REPORT ON THE LAND UNITS OF
MATARANKA NORTH STATION,
N.T. 1978

by

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DARWIN    NT
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INTRODUCTION.

The survey of Mataranka North Station was carried out at the request of the Mataranka Station management. The survey involved the collection of land resource information from which management decisions could be made on the selection of the most suitable area for:

(i) cash crops such as grain sorghum, peanuts and guar;
(ii) improved pastures with introduced stylo species;
(iii) potential homestead sites.

Mataranka North covers an area of 1 050 km² and is crossed by the Stuart Highway (Figure 1).

The area has been previously mapped by C.S.I.R.O. at a broad scale into land systems (Speck et al., 1965). A land system is defined as an area or group of areas with a recurring pattern of land forms, soils, and vegetation. Land systems occurring in the Mataranka North area are, in approximate order of extent, Wallingin, Blain, Jindara, Kimbyan, Woggaman, Maranboy, Yungman, Yujullowan, Mullaman and Claravale (Figure 2.).

This land unit survey at a scale of 1:50 000, was commenced in 1974 when much of the area of Kimbyan land system was mapped and a farm plan for the area drawn by Laity and Forster (internal report, 1974). A land unit is defined as a reasonably homogeneous part of the land surface, distinct from surrounding terrain with consistent properties in landform, soils, and vegetation (Laity, 1971). As such a land unit becomes an area of land which exhibits an essentially uniform pattern on aerial photographs (Aldrick and Robinson, 1972). Further surveying of the area was continued in 1976, the results of which are discussed in this report. Many of the land units delineated in this survey are those identified by earlier mapping in the Daly River basin to the north. (Aldrick and Robinson, 1972). Our report is therefore a supplement to the earlier report by Aldrick and Robinson (1972) and allows continuity of mapping throughout the Daly River Basin. However, due partly to climatic differences, it has been necessary to describe new units where both soil and vegetation vary significantly from previously described land units. As well, many of the existing vegetation descriptions have been amended due to a greater variation in species association occurring within each of the land units involved, but such details are not included in this report.
Mataranka North Survey Boundary

Fig. 1

Scale 1:250,000

To Katherine

Indal Airfield

Stuart

Veen Airfield

Highway

Leach Lagoon

River

Key

To Mataranka

To Mataranka
MATARANKA NORTH LAND SYSTEMS

FIGURE 2.

SCALE 1:250,000

MULLAMAN
YUJULLOWAN
YUNGMAN
MARANBOY
JINDARA
WOGGAMAN
WALLINGIN

CLARAVALE
BLAIN
BUDBUDJONG
KIMBYAN
KARAMAN

Viewed at 08:02:54 on 18/02/2010
LAND USE SUMMARY.

In terms of land use, the land units identified in this survey may be divided into six major groups. These land units are listed below in approximate order of extent:

1. Land units 1a, 3e, 3el, 5a, 5b, 5c and 5fl; lateritic podzolics and lateritic red earths.
2. Land units 4a2, 4b2, 4c, 4d and 4d1; sandy red earths, earthy sands and siliceous sands.
3. Land units 5d, 5e and 5el; yellow podzolics and lateritic podzolics.
4. Land units 2a, 2b, 2c, 2d, 2e, 3a and 3b; hilly, rocky and skeletal areas.
5. Land units 3c, 3d, 4a1 and 4b1; loamy red earths.
6. Land units 5f2, 7d and 8a; drainage flats or major river levees.

Group 1.

Areas of lateritic podzolics and lateritic red earths are extensive within the survey area. These soils are typically shallow to moderately deep, gravelly and droughty. Due to these limitations, such soils appear to offer little potential for any land use more intensive than range land grazing. However, new varieties of perennial stylos (Stylosanthes hamata, S. scabra cv. seca) may offer an alternative for such areas. Experimental trial work with these species indicates that these areas may be significantly improved to provide valuable grazing land during the wet season and early dry season. With generally sparse native vegetative cover, clearing only of undergrowth should be necessary to facilitate improved pasture development.

Group 2.

In sandplain areas, the earthy sands and siliceous sands offer only rangeland grazing of native pastures. The better areas of sandy red earths (gradational Blain family) may offer some potential for improved pastures of perennial stylo (S. hamata and S. scabra cv. seca) or sorghum, bullrush millet, dolichos lab lab and cowpea as fodder crops. Pasture improvement within the sandy red earth areas would probably involve a low cost operation with aerial sowing of seed and fertilizer and judicious clearing of undergrowth on gentle slopes. Large uniform areas of gradational Blain family soils are situated close to the Stuart Highway. These areas lend themselves to early development. Similar areas further to the south-east of the
property may offer similar potential. However, wet season access is difficult and in some areas extremely dense vegetation will incur additional costs. Chemically, the sandy red earth soils are the most infertile, since they are leached and consequently require high levels of nitrogen and phosphorus if cropping is attempted. Additional nutrients such as sulphur, zinc and copper may be required for legume production, which implies an added cost involved in utilizing these soils.

Also occurring in the sand plain areas are the duplex series of the Blain red earth soil family. This duplex Blain soil has a soft to loose surface horizon of sand to loamy sand, over a clear boundary to clay loam or sandy clay by a depth of 45 cm. Even though these soils have greater potential for development, their distribution cannot be determined by a study of aerial photographs, hence they have not been mapped out. Cropping should only be undertaken on these soils in consultation with a soil conservation officer.

Group 3.

Areas of lateritic podzolics and yellow podzolics in lower lying areas are widely spread and remain moist until late in the dry season. They appear useful mainly for rangeland grazing of native pastures, however, pasture improvement may be possible using perennial stylo (S. hamata) with grazing being limited to mid dry season to minimise soil disturbance by grazing animals. Some of these areas are situated on gradients in excess of 2% and therefore are very susceptible to erosion if overgrazed too early in the dry season.

Group 4.

Areas of hilly and rocky terrain are scattered throughout. These areas should be left undisturbed, unless used for wet season refuge. It would then be necessary to take all precautions to ensure that these areas are not overstocked or cleared in any way as this would cause severe erosion.

Group 5.

Areas of loamy red earths with firm surface horizons are scattered mainly to the south of the Stuart Highway. These soils are arable, but a soil conservation officer should be consulted if cropping is to be considered. Management of a cropping enterprise would be made difficult because of the scattered distribution of these soils. A small area south of the Stuart Highway and east of the King River would be a suitable experimental area for cash or fodder cropping with grain sorghum, bullrush millet, peanuts and maize.
Group 6.

These land units comprise mainly the drainage flats and levees of the King River and should be left undisturbed due to their highly erodible nature.

Generally it is recommended that land with slopes greater than 2% should not be totally cleared; areas abutting drainage lines or heads of drainage lines should be left undisturbed; roads and fencelines should not be sighted directly up and down slope, unless adequate table drains are constructed and maintained; stockyards and watering points should be carefully chosen. Uncontrolled access by cattle to the river will cause severe stream bank erosion.

Considering the generally poor nature of most of the soils, and that little research has been completed in the field of pasture improvement on the major soil types within the survey area, any form of development should at first be on an experimental basis.

From the marketing point of view, initial development on this section of the property would best be situated on the Blain sandy red earths adjacent to the Stuart Highway. This area would centralize communications within the station, have all year round access and fencing would not be difficult. Such an area could be used to hold cattle from the two sister stations, Coolibah and Roper Valley, which are isolated from the Katherine market during the wet season and would ensure the abattoirs of continuity of supply throughout the year. It is essential to point out, however, that these areas should not be overstocked or completely cleared, due to their extremely erodible nature.

Management of the land rests fundamentally on the fact that its productive capacity depends on many factors such as climate, soil conditions, slope, susceptibility to erosion and other physical characteristics. Management should aim at using each parcel of land towards gaining the greatest return without injuring the capacity of the land to produce. To achieve this, detailed planning of the farm is required so that each part of it is used to best advantage.

More advice on pasture improvement, suitable stocking rates and fodder or cash cropping may be obtained from the officers of the Animal Industry and Agriculture Branch. Further specific advice on soil conservation measures necessary in this area may be obtained through this Section.
SOILS.

Most soils examined in the survey area fit within the classification proposed by Aldrick (1972) with the exception of one further red earth soil group. A general description of the soil of this group is listed below.

1. Red earth - lateritic sub-group.

These soils were generally found on gently undulating areas of the Yungman and Maranboy land systems, developed on deeply weathered Cretaceous sandstone and siltstone, with minor occurrences in Yujullowan and Mullaman land systems. These soils were generally shallow to moderately deep, overlying a zone of mottled clay, hence drainage was impeded. The amount of nodules usually increased from 10% in the surface to 50% in the sub-soil of most soils examined.

Typical Soil Profile Description

<table>
<thead>
<tr>
<th>Depth (cm)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 10</td>
<td>Dark yellowish brown (10YR 3/4); sandy loam; dry hard; massive structure; earthy fabric; pH 6.5; 10% ironstone gravels.</td>
</tr>
<tr>
<td>10 - 30</td>
<td>Brown-dark brown (7.5YR 4/4); sandy loam to sandy clay loam; dry hard; massive structure; earthy fabric; pH 6.0; 20-40% ironstone gravels.</td>
</tr>
<tr>
<td>30 - 50</td>
<td>Yellowish red (5YR 5/6 to 5YR 5/8); sandy clay loam; dry hard; massive structure; earthy fabric; pH 6.0; 40-50% ironstone gravels.</td>
</tr>
<tr>
<td>50 - 120</td>
<td>Dark reddish brown (2.5YR 3/4); gritty sandy clay loam to clay loam; dry hard; massive structure; earthy fabric; pH 7.0; up to 50% ironstone gravels.</td>
</tr>
<tr>
<td>120+</td>
<td>Mottled zone of light grey, white, red and yellow brown mottles.</td>
</tr>
</tbody>
</table>
DEFINITIONS OF TERMS USED.

1. Soil Texture: is the relative composition of sand, silt and clay in the soil mass, and is determined in the field by manually working a moist sample and comparing its behaviour to known standards. Such standards are established by particle size analysis in the laboratory. Those in which coarse particles predominate are sands, intermediate particle sizes are silty and fine particles are clays. An even mix of all these gives a loamy texture.

2. Soil Colour: Soil colour is defined in terms of hue, value and chroma using Munsell soil colour charts (Northcote, 1971). Soil colours are taken with a clean moist aggregate of soil in the shade. The soil Munsell colour chart is divided into three main colour groups: Red, Yellow and Grey. These three colour groups are then further divided into numerous shades, e.g. YR - yellowish red.

3. Soil Consistence: comprising the attributes of soil material that are expressed by the degree and kind of cohesion and adhesion or by the resistance to deformation or rupture (U.S.D.A., 1954). Consistence is expressed at three (3) standard moisture levels, i.e. dry, moist and wet. A common consistence rating "dry hard" means that the soil aggregate is moderately resistant to pressure, can be broken in the hands without difficulty but is barely breakable between thumb and forefinger.

4. Soil Structure: refers to the aggregation of primary soil particles into compound particles, or clusters of primary particles, which the separated from adjoining aggregates by surfaces of weakness. (U.S.D.A., 1971). Structure may be described in terms of three characteristics of the grade, class and form of the soil aggregates (Butler, 1955; Northcote, 1971) e.g. structureless is when there is no observable aggregation, then the soil is graded as massive.

5. Soil Fabric: is a descriptive term applied to the appearance of a ped face or broken soil face (Aldrick, internal report). Differences in fabric are associated with the presence or absence of peds, and the lustre, or lack thereof, of the ped surfaces, and the presence, size and arrangement of pores (voids) in the soil mass, e.g. if the soil fabric is earthy, the soil material is coherent and characterised by the presence of pores (voids), few, if any, peds, and a general floc condition throughout (Northcote, 1971).
6. **Soil pH**: is the expression of soil acidity or the concentration of H ions in the soil. The notation "pH 7" is neutral; lower values indicate acidity and higher values show alkalinity (U.S.D.A., 1951).

7. **Soil Depth**: is determined from soil cores taken to a maximum of 150 cm, or an indurated or bedrock layer which would be expected to impede excavation.

8. **Stone and gravel content**: This is determined by visual estimation charts, hence providing a volumetric estimate. Where the bedrock is friable and readily excavated, it is noted in the land unit description.

9. **Soil Internal Drainage**: is that quality of a soil that permits the downward flow of excess water through it. It is determined by the texture, structure, and other characteristics of the soil profile and of underlying layers and by the height of the water table, either permanent or perched. Internal drainage classes are: very poor, poor, imperfect, moderately well, well, and excessive (U.S.D.A., 1971).

10. **Site Drainage**: is determined by assessing characteristics which control removal of free water from the site. These include slope gradient, vertical infiltration rate and capacity, and presence of drainage lines. Drainage status is also indicated by plant species and the presence of surface deposits and crusts. The classes are defined by U.S.D.A. (1951) viz.: very poor, poor, imperfect, moderately well, well, and excessive.
**LAND UNIT DESCRIPTIONS.**

Where both soil and/or vegetation vary significantly from descriptions of existing land units, the following new land units have been described. Otherwise land units which occur on the map sheets are those described in the enclosed report by Aldrick and Robinson (1972).

<table>
<thead>
<tr>
<th>Land Unit 3el.</th>
<th>Occurrence</th>
<th>Woggaman, Yujullowan, Maranboy, Yungman and Wallingin.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topography</td>
<td>Generally undulating terrain with slope up to 5%.</td>
<td></td>
</tr>
<tr>
<td>Soils</td>
<td>Red earth - lateritic sub group, lateritic podzolics and yellow podzolics; generally shallow.</td>
<td></td>
</tr>
<tr>
<td>Vegetation</td>
<td>Variable, open woodland to low open forest, <em>E. affin. dichromophloia</em>, <em>E. tetrodonta</em>, with <em>E. bleeseri</em> dominant in more gravelly areas. <em>Schizachyrium</em> sp. and <em>Plectrachne</em> sp. typically dominate the grass layer.</td>
<td></td>
</tr>
<tr>
<td>Limitations</td>
<td>Shallow to moderately deep and gravelly soil; erodible on long slopes.</td>
<td></td>
</tr>
<tr>
<td>Potential Land Use</td>
<td>Rough grazing, possible pasture improvement in some areas.</td>
<td></td>
</tr>
<tr>
<td>Land Category</td>
<td>6-7.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Land unit 5bl.</th>
<th>Occurrence</th>
<th>Claravale, Jindara and Woggaman.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topography</td>
<td>Crests and upper slopes sometimes containing minor drainage lines, frequent laterite outcrop.</td>
<td></td>
</tr>
<tr>
<td>Soils</td>
<td>Lateritic podzolics.</td>
<td></td>
</tr>
<tr>
<td>Vegetation</td>
<td>Highly variable, usually open woodland to low open forest, stunted <em>Erythropleum Chlorostachyum</em>, stunted <em>E. tetrodonta</em>, <em>Plectrachne</em> sp. and <em>Schizachyrium</em> sp. - dominant grasses.</td>
<td></td>
</tr>
</tbody>
</table>
Limitations: Shallow, gravelly and drought affected soils with impeded drainage.

Potential Land Use: Poor rough grazing on native pastures.

Land Category: 7.

Land unit 5b2.

This unit is the same in most respects as land unit 5b. Vegetation, however, and photo-pattern take a distinctive form.

Vegetation: Open scrub to tall shrubland, Petalostigma pubescens dominant with stunted Erythrophleum chlorostachyum, Terminalia pterocarya trees. Plectrachne sp. and Schizachyrium sp. - dominant grasses.

Land unit 5c1.

Occurrence: Woggaman, Jindara.

Topography: Lower lying areas frequently abutting drainage lines.

Soils: Shallow lateritic podzolics, with minor earthy and siliceous sands.

Vegetation: Woodland - open woodland with E. tetrodonta dominant, frequently with E. affin. dichromophloia. Dominant grasses include Schizachyrium sp., Plectrachne sp. and Sorghum sp.

Limitations: Very susceptible to erosion, possibly untrafficable in the wet season; sandstone outcrops at break of slope.

Potential Land Use: Very poor rough grazing.

Land Category: 7.
<table>
<thead>
<tr>
<th>Land unit 5el.</th>
<th>Jindara.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occurrence</td>
<td>Lower slopes of land unit 5e.</td>
</tr>
<tr>
<td>Topography</td>
<td>Lateritic podzolics with some</td>
</tr>
<tr>
<td>Soils</td>
<td>yellow podzolics.</td>
</tr>
<tr>
<td>Vegetation</td>
<td>Woodland to open woodland, E.</td>
</tr>
<tr>
<td></td>
<td>microtheca dominant, with E.</td>
</tr>
<tr>
<td></td>
<td>latifolia in some areas.</td>
</tr>
<tr>
<td></td>
<td>Dense grass understory of C.</td>
</tr>
<tr>
<td></td>
<td>C. fallax, S. sp. and</td>
</tr>
<tr>
<td></td>
<td>P. sp.</td>
</tr>
<tr>
<td>Potential Land Use</td>
<td>Rangeland grazing of native</td>
</tr>
<tr>
<td></td>
<td>pastures.</td>
</tr>
<tr>
<td>Land Category</td>
<td>6.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Land unit 5h.</th>
<th>Yungman.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occurrence</td>
<td>Small areas of gently undulating</td>
</tr>
<tr>
<td></td>
<td>terrain; slope up to 2%.</td>
</tr>
<tr>
<td>Topography</td>
<td>Shallow lateritic podzolics and</td>
</tr>
<tr>
<td>Soils</td>
<td>some yellow podzolics.</td>
</tr>
<tr>
<td>Vegetation</td>
<td>Closed forest to open forest of</td>
</tr>
<tr>
<td></td>
<td>A. shirleyi with some areas of</td>
</tr>
<tr>
<td></td>
<td>B. bleeseri open forest.</td>
</tr>
<tr>
<td></td>
<td>Dominant grasses are S. sp. and</td>
</tr>
<tr>
<td></td>
<td>P. sp.</td>
</tr>
<tr>
<td>Limitations</td>
<td>Extremely dense vegetation;</td>
</tr>
<tr>
<td></td>
<td>shallow gravelly soils;</td>
</tr>
<tr>
<td></td>
<td>droughty.</td>
</tr>
<tr>
<td>Potential Land Use</td>
<td>Unsuitable for pastoral</td>
</tr>
<tr>
<td></td>
<td>production. Shade areas for</td>
</tr>
<tr>
<td></td>
<td>cattle if surrounding land</td>
</tr>
<tr>
<td></td>
<td>cleared.</td>
</tr>
<tr>
<td>Land Category</td>
<td>8.</td>
</tr>
</tbody>
</table>

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REFERENCES.


SOIL CONSERVATION SERVICE OF N.S.W. Planning land use. Extension handbook No. 3. 1975.


APPENDIX 1.

BOTANICAL CHECKLIST.

<table>
<thead>
<tr>
<th>TREE</th>
<th>Common Names</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acacia sp. (undescribed)</td>
<td>wattle</td>
</tr>
<tr>
<td>A. sericata</td>
<td>wattle</td>
</tr>
<tr>
<td>A. shirleyi</td>
<td>lancewood</td>
</tr>
<tr>
<td>Brachychiton diversifolium</td>
<td>northern kurrajong</td>
</tr>
<tr>
<td>Buchanania obovata</td>
<td>green plum</td>
</tr>
<tr>
<td>Callitris intratropica</td>
<td>northern cypress pine</td>
</tr>
<tr>
<td>Croton arnhemicus</td>
<td></td>
</tr>
<tr>
<td>Denhamia obscura</td>
<td></td>
</tr>
<tr>
<td>Dolichandrone filiformis</td>
<td></td>
</tr>
<tr>
<td>Erythrophleum chlorostachyum</td>
<td>ironwood</td>
</tr>
<tr>
<td>Erythroxylum ellipticum</td>
<td>kerosene wood</td>
</tr>
<tr>
<td>Eucalyptus alba</td>
<td>Timor white gum</td>
</tr>
<tr>
<td>E. bigalerita</td>
<td>Adelaide River white gum</td>
</tr>
<tr>
<td>E. bleeseri</td>
<td>smooth-barked bloodwood,</td>
</tr>
<tr>
<td></td>
<td>Blesser's gum</td>
</tr>
<tr>
<td>E. camaldulensis</td>
<td>river red gum</td>
</tr>
<tr>
<td>E. clavigera</td>
<td>apple gum</td>
</tr>
<tr>
<td>E. confertiflora</td>
<td>carbeen gum</td>
</tr>
<tr>
<td>E. affin. dichromophloia</td>
<td></td>
</tr>
<tr>
<td>E. dichromophloia</td>
<td>red-barked bloodwood</td>
</tr>
<tr>
<td>E. ferruginea</td>
<td>rusty bloodwood</td>
</tr>
<tr>
<td>E. foelscheana</td>
<td>Fine-leaved bloodwood</td>
</tr>
<tr>
<td>E. grandifolia</td>
<td>bastard bloodwood</td>
</tr>
<tr>
<td>E. latifolia</td>
<td>round-leaved bloodwood</td>
</tr>
<tr>
<td>E. microtheca</td>
<td>coolibah, desert box</td>
</tr>
</tbody>
</table>
E. miniata | woolly butt
---|---
E. papuana | ghost gum
E. patellaris | weeping box
E. pruinosa | silver-leaved box
E. tectifica | grey box
E. terminalis | gum, small-flowered bloodwood
E. tetrodonta | Darwin stringybark
E. umbrarawrensis | mountain blue gum
Gardenia megasperma | native gardenia
Grevillea pteridiifolia | fern-leafed grevillea
Hakea arborescens | small-leaved tea-tree
Melaleuca minutifolia | paperbark
M. viridiflora | paperbark
Petalostigma sp. (undescribed) | quinine bush
Terminalia ferdinandiana | swamp box
T. grandiflora | swamp box
T. pterocarya | swamp box
Tristania grandiflora | swamp box

**SHRUBS.**

Acacia difficilis | wattle
A. dimidiata | wattle
A. hemignosta | wattle
A. holosericea | wattle
A. oncinocarpa | wattle
Alphitonia excelsa | red ash, soap bush
Bossiaea bossiaeoides | red-flowering kurrajong, Darwin kurrajong
Brachychiton paradoxum | Darwin kurrajong
Bridelia ovata
Calytrix arborescens
Carissa lanceolata
Clerodendrum floribundum
Cochlospermum fraseri
Dodonaea oxyptera
Grevillea decurrens
G. leucadendron (shows affin. to)
G. parallela
G. refracta
Jasminum aemulum
Maytenus cunninghamii
Personnia falcata
Petalostigma pubescens
Planchonia careya
Premna acuminata
Securinega melanthesoides
Stenocarpus sp.
Tarenna dallachiana

HERBS.
Atylosia cinerea
A. marmorata
Blumea saxatilis
Borreria breviflora
Buchnera lineris
Cartonema spicatum
Cassia crispata
C. mimosoides  
Centipeda minima  spreading sneezeweed  
Centrolepis banksii  
Crotalaria crispata  rattlepod  
C. linifolia  rattlepod  
C. medicaginea  rattlepod  
Desmodium sp.  
Distichostemon hispidulus  
Evolvulus alsinoides  
Galactia sp.  
Goodenia sp.  
Haemodorum corymbosum  bloodroot  
Hedyotis sp.  
Indigofera hirsuta  hairy indigo  
I. linifolia  indigo  
Ipomoea sp.  yam, bindweed  
Jacquemontia browniana  
Nelsonia brunelloides  
Pachynema complanatum  pachynema  
Phyllanthus simplex  
Pimelea punicea  red rice-flower  
Polycarpaea sp.  
Polygala arvensis  
P. longifolia  
Pterocaulon glandulosum var. velutinum  
Rhynchosia sp.  
Rotala sp.  
Sida sp.  sida  

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Stackhousia viminea
Striga curviflora
Stylium aff. floodii trigger plant
Tephrosia sp.
Trianthema rhynchocalyptra pigweed
Uraria lagopodoides native cow-pea
Vigna lanceolata var. filiformis
Vittadinia sp.
Waltheria indica
Xyris sp.

GRASSES.
Alloteropsis sp. (shows aff. to)
Aristida sp. wire grass
A. browniana wire grass
A. hygrometrica wire grass
Brachiachne sp
Chrysopogon fallax golden beard-grass
Coelorhachis rottboellioides blady grass
Dichanthium sp. blue grass
Digitaria gibbosa
Ectrosia agrostoides hare’s-foot grass
Eragrostis sp. love grass
Eriachne sp. wanderrie grass
E. ciliata wanderrie grass
E. melicaceae wanderrie grass
E. obtusa wanderrie grass
Heteropogon contortus black spear grass
H. triticeus  
Panicum airoides  
P. majusculum  
P. trachyrhachis  
Plectrachne pungens  
Pseudopogonatherum contortum  
Pseudoraphis spinescens  
Rottboellia formosa  
Schizachyrium fragile  
Schedima nervosum  
Setaria apiculata  
Sorghum sp.  
Sporobolus sp.  
Thaumastochloa rariflora

SEDGES.

Bulbostylis barbata  
Crosslandia setifolia  
Cyperus sp.  
Pimbristylis sp.  
F. densa  
F. oxstachya  
F. schultzii  
Rhynchospora longisetus  
Scleria sphacelata

giant spear grass  
creeping panic  
panic  
panic  
soft spinfex  
mud grass  
red spathe grass  
white grass  
pigeon grass  
sorghum  
rat's-tail grass