusitanicum	+			9
Orchidaceae				
Caladenia arrecta	E			7
Caladenia attigens subsp. *attigens*	E			9
Caladenia attigens subsp. *gracillima*	E			3

Scientific name	Arid	Nuyts	Cons Code	Habitat
Caladenia bicalliata subsp. *cleistogama*	E			1
Caladenia brevisura	E			9
Caladenia cairnsiana	E			11
Caladenia cruscula	E			3
Caladenia decora	E			9,13
Caladenia dimidia	E			9
Caladenia discoidea	+	E		11
Caladenia exstans	E			9,13
Caladenia flava subsp. *flava* (PHOTO 3)	E			7,11
Caladenia graminifolia	E			3
Caladenia heberleana	+	E		7,13
Caladenia hirta subsp. *rosea*	+	E		5,11
Caladenia horistes	E			9,13
Caladenia latifolia (PHOTO 4)	+	E		1, 2,9
Caladenia longicauda subsp. *crassa*	E			11,13
Caladenia longicauda subsp. *rigidula*	E			9,11,13
Caladenia marginata	E			9
Caladenia microchila	+	E		11,14
Caladenia pachychila	E			9
Caladenia sigmoidea	+			9
Caladenia vulgata	E			7,11
Calochilus pruinosus		E		11
Corunastylis fuscoviridis	+	+		11,14
Cyanicula aperta	+	E		3,11
Cyanicula gemmata	E			7
Cyanicula sericea	E			9
Cyrtostylis robusta	+	E		7,9
Diuris brockmanii	+	E		9,11,13
Diuris concinna	E			7
Diuris dicrematum	E			4
Diuris laxiflora	+	E		11,13
Diuris littoralis	+	E		11.14
Diuris pulchella	+			9

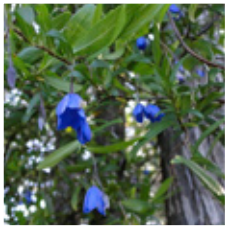


Scientific name	Arid	Nuyts	Cons Code	Habitat
Diuris setacea (PHOTO 1)	E			7
Drakea glyptodon	E			11,13
Elythranthera brunonis (PHOTO 2)	+	E		7,11
Ericksonella saccharata	+	E		7,11
Eriochilus dilatatus subsp. *dilatatus*	+	E		11
Eriochilus dilatatus subsp. *orientalis*		e		11
Eriochilus dilatatus subsp. *undulatus*	E			9
Eriochilus pulchellus	E			9
Eriochilus scaber subsp. *scaber*	E			9,11,13
Leporella fimbriata	E			7,11
Leptoceras menziesii	E			9
Lyperanthus serratus	E			6
Microtis alba	E			9,13
Microtis atrata	E			13
Microtis cupularis	E			9
Microtis eremicola	+	+		11,13
Microtis media subsp. *media*	E			9,13
Microtis orbicularis	E			13
Paracaleana dsijuncta	E			11,13
Paracaleana parvula	E			11
Pheladenia deformis	+	E		16
Praecoxanthus aphyllus	E			11
Prasophyllum calcicola	E			1,14
Prasophyllum cucullata	E			7,11
Prasophyllum gracile	E			9
Prasophyllum odoratissimum		E		11
Prasophyllum parvifolium	E			16
Prasophyllum plumiforme	E			11

Scientific name	Arid	Nuyts	Cons Code	Habitat
Prasophyllum sargentii	+	E		11,13
Prasophyllum sp.early (Brockman 1626)	E			9
Pterostylis allantoidea	E			9
Pterostylis arbuscular	+	+		11,14
Pterostylis brevichila	+	E		9,11
Pterostylis dilatata	+	E		6
Pterostylis ectypha	E			11
Pterostylis faceta	E			9,13
Pterostylis lortensis	E			7,9
Pterostylis meridionalis (was sp. Cape Arid)	E			13
Pterostylis mutica	+	+		4,5, 11
Pterostylis parva		E		14
Pterostylis perculta	E			12,13
Pterostylis pyramidalis	E			13
Pterostylis recurva (PHOTO 3)	E			6,11
Pterostylis rogersii	E			11,14
Pterostylis roensis	+			9
Pterostylis sanguinea	E			8,11
Pterostylis sargentii	+			9
Pterostylis scabra	+			9
Pterostylis setulosa	E			9
Pterostylis timothyi	E			11
Pterostylis vittata	+	E		11
Pyrorchis nigricans (PHOTO 4)	+	E		11
Thelymitra antennifera	+	E		9,13
Thelymitra campanulata	+	E		1,11
Thelymitra flexuosa	E			9,13
Thelymitra granitora	E			9
Thelymitra macrophylla	E			11
Thelymitra occidentalis	+	E		5,11,14
Thelymitra petrophila	+	+		9,14
Thelymitra speciosa	E			5,9
Thelymitra spiralis	E			9,13






Scientific name	Arid	Nuyts	Cons Code	Habitat
Thelymitra villosa	E			9,13
Orobanchaceae				
Euphrasia collina subsp. *tetragona*	E			1,14
Orobanche cernua var. *australiana*	+	+		9
* *Orobanche minor*	+	+		16
* *Parentucellia latifolia*	+	+		9,11
* *Parentucellia viscosa*	+			13
Oxalidaceae				
* *Oxalis boweii*		+		15
Oxalis exilis	+	+		5,10
Oxalis perennans (PHOTO 1)	+	+		5,14
* *Oxalis pes-caprae*		+		15
Papaveraceae				
* *Argemone ochroleuca* subsp. *ochroleuca*		+		5,14
* *Fumaria capreolata*	+			15
* *Fumaria bastardi*	+			13
Philydraceae				
Philydrella pygmaea subsp. *pygmaea*	E			9
Phyllanthaceae				
Lysiandra calycina	+	E		11,14
Lysiandra scaber	+	E		11
Poranthera huegelii	+	E		11
Poranthera microphylla	+	+		11

Scientific name	Arid	Nuyts	Cons Code	Habitat
Poranthera triandra	+	+		11,14
Phyrmaceae				
Glossostigma drummondii	+			9
Pittosporaceae				
Bentlya diminuta	E			5
Billardiera bicolor (PHOTO 2)	+	+		16
Billardiera coriacea	E	+		5
Billardiera fusiformis (PHOTO 3)	+	E		7,11
Billardiera speciosa	E			1,14
Cheiranthera filifolia	E			4,5
Pittosporum angustifolium		+		5,14
Plantaginaceae				
Grattiola pedunculata	+			9
Grattiola pubescens	+			13
* *Plantago coronopus* subsp. *commutata*	+			15
Plantago cunninghamii		+		14
Plantago debilis	+	+		9,11
Plantago exilis	E			9
Plantago hispida (PHOTO 4)	+	+		11
Poaceae				
* *Aira cupaniana*	+	+		9,15
* *Aira elegantissima*	+			13
Amphibromus nervosus	E			9,12
Amphipogon avenaceus	E			9
Amphipogon strictus	+	E		7
Anthosachne scabra	E			9
* *Anthoxanthum odoratum*	+			13,15
Aristida contorta		+		5
Austrostipa acrociliata	+	+		5,11
Austrostipa dongicola		+		14




Scientific name	Arid	Nuyts	Cons Code	Habitat
Austrostipa drummondii	+	+		11
Austrostipa elegantissima (PHOTO 1)	+	+		1,3, 11
Austrostipa eremophila		+		14
Austrostipa exilis		+		14
Austrostipa flavescens	+	E		1,11,14
Austrostipa hemipogon (PHOTO 2)	+	E		7,11
Austrostipa juncifolia (PHOTO 3)	E			3
Austrostipa macalpinei	E			11
Austrostipa mundulla		+		11,13
Austrostipa nitida		+		14
Austrostipa nullarborensis		+		14
Austrostipa scabra		+		11
Austrostipa trichophylla	+	+		1,5, 11
Austrostipa variabilis	+			4
Austrostipa velutina		+		14
* *Avellina michelii*	+			13,15
* *Avena barbata*	+	+		
* *Briza maxima*	+			13
* *Briza minor*	+			13
Bromus arenarius		+		1
* *Bromus diandrus*		+		1,15
* *Bromus hordeaceus*	+			5
* *Bromus madritense*	+			15
* *Bromus rubens*		+		5
* *Cenchrus echinatus*		+		15
Chloris pumilio	+	+		16
Chloris truncata		+		5
Cymbypogon obtectus	+			9

Scientific name	Arid	Nuyts	Cons Code	Habitat
* *Cynodon dactylon*	+	+		15
* *Digitaria sanguinalis*	+			13
* *Ehrharta brevifolia* var. *cuspidata*		+		11
* *Ehrharta calycina*		+		5,11
* *Ehrharta longiflora*	+	+		11
* *Eragrostis curvula*	+	+		15
* *Hordeum glaucum*	+	+		15
* *Hordeum leporinum*	+			15
* *Hordeum marinum*	+			2
Lachnagrostis filiformis	+	+		13,14
* *Lagurus ovatus*	+	+		1,11
* *Lolium perenne*	+			13
* *Lolium rigidum*	+	+		13,15
Microlaena stipoides	E			7,11
Neurachne alopecuroidea (PHOTO 4)	+	E		11,14
* *Panicum capillare*	+			9
* *Paraphlois incurva*	+	+		2,3
* *Pentameris airoides* subsp. *airoides*	+			12,15
* *Poa annua*	+	+		5,13
Poa drummondiana	+	+		14
Poa poiformis var. *poiformis*	+	E		1,11
Poa porphryoclados	E			11
* *Polypogon monspeliensis*	+			2
Polypogon tenellus	+			12
Puccinellia stricta	+	+		3
* *Rostraria cristata*		+		11,14
* *Rostraria pumila*		+		11,14
Rytidosperma caespitosum	+	+		16
Rytidosperma setaceum	+	+		11,14
* *Schismus barbatus*		+		5,14
Spinifex hirsurus	+	+		1
Sporobolus virginicus	+	+		1
* *Stenotraphum secundatum*		+		15
Themeda triandrus	+			4




Scientific name	Arid	Nuyts	Cons Code	Habitat
Triodia irritans		+		14
Triodia scariosa		+		5,14
Tripogonella loliiformis	+			9
* *Vulpia myuros*	+			9,11
Polygalaceae				
Comesperma acerosum	E			11
Comesperma calcicola	E			3
Comesperma calymega	E			6,11
Comesperma ciliatum	E			9,11
Comesperma confertum	E			4,7
Comesperma drummondii	E			7
Comesperma flavum (PHOTO 1)	E			13
Comesperma integerrimum	+	E		5,14
Comesperma polygaloides	E			12
Comesperma spinosum	+	E		16
Comesperma virgatum	E			7,11
Comesperma volubile	+	+		16
Polygonaceae				
Duma florulenta	+			12
Muehlenbeckia adpressa	+	+		11
Persicaria prostrata	E			9
* *Rumex acetosella*	+			13
* *Rumex crispus*	+			13
* *Rumex hypogaeus*	+			15

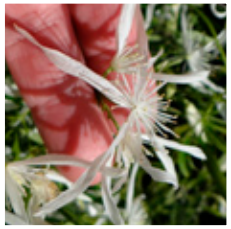
Scientific name	Arid	Nuyts	Cons Code	Habitat
Potamogetonaceae				
Althenia australis	+			9
Althenia cylindrocarpa	+			9
Althenia preissii	+			2
Potamogeton drummondii	E			9
Primulaceae				
* *Lysimachia arvensis*	+	+		9,11,15
Samolus junceus	+	+		2
Samolus repens var. *repens*	+	+		2
Proteaceae				
Adenanthos cuneatus (PHOTO 2)	+	E		6,11
Adenanthos dobsonii	+	E		7
Adenanthos eyeri		e	T	11
Adenanthos forrestii (PHOTO 3)		E		11
Adenanthos oreophilus	E			8
Adenanthos sericea subsp. *sphalma*	E			9
Banksia alliacea	E			7
Banksia armata var. *armata*	E			7
Banksia armata var. *ignicida*	E			7
Banksia epica (PHOTO pages 17, 27)		e	2	11
Banksia falcata (PHOTO pages 11, 14)	E			7
*Banksia media (*PHOTO 4)	+	E		6,7, 11
Banksia nivea subsp. nivea	E			16
Banksia nutans var.nutans	+	E		1,11
Banksia obovata	+	E		11
Banksia obtusa	+	E		1,11
Banksia occidentalis (PHOTO page 14)	E			13
Banksia petiolaris	+	E		11
Banksia pilostylis	E			11
Banksia prolata var. *archeos*	e		2	8
Banksia prolata subsp. *prolata*	E		3	9
Banksia pulchella	+	E		1,11




Scientific name	Arid	Nuyts	Cons Code	Habitat
Banksia repens	+	E		7,11
Banksia speciosa (PHOTO page 15)	+	E		1,11
Banksia tenuis var. *tenuis*	E			7,11
Conospermum distichum	+	E		7,9, 11
Conospermum leianthum subsp. *leianthum*	E			11
Conospermum leianthum subsp. *orientale*	+	E		11
Conospermum teretifolium	+	E		7,11
Franklandia fucifolia	+	E		11
Grevillea baxteri	+	E		11
Grevillea coccinea subsp. *coccinea*	E			7
Grevillea concinna subsp. *lehmanii*	E			7,9, 11
Grevillea huegelii	+	+		3,5
Grevillea nudiflora (PHOTO 1)	E			7,8
Grevillea oligantha	+	E		7,11,14
Grevillea pauciflora subsp. *psilophylla*	+	E		11
Grevillea pauciflora subsp. *saxatilis* (PHOTO page 20)	e			8
Grevillea pectinata	E			5
Grevillea plurijuga subsp. *plurijuga*	+	E		3,11,14
Grevillea sparsiflora	+	E		11,14
Grevillea tripartita subsp. *macrostylis*		E		11
Hakea adnata	E			3,11
Hakea bicornata	E			4.11
Hakea cinerea	+	E		11
Hakea clavata	+	E		1,9
Hakea commutata	E			9
Hakea corymbosa	+	E		7,11
Hakea cygnus subsp. *cygnus*	E			11
Hakea denticulata	E			7

Scientific name	Arid	Nuyts	Cons Code	Habitat
Hakea drupacea	+	E		8,9, 11
Hakea erecta (PHOTO page 24)	E			8
Hakea francisiana	+			11
Hakea florida	E			13
Hakea laurina (PHOTO 2)	E			9
Hakea lissocarpha	E			7,11,14
Hakea marginata	E			9,13
Hakea nitida	+	+		11
Hakea obliqua subsp. *obliqua*	+	E		7,11
Hakea pandanicarpa subsp. *pandanicarpa* (PHOTO page 23)	+	E		16
Hakea prostrata	E			11
Hakea pycnoneura	E			8
Hakea ruscifolia	E			7
Hakea scoparia subsp. *trycherica*	e		2	8
Hakea trifurcata	E			7
Hakea tuberculata	E			9
Hakea varia	E			13
Isopogon alicornis	E		3	4,8
Isopogon sp. Fitzgerald River (Forman 813)	E			11
Isopogon formosus subsp. *formosus*	E			7,0
Isopogon heterophyllus	E			11
Isopogon polycephalus	+	E		7,11
Isopogon trilobus (PHOTO 3)	+	E		16
Lambertia inermis	E			7
Persoonia cymbifolia	E		3	11
Persoonia spathulata	E		2	11
Persoonia teretifolia	+	E		4,7, 11
Petrophile fastigata	+	E		7,11
Petrophile phylicoides	+	E		7,11
Petrophile squamata	+	E		7,8, 11
Petrophile teretifolia	+	E		7,11
Stirlingia anethifolia	+	E		11
Stirlingia tenuifolia (PHOTO 4)	+	E		11,13
Synaphea divaricata	E			8,11






Scientific name	Arid	Nuyts	Cons Code	Habitat
Synaphea favosa	E			11
Synaphea interioris		E		11
Synaphea media	E			9
Synaphea oligantha	+	E		11,14
Synaphea petiolaris subsp. *petiolaris*	E			7,9, 11
Synaphea spinulosa subsp. *spinulosa* (PHOTO 1)	E			7
Synaphea spinulosa subsp. *major*	+	E		11
Synaphea sp. Southern Ranges (Kern 17378)	E			7
Pteridaceae				
Cheilanthes distans (PHOTO 2)	+	E		9
Cheilanthes austrotenuifolia	+	E		9
Cheilanthes sieberi subsp. *sieberi*	+			9
Ranunculaceae				
Clematis linearifolia (PHOTO 3)	+	E		11
Clematis pubescens	+	E		16
Ranunculus pumilio var. *pumilio*	+			9,13
Ranunculus sessiliflorus var. *sessiliflorus*	+			13
Restionaceae				
Chordifex crispatus	+	E		11
Chordifex laxus	E			13
Chordifex sphacelatus	+	E		11
Desmocladus austrinus	E			7,8
Desmocladus lateriflorus	+			4
Desmocladus myriocladus		E		11,14
Desmocladus parthenicus	+	+		11

Scientific name	Arid	Nuyts	Cons Code	Habitat
Hypolaena exsulca	E			11
Hypolaena fastigiata	E			13
Lepidobolus chaetacephalus	E			7
Leptocarpus crebriculmis	E			13
Lepyrodia hermaphrodita	E			13
Lepyrodia macra	E			13
Loxocarya cinerea	E			7,9
Loxocarya striata	E			7,13
Rhamnaceae				
Cryptandra myriantha	E			7,11
Cryptandra nutans	+	E		11
Cryptandra pungens	+	E		7,9, 11,14
Cryptandra recurva		E		11
Pomaderris brevifolia	E			5
Pomaderris forrestiana		+		11.14
Pomaderris myrtilloides (PHOTO 4)	+	+		11,14
Pomaderris paniculosa	E			9
Pomaderris rotundifolia	+	E		11,14
Spyridium cordatum	E			5
Spyridium globulosum	+	+		1,11
Spyridium marjoranifolium	E			1,11
Spyridium microcephalum	+	+		1,11,14
Spyridium mucronatum subsp. *multiflorum*	E		2	5
Spyridium polycephalum	+	E		11,14
Spyridium tricolor	+	+		5,11,14
Stenanthemum notiale subsp. *notiale*	+	E		11
Trymalium myrtillus subsp. *myrtillus*	+			9
Trymalium spatulatum	E			9
Rubiaceae				
Galium leptogonium	+	+		5,14
* *Galium murale*	+			2
Opercularia acolyantha	E			5,11




Scientific name	Arid	Nuyts	Cons Code	Habitat
Opercularia apiciflora	E			9,13
Opercularia hirsuta	E		2	9
Opercularia hispidula	E			11
Opercularia loganioides (PHOTO page 27)		e		11,14
Opercularia vaginata	E			16
Ruppiaceae				
Ruppia megacarpa	+			2
Rutaceae				
Boronia alata (PHOTO 1)	E			1,11,14
Boronia albiflora	E			11
Boronia clavata subsp. *grandiflora*	E		T	9,13
Boronia coriacea	e		2	5,14
Boronia crassifolia	+	E		11,14
Boronia denticulata	E			13
Boronia inornata subsp. *inornata*	E			4,5
Boronia inornata subsp. *leptophylla*	+			4,5,7
Cyanothamnus penicillatus	E			7
Boronia scabra subsp. *attenuata*	E		3	9
Boronia spathulata (PHOTO 2)	E			11,13
Boronia tetrandra	+	E		1,9, 11,14
Chorilaena euphemiae	E			9,11
Chorilaena rudis subsp. *rudis*	E			14
Chorilaena rudis subsp. *ambylocarpus*	E			7
Chorilaena rudis subsp. *linearis*	e		4	8
Cyanothamnus baeckeacea subsp. *baeckeacea*	+	E		5,7, 14
Cyanothamnus coerulescens subsp. *coerulescens*	E			7,11

Scientific name	Arid	Nuyts	Cons Code	Habitat
Cyanothamnus inconspicua	+	E		16
Diplolaena microcephala	+			9
Geijera linearifolia	+	+		3,5, 10
Nematolepis phebalioides (PHOTO 3)	+	E		4,5, 14
Phebalium multiflora subsp. *multiflora*	+	+		5,11,14
Phebalium multiflora subsp. *baccharoides*	+	+		4,5, 14
Phebalium pauciflora subsp. *pauciflora*	+	+		5,14
Philotheca fitzgeraldii	+	+		11
Philotheca nodiflora subsp. *lasiocalyx*	+			11,13
Santalaceae				
Choretrum chrysanthum	+			
Choretrum glomeratum	E			
Exocarpus aphyllus	+	+		
Exocarpus capnodioides	+	E		1,5,14
Exocarpus sparteus	+	+		
Leptomeria axillaris	E			
Leptomeria lehmanii	E			
Leptomeria pachyclada	+	+		5,14
Leptomeria pauciflora	E			
Santalum acuminatum	+	+		
Santalum murryanum	+			
Santalum spicatum		+		5
Sapindaceae				
Dodonaea ambylophylla	+	+		
Dodonaea bursariifolia (PHOTO 4)		+		11,14
Dodonaea caespitosa	+	E		4,5, 11
Dodonaea ceratocarpa	+	E		9,11,14
Dodonaea hexandra	+		1	8
Dodonaea lobulata	+	+		4,5, 10
Dodonaea pinifolia	E			8,9, 11
Dodonaea stenozyga	+	+		9,11
Dodonaea viscosa subsp. *angustissima*		+		5,11




Scientific name	Arid	Nuyts	Cons Code	Habitat
Scrophulariaceae				
* *Dischisma arenarium*	+	+		15
* *Dischisma capitatum*	+			15
Eremophila alternifolia	+	+		4,5, 10
Eremophila decipiens subsp. *decipiens* (PHOTO 1)	+	+		3,4,5
Eremophila dempsteri	+	+		3,5
Eremophila deserti (PHOTO 2)	+	+		3,4,5
Eremophila denticulata subsp. *trisulcata*	E		T	4,5, 11,14
Eremophila dichroantha	E			4,5, 11
Eremophila glabra subsp. *albicans*	+	+		5,11,14
Eremophila glabra subsp. Junana (G. Craig 2636)	E			4,5, 10
Eremophila psilocalyx	+			5,14
Eremophila scoparia	+	+		5,10,14
Eremophila weldii		+		5,14
Limnosella australis	+			9
Myoporum insulare	+	+		1,11
Myoporum tetrandrum	E			1,2, 11
Myoporum platycarpum	+	+		4,5, 14
Myoporum velutinum	+	E	T	9,13
Solanaceae				
Anthocercis genistoides	E			9
Anthocercis littorea	+	E		1,11,14
Anthocercis viscosa subsp. *caudata*	E			9
Duboisia hopwoodii		+		11
* *Lycium ferocissimum*		+		5,11
* *Nicotiana glauca*	+	+		13,15
Nicotiana godspeedii		+		14

Scientific name	Arid	Nuyts	Cons Code	Habitat
Nicotiana occidentalis subsp. *hesperis*		+		11
Solanum hoplopetalum		+		15
* *Solanum laciniatum*	+			15
* *Solanum nigrum*	+	+		14,15
Solanum plicatile	+	+		11
Solanum symonii	+	+		1,11,13
Stylidiaceae				
Levenhookia dubia	E			9
Levenhookia pauciflora	+	E		11
Levenhookia pusilla	E			9,11
Levenhookia stipitata (PHOTO 3)	E			9,11
Stylidium adnatum	+	E		9,11
Stylidium androsaceum	E			6,7, 11
Stylidium breviscapum	E			7,9, 11
Stylidium calcaratum	E			13
Stylidium corymbosum var. *corymbosum*	E			13
Stylidium crassifolium	E			13
Stylidium despectum	E			13
Stylidium ecorne	E			9
Stylidium glandulosum	E			9
Stylidium macranthum	+	E		6,11
Stylidium perpusillum	E			9,13
Stylidium piliferum	E			6,7, 11
Stylidium pilosum	+	E		1,6, 11
Stylidium preissii	+	E		1.4, 11,13
Stylidium pygmaeum	E			9
Stylidium repens	+	E		11
Stylidium rupestre	E			9
Stylidium schoenoides (PHOTO 4)	E			6
Stylidium turleyae	+	E		11,13
Stylidium sp. Mount Bayley (Wedge&Wilkins 1986)	+			9




Scientific name	Arid	Nuyts	Cons Code	Habitat
Thymelaeaceae				
Pimelea angustifolia	+	E		11,14
Pimelea argentea (PHOTO 1)	E			9
Pimelea brachyphylla	+	E		7,9, 11
Pimelea brevifolia subsp. *brevifolia*	+	E		7,9, 11
Pimelea clavata	E			9
Pimelea cracens	+	E		11,13
Pimelea drummondii	+	E		1,9, 11
Pimelea erecta	E			11
Pimelea ferruginea	+	E		1,11,14
Pimelea hispida		E		13
Pimelea imbricata var. *piligera*	E			9
Pimelea micrantha	+	E		5
Pimelea pendens	E			9
Pimelea spiculigera var. *spiculigera*	+	+		11
Pimelea spiculigera var. *thesioides*	+			9
Urticaceae				
Parietaria cardiostegia		+		1,14
Parietaria debilis	+	+		14
* *Urtica urens*		+		14,15
Violaceae				
Pigea floribundus subsp. *floribundus* (PHOTO2)	E			7,9
Xanthorrhoeaceae				
Xanthorrhoea platyphylla (PHOTO 3)	E			7,11

Scientific name	Arid	Nuyts	Cons Code	Habitat
Zamiaceae				
Macrozamia dyeri (PHOTO 4)	E			9
Zygophyllaceae				
* *Tribulus terrestris*	+			15
Roepera apiculata		+		5
Roepera aurantiaca		+		5,14
Roepera angustifolia		+		11
Roepera billardieri	+	+		1,11
Roepera glauca	+	+		5,14
Roepera similis	+	+		11

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