Plant Species and Sites of Botanical Significance in the Southern Bioregions of the Northern Territory

Volume 1: Significant Vascular Plants Part 1: Species of Significance



Prepared By



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for the Arid Lands Environment Centre

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Volume 1: Significant Vascular Plants Part 1: Species of Significance

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"Rare, restricted and threatened plants of the arid lands (D95/596)"; and "Identification of off-park waterholes and rare plants of central Australia (D95/597)". These projects were carried out with the assistance of funds made available by the Commonwealth of Australia under the National Estate Grants Program.

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Front cover photograph: Eremophila A90760 Arookara Range, by David Albrecht.

Forward from the Convenor of the Arid Lands Environment Centre

The Arid Lands Environment Centre is pleased to present this report on the current understanding of the status of rare and threatened plants in the southern NT, and a description of sites significant to their conservation, including waterholes. The work is the result of a productive collaboration between a community group and a government department (PWCNT), without whose co-operation such an extensive report would not have been possible. We would like to thank the Australian Heritage Commission for their provision of funding for the project, our consultant Matt White who undertook the work, and the Parks and Wildlife Commission of the Northern Territory for their extensive assistance with its execution.

It is our intention that the information in this report becomes widely available, not just to those with a specialist interest in plants or regional management of natural resources, but also to the land holders, managers and traditional owners of the sites broadly described in this report. It is our hope that in promoting the availability of this information we will increase the opportunities for constructive conversations between land holders and managers, government and conservation groups, and go some distance towards making up for past tensions between some of these groups. It is with this goal in mind that we commit to improving the accessibility of the information in this report, and to consulting with land-manager groups over the presentation of the information, and the protection of sites from access without landholder permission.

Ms Melinda Hillery Convenor of the Arid Lands Environment Centre

Forward from the Director of the Parks and Wildlife Commission of the Northern Territory

This report provides a benchmark for the conservation status of botanical values in the southern, predominantly arid part of the Northern Territory. It will have many and varied uses, providing information about conservation values to land holders and managers as well as government departments and conservation groups.

The report draws together into two volumes a tremendous amount of existing knowledge that was previously difficult to access, and includes information not formally recorded previously. Existing knowledge is patchy and for some places is very limited. Users of the report need to be aware that the conservation assessments of species and sites will change as knowledge improves over time. New information provided by users will inevitably require adjustment of the boundaries of many of the broad sites of botanical significance and new sites may be identified in areas about which there is currently inadequate botanical knowledge.

It is to be hoped that improved land management will increase the likelihood of survival of some of the species currently considered to be under threat.

A great deal of prior research and plant collecting by staff members of the Parks and Wildlife Commission of the Northern Territory underpins this report. The Northern Territory Herbarium has played a vital part in its collation. The Arid Lands Environment Centre (ALEC) is commended for the role it has played in bringing about this report, with financial assistance from the Australian Heritage Commission

Dr Bill Freeland

Director of the Parks and Wildlife Commission of the Northern Territory

Executive Summary

This report, presented in two volumes, lists vascular plants of conservation significance and sites of importance for botanical conservation in the southern bioregions of the Northern Territory (NT). The study area encompasses those parts of the Northern Territory considered to have 'arid zone vegetation' but also includes the semi-arid Barkly Tablelands.

The report has largely been produced using existing knowledge on the distribution and conservation of rare plants. It is intended that it will be used as a source of information for land managers, owners and planners. By collating existing knowledge of botanical values those values can be better protected by land management and land-use planning. The report also includes recommendations for prioritising future botanical survey, research, and monitoring and threatened plant management.

The existing information is very limited for some parts of the study area and as a consequence, it is likely that the status of many of the significant species and sites will be revised as more information on the distribution of plant species is collected. Some species may prove to be more common than current knowledge indicates, whilst others that are poorly known may be confirmed as rare. Likewise, the boundaries of some of the sites may be amended to take account of new information and new sites may be delineated. It is anticipated that this document will be updated from time to time to accommodate new information. As such, this report should be regarded as a first edition.

A significant limitation of the report is that the unsurpassed knowledge of the flora of central Australia retained by Aboriginal peoples has not been incorporated. This document has been researched and developed employing a perspective of the flora that has evolved through the 'western scientific' tradition and a western or European aesthetic. Unfortunately the values that Aboriginal people ascribe to the landscape and landscape elements such as plant communities and species has not been explored.

Volume one is an assessment of plant species of conservation significance and is presented in two parts. The first part describes the background to the report, the study area, data sources and methods. Part one also includes a description of the broad habitat types found in the study area and includes lists of the rare and threatened plants known to occur in each. Lists of taxa are given for each category of significance and significant taxa known from each bioregion are listed. Recommendations are made for further survey, research, monitoring and management tasks relevant to the conservation of rare, threatened and poorly known plant taxa.

Part two of volume one comprises an annotated list of all vascular plants of conservation significance in the southern bioregions of the NT (1,023 taxa). The terms taxa and taxon are used rather than species, because in some cases a significance rating only applies to one of several sub-species or varieties. Four broad levels of significance are identified: national (125 taxa), Northern Territory (399 taxa), southern NT (71 taxa) and bioregional (428 taxa). The categories of southern NT and bioregional significance are new categories devised for this report. They identify plant species that do not qualify as significant at the NT or national levels. Bioregionally significant taxa are only classified as significant in some bioregions or parts of bioregions in the study area and many are common in other bioregions.

The annotated list of significant taxa includes the conservation code, reservation status and geographic distribution of each taxon, with an accompanying map. For taxa that are nationally significant or significant in the NT, notes on habitat and lifeform are also provided. For southern NT and bioregionally significant taxa, the nature of the significance is given.

Volume two describes sites and waterholes of botanical significance in the southern bioregions of the NT. Volume two is presented in two parts in the same way as volume one. The first part of volume two describes the concept of significant botanical sites, the methods used to define them and a summary of the sites themselves. The second part contains the descriptions of the sites and waterholes, arranged by bioregion and level of significance.

The sites of botanical significance are broadly defined and mostly cover large areas, with average size being 500 square kilometres. The sites are areas that are considered important for plant conservation generally and specifically for conserving the plant taxa listed in volume one. Sites are designated as either nationally significant (41 sites), bioregionally significant (79 sites) or of undetermined significance (33 sites). The assessment of degree of significance was based on the known botanical attributes of each site, in the context of the overall distribution of those attributes in the study area. The attributes of each site were assessed against criteria that were adapted from those used by the Australian Heritage

Commission to assess natural places for inclusion on the Register for the National Estate. The criteria take account of the conservation of plant biodiversity, including populations and species of plants, the genetic resources they harbour, the plant communities which they form and the range of ecological and evolutionary processes operating in the landscape. Site descriptions include maps, lists of significant vascular plant taxa and associated attributes such as endemism. The significance category 'undetermined' was included to record areas that were identified as significant on the basis of anecdotal information only. The sites of significance are described in the context of the bioregions within which they occur and a brief general description is given for each bioregion, including a summary of the sites identified within it.

Volume two also lists 38 permanent and semi-permanent waterholes and springs of botanical significance.

Notes on the Authors

The preparation of this report was a large task involving several organisations and people. The principal author, Matt White, was engaged by the Arid Lands Environment Centre (ALEC) to carry out the work funded by two grants from the Australian Heritage Commission. Mary Hamilton was also funded through these grants. David Albrecht and Angus Duguid work for the Parks and Wildlife Commission of the Northern Territory and Peter Latz retired from that organisation during the life of the project. The Parks and Wildlife Commission had an integral role in the project, with most of the existing data about plant species and their distributions being held by the Commission. Also, there was a great deal of information held by Commission staff that had not been formally recorded prior to this report. By collaborating, ALEC and the Parks and Wildlife Commission have been able to produce a product that is far more comprehensive than would have been possible under the resources of the Heritage Commission Grants alone.

All of the authors contributed a great deal to various aspects of the project. Matt White had the lion's share, working full time on it for one year, while employed by ALEC, and for several months' spread over 1998, 1999 and 2000. David Albrecht, botanist at the Alice Springs Herbarium, contributed his knowledge of the flora, its taxonomy and its ecology. David also had a major role in assessing the conservation status of many of the species. Angus Duguid works on both threatened species management and plant ecology. His particular contribution was in the application of database technology and in the use of geographic information systems to analyse plant distributions and relationships as well as a major role in editing and compiling the final report. Peter Latz is one of the wise old men or Tjilpi of central Australian plant ecology. Peter contributed a massive proportion of the plant collections underlying this report and is still actively collecting specimens. Also, much of the information about the sites of botanical significance came from Peter's interpretations. Mary Hamilton digitised the sites of significance polygons and prepared the site maps. Mary also had a major role in preparing the final document.

Acknowledgements

In its first year the project was overseen by a Steering Committee, the members of which were Terry Mahney (ALEC Convenor), Georgie Stewart (ALEC co-ordinator), Karina Menkhorst and David Albrecht. Their vision and interest in the project is duly acknowledged.

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Part 1

1. Overview of Volume 1 – Species of Significance

This two-volume report lists and describes the known attributes of rare, threatened, poorly known and bioregionally significant vascular plant species that occur in the southern bioregions of the Northern Territory (volume one). It also describes and documents the known sites of botanical significance (including waterholes) in the southern bioregions of the Northern Territory (volume two).

The report evolved from two separate project initiatives of the Arid Lands Environment Centre, which were funded by the Australian Heritage Commission under the National Estates Grants Program. The project titles were:

"Rare, restricted and threatened plants of the arid lands (D95/596)"; and "Identification of off-park waterholes and rare plants of central Australia (D95/597)".

The combined objectives of these projects were to:

- collate and disseminate available information on rare and threatened plants of the southern bioregions of the Northern Territory from various sources, including herbarium databases, published and unpublished reports and the knowledge of field workers;
- identify sites of botanical significance in the study area within a national and bioregional context with special reference to natural waterholes; and
- make recommendations for further botanical research and assessment in the southern bioregions of the Northern Territory.

Volume one of the report focuses on species of vascular plants of conservation significance and is presented in two parts. The first part contains introductory material, including details of the information sources, methods, explanations of the assessments of significance, a description of the layout of the species descriptions, summaries of numbers of taxa by conservation codes, lists of taxa by conservation codes, descriptions of key habitats, lists of significant taxa known to occur in these habitats, lists of significant taxa in each bioregion and recommendations for further work. The second part is the species descriptions themselves.

Volume two describes sites of botanical significance, which are based on the presence of the species described in volume one. Some background information is duplicated in each volume for the convenience of the reader.

2. Description of the Study area

The study area encompasses approximately the southern half of the Northern Territory, mostly south of 18 degrees latitude (Figure 1). It covers an area of approximately 805,000 km² and stretches nearly 900 km from east to west and a similar distance from north to south. Eleven bioregions are included within the study area, which is bounded to the south, east and west by the Northern Territory border and to the north by the northern edge of the Mitchell Grass Downs and Tanami bioregions, following Albrecht *et al.* (1997).

The study area encompasses all those parts of the Northern Territory considered to have 'arid zone vegetation'. It also includes the Barkly Tablelands, which comprises the NT portion of the Mitchell Grass Downs bioregion, characterised by heavy ('black') soil plains supporting tussock grassland. The Mitchell Grass Downs bioregion is outside the arid zone as defined by Jessop (1981) though some other definitions of the arid zone include this region. Readers seeking to investigate the various definitions and circumscriptions of 'arid zone' or 'arid zone vegetation' are recommend to refer to publications such as Beadle (1981), Williams and Calaby (1985) and Slatyer and Perry (1969).

The use of bioregions for the analysis and reporting of broad scale environmental values has been common since the development of the Interim Biogeographic Regionalisation for Australia (IBRA)

(Thackway and Cresswell, 1995). By defining the study area along bioregion boundaries and reporting conservation values of species and sites on a bioregional basis, the information can be more easily considered in a national context than would otherwise be the case. The bioregions of the southern region are shown in Figure 2 and some of their spatial characteristics listed in Table 1. The boundaries of some of the bioregions differ slightly from IBRA version 4.0 having been further refined by the NT Government. The northern boundary of the Mitchell Grass Downs bioregions, which also bounds the study area, was amended to more closely follow the edge of the black soil plains. Also, an additional region is included, the Davenport Murchison Ranges (DAV), as reported in Albrecht *et al.* (1997).

The titles of the original funding submissions refer to the arid part of the NT as 'arid lands' and 'central Australia'. The arid zone or arid lands of Australia extend far beyond the boundaries of the Northern Territory. Similarly, the region referred to as central Australia is sometimes considered to extend outside the NT (Jessop, 1981) although it is also used to refer to an area approximated by the southern half of the NT as by Urban (1990). Many of the environments found in the study area extend beyond it, which is indicated by the extension of many of the bioregions well into the neighbouring states (Figure 1). The decision to restrict the study area to the NT was a pragmatic one. The main source of information for this study was herbarium specimen records, which were more readily accessible for the NT than for neighbouring states. Also, the NT Herbarium data for the southern bioregions had already been closely scrutinized and 'cleaned up' by Albrecht *et al.* (1997) in the preparation of the plant checklist for the southern *NT: "Vascular Plant Checklist for the Southern Bioregions of the Northern Territory: Nomenclature, Distribution and Conservation Status*". Another significant factor was that the nomenclature of the plant species was relatively clearly defined for the study area.





Figure 2: Map of the study area showing biogeographical regions (as per Albrecht *et al.* **1997)** Thin lines depict major roads and conservation reserves are shaded.

Table 1: Area cover	ed by bior	egions of	the study area .
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Bioregion Name (and Code)	Area in NT (km ²)	Area in Australia (km ²)	% in NT
Burt Plain (BRT)	74,400	74,400	100 %
Central Ranges (CR)	26,000	97,100	27 %
Channel Country (CHC)	31,400	314,100	10 %
Davenport Murchison Ranges (DAV)	15,900	15,900	100 %
Finke (FIN)	54,400	73,800	74 %
Great Sandy Desert (GSD)	100,600	394,600	26 %
MacDonnell Ranges (MAC)	38,600	38,600	100 %
Mitchell Grass Downs (MGD)	84,900	307,900	28 %
Simpson-Strzelecki Dunefields (SSD)	105,900	277,800	38 %
Stony Plains (STP)	1,700	181,600	1 %
Tanami (TAN)	271,200	298,100	91 %





The thick gray line represents bioregion boundaries and roads are in black.

3. Introduction to Plants of Conservation Significance

The conservation significance of all vascular plant taxa in the study area was assessed at the national, Northern Territory (NT), southern NT and bioregional levels. The terms taxa and taxon are used in this report, rather than the term species, because in some cases a significance rating only applies to one of several sub-species or varieties.

At the national and NT levels, plants were classified as vulnerable, rare or poorly known, using a modification of the Rare or Threatened Australian Plants (ROTAP) coding system of Briggs and Leigh (1988). A suite of taxa were classified as significant at the southern NT level on the basis that all study area populations are disjunct, rare or threatened, although they are not significant at the NT level. In addition a great many taxa were included as significant in one or more bioregions but which are sufficiently common elsewhere that they do not rate as significant at the southern NT or NT levels. These 'bioregionally significant' taxa include those that are threatened, rare or poorly known in a bioregion. Two other categories of significance qualified taxa for listing as bioregionally significant. Isolated, disjunct populations in a bioregion are considered to be of botanical significance as are occurrences of taxa at the edge of their known geographic range.

All the taxa assessed as significant at one of the four levels are described in some detail in Part 2 of this volume. The taxa are presented in 'family order' with families sorted alphabetically within four main groups, namely Pteridophytes (ferns), Gymnosperms (conifers and cycads), Monocotyledonous Angiosperms and Dicotyledonous Angiosperms (flowering plants). Within each family, taxa are listed alphabetically by genus and species and infraspecific names.

The following information is provided for each plant taxon of conservation significance:

- author(s);
- family;
- recent synonyms;
- common name(s);
- national, NT, southern NT or bioregional conservation status;
- for disjunct species, a disjunct code summarising the nature of the disjunction;
- a general description of the distribution;
- a list of conservation reserves in the study area within (or near) which the taxon is known to occur;
- distribution outside the study area, given as occurrence in Australian states and outside Australia;
- the distribution in the study area, summarised by the number of NT Herbarium collections in each bioregion;
- a map of the known distribution of each taxon showing disjunct populations.

In addition, all plant taxa assigned a national or NT conservation code, and some taxa recognised as significant at the southern NT and bioregional levels have additional detailed information relating to:

- life-form;
- notes on habitat; and
- additional notes on ecology and status of knowledge.

A summary list of taxa in each category of conservation significance is given in Appendix 1.

3.1 THE NATURE OF PLANT SPECIES RARITY IN THE STUDY AREA

Rare plants in the study area may be geographically widespread or highly restricted. The degree of fidelity of rare species to a particular habitat type may also vary. Following Rabinowitz (1981), seven categories of rarity in vascular plants are generally recognised. These categories are shown in Table 2 and where possible examples taken from the flora of the study area are given for each category. Difficulties in defining rarity and of comprehensively documenting plant distributions can lead to biases (McIntyre 1992). Ideally the distribution of a taxon should be well known before it is assigned a rare code, and if the distribution is not well known it should be considered poorly known. Although this rule has been followed as closely as possible some caution should be applied to the interpretation of rarity, particularly for those taxa considered to be 'apparently rare' at the southern NT and bioregional levels of significance. Most taxa that are rare at the national or NT level of significance in the study area are restricted to specific habitats. *Amperera spicata* is an example of a genuinely rare species, which has a high fidelity to an uncommon but relatively well surveyed habitat type, (in this case the species is known from a few records in deep gorges of the MacDonnell Ranges bioregion).

In some parts of the world it is possible to distinguish taxa that are naturally rare from those that have recently become rare due to habitat alteration. Some coding systems incorporate this distinction, for example the system proposed by de Lange and Norton (1997). The botanical knowledge of the study area does not currently allow this distinction to be applied here.

Geographic Rang	ge	Extensive (e.g. >1	sive (e.g. >100 km wide) Restricted (e.g. <100 km w							
Habitat specificit	у	Wide (found in a number of habitats)	Narrow (restricted to specific habitats)	Wide (found in a number of habitats)	Narrow (restricted to specific habitats)					
	Large (e.g. >1000 individuals)	Common widespread species.	e.g. Neurachne tenuifolia	No example	e.g. Acacia undoolyana					
Local Population size	Small (e.g. <1000 individuals)	e.g. Gossypium nelsonii	e.g. Minuria tridens	No example	e.g. <i>Ptilotus</i> aristatus var. exilis					

Table 2: Types of rarity in vascular plants (adapted from Rabinowitz 1981).

The southern bioregions of the NT have a relatively high proportion of 'poorly known' plant taxa. This is consequence of a general lack of knowledge of the distribution and ecology of the flora of the study area. The reasons for this lack of phytogeographical and ecological data include the following three factors.

- Inadequate botanical survey, which is evident from Figure 4 showing the intensity of botanical collecting across the study area. This is largely due to the comparatively low numbers of both professional and lay botanists living and working in central Australia.
- Limited or poor access to much of the region, especially in the weeks and months following exceptional rainfall events.
- The relatively high proportion of southern NT plant taxa with greatly accelerated life cycles, i.e. ephemeral or 'drought avoider' taxa, which are only evident in the landscape for brief periods. Some of these taxa require exceptional conditions to germinate (e.g. fire followed by heavy rains) and may only appear briefly once every decade or two.

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Figure 4: Map of study area showing the collecting intensity across the study area. Collecting intensity is shown by the number of plant specimens lodged at the NT Herbarium at February 2000 for each quarter degree grid square (updated from Albrecht *et al*, 1997).

3.2 DATA SOURCES

Data on the distribution, ecology and biology of plant taxa were acquired from a range of sources including published taxonomic literature, published and unpublished survey literature, botanists and ecologists with a working knowledge of the flora of the study area, and herbarium collections. Much of the data used in this project has been taken directly from the database of the Northern Territory Herbarium. This extensive database, known as 'Holtze', includes records of all botanical collections lodged at the Northern Territory Herbarium (NT & DNA). The Northern Territory Herbarium is part of the Parks and Wildlife Commission of the Northern Territory (PWCNT). Other databased herbarium collections were employed to corroborate and augment vascular plant records from 'Holtze'. Databased records covering the study area were obtained from herbarium specimens lodged at the Australian National Herbarium (CANB), the Herbarium of Western Australia (PERTH) and the Queensland Herbarium (BRI). These were used in the general analysis of species distributions however, they were not included in the listings of numbers of records by bioregion or in the species distribution maps. The reason for this was that a significant number of the records had surprising locations for the species and resources did not permit checking the identification or location information for all of the associated specimens. By contrast the HOLTZE database had been thoroughly checked prior to this report, in the preparation of the vascular plant checklist of the study area (Albrecht et al., 1997). This checking involved reviewing both the identification of specimens in the Herbarium and checking the location data stored for some specimens.

The taxonomic literature provided further distribution and ecological information. Information was collated from regional and state based floras, the flora of Australia series described in George (1981), the major Australian taxonomic journals (including *Nuytsia, Telopea, Muelleria, Austrobaileya, Journal of the Adelaide Botanic Gardens, Australian Systematic Botany, Brunonia* and *Australian Journal of Botany*), and relevant international journals such as the *Kew Bulletin*.

The tremendous depth and breadth of Aboriginal knowledge is recognised here but is not incorporated into this report, other than that part which has been published elsewhere. No conservation assessment can ever be considered to be totally complete and no doubt there will be some sources of information that have been overlooked including Aboriginal and non-aboriginal experts and local knowledge. It is to be hoped that this report will flush out some of this extra information and that it may be incorporated into a future edition.

3.3 TAXONOMY AND NOMENCLATURE

Only vascular plants are included in this document. Family names and circumscriptions for Monocotyledons and Dicotyledons follow the system of Cronquist (1981) while fern families follow Drinnan (1998). The names of taxa follow Albrecht *et al.* (1997) and subsequent updates (e.g. Albrecht *et al.*, 1999). The vascular plant checklist of the southern bioregions of the NT (Albrecht *et al.*, 1997) is maintained as a database and at the time of completion of this report, all the species names used here are consistent with that database.

Several infraspecific taxonomic categories are included in the report including subspecies (subsp.), variety (var.), and forma. Undescribed species are listed before described species at the beginning of each genus. Undescribed species are identified with a herbarium accession number and either the locality or a term describing habitat or habit. For example:

Sida A32067 Horseshoe Bend

The term 'taxon' and its plural 'taxa' are used throughout this report. These terms are used to refer to any taxonomic grouping, such as a family, a genus, a species or a subspecies, however in this report they generally refer to species or lower ranks such as sub-species or variety.

The use of '*complex*' or '*s*. *lat*.' (meaning 'in the broad sense') after a name indicates that the species is highly variable and may undergo future subdivision.

Common names follow Albrecht et al. (1997) and are enclosed in square brackets.

3.4 SIGNIFICANCE CATEGORIES

3.4.1 National and NT Conservation Codes

Several systems to determine the conservation status of taxa are presently in use around Australia. The ROTAP system, now in its fourth edition (Briggs and Leigh, 1995) has been used extensively in Australia. It was devised with the purpose of assessing the conservation status of Australia's flora from a national perspective. Previous publications assessing the conservation of NT plants (Leach *et al.* (1992), Egan (1996), Albrecht *et al.* (1997)) have used a modified ROTAP coding system, which enables assessment of conservation codes at national and NT levels. In this document we have to a large degree also followed the ROTAP coding convention but have adopted the criteria used by IUCN (1994) for the determination of vulnerable and endangered status. The IUCN criteria provide an international standard for assessing conservation status, but still require a great deal of subjective interpretation of both the terms used and the data available for individual species. Attempts to make the assessment of conservation status more consistent between jurisdictions and between workers, has resulted in proposals for alternative coding systems such as RARE (Keith, 1997) and revisions or adaptations to the IUCN scheme, for example Resit Akcakaya *et al.* (2000). The possible future adoption of new coding systems or revised criteria may result in further changes to the codes of individual taxa in this volume.

The conservation assessments presented here are based on the most current information and some differ from those listed in other publications (see Appendix 2 for a comparison of conservation codes across several publications). It must be emphasised that the assessment of conservation significance is not static; as more information comes to hand the status of some species will need to be changed.

The various components of the coding system used in this document are defined below.

Distribution Category

- '1' taxa that are known only from the type collection. If additional collections have been made from the type location the taxon receives a distribution category of 2.
- '2' taxa with a maximum geographic range within Australia of less than 100 km.
- '3' taxa with a geographic range within Australia exceeding 100 km.

Conservation Status

Taxa are classified as either Endangered (E/e), Vulnerable (V/v), Rare (R/r) or Poorly Known (K/k). An upper case code indicates that the conservation status applies at the national level, i.e. to the taxon over its entire Australian range regardless of political boundaries. A lower case code indicates that the conservation status applies specifically to NT populations of the taxon. Definitions for the codes are given below.

- 'X' or 'x' [Presumed Extinct] These taxa have either not been found in recent years despite thorough searching, or have not been found for at least 50 years and were known only from now intensively settled areas. At present there are no taxa in southern NT that have been assigned this category, however several taxa (e.g. *Murchisonia volubilis*) have not been collected in the last 50 years and may be extinct (see table 18 for relevant taxa). Further targeted survey is required to clarify the status of these taxa.
- 'E' or 'e' [Endangered] These taxa are in serious risk of disappearing from the wild state within the near future if present ecological processes and land use practices continue to operate. The IUCN criteria define 'near future' both in terms of years and generations. For some long-lived species, this may mean many decades. At present there are no southern region taxa in this category.
- 'V' or 'v' [Vulnerable] These taxa are not presently endangered but are at risk of disappearing from the wild over a longer period through continued depletion or changes in ecological processes and land uses.
- 'R' or 'r' [Rare] These taxa are rare but not currently considered to be threatened (i.e. neither endangered nor vulnerable). Taxa may be represented by a relatively large population in a very restricted area or by smaller populations spread over a wide range. The distributions of rare taxa, as opposed to poorly known taxa, are relatively well known or confidently predicted on the basis of a high fidelity to rare habitats.
- 'K' or 'k' [Poorly Known] These taxa may potentially belong to any of the above categories but there is presently insufficient information to confidently assign codes. Many taxa have been classified as poorly known in the NT ('k') because of the low number of known populations (10 or fewer) and a dearth of detailed field knowledge about the size, health or threats to these populations. Many of these taxa are probably not uncommon but until further study is undertaken we have adopted a conservative approach and highlighted the taxa requiring further work.

Reservation Code

'C' Conserved - This symbol is used to indicate the known occurrence of a taxon within a conservation reserve. For taxa with a national conservation status ('V', 'R' or 'K') a 'C' refers to the occurrence within a conservation reserve anywhere nationally. For taxa with an NT conservation status ('v', 'r' or 'k') a 'C' refers to the occurrence within a conservation reserve in the NT.

Adequacy of Reservation Code

Taxa that are known from a conservation reserve ('C') are assigned to one of three categories for the adequacy of reservation, as defined below.

- 'a' Indicates that the taxon is considered adequately reserved, with a total population of 1000 plants or more known to occur within conservation reserves.
- 'i' Indicates that the taxon is considered inadequately reserved, with a total population of less than 1000 plants known to occur within conservation reserves.
- '-' Indicates that the taxon has been recorded from a reserve but that the population size within the reserve is unknown.

Border

When all records of a taxon in the study area are within 50 km of the boundary of the study area the term (border) follows the conservation code.

Examples

Some examples of the application of the coding system are presented to clarify its use.

Acacia undoolyana has the significance code: '2VCi'. This species has a very restricted distribution with a geographic range of less than 100km wide ('2'). It is nationally vulnerable ('V') as consequence of unfavourable fire regimes, and is known from one conservation reserve ('C') where there are fewer than 1000 plants ('i').

Eucalyptus thozetiana has the significance code: '**3rC-**'. This species has a geographic range exceeding 100km ('3'). Large and secure populations occur in Queensland, however in the NT it is rare ('r') and known only from parts of the East MacDonnell ranges. It occurs in several conservation reserves in the NT ('C') but the sizes of these populations are unknown ('-').

3.4.2 Study Area and Bioregional Significance

Two broad levels of significance are used in this report to document plant taxa that have some conservation significance in the study area but which are not significant at the NT or national levels. The two broad levels are termed 'southern NT' significance and 'bioregional' significance. The distinction between these two levels is whether all study area populations of a taxon have the same significance (southern NT) or whether only the populations in particular bioregions are significant (bioregional). The modified ROTAP coding system is not applied to these levels. Instead the significance is given as one of the two terms above, followed by the nature of the significance.

3.4.2.1 Study Area Significance Codes

One or more of four attributes characterise taxa as significant at the southern NT level. These attributes are listed here in general order of importance:

- threatened all study area populations are threatened with extinction;
- rare few collections from the study area and the known habitat is rare and/or well surveyed;
- apparently rare few collections from the study area but habitat not well known; and
- disjunct all study area populations are disjunct from major populations outside the study area.

As a general rule, taxa have been listed as rare or apparently rare if there are less than 15 populations for the study area. Some subjective interpretation was used. Factors such as life history, collecting effort, and timing of collecting trips in relation to rainfall events were all considered. Taxa listed as rare have been

surveyed in some detail whereas taxa listed as apparently rare have not been surveyed and there is consequently some uncertainty about their status.

Rarity generally indicates a higher level of significance than disjunction alone. The nature of disjunctions and their importance are discussed in section 3.5.5. Apparent rarity cannot easily be ranked with the other characteristics of southern NT significance due to the uncertainty as to whether or not the taxon is genuinely rare.

An example of the coding of southern NT significance is:

Christella dentata (Forssk.) Brownsey & Jermy THELYPTERIDACEAE [Binung] Significance: Southern NT (threatened)

The single known population of *Christella dentata* in the study area is considered to be vulnerable to local extinction due to its extremely restricted area and small number of individuals. It is not listed as rare or vulnerable in the NT because it is widespread in mesic environments of the 'Top End' of the Northern Territory.

3.4.2.2 Bioregional Significance Codes

One or more of four attributes characterise taxa as significant at the bioregional level. These attributes are listed here in general order of importance:

- rare;
- apparently rare;
- disjunct one or all populations in a bioregions are disjunct from other major populations; and
- range limit the occurrence of species at the edge of their latitudinal or longitudinal continental range.

As a general rule, taxa have been listed as rare or apparently rare in a bioregion if there is only a single collection from that bioregion and less than 15 populations for the entire study area. Some subjective interpretation was used when deciding whether to recognise a taxon as rare in a bioregion. Factors such as life history, collecting effort, timing of collecting trips in relation to rainfall events, and occurrences in adjacent bioregions were all considered. Taxa listed as rare in a particular bioregion have been surveyed in some detail and are likely to be genuinely rare in that bioregion. Taxa listed as apparently rare in a particular bioregion have not been surveyed and are only potentially rare in that bioregion.

Bioregionally significant taxa may be significant in all places in which they occur in a particular bioregion. However, in some cases only particular populations in a bioregion are significant, such as isolated (disjunct) populations and populations at the edge of the taxon's geographic range.

It should be noted that categories assigned to taxa at the bioregional level are often based on a small number of records. Their inclusion in this report is somewhat precautionary and is intended to promote further targeted survey and collecting.

Taxa listed as bioregionally significant on the basis that the edge of their known range occurs in a bioregion are generally at the least significant end of the spectrum of significance. Many of these taxa are common across their range. Section 3.5.6 of this report discusses the potential importance of populations at the edge of the range of a species.

Disjunction generally indicates a higher level of bioregional significance than edge of range, although this may not always be so. The nature of disjunctions and their importance are discussed in section 3.5.5. Rarity indicates a higher level of bioregional significance than disjunction. Apparent rarity cannot easily be ranked with the other characteristics of bioregional significance due to the uncertainty as to whether or not the taxon is genuinely rare.

The following two examples illustrate the format for bioregionally significant taxa included in Part 2 of this volume. Bioregions are listed by their abbreviation codes and the nature of significance is enclosed in parentheses. *Chrysocephalum semicalvum* (F.Muell.) Paul Wilson ASTERACEAE

(Recent synonyms: *Helichrysum ambiguum var. ambiguum*) [Hill Everlasting] Significance: Bioregional - DAV (range disjunction and northern range limit)

The occurrence of *Chrysocephalum semicalvum* in the Davenport Murchison Ranges bioregion is considered to be significant because it is disjunct from populations to the south and also marks the northern latitudinal limit of its known range.

Peplidium muelleri Benth. SCROPHULARIACEAE Significance: Bioregional - BRT (apparent rarity), MGD (apparent rarity), SSD (apparent rarity), STP (apparent rarity)

There are very few collections of *Peplidium muelleri* in the NT portions of several bioregions and it is accordingly considered rare in those areas.

3.5 DISTRIBUTION PATTERNS OF PLANTS OF CONSERVATION SIGNIFICANCE

The distribution pattern of a taxon is a critical factor in determining its rarity and conservation status. Various types of distribution data are provided for each taxon included in part two of this volume. The following sections describe the nature and source of these data types.

3.5.1 Notes on Distribution

Each taxon entry includes a general description of distribution. The level of detail provided varies with the significance of the taxon, with the least amount of detail provided for bioregionally significant taxa. For taxa of national, NT or study area significance a brief outline of the distribution within Australia is included, followed by more detailed information on distribution within the study area. Disjunct populations are identified. Latitudinal or longitudinal limits of a taxon's known range are noted where these occur within the study area.

In addition, endemism within the NT, the study area or a particular bioregion is also noted. The linear geographic range has been calculated for taxa that are endemic to the study area. Distances are given to the nearest kilometer for ranges up to 100 km and to the nearest 5 km for larger distances.

3.5.2 The Distribution Outside of the Study Area

Where applicable, the occurrence of a taxon in the northern bioregions of the NT, other Australian states and outside Australia is noted. The following codes are used:

(NT)	= northern bioregions of the Northern Territory
NSW	= New South Wales and ACT [principal reference Harden (1990-1993)]
Qld	= Queensland [principal reference Henderson (1994)]
SA	= South Australia [principal reference Jessop (1993)]
Tas	= Tasmania [principal reference Buchanan (1995)]
Vic	= Victoria [principal reference Ross (1996)]
WA	= Western Australia [principal references Green (1985) and Wheeler (1992)]
'outside	Australia? - outside the Australian continent Tasmania and off shore islands

outside Australia' = outside the Australian continent. Tasmania and off shore islands.

3.5.3 Reservation Data in the Study Area

Where significant taxa are known to occur within a conservation reserve in the study area, the reserve is listed in an abbreviated form, e.g. West-Macs. The full name, area and abbreviation for each reserve are given in Table 3, and their location is mapped in Figure 5. Very small reserves within the Parks and Wildlife Commission estate are not listed, except where they are fenced and deemed to be of value for conserving plants. Occurrence in reserves is based primarily on data from the NT Herbarium, however some species have not been collected from a reserve but have been recorded from reliable survey sources. In these cases the reserve name is followed by '(uv)', e.g. West-Macs (uv).

Specimens of some taxa have location coordinates that place them just outside a reserve, despite the fact that they have been collected from within the reserve. There are two possible explanations for this anomaly. Firstly, many of the Herbarium records were lodged at a time when locations were only recorded to the nearest minute of longitude and latitude. Secondly, the collector may have had difficulty accurately determining the position. A buffer zone of one minute (1.85 km) was subjectively chosen to account for both factors. Where a species has been recorded from within a one minute buffer of a reserve but not from within the reserve, the reserve name is followed by '(b)', e.g. West-Macs (b).

Table 3: Conservation reserves with abbreviations and areas

Note that some very small reserves in the study area are not included in this Table. Areas given are based on GIS coverage of the outer boundaries of reserves. Any internal excisions from reserves are counted in the area of the reserve.

Conservation Reserve	Abbreviation	Мар	Area	Area			
		Code	km ²	hectares			
West MacDonnell National Park	West-Macs	1	2,114 km ²	211,413 ha			
Uluru-Kata Tjuta National Park	Uluru	2	1,333 km ²	133,299 ha			
Davenport Range National Park (proposed)	Davenports	3	$1,141 \text{ km}^2$	114,132 ha			
Watarrka National Park	Watarrka	4	726 km^2	72,584 ha			
Finke Gorge National Park	Finke-Gorge	5	459 km^2	45,863 ha			
Connells Lagoon Conservation Reserve	Connells-Lagoon	6	260 km^2	25,962 ha			
Dulcie Ranges National Park	Dulcies	7	191 km ²	19,112 ha			
Ruby Gap Nature Park	Ruby-Gorge	8	93 km ²	9,263 ha			
Arltunga Historical Reserve	Arltunga	9	55 km^2	5,501 ha			
Tnorala (Gosse Bluff) Conservation Reserve	Tnorala	10	48 km ²	4,761 ha			
(Aboriginal)							
Mac Clark (<i>Acacia peuce</i>) Conservation Reserve	Mac-Clark	11	30 km^2	3,046 ha			
Rainbow Valley Conservation Reserve	Rainbow-Valley	12	25 km ²	2,483 ha			
Alice Springs Telegraph	A.S.Telegraph-Stn.	13	20 km^2	2,013 ha			
Station Historical Reserve			-				
Devil's Marbles Conservation Reserve	Devils-Marbles	14	18 km ²	1,829 ha			
Tennant Creek Telegraph Station Historical Reserve	T.C.Telegraph-Stn.	15	18 km^2	1,802 ha			
Trephina Gorge Nature Park	Trephina-Gorge	16	18 km ²	1,772 ha			
Emily and Jessie Gaps Nature Park	Emily-Jessie	17		695 ha			
Kuyunba Conservation Reserve	Kuyunba	18		647 ha			
N'Dhala Gorge Nature Park	NDhala	19		501 ha			
Henbury Meteorites Conservation Reserve	Henbury-Meteor.	20		405 ha			
Chambers Pillar Historical Reserve	Chambers-Pillar	21		336 ha			
Illamurta Springs Conservation Reserve	Illamurta	22		130 ha			
Annas Reservoir Conservation Reserve	Annas-Reservoir	23		85 ha			
Ewaninga Rock Carvings Conservation Reserve	Ewaninga	24		6 ha			



Figure 5: Main conservation reserves of the study area

Reserves are shaded black and are numbered with the map code number given in Table 3. The broad gray lines are bioregion boundaries and the narrow lines are major roads.

3.5.4 Distribution within the Study Area by Bioregions.

For each taxon included in part two of this volume a map is provided showing its distribution in the study area, together with distribution data in a summarised form indicating the number of NT Herbarium specimens (in parenthesis) from each of the eleven bioregions shown in Figure 2. The numbers of specimens are based on the NT Herbarium database as it was in February 2000. Bioregion names are abbreviated as in Table 1 and the total number of specimens collected for the whole study area is given following the letters SUM. To illustrate this system the follow example is given:

Calotis cymbacantha F.Muell. [Showy Burr Daisy] Distribution in Study Area (NT Herbarium records by bioregion): FIN(4), MAC(4), SUM(8)

Calotis cymbacantha has been collected from the Finke and MacDonnell Ranges bioregions. Four collections have been made from the Finke bioregion and four collections from the MacDonnell Ranges bioregion. For the whole southern region (SUM), there are a total of eight collections.

The distribution statistics have been determined by analysing extracts from the Herbarium Records Database with the ARC/INFO Geographic Information System (GIS).

Caution should be exercised when drawing conclusions about the distribution of a taxon from the number of records indicated for a bioregion. In a few cases the number of records indicated for a taxon may be misleading, as the identification of some specimens may be uncertain. In some instances specimens have been on loan for many years and it has not been possible to recheck questionable identifications. In such cases a comment is usually provided. It should also be noted that the number of collections is not equivalent to the number of localities because multiple specimens may have been collected from a single locality. Therefore a large number of specimens does not necessarily mean that the taxon occurs in many locations within a bioregion. Similarly, a small number of specimens do not necessarily mean that the taxon is uncommon within a bioregion as little collecting may have been undertaken. For some taxa, additional information about the number of populations or localities is given in the description of distribution.

The bioregions used in this study are the same as used by Albrecht *et al.* (1997) and are shown in Figures 1 and 2, with full names and areas in Table 1. The bioregions are based on the Interim Biogeographic Regionalisation for Australia (IBRA) (Thackway and Cresswell, 1995). The IBRA boundaries are still being refined. Since the publication of IBRA version 4.0, several of the NT bioregion boundaries have been adjusted, some by a considerable distance. Within NT government agencies this adjusted regionalisation is known as IBRA-NT version 4.1. Two additional changes were adopted by Albrecht *et al.* (1997) and are used here. Firstly, the boundary of the Mitchell Grass Downs (MGD) region was altered to more closely follow the boundary of the Mitchell Grass (*Astrebla species*) plains. Secondly, an additional region was created, the Davenport Murchison Ranges (DAV), circumscribing the ranges and immediate 'run-off' areas. The mapping from the 'Vegetation Survey of the Northern Territory, Australia' (Wilson *et al.*, 1990) was used as a guide for both changes.

Since the establishment of the IBRA bioregions, there has been recognition of the need to recognise smaller areas within them that could be called "provinces" (John Woinarski *pers. comm.* PWCNT, 2000). If the Northern Territory Government adopts this approach then it is likely that the Davenport Murchison Ranges area would be delineated as a province. For the purpose of this report we refer to it as a bioregion. Two versions have been used for the boundary line for the Davenport Murchison Ranges bioregion. A generalized version is printed on the species maps in this volume and on the site locality maps in volume two. The generalized boundary was also used in determining the proportion of botanical sites of significance in the Tanami and Davenport Murchison Ranges bioregions, also in volume two. However, for consistency with Albrecht *et al.* (1997), a more detailed boundary line was used for summarising numbers of NT Herbarium records by bioregion.

The detailed DAV boundary and altered MGD boundary are defined at a higher resolution than most of the other boundaries. This should not cause any problems with using the species distribution information. The exact position of the NT bioregion boundaries is arbitrary in many places, due to the absence of unequivocal landform or vegetation boundaries. It should also be noted that landform and vegetation vary within each bioregion and in some cases there is commonality in landform and vegetation between bioregions. Nevertheless, the concept of bioregionalisation is useful for both defining the southern region and providing meaningful regions for recording the distribution of plant taxa.

3.5.5 Disjunct Taxa

For those taxa with disjunct populations occurring within the study area a continental disjunct code is given, defining the biogeographic nature of the disjunction with respect to occurrence in the arid zone. In addition, disjunct occurrences are delineated on the distribution maps by grey circles or boxes.

A considerable number of taxa occurring in the study area have disjunct distribution patterns. These distribution anomalies are a fascinating characteristic of the region's flora. They are of considerable biogeographical interest and may provide important insights into events and processes that have lead to the distribution patterns that we observe today. It is assumed that some disjunct populations are genetically distinct and are therefore of conservation significance. We have employed the rather arbitrary definition of disjunct taxa being those taxa with two or more geographically separated populations, at least one of which is more than 200 km from any other. Taxa were assessed on the basis of NT Herbarium records and published information on interstate distributions. For some taxa all study area populations are disjunct from other populations. In this situation there is often one population that is significantly larger than the others and it is the smaller, outlying populations that are of greater conservation significance.

The process of identifying disjunct taxa in the study area was influenced by various biases, limitations and assumptions. There is a bias towards taxa for which the taxonomy and distribution have been resolved on the continental scale. In particular, this applies to groups for which there are comprehensive taxonomic treatments, including those published in the Flora of Australia series, described in George (1981). Some disjunct taxa may have been overlooked, largely because of the dearth of readily accessible interstate distribution data or incomplete knowledge of habitat preferences. Some apparent disjunctions may be an artefact of under-collecting. Therefore taxa that are particularly poorly known were generally excluded from the analysis. Some apparently disjunct non-aquatic wetland taxa with long-range dispersal mechanisms have also been excluded from our analysis. This decision was based on the assumption that they are likely to occur more extensively after good rains than present records indicate. Some true aquatics confined to permanent (or near permanent) waterbodies have been designated disjunct, where there is sufficient supporting distribution information.

3.5.5.1 Disjunct Codes

The disjunct coding system employed by Albrecht *et al.* (1997) has been adopted for taxa included in this report. The coding system consists of two elements. The first element is a capital letter 'D', which indicates that a taxon has one or more disjunct populations in the study area. The second element indicates the type of disjunction. Four types of disjunction have been recognised ('a', 'o', 'a/o', 'o/a'). These are largely based on a distinction between arid and non-arid occurrences of a taxon. We have used the map of the arid zone provided in 'Flora of Central Australia' (Jessop, 1981) as the extent of the arid zone for determining disjunction types. The categories are explained in greater detail below and are illustrated in Figure 6.

'a' - [Arid]. Type 'a' taxa are confined to the arid zone with one or more disjunct populations in the southern NT.

'o' - [Mesic]. Type 'o' taxa have distributions that are almost exclusively outside the arid zone with one or more isolated populations in the southern NT. This group includes taxa that are commonly known as relicts. The arid zone populations of many of these taxa occur in sheltered mesic habitats where moisture is permanent or persists for longer periods than in the surrounding landscape. These populations are generally thought to be remnants of a former more extensive distribution. Disjunct populations of type 'o' taxa are more likely to be of conservation significance than those of the other types.

'a/o' - [Predominantly Arid]. Type 'a/o' taxa have distributions that are predominantly in the arid zone with one or more disjunct populations in the southern NT. They also have limited occurrence outside the arid zone. Populations outside the arid zone may be extensions of those in the arid zone or they may be disjunct from them.

'o/a' - [Predominantly Non-arid]. Type 'o/a' taxa have distributions that are predominantly outside the arid zone, with a proportionally small part of their range extending into the arid zone and with disjunct populations in the southern NT.



Figure 6: Types of continental range disjunction

The disjunct codes are distinct from conservation significance codes. A taxon may have disjunct populations that are not considered to be of conservation significance.

3.5.5.2 Mapping Disjunct Populations and Occurrences

Outlying or disjunct populations of biogeographical interest are indicated on the distribution maps by grey circles or rectangles. The main contiguous range of a taxon is generally not delineated. Circles and rectangles are used rather than irregular polygons to reflect the fact that the distribution of most taxa is imperfectly known. There is no difference between populations delineated with a circle and those delineated with a rectangle. Two shapes were used so that several populations could be delineated without the geometric shapes overlapping. Likewise the size of the circle or rectangle is inconsequential and was merely chosen to encompass a group of Herbarium records. Records enclosed in the same polygon should not be assumed to form a continuous or interbreeding population. Where circles are truncated at the NT border it does not indicate anything about the interstate distribution. It is merely the result of using a large circle to encompass the records.

Some geographically isolated records have not been considered of biogeographic interest, as they are associated with "artificial" environments such as dams or tanks.

3.5.6 Distribution Limits

It is assumed that plant populations in atypical, extreme or outlying habitats and environments contain unique or unusual genetic resources (Hammerick, 1983). The edge of a species' contiguous continental range has been used as a coarse surrogate for detailed data on the inherent genetic characteristics of plant taxa. The range limits of a species or taxon can be an important reference point in the study of past and present distribution patterns of plants. The overall aim of collating this data was to identify populations of plants, which may retain a significant element of ecosystem or genetic diversity or which may be considered important in past or continuing evolutionary or ecological processes.

Only longitudinal and latitudinal distribution limits have been determined. This is a limitation as the distribution of plants in the arid zone and the study area is rarely constrained only by these variables.

However, latitude (northern and southern range limits) across the study area roughly correlates with important climatic variables such as rainfall (annual averages tend to decrease with latitude), rainfall reliability (generally decreases with latitude), rainfall seasonality (tends to be skewed towards summer with decreasing latitude) and frost frequency (generally increases with latitude). As such, the data can be used to broadly examine the extent to which plant taxa with arid-tropical distributions (those with a distribution skewed to the northern third of the continent) and arid-temperate distributions (those taxa with a distribution skewed to the southern half of the continent) penetrate the study area. In addition, longitudinal range limits may provide insights into the extent to which taxa originating from centers of plant diversity and endemism in the eastern and western halves of the continent have dispersed into the study area.

Edge of range is defined here as the edge of range in mainland Australia and Tasmania. Any overseas occurrences were ignored when determining edge of range. Edge of range data has been generated from the literature, herbarium records and the knowledge of botanists based in Alice Springs. As with disjunct taxa, there is a bias towards taxa for which the taxonomy and distribution have been resolved on the continental scale. In particular, this applies to groups for which there are comprehensive taxonomic treatments, including those published in the Flora of Australia series, described in George (1981). Undoubtedly many taxa that reach the edge of their continental range in the study area have been overlooked, largely because of the dearth of readily accessible interstate distribution data. The edge of range data is only indicative as it has been determined with incomplete distribution data and does not always reflect the biases and disparities arising from collection intensity across the study area. Extensions of range are anticipated as further botanical survey and collecting continues.

Edge of range records are represented on distribution maps for relevant taxa. Continental range extremities are denoted by a N, S, E or W compass point marker. Where a single collection represents more than two range limits these are both shown. Where a taxon is known from a single record all compass points are shown.

3.5.7 Distribution Maps – Layout and Summary of Features

A map of the study area is presented showing the distribution of NT Herbarium records of each taxon. Distribution maps are not provided for those taxa recorded for the study area solely on the basis of a specimen lodged at an interstate herbarium. Each occurrence appears on the map as a cross (+). No attempt has been made to distinguish historical records from those collected more recently. However, where there has been no recent, verified record of a taxon, this is noted in the text. The other map features are as follows.

- Type locations within the study area are shown as a diamond.
- Records at the edge of the known range of a taxon are indicated by the first letter of the appropriate cardinal compass point: N for northern edge of range, S for southern edge of range, E for eastern edge of range and W for western edge of range.
- Main roads, including unsealed roads, are shown by a narrow line.
- Bioregion boundaries are shown by a dotted line.
- Conservation reserves are shaded in grey.
- Disjunct populations are depicted by a circle or rectangle that is grey with black dots.

3.6 DATABASE OF SIGNIFICANT PLANTS

In preparing the list of plant taxa of conservation significance, the associated descriptive information was compiled in a database. This allowed relatively efficient checking, editing and formatting of the information provided. The primary copy of the database is stored on the Parks and Wildlife Commission's computer network and it is intended to update it periodically, in light of taxonomic and other changes. The database is available from the Parks and Wildlife Commission or the Arid Lands Environment Centre, however, at present it does not have customized interface to assist in the use and interpretation of the data. It is hoped that the data will eventually become available on the Internet.

4. Numerical Summaries of Taxa by Conservation Categories

The numbers of taxa in each category of significance are summarised in tables 4,5 and 6.

Significance Level	No. Taxa
national	124
Northern Territory	400
southern Northern Territory	71
bioregional	428
Total	1023

Table 4: Number of taxa at the four main levels of significance.

Note that a summary list of taxa in each category of significance is listed in Appendix 1, sorted alphabetically by genus and species. Also, a list of significant taxa in each bioregion is presented in Appendix 3, along with a numerical summary table for each bioregion.

Significance Level	Main conservation Code	No. Taxa by conservation status	Significance Code	No. Taxa
			2V	1
			2VCa	2
			2VCi	2
	V	15	3V	3
			3VC-	2
			3VCa	2
			3VCi	3
National			1R	1
National			2R	5
		47	2R (border)	1
	R		2RC-	3
			2RCa	2
			3R	10
			3R (border)	4
			3RC-	18
			3RCa	3
			1K	3
			1K (border)	2
	K	62	2K	2
			2K (border)	2
			3К	28
			3K (border)	5
			3KC-	17
			3KC- (border)	1
			ЗКСа	2
			3v	1
	v	4	3vC-	2
			3vCi	1
			2r	1
			3r	111
			3r (border)	31
Northern Territory	r	199	3rC-	53
			3rC- (border)	1
			3rCa	2
	k	197	3k	146
			3k (border)	15
			3kC-	31
			3kC- (border)	5

Table 5: Numbers of national and Northern Territory level significant taxaby significance code.

Significance	Major Significance Type		Sub-categories					
Level			Ranked from left to right, with the extreme left sub category defining the 'major' significance type.					
		No. taxa						No. taxa
southern NT	threatened	3	threatened					3
	rare	3		rare		disjunct		1
				rare				2
	apparently rare	27			apparently rare	disjunct		16
					apparently rare			11
	disjunct	38				disjunct		38
	total no. of southern NT significant taxa	71						71
		3		rare		disjunct		2
bioregional	rare			rare				1
	apparently				apparently rare	disjunct	range limit	3
		65			apparently rare	disjunct		17
	rare	05			apparently rare		range limit	20
					apparently rare			25
	digiunat	79				disjunct	range limit	32
	disjunct 78				disjunct		46	
	range limit	282					range limit	282
	total no. of bioregionally significant taxa	428						428

Table 6: Numbers of southern NT and bioregionally significant taxa in sub-categories of significance.

5. Habitats of Rare, Threatened and Poorly Known Plants in the Study Area

Rare, threatened and poorly known plant taxa occur in all of the broad habitat types found across the study area. The following section includes a brief introduction to the types of habitats in which these plant taxa are found, and lists the taxa of national, NT and southern NT significance that occur in each of these environments. Habitats are described under three broad groups:

- wetlands;
- plains and areas of low relief; and
- gravelly rises, hills and ranges.

The habitat types recognised here are intentionally broad and should not be interpreted as the definitive classification of habitat types in the study area. Likewise, the listing of species to habitats is based on existing data, which for poorly known taxa (K and k) is by definition inadequate.

The list of species by habitats is stored as part of the general database of species of conservation significance in the southern NT.

5.1 WETLANDS

5.1.1 Permanent and Semi-permanent Freshwater Habitats

Permanent and semi-permanent expressions of freshwater at or near the ground surface are extremely rare in the Australian arid zone. Rainfall is generally low and highly variable and evaporation rates far exceed precipitation. As a result, permanent freshwater is only present at or near the root zone of plants where several unusual geomorphological phenomena co-occur in the landscape. While there are numerous exceptions, the presence of pools of water is usually the result of one or more of the following uncommon scenarios within the study area:

- 1. Springs draining extensive porous sandstone lithology's (usually with horizontal bedding planes) may maintain small pools of permanent water where these pools are protected from depleting evaporation (both wind and direct exposure to sunlight) in deep gorges and 'slot gullies'. Such spring fed pools can be found in the gorges of Watarrka and Palm Valley where incised, often narrow gorges cut down through the thick porous horizontally bedded Devonian sediments. The sub-vertical bedding planes of the resistant but fractured meta-sandstones of the Chewings Range have also given rise to occasional springs, which sustain pools in very deep narrow gorges.
- 2. Lagoons and waterholes along watercourses may persist throughout the year where deep pools have been carved out by floodwaters at the base of ranges or at the exit points from gorges. Deep waterholes can be found where intermittent watercourses emerge from narrow gorges through resistant geologies such as the Heavitree Range (e.g. Redbank Gorge and Ellery Bighole). For such perennial waterbodies to persist they must be deep and be protected from wind and sunlight. A slight variation on the in-stream waterhole is the rockhole or plunge pool where water is retained in reservoirs formed by the denuding power of run-off. These perched bodies of water are usually fed by largely impervious catchments of bare rock in rocky ranges or outcrops. Again, rockholes are rarely permanent or even semi-permanent unless large and sheltered. Notable exceptions include Maggie Springs at Uluru and Coomarie Rockhole in the Tanami Desert.
- 3. Drainage features in central Australia typically appear dry for extended periods of time, however some maintain permanent low flows that percolate unseen through the deep sand in the bed of the watercourse. Where the catchments of these drainage lines are sufficiently large, upwellings of freshwater may emerge from the bed of the stream where it traverses an impervious rock band. Rock pools of this nature are found in the Finke River bed, such as at Boggy Hole.

4. Non-saline groundwater discharge occasionally emerges at the surface in arid Australia. In the southern NT these places are commonly referred to as soaks, and are broadly akin to the oasis of northern Africa. Few sustain permanent, freshwater and most are very small. Those producing freshwater are important watering points for animals and humans.

Given the small area occupied by permanent and semi-permanent freshwater habitats, they support a disproportionate number of rare and threatened plant taxa. This presents some conservation management issues, as sources of freshwater in the arid zone are not only foci for biodiversity; but also attract feral animals, harbour weed species and are important places for recreation and the pastoral and tourism industries. In addition, waterholes are invariably important cultural, spiritual and material resources for indigenous peoples.

Rare, threatened and poorly known taxa for which **waterholes and rockholes** constitute an important habitat type in the study area include:

Adiantum capillus-veneris {3vCi}	Fimbristylis sieberana {sthn NT	Ottelia ovalifolia {sthn NT (disjunct)}	
Adiantum hispidulum var. hispidulum {sthn NT (disjunct)}	(disjunct)} Histiopteris incisa {3rC-}	Panicum mindanaense {sthn NT (disjunct)}	
Agrostis avenacea {3rC-}	Hydrocotyle A39600 Watarrka	Persicaria decipiens {3rC-}	
Bacopa floribunda {sthn NT (disjunct & apparently rare)}	{2RC-} <i>Imperata cylindrica</i> {sthn NT (disjunct	Phragmites australis {sthn NT (disjunct & apparently rare)}	
Baumea arthrophylla {3vC-}	& apparently rare)}	Polystichum proliferum {3k}	
Bolboschoenus caldwellii {3vC-}	Isotoma luticola {3R}	Poranthera triandra {3rC-} Potamogeton crispus {3rC-} Potamogeton pectinatus {3r}	
Callistemon pauciflorus {3RC-}	Juncus aridicola {3rC-}		
<i>Carex fascicularis</i> {3rC-}	Juncus continuus {3rC-}		
Centipeda A92472 Toko Range	Juncus kraussii subsp. australiensis	Psilotum nudum {sthn NT (rare)}	
{3kC-}	Lindsaea ensifalia subsp. ensifalia	Rhamphicarpa australiensis {3RC-}	
Christella dentata {sthn NT	{sthn NT (rare)}	Rumex crystallinus {3r}	
(threatened)}	Livistona mariae subsp. mariae	Samolus eremaeus {3KC-}	
(disjunct)	{2VCa}	Schizachyrium pseudeulalia {sthn NT	
Cyperus cuspidatus {sthn NT (disjunct	Lysiphyllum gilvum {3r (border)}	(disjunct)}	
& apparently rare)}	<i>Lythrum paradoxum</i> {3k}	Schoenus falcatus {sthn NT (disjunct & apparently rare)} Sesbania benthamiana {sthn NT (disjunct)}	
Dentella minutissima {3rC-}	Microcarpaea minima {sthn NT		
Dicranopteris linearis var. linearis	(disjunct & rare)}		
{sthn NT (threatened)}	(disjunct)}	Stylidium inaequipetalum {3RCa}	
Doodia caudata var. caudata {3rC-}	Naias marina {3rC-}	Typhonium alismifolium (2r)	
Elacholoma hornii {3rC-}	Naias tenuifalia (stbn NT (disjunct))	Vallisperia annua (-the NT (dising -t))	
<i>Eleocharis geniculata</i> {sthn NT (threatened)}	Nephrolepis arida {3KC-}	Vallisneria nana {sthn NT (disjunct)}	
Eleocharis setifolia {3r}	Nymphaea immutabilis subsp.	Verbena macrostachya {3k}	
Eragrostis sterilis {3rC-}	<i>immutabilis</i> {3v}		
<i>Eriochloa procera</i> {sthn NT (disjunct & apparently rare)}	<i>Nymphoides aurantiaca</i> {sthn NT (apparently rare)}		
Fimbristylis blakei {3rC-}	Nymphoides indica {sthn NT (disjunct)}		

5.1.2 Temporary Freshwater Swamps and Claypans

Drainage depressions or swamps subject to shallow seasonal or episodic inundation are dispersed throughout the study area. Vegetation structure and floristics are highly variable in these environments, with the main environmental determinants being periodicity of inundation, soil texture and climate. In the northern eastern bioregions of the study area – the Mitchell Grass Downs and the Channel Country – extensive swamps are dominated by low shrublands of Bluebush (*Chenopodium auricomum*) with an understory of ephemeral grasses and herbs. Elsewhere in the study area the various vegetation types occurring in temporary freshwater swamps and claypans are poorly understood. An inventory and classification of arid NT wetlands is currently being undertaken (A.Duguid pers. comm.), which will result in a more workable classification of vegetation types inhabiting these environments.

Selected rare, threatened and poorly known taxa for which **seasonal swamps and claypans** are important habitat types in the study area include:

Abutilon halophilum {3r} Agrostis avenacea {3rC-} Arabidella procumbens {3r} Atriplex angulata {3k} Atriplex crassipes var. crassipes {3k} Atriplex eardleyae {3r} Atriplex lobativalvis {3r} Atriplex morrisii {3K} Atriplex muelleri {3r} Atriplex sturtii {3rC-} Atriplex turbinata {3r} Bergia occultipetala {3R} Bolboschoenus caldwellii {3vC-} Brachycome A58350 Newcastle Waters Station {3r} Calotis cymbacantha {3kC-} Centipeda A92472 Toko Range $\{3kC-\}$ Centipeda racemosa {3k} Chenopodium pumilio {3k} Chloris pumilio {3kC-} Commelina ciliata {sthn NT (apparently rare)} *Commelina tricarinata* {3k} Corchorus pascuorum {3k} Crinum angustifolium {sthn NT (apparently rare)} Cullen discolor {3k} Cullen graveolens {3k} Cyperus castaneus {sthn NT (disjunct)} Cyperus gilesii {3k} *Daucus glochidiatus form* ?G {3k} Daucus glochidiatus form B {3k} Dentella minutissima {3rC-} Dentella pulvinata {3r} Echinochloa elliptica {sthn NT (disjunct)} Eclipta alatocarpa {3k} *Ectrosia lasioclada* {3r} Elacholoma hornii {3rC-} Eleocharis papillosa {3R} Eremophila maculata var. brevifolia {3r}

Eremophila polyclada {3r} *Eriachne benthamii* {3kC-} Eriachne flaccida {3r} Erodium angustilobum {3kC-} *Eryngium supinum* {3k} Euphorbia stevenii {3k} *Fimbristylis corynocarya* {3k} Fimbristylis D70268 Connells Lagoon {3rC-} Fimbristylis nuda {sthn NT (disjunct & apparently rare)} Fimbristylis rara {sthn NT (disjunct)} Gilesia biniflora {3k} Glinus orygioides {3r} Gonocarpus chinensis s.lat. {sthn NT (disjunct)} Goodenia D70208 Barkly {3KC-(border)} Goodenia nigrescens {3KC-} Goodenia paludicola {sthn NT (apparently rare) Gunniopsis septifraga {3r} Iotasperma sessilifolia {3k} Iseilema calvum {3k} Isolepis australiensis {3kC-(cryptic)} *Isotoma luticola* {3R} Lysiphyllum gilvum {3r (border)} Lythrum wilsonii {3r} Maireana microcarpa {3r} Malacocera biflora {3r (border)} Malacocera tricornis {3k} Marsilea costulifera {3k} Marsilea crenata {sthn NT (disjunct)} Marsilea mutica {sthn NT (disjunct)} Mentha australis {3r (border)} Mimulus prostratus {3k} Mukia A90788 Tobermorey Station {3V} Nesaea repens {3k} Oldenlandia spathulata {3K (border)} Ophioglossum polyphyllum {3rC-} Osteocarpum acropterum var. acropterum {3k} Osteocarpum pentapterum {3r}

Osteocarpum salsuginosum {3r} Paractaenum novae-hollandiae subsp. reversum {3kC-} Pennisetum basedowii {3k (border)} Peplidium A88036 Tanami {3k} Peplidium foecundum {3k} Petalostigma banksii {sthn NT (disjunct)} Phyllanthus lacerosus {3KC-} Plagiobothrys plurisepalus {3r} Plantago cunninghamii {3k} Plantago multiscapa {3K} Pluchea tetranthera {3k} *Pycnosorus eremaeus* {3kC-} Pycnosorus pleiocephalus {3r (border)} Rhodanthe uniflora {3r (border)} Rotala tripartita {3r} Rothia indica subsp. australis {3KC-} Rumex crystallinus {3r} Sclerolaena muricata var. muricata {3r} Sclerolaena parallelicuspis {3rC-} Sida A90358 Walhallow Station {3r} Spergularia A43234 Andado {3r} Sporobolus latzii {1K} Stemodia A57025 Manners Creek {3K} Stemodia lathraia {3k (border)} Streptoglossa cylindriceps {3kC-} Stylidium inaequipetalum {3RCa} Stylidium multiscapum {sthn NT (disjunct)} Swainsona acuticarinata {3kC-} Tetragonia eremaea {3k} *Teucrium albicaule* {3r} *Threlkeldia inchoata* {3k} Trianthema oxycalyptra var. oxycalyptra {3r} Tribulopis sessilis {3kC- (border)} Urochloa atrisola {3K} Xyris complanata {sthn NT (disjunct)}.

5.1.3 Intermittent Watercourses and Run-on Areas

Topographic relief produces intermittent and ephemeral watercourses. In the context of the arid zone, drainage features are comparatively resource rich, receiving concentrations of nutrients and run-off after rainfall events. These habitats support both perennial plant taxa (which persist by exploiting sub-surface

waters with their extensive root systems) and ephemeral or 'avoider' plant taxa, which emerge from soilstored seed to capitalise on the intermittent abundance of moisture following substantial rainfalls.

Rare, threatened and poorly known taxa for which **watercourses and run-on areas** are important habitat types in the study area include:

Acacia conspersa {sthn NT (disjunct)} Acacia maconochieana {3r} Acrachne racemosa {3k} Agrostis avenacea {3rC-} Amaranthus cochleitepalus {3rC-} Amyema miraculosa subsp. boormanii {3k} Arthropodium strictum {3rC-} Arundinella setosa {sthn NT (disjunct)} Astrebla lappacea {3k} Atriplex incrassata {3r (border)} Atriplex muelleri {3r} Atriplex nummularia subsp. omissa {3k (border)} Atriplex turbinata {3r} Bothriochloa bladhii subsp. bladhii {sthn NT (disjunct)} Buchnera asperata {3kC-(border)} Bulbostylis pyriformis {3rC-} *Byblis filifolia* {sthn NT (disjunct)} Calotis kempei {3k} Centipeda minima subsp. A59802 Elkedra {sthn NT (apparently disjunct & apparently rare)} Chenopodium pumilio {3k} Chloris pumilio {3kC-} Chthonocephalus pseudevax {3r} Commelina ciliata {sthn NT (apparently rare)} *Commelina tricarinata* {3k} Corchorus elderi {3K} *Corchorus pascuorum* {3k} Crotalaria dissitiflora var. dissitiflora {3k} Crotalaria novae-hollandiae subsp. novae-hollandiae {sthn NT (disjunct)} Cullen discolor {3k} Cullen walkingtonii {3KC-} Cyperus cristulatus {sthn NT (disjunct & apparently rare)} *Cyperus oxycarpus* {3kC-} Cyperus viscidulus {3k (border)} Daucus glochidiatus form $?G \{3k\}$ Dentella minutissima {3rC-} Desmodium filiforme {sthn NT (disjunct)} Digitaria hystrichoides {3r} Diodontium filifolium {3R (border)} Einadia nutans subsp. nutans {3rC-} Elacholoma hornii {3rC-}

Eleocharis pusilla {3rC-} Enneapogon intermedius {3k} Enteropogon minutus {3kC- (border)} Eragrostis exigua {sthn NT (disjunct)} Eragrostis lanicaulis {3k} Eragrostis sterilis {3rC-} *Eremophila dalyana* {3rC-} Eriachne benthamii {3kC-} Eriochlamys behrii {3k} *Erodium angustilobum* {3kC-} Eucalyptus cupularis {3r} Eucalyptus sparsa {3K (border)} Fimbristylis cinnamometorum {sthn NT (disjunct & apparently rare)} Fimbristylis nuda {sthn NT (disjunct & apparently rare)} Fimbristylis rara {sthn NT (disjunct)} *Fimbristylis signata* {3k} Fimbristylis tristachya {sthn NT (apparently rare)} Fimbristylis velata {3k} Fuirena nudiflora {3k} Gilesia biniflora {3k} Gomphrena leptophylla {3k} Gonocarpus chinensis s.lat. {sthn NT (disjunct)} Goodenia odonnellii {sthn NT (disjunct)} Gossypium nelsonii {3RC-} *Gunniopsis papillata* {3r} Gunniopsis quadrifida {3r} Gymnanthera cunninghamii {3r} Haloragis glauca forma glauca {3k} Harmsiodoxa puberula {3rC-} Hibiscus pentaphyllus {sthn NT (apparently rare)} *Iotasperma sessilifolia* {3k} Ipomoea plebeia {sthn NT (apparently rare)} Isolepis australiensis {3kC-(cryptic)} *Isotoma luticola* {3R} Ixiolaena tomentosa {3kC-} Livistona mariae subsp. mariae {2VCa} Lysiphyllum gilvum {3r (border)} *Lythrum paradoxum* {3k} Maireana brevifolia {3rC-} Maireana lanosa {3rC-} Mentha australis {3r (border)}

Microcarpaea minima {sthn NT (disjunct & rare)} Millotia greevesii subsp. helmsii {3k} Mimulus prostratus {3k} Mitrasacme lutea {3R (border)} Mitrasacme micrantha {sthn NT (disjunct)} Mukia A90788 Tobermorey Station {3V} *Mukia micrantha* {3k} *Murchisonia volubilis* {3r} Ophioglossum gramineum {3r} Ophioglossum lusitanicum {3rC-(cryptic)} *Ophioglossum polyphyllum* {3rC-} Panicum mindanaense {sthn NT (disjunct)} Paractaenum novae-hollandiae subsp. reversum {3kC-} Parietaria cardiostegia {3r} Peplidium A88036 Tanami {3k} Petalostigma banksii {sthn NT (disjunct)} Phyllanthus oblanceolatus {3KC-} Pimelea microcephala subsp. *microcephala* {3r} Pluchea A87409 Ormiston {3K} Pluchea tetranthera {3k} Polygala gabrielae {3KC-} Pycnosorus pleiocephalus {3r (border)} *Rhodanthe uniflora* {3r (border)} Rothia indica subsp. australis {3KC-} Samolus eremaeus {3KC-} Schizachyrium pseudeulalia {sthn NT (disjunct)} Schoenus centralis {3K} Sclerolaena limbata {3k} Sclerolaena muricata var. muricata $\{3r\}$ Senecio cunninghamii var. serratus {3r} Senna artemisioides subsp. glaucifolia {3r} Sesbania benthamiana {sthn NT (disjunct)} Sida laevis {3kC-} *Spergularia* A43234 Andado {3r} Stemodia lathraia {3k (border)} Streptoglossa cylindriceps {3kC-}

Stylidium floribundum {3k} Stylidium inaequipetalum {3RCa} Stylidium multiscapum {sthn NT (disjunct)} Swainsona tenuis {3kC-} Tetragonia eremaea {3k} Thaumastochloa pubescens {3k} Threlkeldia inchoata {3k} Tietkensia corrickiae {3r} Trianthema oxycalyptra var. oxycalyptra {3r} Trichodesma zeylanicum var. grandiflorum {2r} Triumfetta chaetocarpa {3k} Velleia macrocalyx {3r} Verbena macrostachya {3k} Vittadinia pustulata {3kC-} Wurmbea centralis subsp. centralis {3RC-} Xyris complanata {sthn NT (disjunct)}.

5.1.4 Saline Lakes and Basins and Fringing Saline Sands

Outside the Simpson Desert, the low-lying parts of the study area typically manifest as extensive, shallow basins. These depressions are the dismembered relicts of ancient river systems, and form extensive, sublinear bands principally in the western half of the study area. These systems are internally drained and large saline playas or lakes are present in the lowest lying areas. These 'lakes' rarely contain surface waters and are invariably hyper-saline. They are typically flanked by lunettes – source bordering dune systems composed of siliceous and calcareous sands and gypsum fragments (see also section on gypsiferous environments). The soils of lake beds are devoid of vegetation and have thick salty crusts, while the soils of the lake margins are mainly saline solonchacks – fine textured calcareous and siliceous loams (Northcote and Wright 1983). The vegetation fringing these lakes is characteristically Samphire shrubland (*Halosarsia* spp.-dominated vegetation), a vegetation type closely related to coastal saltmarsh. Shrublands dominated by Inland Teatree (*Melaleuca glomerata*) are also common in sub-saline to saline sands fringing lakes and discharge areas.

The principal areas of this habitat in the study area include the:

Amadeus Basin, including Lake Neale, Lake Amadeus and the series of linked saline playas comprising the Karinga Creek system;

large depressions associated with Lake Mackay, Lake MacDonald and Lake White - the latter is linked to the east with the extensive networks of saline paleo-drainage systems in the Tanami Desert;

Ngalia Basin, including Lake Bennett and Lake Lewis and associated saline lakes and channels and the extensive saline swamps and lakes to the east of Lake Bennett (to the south of Nyrripi and to the north east of Kintore).

It is important to note that saline environments are often geographically remote and the botanical attributes of these areas are frequently poorly known, poorly documented or both. It is likely that some taxa in the following list are currently considered rare or threatened merely as a consequence of a general lack of botanical collecting and survey. Rare, threatened and poorly known taxa for which **saline lakes and basins** are an important habitat type in the study area include:

Acacia maconochieana {3r}	Goodenia anfracta {3KC-}	Marsilea latzii {3R}	
Acacia nyssophylla {3k}	Gunniopsis quadrifida {3r}	Mimulus prostratus {3k}	
Acacia wiseana {3r}	Gunniopsis septifraga {3r}	Minuria multiseta {3r}	
Atriplex eardleyae {3r}	Halosarcia calyptrata {3k}	Nicotiana rosulata subsp. rosulata	
Atriplex flabelliformis {3r (border)}	Halosarcia halocnemoides subsp.	{3k}	
Calandrinia pleiopetala {3rC-}	tenuis {3k}	Nitraria billardieri {3r}	
Cullen discolor {3k}	Halosarcia indica subsp. bidens	Osteocarpum acropterum var. acropterum {3k}	
Daviesia eremaea {3K}	Halosarcia pruinosa {3r}	Osteocarnum salsuginosum {3r}	
Dysphania sphaerosperma {3r}	Heliotronium alanduliferum (3k)	Paractaenum novae-hollandiae	
Enneapogon caerulescens var. caerulescens {3r}	Juncus kraussii subsp. australiensis	subsp. reversum {3kC-}	
Eriochlamvs behrii {3k}	$\{3rC-\}$	Peplidium A88036 Tanami {3k}	
Einehnistelis nang (-the NT (dision -t))	Kippistia suaeaifolia {3r}	<i>Pluchea tetranthera</i> {3k}	
<i>Fundristyus rara</i> {stnn N1 (disjunct)}	Lawrencia squamata {3k}	Sclerolaena symoniana {3KC-}	
Frankenia cupularis {3r}	Lawrencia viridi-grisea {3r}	Sporobolus virginicus {sthn NT	
Frankenia punctata {3r}	Maireana appressa {3k}	(disjunct)}	
Gomphrena leptophylla {3k}	Maireana pentatropis {3r}	Streptoglossa cylindriceps {3kC-}	
Goodenia A44284 Subsaline {3K}	Maireana pyramidata {3r}	Swainsona acuticarinata {3kC-}	
Trianthema turgidifolia {3k} *Trichanthodium skirrophorum* {3kC-}.

5.1.5 Mound Springs

Mound springs are surface expressions of underground aquifers. The spring waters can be strongly mineralised. Mounds develop when minerals concentrate on the surface through evaporation and precipitation. Mound springs are extremely rare in the study area and only a few active springs are known from the Ormiston area in the valleys below the West MacDonnell Ranges. There is a report of a mound spring associated with the Great Artesian Basin near Tobermory, however it is yet to be investigated. **Mound springs** support a unique plant community and several rare and poorly known taxa including:

Cyperus laevigatus {3r (border)} Goodenia anfracta {3KC-} Juncus kraussii subsp. australiensis {3rC-} Lawrencia squamata {3k} Minuria multiseta {3r} Sporobolus virginicus {sthn NT (disjunct)}.

5.2 PLAINS AND AREAS OF LOW RELIEF

5.2.1 Dunefields

Dunefields are widely distributed in the study area, occurring most extensively across the Simpson Desert (the Simpson-Strzelecki Dunefields bioregion) in the south east of the study area, the Great Sandy Desert (Great Sandy Desert bioregion) in the central west and south west of the study area and parts of the Tanami Desert (Tanami bioregion). The term dunefield as used here includes dunes and intervening swales of variable width. Typically, dunes and associated swales support separate plant communities. Dunes occurring within the study area are of aeolian origin and are typically composed of red siliceous sands. Some reticulate dune systems support populations of rare or threatened plant taxa, such as those to the east of Uluru and in the Tanami bioregion. The relationship between dunefield morphology and the occurrence of rare and threatened plant species requires further study.

Rare, threatened and poorly known taxa for which **dunefields** are an important habitat type in the study area include:

Acacia ammobia {3RC-} Acacia helmsiana {3k} Acacia pachyacra {3k} Acacia prainii {3k} Acacia sabulosa {3k} Acacia wiseana {3r} *Byblis filifolia* {sthn NT (disjunct)} Calandrinia disperma {3k} Calandrinia polyandra {3kC-} Calandrinia remota {3kC-} Calotis kempei {3k} Cleome uncifera {3r (border)} *Comesperma A77288 Tanami* {3R} Comesperma viscidulum {3KC-} Corymbia candida subsp. dipsodes {3k} *Corynotheca asperata* {3K} *Corynotheca licrota* {3rC-} Dampiera roycei {3k} Daviesia arthropoda {3KCa}

Dicrastylis doranii {3k} *Eragrostis lanipes* {3r} *Eremophila battii* {3r} Eucalyptus sparsa {3K (border)} Glischrocaryon aureum var. angustifolium {3rC-} *Gompholobium simplicifolium* {3r} Goodenia centralis {3kC-} Goodenia glandulosa {3rC-} *Goodenia occidentalis* {3rC-} Grevillea nematophylla {3r (border)} Grevillea pterosperma {3r} *Heliotropium diversifolium* {3k} *Heliotropium glanduliferum* {3k} Heliotropium pulvinum {3K} Heliotropium transforme {3k (border)} *Hibiscus arenicola* {3k} *Indigofera ammobia* {3k} Laxmannia arida {3r}

Lechenaultia lutescens {3k} Lobelia gibbosa var. gibbosa s.lat. {3rC-} Logania centralis {3KC-} *Menkea sphaerocarpa* {3rC-} *Microcorys macrediana* {3K} *Newcastelia bracteosa* {3k} *Newcastelia cladotricha* {3k} Olax spartea {3K} *Olearia arida* {3k} *Phyllanthus carpentariae* {3k} *Pimelea penicillaris* {3k} Pityrodia chorisepala {3K} Pityrodia loricata {3K} *Pityrodia loxocarpa* {3r} Pomax A89438 Sand Dunes {3kC-} Prostanthera wilkieana {3r} Sauropus ramosissimus {3KC-} *Sclerolaena parviflora* {3r} Senna curvistyla {3k}

Sida A32067 Horseshoe Bend {1K} Sida A83689 Golden calyces {3kC-} Sida A90797 Rainbow Valley {3kC-} Sida A95988 Watarrka {3k} Swainsona formosa {3r} Swainsona laxa {3r} Tephrosia A27836 Dunes {3k} Tetragonia eremaea {3k} Teucrium grandiusculum subsp. grandiusculum {3KC-} Trachymene bialata {3r} Vittadinia dissecta var. hirta {3kC-} Xanthorrhoea thorntonii {3rCa}.

5.2.2 Sandplains

Sandplain is a broad term here used to characterise gently undulating sandy plains, which in the study area are most extensive in the Tanami bioregion. The soils of this landscape are predominantly hard-setting earthy sands underlain by ironstone gravels, laterite, calcrete and/or mottled and pallid zone material (Northcote and Wright 1983).

Rare, threatened and poorly known taxa for which **sandplains** are an important habitat type in the study area include:

Acacia chisholmii {3r (border)} Fimbristylis squarrulosa {sthn NT *Newcastelia cladotricha* {3k} (disjunct & apparently rare)} Acacia pachyacra {3k} Pimelea microcephala subsp. Glischrocaryon aureum var. *microcephala* {3r} Acacia prainii {3k} angustifolium {3rC-} Pluchea tetranthera {3k} Acacia wiseana {3r} *Gompholobium simplicifolium* {3r} Polygala tepperi {3r} Bonamia alatisemina {3K} Gomphrena leptophylla {3k} Polymeria A93357 Western Tanami Byblis filifolia {sthn NT (disjunct)} Gonocarpus eremophilus {3k} {3k (border)} Byblis rorida {3k (border)} Goodenia centralis {3kC-} Rothia indica subsp. australis Calandrinia pleiopetala {3rC-} {3KC-} Grevillea dryandri subsp. dryandri Calandrinia remota {3kC-} Sclerolaena birchii {3k} {sthn NT (disjunct)} Calotis xanthosioidea {3r} Grevillea nematophylla {3r (border)} *Sclerolaena parviflora* {3r} Cleome uncifera {3r (border)} Gunniopsis quadrifida {3r} Senna curvistyla {3k} Comesperma A77288 Tanami {3R} Hakea minyma {3k} Stemodia A57025 Manners Creek {3K} Commicarpus australis {3r} *Harmsiodoxa puberula* {3rC-} *Tephrosia brachycarpa* {3k} Corchorus walcottii {3k} Heliotropium diversifolium {3k} *Tephrosia uniovulata* {3k} Corymbia candida subsp. dipsodes *Heliotropium glanduliferum* {3k} Teucrium grandiusculum subsp. $\{3k\}$ *Heliotropium parviantrum* {3k} grandiusculum {3KC-} Corymbia pachycarpa subsp. *Heliotropium pulvinum* {3K} glabrescens {3K} Trachymene bialata {3r} Heliotropium sphaericum {3k} Cullen corallum {3k} Triodia helmsii {3r (border)} *Heliotropium subreniforme* {3K} Dampiera roycei {3k} Triumfetta centralis {3k} Heliotropium transforme {3k Daviesia arthropoda {3KCa} *Triumfetta deserticola* {3k} (border)} Daviesia eremaea {3K} *Triumfetta johnstonii* {3k} Hibiscus brachychlaenus {3r} Dicrastylis doranii {3k} Triumfetta micracantha {sthn NT Indigofera ammobia {3k} (apparently rare)} Dicrastylis petermannensis {3K *Jacksonia aculeata* {3k} (border)} Vittadinia dissecta var. hirta {3kC-} Lamarchea sulcata {3k} Eragrostis lanipes {3r} Xanthorrhoea thorntonii {3rCa} *Lechenaultia lutescens* {3k} Eremophila A48866 Rainbow Zornia chaetophora {sthn NT Logania centralis {3KC-} Valley {2VCi} (disjunct) }. Maireana lanosa {3rC-}

5.2.3 Gibber Plains

Gibber plains occur widely in the Stony Plains bioregion, but small outliers of this landscape type also occur in the Andado area and on the Allitra Tablelands in the Simpson-Strzelecki Dunefields bioregion. Gibber landscapes are found on low dissected tablelands. The soils are generally desert loams overlying cracking red clays (Northcote 1983). They are invariably strewn with stones, typically ironstone gravels and silcrete, and often have shallow gilgai depressions.

Rare, threatened and poorly known taxa for which **Gibber Plains** are an important habitat type in the study area include:

- Abutilon halophilum {3r} Acacia peuce {3VCi} Acacia pickardii {3V} Anemocarpa podolepidium {3r (border)} Arabidella nasturtium {3r} Astrebla lappacea {3k} Atriplex angulata {3k} Atriplex crassipes var. crassipes $\{3k\}$ Atriplex fissivalvis {3r (border)} Atriplex incrassata {3r (border)} Atriplex intermedia {3r} Atriplex lobativalvis {3r} Atriplex morrisii {3K} Atriplex nummularia subsp. omissa {3k (border)} Atriplex quinii {3r (border)} Atriplex turbinata {3r}
- Calandrinia remota {3kC-} Cyperus gilesii {3k} Daucus glochidiatus form $?G \{3k\}$ Eremophila rotundifolia {3r (border)} Erodium angustilobum {3kC-} Gilesia biniflora {3k} *Gunniopsis quadrifida* {3r} *Maireana appressa* {3k} Maireana ciliata {3r (border)} *Maireana lobiflora* {3k} Maireana microcarpa {3r} *Maireana schistocarpa* {3k} Malacocera tricornis {3k} Osteocarpum acropterum var. acropterum {3k} *Osteocarpum pentapterum* {3r} Pachycornia triandra {3r} Pimelea simplex subsp. continua {3r}
- Plagiobothrys plurisepalus {3r} Plantago cunninghamii {3k} Ptilotus aristatus var. aristatus {3R (border)} Ptilotus aristatus var. eichlerianus {3R} *Rhodanthe uniflora* {3r (border)} *Sclerochlamys brachyptera* {3k} Sclerolaena longicuspis {3r} Sclerolaena parallelicuspis {3rC-} Sida intricata {3r} *Swainsona formosa* {3r} Swainsona purpurea {3k} Tetragonia eremaea {3k} *Teucrium albicaule* {3r} Threlkeldia inchoata {3k}.

5.2.4 Heavy Soil Plains Dominated by Mitchell Grass (Astrebla spp.)

Deep grey clay soils with a soft self-mulching surface occur extensively in the Mitchell Grass Downs bioregion (Isbell and Hubble 1983). The distinctive convoluted drainage patterns, wet-dry seasonal climate and soil characteristics (including relatively high fertility, gilgai formation and cracking) in the Mitchell Grass Downs bioregion have given rise to a highly specialised flora.

Smaller, isolated plains with deep clay soils occur in other bioregions and support a number of rare and poorly known taxa. Of particular note are the Mount Hay Plains (comprised of red clays), Hale Plains, Paddys Plains and small areas enclosed within the Dulcie Ranges and to the north of the Hartz Ranges. Due to the remoteness of these smaller patches, they support populations of a number of plant taxa that are disjunct or at the edge of their continental range.

Rare, threatened and poorly known taxa for which plains with **heavy soil dominated by Mitchell Grass** (*Astrebla* spp.) are an important habitat type in the study area include:

Acacia maconochieana {3r} Acacia tephrina {3r} Acmella grandiflora var. grandiflora {3K} Amaranthus cochleitepalus {3rC-} Astrebla lappacea {3k} Atriplex muelleri {3r} Bergia diacheiron {3r} Brachycome A58350 Newcastle Waters Station {3r} Bulbine alata {3k} Caesia chlorantha {3r (border)} Calotis squamigera {3r} Chenopodium pumilio {3k}

Crinum angustifolium {sthn NT (apparently rare)} Cullen graveolens {3k} Cyperus gilesii {3k} *Daucus glochidiatus form ?G* $\{3k\}$ *Daucus glochidiatus form B* {3k} Dissocarpus biflorus var. biflorus {3k} Eclipta alatocarpa {3k} Eryngium supinum {3k} *Eucalyptus helenae* {2K (border)} Euphorbia stevenii {3k} Fimbristylis trachycarya {sthn NT (disjunct & apparently rare)} Goodenia D70208 Barkly {3KC-(border)} Goodenia nigrescens {3KC-}

Haloragis glauca forma glauca {3k} Heliotropium ballii {3k} Heliotropium geocharis {3k} Hibiscus panduriformis var. panduriformis {sthn NT (apparently rare)} *Indigofera polygaloides* {3k} *Iotasperma sessilifolia* {3k} *Ipomoea argillicola* {3r} Iseilema calvum {3k} Ixiochlamys integerrima {3K} *Maireana microcarpa* {3r} Mukia A90788 Tobermorey Station {3V} Oldenlandia argillacea {3kC-} Pennisetum basedowii {3k (border)}

Phyllanthus lacerosus {3KC-} Pimelea simplex subsp. continua {3r} Plantago cunninghamii {3k} Plantago multiscapa {3K} Polygala gabrielae {3KC-} Portulaca digyna {3r} Portulaca oligosperma {3kC-(border)}

Ptilotus aristatus var. exilis {2R} Ptilotus aristatus var. stenophyllus {2R} Pycnosorus eremaeus {3kC-} Rhodanthe gossypina {3k} Sida goniocarpa {3r} Sida laevis {3kC-} Sorghum grande {3rC- (border)} Teucrium albicaule {3r} Tribulopis sessilis {3kC- (border)} Urochloa atrisola {3K} Vittadinia pterochaeta {3r} Vittadinia pustulata {3kC-}.

5.2.5 Mulga-dominated Red earth Plains

Although they occur widely in the study area, red earth plains are most extensive in the Burt Plains bioregion. They are characterised by red earth soils and support extensive, often in reticulated clumps, Mulga (*Acacia aneura*) shrubland communities. Red earth soils are sometimes strewn with ironstone gravel and have hard crusted surfaces when dry. They are sandy to loamy at the surface, gradually becoming more clay-rich with increasing depth.

Rare, threatened and poorly known taxa for which **Mulga-dominated red earth plains** are an important habitat type in the study area include:

Acacia pachyacra {3k}	Eragrostis crateriformis {3k}	Grevillea nematophylla {3r (border)}
Aristida longicollis {3r}	Eragrostis lanicaulis {3k}	Hakea minyma {3k}
Austrostipa trichophylla {3rC-}	Eragrostis subtilis {3K}	Ophioglossum polyphyllum {3rC-}
Bulbostylis pyriformis {3rC-}	Eremophila battii {3r}	Ptilotus aervoides {3k}
Calotis cuneifolia {3k}	Eremophila clarkei {3r (border)}	Streptoglossa cylindriceps {3kC-}
Cleome oxalidea {3r}	Eremophila maculata var.	Swainsona formosa {3r}
Cuphonotus andraeanus {3r}	<i>brevifolia</i> {3r}	Tietkensia corrickiae {3r}
Digitaria hystrichoides {3r}	Eucalyptus sparsa {3K (border)}	Vittadinia pustulata {3kC-}.
Einadia nutans subsp. nutans {3rC-}	Goodenia centralis {3kC-}	

5.2.6 Gypsiferous Environments

Gypsum (calcium sulphate) can be a major component of the material that forms lunettes fringing the lee shore of ephemeral lakes in the study area (Hubble *et al.* 1983). Gypsum-rich environments are uncommon in the study area and occur most extensively in the Finke bioregion, particularly along the Karinga Creek system of saline playas.

Rare, threatened and poorly known taxa for which **Gypsiferous environments** are an important habitat type in the study area include:

Arabidella glaucescens {3r}	Lawrencia squamata {3k}	Sida everistiana {3r}
Dysphania sphaerosperma {3r}	Maireana appressa {3k}	Zygophyllum aurantiacum subsp.
Frankenia punctata {3r}	Minuria multiseta {3r}	<pre>simplicifolium {3k (border)}</pre>
Kippistia suaedifolia {3r}	Nitraria billardieri {3r}	Zygophyllum crassissimum {3KC-}.

5.2.7 Gidgee-dominated Plains

Plains dominated by *Acacia georginae* (Gidgee) occur extensively in the eastern part of the study area, particularly in the Burt Plain, Channel Country, Mitchell Grass Downs and Simpson-Strzelecki Dunefields bioregions. The understory below Gidgee stands is floristically variable. This variation encompasses areas dominated by short-lived grasses to areas (particularly on heavy soils) dominated by Mitchell Grass (*Astrebla* spp.).

Rare, threatened and poorly known taxa for which **Gidgee-dominated plains** are an important habitat type in the study area include:

Acacia D7472 Indiana Station {3r} Bergia diacheiron {3r} Cratystylis A36062 Glen Helen {3RC-} Eragrostis lanicaulis {3k} Eremophila dalyana {3rC-} Maireana dichoptera {3r (border)} Senna phyllodinea {3k} Sida D70364 Huckitta {3k} Sida everistiana {3r} Typhonium alismifolium {3r} Zygophyllum rowelliae {3k}.

5.2.8 Chenopod-rich Plains

This broad habitat includes areas dominated by *Maireana aphylla* (Cottonbush) or *M.astrotricha* (Southern Bluebush). This habitat is most extensive in the Finke bioregion, with smaller occurrences in several other bioregions.

Rare, threatened and poorly known taxa for which chenopod-rich plains are an important habitat type in the study area include:

Dissocarpus biflorus var. biflorus {3k} Eriochiton sclerolaenoides {3k} Eriochlamys behrii {3k} Maireana sedifolia {3rC-} Malacocera tricornis {3k} Minuria multiseta {3r} Pachycornia triandra {3r} Sclerochlamys brachyptera {3k} Sida intricata {3r} Swainsona formosa {3r}.

5.2.9 Fertile Alluvial Plains

Fertile alluvial plains are dispersed throughout the study area but are most extensive in the MacDonnell Ranges and Burt Plain bioregions. This habitat is floristically variable, the most extensive type in the study area being dominated by Ironwood (*Acacia estrophiolata*).

Rare, threatened and poorly known taxa for which **fertile alluvial plains** are an important habitat type in the study area include:

Atriplex angulata {3k}	Ixiochlamys nana {3kC-}	Oxalis radicosa {3kC-}
Erodium angustilobum {3kC-}	Millotia greevesii subsp. helmsii	Velleia macrocalyx {3r}.
Harmsiodoxa puberula {3rC-}	{3k}	

5.3 GRAVELLY RISES, HILLS AND RANGES

5.3.1 Laterite Rises and Breakaway Country.

Exposures of hardened soil profiles occur throughout the study area. Such areas are the dissected, deeply weathered remnants of old land surfaces. Distinctive landforms such as jump-ups, mesas and breakaways have resulted from the protection afforded by hard cappings of laterite, silcrete and indurated sediments. The typical landform in these distinctive landscapes often collectively referred to as "breakaway country' is a cliff-line at the edge of a retreating scarp above colluvial fans of broken capping (Hubble *et al.* 1983). These environments support many rare and threatened taxa. In particular, the heavily mineralized (and subsequently hardened) sub-soils such as mottled and pallid zone materials or sediments kaolinised or ferruginised through prolonged weathering support highly specialized floras and unusual plant communities.

Laterite is common in the north of the study area and covers large areas of the Tanami and Wakaya deserts – emerging from the sandplains as low rises. Rare, threatened and poorly known taxa for which **laterite rises** are an important habitat type in the study area include:

Acacia abbreviata {3R}	Acacia shirleyi {sthn NT (apparently	Acacia synchronicia {3k}
Acacia chisholmii {3r (border)}	rare)}	Bergia diacheiron {3r}

Brachyachne prostrata {3r}
Cleome oxalidea {3r}
Cyperus microcephalus subsp.
microcephalus {sthn NT (disjunct & apparently rare)}
<i>Fimbristylis squarrulosa</i> {sthn NT (disjunct & apparently rare)}
<i>Grevillea dryandri subsp. dryandri</i> {sthn NT (disjunct)}

- Heliotropium ballii {3k} Heliotropium epacrideum {3k} Heliotropium pulvinum {3K} Jacksonia aculeata {3k} Phyllanthus carpentariae {3k} Portulaca digyna {3r} Sclerolaena minuta {3k} Senna curvistyla {3k}
- Tephrosia uniovulata {3k} Terminalia aridicola subsp. aridicola {3r (border)} Trachymene villosa {3k} Trianthema glossostigma {3r} Triumfetta micracantha {sthn NT (apparently rare)} Zornia muriculata subsp. angustata {sthn NT (disjunct)}.

Rare and threatened plant taxa for which **breakaway country** is an important habitat type in the study area include:

- Acacia latzii {3V} Acacia nyssophylla {3k} Acacia pickardii {3V} Arabidella glaucescens {3r} Arabidella trisecta {3kC-} Atriplex fissivalvis {3r (border)} Atriplex quadrivalvata var. quadrivalvata {3r} Atriplex quinii {3r (border)} Cratystylis A36062 Glen Helen {3RC-} Dodonaea microzyga var. microzyga {3r} Enneapogon caerulescens var. caerulescens {3r} *Eremophila alternifolia* {3k}
- Eremophila rotundifolia {3r (border)} Eriochiton sclerolaenoides {3k} Eucalyptus thozetiana {3rC-} Frankenia cupularis {3r} Goodenia calcarata {3r (border)} Gunniopsis septifraga {3r} Lepidium strongylophyllum {3r} Maireana carnosa {3rC-} Maireana lobiflora {3k} Maireana pentatropis {3r} Maireana pentatropis {3r} Maireana schistocarpa {3k} Malacocera tricornis {3k} Olearia macdonnellensis {3VCi} Ophioglossum polyphyllum {3rC-}
- Pachycornia triandra {3r} Sclerochlamys brachyptera {3k} Sclerolaena birchii {3k} Sclerolaena densiflora {3r} Sclerolaena longicuspis {3r} Sclerolaena minuta {3k} Sclerostegia disarticulata {3rC-} Senna phyllodinea {3k} Sida everistiana {3r} Tetragonia eremaea {3k} Trichanthodium skirrophorum {3kC-} Zygophyllum crassissimum {3KC-}

5.3.2 Rises and Hills Composed of Basic Rocks

Rises and hills composed of basic rocks are widely distributed in the study area. Geology ranges from dolomite and limestone to calcrete (which in the broad sense incorporates the term travertine) and amphibolite. Rare, threatened and poorly known taxa for which **rises and hills composed of basic rocks** are an important habitat type in the study area include:

Acacia nyssophylla {3k}	Hibiscus pentaphyllus {sthn NT	Polymeria calycina {3k (border)}
Acrachne racemosa {3k}	(apparently rare)}	Sarcostemma brevipedicellatum {3k (border)} Sclerolaena parviflora {3r} Sida A90797 Rainbow Valley {3kC-}
<i>Commicarpus australis</i> {3r}	Hydrocotyle D62620 Harts Range	
Corchorus walcottii {3k}	{2 K }	
Dodonaga microzvag var	Kippistia suaeaifolia {3r}	
$microzvga \{3r\}$	Kohautia australiensis {3KC-}	Sida D70364 Huckitta {3k}
Dysphania sphaerosperma (3r)	Lamarchea sulcata {3k}	Swainsona acuticarinata {3kC-} Trichanthodium skirrophorum
	Lechenaultia lutescens {3k}	
Enneapogon caerulescens var.	Maireana appressa {3k}	{3kC-}
Enneapogon intermedius (3k)	Maireana pentatropis {3r}	Zygophyllum crassissimum {3KC-}
Fremophila alternifolia {3k}	Menkea sphaerocarpa {3rC-}	Zygophyllum ovatum {3r}
Eriochiton sclerolaenoides (3k)	Minuria tridens {3VCi}	Zygophyllum rowelliae {3k}.
Entochilon scientilaenolaes {5k}	Parietaria cardiostegia {3r}	
Eriochiamys benrii {3k}	Phyllanthus oblance olatus {3KC_}	
<i>Heliotropium glanduliferum</i> {3k}	i nyuaninus osianeeoianus (SKC-)	

5.3.3 Hills, Scarps and Ranges Composed of Predominantly Acid Rocks.

Rocky hills and ranges composed of predominantly acidic rocks cover extensive regions of the study area including much of the MacDonnell Ranges, Central Ranges and Davenport and Murchison Ranges bioregions. Common rock types include sandstone, quartzite, granite, gneiss and schist. These environments are characterised by outcropping of parent rock and gravelly or stony fragments of weathered or unweathered parent rock. The soils are typically shallow lithosols, sands and loams. The chemical characteristics of these soils are strongly influenced by the nature of the parent material and climate (Hubble *et al.* 1983) and vary widely across the study area.

Several significant taxa are restricted to the upper parts of the highest mountain ranges in the study area. Rare, threatened and poorly known taxa for which **hills, scarps and ranges composed of predominantly acid rocks** are an important habitat type in the study area include:

Abutilon lepidum {3r} Acacia A86979 Krichauff Range {2K} Acacia abbreviata {3R} Acacia ammobia {3RC-} Acacia auricoma {3K} Acacia conspersa {sthn NT (disjunct)} Acacia desmondii {3R} Acacia dolichophylla {2RC-} Acacia grasbyi {3rC-} Acacia hemsleyi {sthn NT (disjunct)} Acacia macdonnelliensis subsp. *teretifolia* {3k (border)} Acacia stipulosa {3k} Acacia symonii {3r (border)} Acacia synchronicia {3k} Acacia undoolyana {2VCi} Actinotus schwarzii {3VCa} Amaranthus macrocarpus {3k (border)} Amperea spicata {2RCa} Amyema miraculosa subsp. boormanii {3k} Arthropodium strictum {3rC-} Austrostipa aquarii {3RC-} Austrostipa centralis {3RC-} Austrostipa feresetacea {3RC-} Austrostipa trichophylla {3rC-} Babingtonia behrii {3r} Brachyachne prostrata {3r} Caesia A88425 Mt Zeil {3r} Caesia chlorantha {3r (border)} Cajanus acutifolius {sthn NT (disjunct & apparently rare)} *Callistemon pauciflorus* {3RC-} Cassinia laevis {3r} Centipeda A92472 Toko Range {3kC-} Chthonocephalus pseudevax {3r} Clematis microphylla var. microphylla {3rC-}

Corchorus pumilio {3kC-} Corymbia candida subsp. dipsodes {3k} Crotalaria dissitiflora var. dissitiflora {3k} Crotalaria novae-hollandiae subsp. novae-hollandiae {sthn NT (disjunct)} Cuphonotus andraeanus {3r} *Cymbopogon dependens* {3kC-} Cymbopogon refractus {sthn NT (disjunct & apparently rare)} Dampiera dentata {3r (border)} Daucus glochidiatus form ?D $\{3k\}$ Diodontium filifolium {3R (border)} Distichostemon barklyanus {3k} Einadia nutans subsp. nutans {3rC-} Elacholoma hornii {3rC-} *Enneapogon intermedius* {3k} Eremophila A90760 Arookara Range {2R} Eremophila cordatisepala {3r} Eremophila dalyana {3rC-} Eremophila elderi {3k} Eremophila hughesii subsp. hughesii {3k (border)} *Eremophila ovata* {3k} Eremophila rotundifolia {3r (border)} Eremophila serrulata {3k (border)} Eriachne scleranthoides {2RCa} *Eucalyptus cupularis* {3r} Eucalyptus lucens {3RC-} *Eucalyptus thozetiana* {3rC-} Euphorbia sarcostemmoides {3KCa} *Glycine clandestina s.lat.* {3rC-} Goodenia brunnea {3r (border)} Goodenia calcarata {3r (border)} Goodenia faucium {2R}

Goodenia havilandii {3rC-} Goodenia rupestris {2R (border)} Gossypium nelsonii {3RC-} Grevillea dryandri subsp. dryandri {sthn NT (disjunct)} Grevillea nematophylla {3r (border)} *Hakea grammatophylla* {3RC-} Hakea rhombales {3k} Hakea standleyensis {3RC-} Harnieria kempeana subsp. kempeana {3RC-} Heliotropium ballii {3k} *Heliotropium epacrideum* {3k} *Heliotropium inexplicitum* {3k} Hibbertia A86497 Chewings Range {3RC-} *Hibbertia glaberrima* {3rCa} *Hibiscus sturtii var. sturtii* {3rC-} Hydrocotyle A39600 Watarrka {2RC-} Indigofera A83977 Areyonga {2K} Isotropis centralis {3rC-} Lamarchea sulcata {3k} Leucopogon sonderensis {3RC-} Lomandra patens {3RCa} Macrozamia macdonnellii {3VCa} Melaleuca fulgens subsp. corrugata {3R (border)} Merremia A92973 Elliott {3k (border)} *Mirbelia ramulosa* {3rC-} *Monotaxis luteiflora* {3r} Neurachne tenuifolia {3RCa} *Olearia macdonnellensis* {3VCi} *Olearia xerophila* {3r} Ophioglossum lusitanicum {3rC-(cryptic)} Oxalis radicosa {3kC-} Ozothamnus A25067 Petermann Ranges {3K (border)}

Parietaria cardiostegia {3r} Phyllanthus erwinii {3k} Pimelea interioris {2RC-} Pimelea microcephala subsp. microcephala {3r} Plumbago zevlanica {sthn NT (disjunct)} Poranthera microphylla s.lat. {3rC-} Poranthera triandra {3rC-} Prostanthera centralis {3K} Ptilotus royceanus {3K (border)} Rhodanthe laevis {3r} Ricinocarpos gloria-medii {2VCa} *Rulingia rotundifolia* {3r} Sauropus ramosissimus {3KC-} Sauropus rigens {3rC-} Scaevola collina {3r (border)} Scaevola graminea {3R} Scaevola humilis {3k} Scaevola obovata {3K} Sclerolaena densiflora {3r} Sedopsis filsonii {3RC-}

Senecio glossanthus {3r (border)} Senna artemisioides subsp. symonii {3r} Senna phyllodinea {3k} Sida A83883 Petermann Ranges {2K (border)} Sida A90797 Rainbow Valley {3kC-} Sida calyxhymenia {3r} Sida D70364 Huckitta {3k} Sida everistiana {3r} Solanum lasiophyllum {3k} Spartothamnella puberula {3rC-} Stenanthemum A83203 Palm Valley {3RC-} Striga squamigera {3K} Swainsona colutoides {3rC-} Swainsona disjuncta {3k} Tephrosia oblongata {sthn NT (disjunct)} Terminalia savannicola {sthn NT (disjunct)} Thryptomene wittweri {3VC-} Trachymene bialata {3r} Trachymene ceratocarpa {3k}

Trachymene inflata {3RC-} *Trachymene villosa* {3k} *Trianthema glossostigma* {3r} *Tricoryne elatior s.lat.* {3rC-} Triodia helmsii {3r (border)} Triodia latzii {3k} Triumfetta centralis {3k} *Triumfetta chaetocarpa* {3k} Triumfetta clivorum subsp. *brevipetala* {3k} Triumfetta johnstonii {3k} *Triumfetta maconochieana* {3k} Triumfetta micracantha {sthn NT (apparently rare)} *Vittadinia pustulata* {3kC-} Wedelia verbesinoides {sthn NT (disjunct & apparently rare)} Wrixonia schultzii {3VC-} Yakirra muelleri {3k} Zornia muriculata subsp. angustata {sthn NT (disjunct)}.

5.3.4 Gorges

Steep-sided gorges provide shelter for plants from the high evapotranspiration rates of the arid zone. Protected from wind, continuous direct sunlight and fire, gorges are refuges for mesic species more commonly found in coastal and sub-coastal regions of the continent and they support a range of restricted endemic plant taxa. Many gorges are associated with permanent or semi-permanent freshwater (section 5.1.1) and there is some overlap in the suite of rare, threatened and poorly known taxa found in these habitats. Gorges that are sufficiently steep and/or deep to afford protection from desiccating wind and radiation are largely restricted to the MacDonnell Ranges, Davenport Murchison Ranges, Burt Plain, and Central Ranges bioregions. Most gorges of botanical importance are concentrated in the Chewings Range, Heavitree Range, James Range, George Gill Range, Belt Range (MAC), Petermann Range (CR) and Dulcie Range (BRT). The flora of gorges is relatively well known although further exploration may reveal additional sites of importance. Rare, threatened and poorly known taxa for which **gorges** are an important habitat type in the study area include:

Acacia dolichophylla {2RC-}CaAcacia undoolyana {2VCi}ChActinotus schwarzii {3VCa}ChAdiantum capillus-veneris {3vCi}miAdiantum hispidulum var.Cyhispidulum {sthn NT (disjunct)}CyAmperea spicata {2RCa}CyArthropodium strictum {3rC-}DaAustrostipa centralis {3RC-}ErAustrostipa feresetacea {3RC-}ErBacopa floribunda {sthn NT (disjunct & apparently rare)}EuBaumea arthrophylla {3vC-}Eu

Callistemon pauciflorus {3RC-} Christella dentata {sthn NT (threatened)} Clematis microphylla var. microphylla {3rC-} Cyclosorus interruptus {sthn NT (disjunct)} Cymbopogon dependens {3kC-} Doodia caudata var. caudata {3rC-} Eragrostis sterilis {3rC-} Eremophila ovata {3k} Eriachne benthamii {3kC-} Eriachne scleranthoides {2RCa} Eucalyptus lucens {3RC-} Euphorbia sarcostemmoides {3KCa} Fimbristylis sieberana {sthn NT (disjunct)} Glycine clandestina s.lat. {3rC-} Goodenia rupestris {2R (border)} Gossypium nelsonii {3RC-} Hakea grammatophylla {3RC-} Hakea standleyensis {3RC-} Harnieria kempeana subsp. kempeana {3RC-} Hibbertia A86497 Chewings Range {3RC-} Hibbertia glaberrima {3rCa} Hibscus sturtii var. sturtii {3rC-} Histiopteris incisa {3rC-} Hydrocotyle A39600 Watarrka {2RC-} Isolepis australiensis {3kC-(cryptic)} Juncus continuus {3rC-} Lepidium strongylophyllum {3r} Leucopogon sonderensis {3RC-} Lindsaea ensifolia subsp. ensifolia {sthn NT (rare)} Livistona mariae subsp. mariae {2VCa} Lomandra patens {3RCa} Lythrum paradoxum {3k} Macrozamia macdonnellii {3VCa} Nephrolepis arida {3KC-} Neurachne tenuifolia {3RCa} Olearia macdonnellensis {3VCi} Ozothamnus A25067 Petermann Ranges {3K (border)} Parietaria cardiostegia {3r} Pimelea interioris {2RC-} Polystichum proliferum {3k} Psilotum nudum {sthn NT (rare)} Ptilotus royceanus {3K (border)} Ricinocarpos gloria-medii {2VCa} Samolus eremaeus {3KC-} Sauropus ramosissimus {3KC-} Schoenus falcatus {sthn NT (disjunct & apparently rare)} Sedopsis filsonii {3RC-} Senecio glossanthus {3r (border)} Spartothamnella puberula {3rC-} Stenanthemum A83203 Palm Valley {3RC-} Teucrium grandiusculum subsp. grandiusculum {3KC-} Thryptomene wittweri {3VC-} Wrixonia schultzii {3VC-} Wurmbea centralis subsp. centralis {3RC-}.

6. Future Directions for Research and Management of Rare, Threatened and Poorly Known Taxa

The conservation codes assigned to significant plant taxa included in this report are far from stable and there is still a considerable amount of basic field survey and autecology that needs to be undertaken before stability can be achieved. The effort that goes into these activities must be balanced with the input required for research on threatening processes, monitoring and on-the-ground management of some significant species. This section briefly attempts to set out a framework for future research and management activities concerning rare, threatened and poorly known taxa occurring within the southern bioregions of the Northern Territory. Many significant taxa occur on Aboriginal land and research and management partnerships with Aboriginal people should be a priority. Such research would incorporate the aspirations of Aboriginal communities and provide appropriate payment for expertise. The practical application of Aboriginal traditional knowledge of plant species and arid ecosystems will be vital to the success of research and management activities. Those partnerships developed with Aboriginal communities over extended periods of time are likely to be the most successful in the long term.

6.1 TAXONOMIC RESEARCH

Systematic study of the arid zone flora over the past 20 years has resolved the taxonomy of much of the flora of arid NT. Over this period many new taxa have been described. Others have been recognised as distinct and await formal publication, including 48 undescribed taxa considered here to be rare, threatened or poorly known at the national or NT level. Future taxonomic work will largely focus on the resolution of species complexes, which may result in the recognition of additional significant taxa or show that some taxa included in this document are not distinct. Some of the taxa requiring further taxonomic study are identified in table 7.

6.2 TARGETED SURVEY

The lack of detailed distribution data remains the major impediment to resolving the conservation status of many taxa in the study area. All taxa recognised as poorly known require further fieldwork to resolve their conservation status, however as the number of poorly known taxa are so great, priority taxa must be identified so that conservation effort is allocated effectively. Priority taxa requiring targeted field survey are identified in table 7.

Undoubtedly further survey will reveal that many taxa currently considered poorly known or rare are in fact more widely distributed.

6.3 AUTECOLOGICAL RESEARCH

While our knowledge of the distribution of most plant taxa in the study area remains incomplete, our knowledge of their specific ecological requirements and responses is extremely rudimentary. For a number of rare and threatened species, basic autecological (single species) research is urgently required before appropriate conservation actions can be undertaken. Important autecological data includes habitat specificity, age structure of populations, flowering and fruiting phenology, germination ecology, palatability to herbivores and response to fire. Priority taxa requiring autecological research are identified in table 7.

The Alice Springs Herbarium is currently designing a database for storing taxon level ecological data.

6.4 EX-SITU COLLECTIONS OF RARE AND THREATENED PLANTS

While this document asserts the primacy of in-situ conservation of rare and threatened plants, ex-situ collections of selected rare and threatened taxa should be developed and maintained. In Alice Springs exsitu collections of rare, threatened or poorly known taxa have been developed at the Alice Springs Desert Park (ASDP) and Olive Pink Botanic Gardens. Collections at these institutions are in the form of live plants established in a naturalistic landscape. Such collections are important for awareness raising and for autecological and taxonomic research. ASDP also has a collection of potted plants in the nursery complex and a germplasm collection, both of which include rare, threatened and poorly known taxa. Both institutions are aware of the importance of collecting propagation material sensitively so that wild populations are not adversely effected.

6.5 THREATENING PROCESSES

The scale, nature and relative importance of threats to plant species in the study area requires detailed study. A number of broadscale processes that potentially threaten plant taxa are operating in the southern bioregions of the NT, including grazing (by both stock and feral animals), fire, weed invasion or combinations of these potential threats. Processes of acute concern with respect to rare and threatened plants are:

the ongoing invasion of introduced perennial grasses, principally *Cenchrus ciliaris* (Buffel Grass), *Cynodon dactylon* (Couch Grass) and *Dichanthium annulatum* (Sheda Grass). These grasses have had a catastrophic impact on some plant species and communities of the central parts of the MacDonnell Ranges bioregion. Both species continue to be deliberately introduced in parts of the study area for fodder or erosion control and have the capacity to disperse widely from the points of introduction. Preliminary studies have been undertaken to quantify the impact of *Cenchrus ciliaris* on plant biodiversity and examine the efficacy of several control options (Pitts and Albrecht, 2000). Further research of this nature is urgently required;

the impact of feral animals and stock on significant taxa, which is generally more acute near areas of permanent or temporary inundation;

the consequence of unfavourable fire regimes, which is mainly of concern for fire sensitive plant species.

6.6 SITE MANAGEMENT

In some instances and with some plant taxa, sufficient information is at hand to begin to address threatening processes such as weed invasion, visitor pressure and changing fire regimes. The consequences of implementing management measures must be carefully evaluated through detailed monitoring.

6.7 MONITORING

Monitoring rare and threatened plant populations is essential to evaluate or identify existing threats, anticipate potential threats and evaluate the effectiveness of various management programs. Monitoring should aim to be maintained over extended periods of time and should be intensified following unique or unusual environmental events such as fire, protracted drought or following heavy rainfalls. A small number of significant taxa are presently being monitored, and monitoring programs need to be established for several additional priority taxa, identified in table 7.

6.8 PRIORITIES FOR FURTHER WORK

The priorities for future research, survey, monitoring and management tasks of selected arid zone taxa are given in table 7. Taxa in the table are divided into priority groups based on conservation status. Within each group taxa are listed alphabetically by genus. Inevitably there has been an element of subjectivity in making the designations of conservation significance and this should be borne in mind when considering the prioritisation in Table 7. The prioritisation is based on both the 'conservation status' (V, v, R, r, K, k) component of the ROTAP (Briggs and Leigh, 1988) significance code, and on the 'distribution category' component (1, 2, 3). Distribution category 1 is set at a higher priority than 2, and category 2 at a higher priority than 3. This prioritisation is not definitive as a taxon with a small number of widely separated very restricted populations (category 3) could be a higher conservation priority than a category 2 plant that has a smaller geographic spread but is more abundant within that range. Despite this shortcoming the prioritisation presented in Table 7 provides a consistent and practical way of setting priorities. The categories are, from highest to lowest:

- 2V (vulnerable *nationally* with a geographic range *less* than 100 km)
- 3V (vulnerable *nationally* with a geographic range *more* than 100 km)
- 3v (vulnerable in the *NT* with a geographic range *more* than 100 km)
- threatened in southern NT
- 1K (only known from the type location and poorly known *nationally*)
- 1R (only known from the type location and rare *nationally* i.e. habitat is known to be rare)
- 2K (poorly known *nationally* with a geographic range *less* than 100 km)
- 2R (rare *nationally* with a geographic range *less* than 100 km)
- 3K (poorly known *nationally* with a geographic range *more* than 100 km)
- 3R (rare *nationally* with a geographic range *more* than 100 km)
- 3k (poorly known in the *NT* with a geographic range *more* than 100 km)
- 3r (rare in the NT with a geographic range more than 100 km)
- disjunct or range limit population of southern NT or bioregional significance.

Scientific Name {significance}	Action	
2V : vulnerable <i>nationally</i> with a geographic range <i>less</i> than 100 km		
Acacia undoolyana {2VCi}	Continue survey and monitoring. Protect sites from wildfire.	
Eremophila A48866 Rainbow Valley {2VCi}	Initiate autecological studies and monitoring. Site management, including further investigations into the use of fire as a management tool.	
Ipomoea A83192 Stirling {2V}	Urgent action required. Further autecological research, re-evaluation of threats, detailed monitoring and management of encroaching spinifex.	
Livistona mariae subsp. mariae {2VCa}	Continue regular monitoring.	
Ricinocarpos gloria-medii {2VCa}	Initiate monitoring of selected populations. Research active and potential threats.	

Acacia latzii {3V}	Conduct targeted survey. Continue monitoring. Initiate
	autecological studies.
Acacia peuce {3VCi}	Analyse existing monitoring data and determine future of monitoring program.
Acacia pickardii {3V}	Conduct targeted survey, monitoring of selected sites (with exclusion of grazing animals). Initiate autecological studies.
Macrozamia macdonnellii {3VCa}	Continue regular monitoring of selected populations. Autecological research. Initiate research on tissue culture.
Minuria tridens {3VCi}	Check that NT & WA populations are the same taxon. Continue monitoring and autecological research.
Mukia A90788 Tobermorey Station {3V}	Conduct targeted survey. Autecological research. Initiate monitoring.
Thryptomene wittweri {3VC-}	Check that NT & WA populations the same taxon. Active management and monitoring of threats continued.
Wrixonia schultzii {3VC-}	Conduct targeted survey. Research active and potential threats. Initiate monitoring if necessary.
3v : vulnerable in the <i>NT</i> with a geographic ra	ange <i>more</i> than 100 km
Adiantum capillus-veneris {3vCi}	Initiate monitoring. Research genetic divergence of study area populations.
Baumea arthrophylla {3vC-}	Initiate monitoring program.
Bolboschoenus caldwellii {3vC-}	Conduct targeted survey, particularly in the Finke Gorge area.
Nymphaea immutabilis subsp. immutabilis {3v}	Research active and potential threats. Monitoring selected sites.
threatened in southern NT	
Christella dentata {threatened in Sth NT}	Research genetic divergence of study area populations.
<i>Eleocharis geniculatus</i> {threatened in Sth NT}	Conduct targeted survey. Research active and potential threats. Initiate monitoring if necessary.

Frankenia stuartii {1K}	Conduct targeted survey (not collected in the study area since 1859).
Ptilotus A77612 Tanami Downs {1K (border)}	Taxonomic research. Conduct targeted survey.
Sida A32067 Horseshoe Bend {1K}	Conduct targeted survey (not collected in the study area since 1954)
Sporobolus latzii {1K}	Conduct targeted survey. Research active and potential threats. Initiate monitoring if necessary
Stackhousia D70123 Lake Mackay {1K}	Taxonomic research. Conduct targeted survey.

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1R : only known from the type location and rare <i>nationally</i> – ie. habitat is known to be rare			
Lindernia A4814 Willowra {1R}	Conduct targeted survey. Research active and potential threats.		
2K : poorly known <i>nationally</i> with a geograph	ic range <i>less</i> than 100 km		
Acacia A86979 Krichauff Range {2K}	Taxonomic and autecological research.		
Eucalyptus helenae {2K}	Conduct targeted survey. Initiate monitoring of selected stands.		
Indigofera A83977 Areyonga {2K}	Urgent action required to assess status. Conduct targeted survey. Research active and potential threats. Initiate monitoring if necessary.		
Sida A83883 Petermann Ranges {2K (border)}	Conduct targeted survey.		
2R : rare <i>nationally</i> with a geographic range <i>l</i>	ess than 100 km		
Eremophila A90760 Arookara Range {2R}	Taxonomic research. Initiate monitoring of main population.		
Goodenia faucium {2R}	Initiate monitoring.		
Goodenia rupestris {2R (border)}	Conduct targeted survey. Research active and potential threats. Initiate monitoring.		
Hydrocotyle D62620 Harts Range {2R}	Conduct targeted survey. Initiate monitoring. Autecological research.		
Ptilotus aristatus var. exilis {2R}	Taxonomic research. Continue monitoring of selected populations. Autecological research.		
Ptilotus aristatus var. stenophyllus {2R}	Taxonomic research. Continue monitoring of selected populations. Autecological research.		
3K : poorly known <i>nationally</i> with a geograph	ic range <i>more</i> than 100 km		
Atriplex morrisii {3K}	Conduct targeted survey (not collected in the study area since 1974).		
Comesperma viscidulum {3KC-}	Conduct targeted survey.		
Cullen walkingtonii {3KC-}	Conduct targeted survey and monitoring of potential threats investigated. Grazing exclosures recommended.		
Daviesia eremaea {3K}	Conduct targeted survey.		
Dicrastylis petermannensis {3K}	Conduct targeted survey (not collected in the study area since 1969)		
Eragrostis subtilis {3K}	Conduct targeted survey.		
Eremophila hughesii subsp. A28811 Bloods Range {3K}	Conduct targeted survey. Research active and potential threats.		
Eucalyptus sparsa {3K}	Conduct targeted survey. Research active and potential threats.		
Euphorbia sarcostemmoides {3KCa}	Autecological research, with emphasis on fire response.		
Goodenia A44284 Subsaline {3K}	Conduct targeted survey. Initiate monitoring if necessary.		
Goodenia anfracta {3KC-}	Study taxonomic relationship with G. maideniana. Conduct targeted survey. Research active and potential threats. Initiate monitoring.		
<i>Ozothamnus A25067 Petermann Ranges</i> {3K (border)}	Conduct targeted survey. Research active and potential threats. Initiate monitoring if necessary.		

3K continued		
Phyllanthus oblanceolatus {3KC-}	Conduct targeted survey.	
Pityrodia chorisepala {3K}	Conduct targeted survey.	
Pityrodia loricata {3K}	Conduct targeted survey.	
Prostanthera centralis {3K}	Conduct targeted survey. Research active and potential threats.	
Ptilotus royceanus {3K}	Conduct targeted survey.	
Scaevola obovata {3K}	Conduct targeted survey and regular monitoring of population.	
Schoenus centralis {3K}	Conduct targeted survey.	
Sclerolaena symoniana {3KC-}	Conduct targeted survey.	
Sida A88135 Hale River {3K}	Conduct targeted survey.	
Teucrium grandiusculum subsp. grandiusculum {3KC-}	Conduct targeted survey.	
3R : rare <i>nationally</i> with a geographic range <i>n</i>	nore than 100 km	
Acacia abbreviata {3R}	Investigate hypothesis that taxon is of hybrid origin. Conduct targeted survey.	
Austrostipa aquarii {3RC-}	Conduct targeted survey.	
Comesperma A77288 Tanami {3R}	Conduct targeted survey and autecological research (with an initial focus on fire response).	
Cratystylis A36062 Glen Helen {3RC-}	Initiate autecological studies and monitoring of selected populations.	
Diodontium filifolium {3R}	Conduct targeted survey and autecological research.	
Eleocharis papillosa {3R}	Continue monitoring of selected populations. Active management of weed invasions.	
Harnieria kempeana subsp. kempeana {3RC-}	Conduct targeted survey in the ranges to the west of Hermannsburg and Areyonga.	
Leucopogon sonderensis {3RC-}	Conduct targeted survey and monitoring of known populations.	
Marsilea latzii {3R}	Conduct targeted survey.	
Rhamphicarpa australiensis {3RC-}	Conduct targeted survey. Research active and potential threats. Initiate monitoring if necessary.	
Scaevola graminea {3R}	Taxonomic research. Conduct targeted survey.	
Trachymene inflata {3RC-}	Conduct targeted survey (not collected in the study area since 1983)	
Wurmbea centralis subsp. centralis {3RC-}	Conduct targeted survey. Initiate monitoring if necessary.	
3k : poorly known in the NT with a geographic range more than 100 km		
Acacia D64727 Barklys {3k}	Conduct targeted survey.	
Acacia pachyacra {3k}	Conduct targeted survey.	
Acacia prainii {3k}	Conduct targeted survey and autecological research (with an initial focus on fire response).	
Cullen discolor {3k}	Conduct targeted survey.	

3k continued	
Enneapogon intermedius {3k}	Taxonomic research.
Eragrostis crateriformis {3k}	Conduct targeted survey.
Eremophila serrulata {3k}	Conduct targeted survey.
Frankenia muscosa {3k}	Conduct targeted survey (not collected in the study area since 1913).
Heliotropium parviantrum {3k}	Conduct targeted survey (not collected in the study area since 1959)
Heliotropium sphaericum {3k}	Conduct targeted survey (not collected in the study area since 1948).
Hibiscus arenicola {3k}	Conduct targeted survey and autecological research
Indigofera ammobia {3k}	Conduct targeted survey.
Marsilea costulifera {3k}	Conduct targeted survey.
Newcastelia cladotricha {3k}	Conduct targeted survey.
Olearia arida {3k}	Conduct targeted survey (not collected in the study area since 1873)
Pennisetum basedowii {3k}	Conduct targeted survey. Research on grazing impacts and autecology.
Phyllanthus carpentariae {3k}	Taxonomic research.
Phyllanthus erwinii {3k}	Taxonomic research. Conduct targeted survey.
Polymeria A93357 Western Tanami {3k (border)}	Taxonomic research. Conduct targeted survey.
Polymeria calycina {3k (border)}	Conduct targeted survey.
Ptilotus blackii {3k}	Conduct targeted survey (not collected in the study area since the late 1800's).
Sauropus thesioides {3k}	Conduct targeted survey (not collected in the study area since 1885).
Scaevola humilis {3k}	Taxonomic research. Conduct targeted survey if necessary.
Sclerolaena limbata {3k}	Conduct targeted survey (not collected in the study area since 1962).
Swainsona cyclocarpa {3k}	Conduct targeted survey.
Triumfetta centralis {3k}	Conduct targeted survey.
Eriachne benthamii {3kC-}	Conduct targeted survey and occasional monitoring of known populations.
Ixiolaena tomentosa {3kC-}	Conduct targeted survey, informal monitoring of known populations initiated.
Oldenlandia argillacea {3kC-}	Taxonomic research. Conduct targeted survey of Petermann Range variant.
Tribulopis sessilis {3kC-}	Monitoring of known populations.

3r : rare in the <i>NT</i> with a geographic range <i>more</i> than 100 km	
Acacia chisholmii {3r}	Conduct targeted survey (not collected in the study area since 1948)
Acacia D7472 Indiana Station {3r}	Taxonomic research. Conduct targeted survey.
Atriplex pseudocampanulata {3r (border)}	Conduct targeted survey (not collected in the study area since 1957).
Atriplex quadrivalvata var. quadrivalvata {3r}	Conduct targeted survey (not collected in the study area since 1974).
Caesia chlorantha {3r (border)}	Taxonomic research. Conduct targeted survey.
Calotis xanthosioidea {3r}	Conduct targeted survey.
Cleome uncifera {3r}	Autecological research.
Eleocharis pusilla {3rC-}	Conduct targeted survey. Research active and potential threats. Initiate monitoring if necessary.
Eleocharis setifolia {3r}	Conduct targeted survey. Research active and potential threats. Initiate monitoring if necessary.
Eragrostis lanipes {3r}	Check identity of specimen referred to this species. Conduct targeted survey if necessary.
Eremophila clarkei {3r}	Conduct targeted survey.
Gunniopsis papillata {3r}	Conduct targeted survey (not collected in the study area since the 1880's).
Hibiscus brachychlaenus {3r}	Conduct targeted survey. Autecological research.
Histiopteris incisa {3rC-}	Research genetic divergence of study area populations.
Kippistia suaedifolia {3r}	Conduct targeted survey.
Maireana brevifolia {3rC-}	Conduct targeted survey. Undertake preliminary investigation of grazing impacts.
Maireana ovata {3r}	Conduct targeted survey.
Maireana sedifolia {3rC-}	Conduct targeted survey (not collected in the study area since 1962). Research active and potential threats. Initiate monitoring if necessary
Mirbelia ramulosa {3rC-}	Conduct targeted survey. Research active and potential threats. Initiate monitoring if necessary.
Murchisonia volubilis {3r}	Conduct targeted survey (not collected in the study area since the 1890's)
Olearia xerophila {3r}	Taxonomic research. Conduct targeted survey.
Ophioglossum gramineum {3r}	Conduct targeted survey. Research active and potential threats. Initiate monitoring if necessary.
Ophioglossum polyphyllum {3rC-}	Conduct targeted survey.
Pachycornia triandra {3r}	Autecological research.
Sclerolaena densiflora {3r}	Taxonomic research (specifically to investigate possibility that NT population a form of S. minuta).
Senna artemisioides subsp. glaucifolia {3r}	Taxonomic research. Conduct targeted survey.
Swainsona laxa {3r}	Conduct targeted survey.
Terminalia aridicola subsp. aridicola {3r}	Conduct targeted survey.
Vittadinia pterochaeta {3r}	Conduct targeted survey (not collected in the study area since 1979).

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disjunct or range limit population of southern NT or bioregional significance	
Abutilon andrewsianum {DAV (range disjunction and apparent rarity)}	Taxonomic research.
Adiantum hispidulum var. hispidulum	Research genetic divergence of study area populations.
{disjunct occurrences in Sth NT}	
Blumea diffusa {DAV (range disjunction)}	Conduct targeted survey.
Convolvulus remotus	Investigate distinctiveness of form growing on cracking
{MAC (disjunct), SSD(disjunct)}	clay.
Exocarpos sparteus {TAN (northern range limit)}	Taxonomic research.
Gonocarpus chinensis {disjunct occurrences in Sth NT}	Taxonomic research.
Triodia epactia {TAN (eastern range limit)}	Taxonomic research.

7. References

The references section is divided into two sections. Section 7.1 details all literature cited in both volumes of the report and section 7.2 details a general list of references used in the development of the annotations accompanying species (volume 1 part 2) and site descriptions (volume 2 part 2).

7.1 LITERATURE CITED

Airy Shaw, H.K. (1980) A Partial synopsis of the *Euphorbiaceae-Platylobeae* of Australia (excluding *Phyllanthus, Euphorbia and Calycopeplus*). Kew Bulletin Vol. 35 (3): 577-700.

Albrecht, D.E and Pitts, B (in press) *Vegetation Map of the Alice Springs Municipality and descriptions of vegetation types.* Greening Australia & Parks and Wildlife Commission of the Northern Territory, Alice Springs.

Albrecht, D.E, Duguid, A.W., Latz, P.K., Coulson, H. and Barritt, M.J (1997) *Vascular Plant Checklist for The Southern Bioregions of the Northern Territory: Nomenclature, Distribution and Conservation Status.* Parks and Wildlife Commission of the Northern Territory, Alice Springs.

Albrecht, D.E, Duguid, A.W.and Coulson, H. (1999) Vascular Plant Checklist for The Southern Bioregions of the Northern Territory: Update bulletin No. 1. Parks and Wildlife Commission of the Northern Territory, Alice Springs.

Beadle, N.C.W. (1981) The Vegetation of Australia. Cambridge University Press, Cambridge, UK.

Briggs, J.D. & Leigh, J.H. (1988) Rare or Threatened Australian Plants. Special Publication 14, ANPWS, Canberra.

Briggs, J.D. & Leigh, J.H. (1995) Rare or Threatened Australian Plants. Revised edn. CSIRO Publishing, Australia.

Buchanan, A.M. (ed.) (1995) A Census of the Vascular Plants of Tasmania. Tasmanian Herbarium Occasional Publication 5, Hobart.

Cronquist, A. (1981) An Integrated System of Classification of Flowering Plants. Columbia University Press, New York.

Chuk, M. (1982) The status and ecology of *Acacia peuce* in the Northern Territory Tech. Rpt. CCNT Vol. No. 2. Conservation Commission of the Northern Territory, Alice Springs.

Cunningham, G.M., W.E. Mulham, P.L. Milthorpe, and J.H. Leigh. (1981) Plants of western New South Wales. Government Printer: Sydney.

de Lange, P.J. and Norton, D.A. (1997) Revisiting rarity: a botanical perspective on the meanings of rarity and the classification of New Zealands uncommon plants. Seminar paper delivered in Alice Springs by David Norton.

Drinnan, A. (1998) 'Classification and phylogeny'. in Flora of Australia 48: 19-27. (ABRS/CSIRO, Australia).

Duguid, A. (1999) Protecting *Acacia undoolyana* from Wildfires: an Example of Off Park Conservation from Central Australia., Proceedings of Australian Bushfire Conference, Bushfire 99, Albury, Australia 7 – 9 July 1999.

Duguid, A.& Schunke, D.(1998) Final Report on Project No. 290, *Acacia undoolyana* (Undoolya Wattle) Species Recovery Plan (A report to the Threatened Species and Communities Section, Endangered Species Program, Biodiversity Group, Environment Australia). Parks and Wildlife Commission of the Northern Territory, Alice Springs.

Egan, J.L. (1996) Assessment of 'Poorly Known' (ROTAP category K or k) plant taxa in the Northern Territory. Project No. 490. Australian Nature Conservation Agency, Endangered Species Program.

Eldridge, S.R. (1996) A Preliminary Survey of the Distribution, Status and Basic Ecology of *Eremophila (prostrata)*. Report to the Australian Heritage Commission NEGP programme, National Threatened Species Network.

George, A.S. (ed.) (1981) Flora of Australia. Vol. 1. Australian Government Publishing Service, Canberra.

Green, J.W. (1985) Census of the Vascular Plants of Western Australia. 2nd edn. Western Australian Herbarium, Perth.

Halford, D.A. (1992) Review of the Genus Oldenlandia L. (Rubiaceae) and Related Genera in Australia. Austrobaileya 3(4): 683-722.

Hammerick, J.L. (1983) The distribution of genetic variation within and among plant populations. *in*: Genetics and conservation (eds C.M. Schonewald-Cox, S.M. Chambers, B. MacBryde and W.L. Thomas) Benjamin/Cummings, London.

Harden, G.J. (ed.) (1990-1993) Flora of New South Wales. Vols 1-4. New South Wales University Press, Kensington. (Cited as FI. NSW in checklist).

Henderson, R.J.F. (ed.) (1994) Queensland Vascular Plants: names and distribution. Queensland Herbarium, Indooroopilly.

Heywood, M.R. (1993) A survey on the current status of *Eucalyptus thozetiana* in the Northern Territory. Conservation Commission of the Northern Territory, Alice Springs.

Hubble, G.D., Isbell, R.F. and Northcote, K.H. (1983) 'Features of Australian soils'. *in* Soils: an Australian Viewpoint Division of Soils CSIRO. p:17-49. (CSIRO: Melbourne/Academic Press: London.)

Hunter, J.T. & Bruhl, J.J. (1997) Three new species of *Phyllanthus* (Euphorbiaceae: Phyllantheae) for the Northern Territory, one new species for Western Australia, and notes on other Phyllanthus species occurring in these regions. *Nuytsia* 11(2):147-163.

Isbell, R.F. and Hubble, G.D. (1983) 'Australian soil landscape regions – part (IV) North-eastern Plains'. *in* Soils: an Australian Viewpoint Division of Soils CSIRO. p:201-211. (CSIRO: Melbourne/Academic Press: London.)

IUCN. (1994) IUCN red list categories. IUCN Species Survival Commission, Kew.

Jessop, J.P. (ed.) (1981) Flora of Central Australia. The Australian Systematic Botany Society. A.H. & A.W. Reed, Sydney. (Cited as Fl. CA in checklist).

Jessop, J.P. (ed.) (1993) A list of the Vascular Plants of South Australia. Edn 4. Botanic Gardens of Adelaide & State Herbarium, Adelaide.

Jones, D.L. (1998) Marsileaceae, in A.E. Orchard (ed.). Flora of Australia. Vol. 8. Melbourne ABRS/CSIRO, Australia.

Keighery, G.J. & Rye, B.L. (1999) A taxonomic revision of *Trachymene* sect. Dimetopia (Apiaceae). Nuytsia 13(1):33-59.

Keith, D.A. (1997) An evaluation and modification of world conservation union red list criteria for classification oaf extinction risk in vascular plants. *Conservation Biology* 12(5):1076-1090.

Latz, P.K. (1992) Species recovery plan management phase: *Ipomoea ' polpha'* (ms) Johnson Report to the Australian National Parks & Wildlife Service, Endangered Species Program (proposal) CCNT, Alice Springs.

Latz, P.K. (1992b) Conservation research statement: *Acacia undoolyana* Leach. ANPWS Endangered Species Programme Project Proposal, March 1992. Conservation Commission of the Northern Territory, Alice Springs.

Latz, P.K., Kube, P.D. and Soos, A. (1989) Habitat, ecology and conservation of *Acacia undoolyana*. Technical Memorandum 89/1. Conservation Commission of the Northern Territory, Alice Springs.

Lazarides, M. (1995) The genus Eriachne (Eriachneae, Poaceae). Aust. Sys. Bot. 8(3):355-452.

Lazarides. M. (1997) A revision of Triodia including Plectrachne (Poaceae, Eragrostideae, Triodiinae). Aust. Sys. Bot. 10(3):381-489.

Leach, G.J., Dunlop, C.R., Barritt, M.J., Latz, P.K. and Sammy, N. (1992) Northern Territory Plant Species of Conservation Significance. Northern Territory Botanical Bulletin No. 13. Conservation Commission of the Northern Territory, Darwin.

Low, W.A., Dobbie, W.R. and Roeger, L. (1987) Resource appraisal of Birrindudu Station PL No. 559. Report to CCNT.

Maconochie, J.R. (1981) General plant ecology and biology of the Australian arid zone. *Conservation Commission of the Northern Territory, Northern Territory Botanical Bulletin* 4:1-19.

McIntyre, S. (1992) Risks associated with the setting of conservation priorities from rare plant species lists. *Biological Conservation* 60, p:31-37.

Northcote, K.H. (1983) 'Australian soil landscape regions – part (V) Central Southern Region'. *in* Soils: an Australian Viewpoint, Division of Soils CSIRO. p:211-219. (CSIRO: Melbourne/Academic Press: London.)

Northcote, K.H. and Wright, M.J. (1983) 'Australian soil landscape regions – part (I) Sandy Desert Region'. *in* Soils: an Australian Viewpoint, Division of Soils CSIRO. p:173-179. (CSIRO: Melbourne/Academic Press: London.)

Olde, P. & Marriott, H. (1995) The Grevillea book. Vol. 2. Kangaroo Press, Sydney.

Palmer, J. (1998) A taxonomic revision of Gomphrena (Amaranthaceae) in Australia. Aust. Sys. Bot. 11(1):73-151.

Pitts, B. (1994) West MacDonnell Ranges vegetation and soil survey. Parks and Wildlife Commission of the Northern Territory, Alice Springs. Parks and Wildlife Commission of the Northern Territory, Alice Springs, NT.

Pitts, B., Schunke, D. and Parsons, D. (1995) Species recovery plan for *Acacia undoolyana* - recovery action 2.4: GIS analysis. Parks and Wildlife Commission of the Northern Territory, Alice Springs, NT.

Pitts, B. & Albrecht, D.E. (2000) Buffel Grass (Cenchrus ciliaris) control in Central Australia. Danthonia 9(1): 7-8.

Rabinowitz, D. (1981) Seven forms of rarity. in The Biological Aspects of Rare Plant Conservation, ed. H. Synge. Wiley, New York, p:205-17.

Resit Akcakaya, H., Ferson, S., Burgman, M., Keith, D.A., Mace, G.M. and Todd, C.R. (2000) Making consistent IUCN classifications under uncertainty. *Conservation Biology* 14(4): 1001-1013.

Rodd, A.N. (1998) Revision of *Livistona* (Arecaceae) in Australia. *Telopea* 8(1): 49-153.

Ross, J.H. (ed.) (1996) A census of the Vascular Plants of Victoria. 5th edn. Royal Botanic Gardens, South Yarra.

Rye & Trudjen (1998) Two new synonyms in the genus Pityrodia (Lamiaceae subfamily Chloanthoideae). Nuytsia 12(2):297-300.

Slatyer, R.O. and Perry, R.A. (eds) (1969) Arid Lands of Australia. ANU Press, Canberra.

Soos, A. and Latz, P. (1987) The status and management of the native sweet potatoe *lpomoea polpha* in the Northern Territory. A report to the Heritage Commission and the Conservation Commission of the Northern Territory. Conservation Commission of the Northern Territoty.

Soos, A., Latz, P.K., and Kube, P.D. (1987) *Occurrence of two rare plant populations in the eastern MacDonnell Ranges*. Technical Memorandum 87/11. Conservation Commission of the Northern Territory, Alice Springs.

Symon, D.E., (1998) Senna phyllodinea a new combination in Senna (Caesalpiniaceae).. Adel. BotGar 18(2) 101-103.

Thackway, R. and Cresswell, I.D. (eds.) (1995) An Interim Biogeographic Regionalisation for Australia: a framework for establishing the national system of reserves, version 4.0. Australian Nature Conservation Agency, Canberra.

Thompson, J. (1993) A revision of the genus Swainsona (Fabaceae). Telopea 5(3):427-581.

Urban A. (1990) Wildflowers and Plants of Inland Australia. Portside Editions, Melbourne, Australia.

Vickery, J.W., Jacobs, S.W.L. & Everett, J. (1986) Taxonomic studies in Stipa (Poaceae) in Australia. Telopea (1):1-132.

Wheeler, J.R. (ed.) (1992) Flora of the Kimberley Region. Department of Conservation & Land Management, Como. (Cited as Fl. Kimb. in checklist).

Williams, O.B. and Calaby, J.H. (1985) The Hot Deserts of Australia. *in* M.Evenari, I.Noy-Meir and D.W.Goodall (eds). Hot Deserts and Arid Shrublands, A. Elsevier, Amsterdam.

Wilson, B.A., Brocklehurst, P.S., Clark, M.J. and Dickinson, K.J.M. (1990) Vegetation Survey of the Northern Territory, Australia. Conservation Commission of the Northern Territory.

7.2 ADDITIONAL REFERENCES

Adams, L.G. (1987) Philydraceae, in A.S.George (ed.) Flora of Australia. Vol.45:40-46. Australian Government Publishing Service, Canberra.

Anderberg, A.A., Karis, P. & El-Ghazaly, G. (1992) *Cratystylis,* an isolated genus of the Asteraceae-Cichorioideae. *Australian Systematic Botany* 5 (1):81-94.

Anderson, D. and Low, W.A. (1986) Resource appraisal of Orange Creek Gorge east end of Waterhouse Range Owen Springs Station. Report to CCNT.

ANZECC (1999) Threatened Australian Flora. Prepared by the ANZECC Endangered Flora Network. Australian and New Zealand Environment and Conservation Council.

Baijnath, H. (1978) A new species of Bulbine (Liliaceae) from Australia. Brunonia I (I):117-120.

Barker, R.M. (1986) A taxonomic revision of Australian Acanthaceae. J. Adelaide Bot. Gard. 9:1-286.

Barker, R.M. (1998) A trial key and notes on *Tribulus* (Zygophyllaceae) in Australia, including one new species and validation of *Tribulus* suberosus. Nuytsia 12(1):9-35.

Barker, W.R. (1982) Evolution, adaptation and biogeography in arid Australian Scrophulariaceae. in W.R.Barker & P.J.M.Greenslade (eds) Evolution of the flora and fauna of arid Australia.

Barker, W.R. (1984) Stackhousiaceae. in A.S.George (ed.) Flora of Australia Vol. 22: 186-199. Australian Government Publishing Service.

Barker, W.R. (1985) Taxonomic notes on *Hakea* Schrader (Proteaceae) mainly relating to South Australia. *J. Adelaide Bot. Gard.* 7(3): 233-247.

Barker, W.R.(1990) New taxa, names and combinations in *Lindernia, Peplidium Striga* and *Stemodia* (Scrophulariaceae) mainly of the Kimberley region. Western Australia. *J. Adelaide Bot. Gard.* 13:79-93.

Barker, W.R. (1992) New Australian species of Peplidium and Glossostigma (Scrophulariaceae) J. Adelaide Bot. Gard. 15(1):71-74.

Barker, W.R., Barker, R.M. & Haegi, L. (1999) *Hakea in* A.E. Orchard, H.S. Thompson and P.M. McCarthy (eds) Flora of Australia Vol. 17B:1-170. Melbourne ABRS/CSIRO Australia.

Barlow, B.A.(1982) Supplement to a revision of the Loranthaceae of Australia. Brunonia 5(2) 203-212.

Barlow, B A. (1984) Loranthaceae. in A.S. George (ed.) Flora of Australia Vol. 22:67-131 Australia Government Publishing Service. Canberra.

Barlow, B.A. (1996) Advances in systematic knowledge of Australian Loranthaceae and Viscaceae: a review. Telopea 6(4): 851-62.

Bedford, D.J. (1986) *Xanthorrhoea. in* A.S. George (ed.) Flora of Australia Vol. 46:148-169 Australia Government Publishing Service. Canberra.

Belcher, R.O. (1993) The *Senecio* aff. *lautus* complex (Asteraceae) in Australia. I. Criteria for exclusion of lautusoid *Senecio* of Australia from *S. lautus sensu stricto* of New Zealand. *Australian Systematic Botany* 6(4): 359-363.

Benl, G. (1983) Taxonomic studies on Ptilotus R.Br. (Amaranthaceae) in Western Australia. Nuytsia 4 (3):263-274.

Benl, G. (1984) New taxa in *Ptilotus* R Br. (Amaranthaceae) from the Northern Territory. *Muelleria* 5(4):249-261.

Bennett, E.M. (1972) A revision of the Australian species of Hybanthus Jacquin (Violaceae). Nuytsia 1(3):218-241.

Bittrich, V. (1990) A new species of Trianthema (Aizoaceae) from the Kimberley region and a note on T.triquetra. Nuytsia 7 (2): 117-122.

Blake, S.T. (1968) A revision of Melaleuca leucadendron and its allies (Myrtaceae). Contr. Queensland Herb. No. 1:1-14.

Blake, S.T.(1971) Revision of *Plectranthus* (Labiatae) in Australasia. Contr. Queensland Herb. No. 9:1-120.

Blake, S.T.(1972) Neurachne and its allies (Gramineae). Contr. Queensland Herb. No. 13:1-53.

Bean, A.R. (1999) A Revision of *Stylidium* sect. *Debilia* Mildbr., *S.* sect. *Floodia* Mildbr. and *S*.sect. *Lantana* A.R.Bean (Stylidiaceae). *Austrobaileya* 5(3): 405-586.

Bean, A.R. (1999) Reinstatement of the Genus Babingtonia Lindl. (Myrtaceae, Leptospermoideae). Austrobaileya 4(4): 627-647.

Blake. ST. (1974) Revision of the genera Cymbopogon and Schizachyrium (Gramineae) in Australia. Contr. Queensland Herb. No. 17:1-70.

Boomsma. C.D. (1979) Four new species of Eucalyptus L'Herit. From South Australia. J. Adelaide Bot. Gard. 1(6):361-370.

Bowman, D.M.J.S., Wilson, B.A., and Dunlop, C.R. (1988) Preliminary biogeographic analysis of the Northern Territory vascular flora. *Australian Journal of Botany* 36, 503-517.

Bowman, D.M.J.S., Latz, P.K. & Panton, W.J. (1994) Pattern and change in an *Acacia aneura* shrubland and *Triodia* Hummock Grassland Mosaic on Rolling Hills in Central Australia. *Aust. J. Bot.* 43:25-37.

Boyland, D.E. (1970) Ecological and floristic studies in the Simpson Desert National Park, South Western Queenland. *Proc.R.Soc.Qld.* 82(1): 1-16.

Briggs. B.G (1980) *Plantago multiscapa* a new species from eremaean Australia, and notes on *Plantago* in Western Australia. *Telopea* 2(I):77-81.

Briggs. B.G. (1982) Tamaricaceae. *in* A. S. George (ed.) Flora of Australia Vol. 8:111-112. Australian Government Publishing Service, Canberra.

Briggs. B.G. (1987) Typhaceae. *in* A. S. George (ed.) Flora of Australia Vol. 45:8-11. Australian Government Publishing Service, Canberra. Briggs, B.G. & Johnson, L.A.S. (1968) The status and relationships of the Australasian species of *Typha. Contr. New South Wales National Herb.* 4(2):57-69.

Brittan. N.H. (1981) Revision of the genus *Thysanotus* K. Br. (Liliaceae). *Brunonia* 4(1): 67-181.

Brittan. N.H. (1987a) Dichopogon. in A. S. George (ed.) Flora of Australia Vol. 45:345-348. Australian Government Publishing Service,

Brittan. N.H. (1987b) *Murchisonia. in* A. S. George (ed.) Flora of Australia Vol. 45:340-341. Australian Government Publishing Service, Canberra.

Brittan. N.H. (1987c) *Thysanotus. in* A.S. George (ed.) Flora of Australia. Vol. 45:308-339. Australian Government Publishing Service. Canberra.

Brooker, M.I.H. & Kleinig, D.A. (1994) Field guide to Eucalypts. Vol. 3. Inkata Press, Sydney.

Brooker, M.I.H. & Slee, A.V. (1994) *Eucalyptus* series *Brevifoliae* (Myrtaceae) a new series of northern Australian Eucalypts. *Nuytsia* 9(3):307-314.

Brooker, M.I.H., Slee, A.V. and Briggs, J.D. (1995) A taxonomic revision of *Eucalyptus* ser. *Argyrophyllae*. *Australian Systematic Botany* 8(4): 499-520 11 refs, illus.

Brooker, M.I.H. and Slee, A.V. (1994) *Eucalyptus* series *Brevifoliae* (Myrtaceae), a new series of northern Australian eucalypts. *Nuytsia* 9(3): 307-314 11 refs, illus.

Brooker, M.I.H. and Slee, A.V. (1995) *Eucalyptus* series *Preissianae* (Myrtaceae), a new series of Western Australian eucalypts and the description of a new subspecies in the series. *Nuytsia* 10(1): 7-13 9 refs, illus.

Brummitt, R.K. & Powell, C.E. (1992) Authors of Plant Names. The Royal Botanic Gardens, Kew.

Buckley, R. (1981a) Soils and vegetation of Central Australian Sandridges /. Introduction. Aust.J. Ecol. 6(3): 345-351.

Buckley, R. (1981b) Soils and vegetation of Central Australian Sandridges *II.* Sandridge vegetation of the Uluru National park area, Northern Territory, Australia. *Aust.J.Ecol.* 6(3): 391-404.

Buckley, R. (1981c) Soils and vegetation of Central Australian Sandridges *III*. Sandridge vegetation of the Simpson Desert. *Aust.J.Ecol.* 6(3): 405-422.

Burbidge, N.T. (1953) The genus Triodia R.Br. (Gramineae) Australian Journal of Botany 1:121-184.

Burbidge, N.T. (1960) Further notes on *Triodia* R.Br. (Gramineae) with descriptions of five new species and one variety. *Australian Journal of Botany* 8:381-394.

Burbidge, N.T. (1960) The phytogeography of the Australian Province. Aust.J.Ecol. 8: 75-211.

Burbidge, N.T. (1980) Psoralea pallida a new species of Fabaceae from arid Australia. Telopea 2(1):127-128.

Burbidge, N.T. (1982) A revision of *Vittadinia* A. Rich. (Compositae) together with reinstatement of *Eurybiopsis* DC. and a description of a new genus, *Camptacra. Brunonia* 5(1):1-72.

Byrnes, N.B. (1977) A revision of Combretaceae in Australia. Contr. Queensland Herb. No. 20:1-88.

Byrnes, N.B. (1986) A revision of Melaleuca L. (Myrtaceae) in northern and eastern Australia. Austrobaileya 2(3):254-273.

Carolin. R. (1980) New species and new combinations in Goodeniaceae and Campanulaceae. Telopea 2 (1): 63-75.

Carolin. R. (1990) Nomenclatural notes, new taxa and the systematic arrangement in the genus *Scaevola* (Goodeniaceae) including synonyms *Telopea* 3(4):477-515 Government Publishing Service. Canberra.

Carolin. R. (1990) Nomenclatural notes, new taxa and the systematic arrangement in the genus *Goodenia* (Goodeniaceae) *Telopea* 3(4):517-570.

Carolin. R (1992) Brunoniaceae. in A. S. George Vol. 35:1-3. Australian Government Publishing Service, Canberra.

Carolin, R., Rajput, M.T.M. & Morrison, D. (1992) Goodeniaceae. *in* A.S. George (ed.), Flora of Australia Vol. 35:4-334 Australian Government Publishing Service, Canberra.

Carrick, J. (1976) Studies in Australian Lamiaceae. 1 The genus Wrixonia F.Muell. (Prostantheroideae) J. Adelaide Bot. Gard. 1(1):27-34.

Carrick, J.S. & Chorney, K. (1979) A review of Melaleuca L. (Myrtaceae) in South Australia. J. Adelaide Bot. Gard. 1(5):281-319.

Chambers, T.C. &. Farrant, P.A. (1991) A re-examination of the genus Cheilanthes (Adiantaceae) in Australia. Telopea 4(3):509-557.

Chambers, T.C. & Farrant, P.A. (1992) *Cheilanthes nudiuscula* (R. Brown) T.Moore, previously *C. hirsuta* (Poiret) Mett. *Telopea* 5 (1): 291-292.

Chapman, A.D. (1991) Australian Plant Name Index (4 Volumes). Australian Flora and Fauna Series Number 12-15. Australian Biological Resources Study. Australian Government Printing Service, Canberra.

Chapman. A.R. & Maslin, B.R. (1992) *Acacia* Miscellany 5.A review of the *A. bivenosa* group (Leguminosae:Mimosoideae:Section *Phyllodineae*) . *Nuytsia* 8(2): 249-283.

Chew. W.-L. (1989a) Moraceae. in A.S.George (ed.) Flora of Australia. Vol. 3:15-68. Australian Government Publishing Service, Canberra.

Chew. W.-L. (1989b) Urticaceae. in A.S. George (ed.) Flora of Australia Vol. 3:68-93, Australian Government Publishing Service, Canberra.

Chinnock, R.J. (1979) Ten new species of Eremophila (Myoporaceae) from central and western Australia. J. Adelaide Bot. Gard. 1(4):237-262.

Chinnock, R.J (1980) The genus Malacocera R.H. Anderson (Chenopodiaceae). J. Adelaide Bot. Gard. 2(2):139-149.

Chinnock, P.J. (1983) The Australian genus Gunniopsis Pax (Aizoaceae). J. Adelaide Bot. Gard. 6(2):133-179.

Chippendale, G.M. (1960) Contributions to the flora of Central Australia, No. 1. Trans. Roy. Soc. S. Aust. 83:199-203.

Chippendale, G.M. (1961) Contributions to the flora of Central Australia, No. 2. Trans. Roy. Soc. S. Aust. 84:99-103.

Chippendale, G.M. (1963a) The relic nature of some central Australian Plants. Trans. Roy. Soc. S. Aust. 86:31-34.

Chippendale, G.M. (1963b) Ecological notes on the Western Desert area of the Northern Territory. Proc. Linn. Soc. N.S.W. 88(1): 54-68.

Chippendale, G.M. (1988) *Eucalyptus, in* A.S.George (ed.) Flora of Australia Vol. 19:1-448. Australian Government Publishing Service, Canberra.

Conn, B.J. (1988) A taxonomic revision of *Prostanthera* Labill. Section *Prostanthera* (Labiatae) 1. The species of the Northern Territory, South Australia and Western Australia. *Nuytsia* 6(3):351-411.

Conn, B.J. (1994) Revision of Logania R.Br. Section Stomandra (R.Br.) DC. (Loganiaceae) Telopea 5(4): 657-692.

Conn, B.J. (1995) Taxonomic revision of Logania section Logania (Loganiaceae) Aust. Sys. Bot. 8(4):585-665.

Conn, B.J., Brown, E.A. & Dunlop, C.R. (1996) Loganiaceae in A.E. Orchard (ed.) Flora of Australia Vol 28: 1-72. Melbourne : CSIRO Australia.

Conran, J.G. & Lowrie, A. (1993) *Byblis liniflora* subsp. *occidentalis* (Byblidaceae) A new subspecies from north-western Australia. *Australian Systematic Botany* 6(2):175-179.

Cooke, D.A. (1985) Studies in the tribes Astereae and Inuleae (Compositae). J. Adelaide Bot. Gard. 7(3): 273-287.

Cooke, D.A (1992) A taxonomic revision of Centrolepis (Centrolepidaceae) in Australia. J. Adelaide Bot. Gard. 15(1): I-63.

Cooke, D.A. & Davies, R.J-P. (1990) A contribution to the taxonomy of Triglochin (Juncaginaceae) J. Adelaide Bot. Gard. 13:43-47.

Cowan, R.S. & Maslin, B.R (1993) *Acacia* Miscellany 9. The taxonomic status of *Acacia coriacea* (Leguminosae : Mimosoideae: Section *Plurinerves*) *Nuytsia* 8(2): 249-283.

Cowan, R.S. (1998) Neptunia in A.E. Orchard (ed.) Flora of Australia Vol 12:21-27. Melbourne, CSIRO Australia.

Cowie, 1.D. (1994) Three new species, a new name and notes on Australian Polycarpaea (Caryophyllaceae). Nuytsia 9(3):319-332.

Cowley, K.J., Quinn, F.C., Barlow, B.A. & Craven, L.A. (1990) Contributions to a revision of *Melaleuca* (Myrtaceae): 7-10. *Australian Systematic Botany* 3 (2): 165-202.

Craven, L.A. (1987) A taxonomic revision of *Calytrix* Labill. (Myrtaceae). *Brunonia* 10(1):1-138.

Craven, L.A. (1996) A taxonomic revision of Heliotropium (Boraginaceae) in Australia. Aust. Sys. Bot. 9(4):521-657.

Crisp, M.D. (1980) *Daviesia* and *Leptosema* (Fabaceae) in central Australia: new species and name changes. *J. Adelaide Bot. Gard.* 2(3): 271-276.

Crisp, M.D. (1982) Evolution and biogeography of *Leptosema* (Leguminosae:Papilionoideae) *in* W.R. Barker & P.J.M.Greenslade (eds) Evolution of the flora and fauna of arid Australia: p: 317-322. Australian Systematic Botany Society.

Crisp, M.D. & Taylor, J.M. (1987) Notes on *Leptosema* and *Mirbelia* (Leguminosae-Papilionoideae) in central Australia. *J. Adelaide Bot. Gard.* 10(1):131-143.

Crisp, M.D. (1999) Revision of Leptosema (Fabaceae: Mirbelieae). Aust. Sys. Bot. 12(1):1-54.

Croker, R.L. (1946) The Simpson Expedition, 1939. Scientific Reports: No.8 - The soils and vegetation of the Simpson Desert and its borders. *Trans.R.Soc.Aust.* 70: 235-258.

Cunningham, G.M., W.E. Mulham, P.L. Milthorpe, and J.H. Leigh. (1981) Plants of western New South Wales. Government Printer: Sydney.

de Preu, N. (1994) A preliminary survey of the distributional range of two varieties of *Ptilotis aristatus* Benl. Rpt to the National Estates Grants Program, Central Australian Conservation Council.

Doust, A.N. & Conn, B.J. (1994) .Xyris L. Section Xyris (Xyridaceae) in Australia. Australian Systematic Botany 7(5):455-484.

Dunlop, C.R. (ed.) (1989) Checklist of Vascular Plants of the Northern Territory. Conservation Commission of the Northern Territory. (Cited as Checklist NT edn 1 in checklist).

Dunlop, C.R. (1980a) Dichromochlamys, a new genus in Asteraceae (Astereae). J. Adelaide Bot. Gard. 2(3) 235-239.

Dunlop, C.R. (1980b) A revision of *lxiochlamys* (Asteraceae:Astereae). J. Adelaide Bot Gard. 2(3)-241-252.

Dunlop, C.R. (1981) A revision of the genus Streptoglossa (Asteraceae:Inuleae). J. Adelaide Bot Gard. 3(2):167-182.

Dunlop, C.R., Leach, G.J., Latz, P.K., Barritt, M.J., Cowie, I.D. and Albrecht, D.E. (1995) Checklist of the Vascular Plants of the Northern Territory, Australia, Family Ordered. Conservation Commission of the Northern Territory, Unpublished.

Eichler, H (1990) Four new species of Zygophyllum (Zygophyllaceae) and one lectotypification. Telopea 4(1):13-17.

Everett, J & Doust, A.N.L. (1992) New species and a new combination in Pycnosorus (Asteraceae: Gnaphalieae). Telopea 5(1):39-43.

Fatchen, T.J. & Baker, S. (1979a) Cyclic vegetation pattern in the Southern Simpson Desert. Trans. R. Soc. S. Aust. 103(5): 113-121.

Fatchen, T.J. & Baker, S. (1979b) Gradients in the distribution of plant species in the southern Simpson Desert. Aust.J.Bot.. 27: 643-656.

Fleming, M.R. & Piercey, B.A. (1982) A fauna survey of Marble Gum Woodland to the North of Lake Amadeus. Wildlife Research Section, Internal Rpt. CCNT, Darwin.

Fogarty, P. & Wood, B. (1980) The land systems of the Todd River catchment. Tech. Rpt. Land Conservation Unit, CCNT Darwin.

Forster, P.I. (1990) Notes on Asclepiadaceae. 2. Austrobaileya 3(2):273-289.

Forster, P.I. (1991a) A taxonomic revision of Cynanchum L. (Asclepiadaceae: Asclepladoideae) in Australia. Austrobaileya 3(3):443-466.

Forster, P.I. (1991b) A taxonomic revision of *Gymnanthera* R. Br. (Asclepiadaceae:Periplocoideae) in Australia. *Australian Systematic Botany* 4(3):563-569.

Forster, P.I. (1992a) A taxonomic revision of Carissa (Apocynaceae) in Australia. Australian Systematic Botany 5(5)581-591.

Forster, P 1. (1992b) A taxonomic revision of *Sarcostemma* R.Br. Subgenus *Sarcostemma* (Asclepiadaceae: Asclepiadeae) in Australia. *Australian Systematic Botany* 5(1):53-70.

Forster, P.I. (1992c) A taxonomic account of the genus Calotropis RBr. (Asclepiadaceae) in Australia. Nuytsia 8(2):201-208.

Forster, P.I. (1994) Notes on Dansiea Brynes and Macropteranthes F. Muell. (Combretaceae). Austrobaileya 4(2):149-153.

Forster, P.I. (1995) Circumscription of *Marsdenia* (Asclepiadaceae: Mardenieae), with a revision of the genus in Australia and Papuasia. *Aust. Sys. Bot.* 8(5):703-933.

Forster, P.I., Liddle, D.J. & Nicholas, A. (1996) Asclepiadaceae *in* A.E. Orchard (ed.) Flora of Australia Vol. 28:197-283. Melbourne : CSIRO Australia.

Franklin, D. (in prep.) English Names for Northern Territory Plants.

George, A.S. (1972) A revision of the genus Lamarchea Gaudichaud (Myrtaceae:Leptospermoideae). Nuytsia 1(3):270-276.

George, A.S. (1982) Gyrostemonaceae. *in* A.S.George (ed.) Flora of Australia Vol. 8:362-379. Australian Government Publishing Service, Canberra.

George, A. S. (1984) Olacaceae. in A.S.George (ed.) Flora of Australia Vol. 22: 13-25. Australian Government Publishing Service, Canberra.

Gibson, D.F., Kube, P.D., Ginns, A.J., Cole, J.R., & Parsons, D.J. (1989) A resource survey of the Dulcie Range, Northern Territory. Unpublished report. (CCNT: Alice Springs).

Gibson, D.F., Latz, P.K., Cole, J.R., Wurst, P.D., & Parsons, D.J. (1994) Flora and fauna survey of the Wakaya Desert N.T. (CCNT: Alice Springs).

Ginns, A., Fleming, M. & Latz, P. (1983a) Resource appraisal of Pine Hill Station PL No. 648. Report to CCNT.

Ginns, A., Fleming, M. & Latz, P. (1983b) Resource appraisal of Austral Downs Station PL No. 530. Report to CCNT.

Ginns, A., Fleming, M. & Latz, P. (1983c) Resource appraisal of Amaroo Station PL No. 791. Report to CCNT.

Graetz, R.D., Tongway, P.J. & Pech, R.P. (1982) An ecological classification of the lands of the Southern Simpson Desert and its margins. CSIRO Division of Wildlife and Rangelands Research Tech. Memo. 82/2. Deniliquin.

Green, J.W. (1980) Thryptomene and Micromyrtus (Myrtaceae) in arid and semi-arid Australia. Nuytsia 3(2): 183-209.

Griffin, G. (1973) Notes on the anomalous plant life of the Finke Gorge National Park and its conservation. Northern Territory Reserves Board, Alice Springs.

Griffin ,G.F. (1993) CSIRO/CCNT Bushfires Research Project 1-12 Vols. Characteristic of three spinfex communities in Central Australia. CSIRO & CCNT.

Grimes, J.W. (1997) A revision of Cullen (Leguminosae: Papilionoideae). Aust. Sys. Bot. 10(4):565-648.

Gross, C.L. & Whalen, M.A. (1996) A revision of Adriana (Euphorbiaceae). Aust. Sys. Bot. 9(5):749-771.

Guymer, G.P. (1988) A taxonomic revision of Brachychiton (Sterculiaceae). Australian Systematic Botany 1 (3): 199-323.

Halford, D.A (1990) Six new species of Hedyotis L. (Rubiaceae) from Northern Australia. Austrobaileya 3(2):203-214.

Halford, D.A (1991) The genus Kohautia Cham. et Schlecht. (Rubiaceae) in Australia. Austrobaileya_3(3):439-442.

Halford, D.A. (1992) Review of the genus Oldenlandia L. (Rubiaceae) and related genera in Australia. Austrobaileya 3(4):683-722.

Halford, D.A. (1993) Notes on Tiliaceae in Australia, 1. Austrobaileya 4(1):75-85.

Halford, D.A. (1995) Notes on Tiliaceae in Australia, 2. A revision of the simple-haired species of the genus *Corchorus* L.. *Austrobaileya* 4 (3): 297-320.

Halford, D.A. (1997) Notes on Tiliaceae in Australia, 3. A revision of the genus Trumfetta L.. Austrobaileya 4(4): 495-589.

Hassall, D.C. (1982) Distribution and evolution of *Euphorbia* and *Chamaesyce* (Euphorbiaceae) in the arid zone of Australia. *in* W.R.Barker & P.J.M.Greenslade (eds), Evolution of the flora and fauna of arid Australia. 323-328. Australian Systematic Botany Society.

Henderson, R.J.F. (1987a) *Caesia. in* A. S. George (ed.), Flora of Australia. Vol. 45:281-288. Australian Government Publishing Service, Canberra.

Henderson, R.J.F. (1987b) *Corynotheca. in* A. S. George (ed.) Flora of Australia. Vol. 45:299-306. Australian Government Publishing Service, Canberra.

Henderson, R.J.F. (1992) Studies in Euphorbiaceae A.L.Juss., *sens.lat.* I. A revision of *Amperea* Adr. Juss. (Acalyphoideae Ascherson, Ampereae Muell. Arg.) *Australian Systematic Botany* 5 (1): 1-27.

Hewson, H.J. (1987a) *Asphodelus in* A.S. George (ed.) Flora of Australia. Vol. 45:232-234. Australian Government Publishing Service, Canberra.

Hewson, H.J. (1987b) *Crinum. in* A.S. George (ed.) Flora of Australia. Vol. 45:369-375. Australian Government Publishing Service, Canberra. Hewson, H.J. (1982a) Capparaceae. *in* A.S. George (ed.) Flora of Australia. Vol. 8:207-231. Australian Government Publishing Service, Canberra

Hewson, H.J. (1982b) Brassicaceae. *in* A.S. George (ed.) Flora of Australia. Vol. 8:231-357. Australian Government Publishing Service, Canberra.

Hewson, H.J (1982c) The genus Lepidium L. (Brassicaceae) in Australia. Brunonia 4(2):217-308.

Hewson, H.J. (1989) Ulmaceae. in A.S. George (ed.) Flora of Australia. Vol. 3:4-13. Australian Government Publishing Service, Canberra.

Hewson, H.J. & Beesley, P.L. (1990) Lythraceae. *in* A.S.George (ed.) Flora of Australia. Vol. 18:91-113. Australian Government Publishing Service, Canberra.

Hewson, H.J. & George, A.S. (1984) Santalaceae, *in* A.S.George (ed.) Flora of Australia. Vol. 22:29-67. Australian Government Publishing Service, Canberra.

Hewson, H.J. & Meikie, R.D. (1984) Nyctaginaceae. *in* A.S.George (ed.) Flora of Australia. Vol. 45-18. Australian Government Publishing Service. Canberra.

Hill, K.D. & Johnson, L.A.S. (1991) Systematic studies in the eucalypts – 4. New taxa in Eucalyptus (Myrtaceae). Telopea 4(2) 321-349.

Hill, K.D. & Johnson, L.A.S. (1994) Systematic studies in the eucalypts - 6. A revision of the coolibahs, *Eucalyptus* subgenus *Symphyomyrtus* section *Adnataria* series *Oliganthae* subseries *Microthecosae* (Myrtaceae). *Telopea* 5(4):743-771.

Hill, K.D. & Johnson, L.A.S. (1995) Systematic studies in the eucalypts - 7. A revision of the bloodwoods, genus *Corymbia* (Myrtaceae). *Telopea* 6(2-3):185-504.

Holland, A.E. (1991) Notes on Trachymene Rudge (Apiaceae) in Queensland, 2. Austrobaileya 3(3):401-407.

Holland, A.E. & Reynolds, S.T. (1988) Five new species of Sida L. (Malvaceae) from Australia. Austrobaileya 2(5): 459-468.

Horton, P. (1981) A taxonomic revision of Nicotiana (Solanaceae) in Australia. J. Adelaide Bot. Gard. 3(1):1-56.

Hunter, J.T. & Bruhl, J.J. (1997) Three new species of *Phyllanthus* (Euphorbiaceae: Phyllantheae) for the Northern Territory, one new species for Western Australia, and notes on other *Phyllanthus* species occurring in these regions. *Nuytsia* 11(2):147-163.

Hunter, J.T. & Bruhl, J.J. (1997) New *Sauropus* (Euphorbiaceae: Phyllantheae) taxa for the Northern Territory and Western Australia and notes on other *Sauropus* occurring in these regions. *Nuytsia* 11(2):165-184.

Jackes, B.R. (1984) Revision of the Australian Vitaceae, 1. Ampelocissus Planchon. Austrobaileya 2(1)81-86.

Jacobs, S.W.L. (1980) A new species of Samolus (Primulaceae) J. Adelaide Bot. Gard. 2(2):187-189.

Jacobs. S.W.L. (1982) Relationships, distribution and evolution of *Triodia* and *Plectrachne* (Gramineae), *in* W.R.Barker & P.J.M.Greenslade (eds) Evolution of the flora and fauna of arid Australia, 287-290. Australian Systematic Botany Society.

Jacobs, S.W.L. (1988) Notes on Aizoaceae and Chenopodiaceae. Telopea 3(2):139-143.

Jacobs, S.W.L (1992) New species, lectotypes and synonyms of Australian Nymphaea (Nymphaeaceae). Telopea 4(4):635-641

Jacobs, S.W.L and Everett, J. (1996) *Austrostipa*, a new genus, and new names for Australian species formally included in *Stipa* (Gramineae). *Telopea* 6(4):579-597

Jessop, L.W. (1984) Celastraceae. *in* A.S. George (ed.) Flora of Australia. Vol. 22:150-180. Australian Government Publishing Service, Canberra.

Jessop, L.W. (1985) Anacardiaceae. *in* A.S. George (ed.) Flora of Australia. Vol. 25:170-187. Australian Government Publishing Service, Canberra.

Johnson, K.A., Latz, P.K., and Fleming, M.R. (1982) A biological survey of Connell's Lagoon Stock Reserve. Unpublished report. (CCNT: Alice Springs)

Johnson, K.A., Latz, P.K., and Fleming, M.R. (1984) A resource survey of the Davenport and Murchison Ranges in the Tennant Creek district. Unpublished report. (CCNT: Alice Springs)

Johnson, R.W. (1986) Four new species of *lpomoea* L. (Convolvulaceae) from Australia. Austrobaileya 2(3):217-223.

Johnson, R.W. (1987) Three new species of Bonamia Thouars (Convolvulaceae) from Central Australia. Austrobaileya 2(4):405-407.

Jones, D.L. (1984) Palms in Australia. Reed, Sydney.

Jones, D.L. (1988) New fern species from northern Australia. Austrobaileya 2:469-480.

Jones, D.L. (1993) Cycads of the world. Reed, Sydney.

Kakudidi, E.K.Z., Lazarides, M. & Carnahan, J.A. (1988) A revision of *Enneapogon* (Poaceae, Pappophoreae) in Australia. *Australian Systematic Botany* 1(4): 325-353.

Keighery, G.J. (1987) *Laxmannia, in* A.S. George (ed.) Flora of Australia. Vol. 45:254-264. Australian Government Publishing Service, Canberra.

Lander, N.S. (1987) New combinations in *Minuria* DC. (Asteraceae: Astereae) Nuytsia 6(1):63-66.

Lander, N.S (1984) Revision of the Australian genus Lawrencia Hook. (Malvaceae:Malveae) Nuytsia 5(2):201-271.

Lander, N.S. (1989) Taxonomy of Olearia stuartii (Asteraceae: Astereae) and allied species. Nuytsia 7(1):25-36.

Lander, N.S. & Barry, R (1980a) Reinstatement of the genus Kippistia F.Muell. (Asteraceae, Astereae) Nuytsia 3(2):215-219.

Lander, N.S & Barry, R. (1980b) A review of the genus *Minuria* DC. (Asteraceae. Astereae) *Nuytsia* 3(2):221-237.

Landsberg, J, James, C.D., Morton, S.R., Hobbs, T.J., Stol, J, Drew, A. & Tongway, H. (1997) *The effects of artificial sources of water on rangeland biodiversity*. Final report by the CSIRO Division of Wildlife Ecology, to the Biodiversity Convention and Strategy Section of the Biodiversity Group, Environment Australia. Environment Australia, Canberra.

Lang, P.J. (1987) Plants of Particular Conservation Significance in South Australia's agricultural regions: Interim Report. South Aust. Dept. of Env. & Planning, Native Vegetation Management Branch, Cons. Programs Div.

Latz, P.K. (1975) Notes on the relict palm *Livistonia mariae* F. Muell. in central Australia. *Transactions of the Royal Society of South Australia* 99:189-196.

Latz, P.K. (1979) Four new species of Cyperaceae from central Australia. J. Adelaide Bot. Gard. 1(6): 34 3-350.

Latz, P.K. (1982) A botanical survey of Illawila Creek and surrounding areas of Henbury Station. Unpublished report. Conservation Commission of the Northern Territory: Alice Springs.

Latz, P.K. (1988) Botanical significance of the Lake Surprise dunefield area. Unpublished report. (CCNT: Alice Springs).

Latz, P.K. (1990) Taxonomic studies of Fimbristylis (Cyperaceae) in Northern Australia. Nuytsia 7(2):161-182.

Latz, P.K. (1992) Species recovery plan, management phase: *Acacia undoolyana Leach*. ANPWS Endangered Species Programme Project Proposal, February 1992. Conservation Commission of the Northern Territory, Alice Springs.

Latz, P.K., Johnson, K.A., and Gillam, M.W. (1981) A biological survey of the Kings Canyon area of the Kings Canyon area of the George Gill Range. Unpublished report. (CCNT: Alice Springs).

Latz, P.K., Kube, P.D. and Soos, A. (1989) Habitat, ecology and conservation of *Acacia undoolyana*. Technical Memorandum 89/1. Conservation Commission of the Northern Territory, Alice Springs.

Latz, P.K., and Langford, D.G. (1983) A biological survey of the Dulcie Range, Northern Territory. Unpublished report. (CCNT: Alice Springs).

Latz, P.K. and Pitts, B. (1995) Central Australia. in Centres of Plant Biodiversity. IUCN/WWF Publication, Oxford University Press: Oxford.

Lawrence, M.E. (1985) Studies in Senecio (Compositae). J. Adelaide Bot. Gard. 7(3):289-293.

Lazarides, M (1970) The grasses of Central Australia. Australian National University Press, Canberra.

Lazarides, M. (1972) A revision of Australian Chlorideae (Gramineae). Aust. J. Bot., supplement No. 5.

Lazarides, M. (1978) The genus Whiteochloa C.E.Hubbard (Poaceae, Paniceae). Brunonia 1(1):69-93.

Lazarides, M. (1980a) Aristida L. (Poaceae) in Australia. Brunonia 3:271-333.

Lazarides, M. (1980b) The genus Leptochloa Beauv (Poaceae, Eragrostideae) in Australia and Papua New Guinea. Brunonia 3(2):147-269.

Lazarides, M. (1984) New taxa of tropical Australian grasses (Poaceae). Nuytsia 5(2):273-303.

Lazarides, M., Hacker. J.B. & Andrew, M.H. (1991) Taxonomy, cytology and ecology of indigenous Australian sorghums (*Sorghum* Moench:Andropogoneae:Poaceae). *Australian Systematic Botany* 4(4):591-635.

Lazarides, M. & Webster, R.D. (1984) Yakira (Paniceae, Poaceae), a new genus for Australia. Brunonia 7(3):289-296.

Lazarides, M. (1995) The genus Eriachne (Eriachneae, Poaceae). Aust. Sys. Bot. 8(3):355-452.

Lazarides. M. (1997a) A revision of Eragrostis (Eragrostideae, Eleusininae, Poaceae) in Australia. Aust. Sys. Bot. 10(1):77-187.

Lazarides. M. (1997b) A revision of Triodia including Plectrachne (Poaceae, Eragrostideae, Triodiinae). Aust. Sys. Bot. 10(3):381-489.

Leach, G.J. (1989) Taxonomic revision of Bergia (Elatinaceae) in Australia. J. Adelaide Bot. Gard. 11(2):75-100.

Leach, G.J (1994) Notes and new species of Acacia (Mimosaceae) from northern Australia. Nuytsia 9(3):351-362.

Leach, G.J., Latz, P.K. & Soos, A. (1988) Acacia undoolyana: a new species from central Australia. J. Adelaide Bot. Gard. 11(1):55-58.

Lee, A.T. (1978) Some species of Crotalaria in Australia. Telopea 1(5): 319-356.

Lee, A.T. (1980) The Psoralea patens complex. Telopea 2(1):129-141.

Lee, A.T. & Macfarlane, T.D (1986) Lomandra. in A.S. George (ed.) Flora of Australia. Vol. 46:100-141. Australian Government Publishing Service, Canberra.

Lepschi, B.J. (1999) Taxonomic revision of Leptomeria (Santalaceae). Aust. Sys. Bot. 12(1):55-100.

Low, W.A. and Dobbie, W.R. (1988a) Resource appraisal of Epenarra Station PL No. 795. Report to CCNT.

Low, W.A. and Dobbie, W.R. (1988b) Resource appraisal of Palmer Valley Station PL No. 886. Report to CCNT.

Low, W.A. and Foster, E. (1991) Ambalindum Station PL No. 647. Report to CCNT.

Low, W.A. and Strong, B.W. (1984a) Resource appraisal of Brunchilly Station PL No. 896. Report to CCNT.

Low, W.A. and Strong, B.W. (1984b) Resource appraisal of Atartinga Station PL No. 900. Report to CCNT.

Low, W.A. and Strong, B.W. (1984c) Resource appraisal of Hamilton Downs Station PL No. 871. Report to CCNT.

Low, W.A. and Strong, B.W. (1984d) Resource appraisal of Lake Nash and Georgina Downs Stations PL No's. 532 & 880. Report to CCNT.

Low, W.A. and Strong, B.W. (1984e) Resource appraisal of Allambi Station PL No. 627. Report to CCNT.

Low, W.A. and Strong, B.W. (1984f) Resource appraisal of Undoolya and Deep Well Stations PL No's. 673 and 595. Report to CCNT. Low, W.A. and Strong, B.W. (1984g) Resource appraisal of Bond Springs Station PL No. 890. Report to CCNT. Low, W.A. and Strong, B.W. (1985a) Resource appraisal of Owen Springs Station PL No. 905. Report to CCNT. Low, W.A. and Strong, B.W. (1985b) Resource appraisal of Alroy Downs and Dalmore Downs Stations PL No's. 883 and 885. Report to CCNT. Low, W.A. and Strong, B.W. (1985c) Resource appraisal of Tanami Downs Station PL No. 695. Report to CCNT. Low, W.A. and Strong, B.W. (1985d) Resource appraisal of Jervois Station PL No. 813. Report to CCNT. Low, W.A. and Strong, B.W. (1985e) Resource appraisal of Mount Riddock Station PL No's. 536, 601 & 602. Report to CCNT. Low, W.A. and Strong, B.W. (1986a) Resource appraisal of Central Mount Wedge Station PL No. 807. Report to CCNT. Low, W.A. and Strong, B.W. (1986b) Resource appraisal of Loves Creek Station PL No. 654. Report to CCNT. Low, W.A. and Strong, B.W. (1986c) Resource appraisal of Neutral Junction Station PL No. 775. Report to CCNT. Low, W.A. and Strong, B.W. (1986d) Resource appraisal of Helen Springs Station PL No. 524. Report to CCNT. Low, W.A. and Strong, B.W. (1987a) Resource appraisal of Singleton Station PL No. 574. Report to CCNT. Low, W.A. and Strong, B.W. (1987b) Resource appraisal of Narwietooma Station PL No. 955. Report to CCNT. Low, W.A., Strong, B.W. and Roeger, L. (1986) Resource appraisal of Elkedra Station PL No. 781. Report to CCNT. Low, W.A., Dobbie, W.R. and Roeger, L. (1987a) Resource appraisal of Birrindudu Station PL No. 559. Report to CCNT. Low, W.A., Dobbie, W.R. and Roeger, L. (1987b) Resource appraisal of Ringwood Station PL No. 512. Report to CCNT. Low, W.A., Strong, B.W. and Roeger, L. (1987c) Resource appraisal of Napperby Station PL No. 656. Report to CCNT. Low, W.A., Strong, B.W. and Roeger, L. (1987d) Resource appraisal of Umbeara Station PL No. 939. Report to CCNT. Low, W.A., Dobbie, W.R. and Foster, E. (1989a) Resource appraisal of Erldunda Station PL No. 994. Report to CCNT. Low, W.A., Dobbie, W.R. and Foster, E. (1989b) Resource appraisal of Mulga Park Station PL No. 889. Report to CCNT. Low, W.A., Foster, E., Smith, F. and Dobbie, W.R. (1989) Resource appraisal of Mount Doreen Station PL No. 901. Report to CCNT. Low, W.A., Foster, E. and Smith, C.E. (1990) Resource appraisal of Alcoota and Waite River Stations PL No's 874 and 839. Report to CCNT. Lowrie, A. & Kenneally, K. (1997) A taxonomic review of *Stylidium* subgenus *Forsteropsis* (Stylidiaceae). *Nuytsia* 11(3):353-364. Maconochie, J.R. (1978) Notes on the genus Acacia in the Northern Territory. J. Adelaide Bot. Gard. 1(3) 179-185. Maconochie, J.R. (1980a) The genus Trachymene (Apiaceae) in the Northern Territory and a new species from Western Australia. J Adelaide Bot. Gard. 2(2):171-185. Maconochie, J.R. (1980b) Three new species of Fabaceae for the flora of central Australia J. Adelaide Bot. Gard. 2(4): 323-328. Maconochie, J.R. (1981) General plant ecology and biology of the Australian arid zone. Northern Territory Botanical Bulletin 4:1-19. Macfarlane, T.D. (1980) A revision of Wurmbea (Liliaceae) in Australia. Brunonia 3(2)-145-208. Macfarlane, T.D. (1987a) Haemodorum. in A.S. George (ed.) Flora of Australia. Vol. 45:134-148. Australian Government Publishing Service, Canberra. Macfarlane, T.D. (1987b) Iphigenia. in A.S. George (ed.) Flora of Australia. Vol. 45:404-405. Australian Government Publishing Service, Canberra. Macfarlane, T.D. (1987c) Wurmbea. in A.S. George (ed.) Flora of Australia. Vol. 45:387-404. Australian Government Publishing Service, Canberra. Male, B. (1998) On the brink 10. Newsletter of the Endangered Species program, Threatened Species and Communities Section, Biodiversity Group, Environment Australia, Canberra. Marchant, N.G., Aston, H.I., & George, A.S. (1982) Droseraceae. in A.S.George (ed.) Flora of Australia. Vol. 8:9-66. Australian Government Publishing Service, Canberra. Marsden, C.R. (1976) Morphological variation and taxonomy of Isoetes muelleri R.Br. J. Adelaide Bot. Gard. 1(1): 37-54. Maslin, B.R. (1974) Studies in the genus Acacia miscellaneous new phyllodinous species. Nuytsia 1(4):315-331. Maslin, BR. (1980) Acacia (Leguminosae: Mimosoideae) a contribution to the flora of central Australia. J. Adelaide Bot. Gard. 2(4): 301-321. Maslin, B.R. (1987) Notes on Acacia (Leguminosae:Mimosoideae) in Central Australia. Nuytsia 6(1): 33-34. Maslin, B R (1992) Acacia Miscellany 6. Review of Acacia victoriae and related species (Leguminosae: Mimosoideae: Section Phyllodineae). Nuytsia 8(2): 285-309. Maslin, B.R & Hopper, S.D. (1982) Phytogeography of Acacia (Leguminosae: Mimosoideae) in central Australia in W.R.Barker & P.J.M. Greenslade (eds) Evolution of the flora and fauna of arid Australia. 301-315. Australian Systematic Botany Society. Maslin, B.R. & Thomson, L.A.J. (1992) Re-appraisal of the taxonomy of Acacia holosericea. including the description of a new species, A. colei, and the the Reinstatement of A. neurocarpa. Australian Systematic Botany 5(6):729-743.

Mc Gillivray, D. (1993) Grevillea. Melbourne University Press, Melbourne.

Millington, R.W., Mitchell, A.S. and Kalotis, A. (1980) Vegetation studies at the Alice Springs Telegraph Station Historic Reserve and proposed extension areas. (CCNT: Alice Springs).

Mitchell, A.S. (1979) A new *Hibiscus* (Malvaceae) from Central Australia. *Nuytsia* 2(6):336-340.

Mitchell, A.S. (1980) A new species in *Heliotropium* (Boraginaceae) and a new combination in *Abutilon* (Malvaceae). *J. Adelaide Bot. Gard.* 2(4): 357-359.

Morrison, D.A. (1987) Taxonomic and nomenclatural notes on Lechenaultia R.Br. (Goodeniaceae). Brunonia 9(1):1-28.

Morrison, DA (1988) Notes on the fruits of *Lechenaultia* R.Br. (Goodeniaceae) with a new species from Northern Australia. *Telopea* 3(2):159-166.

Morton, S.R., Short, J., and Barker, R.D. (1995) Refugia for biological diversity in arid and semi-arid Australia. Biodiversity series, paper no. 4. (DEST: Canberra).

Munir, A.A. (1976) A taxonomic revision of the genus Spartothamnella (Chloanthaceae). J. Adelaide Bot. Gard. 1(1):3-25.

Munir, A.A. (1978) Taxonomic revision of Chloanthaceae trib. Physopsideae. Brunonia 1:407-692.

Munir, A.A. (1979) A taxonomic revision of the genus *Pityrodia* (Chloanthaceae). J. Adelaide Bot. Gard. 2(1):1-138.

Munir, A.A. (1984) A taxonomic revision of the genus *Premna* L. (Verbenaceae) in Australia. *J. Adelaide Bot. Gard.* 71-44.

Munir, A.A. (1987) A taxonomic revision of the genus Vitex L. (Verbenaceae) in Australia. J. Adelaide Bot. Gard. 10(1):31-79.

Munir, A.A. (1989) A taxonomic revision of the genus Clerodendrum (Verbenaceae) in Australia. J. Adelaide Bot. Gard. 11(2):101-173.

Nix, H.A., Stein, J.L. Stein, J.A. & Tassell, G. (1992) Generation of an environmental domain cassification for the Northern Territory. A Rpt to the Northern Territory Conservation Commission. ANU Canberra.

Olde, P. & Marriott, H. (1994) The Grevillea book. Vol. 1. Kangaroo Press, Sydney.

Olde, P. & Marriott, H. (1995a) The *Grevillea* book. Vol. 2. Kangaroo Press, Sydney.

Olde, P. & Marriott, H. (1995b) The Grevillea book. Vol. 3. Kangaroo Press, Sydney.

Orchard. A.E. (1990) Haloragaceae. *in* A.S. George (ed.) Flora of Australia. Vol. 18:5-85. Australian Government Publishing Service, Canberra.

Parr-Smith, G.A. (1982) Biogeography and evolution in the shrubby Australian species of *Atriplex* (Chenopodiaceae) *in* W.R.Barker & P.J.M. Greenslade (eds) Evolution of the flora and fauna of arid Australia. 291-299. *Australian Systematic Botany* Society.

Palmer, J. (1998) A taxonomic revision of Gomphrena (Amaranthaceae) in Australia. Aust. Sys. Bot. 11(1):73-151.

Pedley. L. (1972) A revision of Acacia lycopodiifolia A.Cunn. Ex Hook. and its allies. Contr. Queensland Herb. No 11.1-23.

Pedley, L. (1977a) Notes on Leguminosae. Austrobaileya 1(1):25-42.

Pedley, L. (1977b) Polycarpaea (Caryophyllaceae) in Australia. Austrobaileya 1(1): 49-61.

Pedley, L. (1978) A revision of Acacia Mill. in Queensland Part I. Austrobaileya 1(2):75-234.

Pedley, L. (1979) A revision of Acacia Mill. in Queensland Part 2. Austrobaileya 1(3):235-337.

Pedley, L. (1981a) Further notes on Acacia in Queensland. Austrobaileya 1(4): 339-345.

Pedley, L. (1981b) Two new species of Polygalaceae from central Australia. J. Adelaide Bot. Gard. 3(1): 127-129.

Pedley, L. (1986) Acacia maconochieana (Mimosaceae) a new species from semi-arid Australia. Austrobaileya 2(3):235-237.

Pedley, L. (1990) Combretaceae. *in* A.S. George (ed.) Flora of Australia. Vol. 18:255-293. Australian Government Publishing Service, Canberra.

Pedley, L. (1992) A further note on Acacia aneura (Mimosoideae:Leguminosae). Australian Systematic Botany 5(6):767-768.

Perry, R.A. (1960) Pasture lands of the Northern Territroy, Australia. Land Research Series no. 5. (CSIRO: Canberra).

Piggin. C.M. (1977) The herbaceous species of Echium (Boraginaceae) naturalised in Australia. Muelleria 3(4): 215-244.

Pitts, B., Schunke, D. and Parsons, D. (1995) *Species recovery plan for Acacia undoolyana – recovery action 2.4: GIS analysis.* Parks and Wildlife Commission of the Northern Territory, Alice Springs.

Prescott, A. & Venning, J. (1984) Aizoaceae. *in* A.S. George (ed.) Flora of Australia. Vol. 4:19-462. Australian Government Publishing Service, Canberra.

Purdie, R. (1984) Land systems of the Simpson Desert region. Institute of Biological Resources Natural Resources Series No.2, CSIRO.

Purdie, R.W., Symon. D.E. & Haegi, L. (1982) Solanaceae. *in* A.S. George (ed.) Flora of Australia. Vol 29:1-208. Australian Government Publishing Service, Canberra.

Puttock, C.F. (1994) Anatomy and morphology of *Cremnothamnus* (Asteraceae), a new genus for *Helichrysum thomsonii. Australian Systematic Botany* 7 (6): 569-583.

Rajput, M.T.M. (1980) Two new species of Dampiera (Goodeniaceae) from Central Australia. Telopea 2 (1):57-58.

Rajput, M.T.M. & Carolin, R.C. (1988) The genus *Dampiera* (Goodeniaceae): systematic arrangement, nomenclatural notes and new taxa. *Telopea* 3(2):183-216.

Randell, B.R. (1988) Revision of the Cassiinae in Australia. 1. *Senna* Miller sect. *Chamaefistula* (Collardon)Irwin and Barneby. *J. Adelaide Bot. Gard.* 11(1):19-49.

Randell, B.R. (1989) Revision of the Cassiinae in Australia 2. *Senna* Miller sect. *Psilorhegma* (J.Vogel)Irwin and Barneby. *J. Adelaide Bot. Gard.* 12(2):165-272.

Randell, B.R. (1990) Revision of the Cassiinae in Australia. 2. Senna Miller sect. Senna. J. Adelaide Bot. Gard. 13:1-16.

Randell, B.R. (1992) Mulga. A revision of the major species. J. Adelaide Bot. Gard. 14(2):105-132.

Randell, B.R. (1993) New combinations in the Boraginaceae. J. Adelaide Bot. Gard. 15(2):93-99.

Rankin, M.O. (1976) The family Moraceae in the Northern Territory. Northern Territory Botanical Bulletin No. 5. Northern Territory Department of Primary Production.

Rechinger, K.H. (1984) Rumex (Polygonaceae) in Australia: a reconsideration. Nuytsia 5(1):75-122.

Reynolds, S.T. (1981) Notes on Sapindaceae in Australia. I. Austrobaileya 1(4):388-419.

Reynolds, S.T. (1982) Notes on Sapindaceae in Australia. II. Austrobaileya 1(5): 472-496.

Reynolds, S.T. (1984) Notes on Sapindaceae in Australia III. Austrobaileya 2(1)29-64.

Reynolds, S.T. (1987) Notes on Sapindaceae in Australia V. Austrobaileya 2(4):328-338.

Reynolds, S.T. (1990) Aeschynomeneae (Benth.)Hutch. (Leguminosae) in Australia. Austrobaileya 3(2):177-202.

Reynolds, S.T. & Holland, A.E. (1989) The genus Zornia J.Gmelin (Leguminosae) in Australia. Austrobaileya 3(1): 13-38.

Reynolds, S.T. & Pedley, L. (1981) A revision of Atylosia (Leguninosae) in Australia. Austrobaileya 1(4):420-428.

Reynolds, S.T. & West, J.G. (1985) Sapindaceae in A.S. George (ed.) Flora of Australia. Vol 25:4-164. Australian Government Publishing Service, Canberra.

Ross, J.H. (1982) A revision of the genus *Templetonia* R.Br. (Papilionaceae). *Muelleria* 5(1):1-29.

Ross, J.H. (1998) Caesalpiniaceae in P.M. McCarthy (ed) Flora of Australia Vol 12:21-27. Melbourne, CSIRO Australia.

Rye, B.L. & Heads, M.J. (1990) Thymelaeaceae. *in* A.S. George (ed.) Flora of Australia. Vol 25:4-164. Australian Government Publishing Service, Canberra.

Salkin, E., Thomlinson, G., Armstrong, B., Courtney, B. & Schaumann. M. (1995) Australian Brachyscomes. Australian Daisy Study Group. Melbourne.

Service Enterprises (1980) Arltunga Historical Reserve: a vegetation survey - May 1980. Unpublished report. Conservation Commission of the Northern Territory: Alice Springs.

Short, P.S. (1981) A revision of Angianthus Wendl., sensu lato (Compositae:Inuleae:Gnaphaliinae). Muelleria 5(2):143-183.

Short, P.S. (1982) Breeding systems and distribution patterns of some arid Australian genera of the subtribe Gnaphallinae

(Compositae:Inuleae), in W.R. Barker 6. P.J.M. Greenslade (eds), Evolution of the flora and fauna of arid Australia. 351-356.

Short, P.S. (1985) A revision of Actinobolus Fenzl ex End I. (Compositae:Inuleae:Gnaphaliinae). Muelleria 6(1):9-22.

Short, P.S. (1990a) A revision of Trichanthodium Sond. & F.Muell. ex Sond. (Asteraceae:Inuleae:Gnaphaliinae). Muelleria 7(2):213-224.

Short, P.S. (1990b) A revision of the genus *Chthonocaphalus* Steetz (Asteraceae:Inuleae:Gnaphaliinae). *Muelleria* 7(2) .225-238.

Short, P.S. (1990c) New taxa and combinations in Australian Gnaphaliinae (Inuleae:Asteraceae). Muelleria 7(2):239-252.

Short, P.S (1991) A new species of Minuria DC. (Asteraceae:Astereae). Muelleria 7(3):361-367.

Short, P.S. (1995) A revision of Millotia (Asteraceae-Gnaphalieae). Australian Systematic Botany 8(1):1-47.

Short, P.S. and Anderberg. A.A. (1995) Cladistic analysis of *Millotia* (Asteraceae-Gnaphalieae) Australian Systematic Botany 8(1): 49-55.

Simon, B.K. (1984a) Two new species of Enteropogon (Poaceae:Chlorideae) in Australia. Austrobaileya 2(I):I-6.

Simon, B.K. (1984b) New taxa and nomenclatural changes in Aristida L. (Poaceae) in Australia. Austrobaileya 2(1): 87-102.

Simon. B.K. (1989) Studies in Australian grasses: 4. Taxonomic and nomenclatural studies in Australian Andropogoneae. *Austrobaileya* 3(1): 79-99.

Simon, B. K. (1992a) A revision of the genus Aristida (Poaceae) in Australia. Australian Systematic Botany 5(2):129-226.

Simon, B.K. (1992b) Studies in Australian grasses: 5. New species of and new combinations for Queensland Panicoid grasses. *Austrobaileya* 3(4):585-607.

Simon, B.K. (1993) Studies in Australian grasses. 7. Four new species of *Sporobolus* R.Br. (Poaceae, Chloridoideae. Sporoboleae) from Australia. *Austrobaileya* 4(1):57-66.

Simon, B.K. & Latz, P.K. (1994) A key to the grasses of the Northern Territory, Australia. Northern Territory Botanical Bulletin No. 17. Conservation Commission of the Northern Territory. Darwin.

Simon, B.K. & Jacobs, S.W.L (1999) Revision of the genus Sporobolus (Poaceae, Chloridoideae) in Australia. Aust. Sys. Bot. 12(3):375-448.

Smith, L.S. (1975) The genus *Eremophila* (Myoporaceae) in Queensland with notes on the genus *Myoporum*. Contr. Queensland Herb. No. 19:1-49.

Smith, P.J. (1992) A revision of the genus Wahlenbergia (Campanulaceae) in Australia. Telopea 5(I):91-175.

Soos, A. (1987) Occurrence of two rare plant populations in the Eastern MacDonnell Ranges. Tech. Bull. Vol. 87/11 Conservation Commission of the Northern Territory, Alice Springs.

Soos, A., Latz, P.K., and Kube, P.D. (1987) Occurrence of two rare plant populations in the eastern MacDonnell Ranges. Technical Memorandum 87/11. Conservation Commission of the Northern Territory, Alice Springs.

Spencer, R.D. & Lumley, P.F. (1986) Two new species of *Callistemon* R. Br. (Myrtaceae). *Muelleria* 6(4):293-298.

Stace, H.M. (1982) *Calotis* (Compositae) a Pliocene arid zone genus?. *in* W.R. Barker & P.J.M.Greenslade (eds) Evolution of the flora and fauna of arid Australia, 357-367.

Stanley, T.D. (1990) Two new species and a new names in Commelina L. (Commelinaceae) in Australia. Austrobaileya 3(2): 235-238.

Stewart, L.McD., Fryxell. P.A. & Craven, L.A. (1987) The recognition and geographic distribution of *Gossypium nelsonii* (Malvaceae). *Brunonia* 10 (2): 215-218.

Strong, B.W. (1987) *Checklist of preferred common names of plants of the Northern Territory*. Conservation Commission of the Northern Territory. Technical Report No. 27, Alice Springs.

Symon, D.E. (1981) A revision of the genus Solanum in Australia. J. Adelaide Bot. Gard. 4:1-367.

Symon, D.E. (1982) *Solanum* (Solanaceae) in arid Australia *in* W.R. Barker & P.J.M.Greenslade (eds) Evolution of the flora and fauna of arid Australia, 335-339. Australian Systematic Botany Society, Adelaid.

Tahir, S.S. (1980) Three new species of Calandrinia (Portulaceae) from inland Australia. Telopea 2(1):59-61

Telford, I.R.H. (1982) Cucurbitaceae. *in* A.S. George (ed.) Flora of Australia. Vol. 8:158-198. Australian Government Publishing Service, Canberra.

Telford, I.R.H. (1984) Cactaceae. in A.S. George (ed.) Flora of Australia. Vol. 4:62-80. Australian Government Publishing Service, Canberra.

Thompson. J. (1990) Onagraceae. *in* A.S. George (ed.) Flora of Australia. Vol. 18:215-243. Australian Government Publishing Service, Canberra.

Thompson, J. (1993) A revision of the genus Swainsona (Fabaceae). Telopea 5(3):427-581.

Thompson, J. & Johnson, L.A.S. (1986) *Callitris glaucophylla*, Australia's 'White Cypress Pine' - a new name for an *old species*. *Telopea* 2 (6): 731-736.

Thomson, B.G. (1992) Three new species of *Euphorbia* L. subgenus *Chamaesyce* Rafinesque (Euphorbiaceae) from central and northern Australia. *Nuytsia* 8 (3): 351- 360.

Thomson, B.G. & Kube. P.D. (1990) Arid zone eucalypts of the Northern Territory. Northern Territory Botanical Bulletin No. 9. Conservation Commission of the Northern Territory, Alice Springs.

Thongpukdee, A. (1987) *Tricoryne. in* A.S. George (ed.) Flora of Australia. Vol. 45.292-299. Australian Government Publishing Service, Canberra.

Toelken, H.R. (1981) The species of Crassula L. in Australia. J. Adelaide Bot. Gard. 3(1):57-90.

Toelken, H.R. (1983) Additions to 'The species of Crassula L. in Australia'. J. Adelaide Bot. Gard. 6(2):193-196.

Toelken, H.R (1985) Notes on *Teucrium* L. (Labiatae). J. Adelaide Bot. Gard. 7(3):295-300.

Veldkamp, J.F. (1992) Notes on Australian Coreopsidinae (Compositae). Austrobaileya 3(4):741-744.

Veldkamp. J.F. & van Steenbergen, H. (1992) Perotis Aiton (Gramineae) in Australia and Southeast Asia. Austrobaileya 3(4): 609-614.

Vickery, J.W., Jacobs, S.W.L. & Everett, J. (1986) Taxonomic studies in Stipa (Poaceae) in Australia. Telopea (1):1-132.

Watson, E.M. (1987) Bulbine. in A.S.George (ed.) Flora of Australia. Vol. 45:236-241. Australian Government Publishing Service, Canberra.

Weber, J.Z. (1981) A taxonomic revision of Cassytha (Lauraceae) in Australia. J. Adelaide Bot. Gard. 3(3):187-262.

Weber, J.Z. (1995) The species of Wurmbea (Liliaceae) in South Australia. J. Adelaide Bot. Gard. 16:33-53.

Webster, R.D. (1984) A revision of the genus Digitaria Haller (Paniceae: Poaceae) in Australia. Brunonia 6(2):131-216.

Webster, R.D. (1987) The Australian Paniceae (Poaceae). J.Cramer, Berlin.

West, J.G. (1982) Radiation and adaptation of *Dodonea* (Sapindaceae) in arid Australia. *in* W.R. Barker & P.J.M.Greenslade (eds) Evolution of the flora and fauna of arid Australia, 357-367. Australian Systematic Botany Society, Adelaid.

West, J.G. (1984) A revision of *Dodonea* Miller (Sapindaceae) in Australia. *Brunonia* 7(1):1-194.

Weston, A.S. (1974) The genus *Cenchrus* (Poaceae) in Australia. *Nuytsia* I(4):375-380.

Whibley, D.J.E. (1980) Acacia symonii, a new species from the north-western region of South Australia. J. Adelaide Bot. Gard. 2(2):167-169.

Whibley, D.J.E. (1992) Acacias of South Australia. The Flora and Fauna of South Australia Handbooks Committee, Adelaide.

Wiedemann, A.M. (1971) Vegetation Studies in the Simpson Desert, N.T. Aust. J. Bot. 19:99-124.

Willis, J.H. (1975) Four new species of plants endemic in the MacDonnell and George Gill Ranges, Central Australia. *Muelleria* 3(2):89-101.

Wilson, K.L. (1980) The genus Rhyncharrhena (Asclepiadaceae). Telopea 2(I):35-39.

Wilson, K.L. (1981) A synopsis of the genus Scirpus sens.lat. (Cyperaceae) in Australia. Telopea 2(2):153-172.

Wilson, K.L. (1987) A new species of Gymnanthera (Periplocaceae) in Australia. J. Adelaide Bot. Gard. 10(1):113-117.

Wilson, K.L. (1988) Polygonum sensu lato (Polygonaceae) in Australia. Telopea 3(2):177-182.

Wilson, K.L. (1991) Systematic studies in Cyperus section Pinnati (Cyperaceae). Telopea 4(3):351-360.

Wilson, K.L. (1992) A new species and a neotypification in Australian Tribulus (Zygophyllaceae). Telopea 5(1):21-30.

Wilson, K.L. (1994) New taxa and combinations in the family Cyperaceae in eastern Australia. *Telopea* 5 (4): 589-625.

Wilson, K.L. & Johnson. L.A.S. (1989) Casuarinaceae. *in* A.S. George (ed.) Flora of Australia. Vol. 3:100-174. Australian Government Publishing Service, Canberra.

Wilson, P.G. (1972) A taxonomic revision of the genus *Tecticornia* (Chenopodiaceae). *Nuytsia* 1(3): 277-288.

Wilson, P.G. (1975) A taxonomic revision of the genus Maireana (Chenopodiaceae). Nuytsia 2(1):2-83.

Wilson, P.G. (1980) A revision of the Australian species of Salicornieae (Chenopodiaceae). Nuytsia 3(1):3-154.

Wilson, P.G. (1983) A taxonomic revision of the tribe Chenopodieae (Chenopodiaceae) in Australia. Nuytsia 4 (2): 135-262.

Wilson, P.G. (1992a) The Lawrencella complex (Asteraceae: Gnaphalieae: Angianthinae) of Australia. Chenopodiaceae. Nuytsia 8(3): 361-377.

Wilson, P.G. (1992b) The classification of Australian species currently included in *Helipterum* (Asteraceae: Gnaphalieae): Part 1 *Nuytsia* 8(3): 379-348.

Wilson, P.G. (1992c) The classification of Australian species currently included in *Helipterum* (Asteraceae: Gnaphalieae): Part 2 *Leucochrysum. Nuytsia* 8(3): 439-446.

Wilson, P.G. (1992d) The classification of Australian species currently included in *Helipterum* (Asteraceae: Gnaphalieae): Part 3 *Anemocarpa* and *Argentipallium* two new genera from Australia. *Nuytsia* 8(3): 447-460.

Wilson, P.G. (1992e) The classification of the genus Waitzia Wendl. (Asteraceae: Gnaphalieae). Nuytsia 8(3): 461-477.

Wilson, P.G. (1987) Taxonomic notes on some Australian species of Indigofera (Fabaceae-Faboideae) J. Adelaide Bot. Gard. 10(1):119-126.

Wilson, P.G. (1990) Indigofera psammophila (Fabaceae), a new species from arid Australia. Telopea 3(4):597-598.

Wilson, F.D. and Craven, L.A. (1995) Two new species of *Hibiscus* section *Furcaria* DC. (Malvaceae) from northern Queensland. *Austrobaileya* 4(3): 439-447 6 refs, illus.

Appendix 1. Summary lists of taxa by conservation significance category

This appendix lists taxa that have been assessed as significant at the national, NT or study area (southern NT) levels of significance. A list is given for each of the significance categories within these levels as summarised in table 5 in part 1. Taxa are sorted alphabetically by genus and species and the significance code is given in brackets.

Taxa that are significant at the bioregional level of significance are not given here but are included in lists of taxa that are significant in each bioregion, in Appendix 3.

TAXA AT THE NATIONAL LEVEL OF SIGNIFICANCE

Nationally Vulnerable Taxa

Acacia latzii {3V} Acacia peuce {3VCi} Acacia pickardii {3V} Acacia undoolyana {2VCi} Actinotus schwarzii {3VCa} Eremophila A48866 Rainbow Valley {2VCi} Ipomoea A83192 Stirling {2V} Livistona mariae subsp. mariae {2VCa}

Nationally Rare Taxa

Acacia abbreviata {3R} Acacia ammobia {3RC-} Acacia desmondii {3R} Acacia dolichophylla {2RC-} Amperea spicata {2RCa} Austrostipa aquarii {3RC-} Austrostipa centralis {3RC-} Austrostipa feresetacea {3RC-} Bergia barklyana {3R} Bergia occultipetala {3R} Callistemon pauciflorus {3RC-} Comesperma A77288 Tanami {3R} Cratystylis A36062 Glen Helen {3RC-} *Diodontium filifolium* {3R (border)} Eleocharis papillosa {3R} Eremophila A90760 Arookara Range {2R} Eriachne scleranthoides {2RCa} *Eucalyptus lucens* {3RC-} Goodenia faucium {2R} Goodenia rupestris {2R (border)} Gossypium nelsonii {3RC-} Hakea grammatophylla {3RC-} Hakea standleyensis {3RC-} Harnieria kempeana subsp. kempeana {3RC-}

Nationally Poorly Known Taxa

Acacia A86979 Krichauff Range {2K} Acacia auricoma {3K} Acmella grandiflora var. grandiflora {3K} Atriplex morrisii {3K} Bonamia alatisemina {3K} Comesperma viscidulum {3KC-} Corchorus elderi {3K} Corymbia pachycarpa subsp. glabrescens {3K} Corynotheca asperata {3K} Cullen walkingtonii {3KC-} Daviesia arthropoda {3KCa} Daviesia eremaea {3K}

- Macrozamia macdonnellii {3VCa} Minuria tridens {3VCi} Mukia A90788 Tobermorey Station {3V} Olearia macdonnellensis {3VCi} Ricinocarpos gloria-medii {2VCa} Thryptomene wittweri {3VC-} Wrixonia schultzii {3VC-}
- Hibbertia A86497 Chewings Range {3RC-} Hydrocotyle A39600 Watarrka {2RC-} Hydrocotyle D62620 Harts Range {2R} Isotoma luticola {3R} Leucopogon sonderensis {3RC-} Lindernia A4814 Willowra {1R} Lomandra patens {3RCa} Marsilea latzii {3R} Melaleuca fulgens subsp. corrugata {3R (border)} *Mitrasacme lutea* {3R (border)} Neurachne tenuifolia {3RCa} Pimelea interioris {2RC-} Ptilotus aristatus var. aristatus {3R (border)} Ptilotus aristatus var. eichlerianus {3R} Ptilotus aristatus var. exilis {2R} Ptilotus aristatus var. stenophyllus {2R} *Rhamphicarpa australiensis* {3RC-} *Scaevola graminea* {3R} Sedopsis filsonii {3RC-} Stenanthemum A83203 Palm Valley {3RC-} Stylidium inaequipetalum {3RCa} *Trachymene inflata* {3RC-} Wurmbea centralis subsp. centralis {3RC-}.
- Dicrastylis petermannensis {3K (border)} Eragrostis subtilis {3K} Eremophila hughesii subsp. A28811 Bloods Range {3K} Eucalyptus helenae {2K (border)} Eucalyptus sparsa {3K (border)} Euphorbia sarcostemmoides {3KCa} Frankenia stuartii {1K} Goodenia A44284 Subsaline {3K} Goodenia anfracta {3KC} Goodenia nigrescens {3KC-} Heliotropium pulvinum {3K}

- *Heliotropium subreniforme* {3K} Indigofera A83977 Areyonga {2K} Ixiochlamys integerrima {3K} Kohautia australiensis {3KC-} Logania centralis {3KC-} Microcorys macrediana {3K} Nephrolepis arida {3KC-} Olax spartea {3K} Oldenlandia spathulata {3K (border)} Ozothamnus A25067 Petermann Ranges {3K (border)} Phyllanthus lacerosus {3KC-} Phyllanthus oblanceolatus {3KC-} Pityrodia chorisepala {3K} Pityrodia loricata {3K} *Plantago multiscapa* {3K} Pluchea A87409 Ormiston {3K} *Polygala gabrielae* {3KC-} Prostanthera centralis {3K} Ptilotus A77612 Tanami Downs {1K (border)} Ptilotus robynsianus {3K}
- Ptilotus royceanus {3K (border)} Rothia indica subsp. australis {3KC-} Samolus eremaeus {3KC-} Sauropus ramosissimus {3KC-} Scaevola obovata {3K} Schoenus centralis {3K} Sclerolaena symoniana {3KC-} Sida A32067 Horseshoe Bend {1K} Sida A43017 Ambalindum {3KC-} Sida A83883 Petermann Ranges {2K (border)} Sida A88135 Hale River {3K} Sporobolus latzii {1K} Stackhousia D70123 Lake Mackay {1K (border)} Stemodia A57025 Manners Creek {3K} *Striga squamigera* {3K} Swainsona laciniata {3K} Teucrium grandiusculum subsp. grandiusculum {3KC-} Urochloa atrisola {3K} Zygophyllum crassissimum {3KC-}.

TAXA AT THE NORTHERN TERRITORY LEVEL OF SIGNIFICANCE

Taxa that are vulnerable in the Northern Territory

Adiantum capillus-veneris {3vCi} Baumea arthrophylla {3vC-} Bolboschoenus caldwellii {3vC-} Nymphaea immutabilis subsp.immutabilis {3v}.

Taxa that are rare in the Northern Territory

Abutilon halophilum {3r} Abutilon lepidum {3r} Acacia chisholmii {3r (border)} Acacia D7472 Indiana Station {3r} Acacia grasbyi {3rC-} Acacia maconochieana {3r} Acacia ptychophylla {3r} Acacia symonii {3r (border)} Acacia tephrina {3r} Acacia wiseana {3r} Agrostis avenacea {3rC-} Amaranthus cochleitepalus {3rC-} Anemocarpa podolepidium {3r (border)} Arabidella glaucescens {3r} Arabidella nasturtium {3r} Arabidella procumbens {3r} Aristida longicollis {3r} *Arthropodium strictum* {3rC-} *Atriplex eardleyae* {3r} Atriplex fissivalvis {3r (border)} Atriplex flabelliformis {3r (border)} Atriplex incrassata {3r (border)} *Atriplex intermedia* {3r} Atriplex lobativalvis {3r} Atriplex muelleri {3r} Atriplex pseudocampanulata {3r (border)} Atriplex quadrivalvata var. quadrivalvata {3r} Atriplex quinii {3r (border)} Atriplex sturtii {3rC-} Atriplex turbinata {3r} Austrostipa trichophylla {3rC-} *Babingtonia behrii* {3r} Bergia diacheiron {3r} Brachyachne prostrata {3r} Brachycome A58350 Newcastle Waters Station {3r}

Bulbostylis pyriformis {3rC-} Caesia A88425 Mt Zeil {3r} Caesia chlorantha {3r (border)} Calandrinia pleiopetala {3rC-} Calotis squamigera {3r} Calotis xanthosioidea {3r} *Carex fascicularis* {3rC-} Cassinia laevis {3r} Chthonocephalus pseudevax {3r} Clematis microphylla var. microphylla {3rC-} *Cleome oxalidea* {3r} Cleome uncifera {3r (border)} *Commicarpus australis* {3r} Corynotheca licrota {3rC-} Cuphonotus andraeanus {3r} Cyperus alterniflorus {3r (border)} Cyperus laevigatus {3r (border)} Dampiera dentata {3r (border)} *Dentella minutissima* {3rC-} Dentella pulvinata {3r} *Digitaria hystrichoides* {3r} Dodonaea microzyga var. microzyga {3r} Doodia caudata var. caudata {3rC-} Dysphania sphaerosperma {3r} *Ectrosia lasioclada* {3r} Einadia nutans subsp. nutans {3rC-} Elacholoma hornii {3rC-} *Eleocharis pusilla* {3rC-} *Eleocharis setifolia* {3r} Enneapogon caerulescens var. caerulescens {3r} Eragrostis lanipes {3r} Eragrostis sterilis {3rC-} *Eremophila battii* {3r} Eremophila clarkei {3r (border)} *Eremophila cordatisepala* {3r} Eremophila dalyana {3rC-} Eremophila maculata var. brevifolia {3r}

Eremophila polyclada {3r} Eremophila rotundifolia {3r (border)} Eremophila youngii subsp. A78292 Suplejack Station {3r} Eriachne flaccida {3r} Eucalyptus cupularis {3r} Eucalyptus thozetiana {3rC-} *Fimbristylis blakei* {3rC-} Fimbristylis D70268 Connells Lagoon {3rC-} Frankenia cupularis {3r} Frankenia punctata {3r} Glinus orygioides {3r} Glischrocaryon aureum var.angustifolium {3rC-} *Glycine clandestina s.lat.* {3rC-} *Gompholobium simplicifolium* {3r} Goodenia angustifolia {3r} Goodenia brunnea {3r (border)} Goodenia calcarata {3r (border)} Goodenia glandulosa {3rC-} Goodenia havilandii {3rC-} Goodenia occidentalis {3rC-} Grevillea nematophylla {3r (border)} *Grevillea pterosperma* {3r} Gunniopsis papillata {3r} Gunniopsis quadrifida {3r} *Gunniopsis septifraga* {3r} Gymnanthera cunninghamii {3r} Halosarcia pruinosa {3r} *Harmsiodoxa puberula* {3rC-} *Hibbertia glaberrima* {3rCa} Hibiscus brachychlaenus {3r} Hibiscus sturtii var. sturtii {3rC-} *Histiopteris incisa* {3rC-} *Ipomoea argillicola* {3r} Isotropis centralis {3rC-} Juncus aridicola {3rC-} Juncus continuus {3rC-} Juncus kraussii subsp. australiensis {3rC-} *Kippistia suaedifolia* {3r} Lawrencia viridi-grisea {3r} Laxmannia arida {3r} *Lepidium strongylophyllum* {3r} Lobelia gibbosa var. gibbosa s.lat. {3rC-} Lysiphyllum gilvum {3r (border)} Lythrum wilsonii {3r} Maireana brevifolia {3rC-} Maireana carnosa {3rC-} Maireana ciliata {3r (border)} Maireana dichoptera {3r (border)} Maireana eriantha {3r (border)} Maireana lanosa {3rC-} *Maireana microcarpa* {3r} Maireana ovata {3r (border)} Maireana pentatropis {3r} Maireana pyramidata {3r} Maireana sedifolia {3rC-} Malacocera biflora {3r (border)} Menkea sphaerocarpa {3rC-} Mentha australis {3r (border)} Minuria multiseta {3r} Mirbelia ramulosa {3rC-} Monotaxis luteiflora {3r} Murchisonia volubilis {3r} Najas marina {3rC-}

Nitraria billardieri {3r} *Olearia xerophila* {3r} Ophioglossum gramineum {3r} *Ophioglossum lusitanicum* {3rC-{cryptic}} Ophioglossum polyphyllum {3rC-} Osteocarpum pentapterum {3r} Osteocarpum salsuginosum {3r} Pachycornia triandra {3r} Parietaria cardiostegia {3r} Persicaria decipiens {3rC-} Pimelea microcephala subsp. microcephala {3r} Pimelea simplex subsp. continua {3r} *Pityrodia loxocarpa* {3r} *Plagiobothrys plurisepalus* {3r} Polygala tepperi {3r} Poranthera microphylla s.lat. {3rC-} Poranthera triandra {3rC-} Portulaca digyna {3r} Potamogeton crispus {3rC-} Potamogeton pectinatus {3r} Prostanthera wilkieana {3r} Pycnosorus pleiocephalus {3r (border)} Rhodanthe laevis {3r} Rhodanthe uniflora {3r (border)} Rotala tripartita {3r} *Rulingia rotundifolia* {3r} *Rumex crystallinus* {3r} Sauropus rigens {3rC-} Scaevola collina {3r (border)} *Sclerolaena densiflora* {3r} Sclerolaena longicuspis {3r} Sclerolaena muricata var. muricata {3r} Sclerolaena parallelicuspis {3rC-} Sclerolaena parviflora {3r} Sclerostegia disarticulata {3rC-} Senecio cunninghamii var. serratus {3r} Senecio glossanthus {3r (border)} Senna artemisioides subsp. glaucifolia {3r} Senna artemisioides subsp. symonii {3r} Sida A90358 Walhallow Station {3r} *Sida calyxhymenia* {3r} Sida everistiana {3r} Sida goniocarpa {3r} Sida intricata {3r} Sorghum grande {3rC- (border)} Spartothamnella puberula {3rC-} Spergularia A43234 Andado {3r} Swainsona colutoides {3rC-} Swainsona formosa {3r} Swainsona laxa {3r} *Terminalia aridicola subsp. aridicola* {3r (border)} *Teucrium albicaule* {3r} *Tietkensia corrickiae* {3r} Trachymene bialata {3r} Trianthema glossostigma {3r} Trianthema oxycalyptra var. oxycalyptra {3r} Trichodesma zeylanicum var. grandiflorum {2r} Tricoryne elatior s.lat. {3rC-} Triodia helmsii {3r (border)} Typhonium alismifolium {3r} Velleia macrocalyx {3r} Vittadinia pterochaeta {3r} Xanthorrhoea thorntonii {3rCa} Zygophyllum ovatum {3r}.

Taxa that are poorly known in the Northern Territory

Acacia D64727 Barklys {3k} Acacia helmsiana {3k} Acacia macdonnelliensis subsp. teretifolia {3k (border)} Acacia nyssophylla {3k} Acacia pachyacra {3k} Acacia prainii {3k} Acacia sabulosa {3k} Acacia stipulosa {3k} Acacia synchronicia {3k} Acrachne racemosa {3k} Amaranthus D120438 Birrindudu Station {3k} Amaranthus macrocarpus {3k (border)} Amyema miraculosa subsp. boormanii {3k} Arabidella trisecta {3kC-} Astrebla lappacea {3k} Atriplex angulata {3k} Atriplex crassipes var. crassipes {3k} Atriplex nummularia subsp. omissa {3k (border)} Buchnera asperata {3kC- (border)} Bulbine alata {3k} Byblis rorida {3k (border)} Calandrinia disperma {3k} Calandrinia polyandra {3kC-} Calandrinia remota {3kC-} Calotis cuneifolia {3k} Calotis cymbacantha {3kC-} Calotis kempei {3k} Centipeda A92472 Toko Range {3kC-} Centipeda D18576 Andado {3k} Centipeda racemosa {3k} Chenopodium pumilio {3k} Chloris pumilio {3kC-} Commelina tricarinata {3k} *Corchorus pascuorum* {3k} Corchorus pumilio {3kC-} Corchorus walcottii {3k} Corymbia candida subsp. dipsodes {3k} Crotalaria dissitiflora var. dissitiflora {3k} Cullen corallum {3k} Cullen discolor {3k} Cullen graveolens {3k} Cymbopogon dependens {3kC-} Cyperus gilesii {3k} Cyperus oxycarpus {3kC-} Cyperus viscidulus {3k (border)} Dampiera roycei {3k} Daucus glochidiatus form ?D {3k} Daucus glochidiatus form $?G \{3k\}$ Daucus glochidiatus form B {3k} Dicrastylis doranii {3k} Dissocarpus biflorus var. biflorus {3k} Distichostemon barklyanus {3k} *Eclipta alatocarpa* {3k} Enneapogon intermedius {3k} Enteropogon minutus {3kC- (border)} Eragrostis A51007 Limestone {3k} *Eragrostis crateriformis* {3k} Eragrostis lanicaulis {3k} Eremophila alternifolia {3k} Eremophila elderi {3k} Eremophila hughesii subsp. hughesii {3k (border)} Eremophila ovata {3k} Eremophila serrulata {3k (border)} Eriachne benthamii {3kC-} Eriochiton sclerolaenoides {3k} Eriochlamys behrii {3k} Erodium angustilobum {3kC-} *Eryngium supinum* {3k}

Euphorbia stevenii {3k} *Fimbristylis corynocarya* {3k} *Fimbristylis signata* {3k} *Fimbristylis velata* {3k} Frankenia muscosa {3k} Fuirena nudiflora {3k} *Gilesia biniflora* {3k} Gomphrena leptophylla {3k} Gonocarpus eremophilus {3k} Goodenia centralis {3kC-} Hakea minyma {3k} Hakea rhombales {3k} Haloragis glauca forma glauca {3k} Halosarcia calyptrata {3k} Halosarcia halocnemoides subsp. tenuis {3k} Halosarcia indica subsp. bidens {3k} Heliotropium ballii {3k} Heliotropium diversifolium {3k} *Heliotropium epacrideum* {3k} Heliotropium geocharis {3k} Heliotropium glanduliferum {3k} *Heliotropium inexplicitum* {3k} Heliotropium leptaleum {3k} Heliotropium parviantrum {3k} Heliotropium sphaericum {3k} Heliotropium transforme {3k (border)} *Hibiscus arenicola* {3k} *Indigofera ammobia* {3k} Indigofera polygaloides {3k} *Iotasperma sessilifolia* {3k} *Iseilema calvum* {3k} Isolepis australiensis {3kC-{cryptic}} Ixiochlamys nana {3kC-} Ixiolaena tomentosa {3kC-} Jacksonia aculeata {3k} Lamarchea sulcata {3k} Lawrencia squamata {3k} Lechenaultia lutescens {3k} Lythrum paradoxum {3k} Maireana appressa {3k} Maireana lobiflora {3k} Maireana schistocarpa {3k} Malacocera tricornis {3k} Marsilea costulifera {3k} Merremia A92973 Elliott {3k (border)} Millotia greevesii subsp. helmsii {3k} Mimulus prostratus {3k} Mitrasacme laricifolia {3kC- (border)} Mukia micrantha {3k} Nesaea repens {3k} Newcastelia bracteosa {3k} Newcastelia cladotricha {3k} Nicotiana rosulata subsp. rosulata {3k} Oldenlandia argillacea {3kC-} *Olearia arida* {3k} Osteocarpum acropterum var. acropterum {3k} Oxalis radicosa {3kC-} Paractaenum novae-hollandiae subsp. reversum {3kC-} Pennisetum basedowii {3k (border)} Peplidium A88036 Tanami {3k} Peplidium foecundum {3k} Phyllanthus carpentariae {3k} Phyllanthus erwinii {3k} Pimelea penicillaris {3k} Plantago cunninghamii {3k} *Pluchea tetranthera* {3k} Polymeria A93357 Western Tanami {3k (border)} Polymeria calycina {3k (border)}
Polystichum proliferum {3k} Pomax A89438 Sand Dunes {3kC-} Portulaca oligosperma {3kC- (border)} Ptilotus aervoides {3k} Ptilotus blackii {3k} *Ptilotus brachyanthus* {3k} Ptilotus chippendalei {3k} *Ptilotus leucocoma* {3k} *Pycnosorus eremaeus* {3kC-} *Rhodanthe gossypina* {3k} Sarcostemma brevipedicellatum {3k (border)} Sauropus thesioides {3k} *Scaevola humilis* {3k} *Sclerochlamys brachyptera* {3k} *Sclerolaena birchii* {3k} Sclerolaena limbata {3k} Sclerolaena minuta {3k} Senna curvistyla {3k} Senna phyllodinea {3k} Sida A59261 Kathlene Springs {3kC-} Sida A71181 Bond Springs {3kC-} Sida A83689 Golden calyces {3kC-} Sida A90797 Rainbow Valley {3kC-} Sida A95988 Watarrka {3k} Sida D70364 Huckitta {3k} Sida laevis {3kC-} Solanum lasiophyllum {3k} Stemodia lathraia {3k (border)} Stenanthemum A81040 Docker River {3k} Streptoglossa cylindriceps {3kC-} *Stylidium floribundum* {3k}

Swainsona acuticarinata {3kC-} *Swainsona cyclocarpa* {3k} *Swainsona disjuncta* {3k} *Swainsona purpurea* {3k} *Swainsona tenuis* {3kC-} Tephrosia A27836 Dunes {3k} *Tephrosia brachycarpa* {3k} *Tephrosia uniovulata* {3k} Tetragonia eremaea {3k} Thaumastochloa pubescens {3k} Threlkeldia inchoata {3k} *Trachymene ceratocarpa* {3k} *Trachymene villosa* {3k} *Trianthema turgidifolia* {3k} Tribulopis sessilis {3kC- (border)} Trichanthodium skirrophorum {3kC-} Triodia latzii {3k} Triumfetta centralis {3k} *Triumfetta chaetocarpa* {3k} Triumfetta clivorum subsp. brevipetala {3k} *Triumfetta deserticola* {3k} Triumfetta johnstonii {3k} Triumfetta maconochieana {3k} Verbena macrostachya {3k} Vittadinia dissecta var. hirta {3kC-} *Vittadinia pustulata* {3kC-} Yakirra muelleri {3k} Zygophyllum aurantiacum subsp. *simplicifolium* {3k (border)} *Zygophyllum rowelliae* {3k}.

TAXA AT THE SOUTHERN NORTHERN TERRITORY LEVEL OF SIGNIFICANCE

Major southern NT level of significance type: threatened

Christella dentata Dicranopteris linearis var. linearis Eleocharis geniculata.

Major southern NT level of significance type: disjunct and rare

Microcarpaea minima

Major southern NT level of significance type: rare

Lindsaea ensifolia subsp. ensifolia Psilotum nudum.

Major southern NT level of significance type: disjunct and apparently rare

Bacopa floribunda. Cajanus acutifolius Centipeda minima subsp. A59802 Elkedra Cymbopogon refractus Cyperus cristulatus Cyperus cuspidatus Cyperus microcephalus subsp. microcephalus Eriochloa procera Fimbristylis cinnamometorum Fimbristylis nuda Fimbristylis squarrulosa Fimbristylis trachycarya Imperata cylindrica Phragmites australis Schoenus falcatus Wedelia verbesinoides

Major southern NT level of significance type: apparently rare

Acacia shirleyi Commelina ciliata Crinum angustifolium Fimbristylis tristachya Goodenia paludicola Grevillea parallela Hibiscus panduriformis var. panduriformis Hibiscus pentaphyllus Ipomoea plebeia Nymphoides aurantiaca Triumfetta micracantha

Major southern NT level of significance type: disjunct

Acacia conspersa Acacia hemsleyi Adiantum hispidulum var. hispidulum Arundinella setosa Bothriochloa bladhii subsp. bladhii Byblis filifolia Crotalaria novae-hollandiae subsp. novae-hollandiae Cyclosorus interruptus Cyperus castaneus Desmodium filiforme Echinochloa elliptica Ectrosia leporina Eragrostis exigua Fimbristylis rara Fimbristylis sieberana Gonocarpus chinensis s.lat. Goodenia odonnellii Grevillea dryandri subsp. dryandri Marsilea crenata

Marsilea mutica Mitrasacme micrantha Najas tenuifolia Nymphoides indica Ottelia ovalifolia Panicum mindanaense Petalostigma banksii Plumbago zeylanica Schizachyrium pseudeulalia Sesbania benthamiana Sporobolus virginicus Stylidium multiscapum Tephrosia oblongata Terminalia savannicola Vallisneria annua Vallisneria nana Xyris complanata Zornia chaetophora Zornia muriculata subsp. angustata.

Appendix 2. Comparative Tables of Conservation Codes and Names for Significant Plant Taxa of the Southern Bioregions of the NT

This appendix includes three tables. Table 1 lists the conservation codes assigned in this report together with the codes assigned in the following four sources.

- Schedule 1 (February 2000) to the Commonwealth Endangered Species Protection Act (1992) (ESPA). This schedule is largely based on the ANZECC list maintained by the Australian and New Zealand Environment and Conservation Council (Male 1998). The latest ANZECC list, gazetted in October 1999, lists the same species for the southern bioregions of the NT as does the February 2000 Schedule 1 to the ESPA. During preparation of the final draft of this document the ESPA was replaced by the Environmental Protection and Biodiversity Conservation Act 1999, however the list of species remained the same at the time of writing. Note that Schedule 1 follows the IUCN coding convention where as the other sources follow the coding convention of Briggs and Leigh (1988).
- Vascular Plant Checklist for The Southern Bioregions of the Northern Territory: Nomenclature, Distribution and Conservation Status (Albrecht et al., 1997).
- Rare or Threatened Australian Plants (Revised edition) (Briggs and Leigh, 1995).
- Northern Territory Plant Species of Conservation Significance. Northern Territory Botanical Bulletin No. 13 (Leach *et al.*, 1992).

For completeness all taxa assigned National or NT conservation codes in this report are listed in Table 1. Taxa of bioregional and southern Northern Territory significance are included only if they are listed in one or more of the other sources. Where the name used for a taxon in one of the other sources differs from the current name for that same taxon in this report, this is indicated by the Greek letter delta ($^{\delta}$) and the name is listed in Table 2.

Table 2 lists the current name used in this report, alongside an outdated or manuscript name for the same taxon used in one of the other consulted references. This allows the reader to trace the synonymy of significant taxa across the various important references dealing with conservation codes.

Table 3 lists taxa that have been assigned a national threatened code (i.e. vulnerable or endangered) in this report or in one of the 4 additional sources listed above. This table highlights the taxa of acute concern and may assist with any future review of the ANZEC and Commonwealth Environmental Protection and Biodiversity Conservation Act 1999 lists.

Appendix 2.	Table 1.	Comparison	of Coi	iservation	Codes	assigned	to significan	t species.
		000000000000000000000000000000000000000			00400			

Species listed as significant		This report		Other sources			
		×	ESPA (Feb 2000)	Albrecht <i>et al.</i> , 1997	Briggs & Leigh, 1995	Leach <i>et al.</i> , 1992	
Abutilon halophilum	NT	3r	-	3r	1770	3r	
Abutilon lepidum	NT	3r		3r		3r	
Acacia A86979 Krichauff Range	national	2K		2K			
Acacia abbreviata	national	38		3K	3K	3K	
Acacia ammobia	national	3RC-		3RC-	3RC-	3RC-	
Acacia auricoma	national	3K		3K	3K	3K	
Acacia chisholmii	NT	3r (border)		3r (border)		3r	
Acacia D64727 Barklys	NT	3k		3k			
Acacia D7472 Indiana Station	NT	3r		3r			
Acacia desmondii	national	38		3R			
Acacia dolichophylla	national	2RC-		2RC-	2RC-	3RC-	
Acacia grashvi	NT	3rC-		3rC-	21(0	3RC-	
Acacia helmsiana	NT	3k		3k		5100	
Acacia latzii	national	3V	VU	3V	3V	3V	
Acacia macdonnelliensis subsp	NT	3k (border)		3k		51	
teretifolia		SK (border)		JK			
Acacia maconochieana	NT	3r		3r		3R	
Acacia nyssophylla	NT	3k		3k			
Acacia pachyacra	NT	3k		3k			
Acacia peuce	national	3VCi	VU	3VCi	3VCi	3VCi	
Acacia pickardii	national	3V	VU	3V	3K	3V	
Acacia prainii	NT	3k		3k			
Acacia ptychophylla	NT	3r		3r (border)			
Acacia sabulosa	NT	3k		3k ⁸			
Acacia stipulosa	NT	3k		3k			
Acacia symonii	NT	3r (border)		3r (border)			
Acacia synchronicia	NT	3k		3k			
Acacia tephrina	NT	3r		3r		3r	
Acacia undoolyana	national	2VCi	VU	2VCi	2VCi	2VCi	
Acacia wiseana	NT	3r		3r		3r	
Acmella grandiflora var. grandiflora	national	3K					
Acrachne racemosa	NT	3k		3k			
Actinobole uliginosum	bioreg.			3kC-			
Actinotus schwarzii	national	3VCa	VU	3VCa	3VCi	3VC-	
Adiantum capillus-veneris	NT	3vCi		3vCi		3v	
Adiantum hispidulum	not sig.	-				3rC-	
Agrostis avenacea	NT	3rC-		3rC-		3rC-	
Amaranthus cochleitepalus	NT	3rC-		3rC-		3rC-	
Amaranthus D120438 Birrindudu	NT	3k		3k			
Station							
Amaranthus macrocarpus	NT	3k (border)					
Amperea spicata	national	2RCa		2RCa	2RCa	2RCa	
Amyema miraculosa subsp. boormanii	NT	3k		3k			
Amyema subcapitata	not sig.	-		1K	1K ^δ	1K ^δ	
Anemocarpa podolepidium	NT	3r (border)		3r (border)			
Arabidella glaucescens	NT	3r		3r		3r	
Arabidella nasturtium	NT	3r		3r		3r	
Arabidella procumbens	NT	3r		3r		3r	
Arabidella trisecta	NT	3kC-		3kC-			
Aristida longicollis	NT	3r		3r		3r	
Arthropodium strictum	NT	3rC-		3rC-		3rC- ^δ	
Astrebla lappacea	NT	3k		3k			
Atriplex angulata	NT	3k		3k			
Atriplex crassipes var. crassipes	NT	3k		3k			
Atriplex eardlevae	NT	3r		3r		3r	
Atriplex fissivalvis	NT	3r (border)		3r (border)			
Atriplex flabelliformis	NT	3r (border)		3r (border)		3R	
Atriplex incrassata	NT	3r (border)		3r (border)		3r	
Atriplex intermedia	NT	3r		3r			

Species listed as significant		This report	Other sources			
- F			ESPA (Feb 2000)	Albrecht <i>et al.</i> , 1997	Briggs & Leigh, 1995	Leach <i>et al.</i> , 1992
Atriplex lobativalvis	NT	3r		3r		
Atriplex morrisii	Aus	3К		3K	3K	3r
Atriplex muelleri	NT	3r		3r		3r
Atriplex nummularia subsp. omissa	NT	3k (border)		3k		
Atriplex pseudocampanulata	NT	3r (border)		3r		3r
Atriplex quadrivalvata var.	NT	3r		3r		3r ^δ
quadrivalvata						
Atriplex quinii	NT	3r (border)		3r (border)		3r
Atriplex sturtii	NT	3rC-		3rC-		3rC-
Atriplex turbinata	NT	3r		3r		3r
Austrostipa aquarii	Aus	3RC-		3RC- ^δ	3RC- ^δ	3RC- ⁸
Austrostipa centralis	Aus	3RC-		$3RC-^{\delta}$	3RC- ^δ	3RC- ⁸
Austrostipa feresetacea	Aus	3RC-		$3RC-^{\delta}$	$3RC-^{\delta}$	$3RC-^{\delta}$
Austrostipa trichophylla	NT	3rC-		3rC- ^δ		
Babingtonia behrii	NT	3r				
Baumea arthrophylla	NT	3vC-		3vC-		3rC-
Bergia barklyana	Aus	3R		3R	3R	3R
Bergia diacheiron	NT	3r		3r		3r
Bergia occultipetala	Aus	3R		3R	3R	3R
Bolboschoenus caldwellii	NT	3vC-		3vC-		3rC-
Bonamia alatisemina	Aus	3K		3k	3K	3r
Brachyachne prostrata	NT	3r		3r		
Brachycome A58350 Newcastle Waters Station	NT	3r		3r		
Buchnera asperata	NT	3kC- (border)		3kC-		
Bulbine alata	NT	3k		3k(cryptic)		
Bulbostylis pyriformis	NT	3rC-		3rC-		3rC-
Byblis rorida	NT	3k (border)				
Caesia A88425 Mt Zeil	NT	3r				
Caesia chlorantha	NT	3r (border)		3r		3r
Calandrinia disperma	NT	3k		3k		
Calandrinia pleiopetala	NT	3rC-		3rC-		3rC-
Calandrinia polyandra	NT	3kC-		3kC-		
Calandrinia remota	NT	3kC-		3kC-		
Calandrinia reticulata	bioreg.	- CR (apparently rare) SSD (northern range limit)		3kC-		3rC-
Callistemon pauciflorus	Aus	3RC-		3RC-	3RC-	3rC-
Calotis cuneifolia	NT	3k		3k		
Calotis cymbacantha	NT	3kC-		3kC-		
Calotis kempei	NT	3k		3k		
Calotis squamigera	NT	3r		3r		3r
Calotis xanthosioidea	NT	3r		3r		
Carex fascicularis	NT	3rC-		3rC-		3rC-
Cassinia laevis	NT	3r				
Centipeda A92472 Toko Range	NT	3kC-		3kC-		
Centipeda D18576 Andado	NT	3k		3k		
Centipeda racemosa	NT	3k		3k		
Centrolepis eremica	bioreg.	- TAN (disjunct and apparently rare)				3rC- °
Chenopodium pumilio	NT	3k		3k		
Chloris pumilio	NT	3kC-		3kC-		
Chthonocephalus pseudevax	NT	3r		3r		3rC-
Clematis microphylla var. microphylla	NT	3rC-		3rC-		3rC- ^ŏ
Cleome oxalidea	NT	3r		3r		
Cleome uncifera	NT	3r (border)		3r		3R
Comesperma A77288 Tanami	Aus	3R		3R	3R ⁸	3R
Comesperma viscidulum	Aus	3KC-		3KC-	3KC-	3KC-
Commelina tricarinata	NT	3k		3k		
Commicarpus australis	NT	3r		3r		3r

Species listed as significant		This report		Other sources		
~ F			ESPA	Albrecht	Briggs &	Leach
			(Feb 2000)	et al.,	Leigh,	et al.,
			` ´	1997	1995	1992
Corchorus elderi	Aus	3K			3K	3K
Corchorus fascicularis	not sig.	-				3r
Corchorus pascuorum	NT	3k		3k		
Corchorus pumilio	NT	3kC-		3kC-		
Corchorus walcottii	NT	3k		3k		
Corymbia candida subsp. dipsodes	NT	3k		3k		
Corymbia pachycarpa subsp.	Aus	3К		3K		
glabrescens						
Corynotheca asperata	Aus	3K		3K		3K
Corynotheca licrota	NT	3rC-		3rC-		
Cratystylis A36062 Glen Helen	Aus	3RC- endemic		3RC-	3R ⁸	3R
Crotalaria dissitiflora var. dissitiflora	NT	3k		3k		
Crotalaria juncea	not sig.	-				1K ^δ
Cullen corallum	NT	3k				
Cullen discolor	NT	3k		3k ^o		
Cullen graveolens	NT	3k		3k ^δ		
Cullen walkingtonii	Aus	3KC-		3KC- ^δ	3K ^δ	3K ^δ
Cuphonotus andraeanus	NT	3r		3r		3r
Cyanthillium cinereum s.lat.	bioreg.	- MAC (disjunct)				3rC- ^δ
		- BRT (disjunct)				
		- DAV (disjunct)				
		- TAN (disjunct)				
Cyclosorus interruptus	sthn NT	(disjunct)				3rC-
Cymbopogon dependens	NT	3kC-		3kC-		3RC-
Cymbopogon refractus	sthn NT	(disjunct & apparently rare)				3rCi
Cyperus alterniflorus	NT	3r (border)		3r (border)		
Cyperus gilesii	NT	3k		3k		
Cyperus laevigatus	NT	3r (border)		3r (border)		3r
Cyperus oxycarpus	NT	3kC-		3kC-		
Cyperus polystachyos	bioreg.	- BRT (rare and disjunct) MAC (disjunct)				3rC-
Cyperus viscidulus	NT	3k (border)		3k		
Dampiera dentata	NT	3r (border)		3r		
Dampiera roycei	NT	3k		3k		
Daucus glochidiatus form ?D	NT	3k		3k		
Daucus glochidiatus form ?G	NT	3k		3k		
Daucus glochidiatus form B	NT	3k		3k		
Daviesia arthropoda	Aus	3KCa		3KCa	3KCa	3rCa
Daviesia eremaea	Aus	3K		3K	3K	3K
Dentella minutissima	NT	3rC-		3rC-		3rC-
Dentella pulvinata	NT	3r		3r		
Dicranopteris linearis	not sig.	-				3rC-
Dicrastylis doranii	NT	3k		3k		
Dicrastylis petermannensis	Aus	3K (border)		3K	2K	1K
Digitaria hystrichoides	NT	3r		3r		3r
Diodontium filifolium	Aus	3R (border)		3R	3K	3r
Dissocarpus biflorus var. biflorus	NT	3k				
Distichostemon barklyanus	NT	3k		3k		
Dodonaea microzyga	not sig.	-				3r
Dodonaea microzyga var. microzyga	NT	3r		3r		
Doodia caudata	not sig.	-				3rC-
Doodia caudata var. caudata	NT	3rC-		3rC-		
Dysphania sphaerosperma	NT	3r		3r		3r
Eclipta alatocarpa	NT	3k		3k		
Ectrosia lasioclada	NT	3r		3r		3r
Einadia nutans subsp. nutans	NT	3rC-		3rC-		
Elacholoma hornii	NT	3rC-		3rC-		3RC-
Eleocharis geniculata	sthn NT	(threatened)				3vC-
Eleocharis papillosa	Aus	3R		3R	3KC-	3KC-
Eleocharis pusilla	NT	3rC-		3rC-		3rC-

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Αı	mendi	IX 7.	Tahl	eΙ	continued	('0'	mnarison (۱ Т -	Conservation	Code	s assior	ed :	ta si	onificant	snecies
4 x b	penu		, 1 avi	U I	. commucu.	CU	mparison (Conservation	Cout	o abbigi	ucu	10 51	Smittant	species.

Species listed as significant		This report	Other sources				
			ESPA (Feb 2000)	Albrecht <i>et al.</i> , 1997	Briggs & Leigh, 1995	Leach <i>et al.</i> , 1992	
Eleocharis setifolia	NT	3r		3r	1775	3r	
Enneapogon caerulescens var.	NT	3r		3r			
caerulescens				01			
Enneapogon intermedius	NT	3k		3k (easily confused)			
Enteropogon minutus	NT	3kC- (border)		3kC-			
Eragrostis A 51007 Limestone	NT	3k		JAC			
Eragrostis crateriformis	NT	3k		3k			
Eragrostis lanicaulis	NT	3k		3k			
Eragrostis lanipes	NT	3r		3r			
Eragrostis sterilis	NT	3rC-		3rC-		3rC-	
Eragrostis subtilis	Aus	3K		3K			
Eremophila A48866 Rainbow Valley	Aus	2VCi	VUδ	2VCi	2VCi ^δ	3VCi	
Fremophila A90760 Arookara Range	Διις	28	10	27.01 2R	2701	0.01	
Fremophila alternifolia	NT	3k		210			
Eremophila battii	NT	3r		3r		3r	
Eremophila clarkei	NT	3r (border)		3r		3r	
Fremonhila cordatisenala	NT	3r		3r		3r	
Eremophila dalvana	NT	3rC-		3rC-		3rC-	
Eremophila elderi	NT	3k		510-		510-	
Eremophila bughesii	not sig	JK		31-			
Eremophila hughesii subsp. A28811 Bloods Range	Aus	3K		JK			
Eremophila hughesii subsp. hughesii	NT	3k (border)					
Eremophila maculata var. brevifolia	NT	3r					
Eremophila ovata	NT	3k		3k			
Eremophila polyclada	NT	3r		3r			
Eremophila rotundifolia	NT	3r (border)		3r (border)		3r	
Eremophila serrulata	NT	3k (border)		3k (border)			
Eremophila youngii subsp. A78292 Suplejack Station	NT	3r		3r		3r ⁸	
Eriachne benthamii	NT	3kC-		3kC-			
Eriachne flaccida	NT	3r		3r			
Eriachne scleranthoides	Aus	2RCa		2RCa	3KCa	2RCa	
Eriocaulon A87689 Arid Zone	not sig.	-				1K ^δ	
Eriocaulon D76325 Cape Shield	not	in the southern bioregions of	the NT	3k			
Eriochiton sclerolaenoides	NT	3k		3k			
Eriochlamvs behrii	NT	3k		3k			
Erodium angustilobum	NT	3kC-		3kC-			
Eryngium supinum	NT	3k					
Eucalyptus cupularis	NT	3r		3r			
Eucalyptus helenae	Aus	2K (border)		2K			
Eucalyptus lucens	Aus	3RC-		3RC-	3RC-	3rC-	
Eucalyptus sparsa	Aus	3K (border)		3K	3K	3R	
Eucalyptus thozetiana	NT	3rC-		3rC-		3rC-	
Euphorbia sarcostemmoides	Aus	3KCa		3KCa	3KCa	3RCa	
Euphorbia stevenii	NT	3k		3k			
Fimbristylis blakei	NT	3rC-		3rC-		3RC-	
Fimbristylis corynocarya	NT	3k		3k			
Fimbristylis D70268 Connells Lagoon	NT	3rC-		3rC-			
Fimbristylis sieberana	sthn NT	(disjunct)				3rC-	
Fimbristylis signata	NT	3k		3k			
Fimbristylis velata	NT	3k		3k(cryptic)			
Frankenia cupularis	NT	3r		3r			
Frankenia muscosa	NT	3k					
Frankenia punctata	NT	3r		3r		3r	
Frankenia stuartii	Aus	1K		1K	1K	1K	
Fuirena nudiflora	NT	3k		3k(easily confused)			
Gilesia biniflora	NT	3k		3k			
Glinus orygioides	NT	3r		3r		3k	

Volume 1, Part 1, Page 69 Appendix 2. Comparative tables of conservation codes and names of significant plant taxa of the southern bioregions of the NT

Species listed as significant		This report Other sources				
opecco instea as significant			ESPA (Feb 2000)	Albrecht <i>et al.</i> , 1997	Briggs & Leigh, 1995	Leach <i>et al.</i> , 1992
Glischrocaryon aureum	not sig.	_				3rC-
Glischrocaryon aureum var. angustifolium	NT	3rC-		3rC-		
Glycine clandestina s lat.	NT	3rC-		3rC-		
Gompholobium simplicifolium	NT	3r		3r		3r
Gomphrena leptophylla	NT	3k		3k ^δ		
Gonocarpus eremophilus	NT	3k		3k		
Goodenia A44284 Subsaline	Aus	3K		3K		
Goodenia anfracta	Aus	3KC-		3KC-		
Goodenia angustifolia	NT	3r		3r		
Goodenia brunnea	NT	3r (border)		3r		
Goodenia calcarata	NT	3r (border)		3r (border)		
Goodenia centralis	NT	3kC-		3kC-		
Goodenia D70208 Barkly	Aus	3KC- (border)		3KC-		
Goodenia faucium	Aus	2R		2R	2R	2R
Goodenia glandulosa	NT	3rC-		3rC-		
Goodenia havilandii	NT	3rC-		3rC-		3rC-
Goodenia nigrescens	Aus	3KC-		3KC-		
Goodenia occidentalis	NT	3rC-		3rC-		
Goodenia rupestris	Aus	2R (border)		2R	2R	2R
Gossypium nelsonii	Aus	3RC-		3RC-	3RC-	3RC-
Grevillea nematophylla	NT	3r (border)		3r (border)		3r
Grevillea pterosperma	NT	3r		3k		
Gunniopsis papillata	NT	3r		3r		
Gunniopsis quadrifida	NT	3r		3r		
Gunniopsis septifraga	NT	3r		3r		3r
Gymnanthera cunninghamii	NT	3r		3r		
Gypsophila tubulosa	not sig.	-				$3rC-$ (now considered introduced) δ
Hakea grammatophylla	Aus	3RC-		3RC-	3RC-	3rC-
Hakea minyma	NT	3k		3k		
Hakea rhombales	NT	3k		3k		
Hakea standleyensis	Aus	3RC-		3RC-	2RC-	2RC-
Haloragis glauca forma glauca	NT	3k		3k		
Halosarcia calyptrata	NT	3k		3k		
Halosarcia halocnemoides subsp. tenuis	NT	3k		3k		
Halosarcia indica subsp. bidens	NT	3k		3k		
Halosarcia pruinosa	NT	3r		3r		3r
Harmsiodoxa puberula	NT	3rC-		3rC-		3rC-
Harnieria kempeana	not sig.	-				$3RC-^{\delta}$
Harnieria kempeana subsp. kempeana	Aus	3RC-		3RC-	3RC- ^δ	
Heliotropium ballii	NT	3k		3k		
Heliotropium diversifolium	NT	3k		3k		
Heliotropium epacrideum	NT	3k				
Heliotropium geocharis	NT	3k		3k		
Heliotropium glanduliferum	NT	3k		3k		
Heliotropium heteranthum	not sig.	-		3kC-		
Heliotropium inexplicitum	NT	3k		3k		
Heliotropium leptaleum	NT	3k		3k		
Heliotropium parviantrum	NT	3k		3k		
Heliotropium pulvinum	NT	3k		3k		
Heliotropium skeleton	bioreg.	- TAN (northern and eastern range limit)		3k		
Heliotropium sphaericum	NT	3k		3k		
Heliotropium subreniforme	Aus	3K		3K		
Heliotropium transforme	NT	3k (border)				
Hibbertia A86497 Chewings Range	Aus	3RC-		3RC-	3 RC- $^{\delta}$	3RC-
Hibbertia glaberrima	NT	3rCa		3rCa	3KCa	3RCa

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Annendix 2	Table I	confinited	Comparison (nt ('nnser	vation	C'Adec	assigned	1 ta sia	miticant	SUBSCIES
rippendix 2,	I abit I	commucu.	Comparison v		auton	Coucs	assigned	1 10 516	Jiiiicaii	species.

Species listed as significant		This report		Other sources			
1 0		ľ	ESPA	Albrecht	Briggs &	Leach	
			(Feb 2000)	et al.	Leigh.	et al.	
			(_ 0.0 _ 0 0 0)	1997	1995	1992	
Hibiscus arenicola	NT	3k		3r		3r	
Hibiscus brachychlaenus	NT	3r		3r		3r	
Hibiscus sturtii var. sturtii	NT	3rC-		3rC-		3RC-	
Histiopteris incisa	NT	3rC-		3rC-		3rC-	
Hydrocotyle A39600 Watarrka	Aus	2RC-		2RC-	2RC- ^δ	2RC-	
Hydrocotyle D62620 Harts Range	Aus	2R		2R	2R δ	2R	
Imperata cylindrica	sthn NT	(disjunct & apparently rare)				3rC-	
Indigofera A83977 Arevonga	Aus	2E		1V			
Indigofera ammobia	NT	3k		3k			
Indigofera polygaloides	NT	3k		3k			
Iotasperma sessilifolia	NT	3k		3kC- ^δ			
Ipomoea A83192 Stirling	Aus	2E	VU ^δ	2V	2V ^δ	2V	
Ipomoea argillicola	NT	3r		3r		3r	
Ipomoea diamantinensis	not sig.	-		3kC-			
Iseilema calvum	NT	3k		3k			
Iseilema convexum	not sig.	-		3r			
Isolepis australiensis	NT	3kC-(cryptic)		3kC-(cryptic)			
Isotoma luticola	Aus	3R		3R	3R	3R	
Isotropis argentea	not sig	-		1K			
Isotropis centralis	NT	3rC-		3rC-		3rC-	
Ixiochlamys integerrima	Aus	3K		3K	3K	3R	
Ixiochlamys nana	NT	3kC-		3kC-			
Ixiolaena tomentosa	NT	3kC-		3kC-			
Jacksonia aculeata	NT	3k		3k			
Juncus aridicola	NT	3rC-		3rC-		3rC-	
Juncus continuus	NT	3rC-		3rC-		3rC-	
Juncus kraussii subsp. australiensis	NT	3rC-		3rC-		3rC- ^δ	
Kippistia suaedifolia	NT	3r		3v			
Kohautia australiensis	Aus	3KC-		3KC-	3KC-		
Lamarchea sulcata	NT	3k		3k			
Lawrencia squamata	NT	3k		3k			
Lawrencia viridi-grisea	NT	3r		3r			
Laxmannia arida	NT	3r		3r		3r	
Lechenaultia lutescens	NT	3k		3k			
Lepidium strongylophyllum	NT	3r		3r		3r	
Leucopogon sonderensis	Aus	3RC-		3RC-	3RC-	3RC-	
Lindernia A4814 Willowra	Aus	1R		1R			
Livistona mariae subsp. mariae	Aus	2VCa	VU		2VCa ^δ	2VCa ^δ	
Lobelia gibbosa var. gibbosa s.lat.	NT	3rC-					
Logania centralis	Aus	3KC-		3KC-	3КС- ^δ	$3rC-^{\delta}$	
Lomandra patens	Aus	3RCa		3RCa	3RCa	3RC-	
Lysiphyllum gilvum	NT	3r (border)		3r (border)			
Lythrum paradoxum	NT	3k		3k			
Lythrum wilsonii	NT	3r		3r			
Macrozamia macdonnellii	Aus	3VCa	VU	3VCa	3VCa	3VCa	
Maireana appressa	NT	3k		3k			
Maireana brevifolia	NT	3rC-		3rC-		3r	
Maireana carnosa	NT	3rC-		3rC-		3r	
Maireana ciliata	NT	3r (border)		3r (border)			
Maireana dichoptera	NT	3r (border)					
Maireana eriantha	NT	3r (border)		3r			
Maireana lanosa	NT	3rC-		3rC-			
Maireana lobiflora	NT	3k					
Maireana microcarpa	NT	3r		3r		3r	
Maireana ovata	NT	3r (border)		3r		3r	
Maireana pentatropis	NT	3r		3r		3r	
Maireana pyramidata	NT	3r		3r		3r	
Maireana schistocarpa	NT	3k		3k			
Maireana sedifolia	NT	3rC-		3rC-		3rC-	
Malacocera biflora	NT	3r (border)		3r		3r	

Species listed as significant		This report	Other sources			
		·	ESPA	Albrecht	Briggs &	Leach
			(Feb 2000)	<i>et al.</i> ,	Leigh,	<i>et al.</i> ,
Malaasaana tuisamia	NT	21.		199 7	1995	1992
Marsilea costulifera	NT	34		JK		
Marsilea latzii		2D		2D §		
Malalayaa fulaans subsp. oormaata	Aus	2P (horder)		2D	20 δ	20 δ
Medaeuca Julgens subsp. corrugala	Aus	3R (bolder)		3K 2::C	JK	3K
Menkea sphaerocarpa Montha australia	IN I NT	3r (hordor)		3r (border)		51
Menina australis	IN I NT	21 (border)		21r		
Merremia A92975 Ellioli Miorocomis magnadiana	1N I Aug				21/	21/
Milotia arowasii subsp. halmsii	Aus	<u> </u>		21	лс	лс
Miniolia greevesti suosp. neimsti Mimulus prostratus	NT			31/2		
Minuus prostruus Minuria multiseta	NT	3r		3r		
Minuria tridens			VII	3VCa	3KCi	2VCi
Minula maens Mirhelia ramulosa	NT	3rC-	•0	3rC-	51101	2 v C1
Mitrosacme laricifolia	NT	3kC- (border)		3kC-		510-
Mitrasacme lutea		3R (border)		JRC-		
Manataris luteiflora	NT	3r		3r		3r
Mukia A90788 Tobermorev Station		3V		3V		51
Mukia micrantha	NT	34		3k		3r
Murchisonia volubilis	NT	3r		3r		3r
Najas marina	NT	3rC-		3rC-		3rC-
Nenhrolenis arida	Aus	3KC-		3KC-	3KC-	3rC-
Nesaea repens	NT	3k		3k	JIC	510
Neurachne tenuifolia	Aus	3RCa		3RCa	3RCa	3RCa
Newcastelia bracteosa	NT	3k		3k	Siteu	Sitteu
Newcastelia cladotricha	NT	3k		3k		
Nicotiana rosulata subsp. rosulata	NT	3k				
Nitraria hillardieri	NT	3r		3r		
Nymphaea immutabilis subsp.	NT	3v		3v		
immutabilis						
Olax spartea	Aus	3К		3K	3K	
Oldenlandia argillacea	NT	3kC-		3kC-		
Oldenlandia spathulata	Aus	3K (border)			2K	
Olearia arida	NT	3k		3k		
Olearia macdonnellensis	Aus	3VCi	VU	3VCi	3VCi	3VCi
Olearia xerophila	NT	3r		3r		3r
Ophioglossum gramineum	NT	3r		3r		3r
Ophioglossum lusitanicum	NT	3rC-(cryptic)		3rC-(cryptic)		
Ophioglossum polyphyllum	NT	3rC-		3rC-(cryptic)		
Osteocarpum acropterum var.	NT	3k		3k		
acropterum						
Osteocarpum pentapterum	NT	3r		3r		3r
Osteocarpum salsuginosum	NT	3r		3r		3r
Oxalis radicosa	NT	3kC-		3kC-		
Ozothamnus A25067 Petermann Ranges	Aus	3K (border)		3k	3K ^δ	
Pachycornia triandra	NT	3r				
Paractaenum novae-hollandiae subsp.	NT	3kC-		3kC-		
reversum						
Parietaria cardiostegia	NT	3r		3r		
Pennisetum basedowii	NT	3k (border)		3k		
Peplidium A88036 Tanami	NT	3k		3k	3K ^δ	
Peplidium foecundum	NT	3k		3k		
Persicaria decipiens	NT	3rC-		3rC-		
Phyllanthus carpentariae	NT	3k		3k		
Phyllanthus erwinii	NT	3k		3k		
Phyllanthus lacerosus	Aus	3KC-		3KC-		
Phyllanthus oblanceolatus	Aus	3KC-		3KC-		
Pimelea interioris	Aus	2RC-		2RC-	2RC-	2RC-
Pimelea microcephala subsp.	NT	3r		3r		
microcephala						
Pimelea penicillaris	NT	3k		3k		

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Species listed as significant		This report	Other sources			
		•	ESPA	Albrecht	Briggs &	Leach
			(Feb 2000)	et al.,	Leigh,	et al.,
				1997	1995	1992
Pimelea simplex subsp. continua	NT	3r		3r (border)		3r ^δ
Pityrodia chorisepala	Aus	3К		3K	3K	3K
Pityrodia loricata	Aus	3К		3R	3K	3K
Pityrodia loxocarpa	NT	3r		3r		3k
Plagiobothrys plurisepalus	NT	3r		3r		3r
Plantago cunninghamii	NT	3k		3k		
Plantago multiscapa	Aus	3К		3K	3K	3k
Pluchea A87409 Ormiston	Aus	3К				
Pluchea tetranthera	NT	3k		3k		
Plumbago zeylanica	sthn NT	(disjunct)				3r
Polygala gabrielae	Aus	3KC-		3kC-		
Polygala tepperi	NT	3r		3r		
Polymeria A93357 Western Tanami	NT	3k (border)		3k		
Polymeria calycina	NT	3k (border)		3k		
Polystichum proliferum	NT	3k				
Pomax A89438 Sand Dunes	NT	3kC-		3kC-		
Poranthera microphylla s.lat.	NT	3rC-		3rC-		
Poranthera triandra	NT	3rC-		3rC-		
Portulaca digyna	NT	3r		3r		3r
Portulaca oligosperma	NT	3kC- (border)		3kC-		
Potamogeton crispus	NT	3rC-		3rC-		
Potamogeton pectinatus	NT	3r		3r		
Prostanthera centralis	Aus	3К		3K	3K	3R
Prostanthera wilkieana	NT	3r		3r		
Ptilotus A77612 Tanami Downs	Aus	1K (border)		1K		
Ptilotus aervoides	NT	3k		3k		
Ptilotus aristatus	not sig.	-			3R	3R
Ptilotus aristatus var. aristatus	Aus	3R (border)		3R		3R
Ptilotus aristatus var. eichlerianus	Aus	3R		3R		3R
Ptilotus aristatus var. exilis	Aus	2R		2R		3R
Ptilotus aristatus var. stenophyllus	Aus	2R		2R		3R
Ptilotus blackii	NT	3k		3k		
Ptilotus brachvanthus	NT	3k		3k		
Ptilotus chippendalei	NT	3k		3k		
Ptilotus leucocoma	NT	3k		3k		
Ptilotus robynsianus	Aus	3K		3K	3K	3K
Ptilotus royceanus	Aus	3K (border)		3K	3K	2R
Pycnosorus eremaeus	NT	3kC-		3kC-		
Pycnosorus pleiocephalus	NT	3r (border)				
Rhamphicarpa australiensis	Aus	3RC-		3VC-	3RC-	3V
Rhodanthe gossypina	NT	3k		3k		
Rhodanthe laevis	NT	3r		3r (border)		
Rhodanthe microglossa	not sig.	_		. , ,		3r ^δ
Rhodanthe uniflora	NT	3r (border)		3r (border)		_
Ricinocarpos gloria-medii	Aus	2VCa	VU	2VCa	2VCa	2VCa
Rotala tripartita	NT	3r		3r		
Rothia indica subsp. australis	Aus	3KC-				
Rothia trifoliata	not sig.	-		3KC-		
Rulingia rotundifolia	NT	3r		3r		
Rumex crystallinus	NT	3r		3?v		
Samolus eremaeus	Aus	3KC-		3KC-	3KC-	3rC-
Sarcostemma brevipedicellatum	NT	3k (border)		3k		-
Sauropus ramosissimus	Aus	3KC-		3KC-	3KC-	3rC-
Sauropus rigens	NT	3rC-		3rC-		
Sauropus thesioides	NT	3k		3k		3k
Scaevola collina	NT	3r (border)		3r		
Scaevola graminea	Aus	3R		3R		
Scaevola humilis	NT	3k		3k		
Scaevola obovata	Aus	3K			2K	
Schoenus centralis	Aus	3K		3K	3K	3R

Species listed as significant		This report	Other sources			
L B		ľ	ESPA	Albrecht	Briggs &	Leach
			(Feb 2000)	et al.,	Leigh,	et al.,
				1997	1995	1992
Schoenus falcatus	sthn NT	(disjunct & apparently rare)				3rC-
Sclerochlamys brachyptera	NT	3k		3k		
Sclerolaena birchii	NT	3k				
Sclerolaena densiflora	NT	3r		3r		
Sclerolaena diacantha s.lat.	not sig.	-				3K ⁸
Sclerolaena limbata	NT	3k		3k		3r
Sclerolaena longicuspis	NT	3r		3r		3r
Sclerolaena minuta	NT	3k		3k		
Sclerolaena muricata var. muricata	NT	3r		3r		
Sclerolaena parallelicuspis	NT	3rC-		3rC-		3rC-
Sclerolaena parviflora	NT	3r		3r		3r
Sclerolaena symoniana	Aus	3KC-		3KC-	3KC-	3r
Sclerostegia disarticulata	NT	3rC-		3rC-		3RC-
Sedopsis filsonii	Aus	3RC-		3RC-	3RC-	3rC-
Senecio cunninghamii var. serratus	NT	3r				
Senecio glossanthus	NT	3r (border)		3r (border)		
Senna artemisioides subsp. glaucifolia	NT	3r		3r (border)		
Senna artemisioides subsp. symonii	NT	3r		3r		
Senna curvistyla	NT	3k		3k		
Senna phyllodinea	NT	3k				
Sida A32067 Horseshoe Bend	Aus	1K		1K	1K ^δ	
Sida A43017 Ambalindum	Aus	3KC-		3K	2K ^δ	
Sida A59261 Kathlene Springs	NT	3kC-		3kC-		
Sida A71181 Bond Springs	NT	3kC-		3k		
Sida A83689 Golden calyces	NT	3kC-				
Sida A83883 Petermann Ranges	Aus	2K (border)		2K	2K ^δ	
Sida A88135 Hale River	Aus	3K		2V	2V ^δ	
Sida A90358 Walhallow Station	NT	3r		3r		
Sida A90797 Rainbow Valley	NT	3kC-		3kC-		
Sida A95988 Watarrka	NT	3k				
Sida calvxhvmenia	NT	3r		3r		
Sida D70364 Huckitta	NT	3k		3k		
Sida everistiana	NT	3r		3k		
Sida goniocarpa	NT	3r		3r		
Sida intricata	NT	3r		3r		
Sida laevis	NT	3kC-		3kC-		
Solanum lasiophyllum	NT	3k		3k		
Sorghum grande	NT	3rC- (border)		3rC-		3rC-
Spartothamnella puberula	NT	3rC-		3rC-		3rC-
Spergularia A43234 Andado	NT	3r				
Spermacoce scabra	not sig.	-		1K		
Sporobolus latzii	Aus	1K		1K ^δ		
Stackhousia D70123 Lake Mackay	Aus	1K (border)		1K (border)		
Stemodia A57025 Manners Creek	Aus	3K		3K		3K ^δ
Stemodia lathraia	NT	3k (border)		3k		
Stenanthemum A81040 Docker River	NT	3k		3k		
Stenanthemum A83203 Palm Valley	Aus	3RC-		3RC-		
Streptoglossa cylindriceps	NT	3kC-		3kC-		
Striga squamigera	Aus	3К		3K	3K	3K
Stylidium floribundum	NT	3k		3k		
Stylidium inaequipetalum	Aus	3RCa		3KCa	3KCa	3RC-
Swainsona acuticarinata	NT	3kC-		3kC-		
Swainsona colutoides	NT	3rC-		3rC-		3rC-
Swainsona cyclocarpa	NT	3k		3k		
Swainsona disjuncta	NT	3k		3k		
Swainsona formosa	NT	3r		3r		3r ^δ
Swainsona laciniata	Aus	3K		3K	3K	-
Swainsona laxa	NT	3r		3r		
Swainsona microcalyx (not in arid NT-	not sig.	-		-		3K
erroneous record)						

Species listed as significant		This report		Other sources			
Species instea as significant			ESPA	Albrecht	Briggs &	Leach	
			(Feb 2000)	<i>et al</i>	Leigh		
			(100 2000)	1997	1995	1992	
Swainsona purpurea	NT	3k		3k			
Swainsona tenuis	NT	3kC-		3kC-			
Tephrosia A27836 Dunes	NT	3k		3k			
Tephrosia brachycarpa	NT	3k		3k			
Tephrosia macrocarpa	not sig.	-				3kC-	
Tephrosia uniovulata	NT	3k		3k			
Terminalia aridicola subsp. aridicola	NT	3r (border)		3r			
Tetragonia eremaea	NT	3k		3k			
Teucrium albicaule	NT	3r		3r		3r	
Teucrium grandiusculum	not sig.	-				3rC-	
Teucrium grandiusculum subsp. grandiusculum	Aus	3КС-		3KC-	3КС- ^δ		
Thaumastochloa pubescens	NT	3k		3k			
Threlkeldia inchoata	NT	3k		3k			
Thryptomene wittweri	Aus	3VC-	VU	3VC-	3VC-	3VC-	
Tietkensia corrickiae	NT	3r		3r			
Trachymene bialata	NT	3r		3r		3r	
Trachymene ceratocarpa	NT	3k					
Trachymene inflata	Aus	3RC-		3RC-	3R	3R	
Trachymene villosa	NT	3k		3k			
Trianthema glossostigma	NT	3r		3r		3r	
Trianthema oxycalyntra	not sig.	-				3r	
Trianthema oxycalyptra var.	NT	3r		3r			
Trianthoma turgidifolia	NT	31/2		31-			
Tribulonis sassilis	NT	3kC- (border)		340-			
Trichanthadium skinnanhamum	NT	21-C		21-C			
Trichodosma zovlanicum var	NT	2r		3r		2 n ^δ	
arandiflorum	111	21		51		51	
Tricoryne elatior s lat	NT	3rC-		3rC-			
Triodia helmsii	NT	3r (border)		3r ^δ		3r	
Triodia latzii	NT	31 (001001)		21 ⁵		51	
Tribuid idizii	NT	21.		<u></u> 21 δ			
Triumfella centralis	IN I NT			<u>3K</u>			
	NI NT	SK OI		3K			
Triumfetta clivorum subsp. brevipetala	NT	3k		<u>3k °</u>			
Triumfetta deserticola	NT	3k		3k °			
Triumfetta johnstonii	NT	3k		<u>3k</u>			
Triumfetta maconochieana	NT	3k		3k °		· · · · · · · · · · · · · · · · · · ·	
Typhonium alismifolium	NT	3r		3r		3r°	
Urochloa atrisola	Aus	3K		3K ^o	3K ^o		
Velleia macrocalyx	NT	3r		3r		3r	
Verbena macrostachya	NT	3k					
Vittadinia dissecta var. hirta	NT	3kC-		3kC-			
Vittadinia pterochaeta	NT	3r		3r			
Vittadinia pustulata	NT	3kC-		3kC-			
Wrixonia schultzii	Aus	3VC-	VU	2VC-	2VC-	2VC-	
Wurmbea centralis subsp. centralis	Aus	3RC-		3RC-		$3rC-^{\delta}$	
Xanthorrhoea thorntonii	NT	3rCa		3rCa		3rCa	
Yakirra muelleri	NT	3k		3k			
Zygophyllum aurantiacum subsp. simplicifolium	NT	3k (border)					
Zygophyllum crassissimum	Aus	3KC-		3rC-			
Zygophyllum ovatum	NT	3r		3r			
Zygophyllum rowelliae	NT	3k					

Appendix 2, Table 2: Synonyms used in Sources for Table 1

Current Name	Synonyms
Acacia sabulosa	A. A91044 Tanami
Amyema subcapitata	A. subcapitatum
Arthropodium strictum	Dichopogon A33396
Atriplex quadrivalvata var. quadrivalvata	A. quadrivalvata
Austrostipa aguarii	Stipa aquarii
Austrostipa centralis	<i>Stipa centralis</i>
Austrostipa feresetacea	Stipa feresetacea
Austrostipa trichophylla	Stipa trichophylla
Centrolepis eremica	C. polygyna
Clematis microphylla var. microphylla	C. microphylla
Comesperma A77288 Tanami	C. sp 2. (Tanami; P.K. Latz 9906)
Cratystylis A36062 Glen Helen	C. sp.1 (Glen Helen; P.K. Latz 3156)
Crotalaria juncea	Isotropis argentea
Cullen discolor	Psoralea A47131 New Crown Station
Cullen graveolens	Psoralea graveolens
Cullen walkingtonii	Psoralea walkingtonii
Cyanthillium cinereum s.lat.	Vernonia cinerea
Eremophila A48866 Rainbow Valley	Eremophila sp. Rainbow Valley (Henshall 1181), Eremophila prostrata (ms)
Eremophila youngii subsp. A78292 Suplejack Station	E. youngii
Eriocaulon A87689 Arid Zone	E. graphitinum
Gomphrena leptophylla	G. A93013 Banka Banka
Gypsophila tubulosa	G. australis
Harnieria kempeana	Sarojusticia kempeana
Harnieria kempeana subsp. kempeana	Sarojusticia kempeana
Hibbertia A86497 Chewings Range	H. sp. 1 (Mt. Giles; P.K. Latz, 10660)
Hvdrocotyle A39600 Watarrka	H. sp.4 (George Gill Range; A.C. Beauglehole 20471)
Hydrocotyle D62620 Harts Range	H. sp.6 (Harts Range; A.C. Beauglehole 44720)
Iotasperma sessilifolia	I. australiensis & I. sessilifolia
Ipomoea A83192 Stirling	I. sp. Stirling (P. Latz, 10408), I. sp. 1 (Stirling; P.K. Latz, 10408)
Juncus kraussii subsp. australiensis	J. kraussii
Livistona mariae subsp. mariae	L. mariae
Logania centralis	L. centralis, L. A34788
Marsilea latzii	M. A64976 Rabbit Flat
Melaleuca fulgens subsp. corrugata	M. corrugata
Ozothamnus A25067 Petermann Ranges	O. sp.2 (Petermann Ranges-Rawlinson Range; J.R. Maconochie 778)
Peplidium A88036 Tanami	P. sp.1 (Tanami; W.R. Barker 2819)
Pimelea simplex subsp. continua	P. simplex
Rhodanthe microglossa	Helipterum microglossum
Sclerolaena diacantha s.lat.	S. holtiana
Sida A32067 Horseshoe Bend	S. sp. 9 (Horseshoe Bend; R. Winkworth 789)
Sida A43017 Ambalindum	S. sp. 8 (Ambalindum; G. Chippendale 4110)
Sida A83883 Petermann Ranges	S. sp.7 (Petermann Ranges; P.K. Latz 8057)
Sida A88135 Hale River	S. sp. 6 (Hale River; A.C. Beauglehole 20692)
Sporobolus latzii	S. A89990 Wakaya Desert
Stemodia A57025 Manners Creek	S. A57025
Swainsona formosa	Clianthus formosus
Teucrium grandiusculum subsp. grandiusculum	T. grandiusculum
Trichodesma zeylanicum var. grandiflorum	T. A4570
Triodia helmsii	Plectrachne helmsii
Triodia latzii	T. A70485 Jellebra Rockhole
Triumfetta centralis	T. D70508 Stirling A
Triumfetta chaetocarpa	T. A88676 Stirling B
Triumfetta clivorum subsp. brevipetala	T. A71582 Pine Hill Station
Triumfetta deserticola	T. A89992 Wakaya Desert
Triumfetta maconochieana	T. D4628 Mt Liebig
Typhonium alismifolium	T. brownii
Urochloa atrisola	Brachiaria atrisola
Wurmbea centralis subsp. centralis	W. centralis

Note that the taxon *Triodia A49940 Valley of Eagles* was given a conservation code of 2kC- in the 1997 checklist (Albrecht *et al.*1997) however specimens of this taxon are now considered to be local variants of *T. longiceps;* a common and widespread species.

	This report		Other Sources				
Species listed as significant			ESPA (Feb 2000)	Albrecht <i>et al.</i>	Briggs & Leigh	Leach <i>et al</i> .	
				1997.	1995.	1992	
Acacia latzii	national	3V	VU	3V	3V	3V	
Acacia peuce	national	3VCi	VU	3VCi	3VCi	3VCi	
Acacia pickardii	national	3V	VU	3V	3K	3V	
Acacia undoolyana	national	2VCi	VU	2VCi	2VCi	2VCi	
Actinotus schwarzii	national	3VCa	VU	3VCa	3VCi	3VC-	
Eremophila A48866 Rainbow Valley	national	2VCi	VU ^δ	2VCi	2VCi δ	3VCi	
Indigofera A83977 Areyonga	national	2K	*	1V			
Ipomoea A83192 Stirling	national	2V	VU ^δ *	2V	2V δ	2V	
Livistona mariae subsp. mariae	national	2VCa	VU		2VCa ^δ	2VCa ^δ	
Macrozamia macdonnellii	national	3VCa	VU	3VCa	3VCa	3VCa	
Minuria tridens	national	3VCi	VU	3VCa	3KCi	2VCi	
Mukia A90788 Tobermorey Station	national	3V	*	3V			
Olearia macdonnellensis	national	3VCi	VU	3VCi	3VCi	3VCi	
Rhamphicarpa australiensis	national	3RC-		3VC-	3RC-	3V	
Ricinocarpos gloria-medii	national	2VCa	VU	2VCa	2VCa	2VCa	
Sida A88135 Hale River	national	3K		2V	2V δ		
Thryptomene wittweri	national	3VC-	VU	3VC-	3VC-	3VC-	
Wrixonia schultzii	national	3VC-	VU	2VC-	2VC-	2VC-	

Appendix 2, Table 3: Summary of current taxa listed as nationally endangered or vulnerable in at least one source.

* it is recommended that these taxa be updated in the ANZECC and Commonwealth Environmental Protection and Biodiversity Conservation Act 1999 lists.

Volume 1, Part 1, Page 78 Appendix 2. Comparative tables of conservation codes and names of significant plant taxa of the southern bioregions of the NT

Appendix 3. Significant Plant Taxa in Each Bioregion

Tables 1 to 11 give the total number of taxa in each significance level for each bioregion. Note that bioregionally significant taxa may have several types of significance within a bioregion (e.g. rarity and range limit). To effectively summarize bioregional taxa only the 'major' bioregional or southern NT significance type is counted for each taxon. The hierarchy of major significance types is somewhat subjective yet intuitive and is illustrated more fully in Tables 5 and 6 of part 1 of this volume.

Significant taxa in each bioregion are listed, with their conservation codes, in alphabetical order .

BURT PLAIN BIOREGION VASCULAR PLANTS OF CONSERVATION SIGNIFICANCE

Appendix 3, Table 1. Summary of significant taxa present in the Burt Plain bioregion.

Significance level	Main ROTAP code	Major significance type	Number of taxa
national	V		4
national	R		10
national	K		7
Northern Territory	r		25
Northern Territory	k		38
southern NT	-	rare	1
southern NT	-	apparently rare	3
southern NT	-	disjunct	7
bioregional	-	rare	2
bioregional	-	apparently rare	15
bioregional	-	disjunct	22
bioregional	-	range limit	62

Significant taxa – Burt Plain Bioregion.

Acacia hemignosta {BRT (southern range limit)}	Calandrinia disperma {3k}
Acacia holosericea {BRT (southern range limit)}	Calocephalus knappii {BRT (northern range limit)}
Acacia jensenii {BRT (disjunct}	Calotis cuneifolia {3k}
Acacia murrayana {BRT (northern range limit)}	Calotis kempei {3k}
Acacia perryi {BRT (southern range limit)}	Centipeda racemosa {3k}
Acacia salicina {BRT (disjunct)}	Chenopodium pumilio {3k}
Acacia sessiliceps {BRT (northern range limit)}	Chloris pumilio {3kC-}
Actinoble uliginosum {BRT (northern range limit)}	Cratystylis A36062 Glen Helen {3RC-}
Amyema hilliana {BRT (northern range limit)}	Cremnothamnus thomsonii {BRT (western and eastern range
Arabidella trisecta {3kC-}	(a)
Aristida arida {BRT (northern range limit)}	Crotataria assilijiora var. assilijiora {3k}
Aristida hygrometrica {BRT (disjunct)}	Cullen graveolens {3k}
Aristida longicollis {3r}	Cyanthillium cinereum s.lat. {BRT (disjunct)}
Aristida strigosa {BRT (northern range limit)}	Cyperus castaneus {sthNT (disjunct)}
Astrebla lappacea {3k}	Cyperus exaltatus {BRT (disjunct)}
Atriplex limbata {BRT (northern range limit)}	Cyperus gilesii {3k}
Atriplex spongiosa {BRT (northern range limit)}	Cyperus polystachyos {BRT (rare and disjunct)}
Bergia ammannioides (BRT (apparently rare))	Desmodium campylocaulon {BRT (disjunct)}
Bonamia deserticola (BRT (southern range limit))	Desmodium filiforme {sthNT (disjunct)}
Potheriochlog bladhii guban bladhii (athNT (disimat))	Digitaria hystrichoides {3r}
Brachuschus comunectus (DDT (disjunct))	Dissocarpus biflorus var. biflorus {3k}
Brachyachne convergens {BRI (disjunct)}	Dysphania glomulifera subsp. eremaea {BRT (northern range
Brachycome blackii {BRT (northern and eastern range limit)}	limit)}
Buchnera linearis {BRT (southern range limit)}	<i>Dysphania platycarpa</i> {BRT (disjunct and northern range limit)}
Bulbine alata {3k}	Dysphania simulans {BRT (northern range limit)}
Bulbostylis pyriformis {3rC-}	

Ectrosia scabrida {BRT (southern range limit)} Einadia nutans subsp. {3rC-} Elacholoma hornii {3rC-} Eleocharis papillosa {3R} Enneapogon eremophilus {BRT (western range limit)} Enneapogon intermedius {3k} Eragrostis A51007 {3k} Eragrostis exigua {sthNT (disjunct)} Eragrostis lanicaulis {3k} Eragrostis subtilis {3K} Eremophila dalyana {3rC-} Eremophila elderi {3k} Eremophila youngii subsp. A78292 Suplejack Station {3r} Eriachne benthamii {3kC-} Erodium angustilobum {3kC-} Eucalyptus intertexta {BRT (northern range limit)} Eucalyptus sessilis {BRT (northern range limit)} Fimbristylis nuda {sthNT (disjunct & apparently rare)} Fimbristylis sieberana {sthNT (disjunct)} Fuirena incrassata {BRT (apparently rare)} Gilesia biniflora {3k} Glycine falcata {BRT (disjunct)} Gompholobium polyzygum {BRT (disjunct)} Goodenia A44284 {3K} Goodenia angustifolia {3r} Goodenia cycloptera {BRT (northern range limit)} Goodenia gibbosa {BRT (northern range limit)} Goodenia maideniana {BRT (disjunct and eastern range limit)} Gossypium nelsonii {3RC-} Grahamia australiana {BRT (disjunct)} Gymnanthera cunninghamii {3r} Hakea grammatophylla {3RC-} Heliotropium conocarpum {BRT (disjunct)} Heliotropium glanduliferum {3k} *Heliotropium inexplicitum* {3k} *Heliotropium subreniforme* {3K} Imperata cylindrica {sthNT (disjunct & apparently rare)} Indigofera basedowii {BRT (northern range limit)} Indigofera monophylla {BRT (eastern range limit)} Indigofera trita {BRT (disjunct)} Ipomoea A83192 Stirling {2V} Iseilema eremaeum {BRT (disjunct and apparently rare)} Iseilema macratherum {BRT (disjunct and apparently rare)} Isoetes muelleri {BRT (disjunct)} *Isotoma luticola* {3R} Ixiochlamys cuneifolia {BRT (northern range limits)} Ixiochlamys filicifolia {BRT (northern range limits)} Ixiochlamys integerrima {3K} Ixiochlamys nana {3kC-} *Juncus aridicola* {3rC-} Juncus continuus {3rC-} Kennedia prorepens {BRT (disjunct and apparently rare)} Lepidium oxytrichum {BRT (northern range limit)} Levenhookia chippendalei {BRT (eastern range limit)} Ludwigia octovalvis {BRT (disjunct & rare)} Lysiana murrayi {BRT (northern range limit)} Lythrum paradoxum {3k} Macrozamia macdonnellii {3VCa} Maireana aphylla {BRT (northern range limit)}

Maireana astrotricha {BRT (northern range limit)} Maireana lanosa {3rC-} Maireana lobiflora {3k} Maireana schistocarpa {3k} *Maireana scleroptera* {BRT (northern range limit)} Maireana spongiocarpa {BRT (northern range limit)} Merremia davenportii {BRT (southern range limit)} Minuria cunninghamii {BRT (westerly range limit)} Myoporum acuminatum {BRT (disjunct)} Najas tenuifolia {sthNT (disjunct)} Neobassia proceriflora {BRT (disjunct)} Neptunia monosperma {BRT (disjunct but possibly introduced)} Oldenlandia mitrasacmoides subsp. {BRT (southern range limit)} Olearia ferresii {BRT (northern range limit)} Olearia stuartii {BRT (northern range limits)} Ophioglossum polyphyllum {3rC-} Osteocarpum salsuginosum {3r} Ozothamnus kempei {BRT (eastern range limit)} Parietaria debilis {BRT (northern range limit)} Paspalidium basicladum {BRT (northern range limit)} Peplidium muelleri {BRT (apparently rare)} Pimelea microcephala subsp. microcephala {3r} Pimelea trichostachya {BRT (northern range limit)} Plantago cunninghamii {3k} Plumbago zevlanica {sthNT (disjunct)} Polygala A77628 Davenport Range {BRT (apparently rare)} Poranthera triandra {3rC-} Portulaca intraterranea {BRT (apparently rare)} Potamogeton pectinatus {3r} Prostanthera striatiflora {BRT (northern range limit)} *Psilotum nudum* {sthNT (rare)} Ptilotus aervoides {3k} Ptilotus aristatus var. exilis {2R} Ptilotus aristatus var. stenophyllus {2R} Ricinocarpos gloria-medii {2VCa} Rotala diandra {BRT (southern range limit)} Rotala mexicana {BRT (apparently rare)} Rotala occultiflora {BRT(disjunct)} Samolus eremaeus {3KC-} Sauropus ramosissimus {3KC-} Scaevola graminea {3R} Scaevola obovata {3K} Schoenus falcatus {sthNT (disjunct & apparently rare)} Sclerolaena calcarata {BRT (disjunct)} Sclerolaena densiflora {3r} Sclerolaena johnsonii {BRT (northern range limit)} Sclerolaena minuta {3k} Sclerolaena muelleri {BRT (eastern range limit)} Sclerolaena muricata var. muricata {3r} Sclerolaena obliquicuspis {BRT (northern limit)} Sclerolaena urceolata {BRT (northern range limit)} Sedopsis filsonii {3RC-} Senecio cunninghamii var. serratus {3r} Senecio laceratus {BRT (northern range limit)} Sida A64076 Suplejack Station {BRT (apparently rare)} Sida A71181 Bond Springs {3kC-} Sida A86753 Pindan {BRT (apparently rare and eastern range limit)}

- Sida A90797 Rainbow {3kC-} Sida D70364 Huckitta {3k} Sida everistiana {3r} Sida goniocarpa {3r} Solanum orbiculatum subsp. orbiculatum {BRT (northern range limit)} Solanum sturtianum {BRT (northern range limit)} Spartothamnella puberula {3rC-} Spartothamnella {BRT (northern range limit)} Stackhousia A90542 Mt Liebig {BRT (apparently rare)} Stenopetalum anfractum {BRT (northern and eastern range limits)} Stenopetalum decipiens {BRT (northern range limit)} Streptoglossa cylindriceps {3kC-} Stylidium inaequipetalum {3RCa} Swainsona canescens {BRT (northern range limit)} Swainsona phacoides {BRT (northern range limit)} Thyridolepis mitchelliana {BRT (northern range limit)}
- Trachymene gilleniae {BRT (western range limit)} Trema tomentosa var. {BRT (disjunct)} Trianthema glossostigma {3r} Triglochin hexagonum {BRT (disjunct)} Triodia intermedia {BRT (disjunct and southern range limit)} Triumfetta centralis {3k} Triumfetta chaetocarpa {3k} Triumfetta clivorum subsp. brevipetala {3k} *Triumfetta johnstonii* {3k} Triumfetta maconochieana {3k} Vittadinia pterochaeta {3r} Vittadinia sulcata) {BRT (disjunct)} Wahlenbergia caryophylloides {BRT (disjunct)} Wrixonia schultzii {3VC-} Zornia albiflora {BRT (southern range limit)} Zygophyllum {BRT (northern range limit).

CENTRAL RANGES BIOREGION VASCULAR PLANTS OF CONSERVATION SIGNIFICANCE

Significance level	Main ROTAP code	Major significance type	Number of taxa
national	R		6
national	K		11
Northern Territory	r		25
Northern Territory	k		30
bioregional	-	apparently rare	3
bioregional	-	disjunct	2
bioregional	-	range limit	8

Appendix 3, Table 2. Summary of significant taxa present in the Central Ranges bioregion.

Significant taxa - Central Ranges bioregion

Acacia ammobia {3RC-} Acacia auricoma {3K} Acacia chippendalei {CR (southern range limits)} Acacia helmsiana {3k} Acacia hilliana {CR (southern range limit)} Acacia macdonnelliensis subsp. teretifolia {3k (border)} Acacia monticola {CR (southern range limits)} Acacia nyssophylla {3k} Acacia oswaldii {CR (apparently rare)} Acacia pachyacra {3k} Amyema miraculosa subsp. boormanii {3k} Arabidella trisecta {3kC-} Arthropodium strictum {3rC-} Baeckea polystemonea {CR (disjunct)} Brachychiton gregorii {CR (apparently rare)} Caesia chlorantha {3r (border)} Calandrinia remota {3kC-} Calandrinia reticulata {CR (apparently rare)} Callistemon pauciflorus {3RC-} Chthonocephalus pseudovax {3r} Cuphonotus andraeanus {3r} Cymbopogon dependens {3kC-} Dampiera dentata {3r (border)} Dampiera roycei {3k} Daviesia arthropoda {3KCa} Daviesia eremaea {3K} Dicrastylis petermannensis {3K (border)} Einadia nutans subsp. {3rC-} Enneapogon intermedius {3k} Eremophila clarkei {3r (border)} Eremophila elderi {3k} Eremophila hughesii subsp. A28811 Bloods Range {3K} Eremophila hughesii subsp. hughesii {3k (border)} Eremophila serrulata {3k (border)} Eriochlamys behrii {3k} Eucalyptus sparsa {3K (border)} Glischrocaryon aureum var. angustifolium {3rC-} Goodenia brunnea {3r (border)} Goodenia centralis {3kC-} Goodenia rupestris {2R (border)}

Grevillea wickhamii subsp. aprica {CR (southern range limit)} Hakea minyma {3k} Hakea rhombales {3k} Heliotropium epacrideum {3k} Indigofera hirsuta {CR (disjunct)} Isolepis australiensis {3kC-(cryptic)} Isotropis centralis {3rC-} Ixiochlamys nana {3kC-} Lechenaultia lutescens {3k} Leucopogon sonderensis {3RC-} Logania centralis {3KC-} Maireana appressa {3k} Melaleuca fulgens subsp. corrugata {3R (border)} Millotia greevesii subsp. helmsii {3k} Newcastelia bracteosa {3k} Oldenlandia argillacea {3kC-} Ozothamnus A25067 Petermann Ranges {3K (border)} Pityrodia loxocarpa {3r} Pomax A89438 Sand Dunes {3kC-} Poranthera microphylla {3rC-} Prostanthera centralis {3K} Prostanthera wilkieana {3r} Ptilotus royceanus {3K (border)} Ptychosema anomalum {CR (western range limit)} Rhodanthe laevis {3r} Rulingia rotundifolia {3r} Scaevola collina {3r (border)} Sclerolaena longicuspis {3r} Sclerolaena parviflora {3r} Sclerolaena urceolata {CR (western range limit)} Sida A83883 Petermann Ranges {2K (border)} Sida calyxhymenia {3r} Solanum lasiophyllum {3k} Stenanthemum A81040 Docker River {3k} Stylidium inaequipetalum {3RCa} Swainsona disjuncta {3k} Tietkensia corrickiae {3r} Trachymene bialata {3r} Trichodesma zeylanicum var. grandiflorum {2r} Tricoryne elatior s.lat. {3rC-}

Triodia brizoides {CR (southern range limit)} Triodia helmsii {3r (border)} Triodia irritans {CR (northern range limit)} Vittadinia dissecta var. {3kC-} Xanthorrhoea thorntonii {3rCa.}

CHANNEL COUNTRY BIOREGION VASCULAR PLANTS OF CONSERVATION SIGNIFICANCE

Significance level	Main ROTAP code	Major significance type	Number of taxa
national	V		1
national	R		2
national	K		6
Northern Territory	v		1
Northern Territory	r		18
Northern Territory	k		20
southern NT	-	disjunct	1
bioregional	-	apparently rare	7
bioregional	-	disjunct	3
bioregional	-	range limit	14

Appendix 3, Table 3. Summary of significant taxa present in the Channel Country bioregion.

Significant taxa - Channel Country bioregion

Abutilon cryptopetalum {CHC (apparently rare)} Acacia paraneura {CHC (eastern range limit)} Astrebla lappacea {3k} Atriplex angulata {3k} Atriplex crassipes var. crassipes {3k} Atriplex lobativalvis {3r} Atriplex muelleri {3r} Bergia diacheiron {3r} Bergia henshallii {CHC (eastern range limit)} Blennodia canescens {CHC (northern range limit)} Bolboschoenus caldwellii {3vC-} Capparis umbonata {CHC (southern range limit)} Centipeda A92472 Toko Range {3kC-} Chenopodium cristatum {CHC (northern range limit)} Chrysopogon pallidus {CHC (disjunct)} Cleome oxalidea {3r} Corchorus elderi {3K} Crotalaria dissitiflora var. dissitiflora {3k} Cyperus gilesii {3k} Desmodium muelleri {CHC (disjunct)} Eclipta alatocarpa {3k} Enneapogon intermedius {3k} Eragrostis australasica {CHC (northern range limit)} Eragrostis lanicaulis {3k} Eremophila cordatisepala {3r} Eremophila polyclada {3r} Eriachne benthamii {3kC-} Eucalyptus victrix {CHC (eastern range limit)} Fimbristylis ammobia {CHC (eastern range limit)} Fimbristylis littoralis var. littoralis {CHC (apparently rare)} *Fimbristylis velata* {3k} Gomphrena cunninghamii {CHC (disjunct)} Goodenia angustifolia {3r} Goodenia D70208 Barkly {3KC- (border)} Goodenia gibbosa {CHC (eastern range limit)} Gossypium nelsonii {3RC-} Hibiscus sturtii var. sturtii {3rC-}

Iotasperma sessilifolia {3k} Ipomoea coptica {CHC (apparently rare)} Isotoma luticola {3R} Ixiochlamys integerrima {3K} Kohautia australiensis {3KC-} Lysiphyllum gilvum {3r (border)} Maireana dichoptera {3r (border)} Maireana planifolia {CHC (northern range limit)} Marsilea crenata {sthNT (disjunct)} Melochia pyramidata {CHC (apparently rare)} Mentha australis {3r (border)} Mimulus prostratus {3k} *Mukia* A90788 *Tobermorey Station* {3V} Operculina aequisepala {CHC (southern range limit)} Osteocarpum pentapterum {3r} Pandorea doratoxylon {CHC (eastern range limit)} Peplidium foecundum {3k} Plantago cunninghamii {3k} Potamogeton crispus {3rC-} Rhodanthe gossypina {3k} Sarcostemma brevipedicellatum {3k (border)} Sauropus rigens {3rC-} Scaevola parvibarbata {CHC (northern range limit)} Senna phyllodinea {3k} Sida A88135 Hale River {3K} Sida D70364 Huckitta {3k} Sida goniocarpa {3r} Sida intricata {3r} Sida laevis {3kC-} Spathia neurosa {CHC (apparently rare)} Stemodia A57025 Manners Creek {3K} Stenopetalum lineare {CHC (northern range limit)} Stenopetalum velutinum {CHC (northern limit)} Swainsona oligophylla {CHC (disjunct)} Typhonium alismifolium {3r} Velleia macrocalyx {3r.}

DAVENPORT MURCHISON RANGES BIOREGION VASCULAR PLANTS OF CONSERVATION SIGNIFICANCE

Appendix 3,	Table 4.	Summary of	of significa	nt taxa	present	in the	Davenport	Murchison	Ranges
bioregion.									

Significance level	Main ROTAP code	Major significance type	Number of taxa
national	R		4
national	K		4
Northern Territory	r		7
Northern Territory	k		16
southern NT	-	rare	1
southern NT	-	apparently rare	4
southern NT	-	disjunct	11
bioregional	-	apparently rare	8
bioregional	-	disjunct	16
bioregional	-	range limit	13

Significant taxa – Davenport Murchison Ranges bioregion

Abutilon and rewsianum {DAV (disjunct and apparently rare)}	Eragrostis exigua {sthNT (disjunct)}		
Acacia hemsleyi {sthNT (disjunct)}	Eragrostis fallax {DAV (apparently rare)}		
Acacia neurocarpa {DAV (southern range limit)}	Eremophila elderi {3k}		
Acacia orthocarpa {DAV (disjunct)}	Eriachne melicacea {DAV (southern range limit)}		
Acacia perryi {DAV (eastern range limit)}	Euphorbia mitchelliana {DAV (disjunct and apparently rare)}		
Acacia rhodophloia {DAV (eastern range limit)}	Fimbristylis blakei {3rC-}		
Blumea diffusa {DAV (disjunct)}	<i>Fimbristylis nuda</i> {sthNT (disjunct & apparently rare)}		
Cajanus acutifolius {sthNT (disjunct & apparently rare)}	Fimbristylis signata {3k}		
Centipeda A92472 Toko Range {3kC-}	Fimbristylis velata {3k}		
Centipeda racemosa {3k}	Fuirena ciliaris {DAV (disjunct)}		
Chenopodium {DAV (northern range limit)}	Fuirena nudiflora {3k}		
Chenopodium pumilio {3k}	Gompholobium polyzygum {DAV (northern and eastern range		
Chenopodium truncatum {DAV (northern range limit)}	Gomphrena cunninghamii /DA\/ (disiupet)}		
Chrysocephalum {DAV (disjunct and northern range limit)}	Goodenia larapinta /DAV (eastern range limit)		
Corchorus elderi {3K}	Heliotronium ammonhilum (DAV (porthern range limit))		
Crotalaria brevis {DAV (disjunct)}	Heliotropium subreniforme {3K}		
Crotalaria montana {DAV (disjunct and apparently rare)}			
Crotalaria novae-hollandiae subsp. {sthNT (disjunct)}	Indiscus sturit var. {DAV((Eisen))		
Cullen walkingtonii {3KC-}	Iprigenia inalica (DAV (disjunct))		
Cyanthillium cinereum s.lat. {DAV (disjunct)}	Isotoma luticola {3R}		
Cyperus castaneus {sthNT (disjunct)}	Juncus aridicola {3rC-}		
Cyperus exaltatus {DAV (disjunct)}	Microcarpaea minima {sthNT (disjunct & rare)}		
Cyperus oxycarpus {3kC-}	Mitrasacme exserta {DAV (apparently rare)}		
Dendrophthoe odontocalyx {DAV (disjunct and southern range	Mitrasacme micrantha {sthNT (disjunct)}		
Desmodium filiforme {sthNT (disjunct)}	Ophioglossum gramineum {3r}		
Digitaria hystrichoides {3r}	Panicum mindanaense {sthNT (disjunct)}		
Distichostemon barklyanus {3k}	Petalostigma banksii {sthNT (disjunct)}		
Dysphania rhadinostachya subsp. rhadinostachya {DAV	Phyllanthus erwinii {3k}		
(disjunct)}	Polycarpaea involucrata (DAV (disjunct))		
Elacholoma hornii {3rC-}	Potamogeton crispus (3rC-)		
Eleocharis setifolia {3r}	Rhamphicarpa australiensis {3RC-}		

- Schizachyrium pseudeulalia {sthNT (disjunct)} Sclerolaena deserticola {DAV (northern and eastern range limits)} Sclerolaena minuta {3k} Sedopsis filsonii {3RC-} Sida A64076 Suplejack Station {DAV (apparently rare)} Sida cleisocalyx {DAV (apparently rare)} Stackhousia A90542 Mt Liebig {DAV (apparently rare)} Streptoglossa decurrens {DAV (disjunct)} Striga squamigera {3K} Thaumastochloa pubescens {3k} Thysanotus exiliflorus {DAV (northern range limits)} Trachymene inflata {3RC-}
- Triodia hubbardii {DAV (disjunct and northern and eastern range limit)}

 Triodia intermedia {DAV (disjunct and eastern range limit)}

 Triodia spicata {DAV (eastern range limit)}

 Triumfetta deserticola {DAV (eastern range limit)}

 Triumfetta deserticola {DAV (eastern range limit)}

 Triumfetta maconochieana {DAV (eastern range limit)}

 Vittadinia pustulata {DAV (eastern range limit)}

 Vittadinia pustulata {SthNT (apparently rare)}

 Vittadinia pustulata {BKC-}

 Wedelia verbesinoides {sthNT (disjunct & apparently rare)}

 Yakirra muelleri {BK}

 Zornia chaetophora {sthNT (disjunct)}

 Zornia muriculata subsp. angustata {sthNT (disjunct).}

FINKE BIOREGION VASCULAR PLANTS OF CONSERVATION SIGNIFICANCE

Significance level	Main ROTAP code	Major significance type	Number of taxa
national	V		2
national	R		8
national	K		8
Northern Territory	r		57
Northern Territory	k		46
southern NT	-	disjunct	2
bioregional	-	apparently rare	10
bioregional	-	disjunct	3
bioregional	-	range limit	11

Appendix 3, Table 5. Summary of significant taxa present in the Finke bioregion.

Significant taxa – Finke bioregion

Acacia ammobia {3RC-} Acacia georginae {FIN (western range limit)} Acacia latzii {3V} Acacia nyssophylla {3k} Acacia symonii {3r (border)} Alectryon oleifolius subsp. elongatus {FIN (disjunct and apparently rare)} Amyema miraculosa subsp. boormanii {3k} Arabidella glaucescens {3r} Arabidella nasturtium {3r} Arabidella trisecta {3kC-} Atriplex nummularia subsp. omissa {3k (border)} Atriplex {3r (border)} Atriplex quadrivalvata var. quadrivalvata {3r} Atriplex quinii {3r (border)} Atriplex turbinata {3r} Austrostipa aquarii {3RC-} Blennodia pterosperma {FIN (western range limit)} Brachychiton gregorii {FIN (apparently rare)} Bulbine alata {3k} Bulbostylis pyriformis {3rC-} Calandrinia remota {3kC-} Calotis cymbacantha {3kC-} Centipeda D18576 Andado {3k} Chthonocephalus {3r} Commicarpus australis {3r} Corynotheca licrota {3rC-} Cratystylis A36062 Glen Helen {3RC-} Cuphonotus andraeanus {3r} Cymbopogon dependens {3kC-} Cyperus alterniflorus {3r (border)} Cyperus castaneus {sthNT (disjunct)} Dampiera cinerea {FIN (eastern range limit)} Daviesia arthropoda {3KCa} Dissocarpus biflorus var. biflorus {3k} Dodonaea lanceolata var. lanceolata {FIN (southern range limit)} Dodonaea microzyga var. microzyga {3r} Dysphania sphaerosperma {3r} Elacholoma hornii {3rC-}

Eleocharis papillosa {3R} Enneapogon caerulescens var. caerulescens {3r} Enneapogon intermedius {3k} Eragrostis A51007 {3k} Eragrostis lanicaulis {3k} Eremophila A48866 Rainbow Valley {2VCi} Eremophila battii {3r} *Eremophila elderi* {3k} Eremophila maculata var. brevifolia {3r} Eremophila neglecta {FIN (northern range limit)} Eremophila serrulata {3k (border)} Eriochiton sclerolaenoides {3k} Eriochlamys behrii {3k} Erodium angustilobum {3kC-} Eucalyptus oxymitra {FIN (eastern range limit)} Eucalyptus sessilis {FIN (southern and eastern range limits)} Eucalyptus sparsa {3K (border)} Euphorbia biconvexa {FIN (southern range limit)} Euphorbia stevenii {3k} Frankenia muscosa {3k} Frankenia punctata {3r} Gilesia biniflora {3k} Goodenia calcarata {3r (border)} Goodenia havilandii {3rC-} Goodenia occidentalis {3rC-} Grevillea nematophylla {3r (border)} *Gunniopsis papillata* {3r} Gunniopsis septifraga {3r} Halgania glabra {FIN (eastern range limit)} Halosarcia calyptrata {3k} Halosarcia pruinosa {3r} *Harmsiodoxa puberula* {3rC-} Harnieria kempeana subsp. kempeana {3RC-} Heliotropium flintii {FIN (southern range limit)} *Heliotropium inexplicitum* {3k} Indigofera hirsuta {FIN (disjunct)} Isolepis australiensis {3kC-(cryptic)} Isotropis centralis {3rC-}

Ixiochlamys nana {3kC-} Josephinia eugeniae s.lat. {FIN (disjunct)} *Kippistia suaedifolia* {3r} Lawrencia squamata {3k} Lawrencia viridi-grisea {3r} Lechenaultia striata {FIN (apparently rare and eastern range limit)} Lepidium strongylophyllum {3r} Lomandra patens {3RCa} Maireana appressa {3k} Maireana brevifolia {3rC-} Maireana carnosa {3rC-} Maireana lobiflora {3k} Maireana ovata {3r (border)} Maireana pentatropis {3r} Maireana pyramidata {3r} Maireana schistocarpa {3k} Malacocera biflora {3r (border)} Malacocera tricornis {3k} Marsilea crenata {sthNT (disjunct)} Melaleuca trichostachya {FIN (apparently rare)} Menkea sphaerocarpa {3rC-} Microcorys macrediana {3K} *Minuria denticulata* {FIN (western range limit)} Minuria multiseta {3r} Newcastelia bracteosa {3k} Ophioglossum polyphyllum {3rC-} Osteocarpum acropterum var. acropterum {3k} Osteocarpum salsuginosum {3r} Pachycornia triandra {3r} Paractaenum novae-hollandiae subsp. {3kC-} Parietaria cardiostegia {3r} Pimelea microcephala subsp. microcephala {3r} Pimelea penicillaris {3k} Pimelea simplex subsp. continua {3r} Pomax A89438 Sand Dunes {3kC-} Portulaca intraterranea {FIN (apparently rare)} Radyera farragei {FIN (disjunct)} Sauropus ramosissimus {3KC-} Schoenoplectus laevis {FIN (disjunct and apparently rare)} Sclerochlamys brachyptera {3k} Sclerolaena birchii {3k} Sclerolaena longicuspis {3r} Sclerolaena parallelicuspis {3rC-} Sclerolaena parviflora {3r} Sclerolaena symoniana {3KC-} Sclerolaena urceolata {FIN (southern range limit)} Sclerostegia disarticulata {3rC-} Sedopsis filsonii {3RC-} Senecio cunninghamii var. serratus {3r} Senecio glossanthus {3r (border)} Senna artemisioides subsp. glaucifolia {3r} Sida A32067 Horseshoe {1K} Sida A43017 Ambalindum {3KC-} Sida A59261 Kathlene Springs {3kC-} Sida A86753 Pindan {FIN (apparently rare)} Sida A87985 Western sand dunes {FIN (apparently rare and eastern range limit)} Sida everistiana {3r} Sida intricata {3r}

Solanum lasiophyllum {3k} Stylidium inaequipetalum {3RCa} Swainsona acuticarinata {3kC-} Swainsona formosa {3r} Swainsona purpurea {3k} Tetragonia eremaea {3k} Threlkeldia inchoata {3k} Trachymene ceratocarpa {3k} Triglochin hexagonum {FIN (apparently rare and disjunct)} Vittadinia dissecta var. {3kC-} Zygophyllum crassissimum {3KC-} Zygophyllum ovatum {3r} Zygophyllum rowelliae {3k.}

GREAT SANDY DESERT BIOREGION VASCULAR PLANTS OF CONSERVATION SIGNIFICANCE

Appendix 3, Table 6. Summary	of significant taxa	present in the Great Sar	dy Desert bioregion.
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Significance level	Main ROTAP code	Major significance type	Number of taxa
national	R		6
national	K		16
Northern Territory	r		43
Northern Territory	k		61
southern NT	-	apparently rare	3
southern NT	-	disjunct	2
bioregional	-	apparently rare	10
bioregional	-	disjunct	12
bioregional	-	range limit	28

Significant taxa - Great Sandy Desert bioregion

Abutilon lepidum {3r} Daviesia eremaea {3K} Acacia abbreviata {3R} Dicrastylis doranii {3k} Acacia ammobia {3RC-} Dicrastylis lewellinii {GSD (western range limit)} Acacia grasbyi {3rC-} Dodonaea microzyga var. microzyga {3r} Acacia helmsiana {3k} Dysphania platycarpa {GSD (disjunct and northern range limit)} Acacia lysiphloia {GSD (disjunct and southern range limit)} Dysphania sphaerosperma {3r} Acacia minyura {GSD (northern range limits)} Elacholoma hornii {3rC-} *Eleocharis atropurpurea* {GSD (disjunct and apparently rare)} Acacia olgana {GSD (disjunct and northern range limit)} Acacia prainii {3k} Enneapogon caerulescens var. caerulescens {3r} Acacia pruinocarpa {GSD (eastern range limit)} Enneapogon intermedius {3k} Acacia strongylophylla {GSD (northern range limit)} Eragrostis A51007 {3k} Eragrostis crateriformis {3k} Acacia wiseana {3r} Adiantum hispidulum var. hispidulum {sthNT (disjunct)} Eragrostis sterilis {3rC-} Aenictophyton reconditum {GSD (southern range limit)} Eragrostis subtilis {3K} Amyema miraculosa subsp. boormanii {3k} Eremophila D41598 MacDonnell Ranges {GSD (southern and western range limit)} Aristida jerichoensis var. subspinulifera {GSD (western range Eremophila elderi {3k} limit)} Atriplex flabelliformis {3r (border)} Eremophila glabra subsp. glabra {GSD (northern range limit)} Atriplex holocarpa {GSD (northern range limit)} Eremophila hughesii subsp. A28811 Bloods Range {3K} Atriplex velutinella {GSD (western range limit)} Eremophila ovata {3k} Austrostipa trichophylla {3rC-} Eremophila paisleyi {GSD (apparently rare)} Eremophila willsii subsp. willsii {GSD (northern range limit)} Brachyachne convergens {GSD (disjunct)} Brachyachne prostrata {3r} Eriachne scleranthoides {2RCa} Calandrinia disperma {3k} Eriochiton sclerolaenoides {3k} Calandrinia pleiopetala {3rC-} Eriochlamys behrii {3k} Calandrinia polyandra {3kC-} Erodium angustilobum {3kC-} Calandrinia remota {3kC-} Eucalyptus gongylocarpa {GSD (northern range limit)} Calotis cuneifolia {3k} Eucalyptus odontocarpa {GSD (southern range limit)} Chloris pumilio {3kC-} Fimbristylis nuda {sthNT (disjunct & apparently rare)} Chthonocephalus {3r} Flueggea virosa subsp. melanthesoides {GSD (disjunct)} Comesperma viscidulum {3KC-} Frankenia punctata {3r} Commicarpus australis {3r} Glischrocaryon aureum var. angustifolium {3rC-} Corchorus sericeus {GSD (western range limit)} Gompholobium polyzygum {GSD (disjunct)} Corchorus walcottii {3k} Gompholobium simplicifolium {3r} Gomphrena canescens subsp. canescens {GSD (disjunct and Corymbia candida subsp. dipsodes {3k} southern range limit)} Cremnothamnus thomsonii {GSD (northern range limit)} Gomphrena leptophylla {3k} Cymbopogon dependens {3kC-} Gonocarpus eremophilus {3k} Dampiera roycei {3k} Goodenia anfracta {3KC-} Daviesia arthropoda {3KCa}

Goodenia centralis {3kC-} Goodenia glandulosa {3rC-} Goodenia goodeniacea {GSD (southern range limit)} Goodenia larapinta {GSD (western range limit} Goodenia maideniana {GSD (disjunct)} Goodenia virgata {GSD (south-eastern range limits)} Grevillea albiflora {GSD (apparently rare and western range limit)} Grevillea eriostachya {GSD (eastern range limit)} Grevillea pterosperma {3r} Gunniopsis quadrifida {3r} Gunniopsis septifraga {3r} Hakea rhombales {3k} Halosarcia calyptrata {3k} Halosarcia halocnemoides subsp. tenuis {3k} Halosarcia indica subsp. bidens {3k} Halosarcia pruinosa {3r} Heliotropium asperrimum {GSD (northern range limit)} Heliotropium diversifolium {3k} Heliotropium epacrideum {3k} Heliotropium glanduliferum {3k} *Heliotropium inexplicitum* {3k} Heliotropium pleiopterum {GSD (northern range limit)} *Hibbertia glaberrima* {3rCa} Hibiscus arenicola {3k} Isolepis australiensis {3kC-(cryptic)} Isotropis centralis {3rC-} Isotropis wheeleri {GSD (western range limit)} Juncus continuus {3rC-} *Kippistia suaedifolia* {3r} Lamarchea sulcata {3k} Lawrencia squamata {3k} Lawrencia viridi-grisea {3r} Laxmannia arida {3r} Lechenaultia lutescens {3k} Lechenaultia striata {GSD (northern range limit)} Lobelia gibbosa var. gibbosa s.lat. {3rC-} Logania centralis {3KC-} Lomandra leucocephala subsp. robusta {GSD (disjunct)} Maireana appressa {3k} Maireana lanosa {3rC-} Maireana lobiflora {3k} Maireana pentatropis {3r} Menkea sphaerocarpa {3rC-} Millotia greevesii subsp. helmsii {3k} Minuria multiseta {3r} Mukia A50961 Glen Helen Station {GSD (southern range limit)} *Newcastelia bracteosa* {3k} Newcastelia cladotricha {3k} Nicotiana excelsior {GSD (apparently rare)} Nicotiana gossei {GSD (northern range limit)} Nicotiana rosulata subsp. rosulata {3k} Oldenlandia spathulata {3K (border)} Olearia arida {3k} Ophioglossum polyphyllum {3rC-} Osteocarpum salsuginosum {3r} Ozothamnus kempei {GSD (northern and western range limit)} Paractaenum novae-hollandiae subsp. {3kC-} Phragmites australis {sthNT (disjunct & apparently rare)}

Pityrodia loxocarpa {3r} Polycarpaea involucrata {GSD (disjunct)} Pomax A89438 Sand Dunes {3kC-} Poranthera triandra {3rC-} Prostanthera centralis {3K} Ptychosema anomalum {GSD (northern range limit)} Rotala occultiflora {GSD (disjunct)} Rulingia rotundifolia {3r} Sauropus ramosissimus {3KC-} Schoenus centralis {3K} Sclerolaena birchii {3k} Sclerolaena parviflora {3r} Sclerolaena symoniana {3KC-} Sedopsis filsonii {3RC-} Senna curvistyla {3k} Setaria surgens {GSD (southern range limit)} Sida A59261 Kathlene Springs {3kC-} Sida A83883 Petermann Ranges {2K (border)} Sida argillacea {GSD (apparently rare)} Sida calyxhymenia {3r} Sporobolus virginicus {sthNT (disjunct)} Stackhousia D70123 Lake Mackay {1K (border)} Stenanthemum A81040 Docker River {3k} Streptoglossa cylindriceps {3kC-} Stylidium inaequipetalum {3RCa} Swainsona acuticarinata {3kC-} Swainsona cyclocarpa {3k} Swainsona formosa {3r} Swainsona laciniata {3K} Swainsona rostrata {GSD (eastern and northern range limits)} Swainsona tanamiensis {GSD (disjunct and southern and eastern range limits)} Swainsona tenuis {3kC-} Templetonia hookeri {GSD (apparently rare and southern range limit)} Tephrosia A27836 Dunes {3k} Tephrosia brachycarpa {3k} Teucrium grandiusculum subsp. grandiusculum {3KC-} Trachymene gilleniae {GSD (northern range limit)} Trema tomentosa var. {GSD (disjunct)} Trianthema turgidifolia {3k} Trichodesma zeylanicum var. grandiflorum {2r} Triodia salina {GSD (eastern range limit)} Triumfetta johnstonii {3k} Triumfetta maconochieana {3k} Triumfetta micracantha {sthNT (apparently rare)} Vittadinia dissecta var. {3kC-} Vittadinia pustulata {3kC-} Wurmbea centralis subsp. centralis {3RC-} Xanthorrhoea thorntonii {3rCa.}

MACDONNELL RANGES BIOREGION VASCULAR PLANTS OF CONSERVATION SIGNIFICANCE

Appendix 3, Table 7. Summary of significant taxa present in the MacDonnell Ranges bioregion.

Significance level	Main ROTAP code	Major significance type	Number of taxa
national	V		10
national	R		25
national	K		20
Northern Territory	V		3
Northern Territory	r		69
Northern Territory	k		50
southern NT	-	threatened	3
southern NT	-	rare	2
southern NT	-	apparently rare	7
southern NT	-	disjunct	9
bioregional	-	rare	2
bioregional	-	apparently rare	14
bioregional	-	disjunct	24
bioregional	-	range limit	30

Significant taxa – MacDonnell Ranges bioregion

Abutilon lepidum {3r} Acacia A86979 Krichauff Range {2K} Acacia abrupta {MAC (eastern range limit)} Acacia basedowii {MAC (northern and eastern range limits)} Acacia dolichophylla {2RC-} Acacia grasbyi {3rC-} Acacia helmsiana {3k} Acacia minutifolia {MAC (disjunct and eastern range limit)} Acacia undoolyana {2VCi} Actinotus schwarzii {3VCa} Adiantum capillus-veneris {3vCi} Adiantum hispidulum var. hispidulum {sthNT (disjunct)} Alectryon oleifolius subsp. elongatus {MAC (disjunct and western range limit)} Amperea spicata {2RCa} Amyema miraculosa subsp. boormanii {3k} Amyema subcapitata {-} Arabidella trisecta {3kC-} Aristida arida {MAC (western range limit)} Aristida latzii {MAC (eastern, western, northern and southern range limits)} Arthropodium strictum {3rC-} Astrebla lappacea {3k} Atriplex crassipes var. crassipes {3k} Atriplex humifusa {MAC (western range limit)} Atriplex lobativalvis {3r} Atriplex stipitata {MAC (northern range limit)} Atriplex sturtii {3rC-} Atriplex velutinella {MAC (apparently rare)} Austrostipa aquarii {3RC-} Austrostipa centralis {3RC-} Austrostipa feresetacea {3RC-} Austrostipa scabra subsp. scabra {MAC (disjunct)}

Austrostipa trichophylla {3rC-} Babingtonia behrii {3r} Baeckea polystemonea {MAC (northern and eastern range limits)} Baumea arthrophylla {3vC-} Bolboschoenus caldwellii {3vC-} Bothriochloa bladhii subsp. bladhii {sthNT (disjunct)} Brachyachne prostrata {3r} Bulbostylis pyriformis {3rC-} Calandrinia pleiopetala {3rC-} Calandrinia polyandra {3kC-} Callistemon pauciflorus {3RC-} Calotis cymbacantha {3kC-} Calotis kempei {3k} Calotis squamigera {3r} Canthium lineare {MAC (eastern range limit)} Carex fascicularis {3rC-} Cassinia laevis {3r} Centipeda A92472 Toko Range {3kC-} Centipeda D18576 Andado {3k} Centrolepis banksii {MAC (southern range limit)} Cheilanthes brownii {MAC (disjunct)} Christella dentata {sthNT (threatened)} Chthonocephalus {3r} Clematis microphylla var. microphylla {3rC-} Comesperma viscidulum {3KC-} Commicarpus australis {3r} Convolvulus remotus {MAC (disjunct)} Corchorus pumilio {3kC-} Corynotheca licrota {3rC-} Crassula colorata var. acuminata {MAC (northern range limit)} Crassula sieberiana subsp. tetramera {MAC (northern range limit)} Cratystylis A36062 Glen Helen {3RC-}

Cremnothamnus thomsonii {MAC (southern range limit)} Crotalaria dissitiflora var. dissitiflora {3k} Cuphonotus andraeanus {3r} Cyanthillium cinereum s.lat. {MAC (disjunct)} Cyclosorus interruptus {sthNT (disjunct)} Cymbopogon dependens {3kC-} Cymbopogon refractus {sthNT (disjunct & apparently rare)} Cyperus bifax {MAC (disjunct)} Cyperus castaneus {sthNT (disjunct)} Cyperus exaltatus {MAC (disjunct)} Cyperus polystachyos {MAC (disjunct)} Daviesia arthropoda {3KCa} Desmodium campylocaulon {MAC (disjunct)} Dicranopteris linearis var. linearis {sthNT (threatened)} Dodonaea microzyga var. microzyga {3r} Doodia caudata var. {3rC-} *Einadia nutans subsp.* {3rC-} Elacholoma hornii {3rC-} Eleocharis geniculata {sthNT (threatened)} Eleocharis papillosa {3R} *Eleocharis pusilla* {3rC-} Enneapogon eremophilus {MAC (southern range limit)} Enneapogon intermedius {3k} Eremophea spinosa {MAC (eastern range limit)} Eremophila A48866 Rainbow Valley {2VCi} Eremophila battii {3r} Eremophila elderi {3k} Eremophila ovata {3k} Eriochiton sclerolaenoides {3k} Eriochloa procera {sthNT (disjunct & apparently rare)} Eucalyptus lucens {3RC-} Eucalyptus orbifolia subsp. orbifolia {MAC (disjunct)} Eucalyptus oxymitra {FIN (eastern range limit), MAC (northern range limit)} Eucalyptus thozetiana {3rC-} Euphorbia sarcostemmoides {3KCa} Fimbristylis nuda {sthNT (disjunct & apparently rare)} Fimbristylis sieberana {sthNT (disjunct)} Gastrolobium brevipes {MAC (eastern range limit)} Glinus orygioides {3r} Glischrocaryon aureum var. angustifolium {3rC-} Glycine clandestina s.lat. {3rC-} Glycine falcata {MAC (disjunct)} Gompholobium polyzygum {MAC (disjunct)} Gomphrena cunninghamii {MAC (disjunct)} Goodenia anfracta {3KC-} Goodenia faucium {2R} Goodenia glandulosa {3rC-} Goodenia havilandii {3rC-} Goodenia larapinta {MAC (southern range limit)} Gossypium nelsonii {3RC-} Grevillea albiflora {MAC (northern range limit)} Grevillea pterosperma {3r} Gymnanthera cunninghamii {3r} Hakea grammatophylla {3RC-} Hakea standleyensis {3RC-} Haloragis odontocarpa forma octoforma {MAC (apparently rare)} Harmsiodoxa puberula {3rC-} Harnieria kempeana subsp. kempeana {3RC-}

Heliotropium conocarpum {MAC (disjunct and southern range limit)} Heliotropium inexplicitum {3k} Hibbertia A86497 Chewings Range {3RC-} Hibbertia glaberrima {3rCa} Hibiscus sturtii var. sturtii {3rC-} Histiopteris incisa {3rC-} Hydrocotyle A39600 Watarrka {2RC-} Hydrocotyle D62620 Harts Range {2R} Imperata cylindrica {sthNT (disjunct & apparently rare)} Indigofera A83977 {2K} Iseilema macratherum {MAC (disjunct and apparently rare)} Isolepis australiensis {3kC-(cryptic)} Isotropis centralis {3rC-} Ixiochlamys integerrima {3K} Ixiochlamys nana {3kC-} Ixiolaena tomentosa {3kC-} Josephinia eugeniae s.lat. {MAC (disjunct)} Juncus A87739 MacDonnell Ranges {MAC (eastern, western, northern and southern range limits)} Juncus continuus {3rC-} Juncus kraussii subsp. australiensis {3rC-} Kennedia prorepens {MAC (disjunct and apparently rare)} Kohautia australiensis {3KC-} Lawrencia squamata {3k} Leucopogon sonderensis {3RC-} Lindsaea ensifolia subsp. ensifolia {sthNT (rare)} Livistona mariae subsp. mariae {2VCa} Logania centralis {3KC-} Lomandra leucocephala subsp. robusta {MAC (disjunct)} Lomandra patens {3RCa} Lythrum paradoxum {3k} Lythrum wilsonii {3r} Macrozamia macdonnellii {3VCa} Maireana brevifolia {3rC-} Maireana carnosa {3rC-} Maireana lobiflora {3k} Maireana schistocarpa {3k} Maireana sedifolia {3rC-} Maireana spongiocarpa {MAC (western range limit)} Melaleuca trichostachya {MAC (disjunct and western range limit)} Menkea sphaerocarpa {3rC-} Minuria tridens {3VCi} Mirbelia ramulosa {3rC-} Monotaxis luteiflora {3r} Mukia A50961 Glen Helen Station {MAC (apparently rare)} Murchisonia volubilis {3r} Najas marina {3rC-} *Nephrolepis arida* {3KC-} Neptunia monosperma {MAC (disjunct but possibly introduced)} Neurachne tenuifolia {3RCa} Newcastelia bracteosa {3k} Nicotiana excelsior {MAC (northern range limit)} Nicotiana megalosiphon subsp. sessilifolia {MAC (western range limit)} Olearia macdonnellensis {3VCi} Olearia xerophila {3r} Ophioglossum polyphyllum {3rC-} Osteocarpum salsuginosum {3r}

Ottelia ovalifolia {sthNT (disjunct)} Oxalis radicosa {3kC-} Paractaenum novae-hollandiae subsp. {3kC-} Paratephrosia lanata {MAC (southern range limit)} Parietaria cardiostegia {3r} Persicaria decipiens {3rC-} Persicaria lapathifolia {MAC (disjunct)} Phragmites australis {sthNT (disjunct & apparently rare)} Phyllanthus erwinii {3k} Phyllanthus oblanceolatus {3KC-} Pimelea interioris {2RC-} Pimelea microcephala subsp. microcephala {3r} Pityrodia loricata {3K} Plantago cunninghamii {3k} Plantago multiscapa {3K} Pleurosorus {MAC (northern range limit)} Plumbago zeylanica {sthNT (disjunct)} Polycarpaea involucrata {MAC (disjunct and southern range limit)} Polymeria ambigua {MAC (disjunct and southern range limit)} Polystichum proliferum {3k} Poranthera microphylla {3rC-} Poranthera triandra {3rC-} Portulaca intraterranea {MAC (apparently rare)} Potamogeton crispus {3rC-} Prostanthera sericea {MAC (northern range limit)} Psilotum nudum {sthNT (rare)} Pteris tremula {MAC (rare)} Ptilotus aervoides {3k} Radyera farragei {MAC (disjunct)} Ricinocarpos gloria-medii {2VCa} Rotala occultiflora {MAC (disjunct)} Rulingia magniflora {MAC (northern range limit)} Samolus eremaeus {3KC-} Sauropus ramosissimus {3KC-} Sauropus rigens {3rC-} Sauropus thesioides {3k} Scaevola graminea {3R} Scaevola humilis {3k} Scaevola ovalifolia {MAC (western range limit)} Scaevola parvibarbata {MAC (western range limit)} Schoenus centralis {3K} Schoenus falcatus {sthNT (disjunct & apparently rare)} Sclerolaena birchii {3k} Sclerolaena calcarata {MAC (disjunct)} Sclerolaena limbata {3k} Sclerolaena parallelicuspis {3rC-} Sclerolaena parviflora {3r}

Sclerostegia disarticulata {3rC-} Sedopsis filsonii {3RC-} Senecio cunninghamii var. serratus {3r} Senna phyllodinea {3k} Sida A43017 Ambalindum {3KC-} Sida A59261 Kathlene Springs {3kC-} Sida A88135 Hale River {3K} Sida A90797 Rainbow {3kC-} Sida everistiana {3r} Sida goniocarpa {3r} Solanum eardleyae {MAC (northern range limit)} Spartothamnella puberula {3rC-} Spergularia A43234 {3r} Sporobolus virginicus {sthNT (disjunct)} Stackhousia A90542 Mt Liebig {MAC (apparently rare)} Stenanthemum A83203 Palm Valley {3RC-} Stylidium inaequipetalum {3RCa} Swainsona acuticarinata {3kC-} Swainsona canescens {MAC (eastern range limit)} Swainsona colutoides {3rC-} Swainsona disjuncta {3k} Swainsona oligophylla {MAC (disjunct)} *Swainsona purpurea* {3k} Tecticornia verrucosa {MAC (eastern range limits)} Teucrium grandiusculum subsp. grandiusculum {3KC-} Threlkeldia inchoata {3k} Thryptomene wittweri {3VC-} Thyridolepis multiculmis {MAC (northern range limit)} Trema tomentosa var. {MAC (disjunct)} Tribulus hirsutus {MAC (eastern range limit)} Trichanthodium skirrophorum {3kC-} Tricoryne elatior s.lat. {3rC-} Triglochin hexagonum {MAC (disjunct)} Triumfetta johnstonii {3k} Triumfetta maconochieana {3k} Triumfetta micracantha {sthNT (apparently rare)} Verbena macrostachya {3k} Vittadinia dissecta var. {3kC-} Vittadinia pustulata {3kC-} Vittadinia sulcata {MAC (disjunct)} Vittadinia virgata {MAC (southern range limit)} Wrixonia schultzii {3VC-} Xanthorrhoea thorntonii {3rCa} Zornia muriculata subsp. angustata {sthNT (disjunct)} Zygophyllum crassissimum {3KC-} Zygophyllum rowelliae {3k}

MITCHELL GRASS DOWNS BIOREGION VASCULAR PLANTS OF CONSERVATION SIGNIFICANCE

Appendix 3, Table 8. Summary of significant taxa present in the Mitchell Grass Downs bioregion.

Significance level	Main ROTAP code	Major significance type	Number of taxa
national	V		1
national	R		2
national	K		11
Northern Territory	v		1
Northern Territory	r		22
Northern Territory	k		28
southern NT	-	apparently rare	5
southern NT	-	disjunct	2
bioregional	-	apparently rare	7
bioregional	-	disjunct	1
bioregional	-	range limit	13

Significant taxa-Mitchell Grass Downs Bioregion

Acacia chisholmii {3r (border)}	Goodenia nigrescens {3KC-}
Acacia D64727 Barklys {3k}	Goodenia strangfordii {MGD (southern range limit)}
Acacia georginae {MGD (northern range limit)}	Gossypium nelsonii {3RC-}
Acacia tetragonophylla {MGD (northern range limit)}	Grevillea parallela {sthNT (apparently rare)}
Acacia wickhamii {MGD (apparently rare)}	Haloragis glauca forma glauca {3k}
Acmella grandiflora var. grandiflora {3K}	Heliotropium ballii {3k}
Acrachne racemosa {3k}	Heliotropium geocharis {3k}
Angianthus cyathifer {MGD (disjunct and eastern range limit)}	Heliotropium leptaleum {3k}
Astrebla lappacea {3k}	Heliotropium pulvinum {3k}
Atriplex muelleri {3r}	Hibiscus pentaphyllus {sthNT (apparently rare)}
Bergia barklyana {3R}	Iotasperma sessilifolia {3k}
Bergia diacheiron {3r}	Ipomoea argillicola {3r}
Brachycome A58350 Newcastle Waters Station {3r}	Iseilema calvum {3k}
Calotis squamigera {3r}	Ixiochlamys integerrima {3K}
Cleome oxalidea {3r}	Josephinia eugeniae s.lat. {MGD (apparently rare)}
Commelina ciliata {sthNT (apparently rare)}	Lysiphyllum cunninghamii {MGD (southern range limit)}
Commelina tricarinata {3k}	Lysiphyllum gilvum {3r (border)}
Corchorus elderi {3K}	Marsilea crenata {sthNT (disjunct)}
Corchorus pascuorum {3k}	Marsilea mutica {sthNT (disjunct)}
Cullen walkingtonii {3KC-}	Mentha australis {3r (border)}
Cyperus gilesii {3k}	Mimulus prostratus {3k}
<i>Cyperus microcephalus subsp. microcephalus</i> {sthNT (disjunct & apparently rare)}	Minuria macrorhiza {MGD (at or near southern range limit)} Mukia A90788 Tobermorey Station (3V)
Cyperus oxycarpus {3kC-}	Nicotiana rosulata subsp. ingulba {MGD (eastern range limit)}
Dentella minutissima {3rC-}	Nymphaea immutabilis subsp. immutabilis {3y}
Dichromochlamys dentatifolia {MGD (northern range limit)}	Oldenlandia argillacea {3kC-}
Eclipta alatocarpa {3k}	Paspalidium retiglume (MGD (southern range limit))
Enteropogon minutus {3kC- (border)}	Pennisetum basedowii {3k (border)}
Eriochloa crebra {MGD (apparently rare)}	Penlidium muelleri (MGD (apparently rare))
Eryngium supinum {3k}	Phyllanthus lacerosus {3KC-}
Eucalyptus barklyensis {MGD (southern range limit)}	Plantago cunninghamii (3k)
Eucalyptus cyanoclada {MGD (southern & eastern range limits)}	Polygala gabrielae (3KC-)
Eucalyptus helenae {2K (border)}	Polymeria calvcina (3k (border))
Euphorbia stevenii {3k}	Portulaça digyna 33
Fimbristylis D70268 Connells Lagoon {3rC-}	Portulaça oligosperma {3kC- (horder)}
Fimbristylis trachycarya {sthNT (disjunct & apparently rare)}	Potamogeton pectinatus (3r)
Goodenia D70208 Barkly {3KC- (border)}	Comme Service Perinting [01]

Pycnosorus eremaeus {3kC-} Rotala tripartita {3r} Rumex crystallinus {3r} Sarcostemma brevipedicellatum {3k (border)} Sclerolaena muricata var. muricata {3r} Sida A90358 Walhallow Station {3r} Sida goniocarpa {3r} Sida laevis {3kC-} Solanum eburneum {MGD (apparently rare and southern range limit)} Sorghum grande {3rC- (border)} Spathia neurosa {MGD (western range limit)} Spermacoce auriculata {MGD (southern range limit)}Spermacoce pogostoma {MGD (eastern range limit)}Stemodia lathraia {3k (border)}Stemodia tephropelina {MGD (eastern range limit)}Terminalia aridicola subsp. aridicola {3r (border)}Terminalia carpentariae {MGD (southern range limit)}Tribulopis sessilis {3kC- (border)}Urochloa atrisola {3K}Velleia macrocalyx {3r}Vittadinia eremaea {MGD (northern range limit)}Vittadinia pterochaeta {3r }

SIMPSON-STRZELECKI DUNEFIELDS BIOREGION VASCULAR PLANTS OF CONSERVATION SIGNIFICANCE

Appendix 3, Table 9. Summary of significant taxa present in the Simpson-Strzelecki Dunefields bioregion.

Significance level	Main ROTAP code	Major significance type	Number of taxa
national	V		3
national	R		7
national	K		3
Northern Territory	r		33
Northern Territory	k		38
bioregional	-	apparently rare	9
bioregional	-	disjunct	9
bioregional	-	range limit	16

Significant taxa – Simpson-Strzelecki Dunefields bioregion

Abutilon halophilum {3r} Centipeda D18576 Andado {3k} Acacia cyperophylla {SSD (disjunct)} Chenopodium pumilio {3k} Acacia D7472 Indiana Station {3r} Convolvulus remotus {SSD(disjunct)} Acacia desmondii {3R} Corchorus elderi {3K} Acacia paraneura {SSD (apparently rare)} Corchorus tridens {SSD (southern range limit)} Acacia peuce {3VCi} Crinum flaccidum {SSD (apparently rare and disjunct)} Crotalaria dissitiflora var. dissitiflora {3k} Acacia pickardii {3V} Acacia validinervia {SSD (eastern range limit)} Cullen graveolens {3k} Cymbopogon dependens {3kC-} Allocasuarina decaisneana {SSD (eastern range limit)} Amyema miraculosa subsp. boormanii {3k} Cyperus gilesii {3k} Arabidella glaucescens {3r} Cyperus ixiocarpus {SSD (southern range limit)} Arabidella nasturtium {3r} Cyperus laevigatus {3r (border)} Arabidella procumbens {3r} Cyperus pulchellus {SSD (southern range limit)} Aristida hygrometrica {SSD (disjunct)} Dentella pulvinata {3r} Astrebla lappacea {3k} Dicrastylis doranii {3k} Atriplex angulata {3k} Dysphania sphaerosperma {3r} Atriplex crassipes var. crassipes {3k} Eclipta alatocarpa {3k} Atriplex eardleyae {3r} Eleocharis papillosa {3R} Atriplex intermedia {3r} Enneapogon intermedius {3k} Atriplex lobativalvis {3r} Eragrostis A51007 {3k} Atriplex morrisii {3K} Eragrostis lanipes {3r} Atriplex turbinata {3r} Eremophila A90760 Arookara Range {2R} Austrostipa centralis {3RC-} Eremophila battii {3r} Austrostipa scabra subsp. scabra {SSD (disjunct)} Erodium angustilobum {3kC-} Bergia ammannioides {SSD (disjunct)} Euphorbia stevenii {3k} Bergia occultipetala {3R} Frankenia cupularis {3r} Blennodia pterosperma {SSD (northern range limit)} Gilesia biniflora {3k} Bulbine alata {3k} Glinus orygioides {3r} Calandrinia disperma {3k} Goodenia angustifolia {3r} Calandrinia polyandra {3kC-} Goodenia berardiana {SSD (northern range limit)} Calandrinia remota {3kC-} Gunniopsis quadrifida {3r} Calandrinia reticulata {SSD (northern range limit)} Hakea macrocarpa {SSD (southern range limit)} Calotis kempei {3k} Halosarcia pergranulata subsp. elongata {SSD (disjunct and apparently rare)}

Harnieria kempeana subsp. kempeana {3RC-} Heliotropium pleiopterum {SSD (eastern range limit)} Hibiscus trionum var. vesicarius {SSD (disjunct and southern range limit)} Isoetes muelleri {SSD (disjunct and apparently rare)} Ixiochlamys nana {3kC-} Josephinia eugeniae s.lat. {SSD (disjunct)} Kohautia australiensis {3KC-} Lepidium strongylophyllum {3r} Lythrum paradoxum {3k} Lythrum wilsonii {3r} Maireana appressa {3k} Maireana eriantha {3r (border)} Maireana lobiflora {3k} Maireana microcarpa {3r} Maireana schistocarpa {3k} Maireana tomentosa subsp. tomentosa {SSD (eastern range limit)} Minuria tridens {3VCi} Nitraria billardieri {3r} Oldenlandia pterospora {SSD (southern and eastern range limits)} Osteocarpum acropterum var. acropterum {3k} Osteocarpum pentapterum {3r} Ozothamnus kempei {SSD (southern range limit)} Peplidium foecundum {3k} Peplidium muelleri {SSD (apparently rare)} Pimelea penicillaris {3k} Pimelea simplex subsp. continua {3r}

Plagiobothrys plurisepalus {3r} Pomax A89438 Sand Dunes {3kC-} Ptilotus aervoides {3k} Ptilotus aristatus var. eichlerianus {3R} Radyera farragei {SSD (disjunct)} Rumex crystallinus {3r} Sclerolaena costata {SSD (eastern range limit)} Sclerolaena longicuspis {3r} Sclerolaena parallelicuspis {3rC-} Sclerolaena urceolata {SSD (eastern range limit)} Senecio cunninghamii var. serratus {3r} Senna phyllodinea {3k} Sida A90797 Rainbow {3kC-} Sida argillacea {SSD (apparently rare)} Spergularia A43234 {3r} Streptoglossa cylindriceps {3kC-} Swainsona laxa {3r} Swainsona unifoliolata {SSD (disjunct and eastern range limit)} Tetragonia eremaea {3k} Teucrium albicaule {3r} Trichanthodium skirrophorum {3kC-} Triodia melvillei {SSD (eastern range limit)} Triumfetta winneckeana {SSD (disjunct)} Vittadinia sulcata {SSD (disjunct)} Wurmbea deserticola {SSD (eastern range limit)} Zygophyllum aurantiacum subsp. simplicifolium {3k (border) }

STONY PLAINS BIOREGION VASCULAR PLANTS OF CONSERVATION SIGNIFICANCE

Significance level	Main ROTAP code	Major significance type	Number of taxa
national	R		3
national	K		1
Northern Territory	r		17
Northern Territory	k		11
bioregional	-	apparently rare	1
bioregional	-	range limit	1

Appendix 3, Table 10. Summary of significant taxa present in the Stony Plains bioregion.

Significant taxa – Stony Plains bioregion

Abutilon halophilum {3r}	Mai
Anemocarpa podolepidium {3r (border)}	Mer
Arabidella nasturtium {3r}	Pep
Atriplex angulata {3k}	Pep
Atriplex fissivalvis {3r (border)}	Pim
Atriplex incrassata {3r (border)}	Plag
Atriplex lobativalvis {3r}	Plan
Atriplex nummularia subsp. omissa {3k (border)}	Ptil
Atriplex turbinata {3r}	Ptil
Bergia occultipetala {3R}	Pyc
Capparis spinosa var. nummularia {STP (southern range limit)}	Rho
Chenopodium pumilio {3k}	Run
Eremophila battii {3r}	Scle
Eremophila rotundifolia {3r (border)}	Stre
Eriachne benthamii {3kC-}	Tetr
Gilesia biniflora {3k}	Thr
Maireana ciliata {3r (border)}	Ver

ireana microcarpa {3r} ntha australis {3r (border)} lidium foecundum {3k} blidium muelleri {STP (apparently rare)} nelea simplex subsp. continua {3r} giobothrys plurisepalus {3r} ntago multiscapa {3K} otus aristatus var. aristatus {3R (border)} otus aristatus var. eichlerianus {3R} enosorus eremaeus {3kC-} *odanthe uniflora* {3r (border)} nex crystallinus {3r} erolaena parallelicuspis {3rC-} eptoglossa cylindriceps {3kC-} ragonia eremaea {3k} elkeldia inchoata {3k} bena macrostachya {3k.}
TANAMI BIOREGION VASCULAR PLANTS OF CONSERVATION SIGNIFICANCE

Appendix 3, Table 11. Summary of significant taxa present in the Tanami bioregion.

Significance level	Main ROTAP code	Major significance type	Number of taxa
national	R		10
national	K		18
Northern Territory	V		1
Northern Territory	r		33
Northern Territory	k		68
southern NT	-	rare	1
southern NT	-	apparently rare	11
southern NT	-	disjunct	24
bioregional	-	apparently rare	20
bioregional	-	disjunct	22
bioregional	-	range limit	80

Significant taxa – Tanami bioregion

Abutilon cryptopetalum {TAN (disjunct and northern range limit)}	Arundinella setosa {
Abutilon lepidum {3r}	Atriplex vesicaria {
Acacia abbreviata {3R}	Bacopa floribunda {
Acacia adoxa var. adoxa {TAN (eastern range limit)}	Bergia occultipetala
Acacia ampliceps {TAN (eastern range limit)}	Bergia perennis subs
Acacia cibaria {TAN (northern range limit)}	Boerhavia burbidged
Acacia conspersa {sthNT (disjunct)}	Bonamia alatisemina
Acacia difficilis {TAN (southern range limit)}	Bonamia deserticola
Acacia estrophiolata {TAN (northern range limit)}	Brachyachne prostra
Acacia grasbyi {3rC-}	Brachychiton multice
Acacia hemsleyi {sthNT (disjunct)}	Buchnera asperata
Acacia inaequilatera {TAN (eastern range limit)}	Byblis filifolia {sthN
Acacia jennerae {TAN (northern range limit)}	Byblis rorida {3k (bo
Acacia jensenii {TAN (eastern range limit)}	Cajanus acutifolius
Acacia kempeana {TAN (northern range limit)}	Calandrinia pleiope
Acacia lycopodiifolia {TAN (southern range limit)}	Calotis erinacea {TA
Acacia maconochieana {3r}	Calotis latiuscula {
Acacia minutifolia {TAN (northern range limit)}	Calotis plumulifera
Acacia orthotricha {TAN (eastern range limit)}	Calotis xanthosioide
Acacia pachycarpa {TAN (eastern and northern range limits)}	Centipeda racemosa
Acacia paraneura {TAN (northern range limit)}	Centrolepis eremica
Acacia sabulosa {3k}	Chenopodium nitrar
Acacia stenophylla {TAN (apparently rare)}	Chloris pumilio {3kC
Acacia stipulosa {3k}	Cleome oxalidea {3r
Acacia synchronicia {3k}	Cleome uncifera {3r
Acacia tephrina {3r}	Coleocoma centaure southern range limits)}
Acacia validinervia {TAN (northern range limit)}	
Acacia wiseana {3r}	Comesperma A7/28
Acrachne racemosa {3k}	Commelina tricarina
Adriana tomentosa var. hookeri {TAN (disjunct)}	Corchorus elderi {3
Aenictophyton reconditum {TAN (eastern range limit)}	Corchorus pumilio
Amaranthus cochleitepalus {3rC-}	Corchorus walcottu
Amaranthus D120438 Birrindudu Station {3k}	Corymbia candida si
Ampelocissus frutescens {TAN (southern range limit)}	Corymbia pachycarp
Angianthus cyathifer {TAN (northern range limit)}	Corynotheca aspera
	Corynotheca micran

rundinella setosa {sthNT (disjunct)}
triplex vesicaria {TAN (northern range limit)}
acopa floribunda {sthNT (disjunct & apparently rare)}
ergia occultipetala {3R}
ergia perennis subsp. obtusifolia {TAN (eastern range limit)}
oerhavia burbidgeana {TAN (apparently rare)}
onamia alatisemina {3K}
onamia deserticola {TAN (eastern range limit)}
rachyachne prostrata {3r}
rachychiton multicaulis {TAN (southern range limit)}
uchnera asperata {3kC- (border)}
yblis filifolia {sthNT (disjunct)}
yblis rorida {3k (border)}
ajanus acutifolius {sthNT (disjunct & apparently rare)}
alandrinia pleiopetala {3rC-}
Calotis erinacea {TAN (disjunct and northern range limit)}
Calotis latiuscula {TAN (northern range limit)}
Calotis plumulifera {TAN (disjunct and northern range limit)}
Calotis xanthosioidea {3r}
entipeda racemosa {3k}
<i>entrolepis eremica</i> {TAN (disjunct and apparently rare)}
henopodium nitrariaceum {TAN (disjunct)}
hloris pumilio {3kC-}
leome oxalidea {3r}
leome uncifera {3r (border)}
<i>oleocoma centaurea</i> {TAN (eastern, western, northern and buthern range limits)}
Comesperma A77288 {3R}
Commelina tricarinata {3k}
orchorus elderi {3K}
Corchorus pumilio {3kC-}
orchorus walcottii {3k}
orymbia candida subsp. dipsodes {3k}
orymbia pachycarpa subsp. glabrescens {3K}
'orynotheca asperata {3K}
<i>Corynotheca micrantha var. divaricata</i> {TAN (northern range

limits)}

Crinum angustifolium {sthNT (apparently rare)} Crotalaria montana {TAN (disjunct and apparently rare)} Cullen martinii {TAN (disjunct and eastern range limit)} Cullen walkingtonii {3KC-} Cyanthillium cinereum s.lat. {TAN (disjunct)} Cyperus castaneus {sthNT (disjunct)} Cyperus cristulatus {sthNT (disjunct & apparently rare)} Cyperus cuspidatus {sthNT (disjunct & apparently rare)} Cyperus viscidulus {3k (border)} Dampiera candicans {TAN (eastern range limit)} Dentella asperata {TAN (eastern range limit)} Desmodium filiforme {sthNT (disjunct)} Desmodium muelleri {TAN (disjunct and apparently rare)} Dicrastylis costelloi {TAN (northern range limit)} Dicrastylis doranii {3k} Dicrastylis exsuccosa {TAN (eastern range limit)} Dicrastylis lewellinii {TAN (northern range limit)} Diodontium filifolium {3R (border)} Distichostemon barklyanus {3k} Dodonaea petiolaris {TAN (disjunct and northern range limit)} Dodonaea physocarpa {TAN (apparently rare and southern range limit)} Dodonaea polyzyga {TAN (apparently rare and southern range limit)} Drosera lanata {TAN (southern range limit)} Drosera petiolaris {TAN (southern range limit)} Dysphania sphaerosperma {3r} Echinochloa elliptica {sthNT (disjunct)} Ectrosia lasioclada {3r} Ectrosia leporina {sthNT (disjunct)} Elacholoma hornii {3rC-} Eleocharis nuda {TAN (apparently rare and western range limit)} Eleocharis papillosa {3R} Eragrostis exigua {sthNT (disjunct)} Eragrostis lanicaulis {3k} Eragrostis laniflora {TAN (northern range limit)} Eragrostis olida {TAN (eastern range limit)} Eragrostis subtilis {3K} Eremophea spinosa {TAN (northern range limit)} Eremophila duttonii {TAN (northern range limit)} Eremophila youngii subsp. A78292 Suplejack Station {3r} Eriachne flaccida {3r} Eriocaulon pygmaeum {TAN (southern range limit)} Eucalyptus barklyensis {TAN (apparently rare)} *Eucalyptus cupularis* {3r} Euphorbia boophthona {TAN (northern range limit)} Euphorbia petala {TAN (western range limit)} Euphorbia stevenii {3k} Exocarpos sparteus {TAN (northern range limit)} Fimbristylis {sthNT (disjunct & apparently rare)} Fimbristylis corynocarya {3k} Fimbristylis eremophila {TAN (eastern range limit)} Fimbristylis nuda {sthNT (disjunct & apparently rare)} Fimbristylis rara {sthNT (disjunct)} Fimbristylis signata {3k} Fimbristylis simulans {TAN (eastern range limits)} Fimbristylis squarrulosa {sthNT (disjunct & apparently rare)} *Fimbristylis velata* {3k} Fuirena nudiflora {3k}

Glinus orygioides {3r} Gompholobium simplicifolium {3r} Gomphrena diffusa subsp. arenicola {TAN (southern and eastern range limit)} Gomphrena leptophylla {3k} Gonocarpus chinensis s.lat. {sthNT (disjunct)} Gonocarpus eremophilus {3k} Goodenia A44284 {3K} Goodenia goodeniacea {TAN (northern range limit)} Goodenia larapinta {TAN (northern range limit)} Goodenia maideniana {TAN (disjunct and northern range limit)} Goodenia modesta {TAN (northern range limit)} Goodenia nigrescens {3KC-} Goodenia odonnellii {sthNT (disjunct)} Goodenia paludicola {sthNT (apparently rare)} Goodenia virgata {TAN (northern range limit)} Halgania erecta {TAN (disjunct and northern range limit)} Haloragis glauca forma glauca {3k} Halosarcia halocnemoides subsp. longispicata {TAN (western range limit)} Halosarcia halocnemoides subsp. tenuis {3k} Halosarcia indica subsp. bidens {3k} Heliotropium ballii {3k} Heliotropium diversifolium {3k} Heliotropium epacrideum {3k} Heliotropium flintii {TAN (disjunct)} Heliotropium glanduliferum {3k} Heliotropium parviantrum {3k} Heliotropium pulvinum {3k} Heliotropium skeleton {TAN (northern and eastern range limit)} Heliotropium sphaericum {3k} Heliotropium subreniforme {3K} Hibiscus arenicola {3k} Hibiscus brachychlaenus {3r} Indigofera ammobia {3k} Indigofera polygaloides {3k} Iotasperma sessilifolia {3k} Ipomoea argillicola {3r} Ipomoea plebeia {sthNT (apparently rare)} Iseilema eremaeum {TAN (disjunct and apparently rare)} Isoetes muelleri {TAN (disjunct and apparently rare)} Isotoma luticola {3R} Isotropis atropurpurea {TAN (eastern range limit)} Jacksonia aculeata {3k} Jacksonia odontoclada {TAN (southern range limit)} Lawrencia viridi-grisea {3r} Lechenaultia filiformis {TAN (southern range limit)} Lechenaultia lutescens {3k} Lepidium phlebopetalum {TAN (northern range limit)} Leptosema anomalum {TAN (eastern range limit)} Leptosema chambersii {TAN (northern and eastern range limits)} Lindernia A4814 Willowra {1R} Logania centralis {3KC-} Lomandra leucocephala subsp. robusta {TAN (disjunct and northern range limit), MAC (disjunct), GSD (disjunct)} Lysiphyllum gilvum {3r (border)} Lythrum wilsonii {3r} Marsdenia viridiflora subsp. tropica {TAN (southern range limit)} Marsilea latzii {3R}

Marsilea mutica {sthNT (disjunct)} Merremia A92973 Elliott {3k (border)} Microcarpaea minima {sthNT (disjunct & rare)} Mimulus prostratus {3k} *Mitrasacme exserta* {TAN (southern range limit)} Mitrasacme laricifolia {3kC- (border)} Mitrasacme lutea {3R (border)} Muelleranthus trifoliatus {TAN (northern range limit)} Mukia A50961 Glen Helen Station {TAN (northern, eastern and western range limits)} Mukia micrantha {3k} Najas marina {3rC-} Najas tenuifolia {sthNT (disjunct)} Neobassia astrocarpa {TAN (eastern range limit)} Nesaea repens {3k} Newcastelia cladotricha {3k} Nymphaea immutabilis subsp. immutabilis {3v} Nymphoides indica {sthNT (disjunct)} Olax spartea {3K} Oldenlandia argillacea {3kC-} Oldenlandia {TAN (apparently rare and southern range limit)} Owenia reticulata {TAN (southern range limit)} Panicum mindanaense {sthNT (disjunct)} Paspalidium reflexum {TAN (northern range limit)} Peplidium A88036 Tanami {3k} Peplidium aithocheilum {TAN (northern range limit)} Petalostigma pubescens {TAN (disjunct)} *Phyllanthus carpentariae* {3k} Pimelea ammocharis {TAN (northern and eastern range limits)} Pityrodia chorisepala {3K} Pluchea ferdinandi-muelleri {TAN (eastern range limit)} Pluchea tetranthera {3k} Polygala A77628 Davenport Range {TAN (western range limit)} Polygala gabrielae {3KC-} Polygala tepperi {3r} Polymeria A93357 Western Tanami {3k (border)} Portulaca digyna {3r} Ptilotus leucocoma {3k} Rotala occultiflora {TAN (disjunct)} Rothia indica subsp. {3KC-} *Rumex crystallinus* {3r} Sauropus huntii {TAN (eastern range limit)} Scaevola collaris {TAN (northern range limit)} Scaevola depauperata {TAN (northern range limit)} Scaevola spinescens {TAN (northern range limit)} Schizachyrium pseudeulalia {sthNT (disjunct)} Sclerolaena crenata {TAN (eastern range limit)} Sclerolaena cuneata {TAN (northern range limit)} Sclerolaena minuta {3k} Sclerolaena patenticuspis {TAN (disjunct and northern range limit)} Senna artemisioides subsp. symonii {3r} Senna curvistyla {3k} Sesbania benthamiana {sthNT (disjunct)}

Sida A88271 Rabbit Flat {TAN (eastern range limit)} Solanum chenopodinum {TAN (northern range limit)} Solanum diversiflorum {TAN (eastern range limit)} Solanum gilesii {TAN (eastern range limit)} Sporobolus latzii {1K} Sporobolus virginicus {sthNT (disjunct)} Stackhousia A90542 Mt Liebig {TAN (eastern range limit)} Stackhousia megaloptera {TAN (northern range limits and disjunct)} Stemodia A57025 Manners Creek {3K} Stemodia A65613 Tanami {TAN (western range limit)} Striga squamigera {3K} Stylidium floribundum {3k} Stylidium multiscapum {sthNT (disjunct)} Swainsona affinis {TAN (northern range limit)} Swainsona burkei {TAN (western range limit)} Swainsona microphylla {TAN (northern range limit)} Swainsona oligophylla {TAN (disjunct)} Swainsona unifoliolata {TAN (disjunct and northern range limit)} Tephrosia A27836 Dunes {3k} Tephrosia brachycarpa {3k} Tephrosia oblongata {sthNT (disjunct)} Tephrosia stuartii {TAN (eastern range limit)} Tephrosia uniovulata {3k} Terminalia savannicola {sthNT (disjunct)} *Teucrium integrifolium* {TAN (disjunct and western range limit)} Thaumastochloa pubescens {3k} Trachymene inflata {3RC-} Trachymene villosa {3k} Trema tomentosa var. {TAN (apparently rare)} Trianthema glossostigma {3r} Trianthema oxycalyptra var. oxycalyptra {3r} *Trianthema turgidifolia* {3k} Tribulopis bicolor {TAN (eastern and southern range limit)} Triglochin hexagonum {TAN (disjunct)} Triodia epactia {TAN (eastern range limit)} Triodia inutilis {TAN (southern range limit)} Triodia latzii {3k} Triumfetta centralis {3k} Triumfetta chaetocarpa {3k} Triumfetta clivorum subsp. brevipetala {3k} Triumfetta deserticola {3k} Triumfetta johnstonii {3k} Triumfetta micracantha {sthNT (apparently rare)} Typhonium alismifolium {3r} Velleia connata {TAN (northern range limit)} Velleia macrocalyx {3r} Vittadinia pustulata {3kC-} Waltheria virgata {TAN (eastern range limit)} Xyris complanata {sthNT (disjunct)} Yakirra muelleri {3k} Zornia chaetophora {sthNT (disjunct)} Zygochloa paradoxa {TAN (disjunct and northern range limit)} Zygophyllum compressum {TAN (northern range limit) }